

SECTION A-A

HOLD INFORMATION		
NO.	DATE	DESCRIPTION

CONTRACTOR/INSTALLER SHALL TAKE ALL APPROPRIATE PRECAUTIONS TO ENSURE THE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE. INCLUDING CONTRACTOR'S/INSTALLER'S PERSONNEL (OR THAT OF IT'S SUB-CONTRACTOR(S)) PERFORMING THE WORK.

RELEASE INFORMATION		
REV.	DATE	DESCRIPTION
A	07-28-2017	PRELIMINARY

ISSUE PURPOSE:	PRELIMINARY
SPECIFICATION:	N/A
PROJECT NO:	13139-045

DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEW YORK.

MY LICENSE RENEWAL DATE IS:

CAD FILE NAME: 13139-045-CS-241

PREPARED BY: N. TURNER
 REVIEWED BY: K. PARIKH
 APPROVED BY: K. PARIKH

ANY MODIFICATION OR ADDITION TO THIS DRAWING BY AN ORGANIZATION OTHER THAN SARGENT & LUNDY, IS NOT THE RESPONSIBILITY OF SARGENT & LUNDY.

Sargent & Lundy
 SARGENT & LUNDY LLC.
 55 EAST MONROE STREET
 CHICAGO, ILLINOIS 60603-5780
 WWW.SARGENTLUNDY.COM
 SARGENT & LUNDY, LLC



PROJECT
 EIGHT POINT WIND FARM
 COLLECTION SYSTEM
 NEXTERA ENERGY
 RESOURCES, LLC

DRAWING TITLE
 34.5kV UNDERGROUND COLLECTION
 PIPELINE CROSSING

NOTES

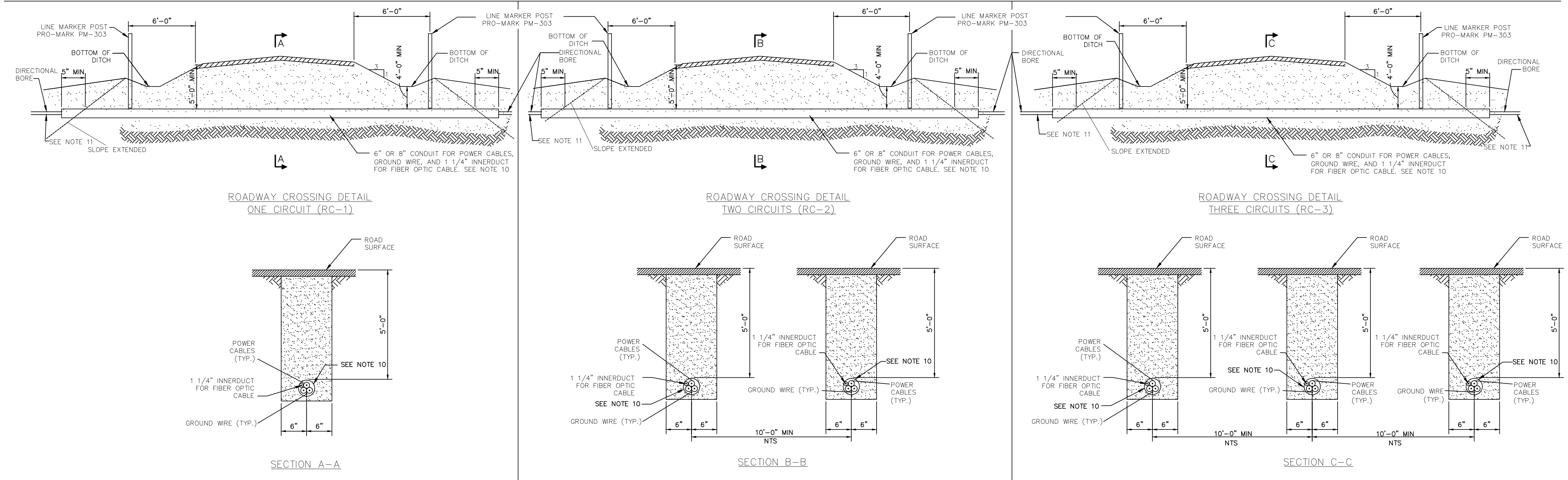
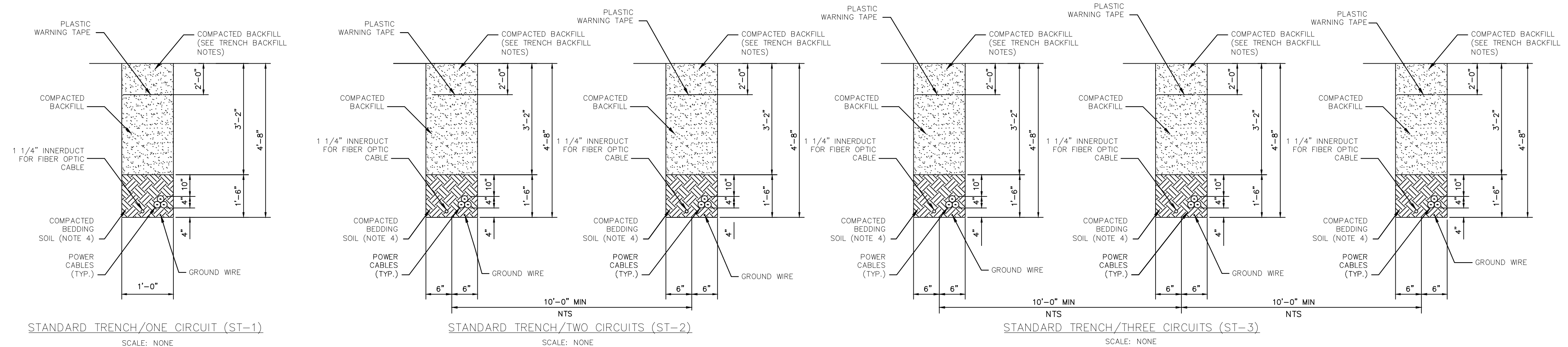
1. COMPACTION REQUIREMENTS PER SPECIFICATION TBD.
2. ANY DAMAGE TO THE EXISTING PIPELINE, INCLUDING BUT NOT LIMITED TO THE PIPELINE COATING, SHALL BE REPAIRED BY THE CONTRACTOR IN ACCORDANCE WITH THE PIPELINE OWNER INSTRUCTIONS.
3. SHORING REQUIREMENTS TO BE DETERMINED BY CONTRACTOR.
4. ALL POWER CABLES CROSSING OF PIPELINES TO BE AS CLOSE TO 90° DEGREES AS POSSIBLE.
5. PIPELINE OWNER REPRESENTATIVE TO BE ON SITE DURING ANY WORK PERFORMED ON OR ACROSS THE RIGHT-OF-WAY AND WILL REMAIN AS LONG AS POWER EQUIPMENT IS UTILIZED.
6. THE PIPELINE OWNER REPRESENTATIVE WILL DETERMINE THE AMOUNT OF COVER OVER THE PIPELINE THAT MAY BE REQUIRED.
7. ANY CHANGE IN THE AMOUNT OF EXISTING MATERIAL (SOIL OR ROCK) ON AND OVER THE RIGHT-OF-WAY MUST BE APPROVED IN WRITING BY THE PIPELINE OWNER PRIOR TO THE CONTRACTOR MAKING ANY CHANGES.
8. PLANS FOR ANY EXCAVATION IN THE RIGHT-OF-WAY MUST BE APPROVED IN WRITING BY THE PIPELINE OWNER PRIOR TO COMMENCING WORK. EXCAVATING CLOSER THAN 2 FEET TO THE PIPELINE SHALL BE DONE BY HAND UNTIL THE PIPELINE IS EXPOSED AND SHALL BE DONE ONLY UNDER THE SUPERVISION OF AN AUTHORIZED PIPELINE COMPANY REPRESENTATIVE.
9. WHEN A BACKHOE IS USED, THE BUCKET TEETH SHALL BE CURLED UNDER EACH TIME IT'S BROUGHT BACK INTO THE DITCH TO REDUCE THE CHANCE OF TEETH CONTACTING THE PIPE.
10. ANY PLOWING OR RIPPING OF SOIL ON THE PIPELINE RIGHT-OF-WAY AT DEPTHS GREATER THAN 1'-0" SHALL REQUIRE SPECIFIC WRITTEN AUTHORIZATION FROM THE PIPELINE OWNER.
11. ALL BURIED LINES CROSSING THE PIPELINE RIGHT-OF-WAY SHALL BE INSTALLED ADHERING TO ALL APPLICABLE CODES AND REQUIREMENTS GOVERNING SUCH INSTALLATIONS.
12. NO FOREIGN APPURTENANCES (METERS, POLES, DROP BOXES, COLLECTION BASINS, ETC.) SHALL BE LOCATED ON THE PIPELINE RIGHT-OF-WAY.

UNDERGROUND OR EMBEDDED UTILITIES ARE [MAY BE] LOCATED WITHIN OR ADJACENT TO THE AREA IN WHICH EXCAVATION, DEMOLITION, FOUNDATION, OR MODIFICATION WORK IS TO BE PERFORMED.

REFERENCES RELATING TO THE UNDERGROUND OR EMBEDDED UTILITIES ARE PROVIDED TO ASSIST THE CONTRACTOR/INSTALLER IN THE FIELD LOCATING THOSE UTILITIES AND OTHER POSSIBLE UNDERGROUND OR EMBEDDED INTERFERENCES WITH THE WORK.

THE CONTRACTOR/INSTALLER SHALL EXERCISE DUE CAUTION DURING ALL EXCAVATION/FOUNDATION/DEMOLITION WORK.

SCALE	DRAWING NUMBER	REVISION
N/A	13139-045-CS-241	A
	SHEET 1 OF 1	



- TRENCH BACKFILL NOTES
- BACKFILLING OPERATIONS SHALL NOT BE CONDUCTED UNDER FREEZING TEMPERATURE OR FROZEN SOIL CONDITIONS.
 - THE BEDDING AND PADDING BACKFILL MATERIAL FOR THE TRENCH SHALL BE EXCAVATED SOIL FREE OF ROCKS (NO ROCKS LARGER 3/8" DIAMETER) AND FREE OF WOOD, ROOTS, VEGETABLE MATTER, TOPSOIL OR OTHER DELETERIOUS MATERIAL.
 - TOPSOIL CONSISTS OF ORGANIC SILT AND SILTY SAND IN ACCORDANCE WITH THE UNITED SOIL CLASSIFICATION SYSTEMS (USCS).
 - SUITABLE PROTECTIVE BEDDING AND PADDING SOIL WITH A MINIMUM COVER ON ALL SIDES OF ALL CABLE AND / OR CONDUIT SYSTEMS SHALL BE PROVIDED. CONTRACTOR TO INSTALL 3M 1422-XR/D GPS BALL MARKER AT EACH BORING PIT, NO DEEPER THAN 5'-0"
 - ALL THE LAYERS SHALL BE SUFFICIENTLY COMPACTED TO ACHIEVE THE NECESSARY THERMAL RESISTIVITY. COMPACTING BY FLOODING SHALL NOT BE PERMITTED.
 - BACKFILL SHALL BE PLACED IN THREE LIFTS (1 FOOT BOTTOM LIFT, 1 FOOT CENTER LIFT AND 2 FOOT TOP LIFT WITH TOPSOIL HEAPED FOR FINAL COMPLETION.
 - COMPACTED BACKFILL ABOVE CABLE SHALL NOT HAVE ROCKS LARGER THAN 1.5" DIAMETER.
 - ALL BACKFILL WITH 140°-CM/W (RHO VALUE), OR LESS, AND MINIMUM OF 2% MOISTURE CONTENT SHALL BE USED.
 - ALL BACKFILL SHOULD BE COMPACTED TO AT LEAST 85 PERCENT OF THE ASTM D698 DRY-DENSITY VALUE.
 - USE 6" BORE-GARD SCHEDULE 40 FOR POWER CABLES 4/0 AWG TO 500 MCM. USE 8" HDPE SDR 13.5 FOR POWER CABLES 750 MCM TO 1250 MCM.
 - CONTRACTOR TO INSTALL 3M 1422-XR/D GPS BALL MARKER AT EACH BORING PIT, NO DEEPER THAN 5'-0"
- UNDERGROUND OR EMBEDDED UTILITIES MAY BE LOCATED WITHIN OR ADJACENT TO THE AREA IN WHICH EXCAVATION, DEMOLITION, FOUNDATION, OR MODIFICATION WORK IS TO BE PERFORMED.
- REFERENCES RELATING TO THE UNDERGROUND OR EMBEDDED UTILITIES ARE PROVIDED TO ASSIST THE CONTRACTOR/INSTALLER IN THE FIELD LOCATING THOSE UTILITIES AND OTHER POSSIBLE UNDERGROUND OR EMBEDDED INTERFERENCES WITH THE WORK.
- THE CONTRACTOR/INSTALLER SHALL EXERCISE DUE CAUTION DURING ALL EXCAVATION/FOUNDATION/DEMOLITION WORK.

HOLD INFORMATION		
NO.	DATE	DESCRIPTION
CONTRACTOR/INSTALLER SHALL TAKE ALL APPROPRIATE PRECAUTIONS TO ENSURE THE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE, INCLUDING CONTRACTOR'S/INSTALLER'S PERSONNEL (OR THAT OF ITS SUB-CONTRACTOR(S)) PERFORMING THE WORK.		
RELEASE INFORMATION		
REV.	DATE	DESCRIPTION
A	01-16-2016	ISSUED FOR REVIEW
ISSUE PURPOSE:		ISSUED FOR REVIEW
SPECIFICATION:		N/A
PROJECT NO.:		13139-045
I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEW YORK.		
MY LICENSE RENEWAL DATE IS:		
CAD FILE NAME:		13139-045-CS-2000
PREPARED BY:		K. PARIKH
REVIEWED BY:		M. RANKIN
APPROVED BY:		
ANY MODIFICATION OR ADDITION TO THIS DRAWING BY AN ORGANIZATION OTHER THAN SARGENT & LUNDY, IS NOT THE RESPONSIBILITY OF SARGENT & LUNDY.		
<p>SARGENT & LUNDY LLC 55 EAST MONROE STREET CHICAGO, ILLINOIS 60603-5780</p>		
PROJECT		
EIGHT POINT WIND FARM, LLC COLLECTION SYSTEM NEXTERA ENERGY RESOURCES, LLC STUBEN COUNTY, NY		
DRAWING TITLE		
34.5KV U/G COLLECTION SYSTEM TRENCH, BORING AND CROSSING DETAILS		
DRAWING NUMBER		REVISION
13139-045-CS-2000		A
SHEET 1 OF 1		