



SWCA
ENVIRONMENTAL CONSULTANTS

10245 West Little York, Suite 600
Houston, Texas 77040
(281) 617-3217 phone
(281) 617-3227 fax
www.swca.com

GARDEN SUBSTATION
VICINITY MAP
JEFFERSON COUNTY, TEXAS

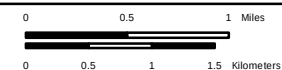
FIGURE 1

 Project Boundary



Background:	ESRI Street Map
Scale:	1:60,000
Created By:	JS
Approved By:	GF
SWCA Project No.:	41872
Date Produced:	September 14, 2017

NAD 1983 StatePlane Texas South Central FIPS 4204 Feet





Path: S:\Projects\4872 - Garden and Legend Substation\MAPS\REPORT MAPS\Map2 - Garden NWI Map.mxd

SWCA
ENVIRONMENTAL CONSULTANTS

10245 West Little York, Suite 600
Houston, Texas 77040
(281) 617-3217 phone
(281) 617-3227 fax
www.swca.com

GARDEN SUBSTATION
RESOURCE REVIEW MAP
JEFFERSON COUNTY, TEXAS

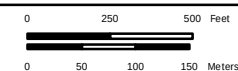
FIGURE 2

- Project Boundary
- NHD
- NWI



Background:	ESRI Aerial Imagery (2015)
Scale:	1:7,000
Created By:	JS
Approved By:	CF
SWCA Project No.:	41827
Date Produced:	September 14, 2017

NAD 1983 StatePlane Texas South Central FIPS 4204 Feet



Path: N:\Projects\4100041072 - Garden and Legend Substations\MAPS\REPORT MAPS\JP Maps\JP - Garden Site Layout Map.mxd



SWCA
ENVIRONMENTAL CONSULTANTS

10245 West Little York, Suite 600
Houston, Texas 77040
(281) 617-3217 phone
(281) 617-3227 fax
www.swca.com

GARDEN SUBSTATION
SITE LAYOUT MAP
JEFFERSON COUNTY, TEXAS

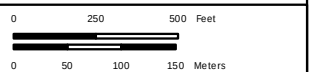
FIGURE 4

- | | | |
|------------------|---------------------|----------------|
| Project Boundary | Ephemeral Waterbody | Impacts |
| Site Layout | Emergent Wetland | |
| Data Points | Scrub-Shrub Wetland | |
| | | |
| | | Fill |
| | | Conversion |
| | | Temporary |



Background:	ESRI Aerial Imagery (2015)
Scale:	1:7,000
Created By:	JS
Approved By:	CF
SWCA Project No.:	41827
Date Produced:	January 15, 2019

NAD 1983 StatePlane Texas South Central FIPS 4204 Feet



Path: N:\Projects\4100041072 - Garden and Legend Substations\MAPS\REPORT MAPS\GP Maps\GP - Garden Site Layout Map Detailed.mxd



10245 West Little York, Suite 600
Houston, Texas 77040
(281) 617-3217 phone
(281) 617-3227 fax
www.swca.com

GARDEN SUBSTATION SITE LAYOUT MAP JEFFERSON COUNTY, TEXAS

FIGURE 3 - SHEET 1 OF 6

— Site Layout
■ Ephemeral Waterbody

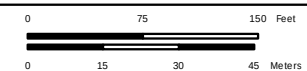
Wetland Impacts

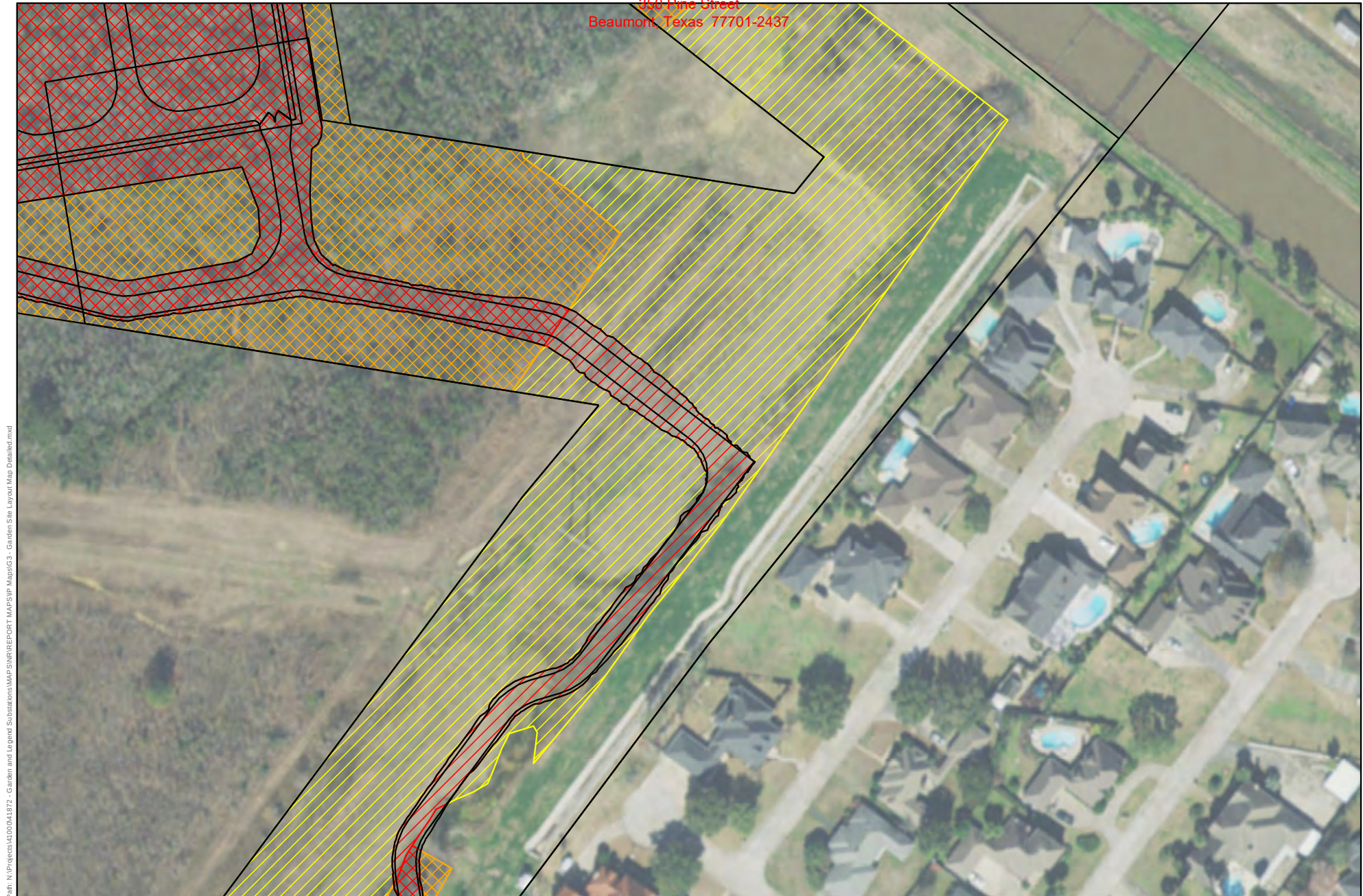
PSS Wetland Fill
 PSS Conversion
 PEM Temporary Impact



Background:	ESRI Aerial Imagery (2015)
Scale:	1:1,500
Created By:	JS
Approved By:	CF
SWCA Project No.:	41827
Date Produced:	December 04, 2018

NAD 1983 StatePlane Texas South Central FIPS 4204 Feet





Path: N:\Projects\4100041072 - Garden and Legend Substations\MAPS\REPORT MAPS\IP Maps\G3 - Garden Site Layout Map Detailed.mxd



10245 West Little York, Suite 600
Houston, Texas 77040
(281) 617-3217 phone
(281) 617-3227 fax
www.swca.com

GARDEN SUBSTATION SITE LAYOUT MAP JEFFERSON COUNTY, TEXAS

FIGURE 3 - SHEET 2 OF 6

Site Layout

Ephemeral Waterbody

Wetland Impacts

PSS Wetland Fill

PEM Wetland Fill

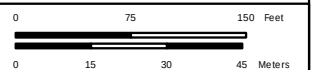
PSS Conversion

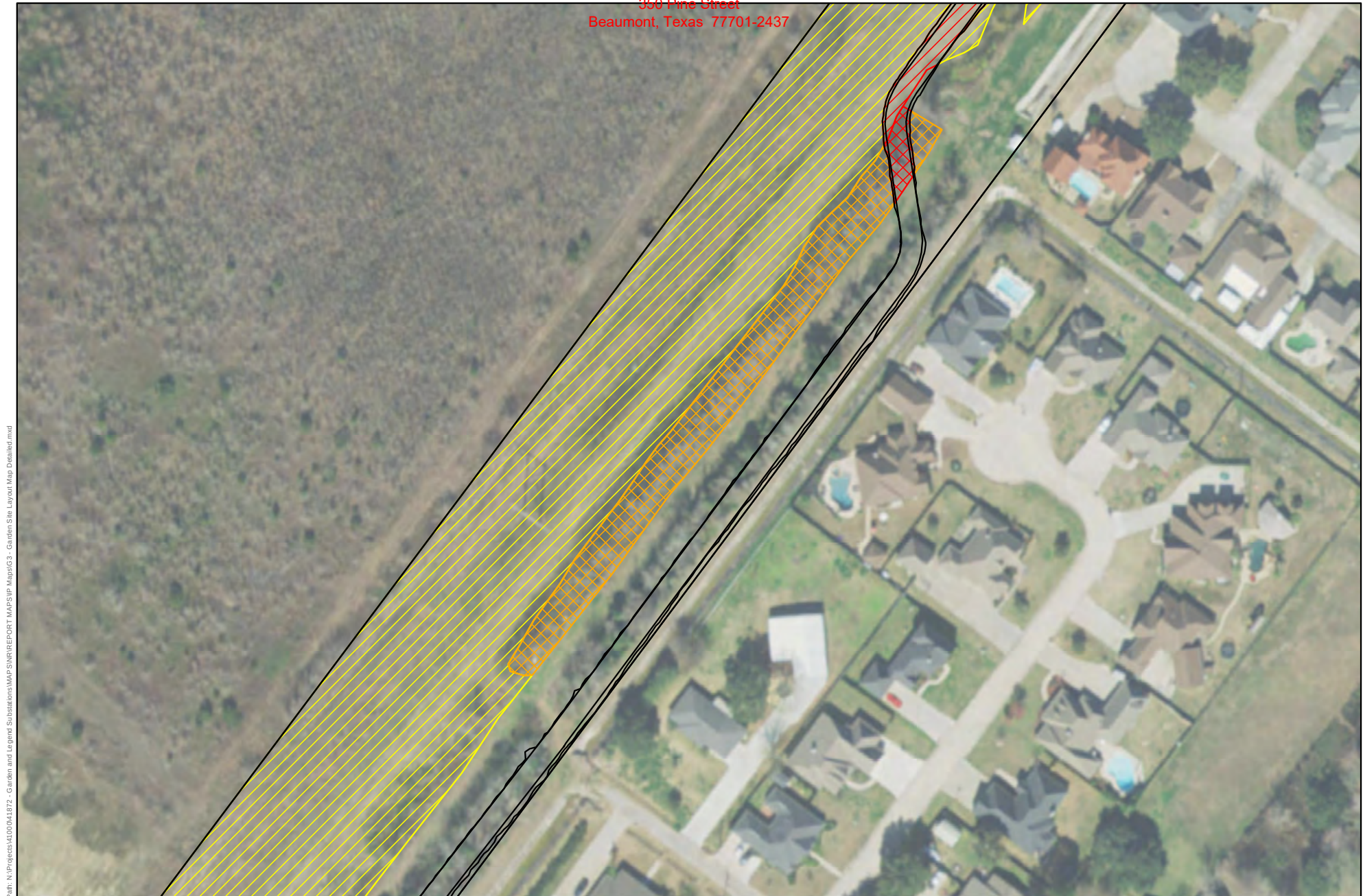
PEM Temporary Impact



Background:	ESRI Aerial Imagery (2015)
Scale:	1:1,500
Created By:	JS
Approved By:	CF
SWCA Project No.:	41827
Date Produced:	December 04, 2018

NAD 1983 StatePlane Texas South Central FIPS 4204 Feet





Path: N:\Projects\4100041072 - Garden and Legend Substations\MAPS\REPORT MAPS\IP Maps\G3 - Garden Site Layout Map Detailed.mxd



10245 West Little York, Suite 600
Houston, Texas 77040
(281) 617-3217 phone
(281) 617-3227 fax
www.swca.com

GARDEN SUBSTATION SITE LAYOUT MAP JEFFERSON COUNTY, TEXAS

FIGURE 3 - SHEET 3 OF 6

— Site Layout
Ephemeral Waterbody

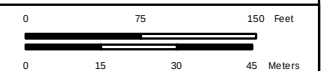
Wetland Impacts

PSS Wetland Fill
PEM Wetland Fill
PSS Conversion
PEM Temporary Impact



Background:	ESRI Aerial Imagery (2015)
Scale:	1:1,500
Created By:	JS
Approved By:	CF
SWCA Project No.:	41827
Date Produced:	December 04, 2018

NAD 1983 StatePlane Texas South Central FIPS 4204 Feet



Path: N:\Projects\4100041072 - Garden and Legend Substations\MAPS\REPORT MAPS\IP Maps\G3 - Garden Site Layout Map Detailed.mxd



10245 West Little York, Suite 600
Houston, Texas 77040
(281) 617-3217 phone
(281) 617-3227 fax
www.swca.com

GARDEN SUBSTATION SITE LAYOUT MAP JEFFERSON COUNTY, TEXAS

FIGURE 3 - SHEET 4 OF 6

— Site Layout
Ephemeral Waterbody

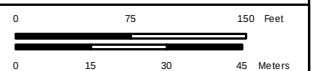
Wetland Impacts

- PSS Wetland Fill
- PEM Wetland Fill
- PSS Conversion
- PEM Temporary Impact



Background:	ESRI Aerial Imagery (2015)
Scale:	1:1,500
Created By:	JS
Approved By:	CF
SWCA Project No.:	41827
Date Produced:	December 04, 2018

NAD 1983 StatePlane Texas South Central FIPS 4204 Feet





Path: N:\Projects\4100041072 - Garden and Legend Substations\MAPS\REPORT MAPS\IP Maps\G3 - Garden Site Layout Map Detailed.mxd



10245 West Little York, Suite 600
Houston, Texas 77040
(281) 617-3217 phone
(281) 617-3227 fax
www.swca.com

GARDEN SUBSTATION SITE LAYOUT MAP JEFFERSON COUNTY, TEXAS

FIGURE 3 - SHEET 5 OF 6

— Site Layout

 Ephemeral Waterbody

Wetland Impacts

 PSS Wetland Fill

 PEM Wetland Fill

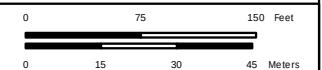
 PSS Conversion

 PEM Temporary Impact



Background:	ESRI Aerial Imagery (2015)
Scale:	1:1,500
Created By:	JS
Approved By:	CF
SWCA Project No.:	41827
Date Produced:	December 04, 2018

NAD 1983 StatePlane Texas South Central FIPS 4204 Feet





Path: N:\Projects\4100041072 - Garden and Legend Substations\MAPS\REPORT MAPS\EP Maps\G3 - Garden Site Layout Map Detailed.mxd

SWCA
ENVIRONMENTAL CONSULTANTS

10245 West Little York, Suite 600
Houston, Texas 77040
(281) 617-3217 phone
(281) 617-3227 fax
www.swca.com

GARDEN SUBSTATION
SITE LAYOUT MAP
JEFFERSON COUNTY, TEXAS

FIGURE 3 - SHEET 6 OF 6

— Site Layout
Ephemeral Waterbody

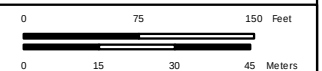
Wetland Impacts

PSS Wetland Fill
 PEM Wetland Fill
 PSS Conversion
 PEM Temporary Impact



Background:	ESRI Aerial Imagery (2015)
Scale:	1:1,500
Created By:	JS
Approved By:	CF
SWCA Project No.:	41827
Date Produced:	December 04, 2018

NAD 1983 StatePlane Texas South Central FIPS 4204 Feet

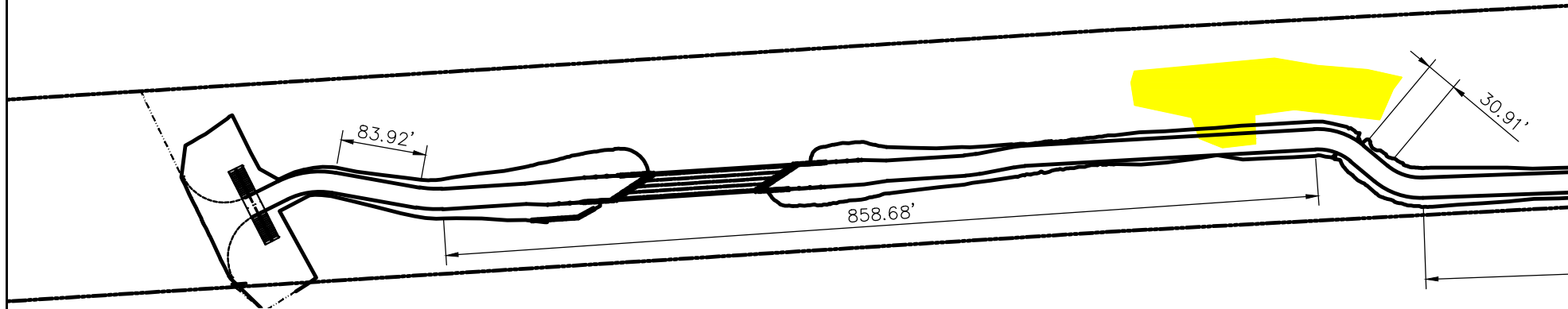


**NOTES:**

1. ALL FLOWLINES TO REMAIN THAT ARE DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE REPAIRED TO MATCH FLOWLINES PRIOR TO DISTURBANCE.
2. TREES AND OTHER VEGETATION WITHIN THE EARTHWORK LIMITS SHALL BE CLEARED AND GRUBBED IN ACCORDANCE WITH ENTERGY STANDARD SL1202, REV 2, EFFECTIVE 05-2006. CLEARING AND GRUBBING WITHIN PROPOSED EARTHWORK LIMITS SHALL BE DONE IN ACCORDANCE WITH ENTERGY STANDARD SL1202, REV 2, EFFECTIVE 05-2006. ADDITIONAL CLEARING AND GRUBBING SHALL HAVE PRIOR APPROVAL BY THE CONTRACTOR.
3. STRIP AND GRUB ALL AREAS DESIGNATED TO RECEIVE FILL TO A DEPTH NOT LESS THAN 6 INCHES FROM EXISTING GRADE TO REMOVE ALL ORGANIC MATTER, DEBRIS, AND UNSTABLE SOIL IN ACCORDANCE WITH ENTERGY STANDARD SL1202, REV 2, EFFECTIVE 05-2006.
4. SITE WORK TO CONFORM TO ENTERGY SPECIFICATIONS AND STANDARDS.
5. COMPACTED #610 GRAY LIMESTONE CRUSHED ROCK TO EXTEND 5 FEET OUTSIDE FENCE.

QUANTITIES:

SUBSTATION PAD: COMPACTED FILL - 39279 CY
 ACCESS ROAD OUTSIDE SUBSTATION: COMPACTED FILL - 4978 CY
 12" RIPRAP (4:1 SLOPE PROTECTION) - 1699 CY
 SUBSTATION SURFACE ROCK - #610 GRAY LIMESTONE (6" COMPACTED) - 3,423 CY
 SUBSTATION PAVING ACCESS ROAD (INSIDE PAD) - #610 GRAY LIMESTONE (6" COMPACTED) - 919 CY
 ACCESS ROAD OUTSIDE SUBSTATION - #610 GRAY LIMESTONE (4" COMPACTED) - 1111 CY
 ACCESS ROAD OUTSIDE SUBSTATION - TXDOT 247 (8" COMPACTED) - 2222 CY



**BURNS
MCDONNELL**
Engineering License #F-845

**PRELIMINARY ONLY
NOT FOR CONSTRUCTION**

ENTERGY GULF STATES, INC.

GARDEN 230KV SUBSTATION

SITE PLAN

GRADING & DRAINAGE

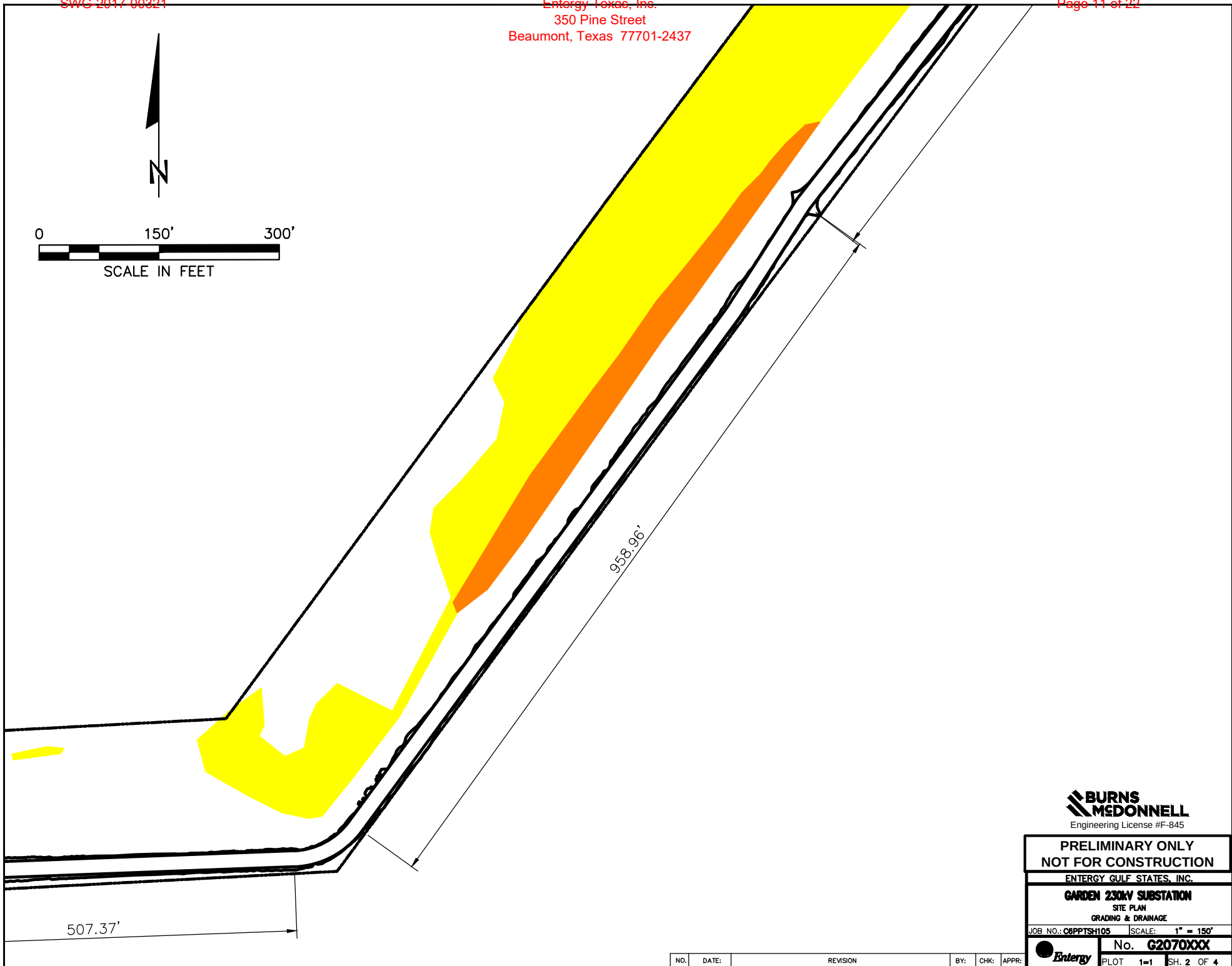
JOB NO.: C6PPTSH105 SCALE: 1" = 150'

No. **G2070XXX**

Plot 1=1 SH. 1 OF 4

NO. DATE: REVISION BY: CHK: APPR:





**BURNS
MCDONNELL**
Engineering License #F-845

**PRELIMINARY ONLY
NOT FOR CONSTRUCTION**

ENTERGY GULF STATES, INC.

GARDEN 230kV SUBSTATION

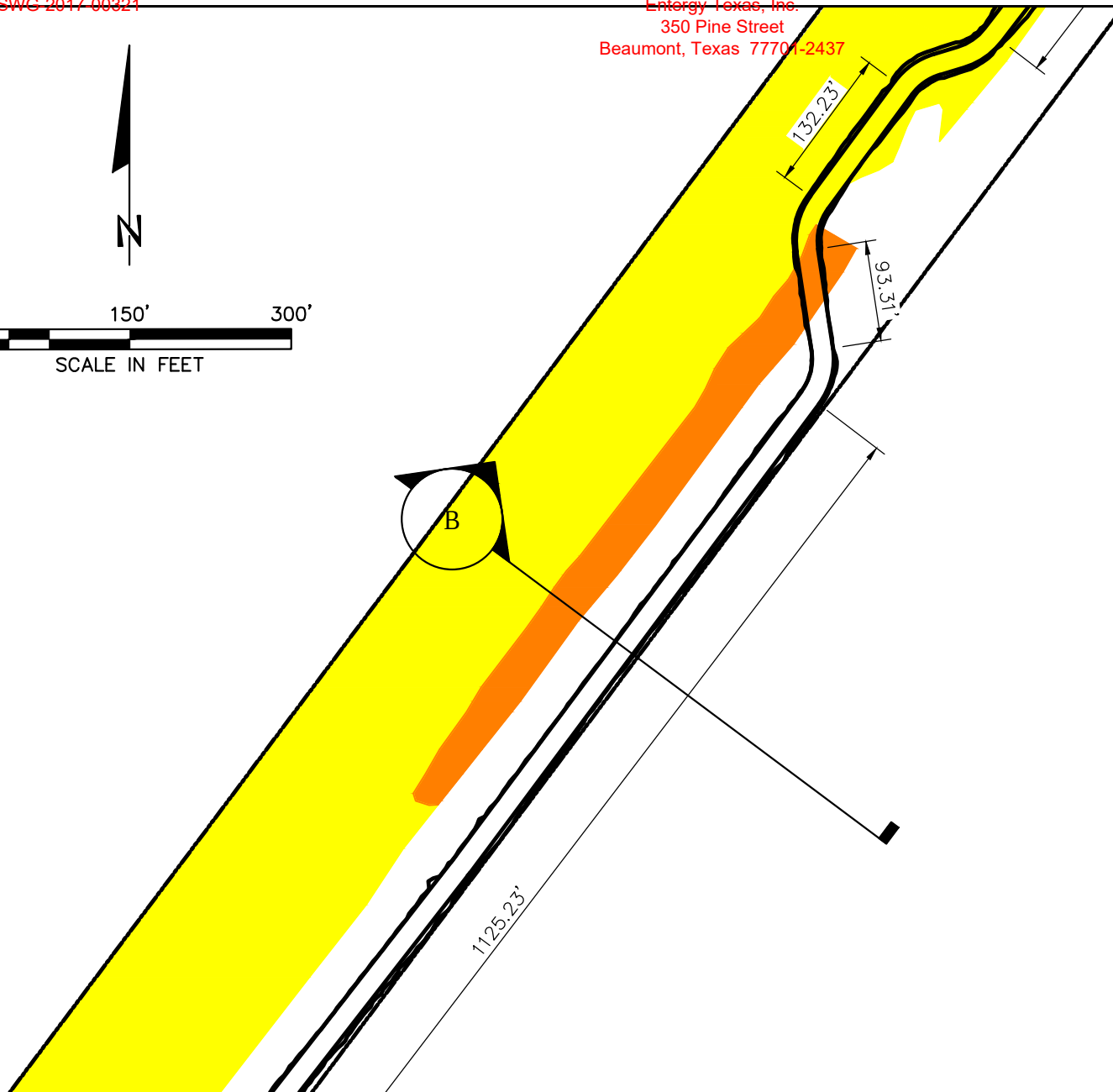
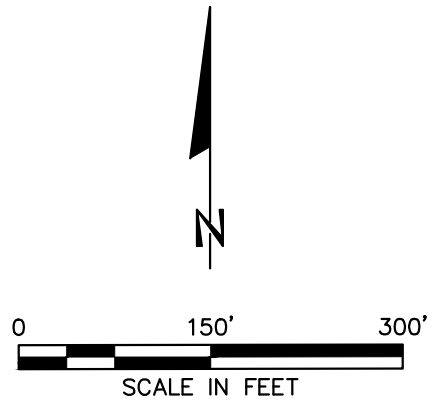
SITE PLAN

GRADING & DRAINAGE

JOB NO.: C6PPTSH105 SCALE: 1" = 150'

Entergy No. **G2070XXX**
PLOT 1=1 SH. 2 OF 4

NO.	DATE:	REVISION	BY:	CHK:	APPR:
-----	-------	----------	-----	------	-------



**BURNS
MCDONNELL**
Engineering License #F-845

**PRELIMINARY ONLY
NOT FOR CONSTRUCTION**

ENTERGY GULF STATES, INC.

GARDEN 230KV SUBSTATION

SITE PLAN

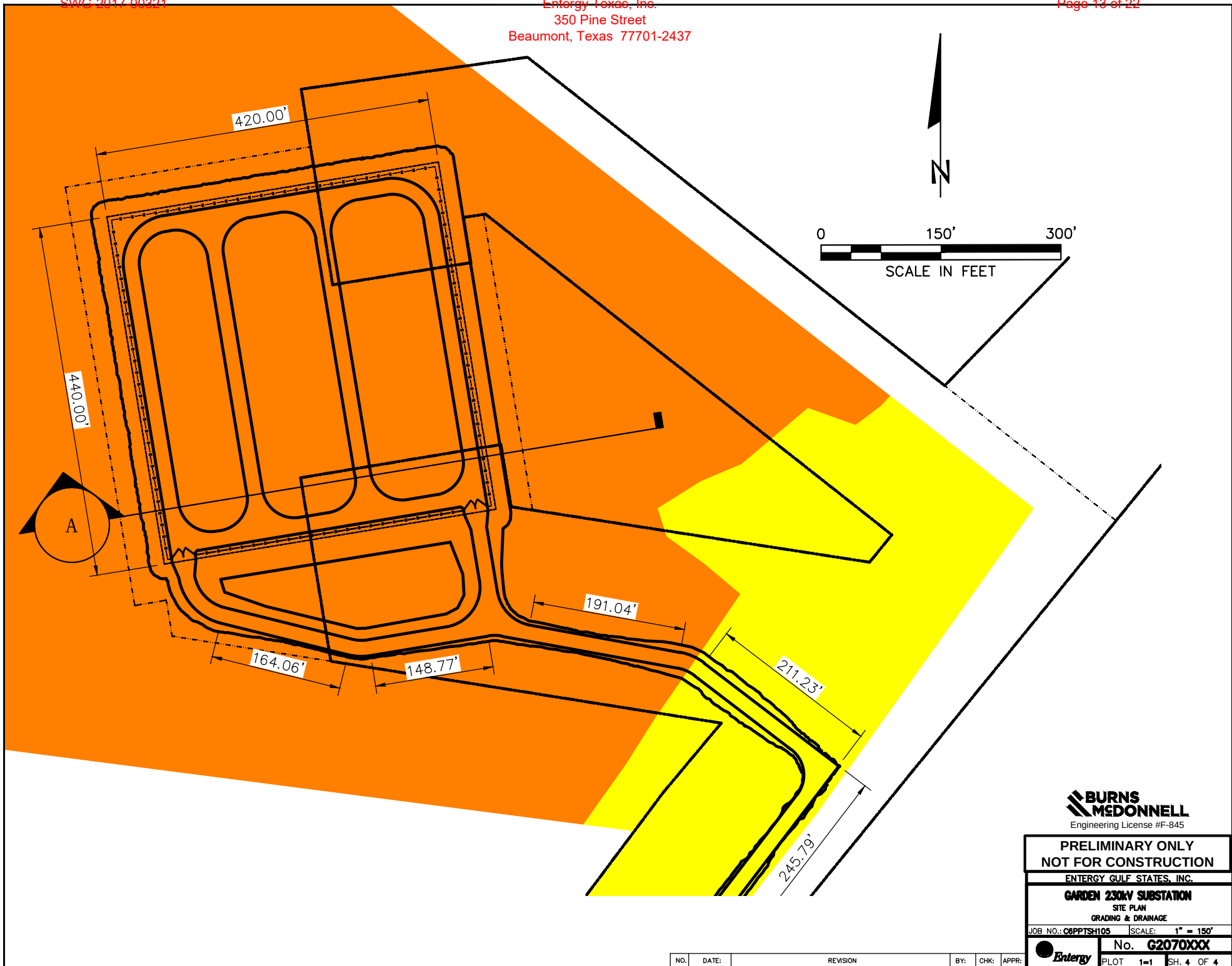
GRADING & DRAINAGE

JOB NO.: C6PPTSH105 SCALE: 1" = 150'

No. **G2070XXX**

Entergy PLOT 1=1 SH. 3 OF 4

NO.	DATE:	REVISION	BY:	CHK:	APPR:
-----	-------	----------	-----	------	-------



**BURNS
MCDONNELL**
Engineering License #F-845

**PRELIMINARY ONLY
NOT FOR CONSTRUCTION**

ENTERGY GULF STATES, INC.

GARDEN 230kV SUBSTATION

SITE PLAN

GRADING & DRAINAGE

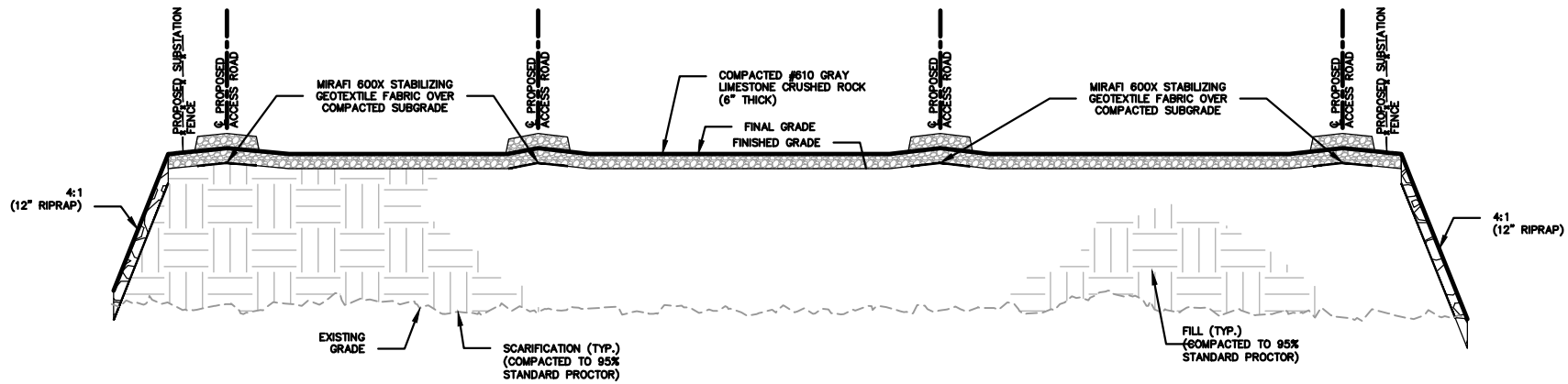
JOB NO.: C6PPTSH105 SCALE: 1" = 150'

No. **G2070XXX**

Plot 1=1 SH. 4 OF 4

NO. DATE: REVISION BY: CHK: APPR:





TYPICAL SUBSTATION PAD SECTION A
NOT TO SCALE

**BURNS
MCDONNELL**
Engineering License #F-845

PRELIMINARY ONLY
NOT FOR CONSTRUCTION

ENTERGY GULF STATES, INC.

GARDEN 230KV SUBSTATION

SECTION A

GRADING & DRAINAGE

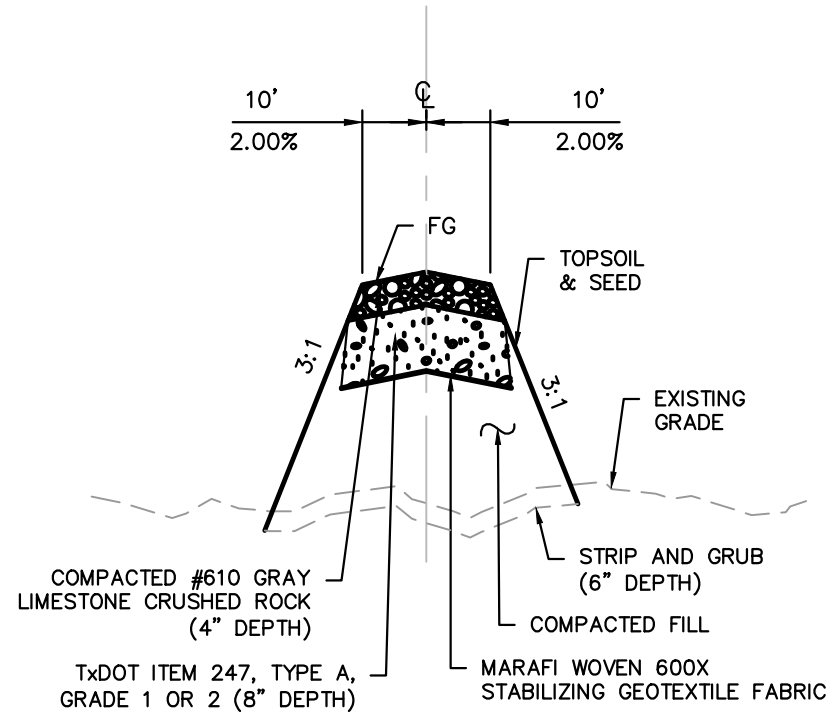
JOB NO.: C6PPTSH105 SCALE: NONE

No. **G2070XXX**

PLOT 1=1 SH. 1 OF 1

NO. DATE: REVISION BY: CHK: APPR:





TYPICAL ACCESS ROAD SECTION B
NOT TO SCALE

**BURNS
MCDONNELL**
Engineering License #F-845

**PRELIMINARY ONLY
NOT FOR CONSTRUCTION**

ENTERGY GULF STATES, INC.

GARDEN 230KV SUBSTATION

SECTION B

GRADING & DRAINAGE

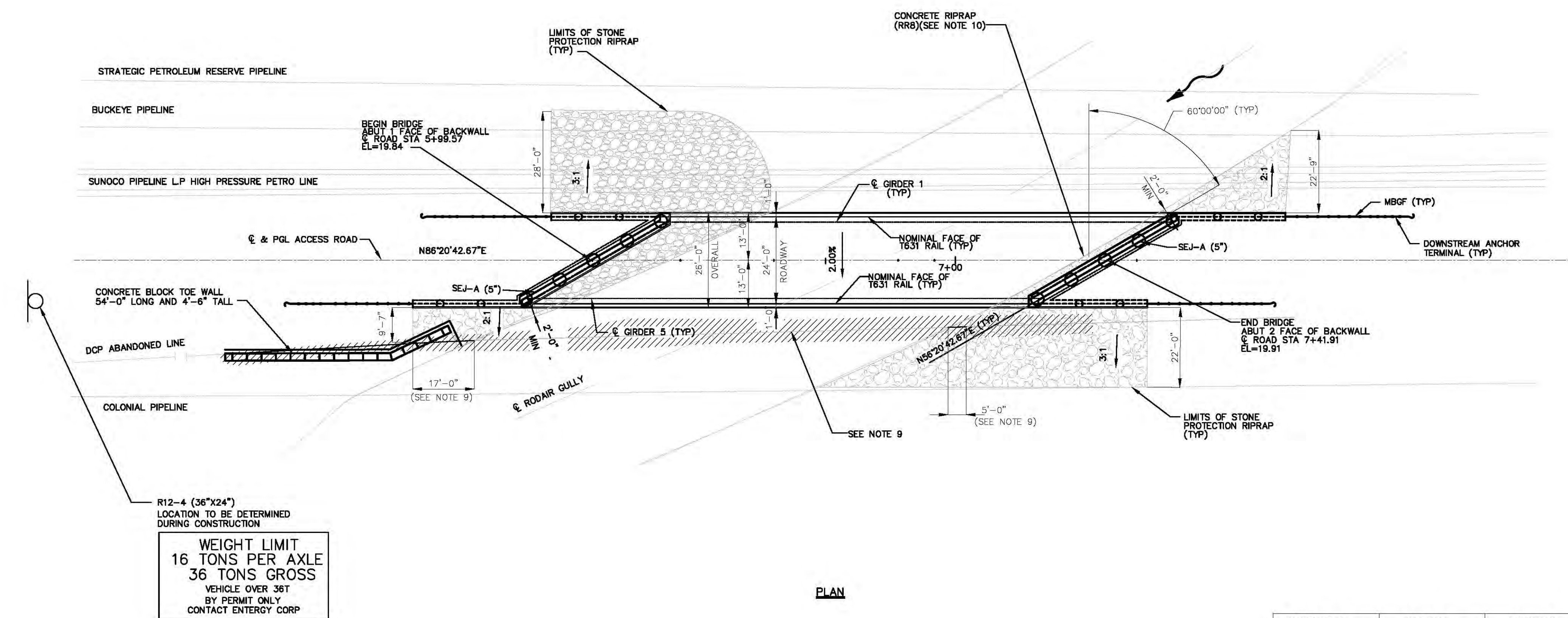
JOB NO.: C6PPTSH105 SCALE: NONE

No. **G2070XXX**
PLOT 1=1 SH. 1 OF 1

NO.	DATE:	REVISION	BY:	CHK:	APPR:
-----	-------	----------	-----	------	-------



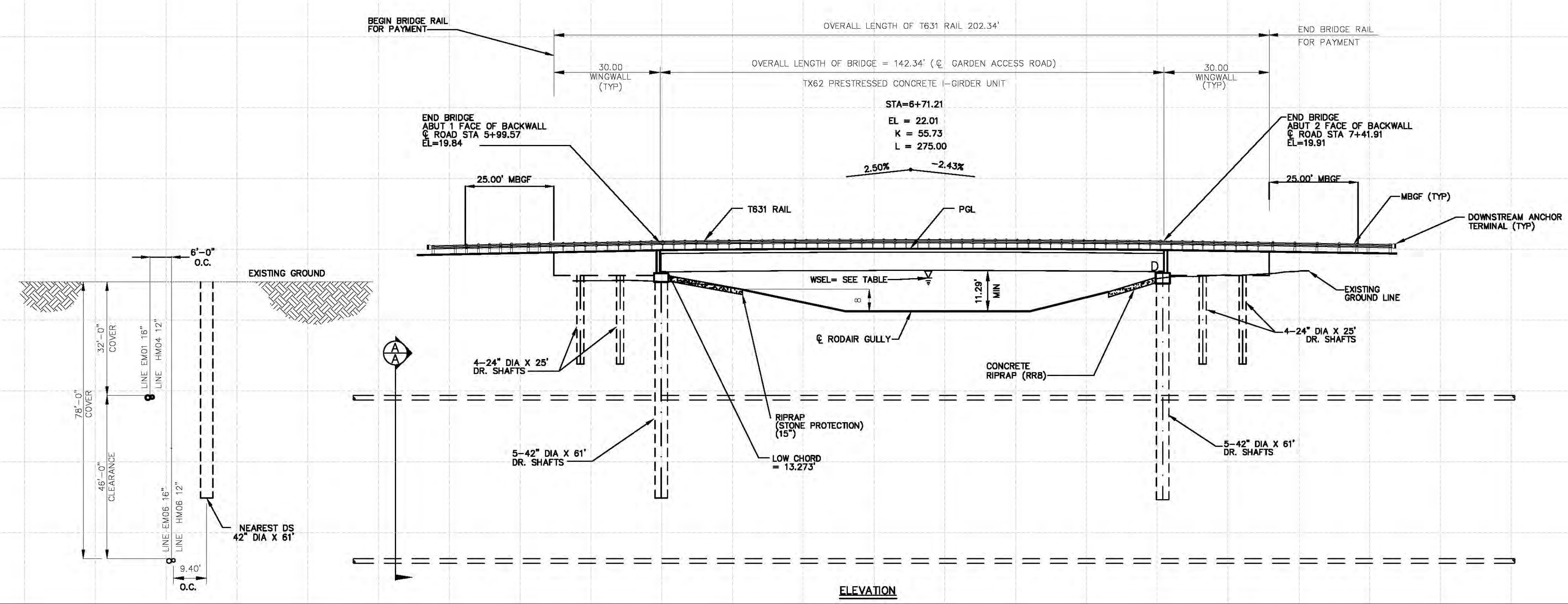
- GENERAL NOTES:
1. NO PERMANENT STRUCTURE(S) SHALL BE CONSTRUCTED TO CONTROL FLOW WITHIN THE CHANNEL DURING CONSTRUCTION. HOWEVER, TEMPORARY DAMS (SUCH AS EARTHEN) WILL BE ALLOWED FOR DAILY WORK WITH THE FOLLOWING CONDITIONS:
A) THE WEATHER IS TO BE MONITORED FOR STORM SITUATIONS 24 HOURS A DAY, INCLUDING WEEKENDS.
B) THE OBSTRUCTIONS SHALL BE REMOVED IN ADVANCE OF SEVERE WEATHER OR AS DIRECTED BY THE DRAINAGE DISTRICT OR ITS CONSULTANT.
C) PROPERLY SIZED EQUIPMENT SHALL REMAIN ON SITE FOR THE "IMMEDIATE" REMOVAL OF SAID OBSTRUCTION(S) IN CASE OF EMERGENCY OR STORM EVENT.
 2. A TEMPORARY CROSSING OVER RADAIR GULLY WILL BE REQUIRED FOR CONSTRUCTION OF THIS PROJECT. SUB-CONTRACTOR WILL COORDINATE: SIZE, LOCATION AND SCHEDULE WITH DD7 DURING PRE-CONSTRUCTION ACTIVITIES. TEMPORARY CROSSING WILL BE SUBMITTED FOR APPROVAL TO DRAINAGE DISTRICT 7 PRIOR TO CONSTRUCTION.
 3. ALL WORK COMPLETED WITHIN THE TEXAS DEPARTMENT OF TRANSPORTATION (TXDOT) RIGHT OF WAY SHALL CONFORM IN ACCORDANCE WITH THE 2014 TXDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES.
 4. AREAS ENCOMPASSED BY BRIDGE WING WALLS AND ALL SLOPES SHOWN STEEPER THAN 3:1 SHALL BE CONSTRUCTED USING TXDOT ITEM 247 TYPE A FLEXIBLE BASE, PLACED IN LIFTS NOT EXCEEDING 9 INCHES OF THICKNESS AND COMPACTED TO 100 PERCENT OF THE MAXIMUM DENSITY DETERMINED BY TEX-113-E.
 5. FOUND DRILLED SHAFTS AT ELEVATIONS SHOWN. DO NOT DEVIATE.
 6. "D" DENOTES ABUTMENT WITH D BARS AND SLOTTED HOLES AT EXTERIOR GIRDERS.
 7. BRIDGE DECK SURFACE TEXTURE PER TXDOT SPECIFICATIONS 424.11. SAW CUT GROOVING IS NOT REQUIRED.
 8. SUB-CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF ALL STRUCTURES AND UTILITIES PRIOR TO ORDERING MATERIALS AND NOTIFY ENGINEERS IN WRITING OF ANY CONFLICTS OR DISCREPANCIES.
 9. NO CHANGES WILL BE MADE TO THE EXISTING CHANNEL AS PART OF THIS PROJECT. ALL CHANNEL MODIFICATIONS, IF ANY, WILL BE COMPLETED AT A FUTURE DATE BY DRAINAGE DISTRICT #7. THE PROPOSED BRIDGE PROVIDES THE OPTION TO WIDEN THE CHANNEL BOTTOM AND CONSTRUCT STEEPER CONCRETE CHANNEL SLOPES UNDER THE BRIDGE.
 10. DCP TO CUT, CAP AND REMOVE ABANDONED PIPE, TO A DEPTH OF 3'.
 11. CONCRETE RIPRAP AT SPILL SLOPE OF ABUTMENT 2 ONLY.



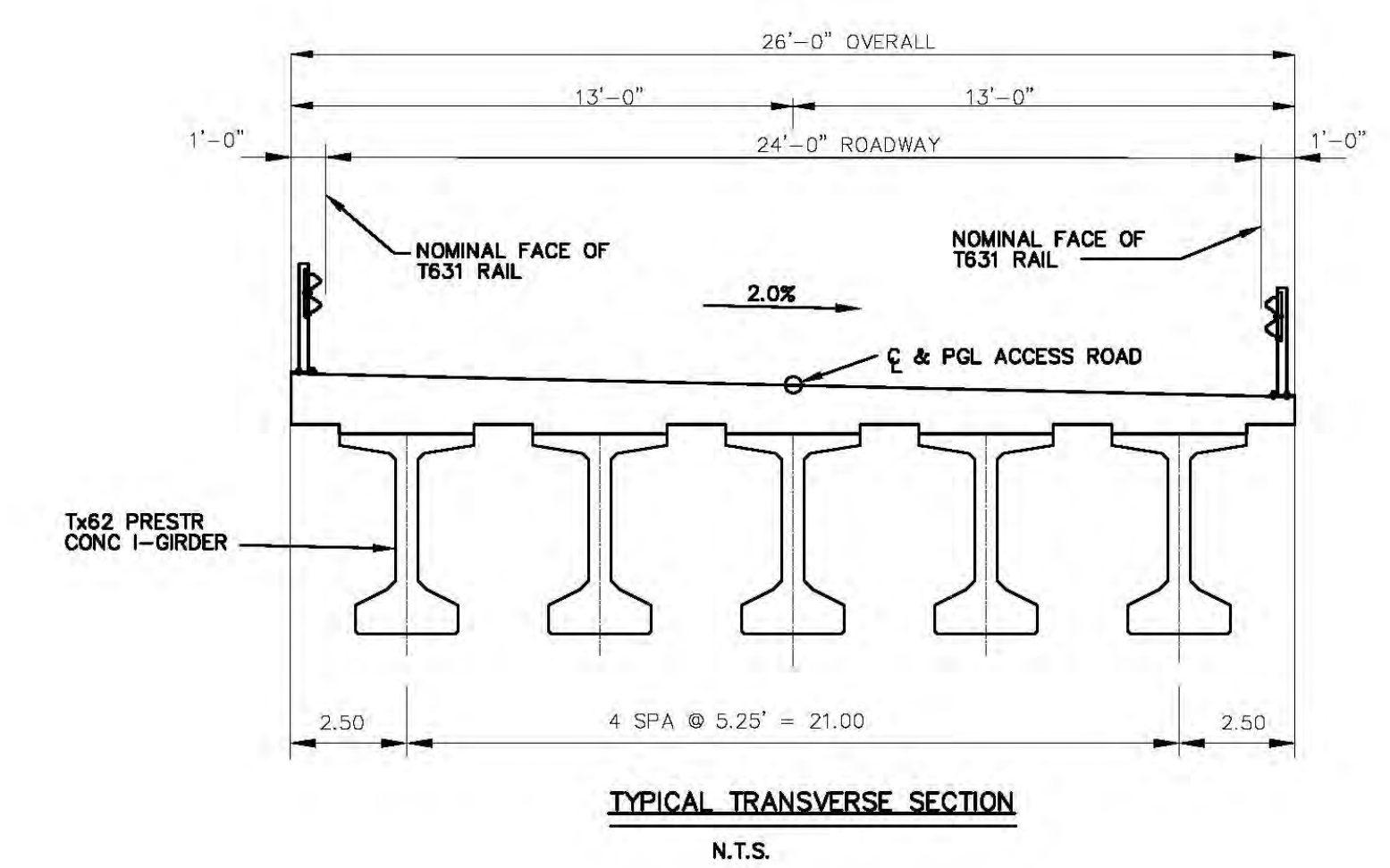
PLAN

	DUPLICATE EFFECTIVE	EXISTING CONDITIONS W/PHASES 1-4	EXISTING CONDITIONS W/PHASE 5	PROPOSED CONDITIONS W/BRIDGE & PHASE 5
10-YEAR	13.20	12.26	11.79	11.79
25-YEAR *	13.59	13.00	12.74	12.74
100-YEAR	14.75	14.66	14.65	14.66

* DESIGN STORM



ELEVATION



TYPICAL TRANSVERSE SECTION
N.T.S.

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY SEAN P. CLARY, P.E. #122134 BURNS & MCDONNELL - FIRM NO. F-845 ON 10/23/2018 CURRENT VERSION ONLY



ENTERGY GULF STATES, INC.	
GARDEN 230KV SUBSTATION	
BRIDGE LAYOUT	
MISCELLANEOUS SUBSTATION	
JOB NO.: C6PPTSH105	SCALE: 1"=20'
No. G2070MS1	SH. 1 OF 1

0	10-8-18	CONSTRUCT NEW 230KV SUB: C6PPTSH105	SC	SA	SC
NO.	DATE:	REVISION	BY:	CHK:	APPR:

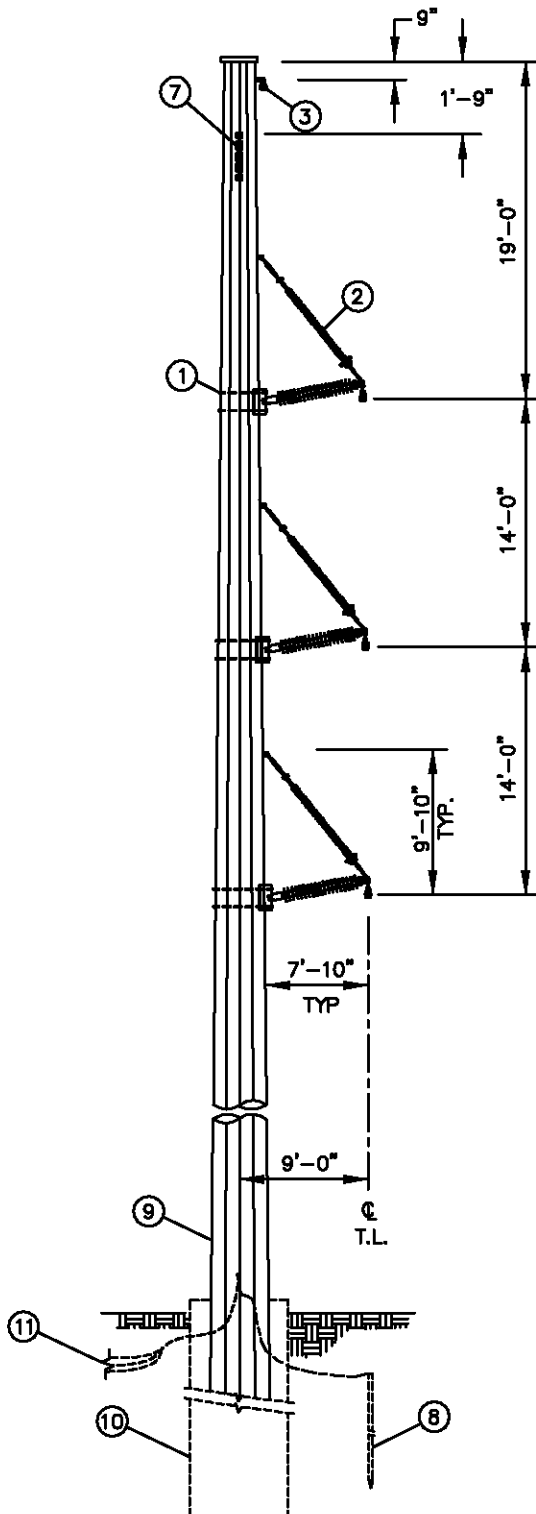
6'-20", SELF SUPPORTING VERTICAL, SINGLE CIRCUIT,
BRACED POST 2-1/2", STEEL 230kV

ASSEMBLY LIST

ITEM	QTY.	ASSEMBLY/DRAWING
1	3	BLT-P-S
2	3	BP2-230-XX
3	1	OHG-SUS-XX
4		
5		
6		

REFERENCE DRAWINGS

7	1	SGN-S
8	-	GND-S-XX
9	-	POLE INDEX
10	1	FOOTING
11	-	ANODE-XX (IF REQ.)



NOTES:

- 1) All dimensions are to Centerline of attachment.
- 2) See Pole Fabricator's drawings for attachment details.
- 3) See Staking Sheet and CU Drawings for line angles, pole, footing, grounding, and sign requirements.
- 4) Refer to Assembly drawings for part details.

SC-V-BP2-S 230

ENTERGY STANDARD DWG.

DESIGN APPROVAL

STANDARDS APPROVAL

SIGNED / DATE

SIGNED / DATE

BRACED POST STEEL 230kV
6'-20" SINGLE CIRCUIT

APPROVED BY:

DATE: 2-9-96

CHECKED BY:

SCALE: NONE

DRAWN BY: ECSI

ESI NO. TDS402A1

1	4-23-03	GENERAL DRAWING REVISIONS	ITRON
NO.	DATE:	REVISION	BY: APPR:



No.

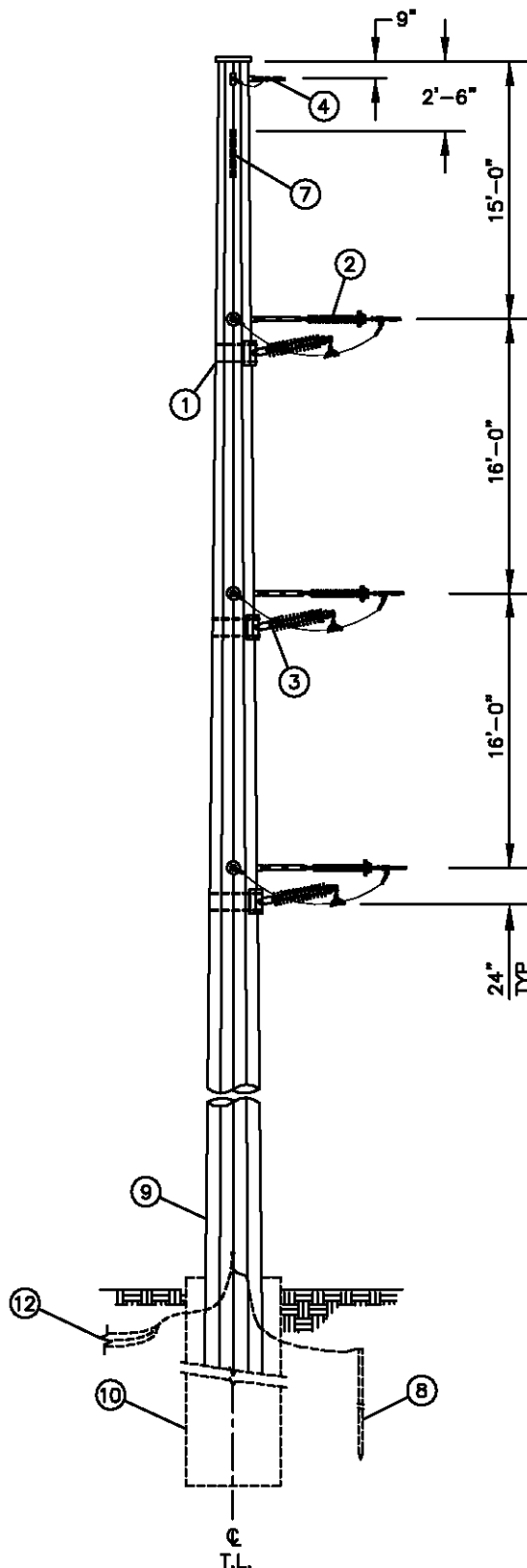
PLOT 1=130

SH. 1 OF 1

5°-70°, SELF SUPPORTING, DE, JUMPER, VERTICAL,
SINGLE CIRCUIT, DE POLYMER, STEEL 230kV

ASSEMBLY LIST

ITEM	QTY.	ASSEMBLY/DRAWING
1	3	BLT-P-S
2	6	DEP/TRB-230-XX
3	3	JLP-230-XX
4	2	OHG-DE-XX
REFERENCE DRAWINGS		
7	1	SGN-S
8	-	GND-S-XX
9	-	POLE INDEX
10	1	FOOTING
11	-	PVO, SHT 1, VW PV-19
12	-	ANODE-XX (IF REQ.)



NOTES:

- 1) All dimensions are to Centerline of top attachment or BLT-XX.
- 2) See Pole Fabricator's drawings for attachment details.
- 3) See Staking Sheet and CU Drawings for line angles, pole, footing, grounding, and sign requirements.
- 4) Refer to Assembly drawings for part details.
- 5) Conductor attachment vangs shall be placed within 5 degrees of Ahead and Back locations.
- 6) This structure shall not be used for single insulator bundled conductor applications unless the combined phase tension is less than 19.4 kips. For two insulator attachment bundled conductor applications, use the appropriate bundled framing.

SDJ-V-DEP-S 230

ENTERGY STANDARD DWG.

DESIGN APPROVAL

STANDARDS APPROVAL

SIGNED / DATE

SIGNED / DATE

DEADEND STEEL 230kV
5°-70° SINGLE CIRCUIT

APPROVED BY:

DATE: 10-18-96

CHECKED BY:

SCALE: NONE

DRAWN BY: LINESOFT

ESI NO. TDS417A3



No.

PLOT 1=130

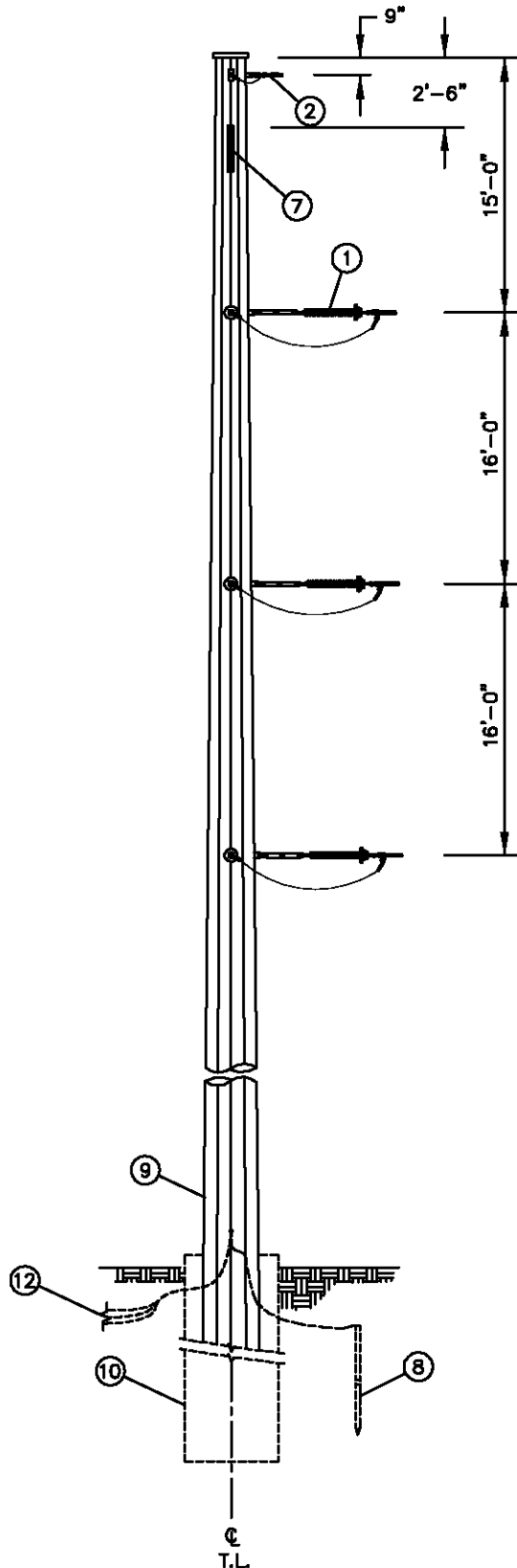
SH. 1 OF 1

3	8-18-04	REVISED DIMENSION FOR SIGN	ITRON	
2	4-3-03	REV., DIM., GND., NOTE 1, ADD ITEM 12, NOTE 6	ITRON	
1	9-14-01	CHANGED ANGLE RANGE	LSFT	
NO.	DATE:	REVISION	BY:	APPR:

70°-120°, SELF SUPPORTING, DE, VERTICAL,
SINGLE CIRCUIT, DE POLMER, STEEL 230kV

ASSEMBLY LIST

ITEM	QTY.	ASSEMBLY/DRAWING
1	6	DEP/TRB-230-XX
2	2	OHG-DE-XX
REFERENCE DRAWINGS		
7	1	SGN-S
8	-	GND-S-XX
9	-	POLE INDEX
10	1	FOOTING
11	-	PVO, SHT 2, VW PV-15
12	-	ANODE-XX (IF REQ.)



NOTES:

- 1) All dimensions are to Centerline of top attachment.
- 2) See Pole Fabricator's drawings for attachment details.
- 3) See Staking Sheet and CU Drawings for line angles, pole, footing, grounding, and sign requirements.
- 4) Refer to Assembly drawings for part details.
- 5) Conductor attachment vangs shall be placed within 5 degrees of Ahead and Back locations.
- 6) This framing shall not be used for single insulator bundled conductor applications unless the combined phase tension is less than 19.4 kips. For two insulator attachment bundled conductor applications, use the appropriate bundled framing.

SD-V-DEP-S 230

ENTERGY STANDARD DWG.

DESIGN APPROVAL

STANDARDS APPROVAL

SIGNED / DATE

SIGNED / DATE

DEADEND STEEL 230kV
70°-120° SINGLE CIRCUIT

APPROVED BY:

DATE: 10-18-96

CHECKED BY:

SCALE: NONE

DRAWN BY:

ESI NO. TDS419A2

2	8-18-04	REVISED DIMENSION FOR SIGN	ITRON	
1	4-28-03	REV., DIM., GND., NOTE 1, ADD ITEM 12, NOTE 6	ITRON	
NO.	DATE:	REVISION	BY:	APPR:



No.

PLOT 1=130

SH. 1 OF 1

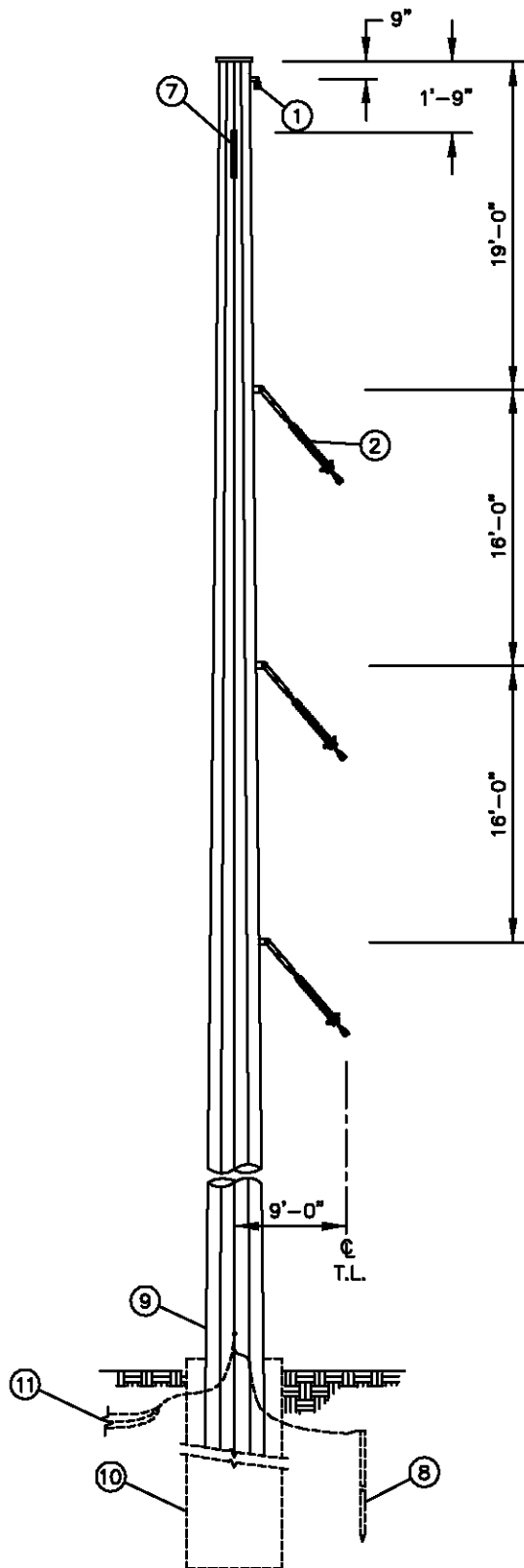
15°-30°, SELF SUPPORTING SUSPENSION, VERTICAL,
SINGLE CIRCUIT, SUSPENSION HEAVY POLYMER w/LINK, STEEL 230kV

ASSEMBLY LIST

ITEM	QTY.	ASSEMBLY/DRAWING
1	1	OHG-SUS-XX
2	3	SHR-LINK-230-XX
3		
4		
5		
6		

REFERENCE DRAWINGS

7	1	SGN-S
8	-	GND-S-XX
9	-	POLE INDEX
10	1	FOOTING
11	-	ANODE-XX (IF REQ.)



NOTES:

- 1) All dimensions are to Centerline of attachment.
- 2) See Pole Fabricator's drawings for attachment details.
- 3) See Staking Sheet and CU Drawings for line angles, pole, footing, grounding, and sign requirements.
- 4) Refer to Assembly drawings for part details.
- 5) For Insulator Swing Angle see Swing Angle Chart.

SF-V-SHR-S 230

ENTERGY STANDARD DWG.

DESIGN APPROVAL

STANDARDS APPROVAL

SIGNED / DATE

SIGNED / DATE

SUSP ANGLE STEEL 230kV
15°-30° SINGLE CIRCUIT

APPROVED BY:

DATE: 2-9-96

CHECKED BY:

SCALE: NONE

DRAWN BY: ECSI

ESI NO. TDS423A1

1 4-28-03

ADDED DIMS, GROUNDING AND ANODE OPTIONS

ITRON

NO.

DATE:

REVISION

BY:

APPR:



No.

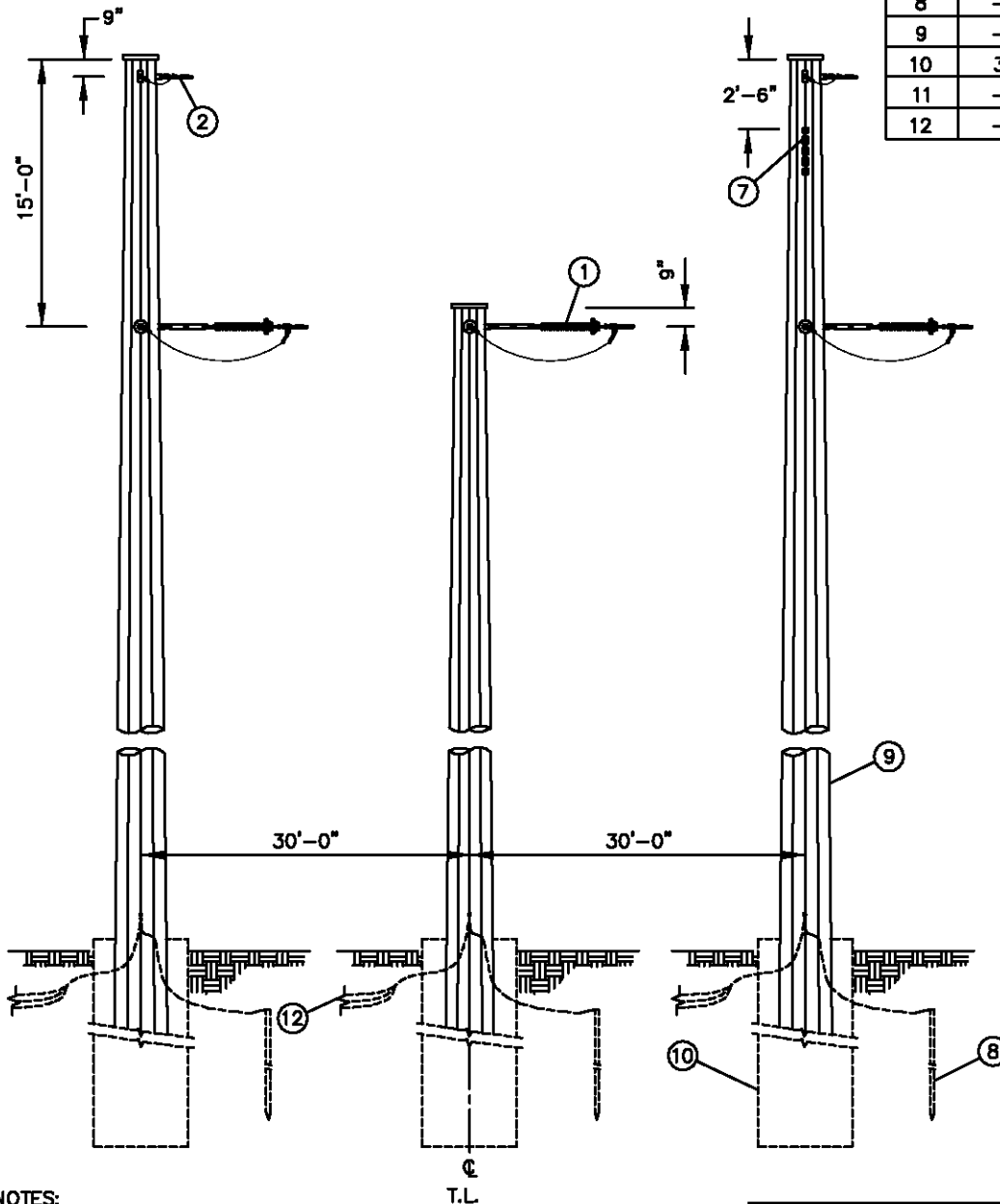
PLOT 1=130

SH. 1 OF 1

70'-120', SELF SUPPORTED DE 3-POLE, NO GUYS,
SINGLE CIRCUIT, DE POLYMER, STEEL 230kV

ASSEMBLY LIST

ITEM	QTY.	ASSEMBLY/DRAWING
1	6	DEP/TRB-230-XX
2	4	OHG-DE-XX
REFERENCE DRAWINGS		
7	1	SGN-S
8	-	GND-S-XX
9	-	POLE INDEX
10	3	FOOTING
11	-	PVO-SHT11, VIEW PV-44
12	-	ANODE-XX (IF REQ.)



NOTES:

- 1) All dimensions are to Centerline of top attachment.
- 2) See Pole Fabricator's drawings for attachment details.
- 3) See Staking Sheet and CU Drawings for line angles, pole, footing, grounding and sign requirements.
- 4) Refer to Assembly drawings for part details.
- 5) Conductor attachment vangs shall be placed within 5 degrees of Ahead and Back locations.
- 6) Pole vendor should analyze structure loading for each job.
- 7) This structure shall not be used for single insulator bundled conductor applications unless the combined phase tension is less than 19.4 kips. For two insulator attachment bundled conductor applications, use the appropriate bundled framing.

SL3-NG-DEP-S 230

ENTERGY STANDARD DWG.

DESIGN APPROVAL

STANDARDS APPROVAL

SIGNED / DATE

SIGNED / DATE

3-POLE DE STEEL 230kV
70'-120' SINGLE CIRCUIT

APPROVED BY:

DATE: 12-09-96

CHECKED BY:

SCALE: NONE

DRAWN BY:

ESI NO. TDS427A2

2	8-18-04	REVISED DIMENSION FOR SIGN	ITRON
1	4-29-03	GENERAL DRAWING REVISIONS	ITRON
NO.	DATE:	REVISION	BY: APPR:



No.

PLOT 1=130

SH. 1 OF 1