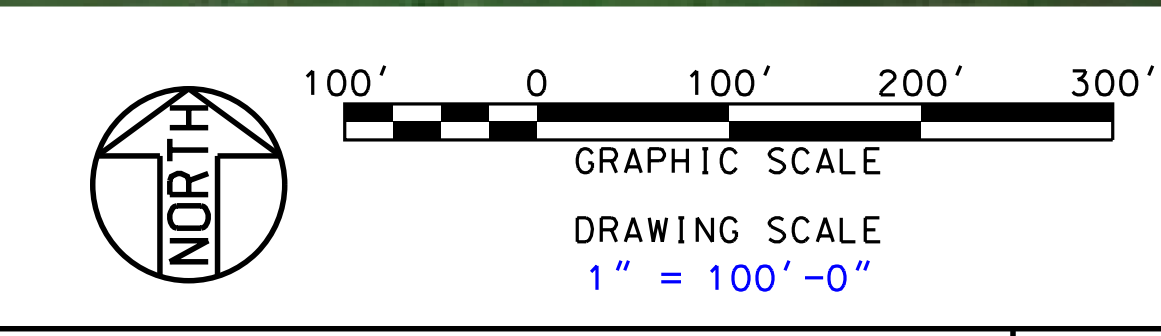


Appendix A: Drawings

PRELIMINARY

NOT FOR CONSTRUCTION



HOLD INFORMATION	
NO.	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
B	03-03-2017	FOR CLIENT COMMENT
C	05-19-2017	FOR USE
D	06-30-2017	FOR USE

ISSUE PURPOSE:

SPECIFICATION:

PROJECT NO.: 12715-009

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 ENTER NAME.

ENTER NAME
ENTER DATE

MY LICENSE RENEWAL DATE
IS: ENTER DATE
PAGES OR SHEETS COVERED BY
THIS SEAL:
THIS DOCUMENT ONLY.

CERTIFICATE OF AUTHORIZATION (WHEN REQ'D)

CAD FILE NAME: SK-GA-AST-001.DGN

PREPARED BY: R. MILLER

REVIEWED BY: A. PATEL

APPROVED BY: ----

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SARGENT & LUNDY^{LLC}
55 EAST MONROE STREET
CHICAGO, ILLINOIS 60603-5780



PROJECT	
ASTORIA SIMPLE CYCLE	
SOUTH DAKOTA	
DRAWING TITLE	
PRELIMINARY GENERAL ARRANGEMENT SITE PLAN	
DRAWING NUMBER	
SK-GA-AST-001	
REVISION	
D	
SHEET	OF
01	01

PRELIMINARY

NOT FOR CONSTRUCTION

47

45

317'

422'

PERIMETER FENCE

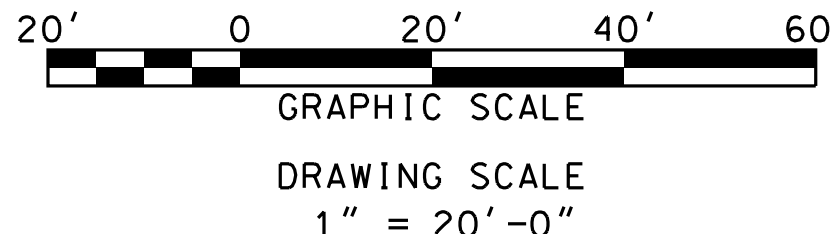
ITEM	DESCRIPTION
1	COMBUSTION TURBINE
2	EXHAUST STACK
3	INLET AIR FILTER
4	GENERATOR STEP-UP TRANSFORMER
5	AUXILIARY TRANSFORMER
6	CONTROL/ADMINISTRATION BUILDING
7	ELECTRICAL BUILDING
8	SERVICE/FIRE WATER STORAGE TANK (350,000 GAL)
9	DEMINERALIZED WATER STORAGE TANK (250,000 GAL)
10	FIRE WATER PUMPHOUSE
11	DEMINERALIZED WATER TRAILER SPACE
12	SERVICE WATER PUMPS
13	CEMS ENCLOSURE
14	CLOSED COOLING WATER HEAT EXCHANGER
15	CT CONTROL PACKAGE
16	CTG EXCITATION TRANSFORMER
17	GENERATOR CIRCUIT BREAKER
18	OILY WATER SEPARATOR (5,000 GAL)
19	NITROGEN & CO2 STORAGE AREA
20	MAINTENANCE CRANE SPACE
21	MAINTENANCE BUILDING
22	CT FIRE FIGHTING CO2 SKID
23	CLOSED COOLING WATER PUMPS
24	CLOSED COOLING WATER HEAD TANK
25	DEMINERALIZED WATER PUMPS
26	CT COOLING AIR COOLER
27	CT CONTROL OIL UNIT
28	CT LUBE OIL TANK UNIT
29	CT LUBE OIL MIST SEPARATOR
30	CT CASING COOLING AIR FAN
31	CT PURGE AIR UNIT
32	CT FUEL GAS UNIT
33	AIR COMPRESSOR
34	AIR DRYER
35	AIR RECEIVER
36	CT BLADE WASH DRAIN TANK (5,000 GAL)
37	CT COMPRESSOR BLADE WASHING UNIT
38	FUEL GAS WATER BATH HEATER
39	FUEL GAS PRESSURE REDUCING STATION
40	FUEL GAS KNOCK OUT DRUM
41	FUEL GAS FINAL COALESCING SKID
42	FUEL GAS LIQUID DRAINS TANKS
43	CLEAN WASTE WATER LIFT STATION (5,000 GAL)
44	- NOT USED -
45	RETENTION POND (600' x 200')
46	WET COMPRESSION PUMP SKID
47	SEPTIC TANK AND DISPOSAL FIELD (100' X 30')



XX - INDICATES EMITTER

UTM COORDINATE TABLE			
ITEM	DESCRIPTION	NORTH	EAST
2	EXHAUST STACK	4939314.83	693309.59
10	FIRE WATER PUMPHOUSE	4939345.75	693312.35
38	FUEL GAS WATER BATH HEATER	4939271.76	693321.10

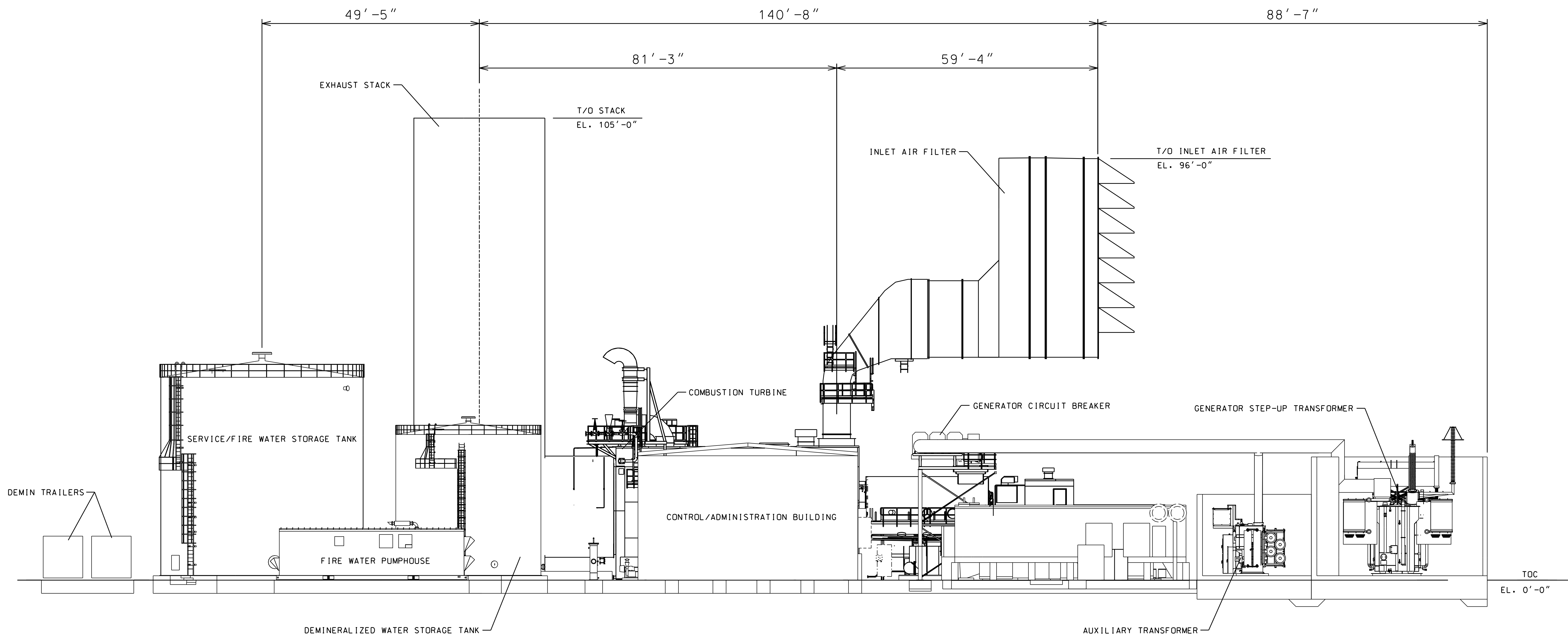
NOTES:

- THE COORDINATES PROVIDED ARE UTM ZONE 14T, IN METERS.
- THE COORDINATES WERE LOCATED BY OVERLAYING THE EQUIPMENT ON A GOOGLE EARTH PRO MAP, AND WERE CHECKED USING BOTH USGS ASTORIA QUADRANGLE (2015) AND USACE CORPSCON V6.0.1.
- UTM COORDINATES SHALL NOT BE USED FOR ANY PURPOSE OTHER THAN PERMITTING.

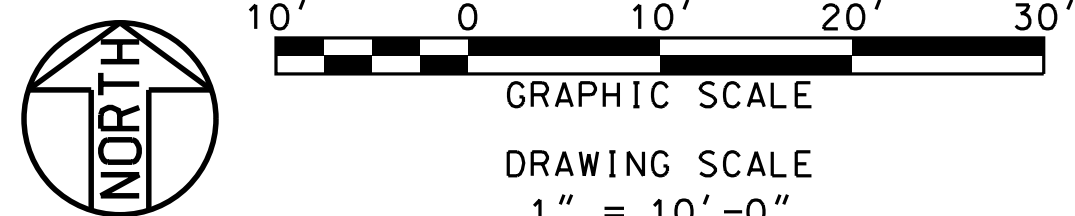


HOLD INFORMATION		
NO.	DESCRIPTION	
CONTRACTOR/INSTALLER SHALL TAKE ALL APPROPRIATE PRECAUTIONS TO ENSURE THE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE, INCLUDING CONTRACTOR'S/INSTALLER'S PERSONNEL (OR THAT OF ITS SUB-CONTRACTOR(S)) PERFORMING THE WORK.		
RELEASE INFORMATION		
REV.	DATE	DESCRIPTION
B	03-03-2017	FOR CLIENT COMMENT
C	05-19-2017	FOR USE
D	06-30-2017	FOR USE
ISSUE PURPOSE:		
SPECIFICATION:		
PROJECT NO.: 12715-009		
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 ENTER NAME.		
ENTER NAME ENTER DATE		
MY LICENSE RENEWAL DATE IS: ENTER DATE PAGES OR SHEETS COVERED BY THIS SEAL: THIS DOCUMENT ONLY.		
CERTIFICATE OF AUTHORIZATION (WHEN REQ'D)		
CAD FILE NAME: SK-GA-AST-002.DGN		
PREPARED BY: R. MILLER		
REVIEWED BY: A. PATEL		
APPROVED BY: ----		
ANY MODIFICATION OR ADDITION TO THIS DRAWING BY AN ORGANIZATION OTHER THAN SARGENT & LUNDY, IS NOT THE RESPONSIBILITY OF SARGENT & LUNDY.		
 SARGENT & LUNDY ^{LLC} 55 EAST MONROE STREET CHICAGO, ILLINOIS 60603-5780		
		
PROJECT		
ASTORIA SIMPLE CYCLE		
SOUTH DAKOTA		
DRAWING TITLE		
PRELIMINARY GENERAL ARRANGEMENT PLOT PLAN		
DRAWING NUMBER		REVISION
SK-GA-AST-002		D
SHEET	01 OF 01	

PRELIMINARY
NOT FOR CONSTRUCTION



SECTION VIEW
A-A



HOLD INFORMATION	
NO.	DESCRIPTION

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RELEASE INFORMATION		
REV.	DATE	DESCRIPTION
B	03-03-2017	FOR CLIENT COMMENT
C	04-10-2017	FOR CLIENT COMMENT
D	05-19-2017	FOR USE
E	06-30-2017	FOR USE

ISSUE PURPOSE:
SPECIFICATION:

PROJECT NO.: 12715-009

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 ENTER NAME.

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ENTER DATE
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PAGES OR SHEETS COVERED BY THIS SEAL: THIS DOCUMENT ONLY.
CERTIFICATE OF AUTHORIZATION (WHEN REQ'D)

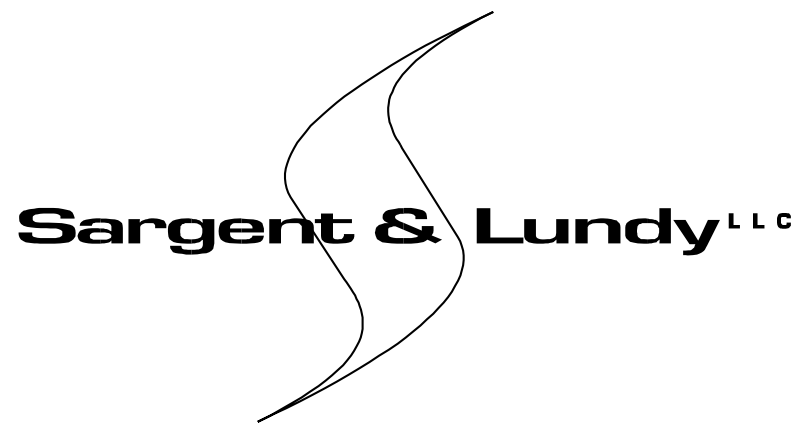
CAD FILE NAME: SK-GA-AST-003.DGN

PREPARED BY: R. MILLER

REVIEWED BY: A. PATEL

APPROVED BY: ----

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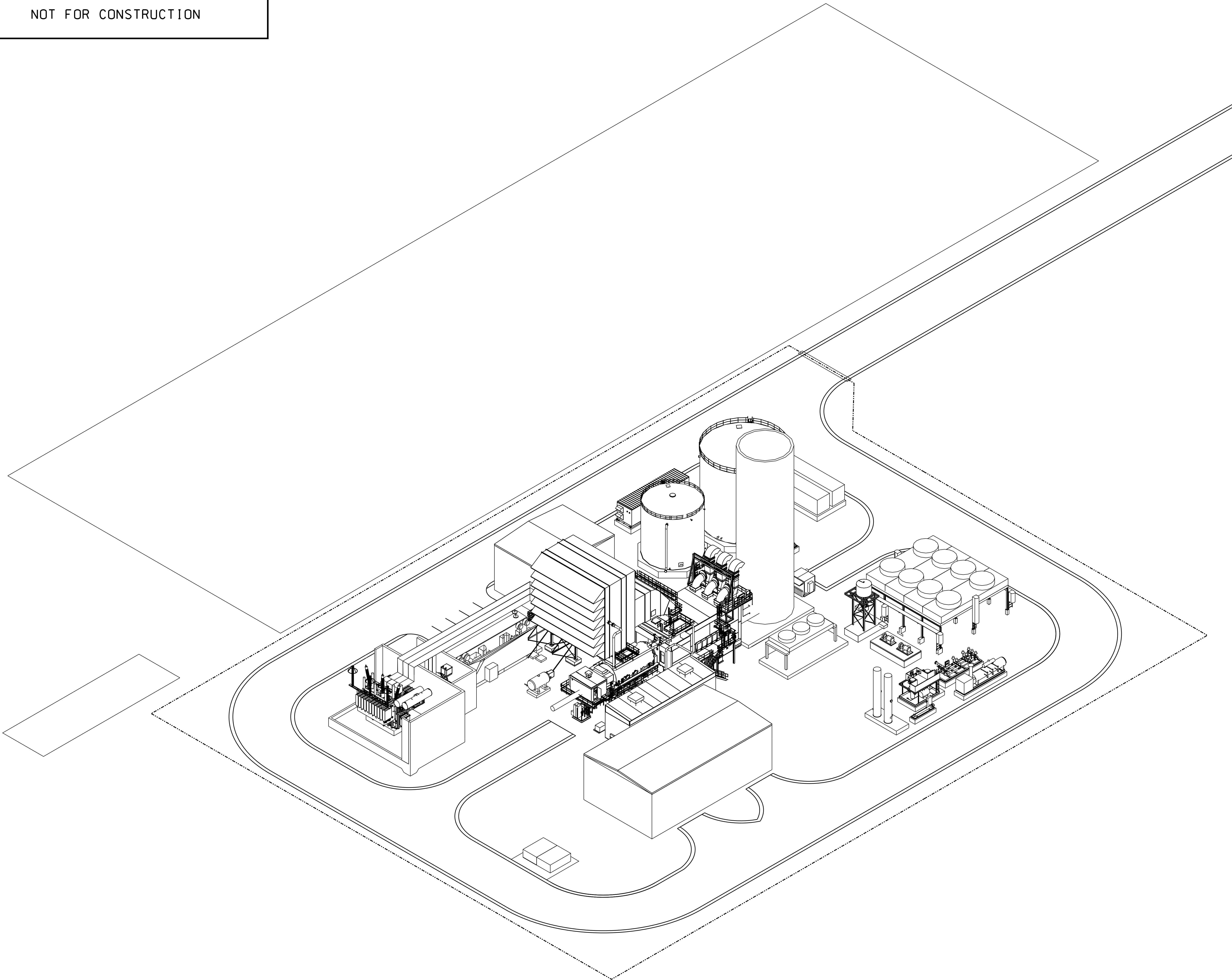
SARGENT & LUNDY^{LLC}
55 EAST MONROE STREET
CHICAGO, ILLINOIS 60603-5780



PROJECT	
ASTORIA SIMPLE CYCLE	
SOUTH DAKOTA	
DRAWING TITLE	
PRELIMINARY ISOMETRIC VIEW	
DRAWING NUMBER	REVISION
SK-GA-AST-003	E
SHEET 01 OF 01	1

PRELIMINARY

NOT FOR CONSTRUCTION



HOLD INFORMATION	
NO.	DESCRIPTION

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RELEASE INFORMATION		
REV.	DATE	DESCRIPTION
B	03-03-2017	FOR CLIENT COMMENT
C	04-10-2017	FOR CLIENT COMMENT
D	05-19-2017	FOR USE
E	06-30-2017	FOR USE

ISSUE PURPOSE:

SPECIFICATION:

PROJECT NO.: 12715-009

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ENTER NAME
ENTER DATE
MY LICENSE RENEWAL DATE IS: ENTER DATE
PAGES OR SHEETS COVERED BY THIS SEAL: THIS DOCUMENT ONLY.
CERTIFICATE OF AUTHORIZATION (WHEN REQ'D)

CAD FILE NAME: SK-GA-AST-004.DGN

PREPARED BY: R. MILLER

REVIEWED BY: A. PATEL

APPROVED BY: ----

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55 EAST MONROE STREET
CHICAGO, ILLINOIS 60603-5780

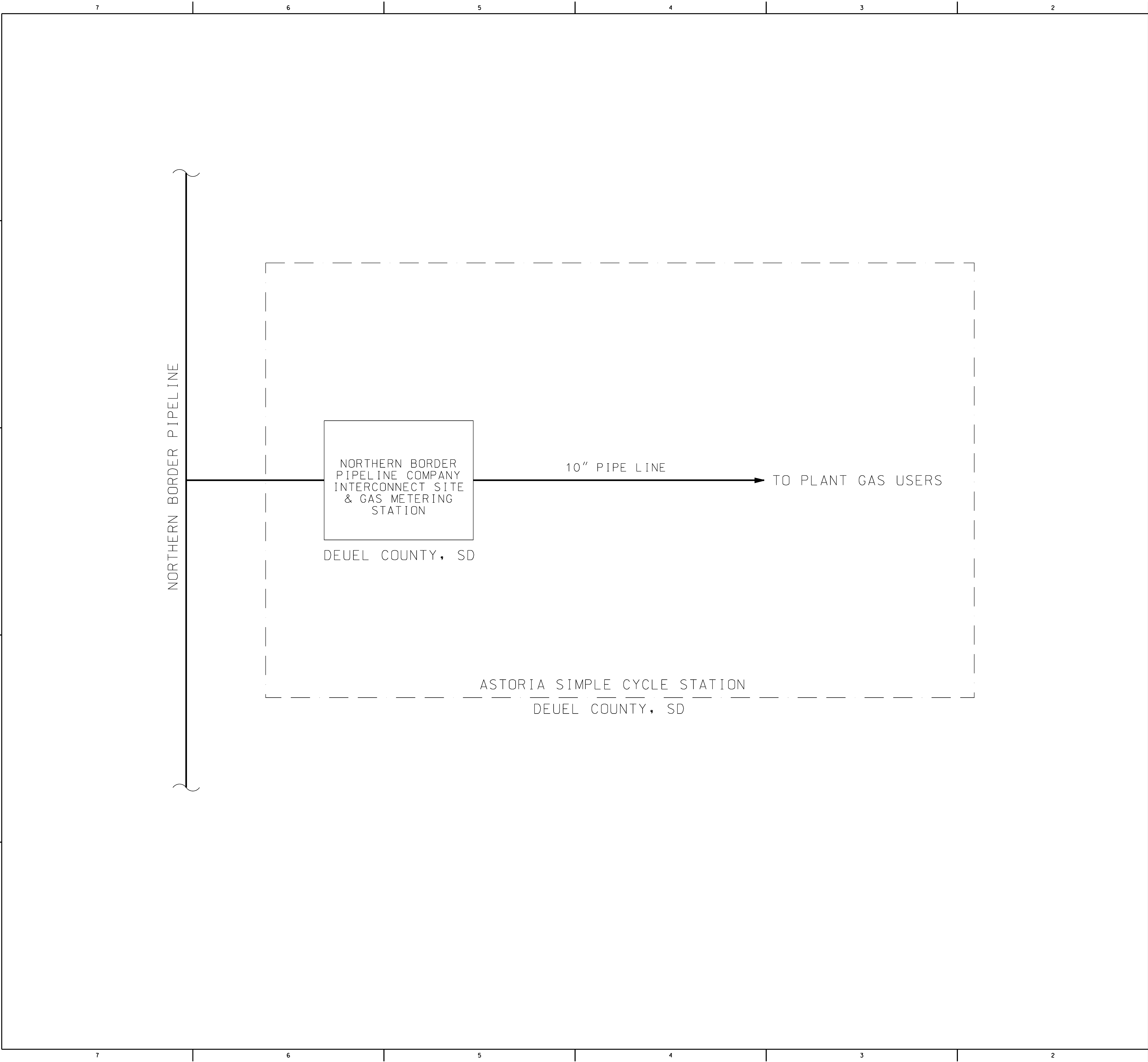



PROJECT	
ASTORIA SIMPLE CYCLE	
SOUTH DAKOTA	
DRAWING TITLE	
PRELIMINARY ISOMETRIC VIEW	
DRAWING NUMBER	
SK-GA-AST-004	
REVISION	
E	
SHEET	01 OF 01

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Revision 11A, Revision Date: 04-30-2010

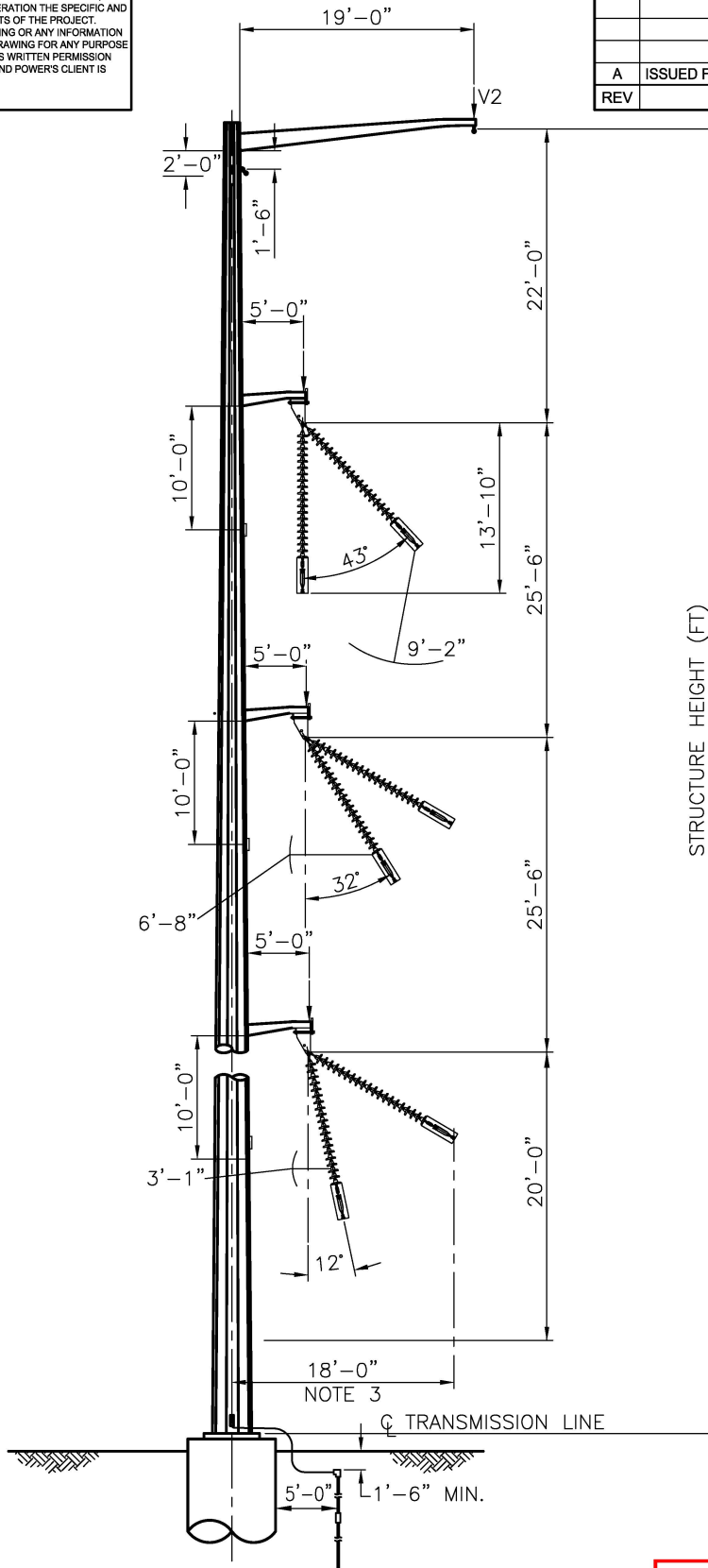
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Form 000-0401-01-08, ANSI (Imperial), Microstation Border - Size E - 34 x 44
Revision 11A, Revision Date: 04-30-2010



1		
HOLD INFORMATION		
NO.	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	02-24-2017	ISSUE FOR COMMENT
ISSUE PURPOSE: ISSUE PURP		
SPECIFICATION: SPEC		
PROJECT NO.: 12715-009		
CAD FILE NAME: NATURAL GAS PIPELINE SCHEMATIC		
PREPARED BY: MIG		
REVIEWED BY: SCD		
APPROVED BY: --		
ANY MODIFICATION OR ADDITION TO THIS DRAWING BY AN ORGANIZATION OTHER THAN SARGENT & LUNDY, IS NOT THE RESPONSIBILITY OF SARGENT & LUNDY.		
<div><div></div><div>SARGENT & LUNDY^{LLC} 55 EAST MONROE STREET CHICAGO, ILLINOIS 60603-5780</div></div>		
OTTER TAIL POWER, CO		
PROJECT		
ASTORIA STATION SIMPLE CYCLE OTTER TAIL POWER CO. PLANT OWNER LINE 2		
DRAWING TITLE		
NATURAL GAS PIPELINE SCHEMATIC		
DRAWING NUMBER		REVISION
SKM-12715-001		A
SHEET 1 OF 1		
1		

THIS DRAWING WAS PREPARED BY POWER ENGINEERS, INC. FOR A SPECIFIC PROJECT, TAKING INTO CONSIDERATION THE SPECIFIC AND UNIQUE REQUIREMENTS OF THE PROJECT. REUSE OF THIS DRAWING OR ANY INFORMATION CONTAINED IN THIS DRAWING FOR ANY PURPOSE IS PROHIBITED UNLESS WRITTEN PERMISSION FROM BOTH POWER AND POWER'S CLIENT IS GRANTED.

A	ISSUED FOR PRELIMINARY	08/25/17	CSF	JPW	GMD	
REV	REVISIONS	DATE	DRN	DSGN	CKD	APPD



LOOKING AHEAD

TLA06NUFH
LARGE ANGLE STRUCTURE

PRELIMINARY

DATE: 08/25/17

PROJ# 147862

ASTORIA Large Angle.dwg

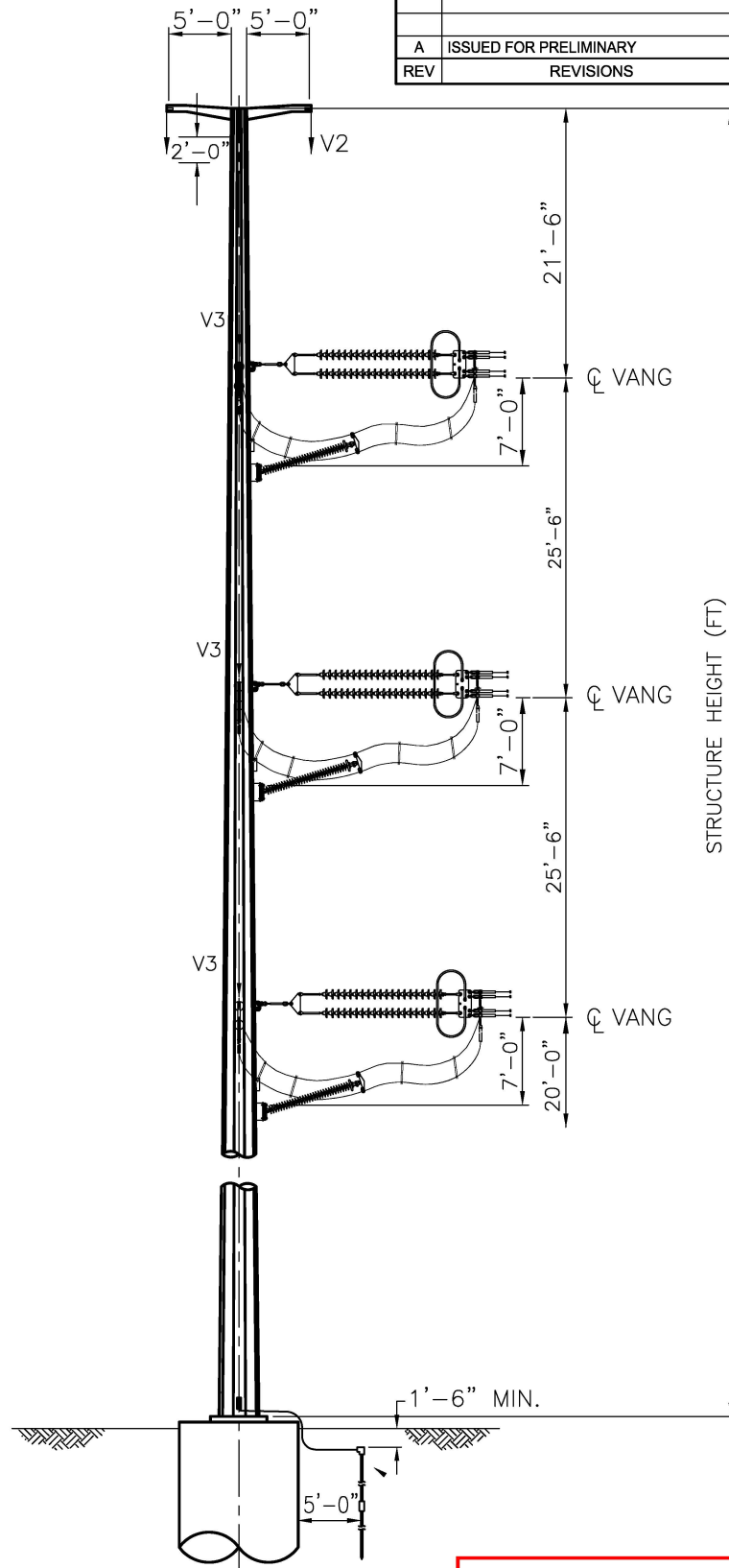
	DSGN	JPW	08/25/17
	DRN	CSF	08/25/17
	CKD	GMD	08/25/17
	SCALE: NONE		
REFERENCE DRAWINGS	FOR 8.5x11 DWG ONLY		



ASTORIA GENERATOR TIE-IN	JOB NUMBER	REV
345kV TRANSMISSION LINE SINGLE CIRCUIT STEEL MONOPOLE RUNNING ANGLE TYPE TLA06NUFH	147862	A
	DRAWING NUMBER	

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A	ISSUED FOR PRELIMINARY	08/25/17	CSF	JPW	GMD	
REV	REVISIONS	DATE	DRN	DSGN	CKD	APPD




LOOKING AHEAD
TD206NUFH
DEADEND STRUCTURE

PRELIMINARY

DATE: 08/25/17

PROJ# 147862

ASTORIA Dead End.dwg

		DSGN	JPW	08/25/17		ASTORIA GENERATOR TIE-IN	JOB NUMBER	REV
		DRN	CSF	08/25/17		345kV TRANSMISSION LINE	147862	△
		CKD	GMD	08/25/17		SINGLE CIRCUIT STEEL TYPE TD206NUFH MONOPOLE DEADEND	DRAWING NUMBER	
REFERENCE DRAWINGS		SCALE: NONE			FOR 8.5x11 DWG ONLY			