174899

(1)

SEMINOLE ELECTRIC COOPERATIVE INCOPORATED

TAMPA, FLORIDA

JEA 230 KV TRANSMISSION LINE

SECTION I

SEMINOLE PLANT TO KEYSTONE

PLAN & PROFILE

TA 90-08

JEA SEMINOLE TO KEYSTONE

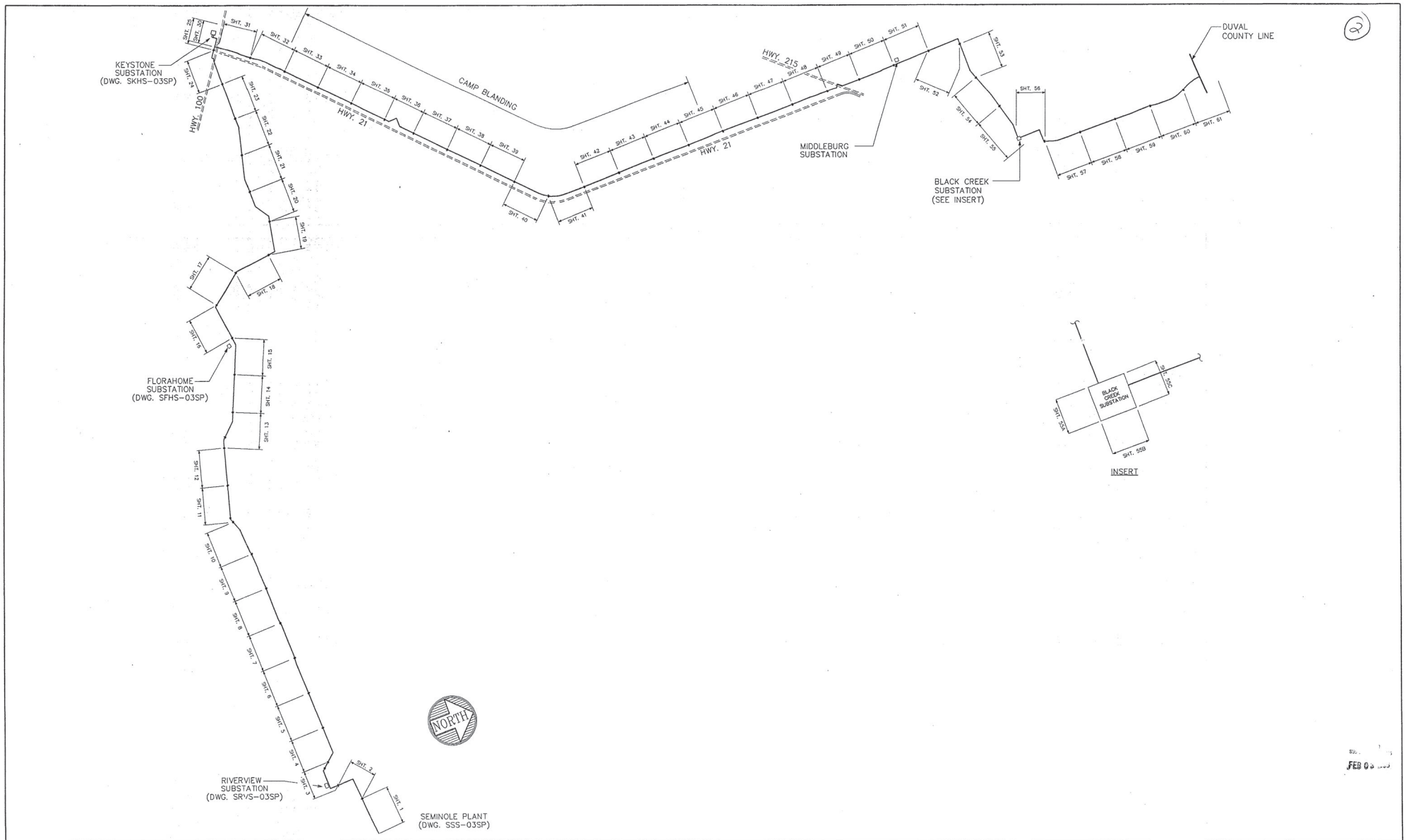
AS-BUILTS

RECEIVED SUB-LANDS & ENV REG FEB 03 1995

I, CHARLES W. GROSE, HAVE SERVED AS RESIDENT CONSTRUCTION MANAGER AND RESIDENT PROJECT ENGINEER, DO HEREBY CERTIFY THAT THE ATTACHED PRINTS (DWG. NO.S P-0036-D-00 THRU P-0036-D-25 AND P-0036-D-29 THRU P-0036-D-61 AND P-0036-D-70) ACCURATELY REPRESENT THE AS-BUILT CONDITIONS OF THE SEMINOLE PLANT TO JEA 230 KV INTERCONNECTION PROJECT

P-0036-D-00

AS BUILT



PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCOPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	FOR CONSTRUCTION	HTL	7/21/93
1	AS BUILT	RSW	07/27/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
SEMINOLE PLANT - DUVAL COUNTY LINE
INDEX DRAWING

	NAME	DATE		
DRAWN BY:	R. B. CATO	8/21/92	CAD	DWG NO: P-0036-D-70
DESIGN BY:				SHEET___OF___
CHECKED BY:			PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

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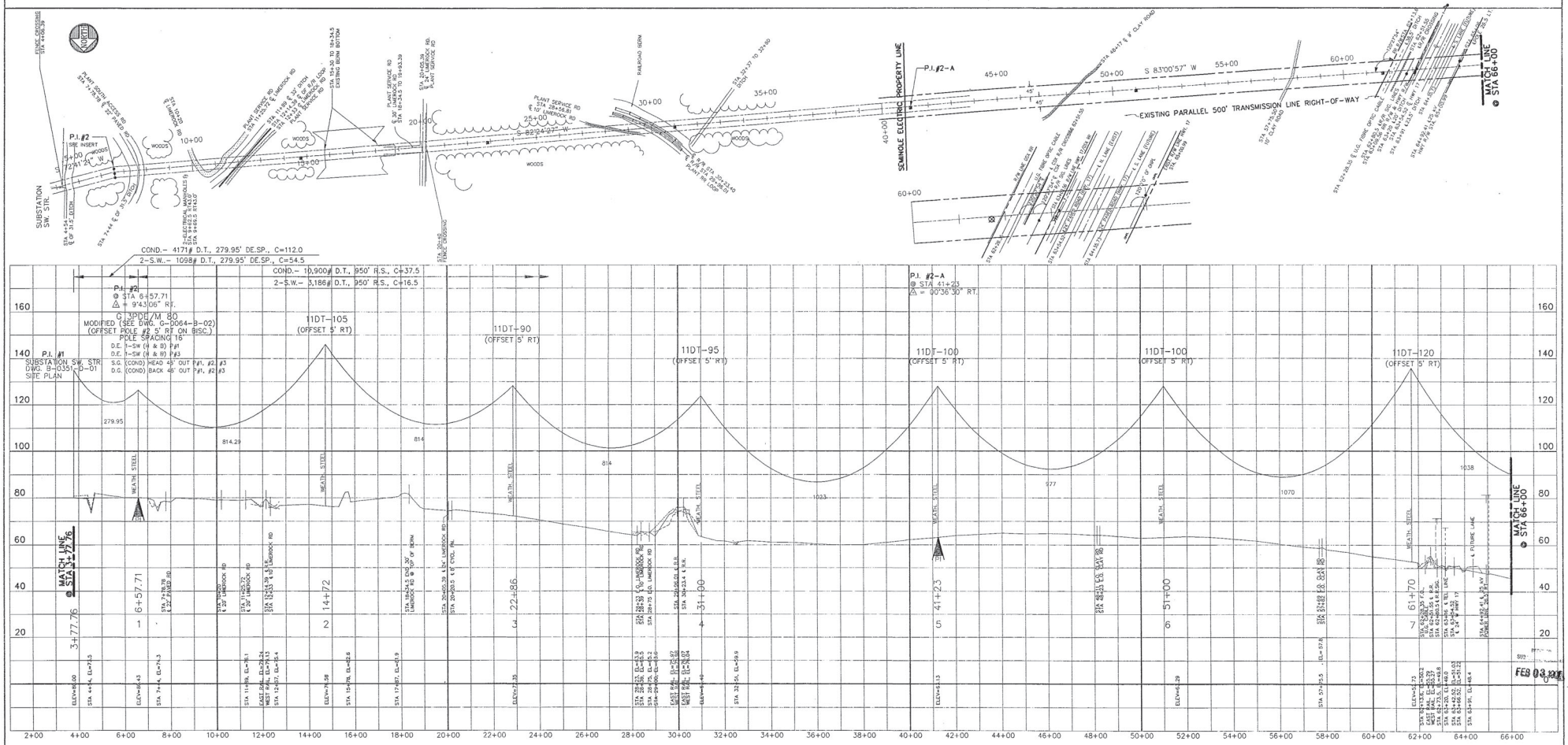
(3)



LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	NO	REVISIONS	BY	DATE	SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE 230 kV TRANSMISSION LINE SEMINOLE PLANT - KEYSTONE STATION 3+77.76 TO 66+00
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	0	ISSUED FOR CONSTRUCTION	RLH	12/16/92	
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5966			1	AS BUILT	RSW	05/06/94	
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)								
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, D.T. See Above @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, D.T. See Above @ 30° F, No Ice, No Wind								
SURVEY ℄/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F								
T/L PI ONLY	RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE								
	"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE								

	NAME	DATE	CAD	DWG NO: P-0036-D-01
DRAWN BY:	P.W. HANSBROUGH	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H; 1"=20'V	SHEET ___OF___
CHECKED BY:	J.M. FARRELL	7-29-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

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520342-10100

BEST AVAILABLE COPY

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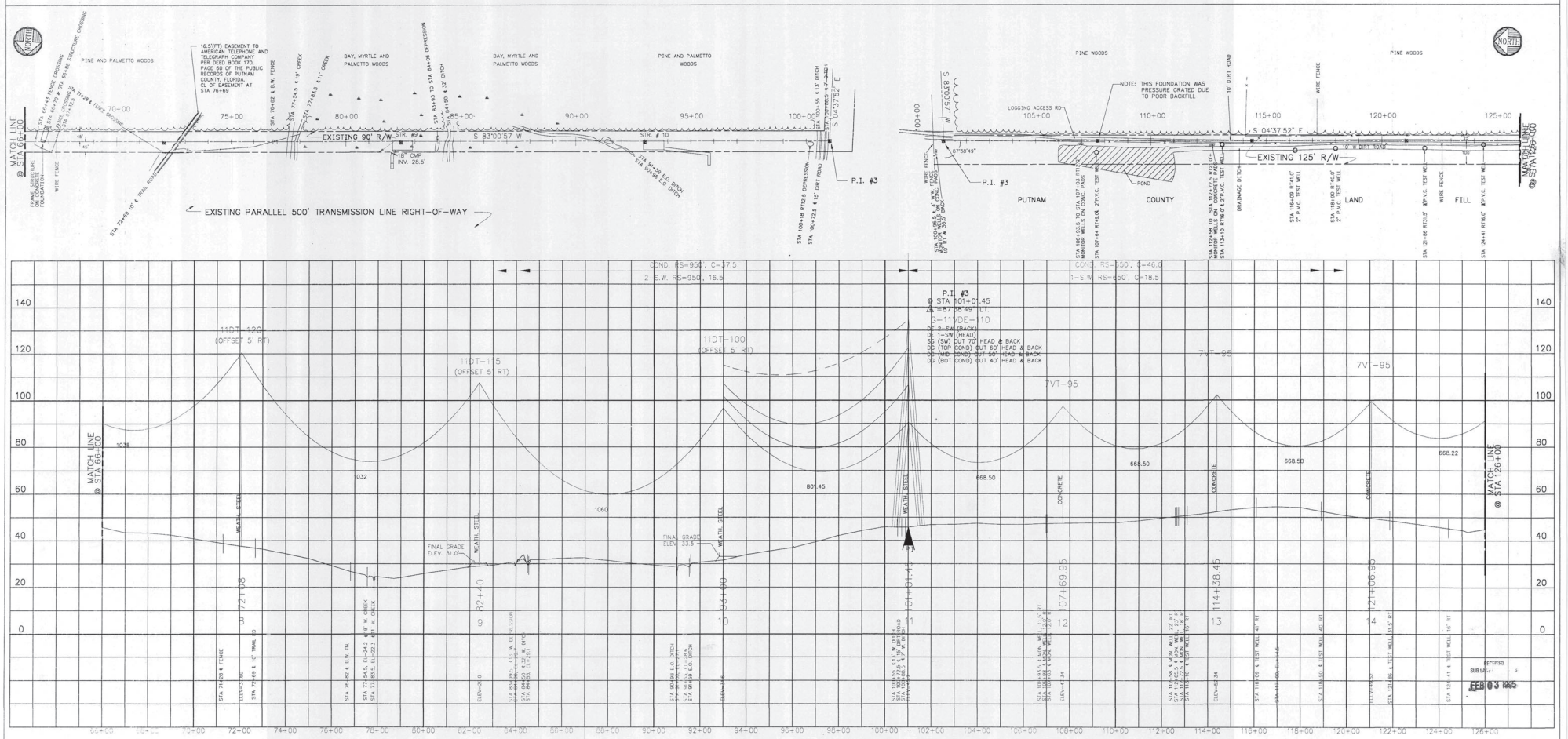
AS BUILT



LEGEND	DESIGN INFORMATION		
— — — CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		
- - - - - - 18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		
- - - - - - 18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)	
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind	
SURVEY ℄/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F	
T/L PI ONLY	RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE	
	"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE	

ENGINEERS - SURVEYORS - PLANNERS
CHANCE & CAUSSEAUX, INC.
921 N.W. 8TH AVENUE, SUITE 4-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	1/31/95

SEMINOLE PLANT – KEYSTONE–JEA FIRESTONE
230 kV TRANSMISSION LINE
SEMINOLE PLANT – KEYSTONE
STATION 66+00 TO 126+00

	NAME	DATE	CAD	DWG NO: P-0036-D-02
DRAWN BY:	P.W. HANSBROUGH	2-25-92	SCALE: 1"=200'H, 1"=20'V	SHEET: OF
DESIGN BY:	R.L. HOLLAND	2-25-92		
CHECKED BY:	J.M. FARRELL	7-29-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF. NO:

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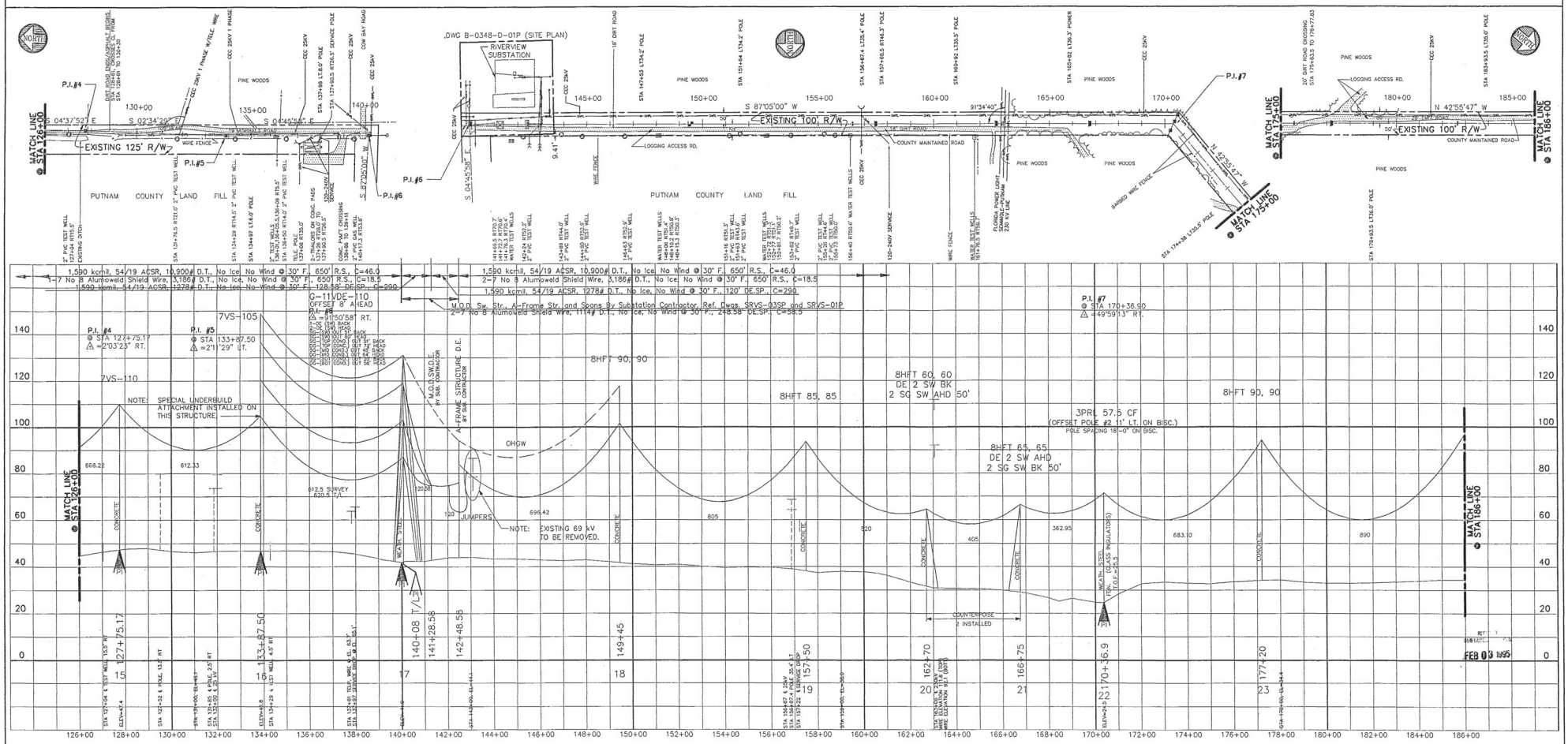

LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE
SURVEY &/OR T/L PI
T/L PI ONLY

DESIGN INFORMATION	
DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind	
CONTROLLING DESIGN TENSION	
Conductor: (Final)	Shield Wire: (Initial)
SEE ABOVE	SEE ABOVE
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE
"C" VALUE: SEE ABOVE	"C" VALUE:SEE ABOVE

ENGINEERS - SURVEYORS - PLANNERS

CHANCE & CAUSSEAUX, INC.

901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	07/27/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
SEMINOLE PLANT - KEYSTONE
STATION 126+00 TO 186+00

	NAME	DATE	DWG NO: CAD P-0036-D-03
DRAWN BY:	P.W. HANSBROUGH	2-25-92	
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H 1"=20'V SHEET ___OF___
CHECKED BY:	J.M. FARRELL	7-29-92	PROJECT NO: DATE:
APPROVED BY:			REA REF: REF NO:

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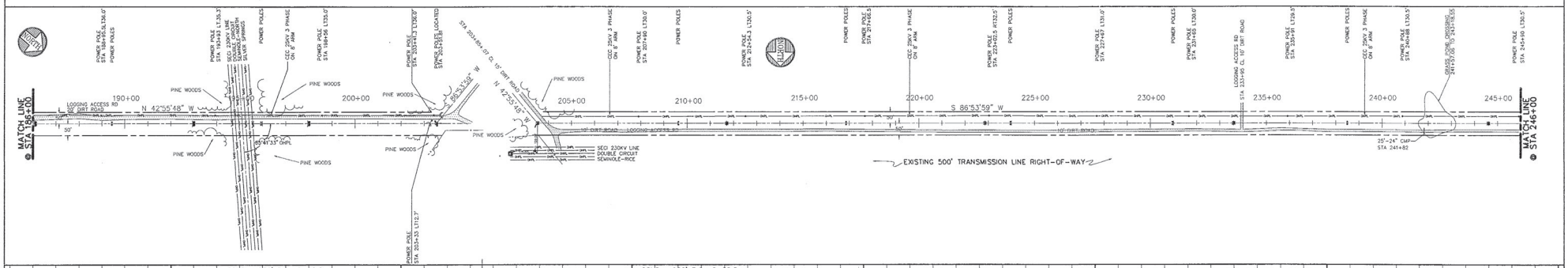

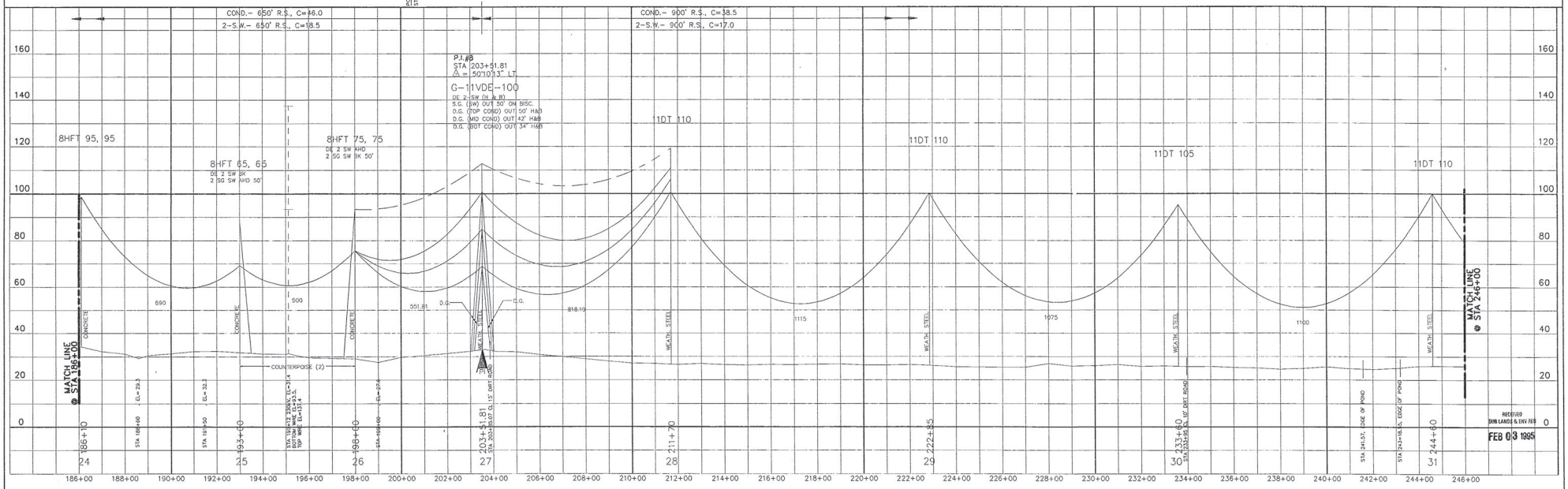

LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566		
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)			
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,906# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,185# D.T. @ 30° F, No Ice, No Wind			
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F			
T/L PI ONLY	RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE			
	"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE			

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	05/05/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
SEMINOLE PLANT - KEYSTONE
STATION 186+00 TO 246+00

	NAME	DATE	CAD	DWG NO: P-0036-D-04
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H; 1"=20'V	SHEET ___ OF ___
CHECKED BY:	J.M. FARRELL	7-29-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

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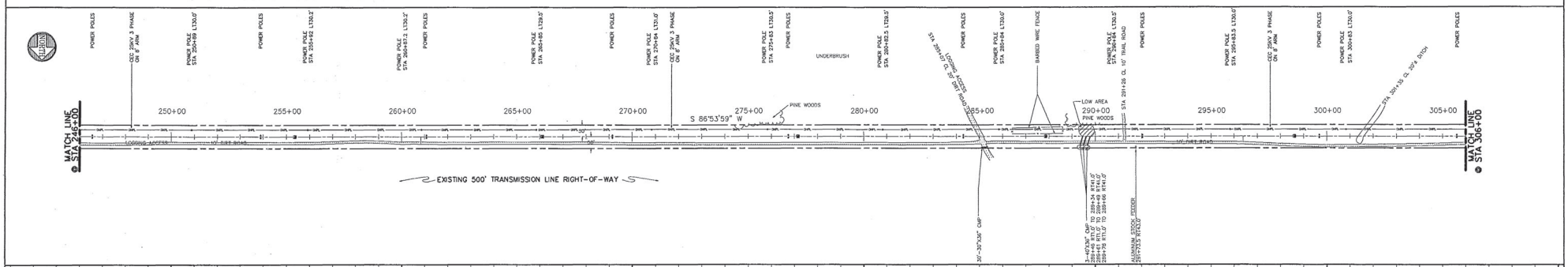

LEGEND	DESIGN INFORMATION		
— — — CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		
- - - - - 18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		
- - - - - 18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)	
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind	
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F	
T/L PI ONLY	RULING SPAN: 900 Ft.	RULING SPAN: 900 Ft	
	"C" VALUE: 38.5	"C" VALUE: 17.0	

ENGINEERS - SURVEYORS - PLANNERS

CHANCE & CAUSSEAUX, INC.

901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	05/05/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
SEMINOLE PLANT - KEYSTONE
STATION 246+00 TO 306+00

	NAME	DATE	CAD	DWG NO: P-0036-D-05
DRAWN BY:	C & C, INC.	2-25-92	SCALE: 1"=200'H:1"=20'V	SHEET ___ OF ___
DESIGN BY:	R.L. HOLLAND	2-25-92	PROJECT NO:	DATE:
CHECKED BY:	J.M. FARRELL	7-29-92	REA REF:	REF. NO:
APPROVED BY:				

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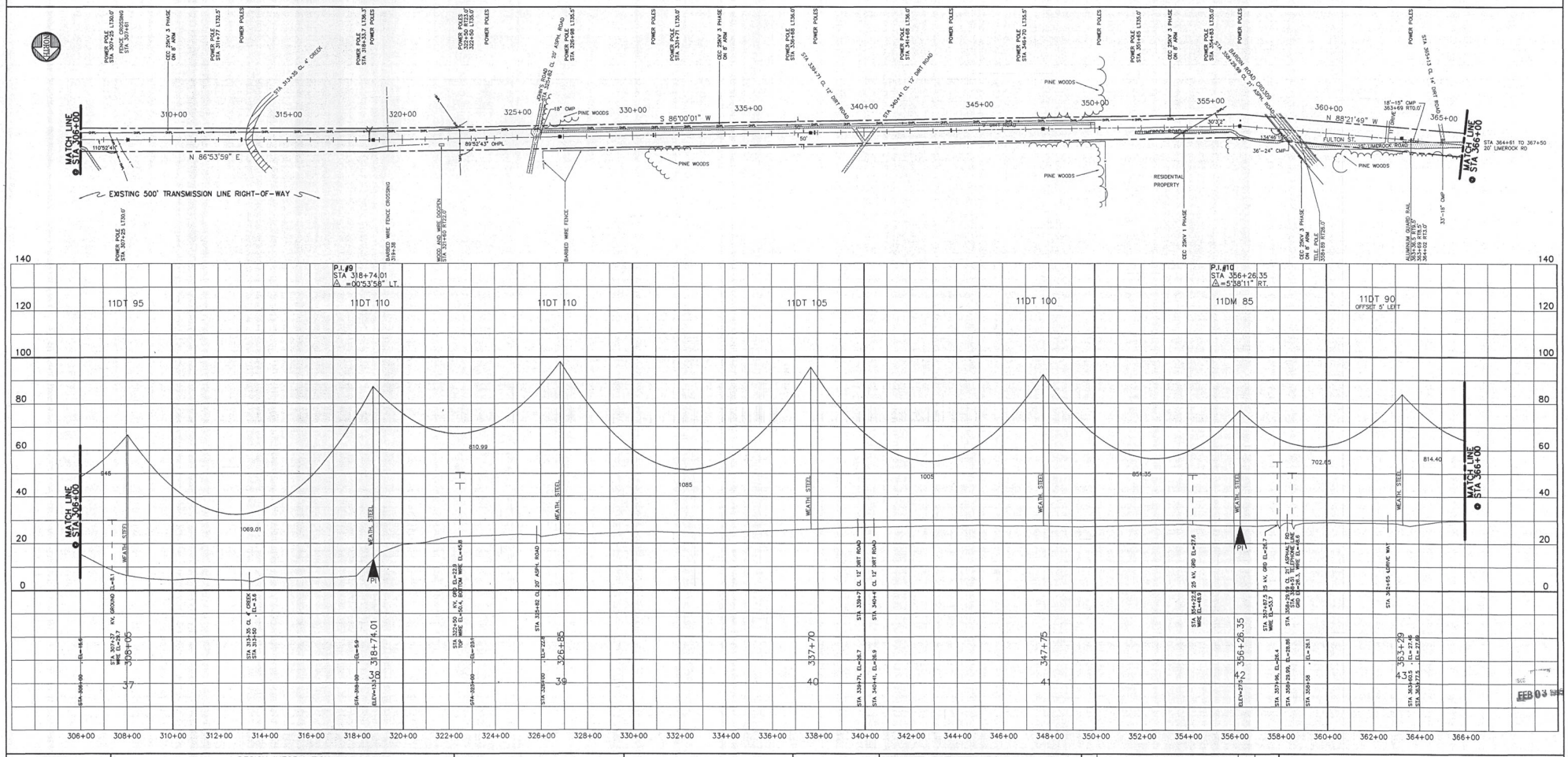
BEST AVAILABLE COPY

(8)



LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	NO	REVISIONS	BY	DATE
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 378-5566			1	AS BUILT	RSW	07/27/94
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)							
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind							
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F							
T/L PI ONLY	RULING SPAN: 900 Ft.	RULING SPAN: 900 Ft							
	"C" VALUE: 38.5	"C" VALUE: 17.0							

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
SEMINOLE PLANT - KEYSTONE
STATION 306+00 TO 366+00

	NAME	DATE	CAD	DWG NO: P-0036-D-06
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H: 1"=20'V	SHEET ___OF___
CHECKED BY:	J.M. FARRELL	7-29-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

FEB 03 1995

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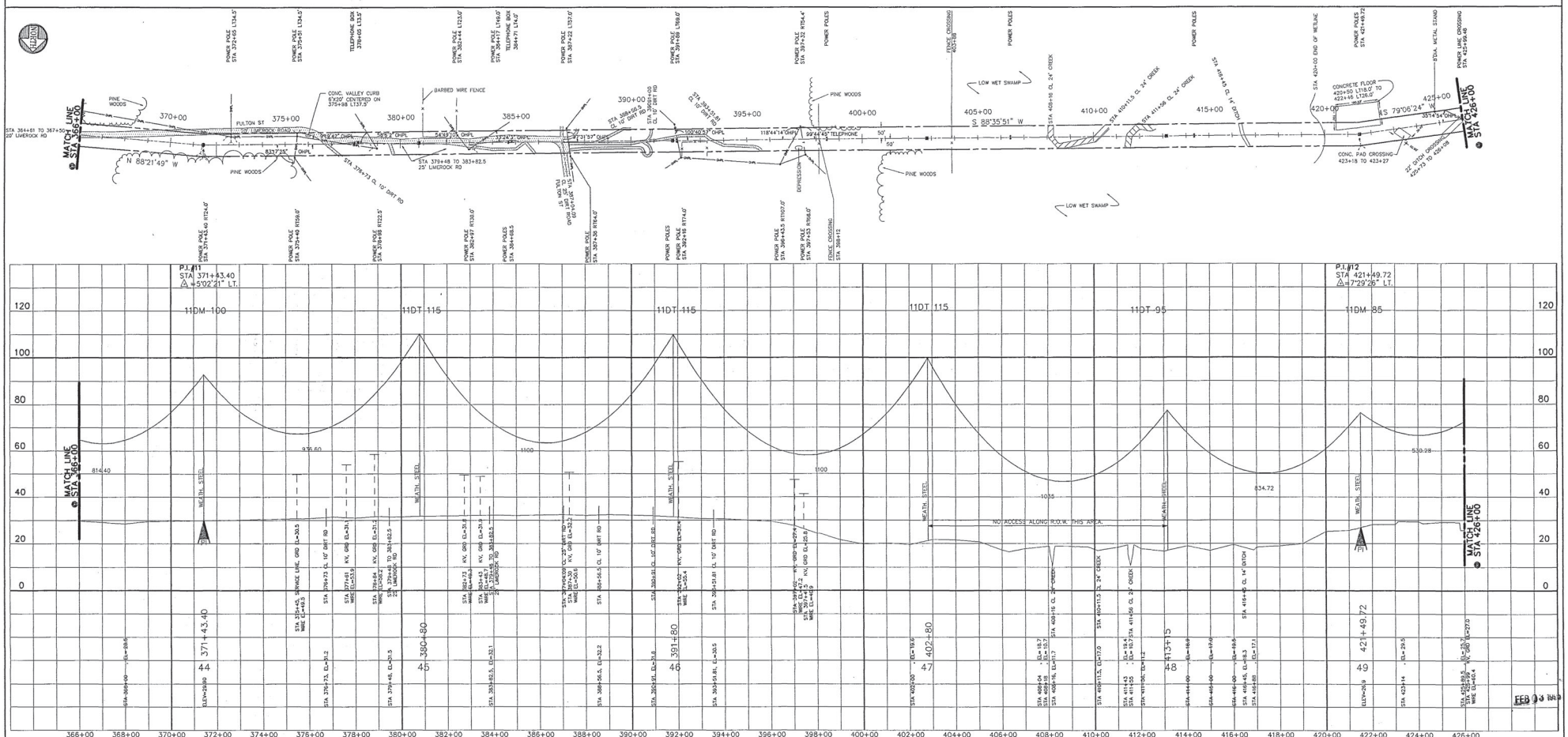

LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	NO	REVISIONS	BY	DATE
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-3566			1	AS BUILT	RSW	07/27/94
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)							
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind							
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F							
T/L PI ONLY	RULING SPAN: 900 Ft.	RULING SPAN: 900 Ft							
	"C" VALUE: 38.5	"C" VALUE: 17.0							

SEMINOLE PLANT – KEYSTONE–JEA FIRESTONE
230 kV TRANSMISSION LINE
SEMINOLE PLANT – KEYSTONE
STATION 366+00 TO 426+00

	NAME	DATE	DWG NO: P-0036-D-07
DRAWN BY:	C & C, INC.	2-25-92	CAD
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H; 1"=20'V
CHECKED BY:	J.M. FARRELL	7-31-92	SHEET ___ OF ___
APPROVED BY:			PROJECT NO: / DATE:
			REA REF: / REF NO:

FEB 03 1993

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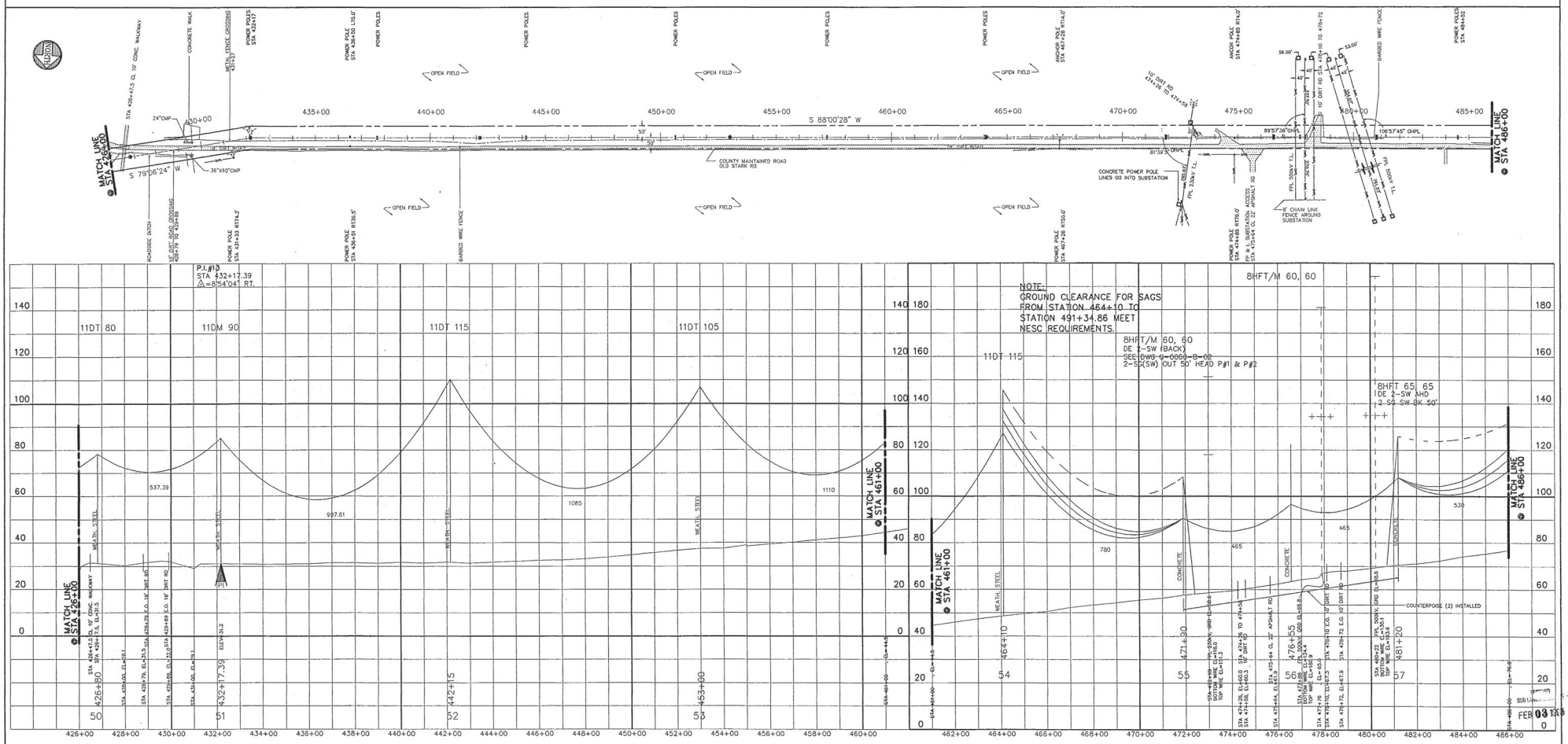

LEGEND	DESIGN INFORMATION		
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)	
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind	
SURVEY ℄/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F	
T/L PI ONLY	RULING SPAN: 900 Ft.	RULING SPAN: 900 Ft	
	"C" VALUE: 38.5	"C" VALUE: 17.0	

ENGINEERS - SURVEYORS - PLANNERS

CHANCE & CAUSSEAUX, INC.

901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	05/05/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
SEMINOLE PLANT - KEYSTONE
STATION 426+00 TO 486+00

	NAME	DATE	CAD	DWG NO: P-0036-D-08
DRAWN BY:	C & C, INC.	2-25-92	SCALE: 1"=200'H; 1"=20'V	SHEET ___OF___
DESIGN BY:	R.L. HOLLAND	2-25-92	PROJECT NO:	DATE:
CHECKED BY:	J.M. FARRELL	7-31-92	REA REF:	REF NO:
APPROVED BY:				

FEB 03 1995

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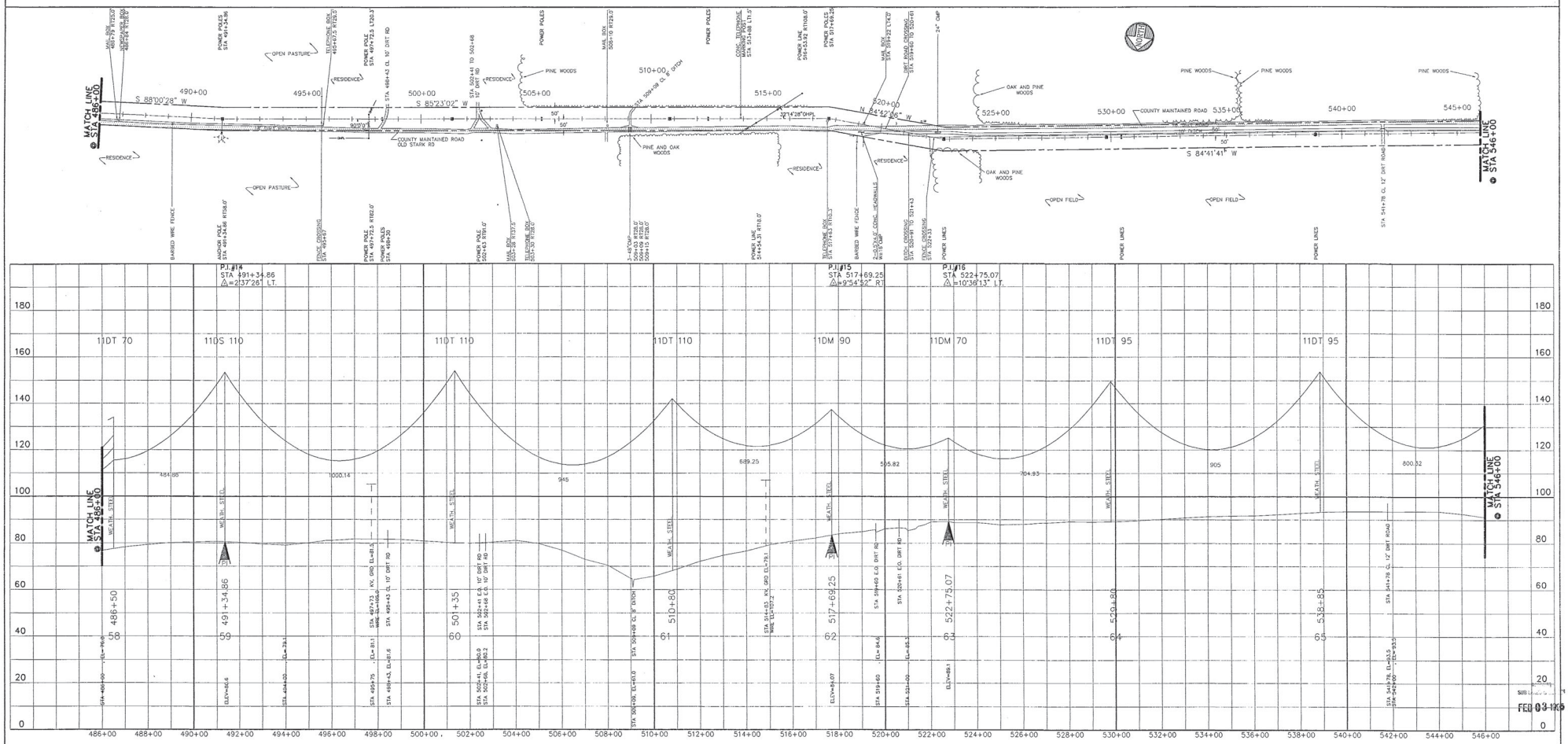
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MATCH LINE @ STA 546+00
S 88°00'28" W
S 85°23'02" W
N 84°42'26" W
S 84°41'41" W
COUNTY MAINTAINED ROAD OLD STARK RD
COUNTY MAINTAINED ROAD
OPEN PASTURE
OPEN FIELD
PINE WOODS
OAK AND PINE WOODS
PINE AND OAK WOODS
RESIDENCE
POWER POLES
POWER LINES
BARBED WIRE FENCE
P.I.#14 STA 491+34.86 Δ=21°37'26" LT.
P.I.#15 STA 517+69.25 Δ=9°54'52" RT.
P.I.#16 STA 522+75.07 Δ=10°36'13" LT.
11DT 70
11DS 110
11DT 110
11DT 110
11DM 90
11DM 70
11DT 95
11DT 95
WEATH. STEEL
LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE
SURVEY &/OR T/L PI
T/L PI ONLY
DESIGN INFORMATION
DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind
CONTROLLING DESIGN TENSION
Conductor: (Final)
230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind
DESIGN TEMPERATURE: 280° F
RULING SPAN: 900 Ft.
"C" VALUE: 38.5
Shield Wire: (Initial)
2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind
DESIGN TEMPERATURE: 120° F
RULING SPAN: 900 Ft
"C" VALUE: 17.0
ENGINEERS - SURVEYORS - PLANNERS
CHANCE & CAUSSEAUX, INC.
901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566
PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA
SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA
NO REVISIONS BY DATE
0 ISSUED FOR CONSTRUCTION RLH 12/16/92
1 AS BUILT RSW 05/05/94
SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
SEMINOLE PLANT - KEYSTONE
STATION 486+00 TO 546+00
NAME DATE
DRAWN BY: C. & C. INC. 2-25-92
DESIGN BY: R.L. HOLLAND 2-25-92
CHECKED BY: J.M. FARRELL 7-31-92
APPROVED BY:
CAD DWG NO: P-0036-D-09
SCALE: 1"=200'H 1"=20'V
SHEET OF
PROJECT NO:
DATE:
REA REF:
REF NO:
FEB 03 1995
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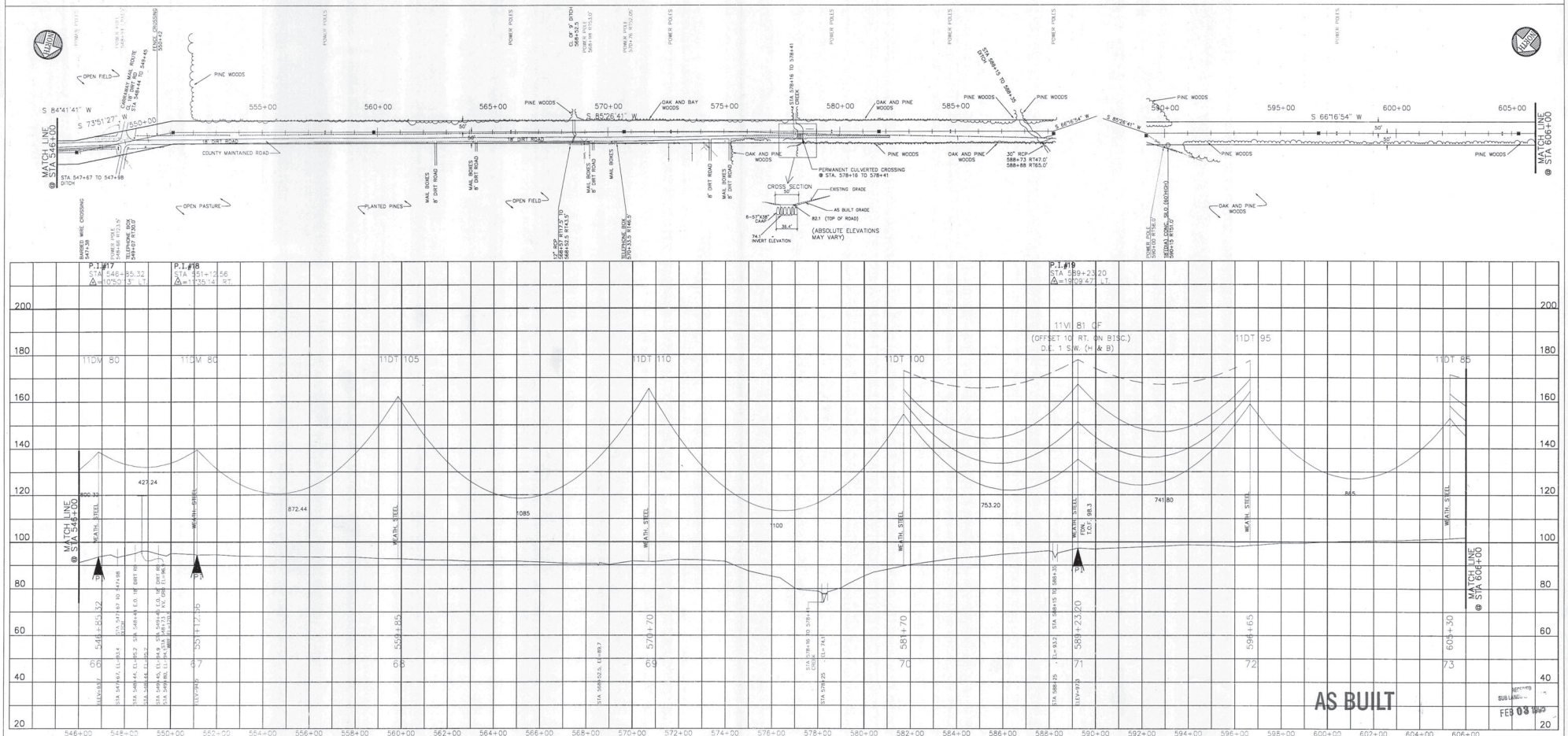
(12)



LEGEND	DESIGN INFORMATION		
CENTER LINE	DESIGN LOADING: NESC "Light" Ans 60° F, No ice, 36 PSF Extreme Wind		
18 FT RIGHT OF ℄	CONTROL: NO DESIGN TENSION		
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)	
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Aluminoweld, 3,166# D.T. @ 30° F, No Ice, No Wind	
SURVEY ℄/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F	
T/L PI ONLY	RULING SPAN: 900 Ft.	RULING SPAN: 900 Ft.	
	"C" VALUE: 38.5	"C" VALUE: 17.0	

ENGINEERS – SURVEYORS – PLANNERS
CHANCE & CAUSSEAUX, INC.
901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/93
1	AS BUILT	RSW	1/31/95

SEMINOLE PLANT – KEYSTONE–JEA FIRESTONE
230 kV TRANSMISSION LINE
SEMINOLE PLANT – KEYSTONE
STATION 546+00 TO 606+00

	NAME	DATE	CAD	DWG NO: P-0036-D-10
DRAWN BY:	C. & C. INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200' H; 1"=20' V	SHEET ___ OF ___
CHECKED BY:	J.W. FARRELL	7-30-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

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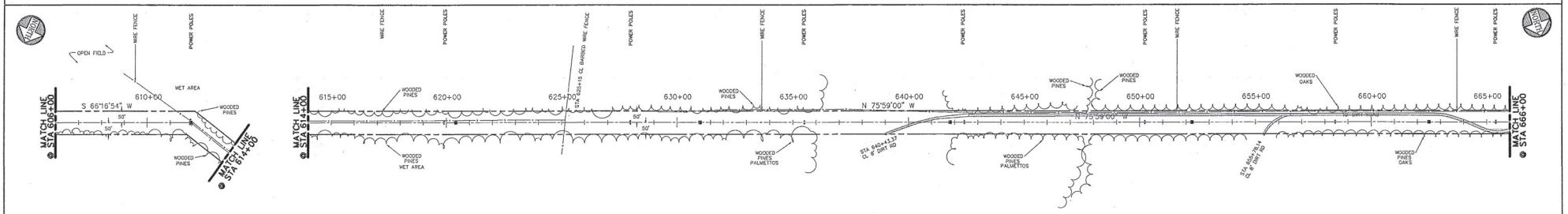

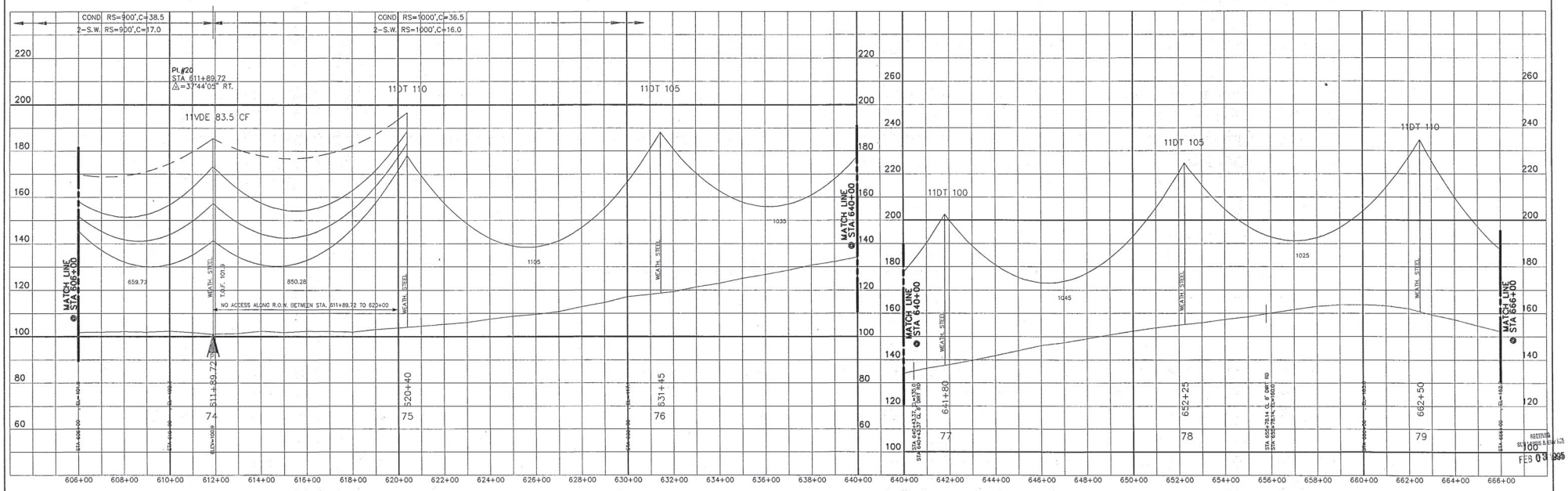

LEGEND	DESIGN INFORMATION		
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)	
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,185# D.T. @ 30° F, No Ice, No Wind	
SURVEY ℄/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F	
T/L PI ONLY	RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE	
	"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE	

ENGINEERS - SURVEYORS - PLANNERS
CHANCE & CAUSSEAUX, INC.
901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	05/09/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
SEMINOLE PLANT - KEYSTONE
STATION 606+00 TO 666+00

	NAME	DATE	CAD DWG NO: P-0036-D-11
DRAWN BY:	C & C, INC.	2-25-92	
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V SHEET ___ OF ___
CHECKED BY:	J.M. FARRELL	7-30-92	PROJECT NO: DATE:
APPROVED BY:			REA REF: REF NO:

RECEIVED SEMINOLE ELECTRIC COOPERATIVE FEB 03 1995

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10-PWH 07/30/94 15:18:22
520342-10100

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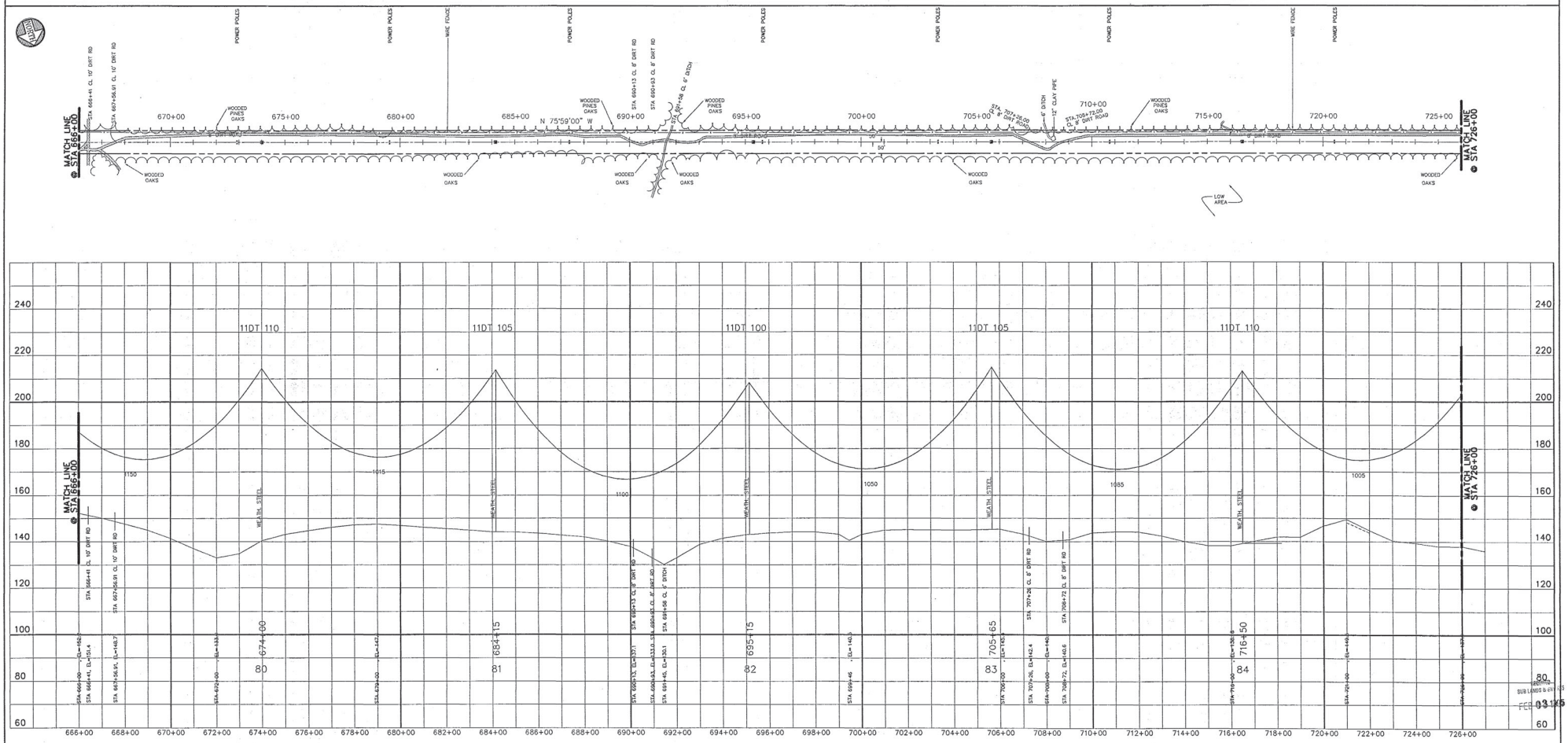

LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	NO	REVISIONS	BY	DATE	SEMINOLE PLANT – KEYSTONE–JEA FIRESTONE 230 kV TRANSMISSION LINE SEMINOLE PLANT – KEYSTONE STATION 666+00 TO 726+00
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	0	ISSUED FOR CONSTRUCTION	RLH	12/18/93	
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566			1	AS BUILT	RSW	05/05/94	
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)								
PROPERTY LINE	230 kV, 3–1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2–7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind								
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F								
T/L PI ONLY	RULING SPAN: 1,000 Ft.	RULING SPAN: 1,000 Ft								
	"C" VALUE: 36.5	"C" VALUE: 16.0								

	NAME	DATE		
DRAWN BY:	C & C, INC.	2-25-92	CAD	DWG NO: P-0036-D-12
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V	SHEET ___ OF ___
CHECKED BY:	J.M. FARRELL	7-30-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

FILE 03115

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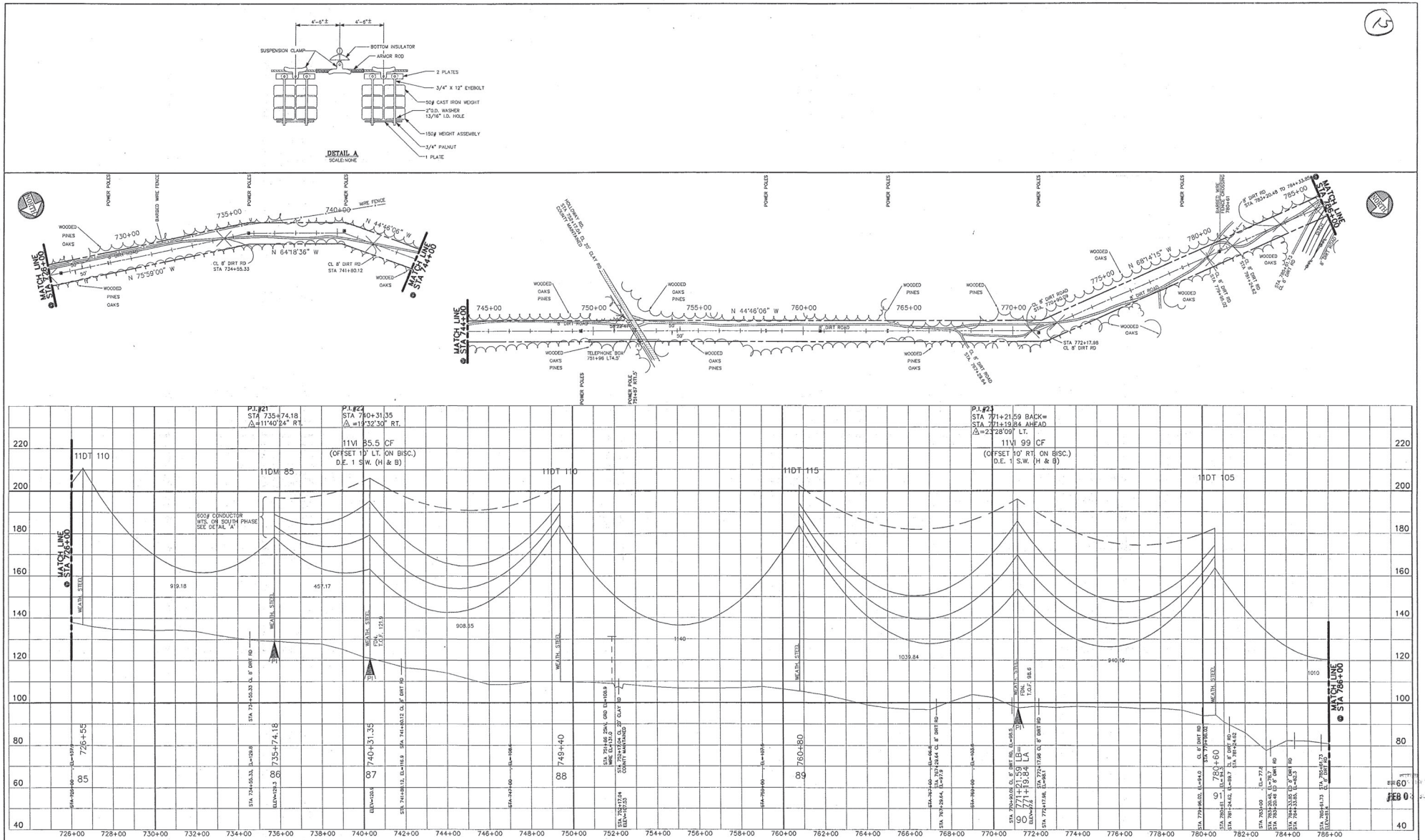

LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE
SURVEY &/OR T/L PI
T/L PI ONLY

DESIGN INFORMATION	
DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind	
CONTROLLING DESIGN TENSION	
Conductor: (Final)	Shield Wire: (Initial)
230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: 1,000 Ft.	RULING SPAN: 1,000 Ft
"C" VALUE: 36.5	"C" VALUE: 16.0

ENGINEERS - SURVEYORS - PLANNERS
CHANCE & CAUSSEAUX, INC.
901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
SEMINOLE PLANT - KEYSTONE
STATION 726+00 TO 786+00

	NAME	DATE	DWG NO:
DRAWN BY:	C. & C. INC.	2-25-92	CAD P-0036-D-13
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V
CHECKED BY:	J.M. FARRELL	7-30-92	PROJECT NO:
APPROVED BY:			REA REF:

SHEET ___ OF ___
DATE:
REF NO:

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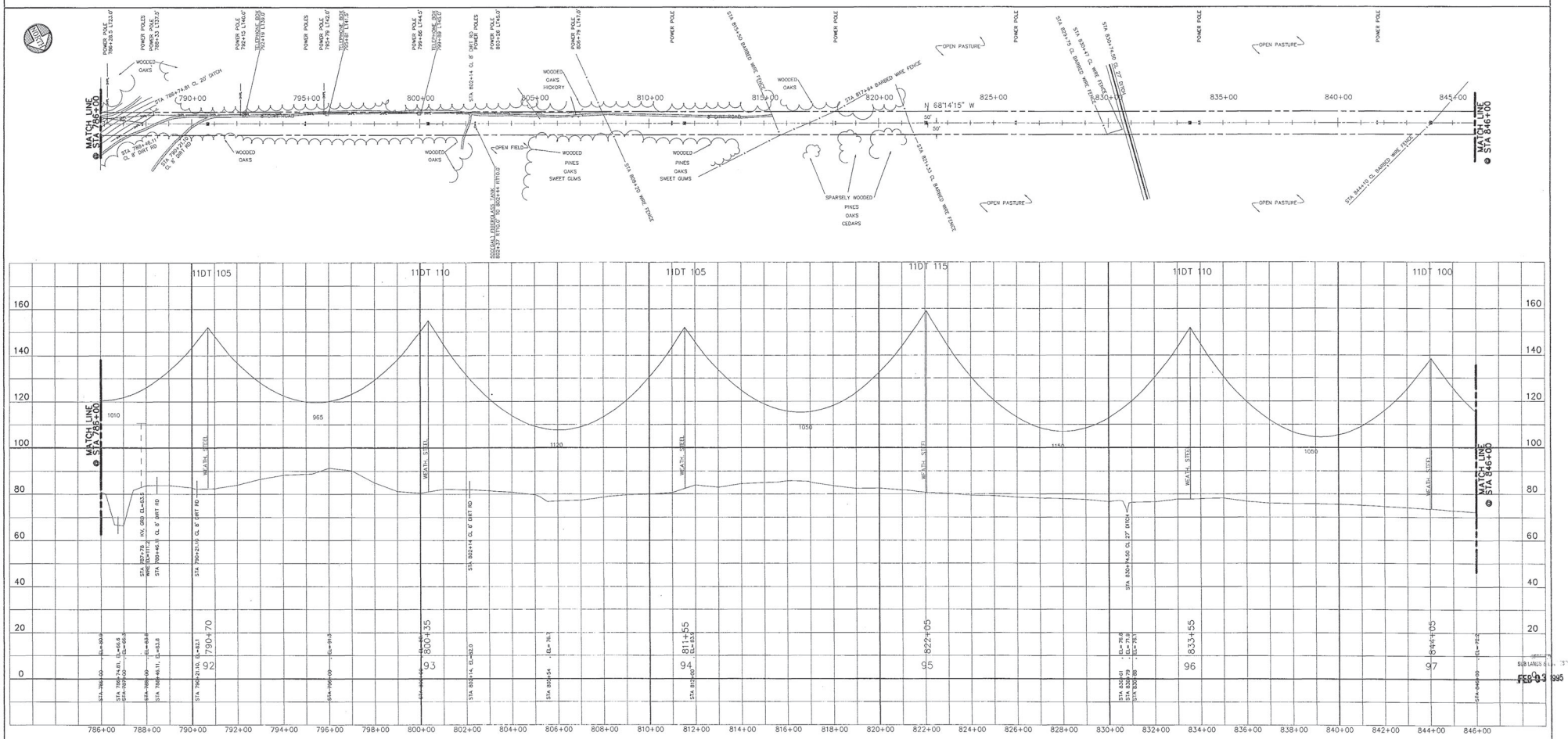

LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE
SURVEY ℄/OR T/L PI
T/L PI ONLY

DESIGN INFORMATION

DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind

CONTROLLING DESIGN TENSION

Conductor: (Final)	Shield Wire: (Initial)
230 kV, 3–1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2–7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: 1,000 Ft.	RULING SPAN: 1,000 Ft
"C" VALUE: 36.5	"C" VALUE: 16.0

ENGINEERS – SURVEYORS – PLANNERS

CHANCE & CAUSSEAUX, INC.

901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5366

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	05/05/94

SEMINOLE PLANT – KEYSTONE–JEA FIRESTONE
230 kV TRANSMISSION LINE
SEMINOLE PLANT – KEYSTONE
STATION 786+00 TO 846+00

	NAME	DATE	CAD DWG NO: P-0036-D-14
DRAWN BY:	C & C, INC.	2-25-92	
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H: 1"=20'V
CHECKED BY:	J.M. FARRELL	7-30-92	PROJECT NO:
APPROVED BY:			REA REF:

SHEET ___ OF ___
DATE:
REF NO:

SUBLANDS 6 ... 3"
FEB 03 1995

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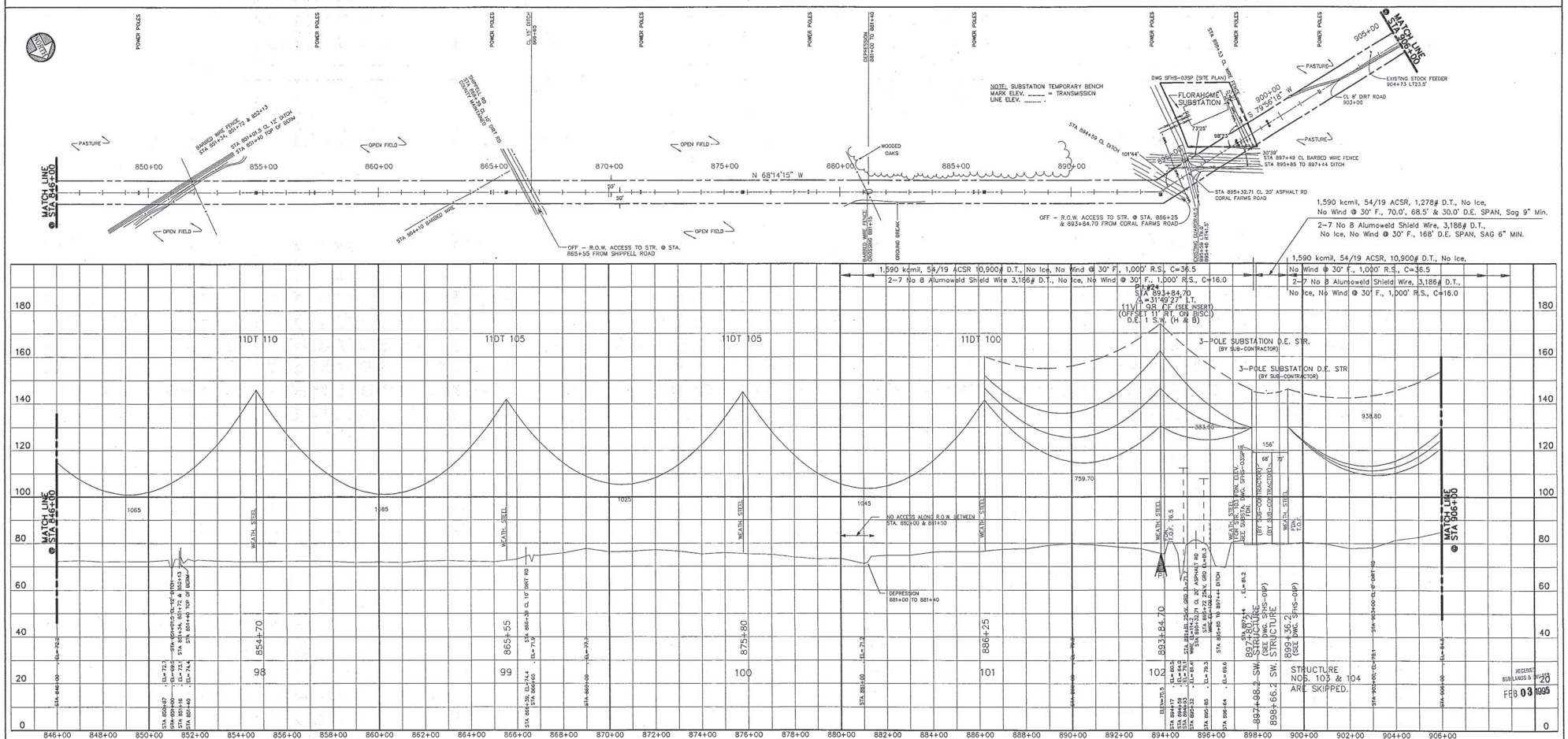

LEGEND	DESIGN INFORMATION		CHANCE & CAUSSEAUX, INC.	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		ENGINEERS - SURVEYORS - PLANNERS	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566		
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)			
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, DT(SEE ABOVE) @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind			
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F			
T/L PI ONLY	RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE			
	"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE			

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	07/27/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
SEMINOLE PLANT - KEYSTONE
STATION 846+00 TO 906+00

	NAME	DATE	CAD	DWG NO: P-0036-D-15
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V	SHEET ___ OF ___
CHECKED BY:	J.M. FARRELL	8-3-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

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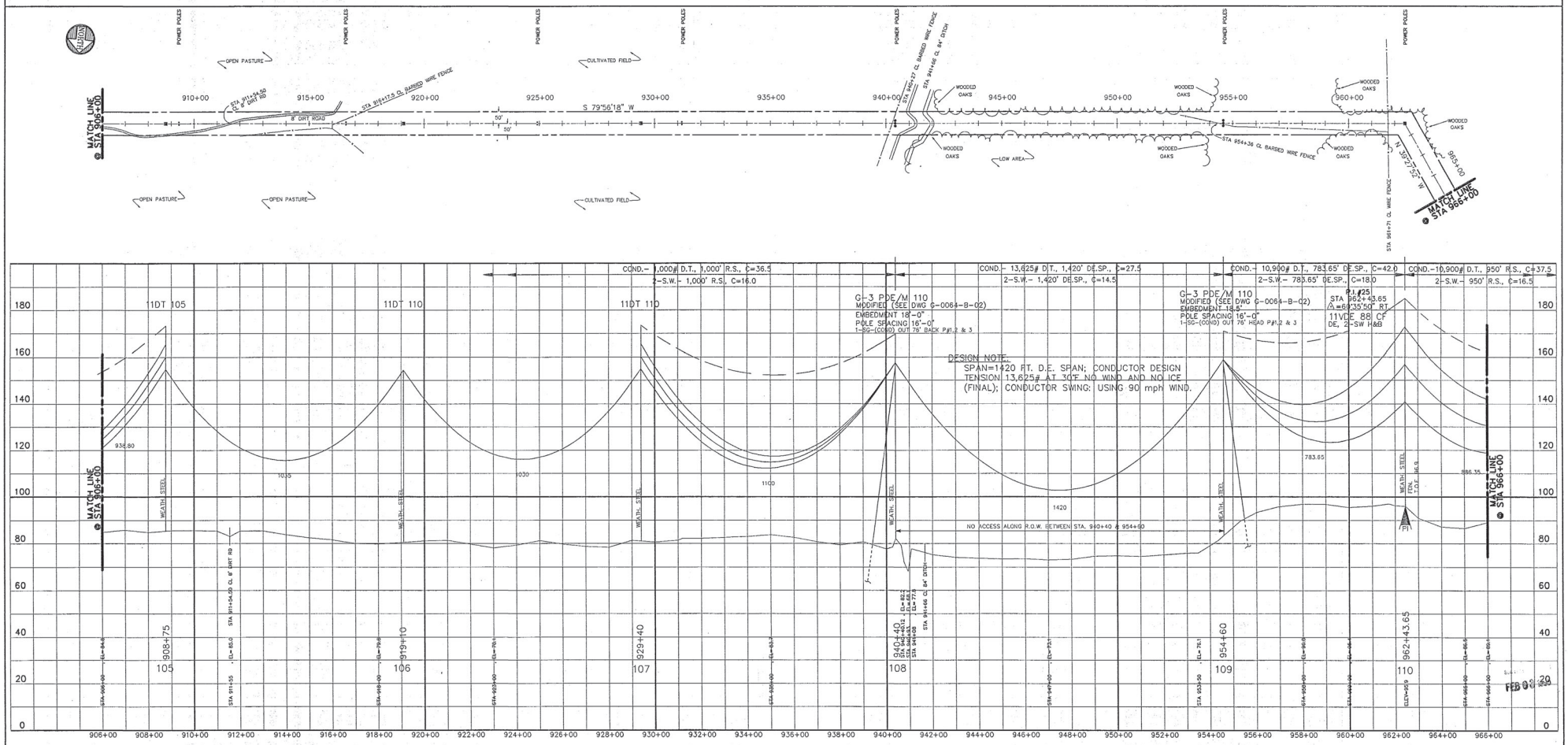
520342-05200

(18)



LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	NO	REVISIONS	BY	DATE	SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE 230 kV TRANSMISSION LINE SEMINOLE PLANT - KEYSTONE STATION 906+00 TO 966+00
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	0	ISSUED FOR CONSTRUCTION	RLH	12/16/92	
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-9566			1	AS BUILT	RSW	05/05/94	
18 FT LEFT OF ℄	Conductor: (Final) 230 kV, 3-1,590 kcmil, 54/19 ACSR, DT(SEE ABOVE) @ 30° F, No Ice, No Wind	Shield Wire: (Initial) 2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind								
PROPERTY LINE	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F								
SURVEY &/OR T/L PI	RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE								
T/L PI ONLY	"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE								

	NAME	DATE	CAD	DWG NO: P-0036-D-16
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H 1"=20'V	SHEET ___ OF ___
CHECKED BY:	J.M. FARRELL	7-30-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF. NO:

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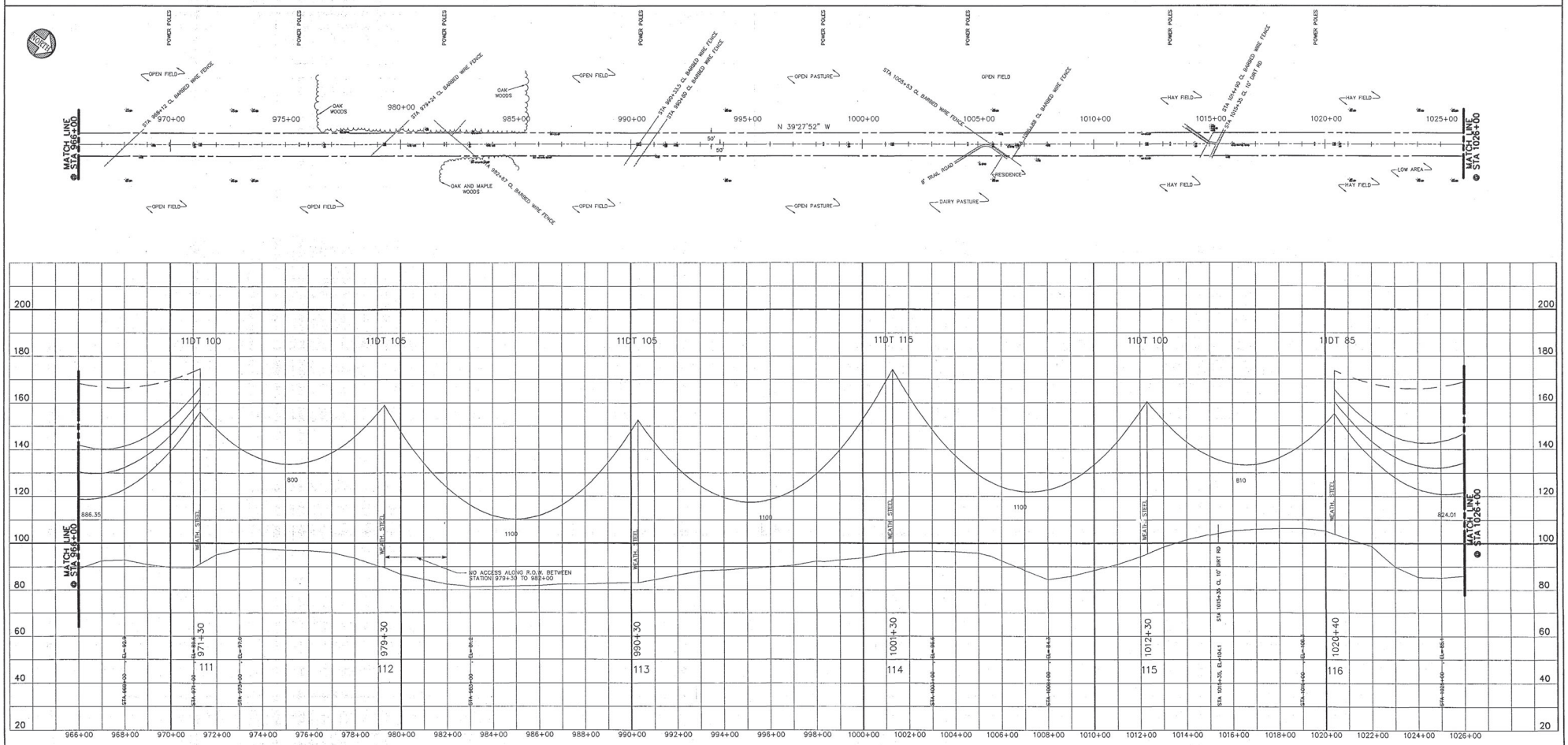

LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.		REVISIONS			SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	NO		BY	DATE	230 kV TRANSMISSION LINE
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566		TAMPA, FLORIDA	0	ISSUED FOR CONSTRUCTION	RLH	12/18/92	SEMINOLE PLANT - KEYSTONE
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)				1	AS BUILT	RSW	05/05/94	STATION 966+00 TO 1026+00
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,188# D.T. @ 30° F, No Ice, No Wind								
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F								
T/L PI ONLY	RULING SPAN: 950 Ft.	RULING SPAN: 950 Ft								
	"C" VALUE: 37.5	"C" VALUE: 16.5								

	NAME	DATE		
DRAWN BY:	C & C, INC.	2-25-92	CAD	DWG NO: P-0036-D-17
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V	SHEET ___ OF ___
CHECKED BY:	J.M. FARRELL	7-30-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

RECEIVED FEB 03 1995

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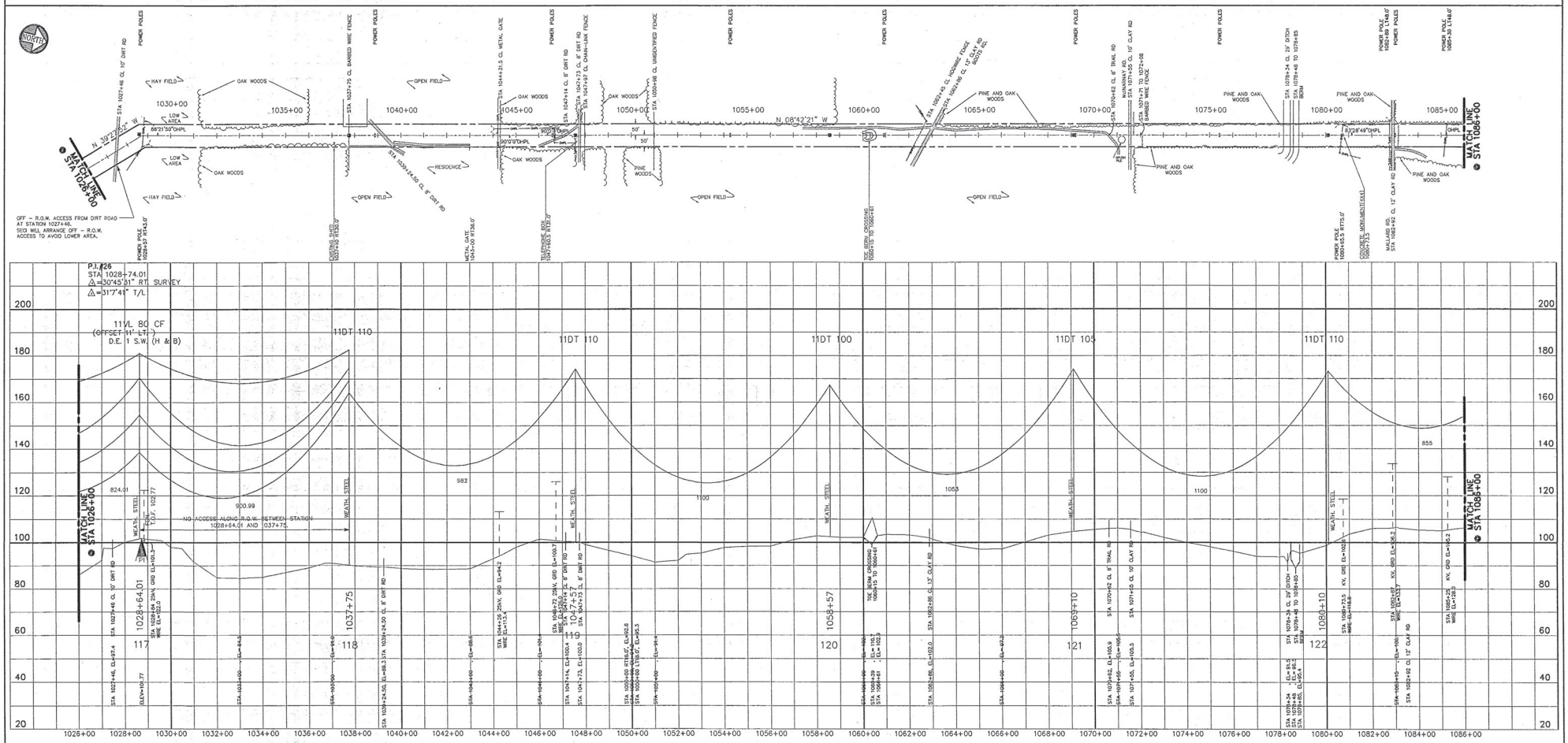

LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	NO	REVISIONS	BY	DATE	SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE 230 kV TRANSMISSION LINE
— — — CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	0	ISSUED FOR CONSTRUCTION	RLH	12/16/92	SEMINOLE PLANT - KEYSTONE
- - - - - - 18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.V. 9th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566			1	AS BUILT	RSW	07/27/94	STATION 1026+00 TO 1086+00
- - - - - - - 18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)								
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind								
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F								
T/L PI ONLY	RULING SPAN: 950 Ft.	RULING SPAN: 950 Ft								
	"C" VALUE: 37.5	"C" VALUE: 16.5								

	NAME	DATE	CAD	DWG NO: P-0036-D-18
DRAWN BY:	C & C, INC.	2-25-92	SCALE: 1"=200'H:1"=20'V	SHEET ___OF___
DESIGN BY:	R.L. HOLLAND	2-25-92	PROJECT NO:	DATE:
CHECKED BY:	J.M. FARRELL	7-30-92	REA REF:	REF NO:
APPROVED BY:				

FEB 03 1995

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520342-05200

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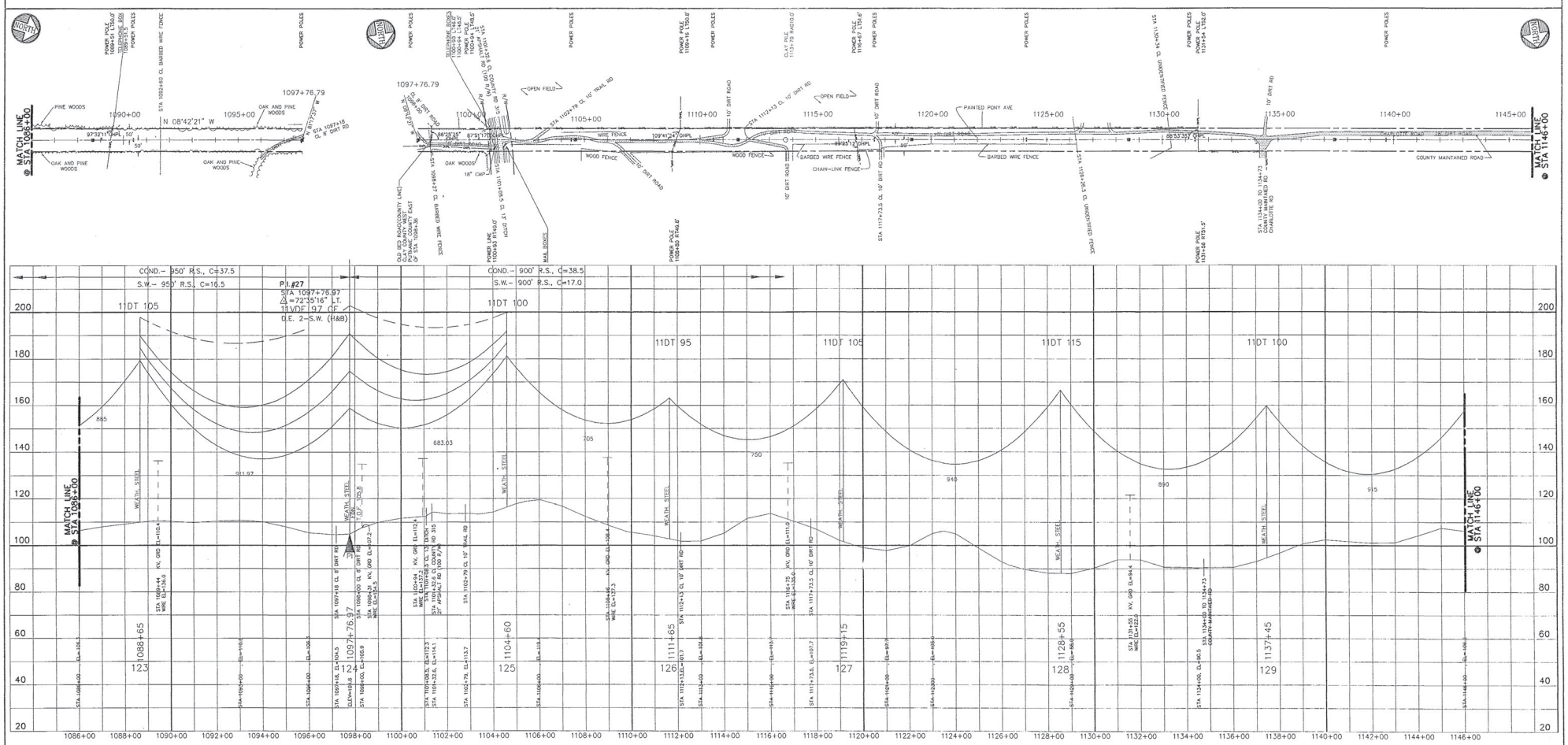

LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	NO	REVISIONS	BY	DATE	SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE 230 kV TRANSMISSION LINE SEMINOLE PLANT - KEYSTONE STATION 1086+00 TO 1146+00
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	0	ISSUED FOR CONSTRUCTION	RLH	12/16/93	
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566			1	AS BUILT	RSW	05/05/94	
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)								
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# O.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Aluma-weld, 3,185# O.T. @ 30° F, No Ice, No Wind								
SURVEY ℄/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F								
T/L PI ONLY	RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE								
	"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE								

	NAME	DATE	CAD	DWG NO: P-0036-D-19
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H; 1"=20'V	SHEET ___ OF ___
CHECKED BY:	J.M. FARRELL	7-30-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

FEB 03 1995

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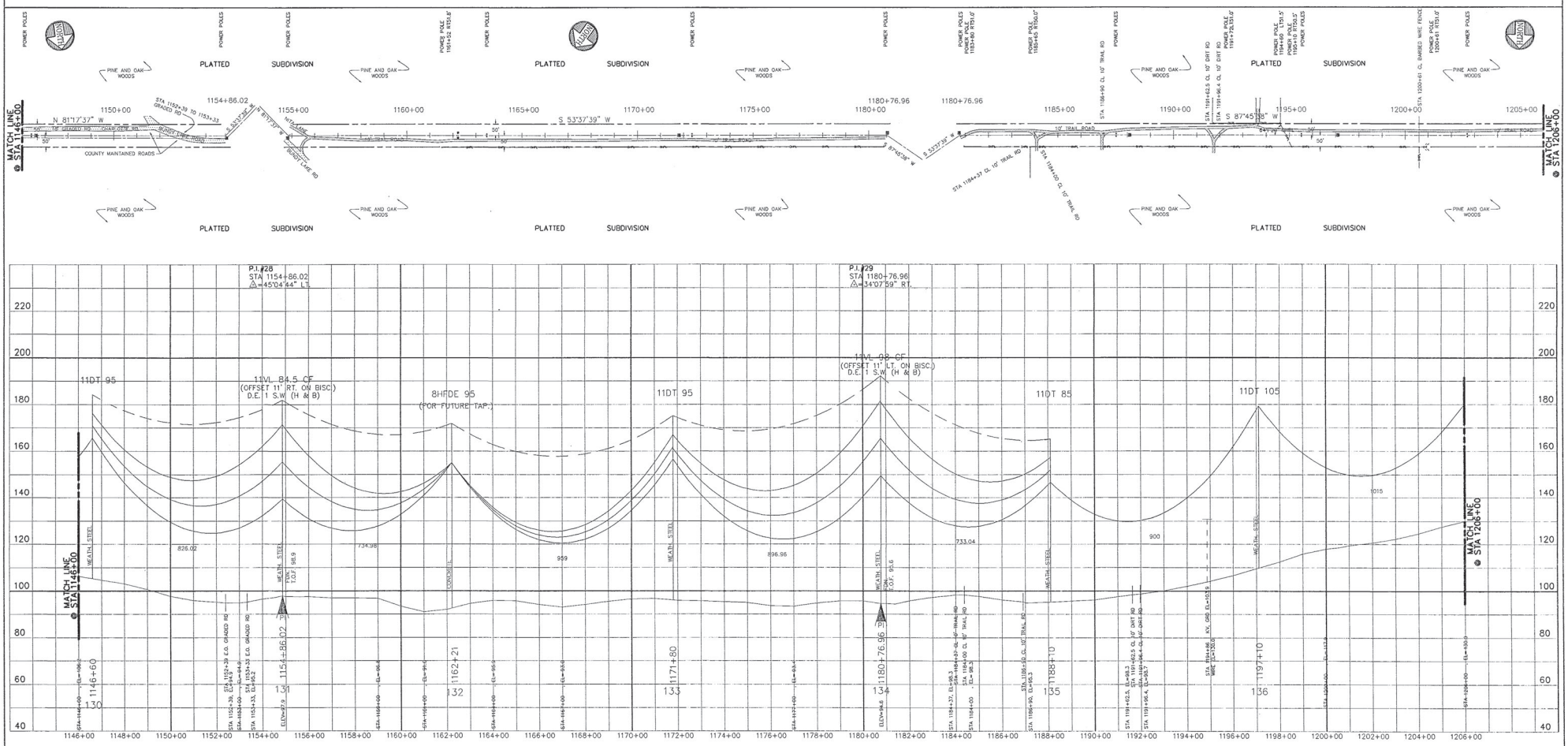

LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	SEMINOLE PLANT – KEYSTONE–JEA FIRESTONE 230 kV TRANSMISSION LINE SEMINOLE PLANT – KEYSTONE STATION 1146+00 TO 1206+00
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566			
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)				
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind				
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F				
T/L PI ONLY	RULING SPAN: 900' Ft.	RULING SPAN: 900' Ft				
	"C" VALUE: 38.5	"C" VALUE: 17.0				

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	05/05/94

	NAME	DATE	CAD	DWG NO: P-0036-D-20
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H; 1"=20'V	SHEET ___OF___
CHECKED BY:	J.M. FARRELL	7-30-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

FEB 6 1995

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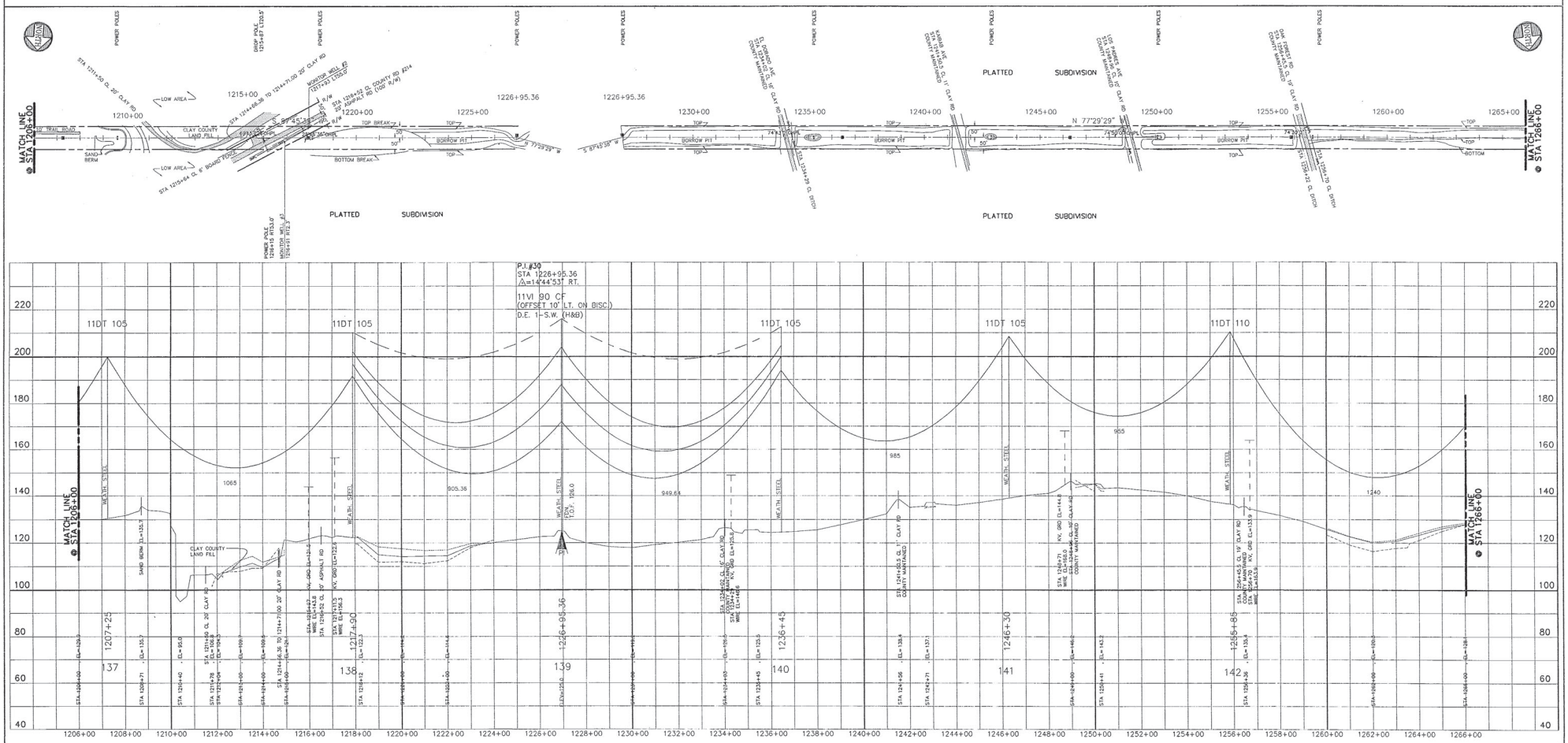
520342-10100

(23)



LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE
SURVEY &/OR T/L PI
T/L PI ONLY

DESIGN INFORMATION	
DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind	
CONTROLLING DESIGN TENSION	
Conductor: (Final)	Shield Wire: (Initial)
230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: 900' Ft.	RULING SPAN: 900' Ft
"C" VALUE: 38.5	"C" VALUE: 17.0

ENGINEERS - SURVEYORS - PLANNERS

CHANCE & CAUSSEAUX, INC.

901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/18/92
1	AS BUILT	RSW	05/09/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
SEMINOLE PLANT - KEYSTONE
STATION 1206+00 TO 1266+00

	NAME	DATE	CAD	DWG NO: P-0036-D-21
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V	SHEET ___OF___
CHECKED BY:	J.M. FARRELL	7-30-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

C:&WRK4P0036D21 ACAD 200
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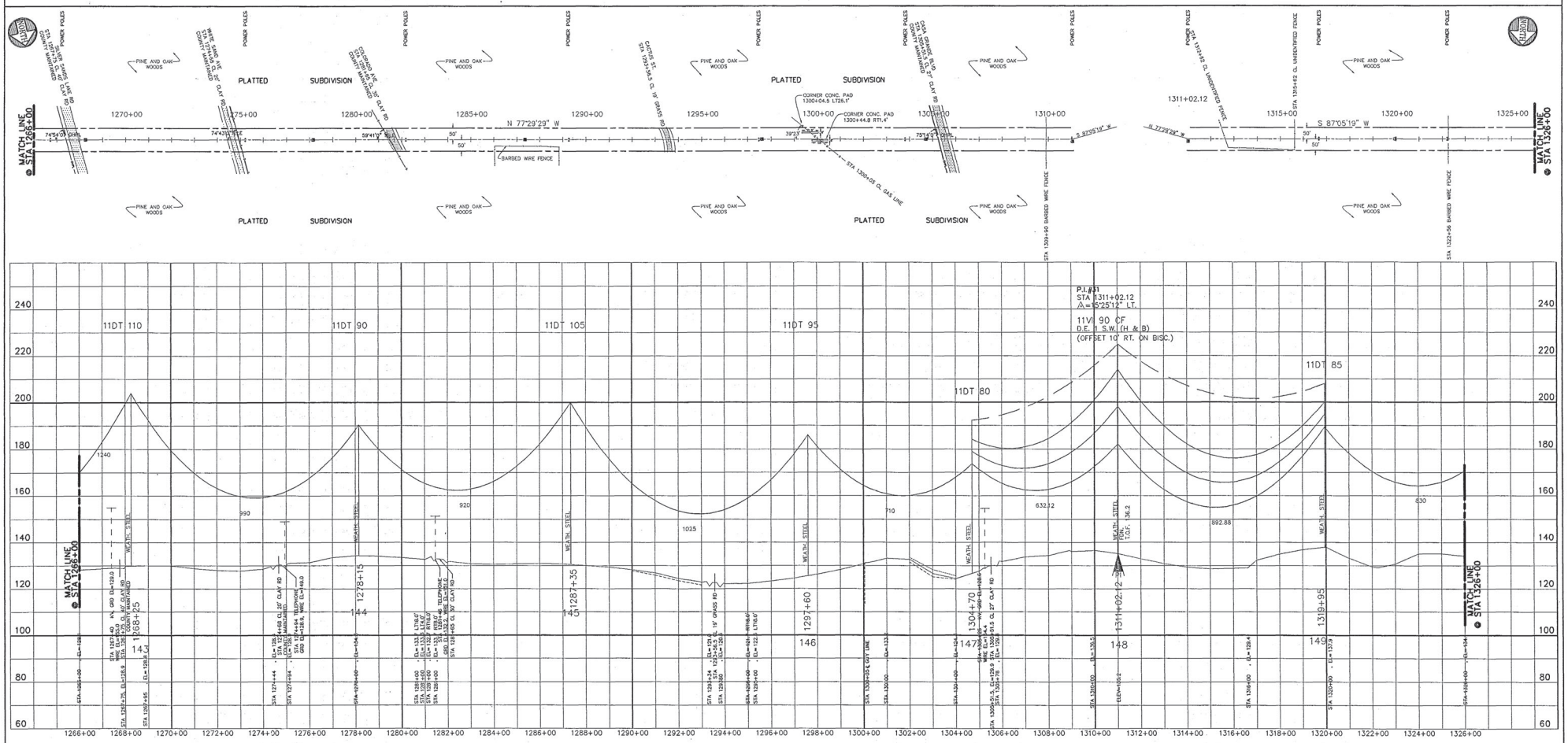
520342-10100



LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566		
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)			
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind			
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F			
T/L PI ONLY	RULING SPAN: 900 Ft.	RULING SPAN: 900 Ft			
	"C" VALUE: 38.5	"C" VALUE: 17.0			

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/18/92
1	AS BUILT	RSW	05/08/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
SEMINOLE PLANT - KEYSTONE
STATION 1266+00 TO 1326+00

FEB 03 1995
SUB LANDS & ENG REF

	NAME	DATE	DWG NO: P-0036-D-22
DRAWN BY:	C & C, INC.	2-25-92	CAD
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H 1"=20'V
CHECKED BY:	J.M. FARRELL	7-30-92	SHEET ___ OF ___
APPROVED BY:			PROJECT NO:
			DATE:
			REA REF:
			REF. NO:

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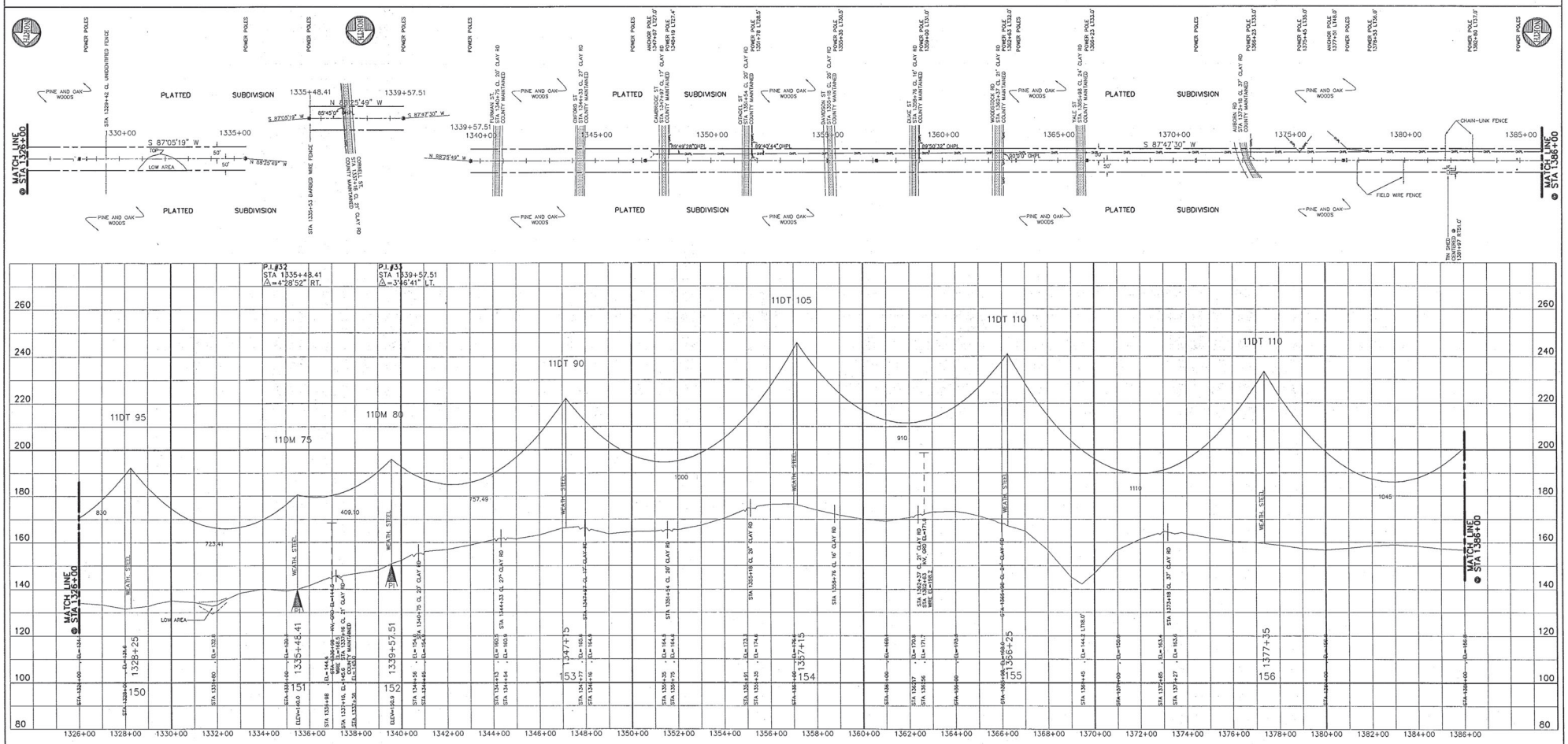
520342-10100

(25)



LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	REVISIONS			SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE 230 kV TRANSMISSION LINE SEMINOLE PLANT - KEYSTONE STATION 1326+00 TO 1386+00
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	NO	REVISIONS	BY DATE	
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566			0	ISSUED FOR CONSTRUCTION	RLH 12/16/92	
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)				1	AS BUILT	RSW 05/06/94	
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind							
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F							
T/L PI ONLY	RULING SPAN: 900 Ft.	RULING SPAN: 900 Ft							
	"C" VALUE: 38.5	"C" VALUE: 17.0							

	NAME	DATE	
DRAWN BY:	C & C, INC.	2-25-92	CAD DWG NO: P-0036-D-23
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V SHEET ___ OF ___
CHECKED BY:	J.M. FARRELL	7-30-92	PROJECT NO: DATE:
APPROVED BY:			REA REF: REF NO:

FEB 03 1995

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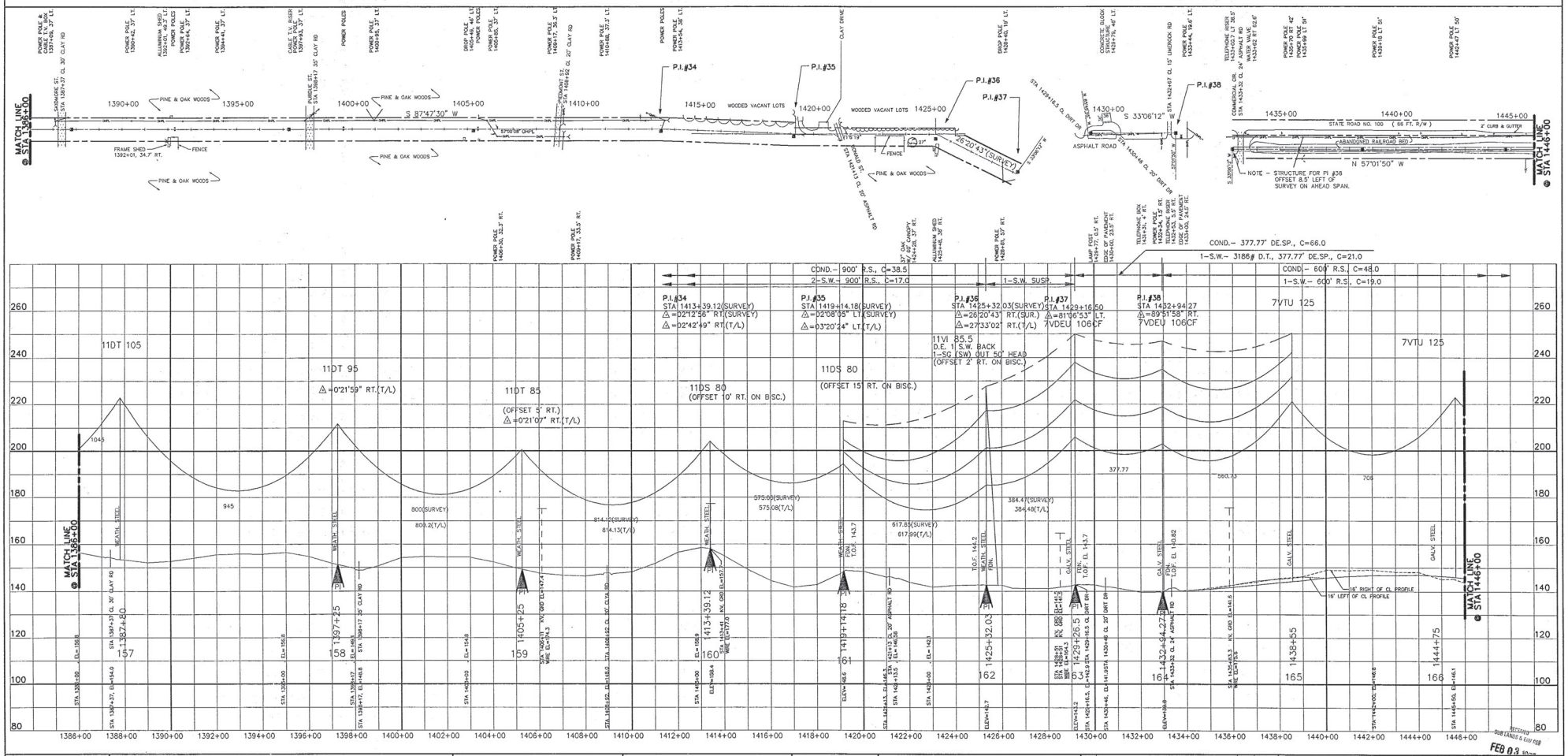
(26)



LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE
SURVEY ℄/OR T/L PI
T/L PI ONLY

DESIGN INFORMATION	
DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind	
CONTROLLING DESIGN TENSION	
Conductor: (Final)	Shield Wire: (Initial)
230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	(See Above)-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE
"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE

ENGINEERS - SURVEYORS - PLANNERS

CHANCE & CAUSSEAUX, INC.

961 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 378-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	OFFSET STR. 159 5'-0" RT.; OFFSET STR. 160 10'-0" RT. ON BISC.; OFFSET STR. 161 10'-0" RT. ON BISC.; OFFSET STR. 162 2'-0" RT. ON BISC.;	HTL	10/18/93
1	AS BUILT	RSW	07/27/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
SEMINOLE PLANT - KEYSTONE
STATION 1386+00 TO 1446+00

	NAME	DATE	CAD DWG NO: P-0036-D-24
DRAWN BY:	C & C, INC.	2-25-92	
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H; 1"=20'V
CHECKED BY:	J.M. FARRELL	7-30-92	SHEET ___ OF ___
APPROVED BY:			PROJECT NO:
			DATE:
			REA REF:
			REF NO:

RECEIVED SUB LANDS & EVT FSB FEB 03 2004

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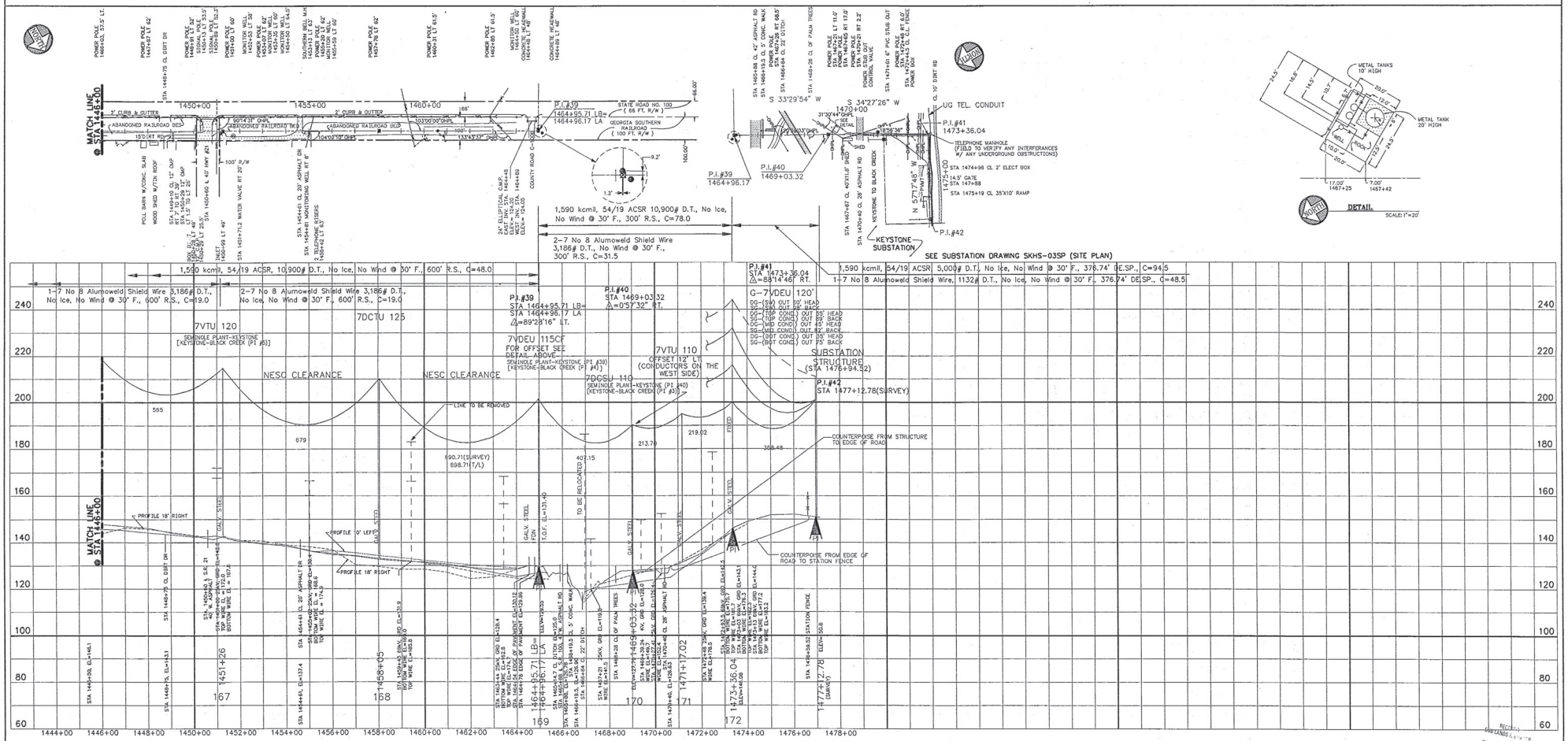
520347-10100



LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE
SURVEY ℄/OR T/L PI
T/L PI ONLY

DESIGN INFORMATION	
DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind	
CONTROLLING DESIGN TENSION	
Conductor: (Final)	Shield Wire: (Initial)
SEE ABOVE	SEE ABOVE
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE
"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE

ENGINEERS - SURVEYORS - PLANNERS

CHANCE & CAUSSEAUX, INC.

901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/18/92
1	AS BUILT	RSW	07/27/94

SEMINOLE PLANT – KEYSTONE–JEA FIRESTONE
230 kV TRANSMISSION LINE
SEMINOLE PLANT – KEYSTONE
STATION 1446+00 TO 1477+12.78

	NAME	DATE	CAD	DWG NO: P-0036-D-25
DRAWN BY:	C & C, INC.	2-25-92	SCALE: 1"=200'H; 1"=20'V	SHEET ___ OF ___
DESIGN BY:	R.L. HOLLAND	2-25-92		
CHECKED BY:	R.S. WOLFE	7-29-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF. NO:

RECEIVED FEB 03 1995 REA LANDS DIVISION

P0036025 ACAD 200
PWB: 10-11-94 10:11:10
520342-05200

(28)

SEMINOLE ELECTRIC COOPERATIVE INCOPORATED

TAMPA, FLORIDA

JEA 230 KV TRANSMISSION LINE

SECTION II

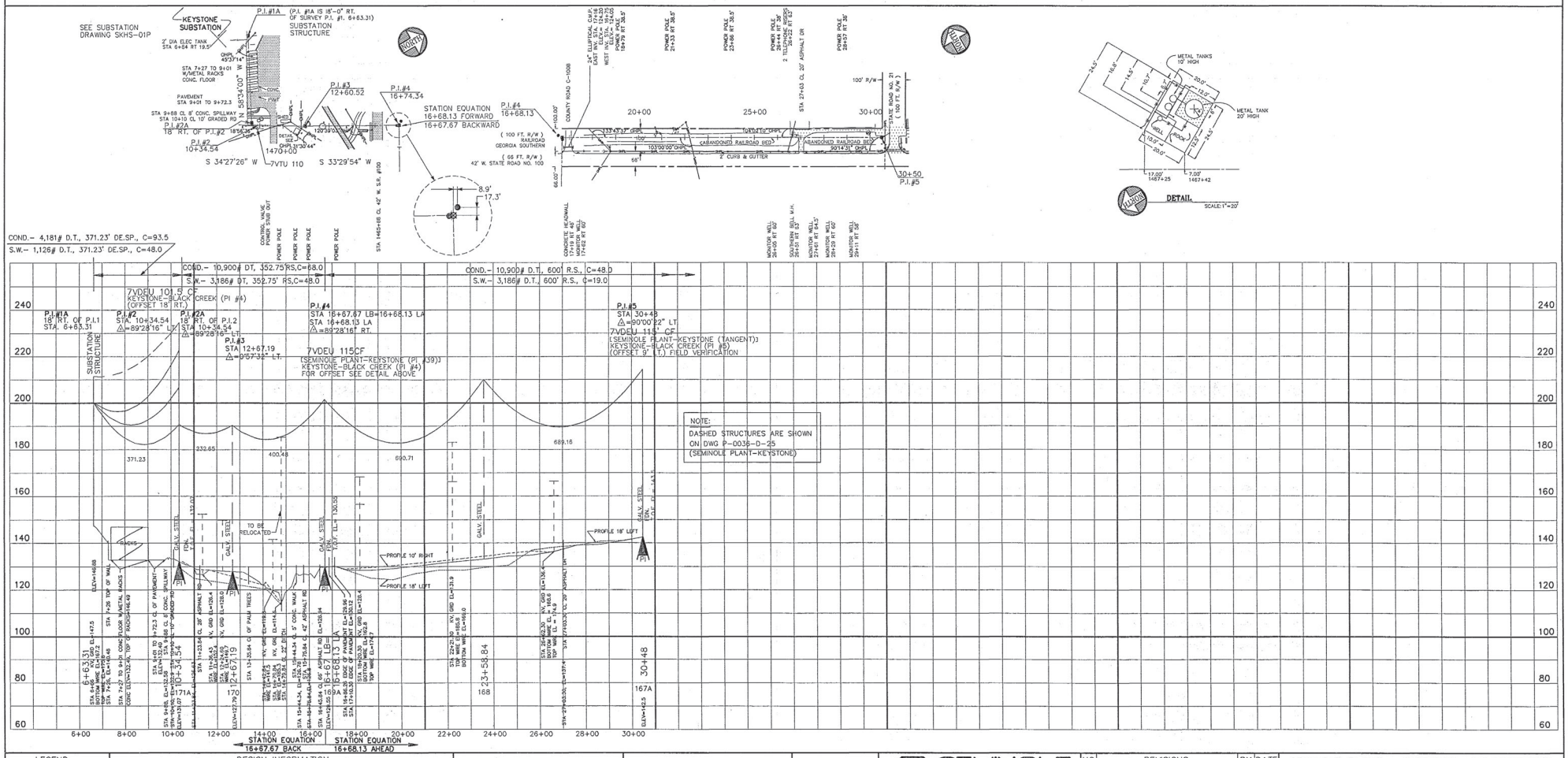
KEYSTONE TO DUVAL COUNTY LINE

PLAN & PROFILE

RECEIVED
SUB LANDS & ENV RES
FEB 03 1995

P-0036-D-29

29



LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5366		
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)			
PROPERTY LINE	230 kV 3-1,590 kcmil 54/19 ACSR, SEE ABOVE D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, See Above D.T. @ 30° F, No Ice, No Wind			
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F			
T/L PI ONLY	RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE			
	"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE			

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	07/27/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE - BLACK CREEK
STATION 6+63.31 TO 30+50

	NAME	DATE	CAD	DWG NO: P-0036-D-30
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V	SHEET ___ OF ___
CHECKED BY:	R.S. WOLFE	7-29-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF. NO:

FEB 03 1995

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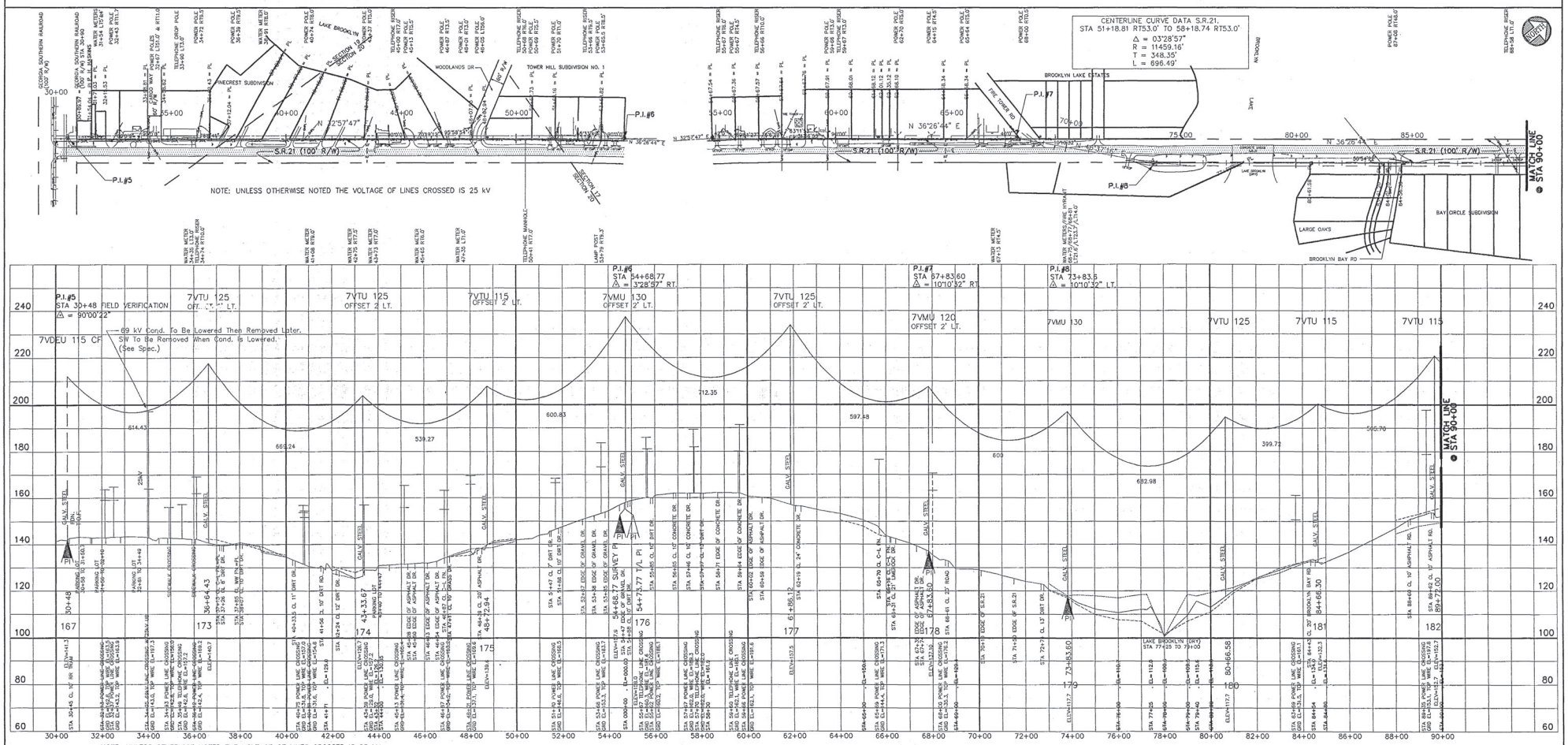
520242-09200



LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	NO	REVISIONS	BY	DATE	SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE 230 kV TRANSMISSION LINE
— — — CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 38 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	0	ISSUED FOR CONSTRUCTION	RLH	12/16/93	STATION 30+00 TO 90+00
- - - - - - 18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566			1	AS BUILT	RSW	05/06/94	RECEIVED SUB LANDS & ENG REP FEB 03 1994
- - - - - - - 18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)								
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	1-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind								
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F								
T/L PI ONLY	RULING SPAN: 600 Ft.	RULING SPAN: 600 Ft.								
	"C" VALUE: 48.0	"C" VALUE: 19.0								

	NAME	DATE	DWG NO: P-0036-D-31
DRAWN BY:	C & C, INC.	2-25-92	CAD
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V
CHECKED BY:	R.S. WOLFE	7-29-92	PROJECT NO:
APPROVED BY:			REA REF:

SHEET ___ OF ___
DATE:
REF NO:

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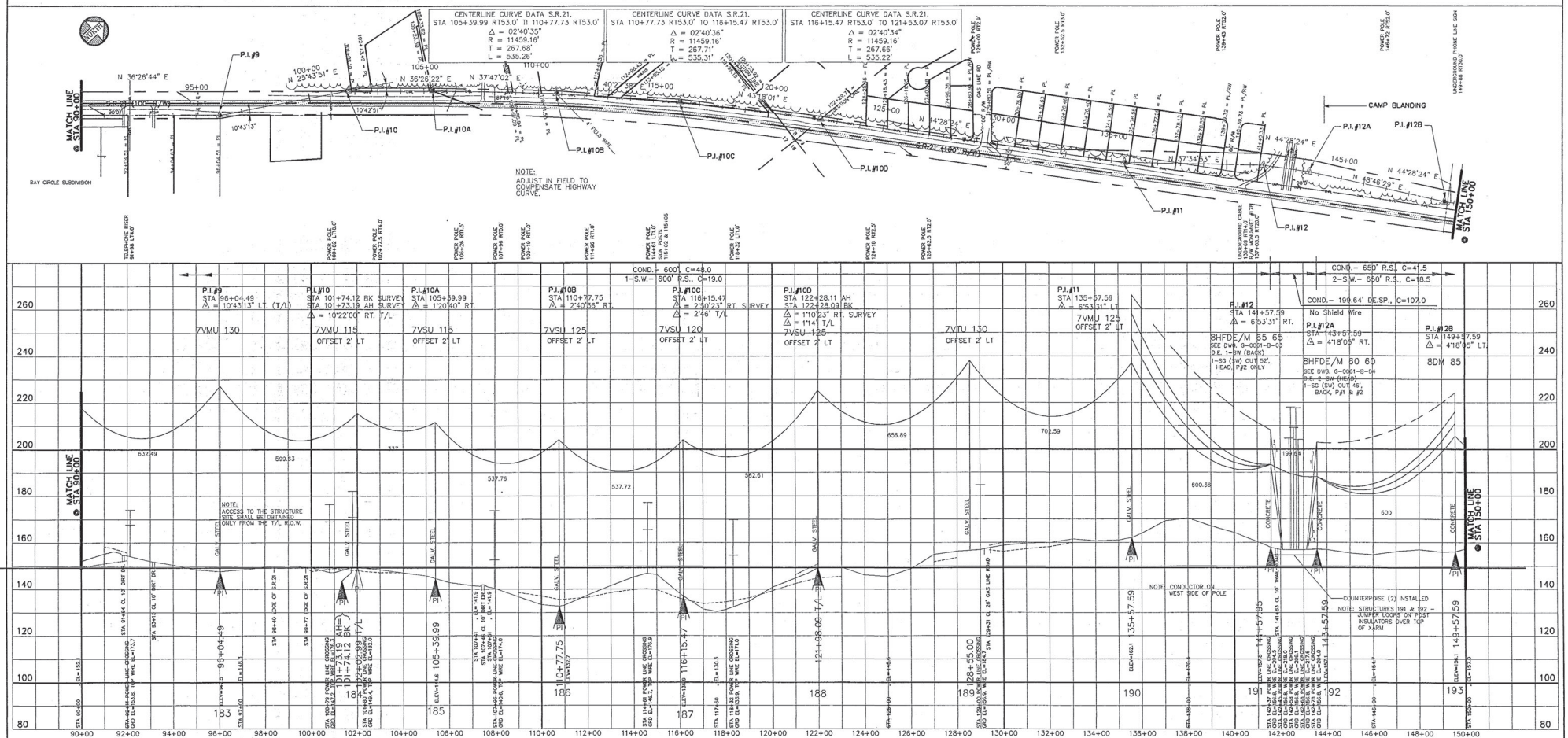
920342-10100



NOTE: UNLESS OTHERWISE SHOWN THE VOLTAGE OF LINES CROSSED IS 25kV.

LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE
SURVEY &/OR T/L PI
T/L PI ONLY

DESIGN INFORMATION	
DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind	
CONTROLLING DESIGN TENSION	
Conductor: (Final)	Shield Wire: (Initial)
230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	SEE ABOVE-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F,No Ice,No Wind
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE
"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE

ENGINEERS - SURVEYORS - PLANNERS
CHANCE & CAUSSEAUX, INC.
901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	07/27/94

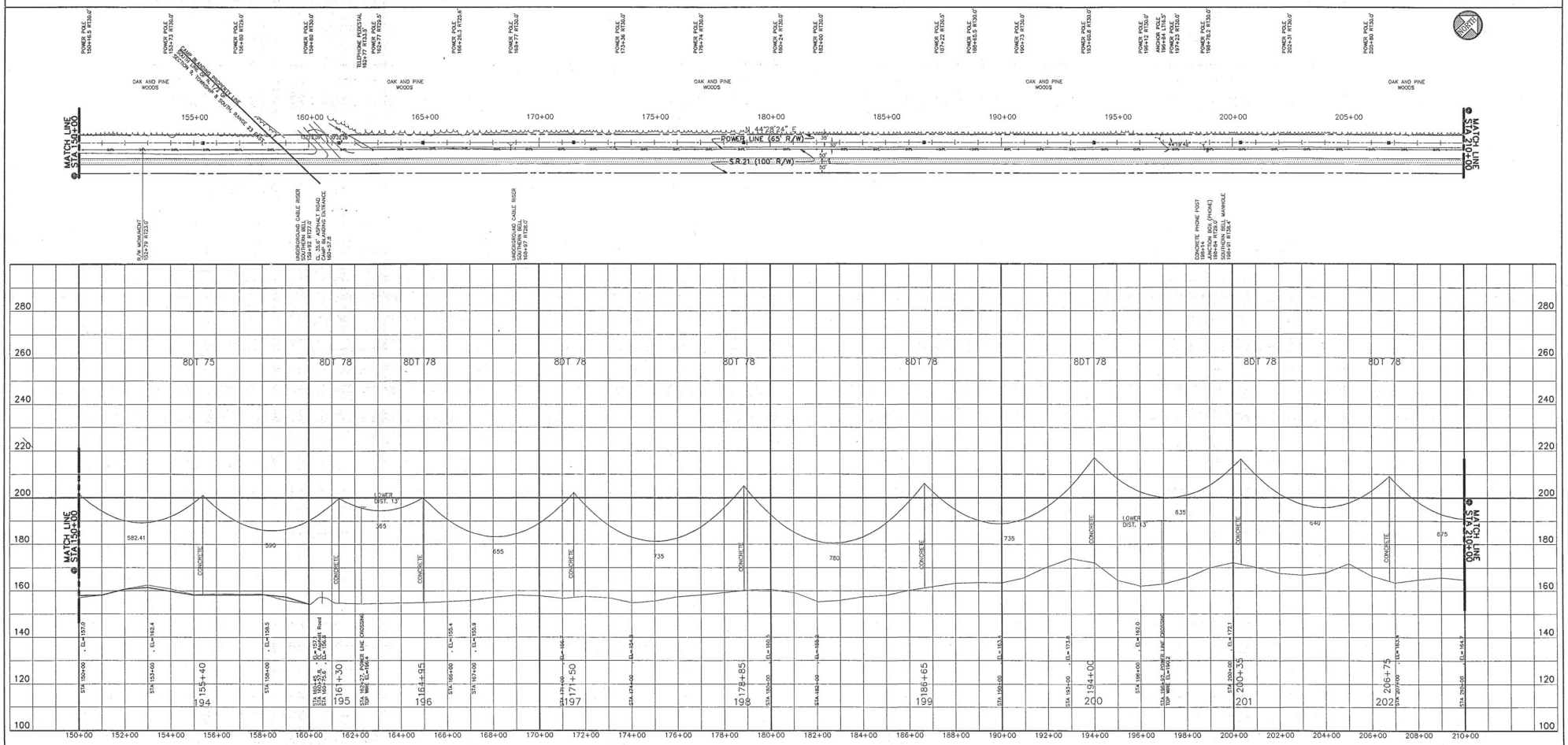
SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE - BLACK CREEK
STATION 90+00 TO 150+00

	NAME	DATE	CAD DWG NO: P-0036-D-32
DRAWN BY:	C & C, INC.	2-25-92	
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V
CHECKED BY:	R.S. WOLFE	7-30-92	SHEET ___ OF ___
APPROVED BY:			PROJECT NO:
			DATE:
			REA REF:
			REF NO:

P0036D32.ACAD 200
PWM 07/28/94 07:43:34
520342-05200

32

NOTE: (FROM STRUCTURE 195 TO 311)
1. SPAN GUARD LINE MARKER ON SHIELD WIRES AT CENTER SPAN ALTERNATING FROM LEFT TO RIGHT SIDE.
2. FENCE GROUNDED TO COUNTERPOISE AT EACH STRUCTURE.



LEGEND	DESIGN INFORMATION		
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)	
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 13,625# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind	
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F	
T/L PI ONLY	RULING SPAN: 650 Ft.	RULING SPAN: 650 Ft	
	"C" VALUE: 41.5	"C" VALUE: 18.5	

ENGINEERS - SURVEYORS - PLANNERS
CHANCE & CAUSSEAUX, INC.
901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/18/92
1	AS BUILT	RSW	07/27/94

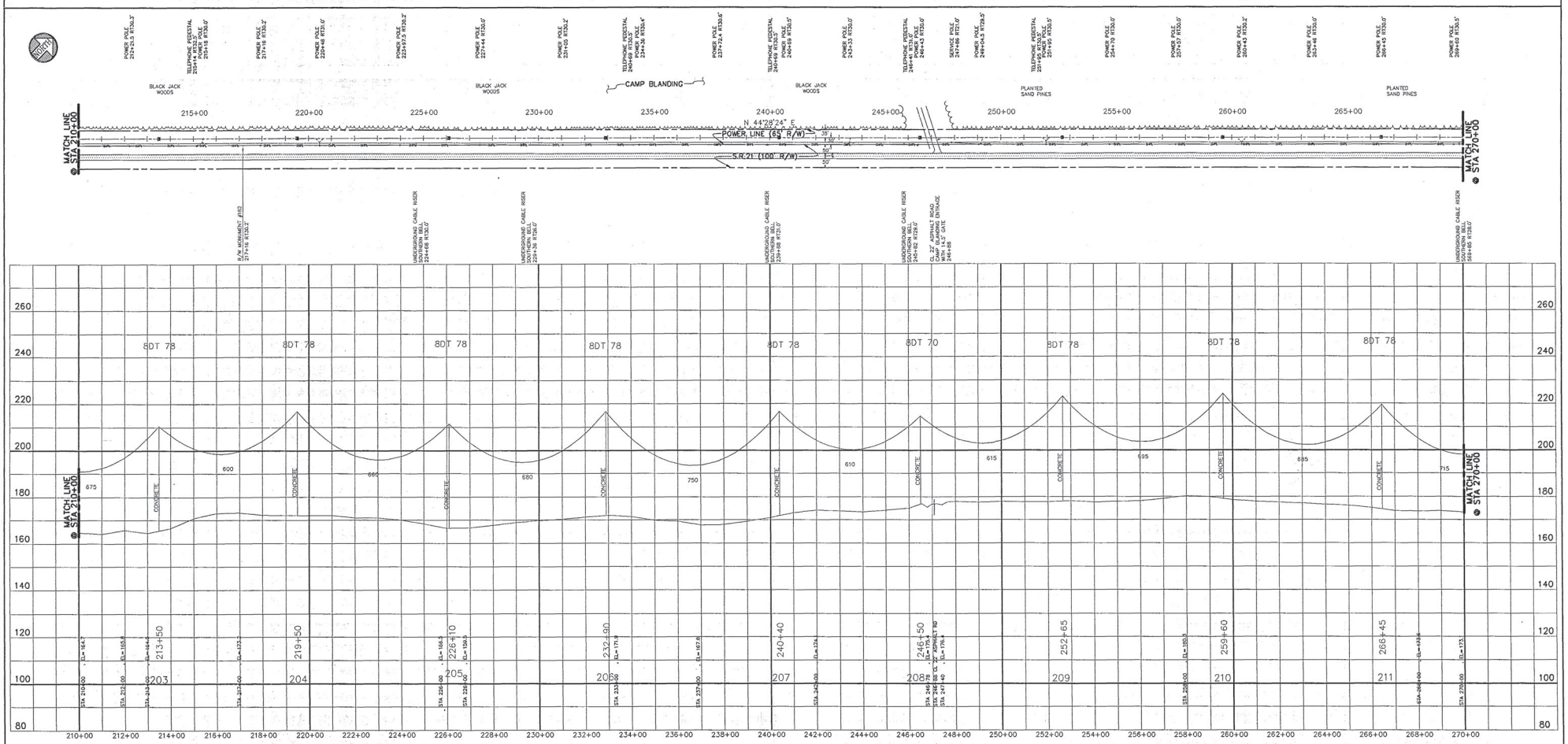
SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE - BLACK CREEK
STATION 150+00 TO 210+00

	NAME	DATE		
DRAWN BY:	C & C, INC.	2-25-92	CAD	DWG NO: P-0036-D-33
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H; 1"=20'V	SHEET ___ OF ___
CHECKED BY:	R.S. WOLFE	7-30-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

P0036D33.ACAD 200
PWM 07-27-94 07:45:47
520342-05200

(33)

NOTE: (FROM STRUCTURE 195 TO 311)
1. SPAN GUARD LINE MARKER ON SHIELD WIRES AT CENTER SPAN ALTERNATING FROM LEFT TO RIGHT SIDE.
2. FENCE GROUNDED TO COUNTERPOISE AT EACH STRUCTURE.



LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE
SURVEY ℄/OR T/L PI
T/L PI ONLY

DESIGN INFORMATION

DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind

CONTROLLING DESIGN TENSION

Conductor: (Final)	Shield Wire: (Initial)
230 kV, 3-1,590 kcmil, 54/19 ACSR, 13,625# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: 650 FT.	RULING SPAN: 650 FT
"C" VALUE: 41.5	"C" VALUE: 18.5

ENGINEERS - SURVEYORS - PLANNERS

CHANCE & CAUSSEAUX, INC.

901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-9566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	05/06/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE - BLACK CREEK
STATION 210+00 TO 270+00

	NAME	DATE
DRAWN BY:	C & C, INC.	2-25-92
DESIGN BY:	R.L. HOLLAND	2-25-92
CHECKED BY:	R.S. WOLFE	7-30-92
APPROVED BY:		

CAD DWG NO: P-0036-D-34

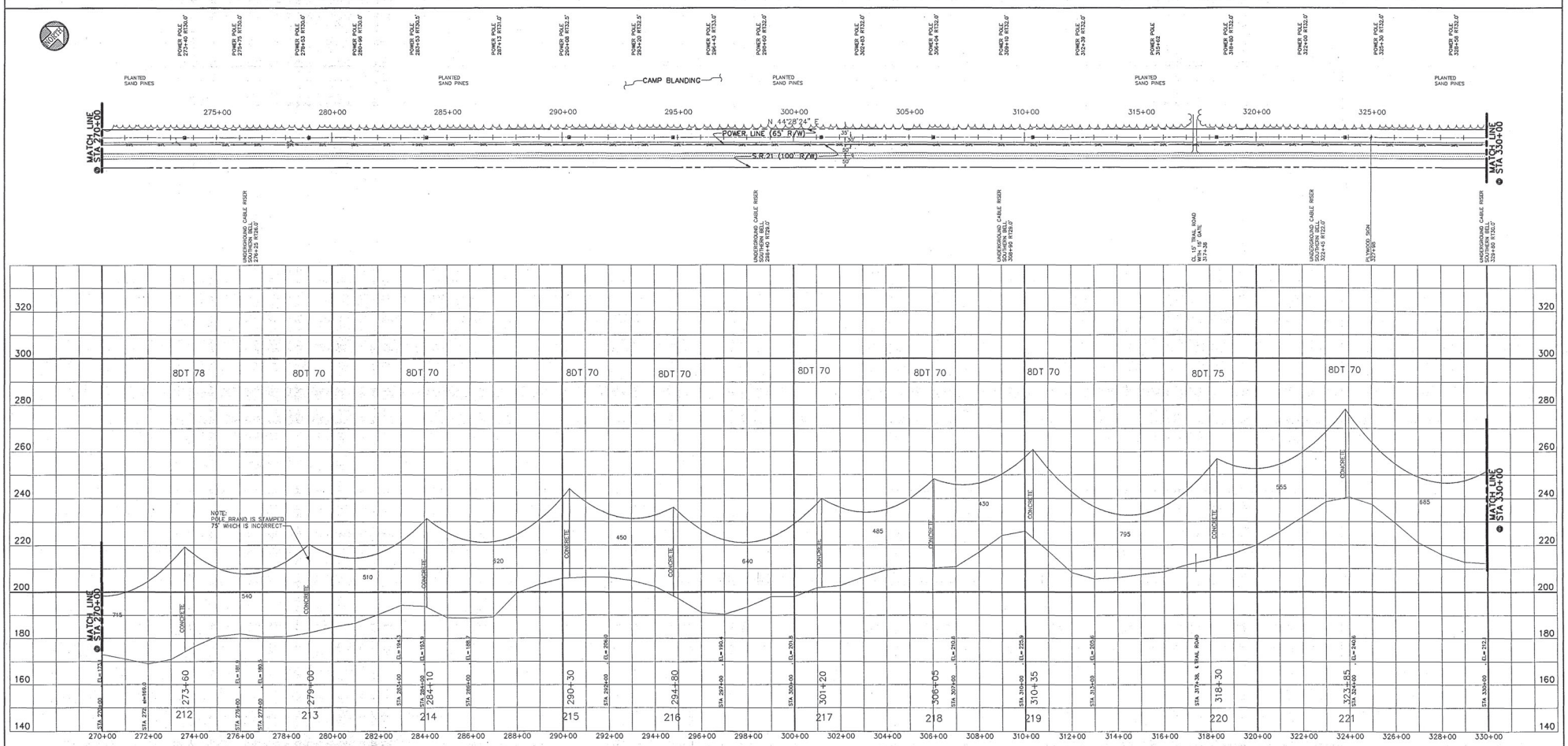
SCALE: 1"=200'H:1"=20'V
PROJECT NO:
REA REF:
SHEET: OF
DATE:
REF NO:

FEB 09 1995

C:±WRK±P0036034 ACAD 200
10-PWM 07/27/94 12:46:23

(34)

NOTE: (FROM STRUCTURE 195 TO 311)
1. SPAN GUARD LINE MARKER ON SHIELD WIRES AT CENTER SPAN ALTERNATING FROM LEFT TO RIGHT SIDE.
2. FENCE GROUNDED TO COUNTERPOISE AT EACH STRUCTURE.



LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE
SURVEY ℄/OR T/L PI
T/L PI ONLY

DESIGN INFORMATION

DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind

CONTROLLING DESIGN TENSION

Conductor: (Final)	Shield Wire: (Initial)
230 kV, 3-1,590 kcmil, 54/19 ACSR, 13,625# D.T. @ 30° F, No Ice, No Wind	SEE ABOVE-7 No. 8 Alumoweld, 3,188# D.T. @ 30° F, No Ice, No Wind
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: 650 FT.	RULING SPAN: 650 FT
"C" VALUE: 41.5	"C" VALUE: 18.5

ENGINEERS - SURVEYORS - PLANNERS

CHANCE & CAUSSEAUX, INC.

901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-9566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/18/92
1	AS BUILT	RSW	07/27/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE - BLACK CREEK
STATION 270+00 TO 330+00

	NAME	DATE	DWG NO: P-0036-D-35
DRAWN BY:	C & C, INC.	2-25-92	CAD
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H;1"=20'V
CHECKED BY:	R.S. WOLFE	7-30-92	PROJECT NO:
APPROVED BY:			REA REF:

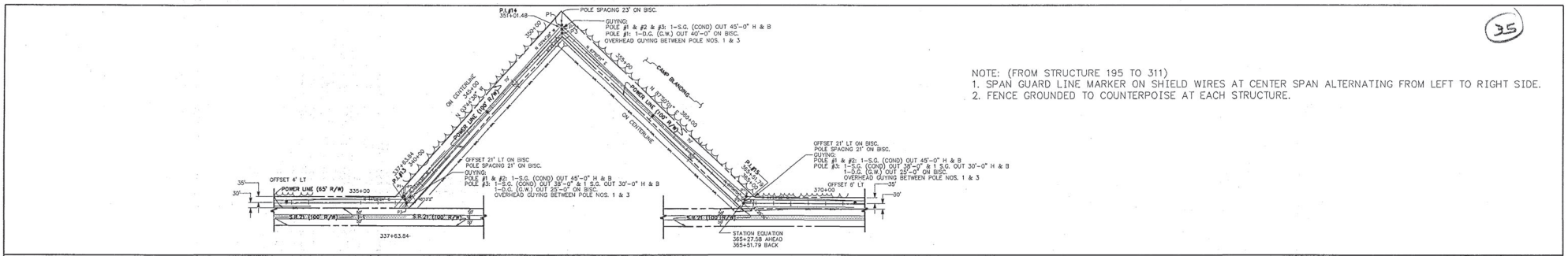
SHEET ___ OF ___
DATE:
REF NO:

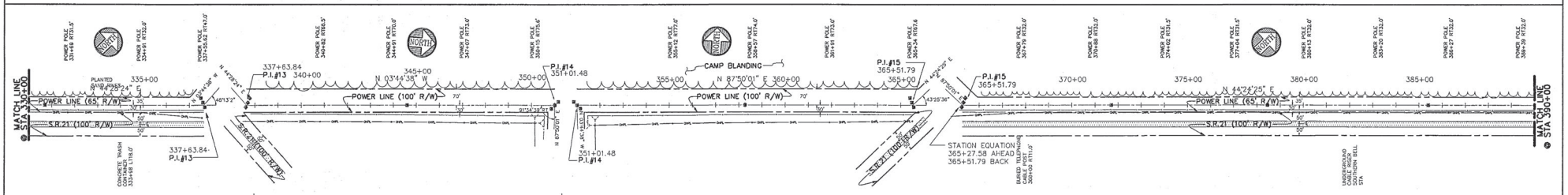
RECEIVED
FEB 03 1995

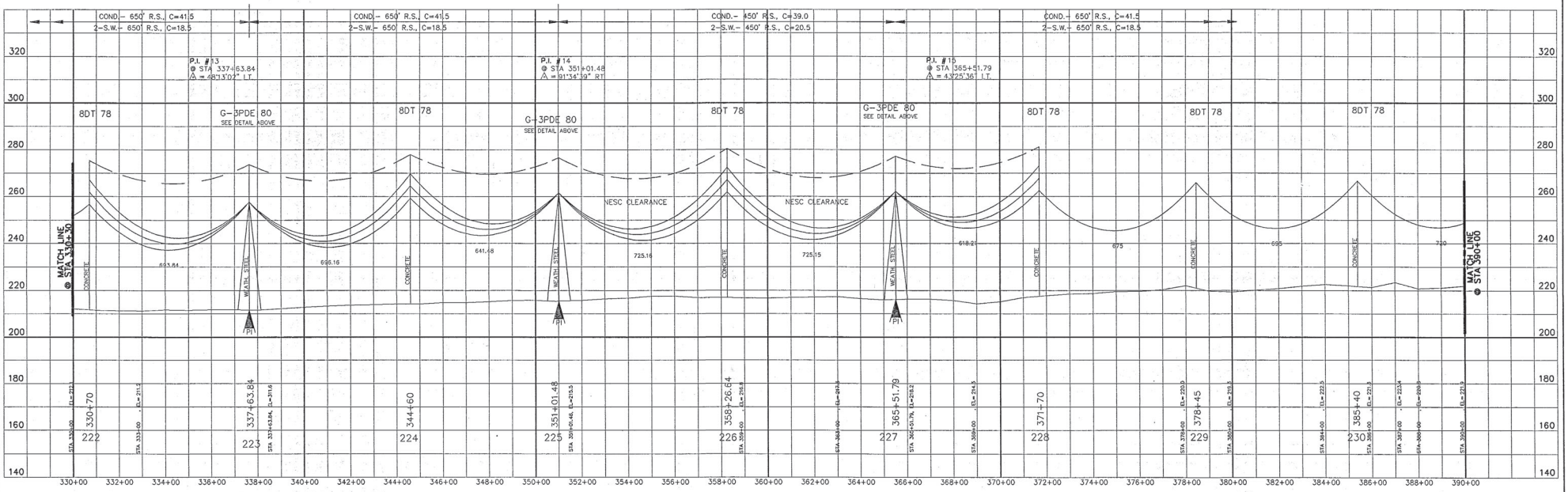
P0036D35 ACAD 200
PIM 07/27/94 07:49:05
520342-05200

35

NOTE: (FROM STRUCTURE 195 TO 311)
1. SPAN GUARD LINE MARKER ON SHIELD WIRES AT CENTER SPAN ALTERNATING FROM LEFT TO RIGHT SIDE.
2. FENCE GROUNDED TO COUNTERPOISE AT EACH STRUCTURE.







LEGEND	DESIGN INFORMATION	
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind	
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION	
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 13,625# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
T/L PI ONLY	RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE
	"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE

ENGINEERS - SURVEYORS - PLANNERS
CHANCE & CAUSSEAUX, INC.
901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	07/27/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE - BLACK CREEK
STATION 330+00 TO 390+00

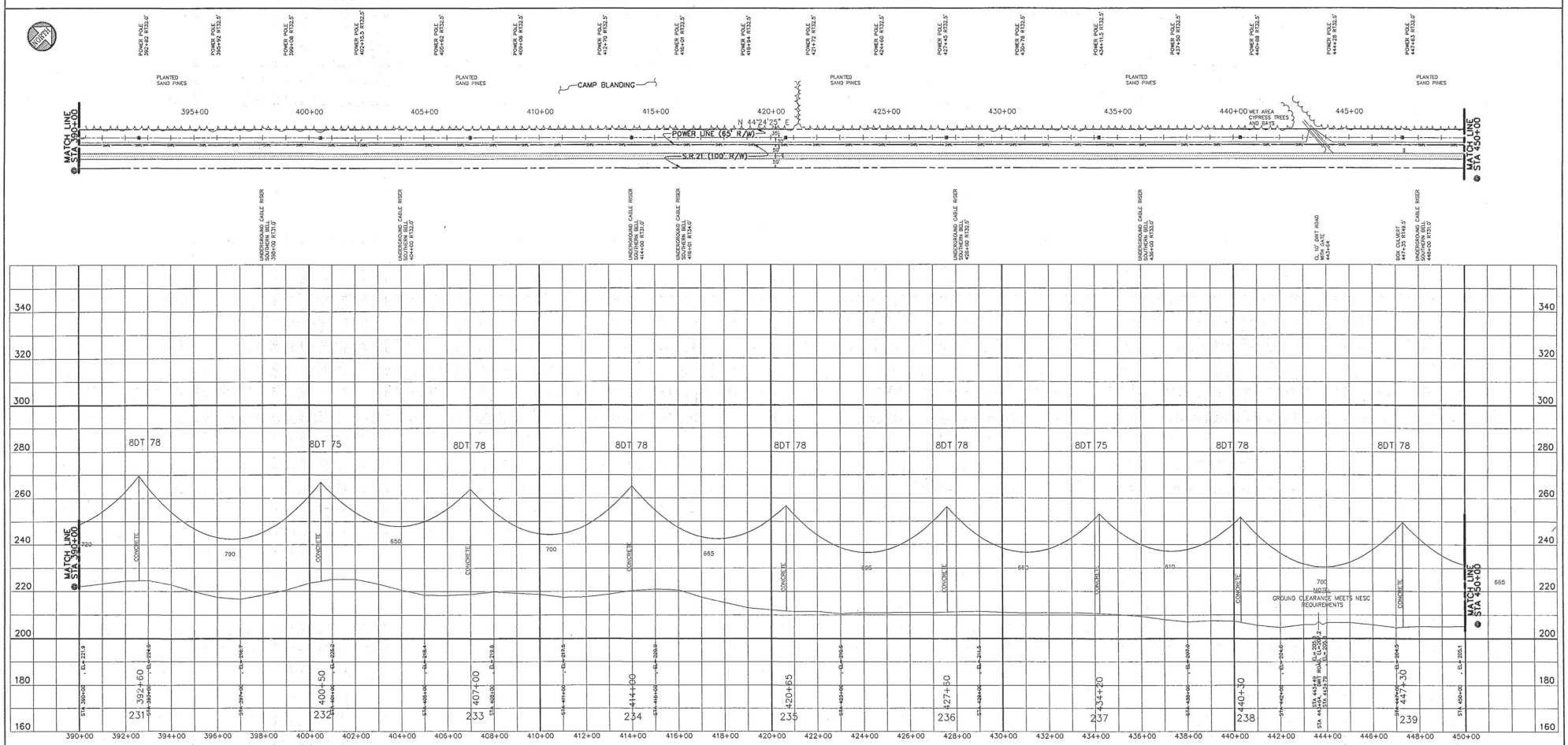
	NAME	DATE	DWG NO: CAD P-0036-D-36
DRAWN BY:	C & C, INC.	2-25-92	
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V SHEET ___ OF ___
CHECKED BY:	R.S. WOLFE	7-30-92	PROJECT NO: DATE:
APPROVED BY:			REA REF: REF NO:

C:±WRK±P0036036 ACAD 200
10-PWH 07-30-94 13:01:42
520553-100

FEB 04 1995

36

NOTE: (FROM STRUCTURE 195 TO 311)
1. SPAN GUARD LINE MARKER ON SHIELD WIRES AT CENTER SPAN ALTERNATING FROM LEFT TO RIGHT SIDE.
2. FENCE GROUNDED TO COUNTERPOISE AT EACH STRUCTURE.



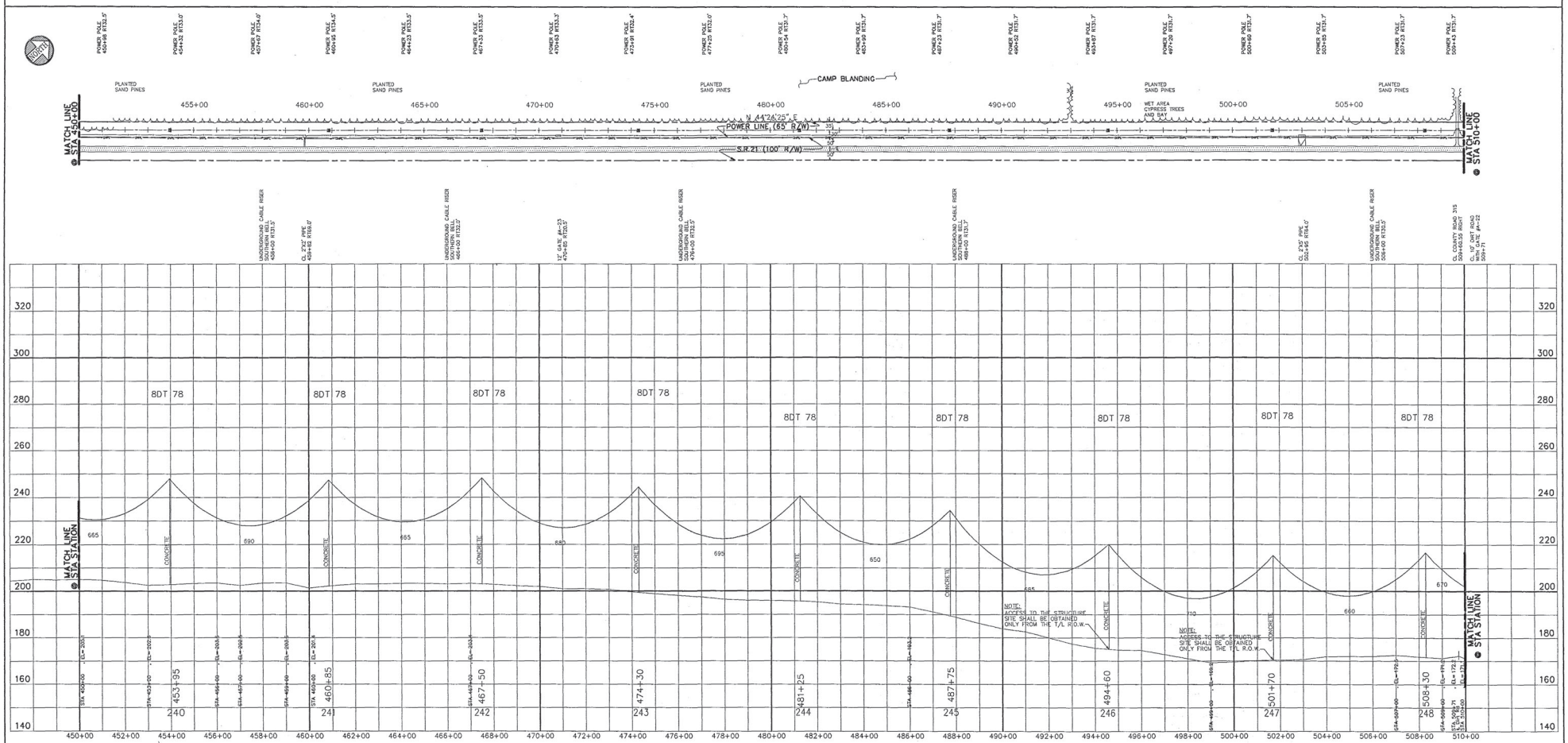
LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	NO	REVISIONS	BY	DATE	SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE 230 kV TRANSMISSION LINE KEYSTONE - BLACK CREEK STATION 390+00 TO 450+00
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	0	ISSUED FOR CONSTRUCTION	RLH	12/16/92	
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-9566			1	AS BUILT	RSW	05/06/94	
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)								
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 13,625 # D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind								
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F								
T/L PI ONLY	RULING SPAN: 650 Ft.	RULING SPAN: 650 FT								
	"C" VALUE: 41.5	"C" VALUE: 18.5								

	NAME	DATE	CAD	DWG NO: P-0036-D-37
DRAWN BY:	C & C, INC.	2-25-92	SCALE: 1"=200'H; 1"=20'V	SHEET ___ OF ___
DESIGN BY:	R.L. HOLLAND	2-25-92	PROJECT NO:	DATE:
CHECKED BY:	R.S. WOLFE	7-30-92	REA REF:	REF. NO:
APPROVED BY:				

FEB 03 1995

C:\&WRK\&P0036D37 ACAD 200
10-DJK 07/27/94 12:51:09
520342-10100

NOTE: (FROM STRUCTURE 195 TO 311)
1. SPAN GUARD LINE MARKER ON SHIELD WIRES AT CENTER SPAN ALTERNATING FROM LEFT TO RIGHT SIDE.
2. FENCE GROUNDED TO COUNTERPOISE AT EACH STRUCTURE.



LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	NO	REVISIONS	BY	DATE	SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE 230 kV TRANSMISSION LINE KEYSTONE - BLACK CREEK STATION 450+00 TO 510+00
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	0	ISSUED FOR CONSTRUCTION	RLH	12/16/92	
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.V. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566			1	AS BUILT	RSW	05/06/94	
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)								
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 13,625# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind								
SURVEY ℄/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F								
T/L PI ONLY	RULING SPAN: 650 FT.	RULING SPAN: 650 Ft								
	"C" VALUE: 41.5	"C" VALUE: 18.5								

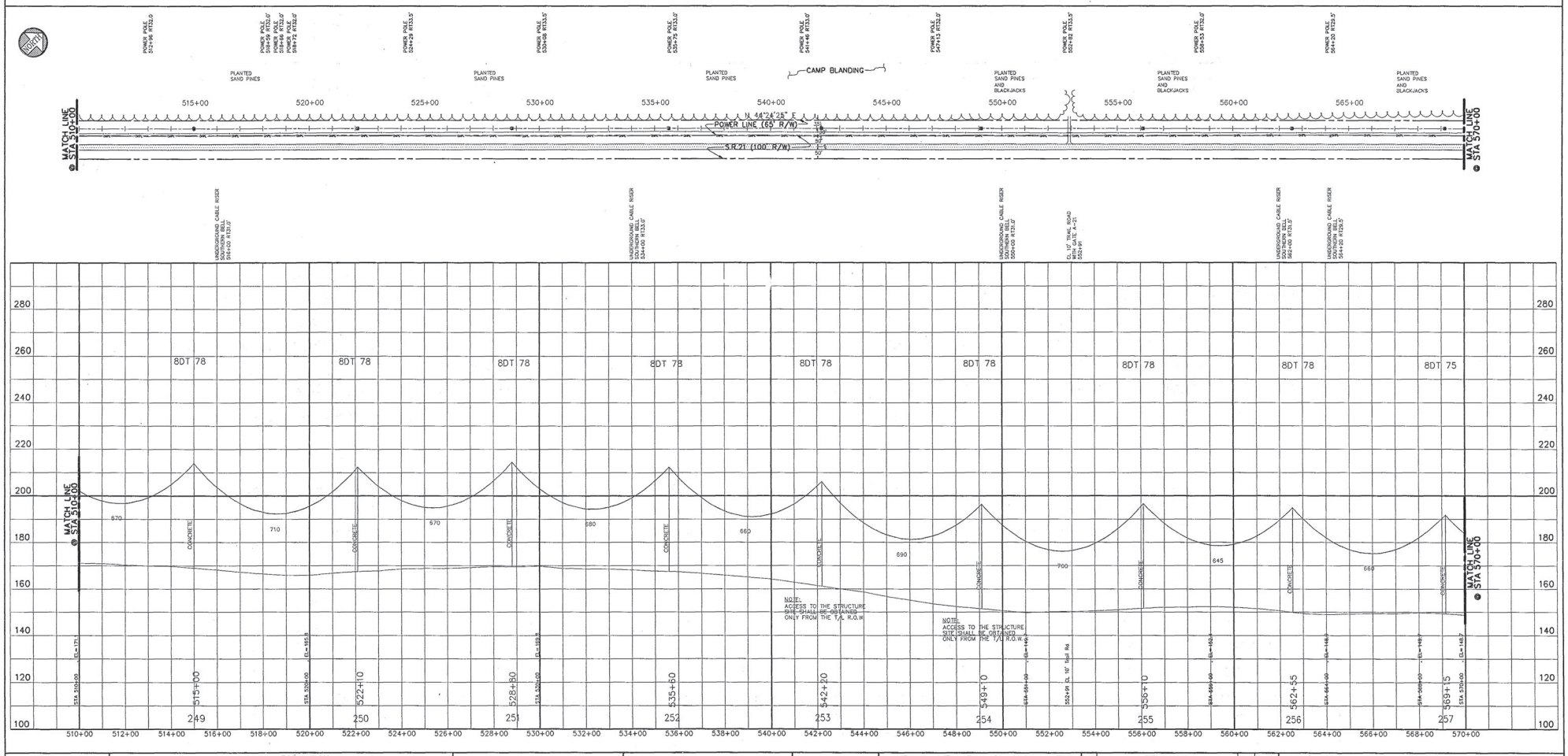
	NAME	DATE	DWG NO: P-0036-D-38
DRAWN BY:	C & C, INC.	2-25-92	CAD
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V
CHECKED BY:	R.S. WOLFE	7-30-92	PROJECT NO:
APPROVED BY:			REA REF:

SHEET ___ OF ___
DATE:
REFERENCE DRAWINGS
FEB 03 1995

C:&WRK&P0036038 ACAD 200
10-PWH 07/27/94 12:54:54
520342-10100

38

NOTE: (FROM STRUCTURE 195 TO 311)
1. SPAN GUARD LINE MARKER ON SHIELD WIRES AT CENTER SPAN ALTERNATING FROM LEFT TO RIGHT SIDE.
2. FENCE GROUNDED TO COUNTERPOISE AT EACH STRUCTURE.



LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	NO	REVISIONS	BY	DATE
— — — CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	0	ISSUED FOR CONSTRUCTION	RLH	12/16/93
- - - - - 18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566			1	AS BUILT	RSW	07/27/94
- - - - - - 18 FT LEFT OF ℄	Conductor: (Final) 230 kV, 3-1,590 kcmil, 54/19 ACSR, 13.625# D.T. @ 30' F, No Ice, No Wind	Shield Wire: (Initial) 2-7 No. 8 Alumoweld, 3,186# D.T. @ 30' F, No Ice, No Wind							
PROPERTY LINE	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F							
SURVEY &/OR T/L PI	RULING SPAN: 650 Ft.	RULING SPAN: 650 FT							
T/L PI ONLY	"C" VALUE: 41.5	"C" VALUE: 18.5							

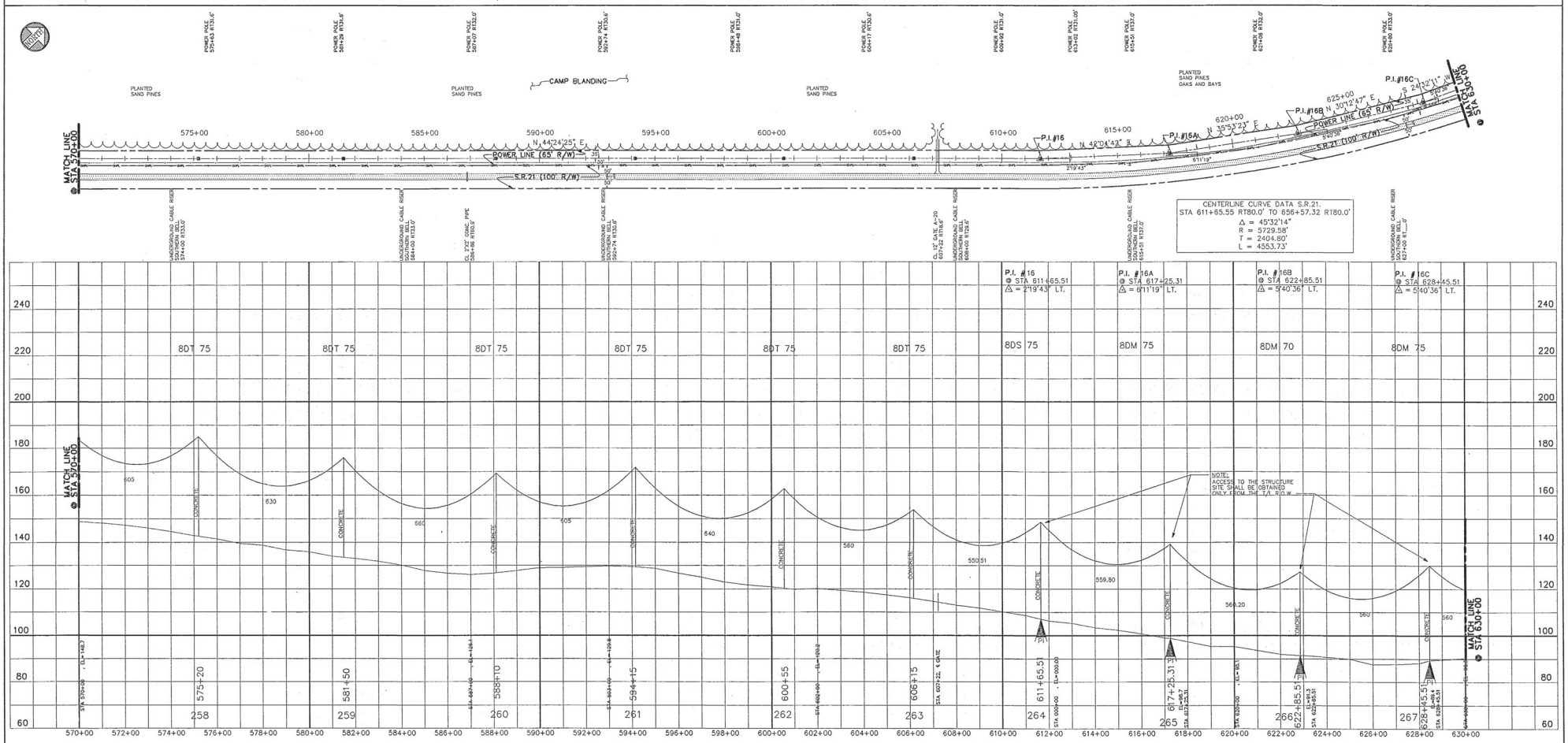
SEMINOLE PLANT – KEYSTONE–JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE – BLACK CREEK
STATION 510+00 TO 570+00

	NAME	DATE	CAD	DWG NO: P-0036-D-39
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H; 1"=20'V	SHEET ___OF___
CHECKED BY:	R.S. WOLFE	7-30-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	Sub REF NO.

FEB 03 1995

P0036D39 ACAD 200
PWM 07-27-94 08:29:00

NOTE: (FROM STRUCTURE 195 TO 311)
1. SPAN GUARD LINE MARKER ON SHIELD WIRES AT CENTER SPAN ALTERNATING FROM LEFT TO RIGHT SIDE.
2. FENCE GROUNDED TO COUNTERPOISE AT EACH STRUCTURE.



LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE
SURVEY &/OR T/L PI
T/L PI ONLY

DESIGN INFORMATION	
DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind	
CONTROLLING DESIGN TENSION	
Conductor: (Final)	Shield Wire: (Initial)
230 kV, 3-1,590 kcmil, 54/19 ACSR, 13,625# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: 650 Ft.	RULING SPAN: 650 Ft
"c" VALUE: 41.5	"c" VALUE: 18.5

ENGINEERS - SURVEYORS - PLANNERS
CHANCE & CAUSSEAUX, INC.
901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

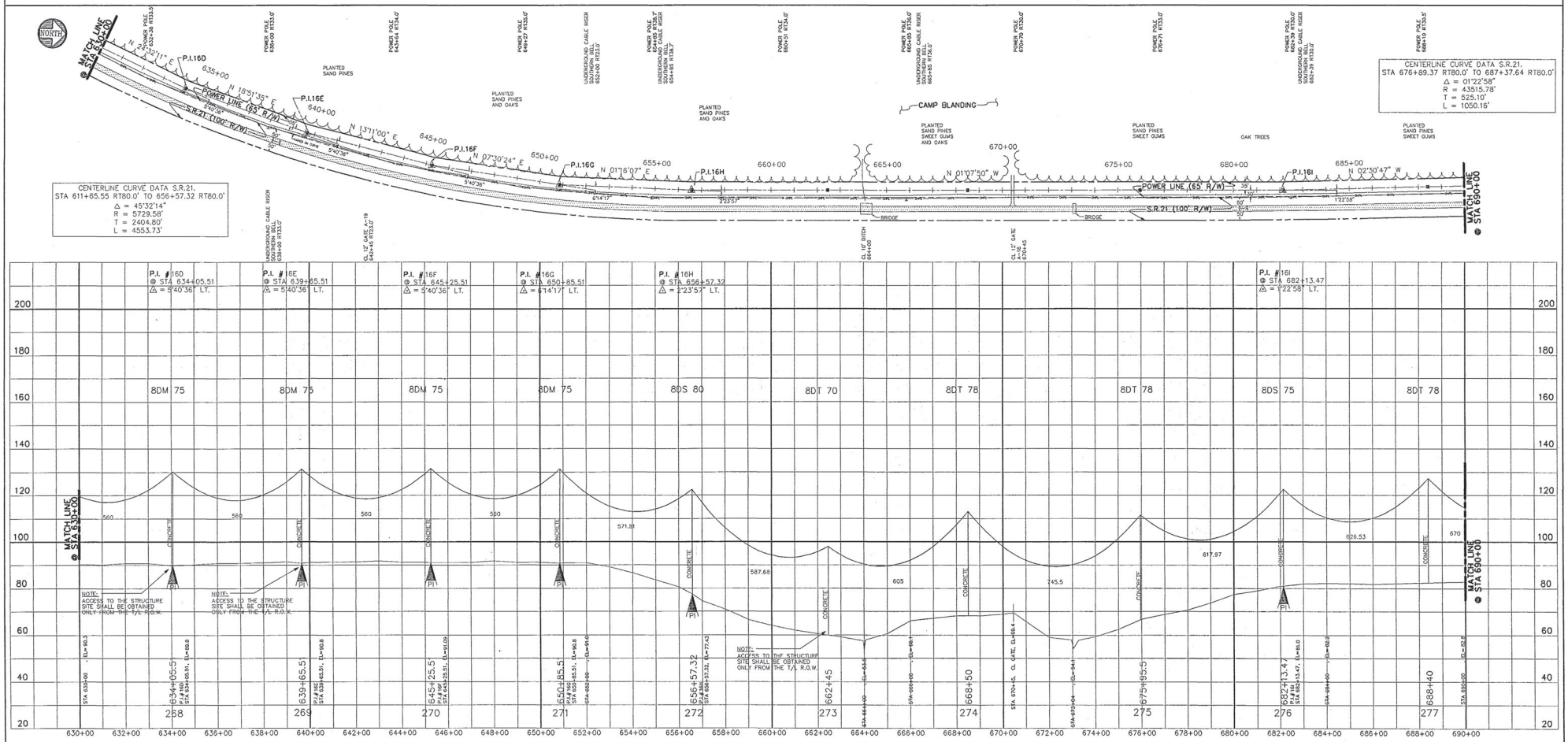
NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	05/06/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE - BLACK CREEK
STATION 570+00 TO 630+00

	NAME	DATE	CAD	DWG NO: P-0036-D-40
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H; 1"=20'V	SHEET 40 OF
CHECKED BY:	R.S. WOLFE	7-29-92	PROJECT NO:	DATE/TIME PLOTTED: 05/06/94
APPROVED BY:			REA REF:	REP-NO:

C:&WOK&P0036040 ACAD 200
10-PWHG 07-23-94 12:57:13
520342-10100

NOTE: (FROM STRUCTURE 195 TO 311)
1. SPAN GUARD LINE MARKER ON SHIELD WIRES AT CENTER SPAN ALTERNATING FROM LEFT TO RIGHT SIDE.
2. FENCE GROUNDED TO COUNTERPOISE AT EACH STRUCTURE.



LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	NO	REVISIONS	BY	DATE	SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE 230 kV TRANSMISSION LINE KEYSTONE - BLACK CREEK STATION 630+00 TO 690+00
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 38 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	0	ISSUED FOR CONSTRUCTION	RLH	12/18/93	
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-9566			1	AS BUILT	RSW	07/27/94	
18 FT LEFT OF ℄	Conductor: (Final) 230 kV, 3-1,590 kcmil, 54/19 ACSR, 13,625# D.T. @ 30° F, No Ice, No Wind	Shield Wire: (Initial) 2-7 No. 8 Alumoweld, 3,185# D.T. @ 30° F, No Ice, No Wind								
PROPERTY LINE	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F								
SURVEY &/OR T/L PI	RULING SPAN: 650 FT.	RULING SPAN: 650 FT.								
T/L PI ONLY	"C" VALUE: 41.5	"C" VALUE: 18.5								

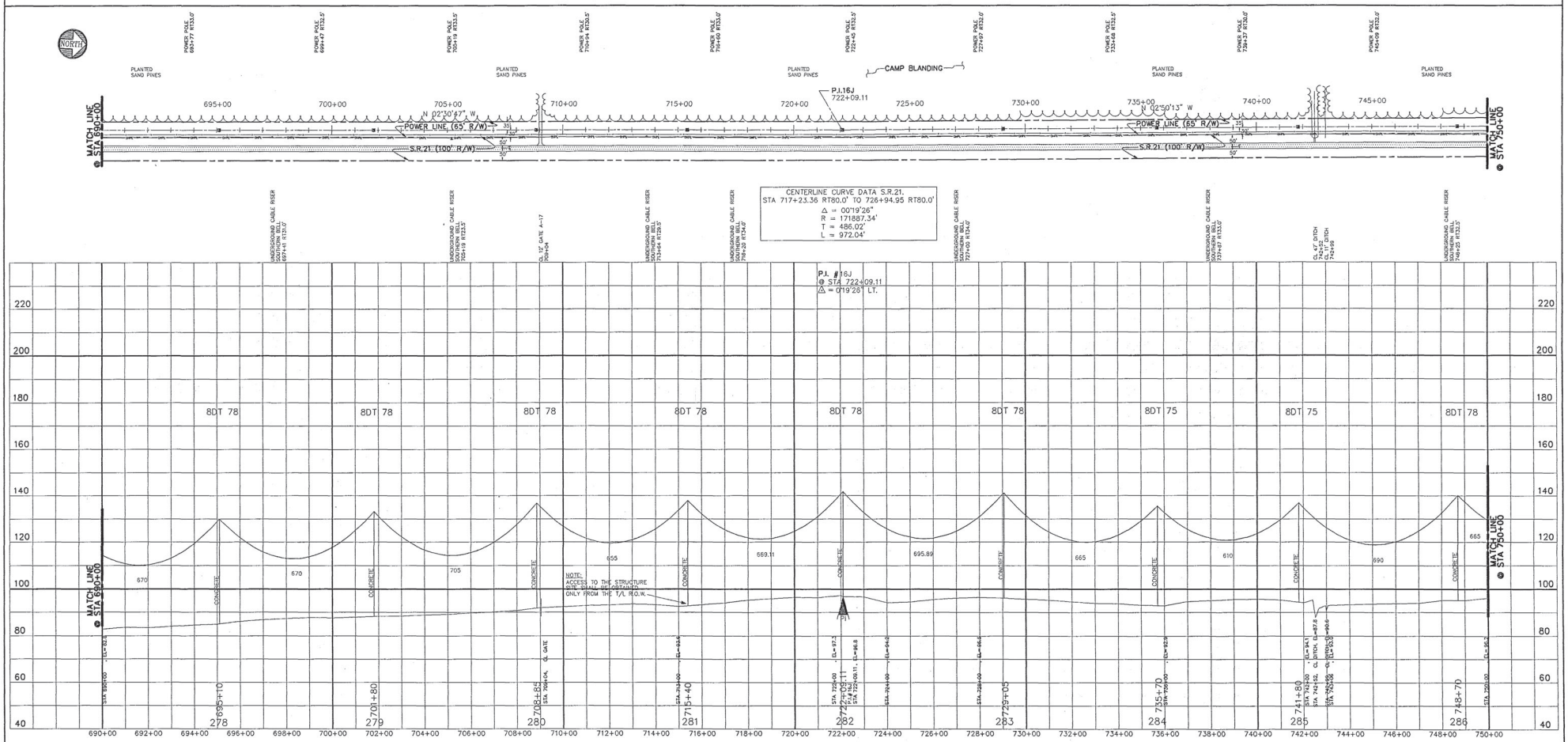
	NAME	DATE	
DRAWN BY:	C & C, INC.	2-25-92	CAD DWG NO: P-0036-D-41
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V SHEET ___ OF ___
CHECKED BY:	R.S. WOLFE	7-30-92	PROJECT NO: DATE:
APPROVED BY:			REA REF: REF NO:

P0036D41.ACAD 200
PWM 07/27/94 08:45:27
520342-05200

RECEIVED
DEPT. OF LABOR & ENV. RES.

(41)

NOTE: (FROM STRUCTURE 195 TO 311)
1. SPAN GUARD LINE MARKER ON SHIELD WIRES AT CENTER SPAN ALTERNATING FROM LEFT TO RIGHT SIDE.
2. FENCE GROUNDED TO COUNTERPOISE AT EACH STRUCTURE.



LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE
SURVEY &/OR T/L PI
T/L PI ONLY

DESIGN INFORMATION

DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind

CONTROLLING DESIGN TENSION

Conductor: (Final)	Shield Wire: (Initial)
230 kV, 3-1,590 kcmil, 54/19 ACSR, 13,625# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: 650 FT.	RULING SPAN: 650 FT.
"C" VALUE: 41.5	"C" VALUE: 18.5

ENGINEERS - SURVEYORS - PLANNERS

CHANCE & CAUSSEAUX, INC.

901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	05/06/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE - BLACK CREEK
STATION 690+00 TO 750+00

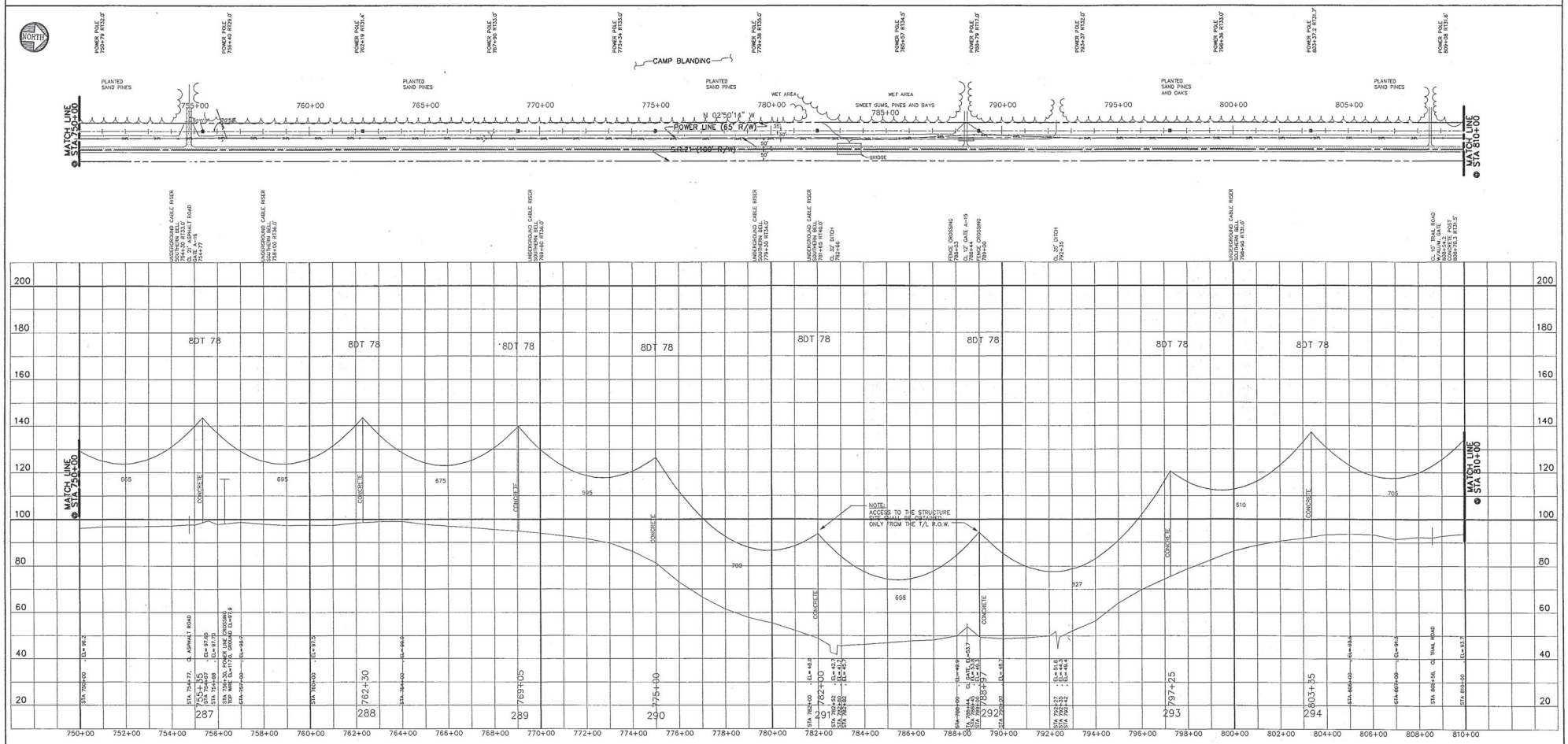
	NAME	DATE	CAD	DWG NO: P-0036-D-42
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H; 1"=20'V	SHEET ___ OF ___
CHECKED BY:	R.S. WOLFE	7-30-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

FEB 03 1995

C:WRKP0036D42.ACAD 200
10-BJK 07/27/94 13:04:39
590347-10(0)

(42)

NOTE: (FROM STRUCTURE 195 TO 311)
1. SPAN GUARD LINE MARKER ON SHIELD WIRES AT CENTER SPAN ALTERNATING FROM LEFT TO RIGHT SIDE.
2. FENCE GROUNDED TO COUNTERPOISE AT EACH STRUCTURE.



LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE
SURVEY &/OR T/L PI
T/L PI ONLY

DESIGN INFORMATION	
DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind	
CONTROLLING DESIGN TENSION	
Conductor: (Final)	Shield Wire: (Initial)
230 kV, 3-1,590 kcmil, 54/19 ACSR, 13,625# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: 650 Ft.	RULING SPAN: 650 Ft
"C" VALUE: 41.5	"C" VALUE: 18.5

ENGINEERS - SURVEYORS - PLANNERS
CHANCE & CAUSSEAUX, INC.
901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5366

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	07/27/94

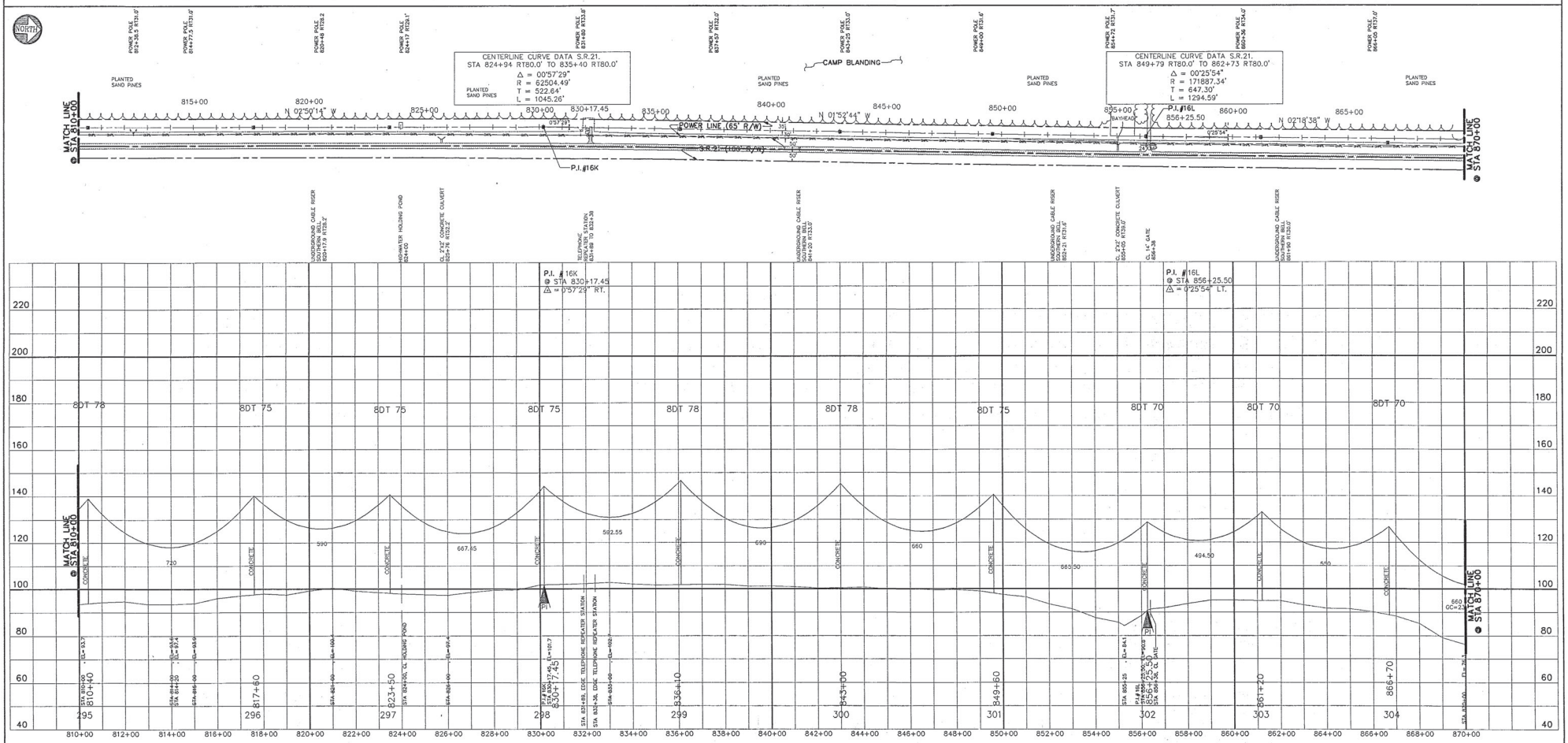
SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE - BLACK CREEK
STATION 750+00 TO 810+00

	NAME	DATE	DWG NO: P-0036-D-43
DRAWN BY:	C & C, INC.	2-25-92	CAD
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V
CHECKED BY:	R.S. WOLFE	7-29-92	SHEET ___ OF ___
APPROVED BY:			PROJECT NO:
			DATE:
			REA REF:
			REF NO:

P0036D43 ACAD 200
PW: 12/15/92 08:49:25
520342-05200

(43)

NOTE: (FROM STRUCTURE 195 TO 311)
1. SPAN GUARD LINE MARKER ON SHIELD WIRES AT CENTER SPAN ALTERNATING FROM LEFT TO RIGHT SIDE.
2. FENCE GROUNDED TO COUNTERPOISE AT EACH STRUCTURE.



LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE SURVEY &/OR T/L PI
T/L PI ONLY

DESIGN INFORMATION	
DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind	
CONTROLLING DESIGN TENSION	
Conductor: (Final)	Shield Wire: (Initial)
230 kV, 3-1,590 kcmil, 54/19 ACSR, 13,625# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: 650 FT.	RULING SPAN: 650 FT.
"C" VALUE: 41.5	"C" VALUE: 18.5

ENGINEERS - SURVEYORS - PLANNERS
CHANCE & CAUSSEAUX, INC.
901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/6/92
1	AS BUILT	RSW	07/27/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE - BLACK CREEK
STATION 810+00 TO 870+00

	NAME	DATE	CAD DWG NO: P-0036-D-44
DRAWN BY:	C & C, INC.	2-25-92	
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H; 1"=20'V
CHECKED BY:	R.S. WOLFE	7-30-92	PROJECT NO:
APPROVED BY:			REA REF:

SHEET ___ OF ___
DATE:
REF NO:

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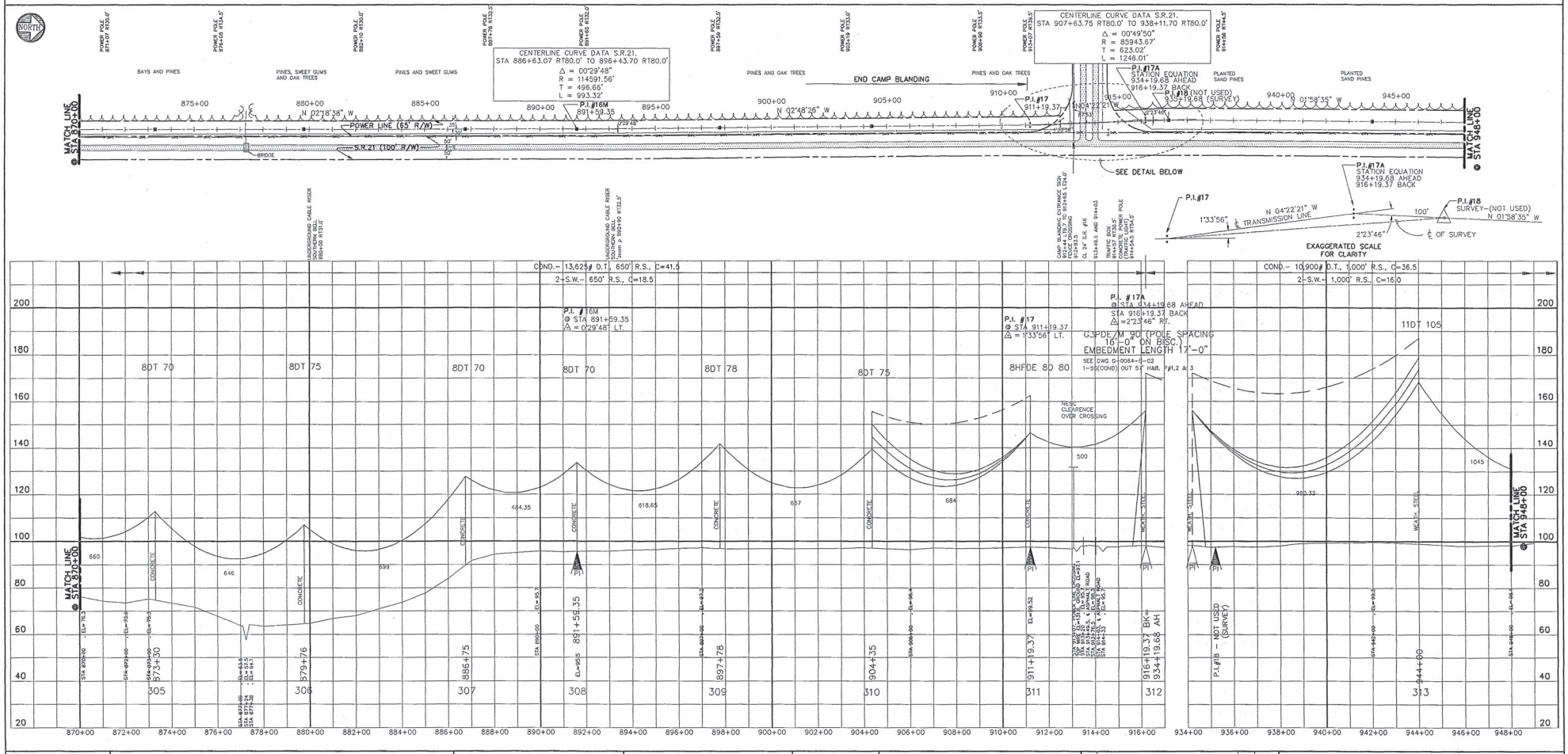
10-DJK 07/27/94 13:09:57
520342-10100

RECEIVED SUB LANDS & ENV DIS
FEB 03 1995

(44)

NOTE: (FROM STRUCTURE 195 TO 311)
1. SPAN GUARD LINE MARKER ON SHIELD WIRES AT CENTER SPAN ALTERNATING FROM LEFT TO RIGHT SIDE.
2. FENCE GROUNDED TO COUNTERPOISE AT EACH STRUCTURE.



LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCOPORATED	NO	REVISIONS	BY	DATE
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566			1	AS BUILT	RSW	07/27/94
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)							
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, SEE ABOVE D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind							
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F							
T/L PI ONLY	RULING SPAN: SEE ABOVE	RULING SPAN SEE ABOVE							
	"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE							

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE - BLACK CREEK
STATION 870+00 TO 948+00

	NAME	DATE	CAD	DWG NO: P-0036-D-45
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V	SHEET ___ OF ___
CHECKED BY:	R.S. WOLFE	7-30-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO.

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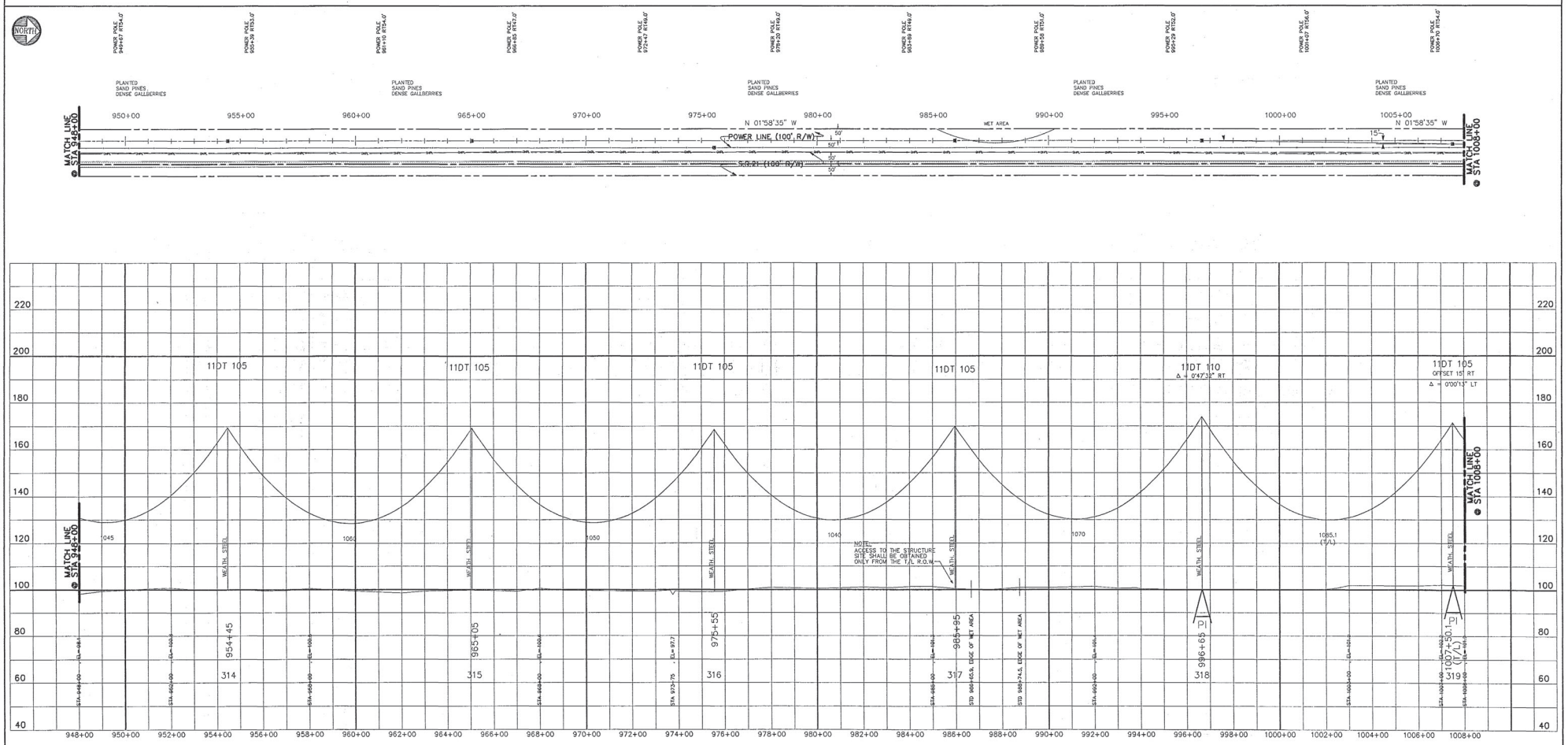
520342-05500

REC'D 03 1995



LEGEND	DESIGN INFORMATION		
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)	
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind	
SURVEY ℄/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F	
T/L PI ONLY	RULING SPAN: 1000 FT.	RULING SPAN: 1000 Ft.	
	"C" VALUE: 36.5	"C" VALUE: 16.0	

ENGINEERS - SURVEYORS - PLANNERS

CHANCE & CAUSSEAUX, INC.

901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-9966

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	RELOCATED STR. 319 15' EAST	HTL	03/30/93
2	AS BUILT	RSW	05/06/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE - BLACK CREEK
STATION 948+00 TO 1008+00

	NAME	DATE	CAD	DWG NO: P-0036-D-46
DRAWN BY:	C & C, INC	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V	SHEET ___OF___
CHECKED BY:	R.S. WOLFE	7-30-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

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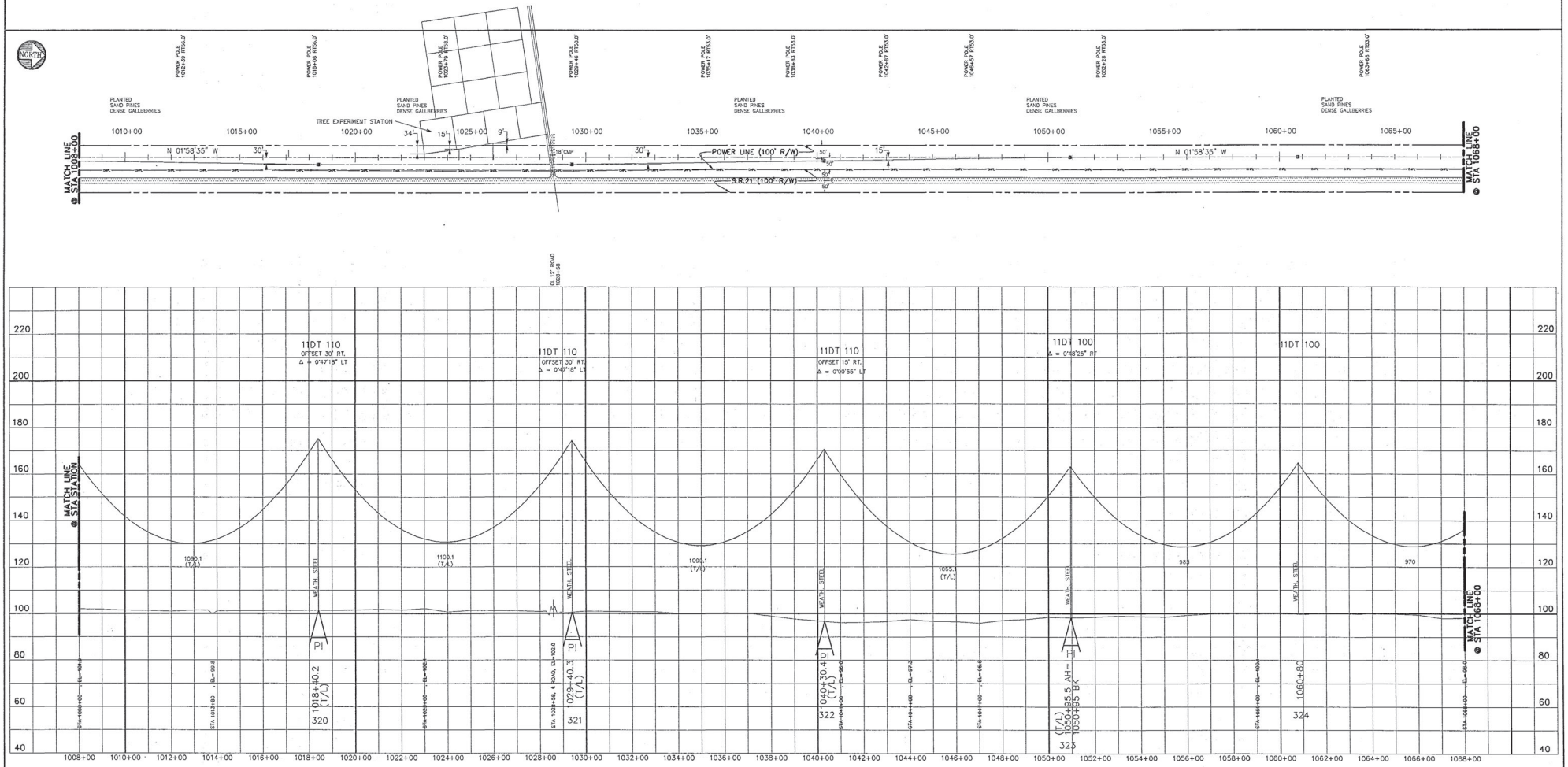
520347-10101

RECEIVED
SUBMITTED
SUB LANDS & ENV REP
REC'D
FEB 03 1995



LEGEND	DESIGN INFORMATION		
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)	
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind	
SURVEY ℄/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F	
T/L PI ONLY	RULING SPAN: 1000 FT.	RULING SPAN: 1000 FT.	
	"C" VALUE: 36.5	"C" VALUE: 16.0	

ENGINEERS – SURVEYORS – PLANNERS

CHANCE & CAUSSEAUX, INC.

901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/18/92
1	RELOCATED STR. 320 & 321 30' EAST		
	AND STRUCTURE 322 15' EAST	HTL	03/30/93
2	AS BUILT	RSW	05/06/94

SEMINOLE PLANT – KEYSTONE–JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE – BLACK CREEK
STATION 1008+00 TO 1068+00

	NAME	DATE	CAD	DWG NO: P-0036-D-47
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H; 1"=20'V	SHEET ___OF___
CHECKED BY:	R.S. WOLFE	7-30-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

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520342-10100

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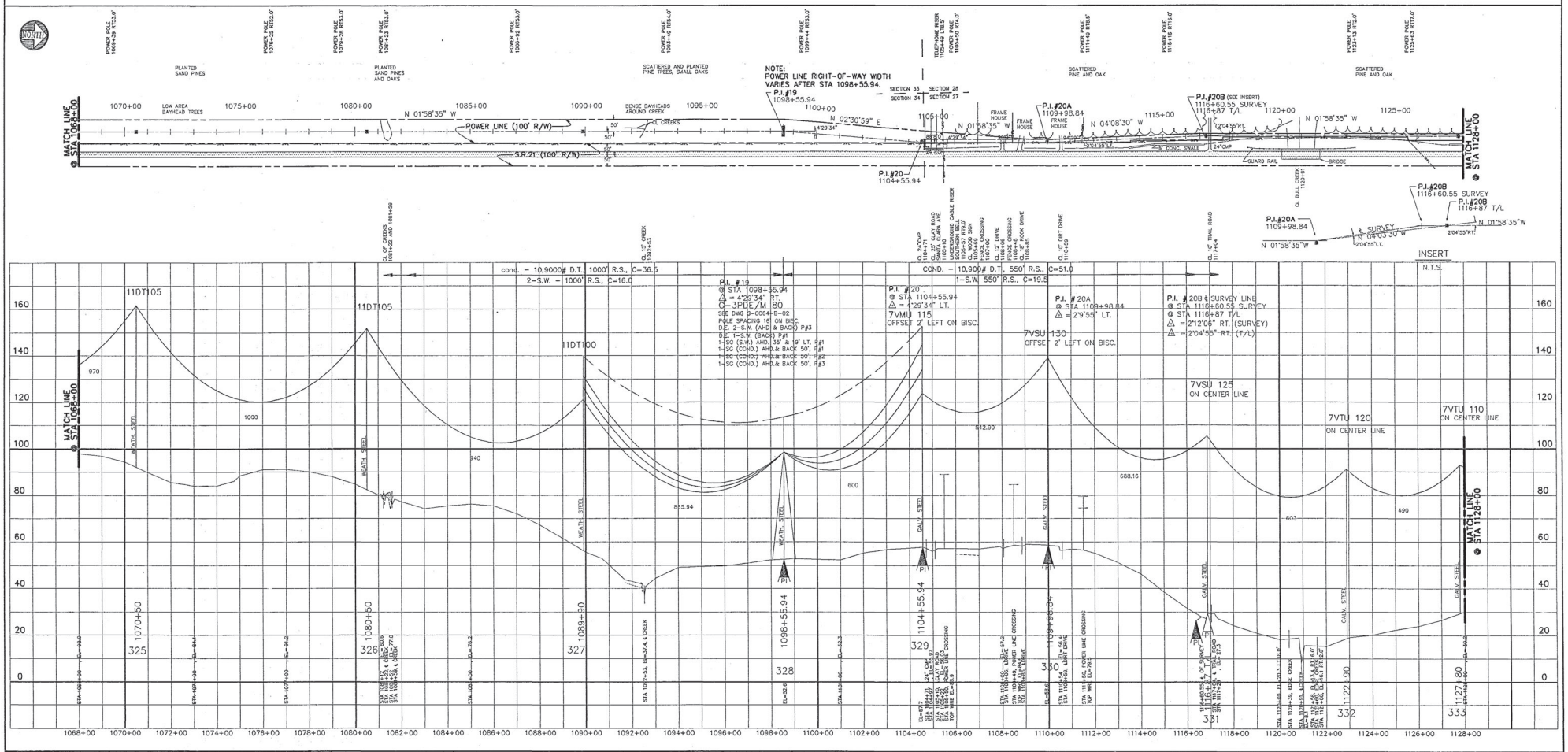

LEGEND	DESIGN INFORMATION		
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)	
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind	
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F	
T/L PI ONLY	RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE	
	"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE	

ENGINEERS - SURVEYORS - PLANNERS
CHANCE & CAUSSEAUX, INC.
901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	07/27/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE - BLACK CREEK
STATION 1068+00 TO 1128+00

	NAME	DATE	CAD	DWG NO: P-0036-D-48
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V	SHEET OF
CHECKED BY:	R.S. WOLFE	7-30-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

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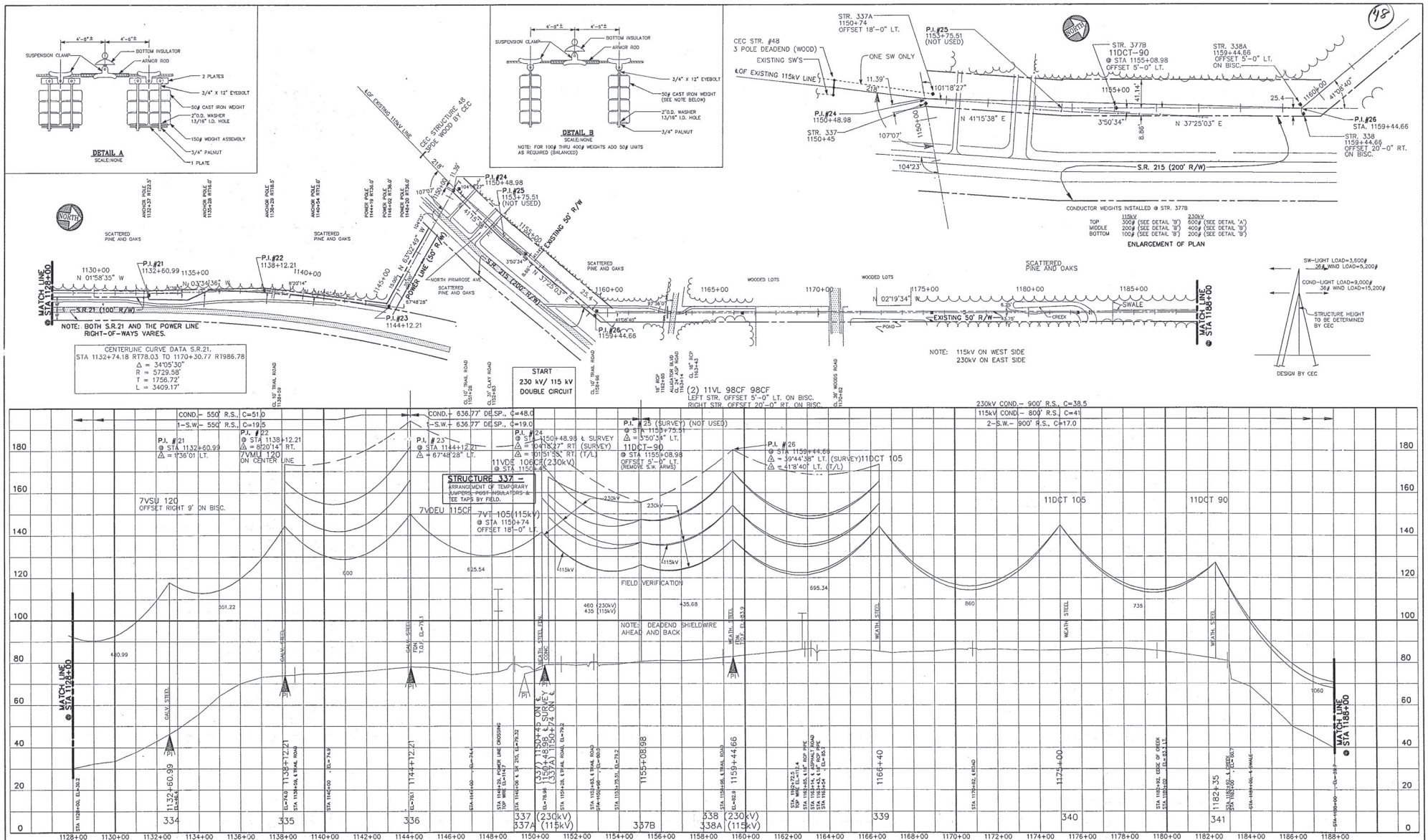
FEB 03 1995



LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	NO	REVISIONS	BY	DATE	SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE 230 kV TRANSMISSION LINE KEYSTONE - BLACK CREEK STATION 1128+00 TO 1188+00
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	0	ISSUED FOR CONSTRUCTION	RLH	12/18/92	
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566			1	ADD STR. 337B, CHANGE R.O.W. FROM 83.5' TO 50' BETWEEN P.I.24 & P.I. 26, AND	HTL	05/17/93	
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)					RESAG. RELOCATE STR. 340, 40'-0" BACK.			
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	(See Above)-7 No. 8 Alumoweld,				2	REMOVE S.W. ARMS AND ADDED CONDUCTOR	R.L.H.	8/25/93	
SURVEY ℄/OR T/L PI	115 kV, 3-954 kcmil, 54/7 ACSR, 6,760# D.T. @ 30° F, No Ice, No Wind	3,186# D.T. @ 30° F, No Ice, No Wind					WEIGHTS TO STR. # 337B			
T/L PI ONLY	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F				1	AS BUILT	RSW	07/27/94	
	RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE								
	"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE								

	NAME	DATE	CAD	DWG NO: P-0036-D-49
DRAWN BY:	C. & C. INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H; 1"=20'V	SHEET ___OF___
CHECKED BY:	R.S. WOLFE	7-30-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

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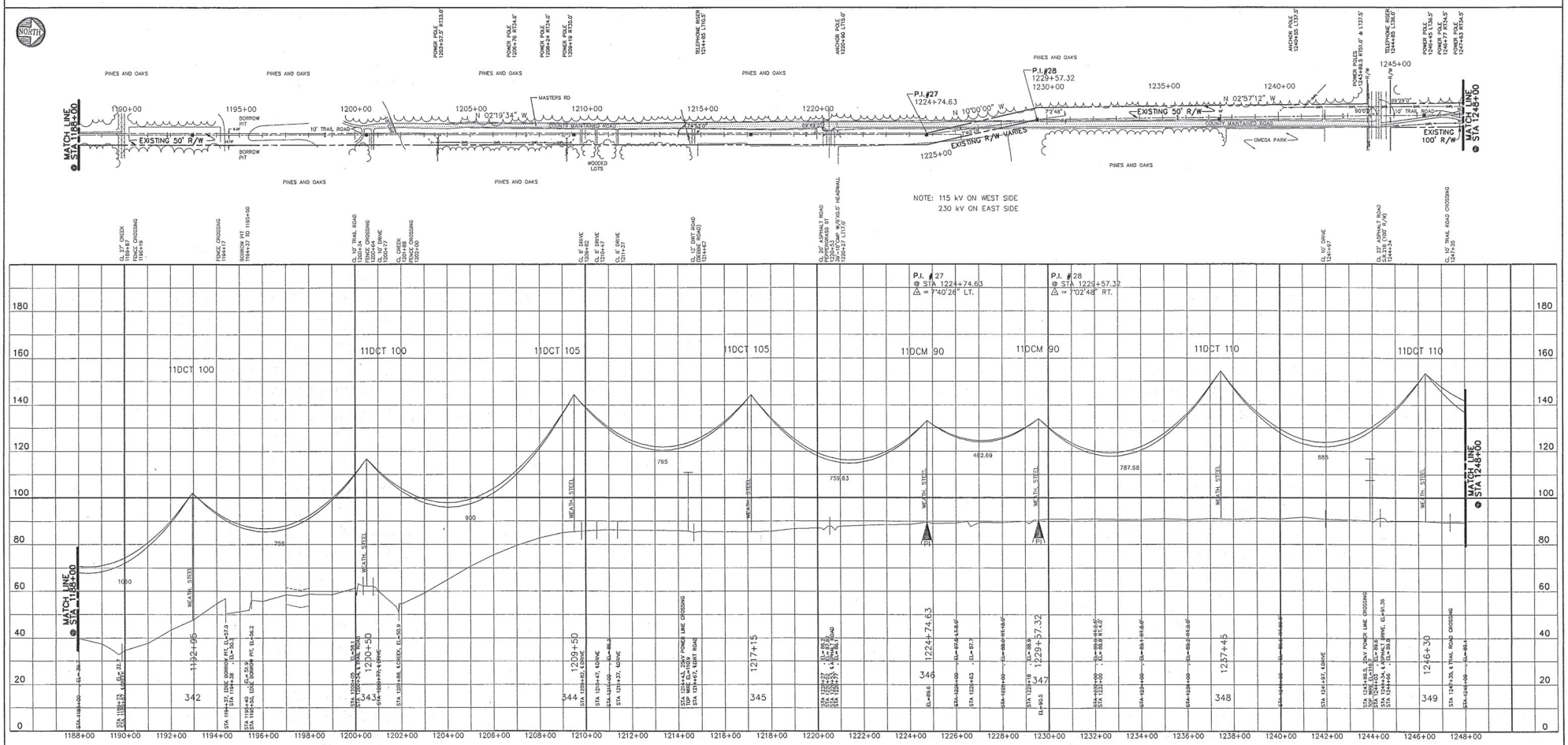
520342-10100

FEB 03 1995



LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE
SURVEY &/OR T/L PI
T/L PI ONLY

DESIGN INFORMATION

DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind

CONTROLLING DESIGN TENSION

Conductor: (Final)	Shield Wire: (Initial)
230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# DT @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# DT @ 30° F, No Ice, No Wind
115 kV, 3-954 kcmil, 54/7 ACSR, 6,760# DT @ 30° F, No Ice, No Wind	
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: 900 Ft.	RULING SPAN: 900 Ft
"C" VALUE: 38.5 (230Kv),41 (115kV)	"C" VALUE: 17.0

ENGINEERS - SURVEYORS - PLANNERS
CHANCE & CAUSSEAUX, INC.
901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL. 32601
(904) 372-9566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	RESAG FOR 115kV C=41.0, RELOCATED STRUCTURE 345, 20'-0" AHEAD.	HTL	05/21/93
1	AS BUILT	RSW	05/06/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE 230 kV TRANSMISSION LINE
KEYSTONE - BLACK CREEK
STATION 1188+00 TO 1248+00

	NAME	DATE	CAD	DWG NO: P-0036-D-50
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V	SHEET ___ OF ___
CHECKED BY:	R.S. WOLFE	7-30-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

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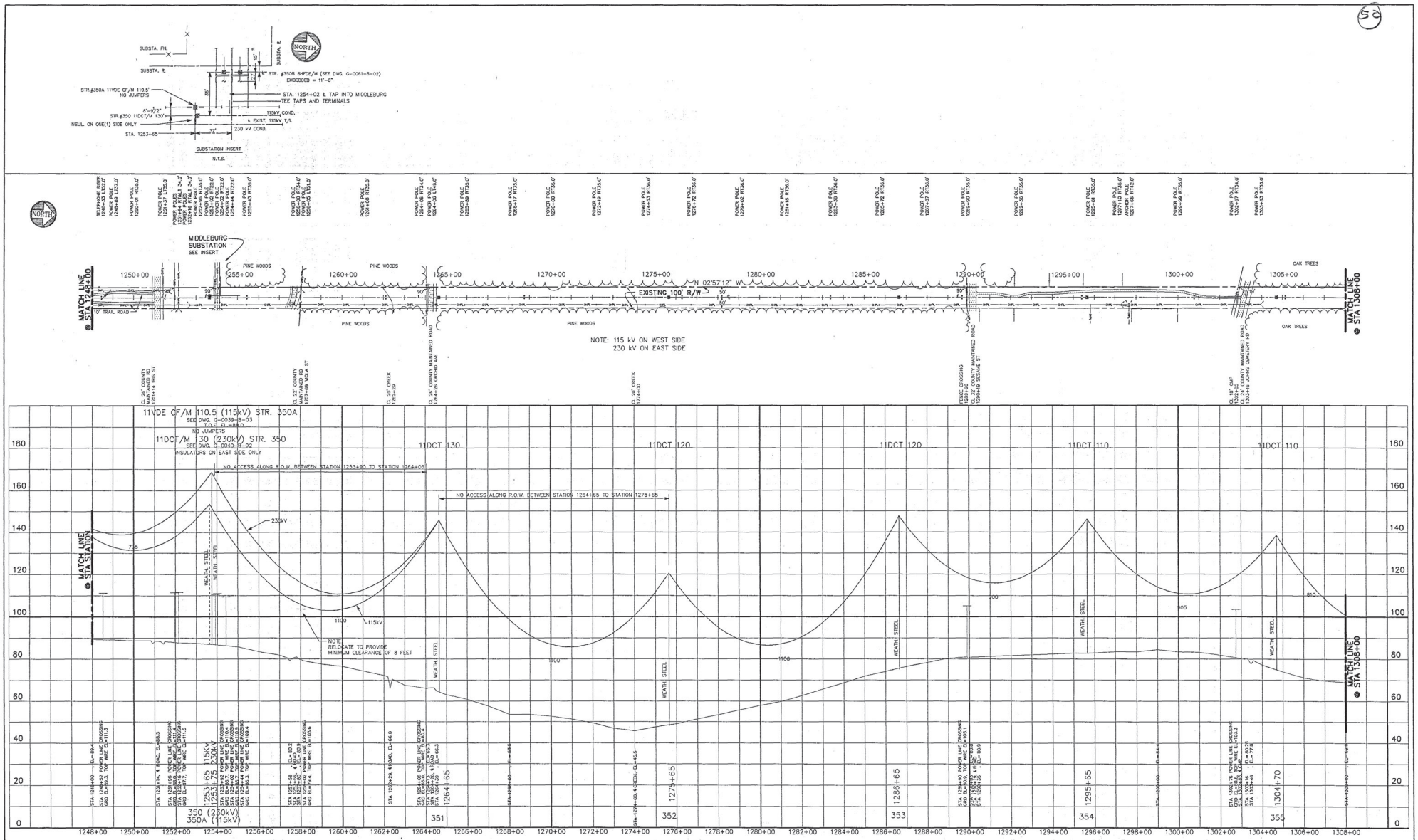

LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	NO	REVISIONS	BY	DATE	SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE 230 kV TRANSMISSION LINE KEYSTONE - BLACK CREEK STATION 1248+00 TO 1308+00
— — — CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	0	ISSUED FOR CONSTRUCTION	RLH	12/16/92	
- - - - - - 18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566			1	RESAG C=41.0 BETWEEN STRUCTURES 349 AND 350A	HTL	05/17/93	
- · - · - · - 18 FT LEFT OF ℄	Conductor: (Final) 230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# DT @ 30° F, No Ice, No Wind; 115 kV, 3-954 kcmil, 54/7 ACSR, 6,760# DT @ 30° F, No Ice, No Wind	Shield Wire: (Initial) 2-7 No. 8 Alumoweld, 3,186# DT @ 30° F, No Ice, No Wind				2	REVISED STR. #350A & ADDED NOTE	RLH	08/26/93	
PROPERTY LINE	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F				1	AS BUILT	RSW	07/27/94	
SURVEY &/OR T/L PI	RULING SPAN: 900 Ft	RULING SPAN: 900 Ft								
T/L PI ONLY	"C" VALUE: 38.5 (C=41.0 BETWEEN STRUCTURES 349 AND 350A)	"C" VALUE: 17.0								

	NAME	DATE	CAD	DWG NO: P-0036-D-51
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V	SHEET ___ OF ___
CHECKED BY:	R.S. WOLFE	8-4-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF. NO: SUBJECT TO REVISION

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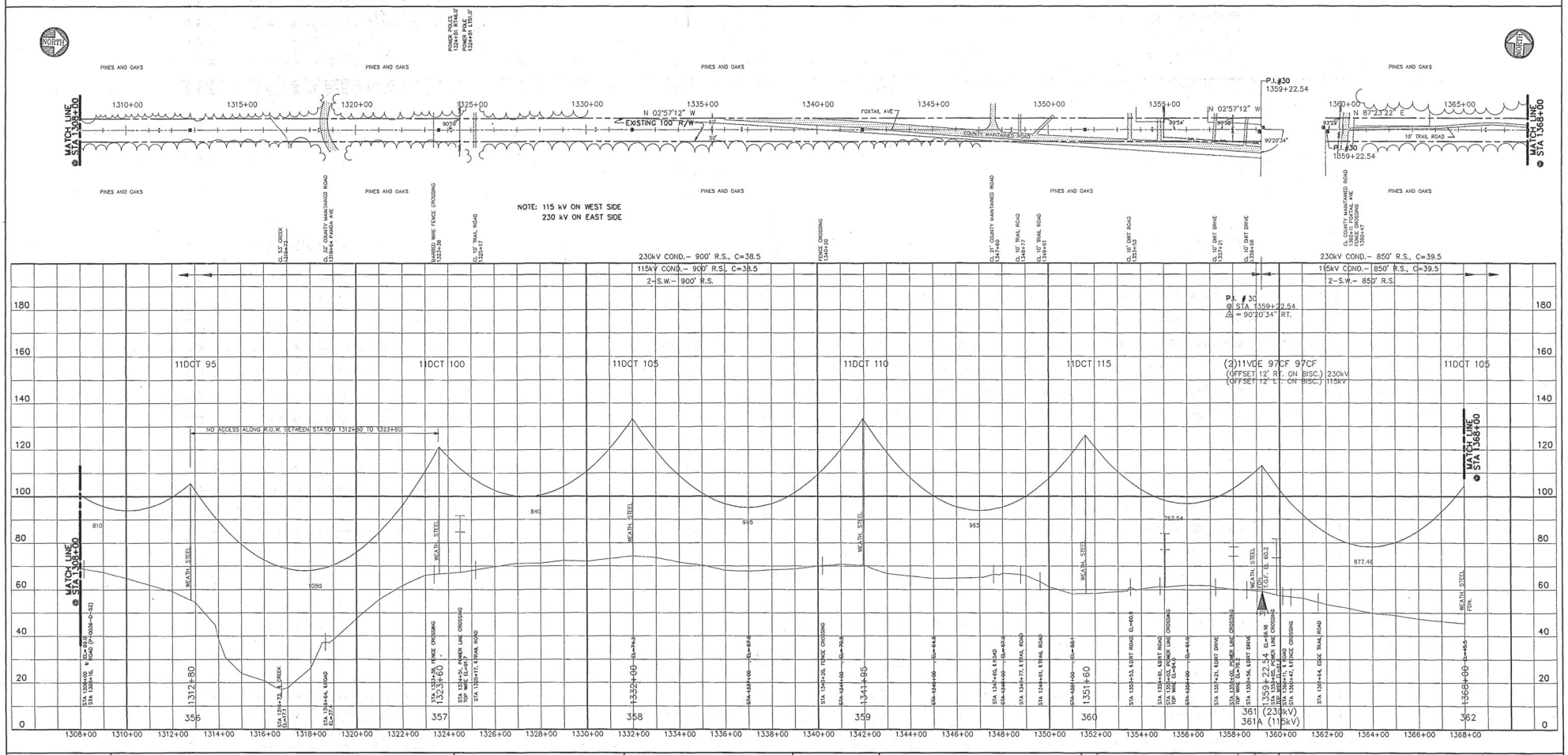
10-PWH 07/29/94 08/25/93 16:04:54
520342-09200

FEB 03 1995

(51)



LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE
SURVEY ℄/OR T/L PI
T/L PI ONLY

DESIGN INFORMATION

DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind

CONTROLLING DESIGN TENSION

Conductor: (Final)	Shield Wire: (Initial)
230 kV, 3–1,590 kcmil, 54/19 ACSR, 10,900# DT @ 30° F, No Ice, No Wind	2–7 No. 8 Alumoweld, 3,186# DT @ 30° F, No Ice, No Wind
115 kV, 3–954 kcmil, 54/7 ACSR, 6,760# DT @ 30° F, No Ice, No Wind	
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE
"C" VALUE: SEE ABOVE	"C" VALUE:17.0

ENGINEERS – SURVEYORS – PLANNERS
CHANCE & CAUSSEAUX, INC.
901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	05/06/94

SEMINOLE PLANT – KEYSTONE–JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE – BLACK CREEK
STATION 1308+00 TO 1368+00

FEB 03 '00

	NAME	DATE	CAD	DWG NO: P-0036-D-52
DRAWN BY:	C & C, INC.	2-25-92	SCALE: 1"=200'H; 1"=20'V	SHEET___OF___
DESIGN BY:	R.L. HOLLAND	2-25-92	PROJECT NO:	DATE:
CHECKED BY:	R.S. WOLFE	8-5-92	REA REF:	REF NO:
APPROVED BY:				

C:\WRK\P0036D52 ACAD 200
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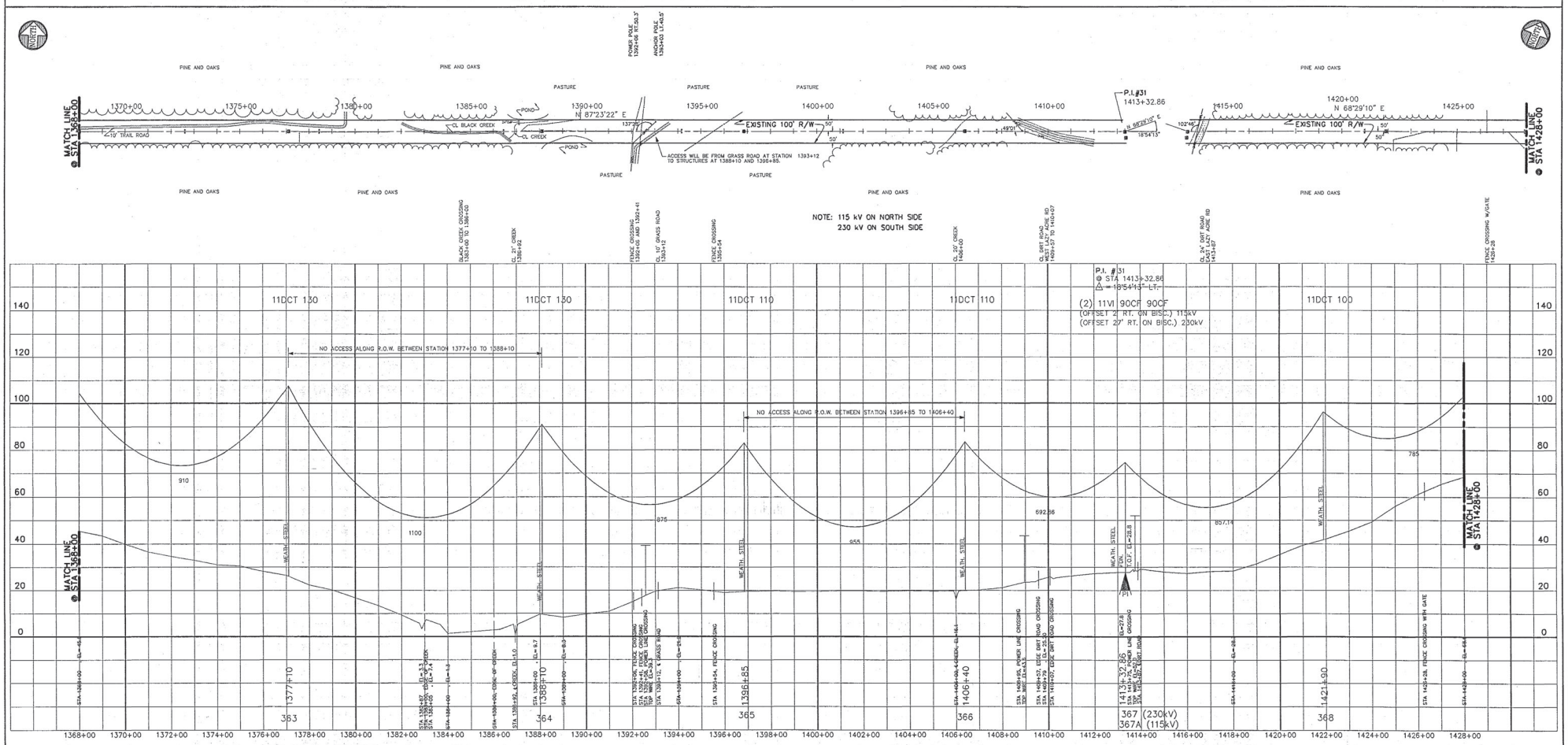
520342-10100

52



LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.		SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	NO	REVISIONS	BY	DATE	SEMINOLE PLANT – KEYSTONE–JEA FIRESTONE 230 kV TRANSMISSION LINE KEYSTONE – BLACK CREEK STATION 1368+00 TO 1428+00
— — — CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA		TAMPA, FLORIDA	0	ISSUED FOR CONSTRUCTION	RLH	12/16/92	
------- 18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566				1	AS BUILT	RSW	07/27/94	
------- 18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)									
PROPERTY LINE	230 kV, 3–1,590 kcmil, 54/19 ACSR, 10,900# DT @ 30° F, No Ice, No Wind	2–7 No. 8 Alumoweld, 3,186# DT @ 30° F, No Ice, No Wind									
SURVEY A/GR T/L PI	115 kV, 3–954 kcmil, 54/7 ACSR, 6,760# DT @ 30° F, No Ice, No Wind										
T/L PI ONLY	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F									
	RULING SPAN: 850 Ft.	RULING SPAN: 850 Ft									
	"C" VALUE: 39.5	"C" VALUE: 17.0									

	NAME	DATE	CAD	DWG NO: P-0036-D-53
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H; 1"=20'V	SHEET ___ OF ___
CHECKED BY:	R.S.WOLFE	8-4-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

RECEIVED SUBLIBRARY FEB 0 3 1995

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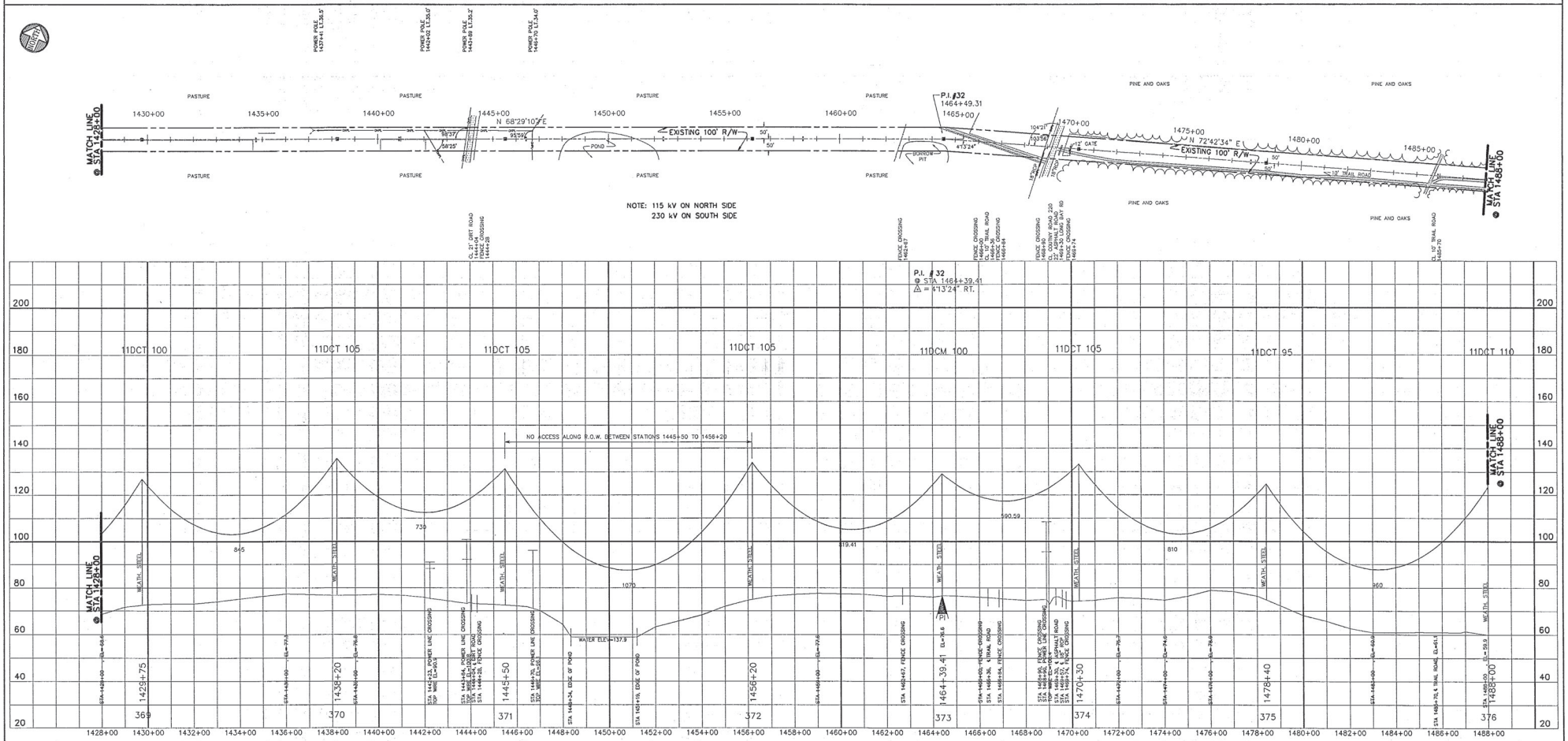
520342-05200

53



LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE
SURVEY &/OR T/L PI
T/L PI ONLY

DESIGN INFORMATION

DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind

CONTROLLING DESIGN TENSION

Conductor: (Final)	Shield Wire: (Initial)
230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T.
115 kV, 3-954 kcmil, 54/7 ACSR, 6,760# D.T. @ 30° F, No Ice, No Wind	@ 30° F, No Ice, No Wind
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: 850 Ft.	RULING SPAN: 850 Ft
"C" VALUE: 39.5	"C" VALUE: 17.0

ENGINEERS - SURVEYORS - PLANNERS

CHANCE & CAUSSEAUX, INC.

901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/15/92
1	AS BUILT	RSW	05/08/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE - BLACK CREEK
STATION 1428+00 TO 1488+00

	NAME	DATE	CAD	DWG NO: P-0036-D-54
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V	SHEET ___OF___
CHECKED BY:	R.S. WOLFE	8-4-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF. NO:

RECEIVED SUN LANDS - ENV REG FEB 03 1995

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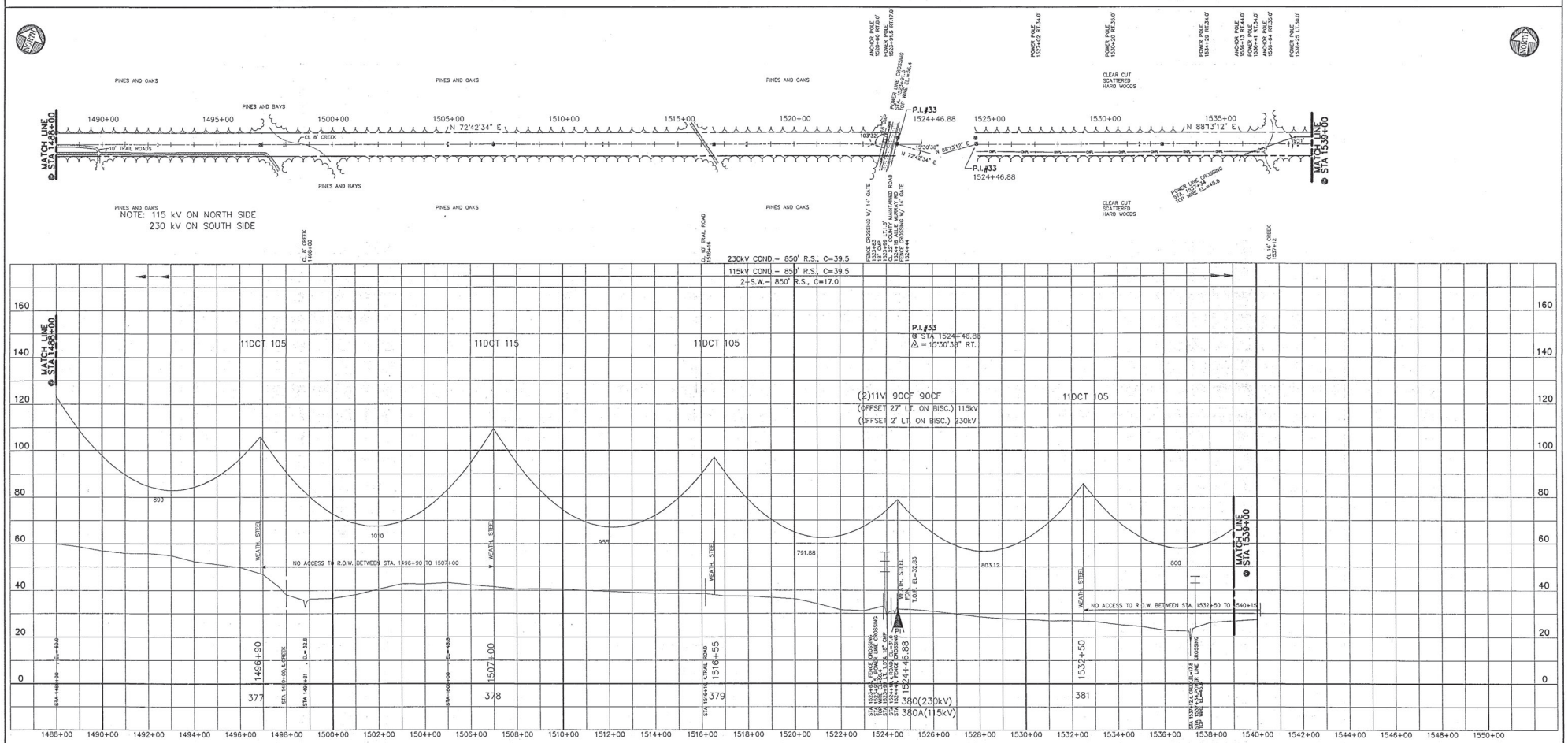
520342-10100

(54)



LEGEND	DESIGN INFORMATION		ENGINEERS – SURVEYORS – PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 38 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566		
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)			
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind			
SURVEY &/OR T/L PI	115 kV, 3-954 kcmil, 54/7 ACSR, 6,780# D.T. @ 30° F, No Ice, No Wind				
T/L PI ONLY	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F			
	RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE			
	"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE			

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	07/27/94

SEMINOLE PLANT – KEYSTONE–JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE – BLACK CREEK
STATION 1488+00 TO 1539+00

FEB 03 1995

	NAME	DATE	CAD	DWG NO: P-0036-D-55
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H; 1"=20'V	SHEET ___ OF ___
CHECKED BY:	R.S. WOLFE	8-4-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

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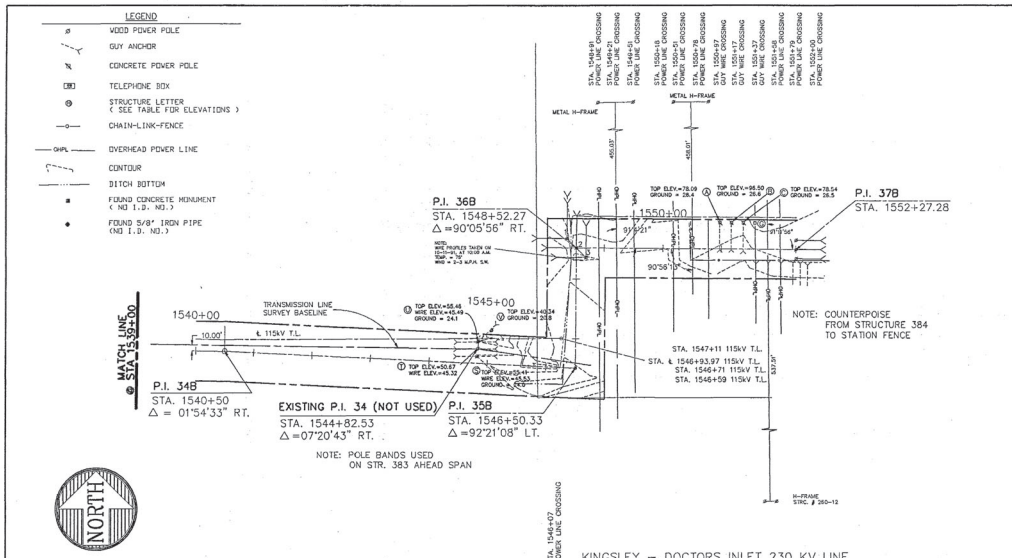
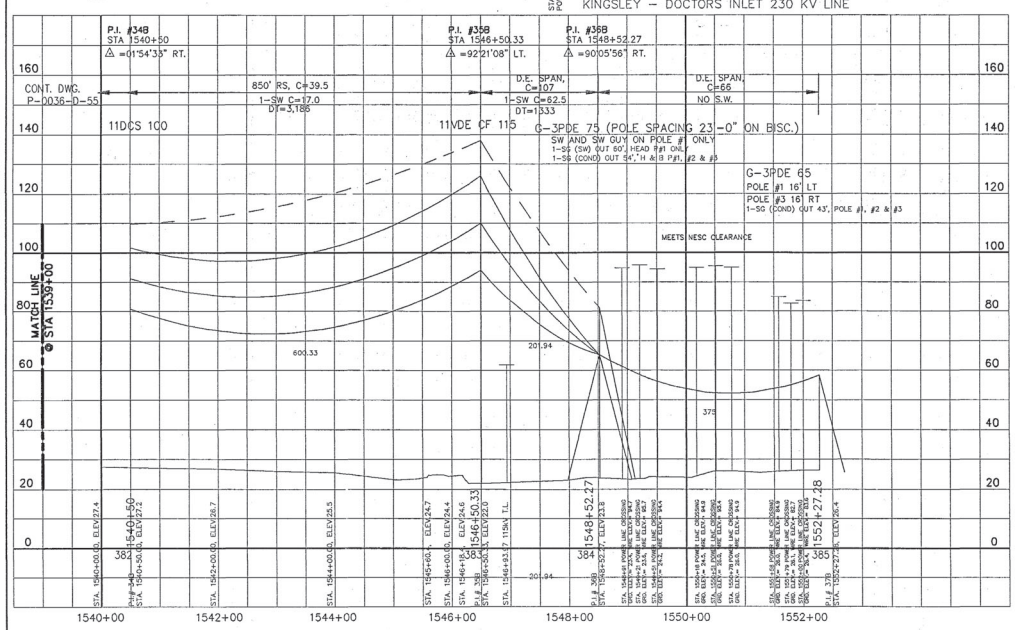
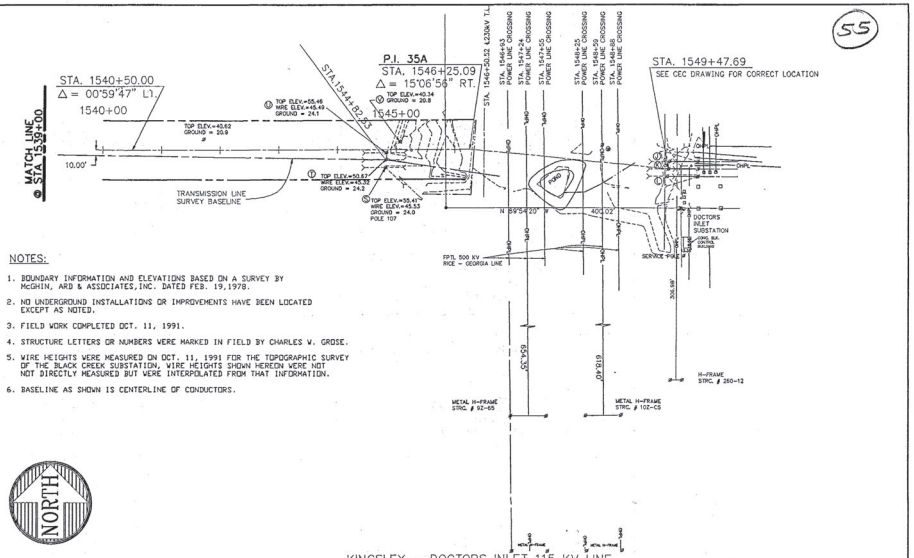
PWH 7/27/94 09:42:53
520347-05200



KINGSLEY – DOCTORS INLET 230 KV LINE

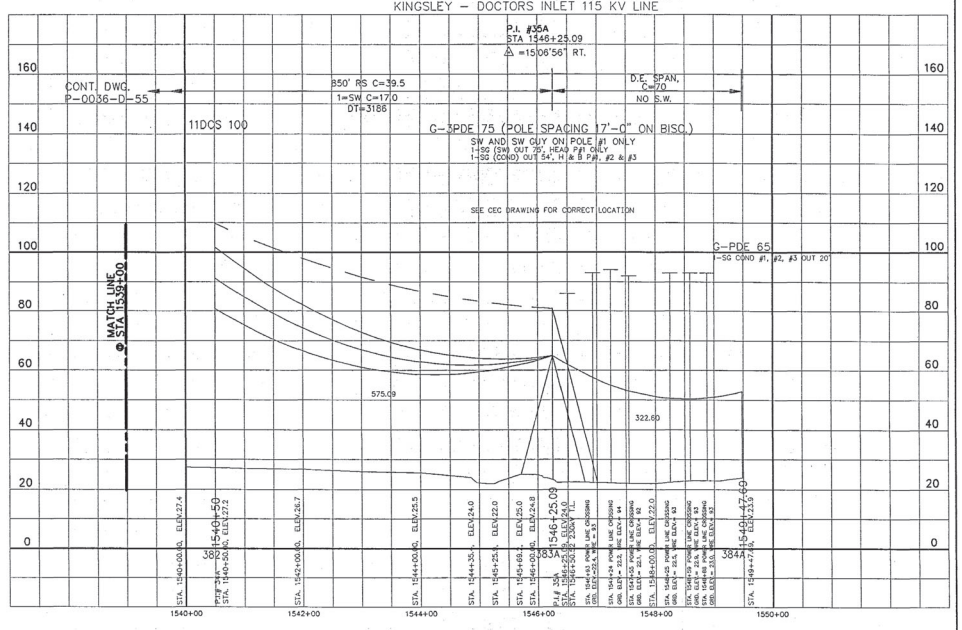




NOTES:

1. BOUNDARY INFORMATION AND ELEVATIONS BASED ON A SURVEY BY McGHIN, ARD & ASSOCIATES, INC. DATED FEB. 19, 1978.
2. NO UNDERGROUND INSTALLATIONS OR IMPROVEMENTS HAVE BEEN LOCATED EXCEPT AS NOTED.
3. FIELD WORK COMPLETED OCT. 11, 1991.
4. STRUCTURE LETTERS OR NUMBERS WERE MARKED IN FIELD BY CHARLES W. GROSE.
5. WIRE HEIGHTS WERE MEASURED ON OCT. 11, 1991 FOR THE TOPOGRAPHIC SURVEY OF THE BLACK CREEK SUBSTATION. WIRE HEIGHTS SHOWN HEREON WERE NOT NOT DIRECTLY MEASURED BUT WERE INTERPOLATED FROM THAT INFORMATION.
6. BASELINE AS SHOWN IS CENTERLINE OF CONDUCTORS.

KINGSLEY – DOCTORS INLET 115 KV LINE



LEGEND	DESIGN INFORMATION		ENGINEERS – SURVEYORS – PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566		
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)			
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	7 No. 8 Alumoweld, SEE ABOVE FOR			
SURVEY &/OR T/L PI	115 kV, 3-954 kcmil, 54/7 ACSR, 6,760# D.T. @ 30° F, No Ice, No Wind	D.T. @ 30° F, No Ice, No Wind			
T/L PI ONLY	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F			
	RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE			
	"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE			

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	07/27/94

SEMINOLE PLANT – KEYSTONE–JEA FIRESTONE
230 kV TRANSMISSION LINE
KEYSTONE – BLACKCREEK
STATION 1540+00 TO 1552+27

	NAME	DATE	CAD DWG NO: P-0036-D-55-0001
DRAWN BY:	C & C, INC.	2-25-92	
DESIGN BY:	H.T. LAM		SCALE: 1"=100'H:1"=20'V
CHECKED BY:	R.S. WOLFE		SHEET ___ OF ___
APPROVED BY:			PROJECT NO:
			DATE:
			REA REF:
			REF NO:

P036D55A.ACAD 100
PAH 07-30-94 08:44:55
520342-05200

56

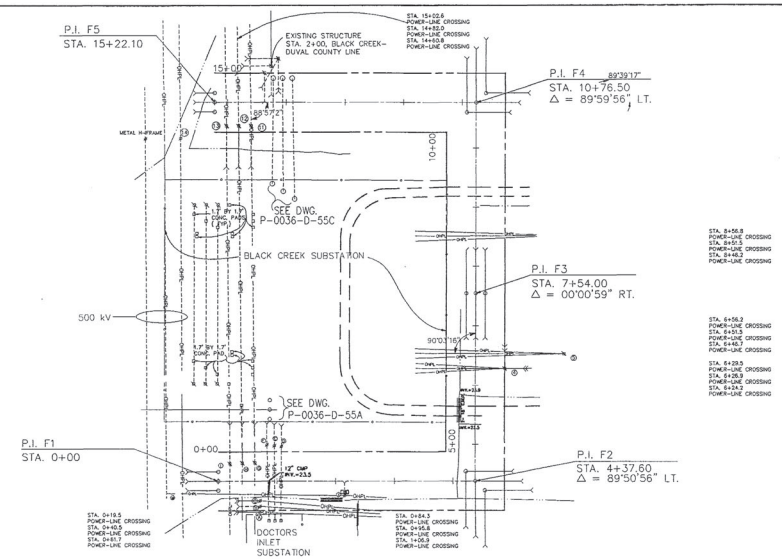
NOTES:

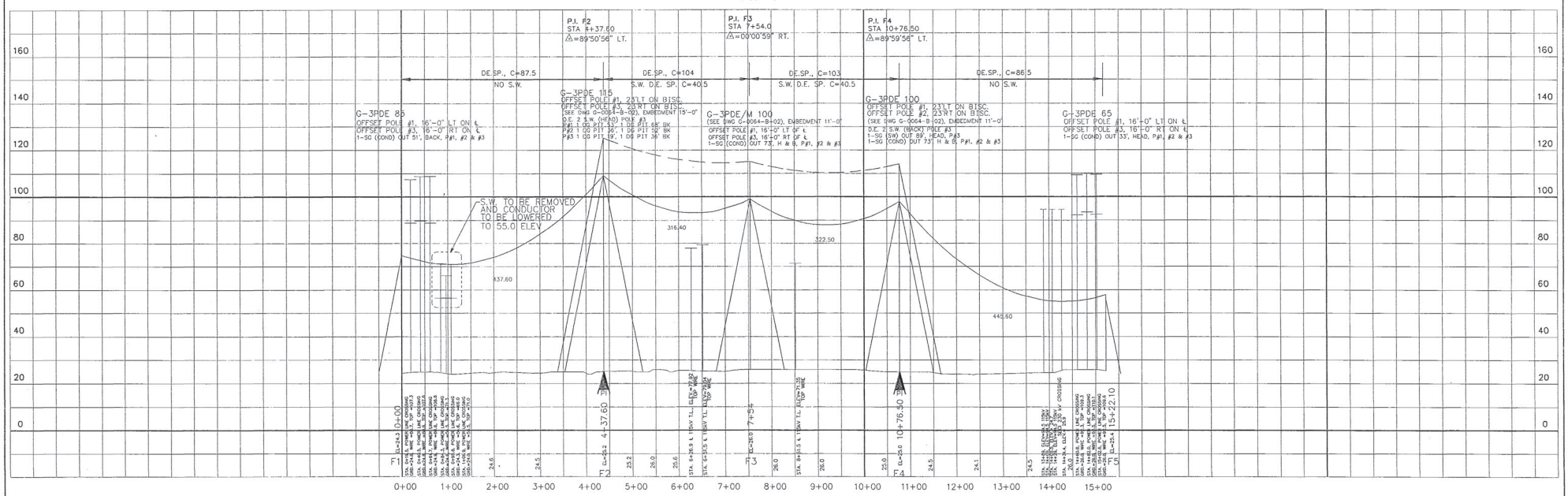
1. BOUNDARY INFORMATION AND ELEVATIONS BASED ON A SURVEY BY McGHIN, ARD & ASSOCIATES, INC. DATED FEB. 19, 1978.
2. NO UNDERGROUND INSTALLATIONS OR IMPROVEMENTS HAVE BEEN LOCATED EXCEPT AS NOTED.
3. FIELD WORK COMPLETED OCT. 11, 1991.
4. STRUCTURE LETTERS OR NUMBERS WERE MARKED IN FIELD BY CHARLES W. GROSE.
5. WIRE HEIGHTS WERE MEASURED ON OCT. 11, 1991 FOR THE TOPOGRAPHIC SURVEY OF THE BLACK CREEK SUBSTATION, WIRE HEIGHTS SHOWN HEREON WERE NOT NOT DIRECTLY MEASURED BUT WERE INTERPOLATED FROM THAT INFORMATION.
6. BASELINE AS SHOWN IS CENTERLINE OF CONDUCTORS.

LEGEND

- WOOD POWER POLE
- GUY ANCHOR
- CONCRETE POWER POLE
- TELEPHONE BOX
- STRUCTURE LETTER
- CHAIN-LINK-FENCE
- OHPL — OVERHEAD POWER LINE
- DITCH BOTTOM
- EXISTING OHPL

NORTH





LEGEND	DESIGN INFORMATION		CHANCE & CAUSSEAUX, INC.	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	REVISIONS		
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		ENGINEERS - SURVEYORS - PLANNERS	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	NO	REVISIONS	BY DATE
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566			0	ISSUED FOR CONSTRUCTION	RLH 12/16/92
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)				1	AS BUILT	RSW 07/27/94
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 4,170# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 1,776# D.T. @ 30° F, No Ice, No Wind						
SURVEY &/OR T/L PI	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F						
T/L PI ONLY	RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE						
	"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE						

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
F.P.L. BYPASS OF BLACK CREEK
STATION 0+00 TO 15+22.10

	NAME	DATE	CAD DWG NO. P-0036-D-55-0002
DRAWN BY:	C & C, INC.	2-25-92	
DESIGN BY:	H.T. LAM		SCALE: 1"=100'H:1"=20'V
CHECKED BY:	R.S. WOLFE		PROJECT NO.
APPROVED BY:			REA REF:

SHEET 2 OF 2 SHEETS
DATE:
REF NO:

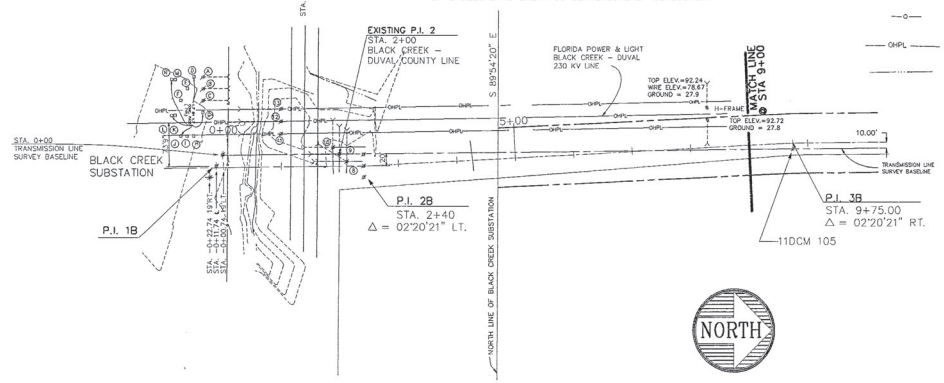
P0360558.ACAD 100
PWN 07-30-94 10:51:59
520342-05200

NOTES:

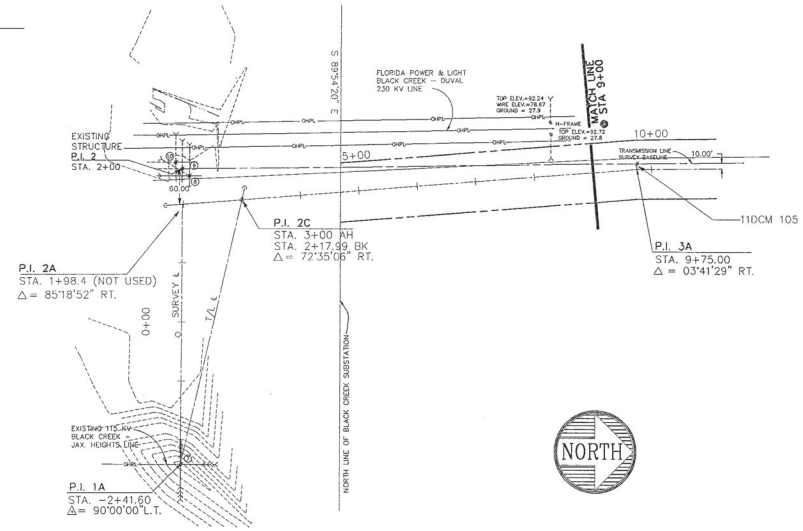
1. BOUNDARY INFORMATION AND ELEVATIONS BASED ON A SURVEY BY McGHIN, ARD & ASSOCIATES, INC. DATED FEB. 19, 1978.
2. NO UNDERGROUND INSTALLATIONS OR IMPROVEMENTS HAVE BEEN LOCATED EXCEPT AS NOTED.
3. FIELD WORK COMPLETED OCT. 11, 1991.
4. STRUCTURE LETTERS OR NUMBERS WERE MARKED IN FIELD BY CHARLES W. GROSE.
5. BASELINE AS SHOWN IS CENTERLINE OF CONDUCTORS.

LEGEND

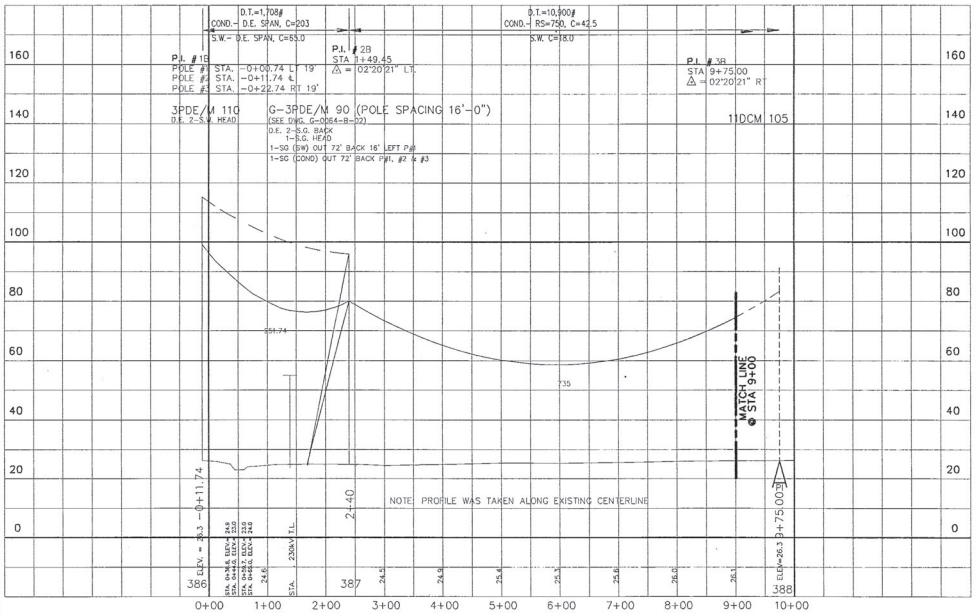
- WOOD POWER POLE
- GUY ANCHOR
- CONCRETE POWER POLE
- TELEPHONE BOX
- STRUCTURE LETTER
- CHAIN-LINK-FENCE
- OVERHEAD POWER LINE
- DITCH BOTTOM

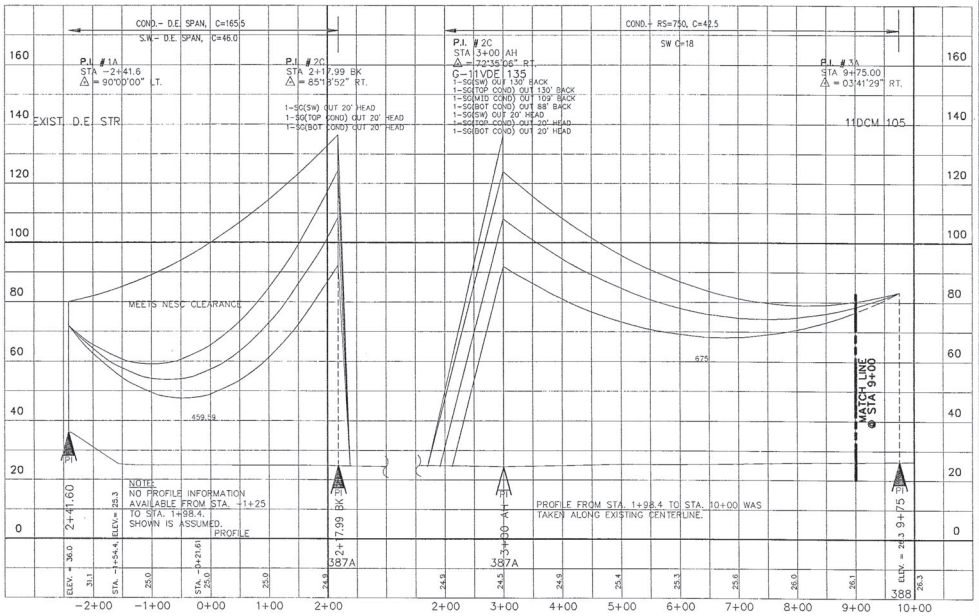


BLACK CREEK – FIRESTONE 230 kV LINE



BLACK CREEK – BELAIR 115 kV LINE





LEGEND

- CENTER LINE
- 18 FT RIGHT OF ℄
- 18 FT LEFT OF ℄
- PROPERTY LINE
- SURVEY &/OR T/L PI
- T/L PI ONLY

DESIGN INFORMATION

DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind

CONTROLLING DESIGN TENSION

Conductor: (Final)	Shield Wire: (Initial)
230 kV, 3–1,590 kcmil, 54/19 ACSR, See above for D.T. @ 30° F, No Ice, No Wind	2–7 No. 8 Alumoweld, 3,186# D.T.
115 kV, 3–954 kcmil, 54/7 ACSR, See above for D.T. @ 30° F, No Ice, No Wind	@ 30° F, No Ice, No Wind
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE
"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE

ENGINEERS – SURVEYORS – PLANNERS

CHANCE & CAUSSEAUX, INC.

901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	07/27/94

SEMINOLE PLANT – KEYSTONE–JEA FIRESTONE
230 kV TRANSMISSION LINE
BLACK CREEK – DUVAL COUNTY LINE
STATION –0+11.74 TO 9+75

	NAME	DATE	CAD	DWG NO: P-0036-D-55-0003
DRAWN BY:	C. & C. INC.	2-25-92		
DESIGN BY:	H. LECROY	09-13-92	SCALE: 1"=100'H 1"=20'V	SHEET ___ OF ___
CHECKED BY:	J.M.F.	09-11-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

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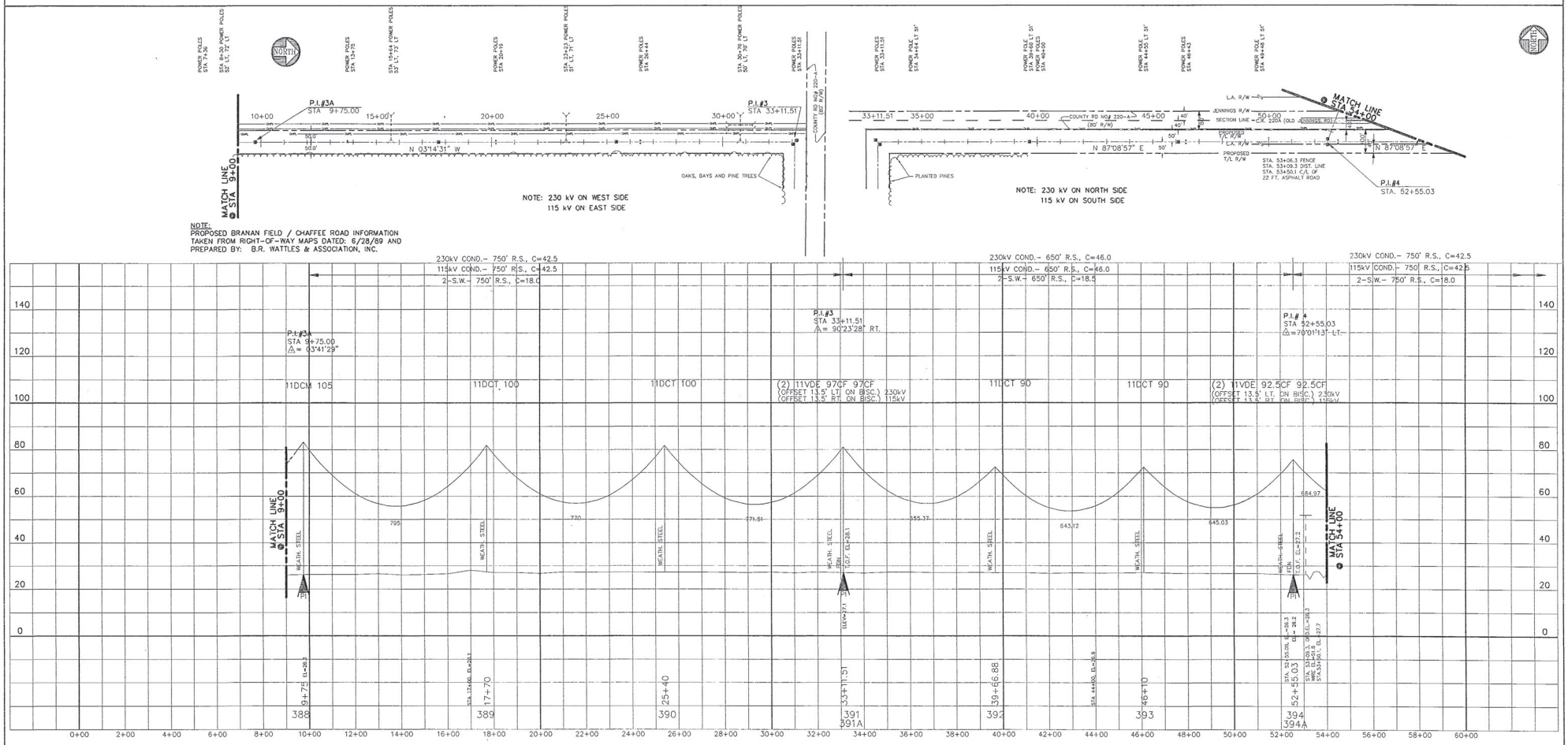
58



NOTE:
PROPOSED BRANAN FIELD / CHAFFEE ROAD INFORMATION TAKEN FROM RIGHT-OF-WAY MAPS DATED: 6/28/89 AND PREPARED BY: B.R. WATTLES & ASSOCIATION, INC.

LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566		
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)			
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind			
SURVEY &/OR T/L PI	115 kV, 3-954 kcmil, 54/7 ACSR, 6,760# D.T. @ 30° F, No Ice, No Wind				
T/L PI ONLY	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F			
	RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE			
	"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE			

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS BUILT	RSW	05/06/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
BLACK CREEK - DUVAL COUNTY LINE
STATION 0+00 TO 60+00

	NAME	DATE	CAD	DWG NO: P-0036-D-56
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V	SHEET ___ OF ___
CHECKED BY:	R.S. WOLFE	8-4-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

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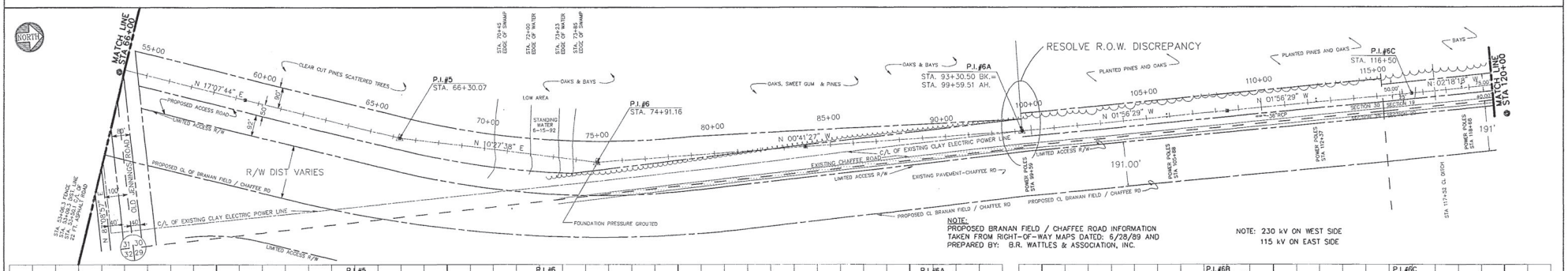
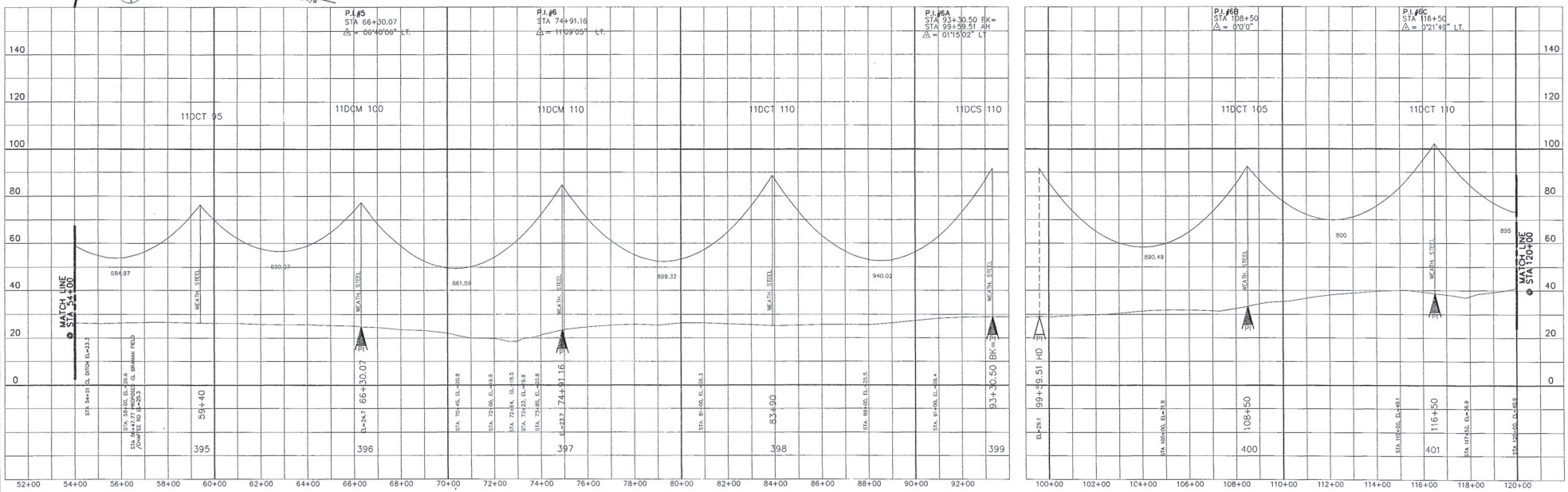


NOTE:
PROPOSED BRANAN FIELD / CHAFFEE ROAD INFORMATION TAKEN FROM RIGHT-OF-WAY MAPS DATED: 6/28/89 AND PREPARED BY: B.R. WATTLES & ASSOCIATION, INC.

NOTE: 230 kV ON WEST SIDE
115 kV ON EAST SIDE



LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED	NO	REVISIONS	BY	DATE	SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE 230 kV TRANSMISSION LINE BLACK CREEK - DUVAL COUNTY LINE STATION 60+00 TO 120+00
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLOTTE • BOSTON • PASADENA	TAMPA, FLORIDA	0	ISSUED FOR CONSTRUCTION	RLH	12/16/92	
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566			1	AS BUILT	RSW	05/08/94	
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)								
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 5 Alumoweld, 3,186# D.T.								
SURVEY ℄/OR T/L PI	115 kV, 3-954 kcmil, 54/7 ACSR, 6760# D.T. @ 30° F, No Ice, No Wind	@ 30° F, No Ice, No Wind								
T/L PI ONLY	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F								
	RULING SPAN: 750 FT.	RULING SPAN: 750 FT								
	"C" VALUE: 42.5	"C" VALUE: 18.0								

	NAME	DATE	CAD	DWG NO: P-0036-D-57
DRAWN BY:	C & C, INC.	2-25-92	SCALE: 1"=200'H; 1"=20'V	SHEET ___OF___
DESIGN BY:	R.L. HOLLAND	2-25-92	PROJECT NO:	DATE:
CHECKED BY:	R.S. WOLFE	7-31-92	REA REF:	REF. NO:
APPROVED BY:				

FEB 03 1995

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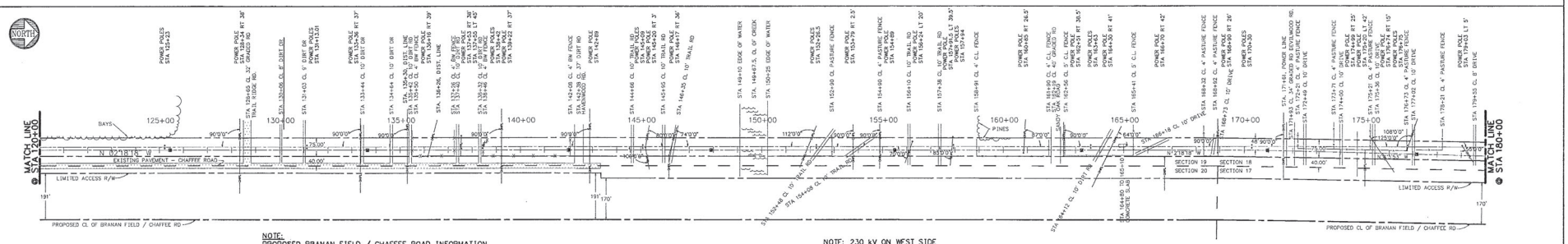
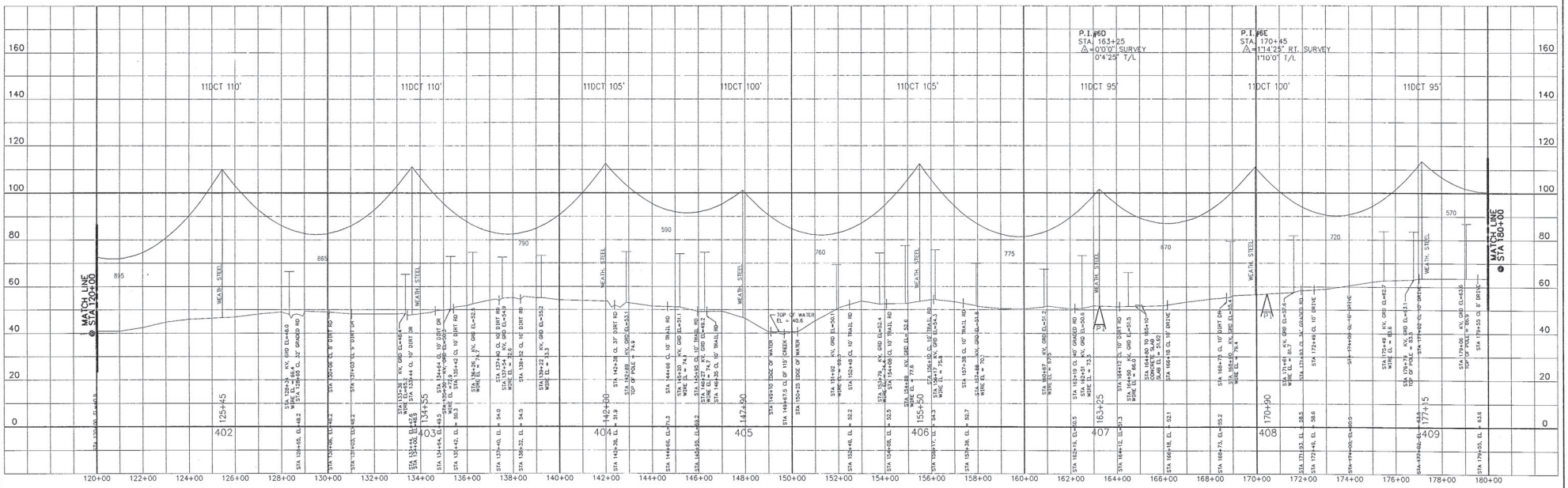
520342-10100



NOTE:
PROPOSED BRANAN FIELD / CHAFFEE ROAD INFORMATION TAKEN FROM RIGHT-OF-WAY MAPS DATED: 6/28/89 AND PREPARED BY: B.R. WATTLES & ASSOCIATION, INC.

NOTE: 230 kV ON WEST SIDE
115 kV ON EAST SIDE



LEGEND	DESIGN INFORMATION		ENGINEERS - SURVEYORS - PLANNERS	PARSONS MAIN, INC.	SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
CENTER LINE	DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind		CHANCE & CAUSSEAUX, INC.	CHARLETTE • BOSTON • PASADENA	TAMPA, FLORIDA
18 FT RIGHT OF ℄	CONTROLLING DESIGN TENSION		901 N.W. 8th AVENUE, SUITE A-2 GAINESVILLE, FL 32601 (904) 372-5566		
18 FT LEFT OF ℄	Conductor: (Final)	Shield Wire: (Initial)			
PROPERTY LINE	230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind			
SURVEY &/OR T/L PI	115 kV, 3-954 kcmil, 54/7 ACSR, 6,760# D.T. @ 30° F, No Ice, No Wind				
T/L PI ONLY	DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F			
	RULING SPAN: 750 Ft.	RULING SPAN: 750 Ft			
	"C" VALUE: 42.5	"C" VALUE: 18.0			

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
BLACK CREEK - DUVAL COUNTY LINE
STATION 120+00 TO 180+00

FEB 03 1995

	NAME	DATE	CAD	DWG NO: P-0036-D-58
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V	SHEET OF
CHECKED BY:	R.S. WOLFE	3-4-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

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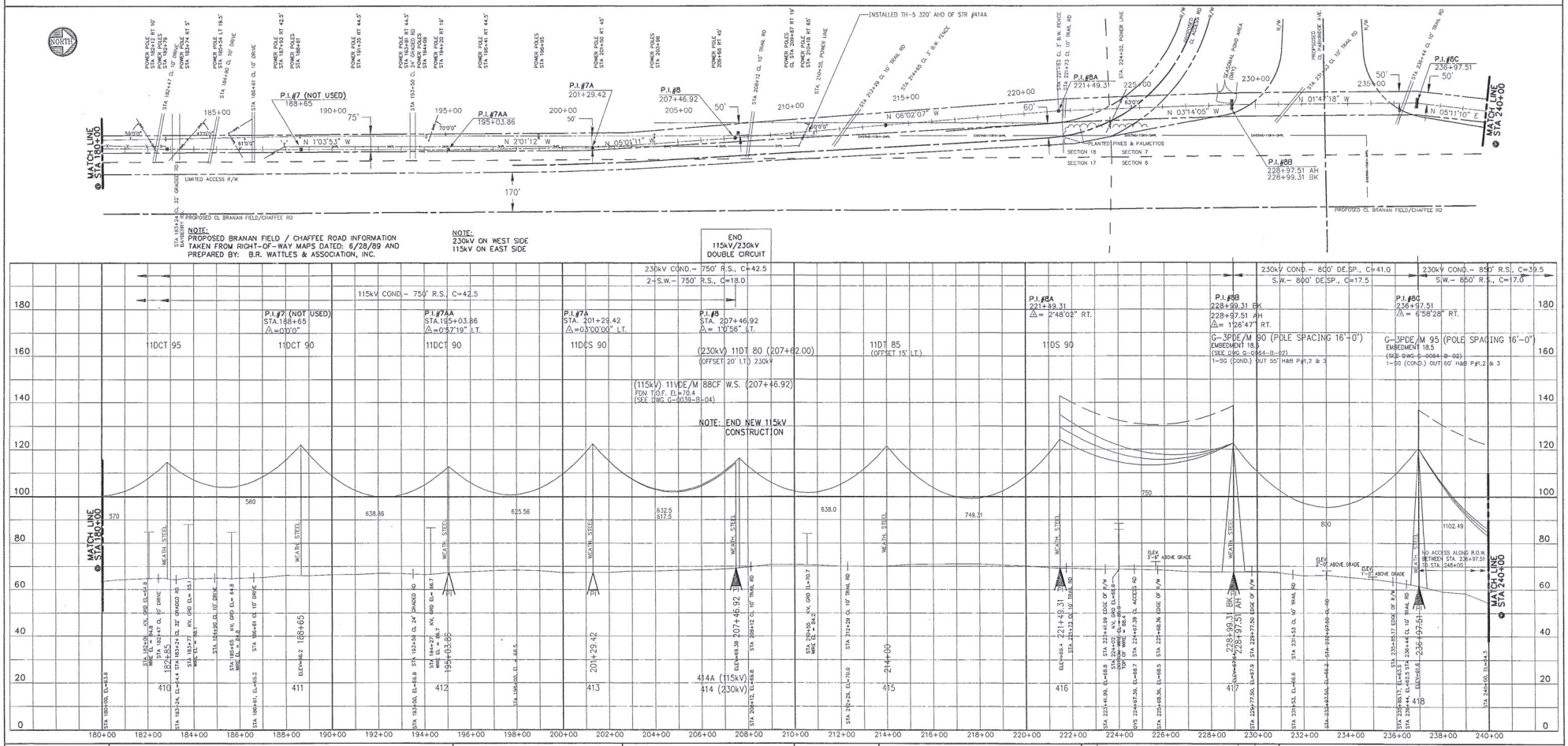
PWM 07/28/94 10:15:44
520342-05200



LEGEND

- CENTER LINE
- 18 FT RIGHT OF ℄
- 18 FT LEFT OF ℄
- PROPERTY LINE
- SURVEY &/OR T/L P1
- T/L P1 ONLY

DESIGN INFORMATION

DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind

CONTROLLING DESIGN TENSION

Conductor: (Final)	Shield Wire: (Initial)
230 kV 3-1,590 kcmil 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# DT @ 30° F, No Ice, No Wind
115 kV 3-954 kcmil 54/7 ACSR, 6,760# D.T. @ 30° F, No Ice, No Wind	
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: SEE ABOVE	RULING SPAN: SEE ABOVE
"C" VALUE: SEE ABOVE	"C" VALUE: SEE ABOVE

ENGINEERS - SURVEYORS - PLANNERS

CHANCE & CAUSSEAUX, INC.

901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-3566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/18/92
1	AS-BUILT	RSW	7/94

SEMINOLE PLANT - KEYSTONE-JEA FIRESTONE
230 kV TRANSMISSION LINE
BLACK CREEK - DUVAL COUNTY LINE
STATION 180+00 TO 240+00

	NAME	DATE	CAD	DWG NO: P-0036-D-59
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H 1"=20'V	SHEET___OF___
CHECKED BY:	R.S. WOLFE	8-3-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

RECEIVED SUB LANDS & ENV REG FEB 03 1995

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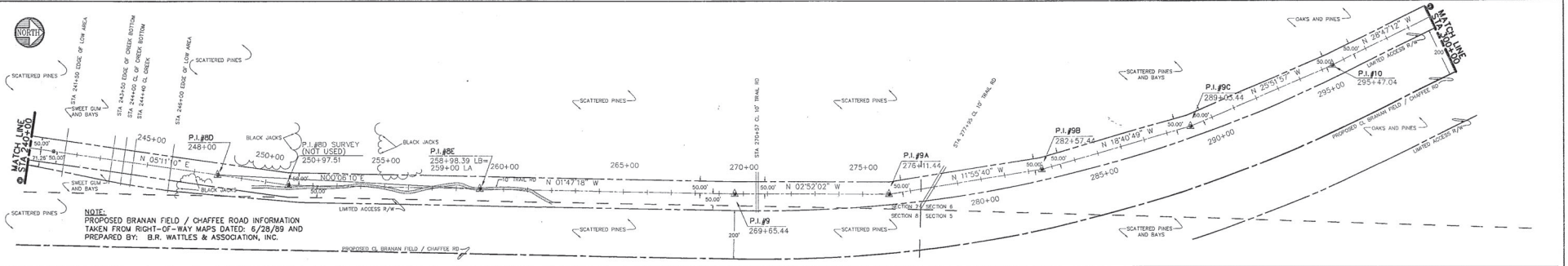
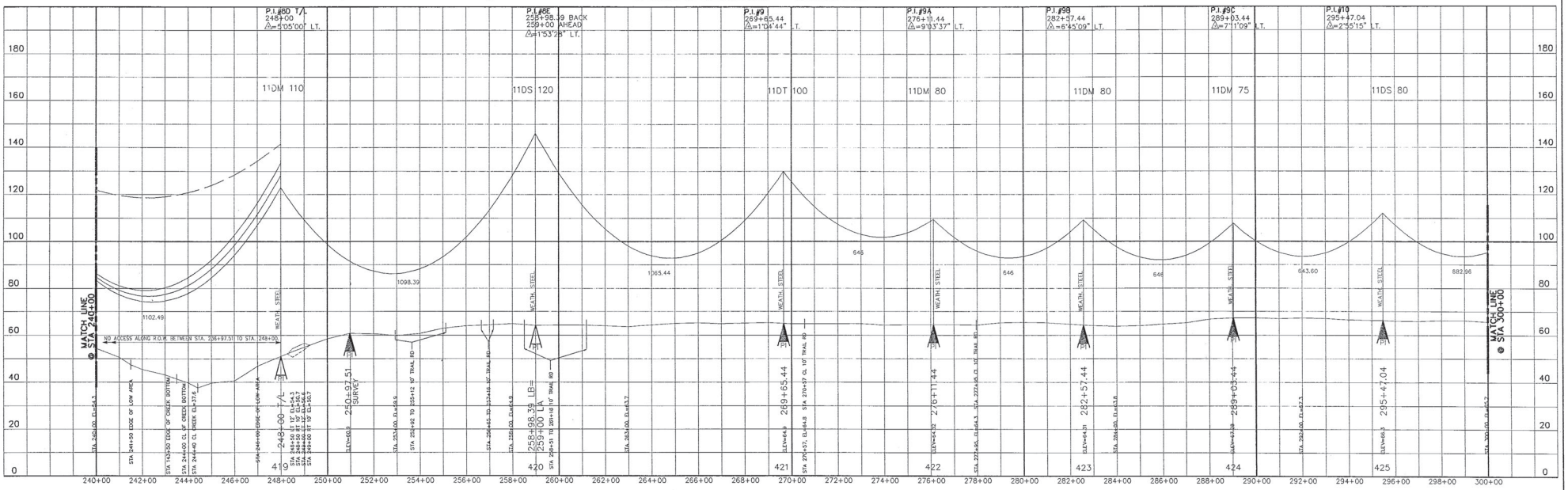
Plot 8/2/94 10:36:40
520342-05200



NOTE:
PROPOSED BRANAN FIELD / CHAFFEE ROAD INFORMATION TAKEN FROM RIGHT-OF-WAY MAPS DATED: 6/28/89 AND PREPARED BY: B.R. WATTLES & ASSOCIATION, INC.



LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE
SURVEY &/OR T/L PI
T/L PI ONLY

DESIGN INFORMATION

DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind

CONTROLLING DESIGN TENSION

Conductor: (Final)	Shield Wire: (Initial)
230 kV, 3-1,590 kcmil, 54/19 ACSR, 10,900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: 850 Ft.	RULING SPAN: 850 Ft
"C" VALUE: 39.5	"C" VALUE: 17.0

ENGINEERS - SURVEYORS - PLANNERS

CHANCE & CAUSSEAUX, INC.

901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-9566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	AS-BUILT	RSW	7/94

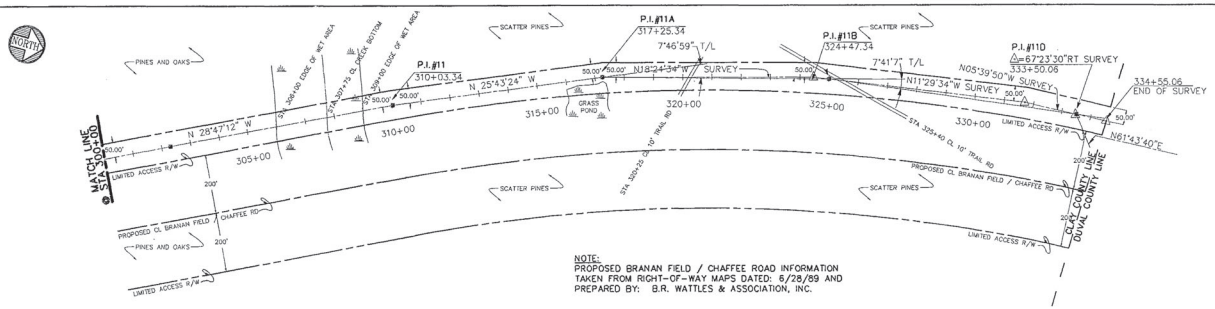
SEMINOLE PLANT – KEYSTONE–JEA FIRESTONE
230 kV TRANSMISSION LINE
BLACK CREEK – DUVAL COUNTY LINE
STATION 240+00 TO 300+00

	NAME	DATE	DWG NO: CAD P-0036-D-60
DRAWN BY:	C & C, INC.	2-25-92	
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H:1"=20'V
CHECKED BY:	R.S. WOLFE	8-3-92	PROJECT NO:
APPROVED BY:			REA REF:

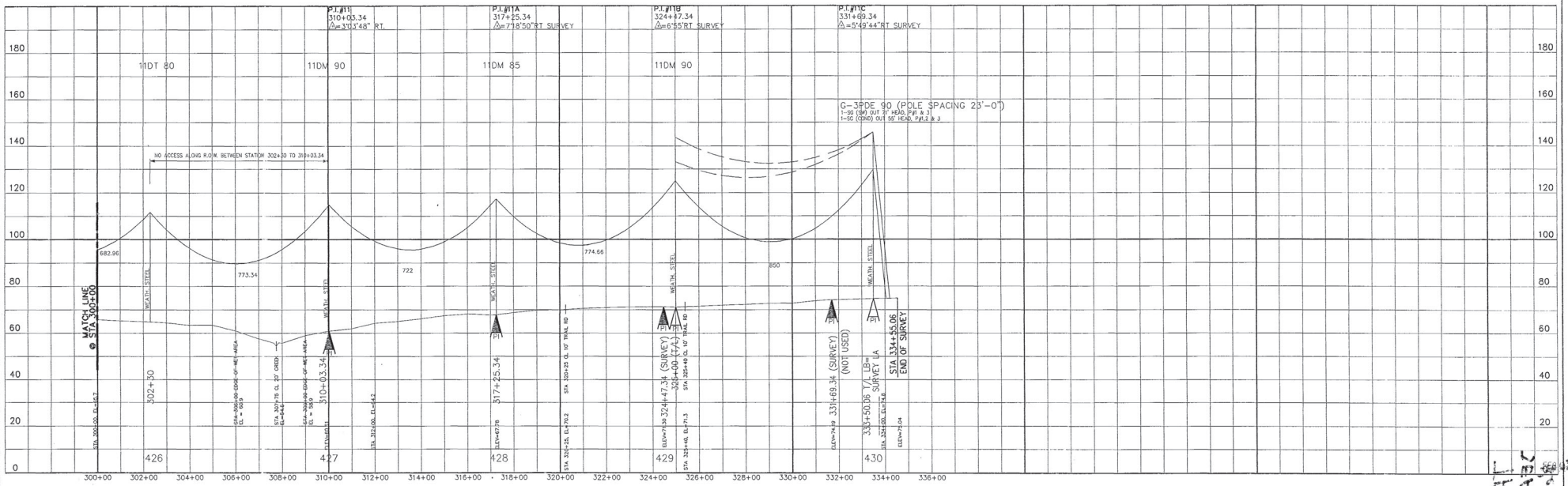
SHEET ___ OF ___
DATE:
REF NO:

RECEIVED & FILED REA 1995

P0036D60 ACAD 200
Plot 8/9/94 11:41:38
520342-05200



NOTE:
PROPOSED BRANAN FIELD / CHAFFEE ROAD INFORMATION TAKEN FROM RIGHT-OF-WAY MAPS DATED: 6/28/89 AND PREPARED BY: B.R. WATTLES & ASSOCIATION, INC.



LEGEND
CENTER LINE
18 FT RIGHT OF ℄
18 FT LEFT OF ℄
PROPERTY LINE
SURVEY ℄/OR T/L PI
T/L PI ONLY

DESIGN INFORMATION

DESIGN LOADING: NESC "Light" And 60° F, No Ice, 36 PSF Extreme Wind

CONTROLLING DESIGN TENSION

Conductor: (Final)	Shield Wire: (Initial)
230 kV, 3-1,590 kcmil, 54/19 ACSR, 10.900# D.T. @ 30° F, No Ice, No Wind	2-7 No. 8 Alumoweld, 3,186# D.T. @ 30° F, No Ice, No Wind
DESIGN TEMPERATURE: 280° F	DESIGN TEMPERATURE: 120° F
RULING SPAN: 850 Ft.	RULING SPAN: 850 Ft
"C" VALUE: 39.5	"C" VALUE: 17.0

ENGINEERS - SURVEYORS - PLANNERS
CHANCE & CAUSSEAUX, INC.
901 N.W. 8th AVENUE, SUITE A-2
GAINESVILLE, FL 32601
(904) 372-5566

PARSONS MAIN, INC.
CHARLOTTE • BOSTON • PASADENA

SEMINOLE ELECTRIC COOPERATIVE INCORPORATED
TAMPA, FLORIDA

NO	REVISIONS	BY	DATE
0	ISSUED FOR CONSTRUCTION	RLH	12/16/92
1	CHANGES DUE TO SURVEYOR'S INFORMATION	HTL	06/16/93
2	AS-BUILT	RSW	7/94

SEMINOLE PLANT - KEYSTONE-JEA PRESTONE
230 kV TRANSMISSION LINE
BLACK CREEK - DUVAL COUNTY LINE
STATION 300+00 TO 334+55.06

	NAME	DATE	CAD	DWG NO. PA0036-D-61
DRAWN BY:	C & C, INC.	2-25-92		
DESIGN BY:	R.L. HOLLAND	2-25-92	SCALE: 1"=200'H: 1"=20'V	SHEET ___ OF ___
CHECKED BY:	R.S. WOLFE	8-3-92	PROJECT NO:	DATE:
APPROVED BY:			REA REF:	REF NO:

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