

**REVIEW BY FORT BEND COUNTY COMMISSIONERS COURT**

On this 02 day of SEPTEMBER, 2014, Commissioners Court came on to be heard and reviewed the accompanying notice of PETRA NOVA CCSI' LLC

Job Location SMITHERS LAKE ROAD, RABBS PRAIRIE ROAD

Dated 08/20/14 BOND NO. SU42801, Permit No. 84666 to make use of certain Fort Bend County property subject to, "A Revised Order Regulating the Laying, Construction, Maintenance, and Repair of Buried Cables, Conduits, and Pole Lines, In, Under, Across or Along Roads, Streets, Highways, and Drainage Ditches in Fort Bend County, Texas, Under the Jurisdiction of the Commissioners Court of Fort Bend County, Texas," as passed by the Commissioners Court of Fort Bend County, Texas, date the 3<sup>rd</sup> day of August, 1987, recorded in Volume \_\_\_\_\_ of the Minutes of the Commissioners Court of Fort Bend County, Texas, to the extent that such order is not inconsistent with Article 1436a, Vernon's Texas Civil Statutes. Upon Motion of Commissioner Meyers, seconded by Commissioner Patterson, duly put and carried, it is ORDERED, ADJUGED AND DECREED that said notice of said above purpose is hereby acknowledged by the Commissioners Court of Fort Bend County, Texas, and that said notice be placed on record according to the regulation order thereof.

**Notes:**

1. Evidence of review by the Commissioners Court must be kept on the job site and failure to do so constitutes grounds for job shutdown.
2. Written notices are required:
  - a. 48 hours in advance of construction start up, and
  - b. When construction is completed and ready for final inspection

Mail notices to: Permit Administrator  
Fort Bend County Engineering  
301 JACKSON STREET  
RICHMOND, Texas 77469  
281-633-7500

3. This permit expires one (1) year from date of permit if construction has not commenced.

By

[Signature]  
County Engineer

By

N/A  
Drainage District Engineer/Manager

Presented to Commissioners Court and approved.

Recorded in Volume 92-14  
Minutes of Commissioners Court.

Clerk of Commissioners Court

By [Signature]  
Deputy

**PERFORMANCE BOND COVERING ALL CABLE, CONDUIT AND/OR POLE LINE  
ACTIVITY IN, UNDER, ACROSS OR ALONG FORT BEND COUNTY ROADS**

AUTHORIZED

BOND NO SU42801

THE STATE OF TEXAS §

KNOW ALL MEN BY THESE PRESENTS:

COUNTY OF FORT BEND §

THAT WE, Petra Nova CCS I LLC whose address is 1000 Main Street, 23rd Floor, Houston, Texas, hereinafter called the Principal, and Aspen American Insurance Company, a Corporation existing under and by virtue of the laws of the State of Texas and authorized to do an indemnifying business in the State of Texas, and whose principal office is located at 175 Capital Boulevard, Suite 300, Rocky Hill, CT 06067, whose officer residing in the State of Texas, authorized to accept service in all suits and actions brought within said State is Ryan Field and whose address is 840 W. Sam Houston Parkway N., Suite 420, Houston, TX 77024, hereinafter called the Surety, and held and firmly bound unto, Robert E. Hebert, County Judge of Fort Bend County, Texas, or his successors in office, in the full sum of five thousand Dollars (\$5000.00) current, lawful money of the United States of America, to be paid to said Robert E. Hebert, County Judge of Fort Bend County, Texas, or his successors in office, to which payment well and truly to be made and done, we, the undersigned, bind ourselves and each of us, our heirs, executors, administrators, successors, assigns, and legal representatives, jointly and severally, by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT, WHEREAS, the above bounden principal contemplates laying, constructing, maintaining and/or repairing one or more cables, conduits, and/or pole lines in, under, across and/or along roads, streets and highways in the County of Fort Bend, and the State of Texas, under the jurisdiction of the Commissioners' Court of Fort Bend County, Texas, pursuant to the Commissioners' Court order adopted on the 1st day of December, A.D. 1980, recorded in Volume 13, of the Commissioners' Court Minutes of Fort Bend County, Texas, regulating same, which Commissioners' Court order is hereby referred to and made a part hereof for all purposes as though fully set out herein;

AND WHEREAS, the principal desires to provide Fort Bend County with a performance bond covering all such cable, conduit and/or pole line activity;

NOW, THEREFORE, if the above bounden principal shall faithfully perform all its cable, conduit and/or pole line activity (including, but not limited to the laying, construction, maintenance and/or repair of cables, conduits and/or pole lines) in, under, across and/or along roads, streets and highways in the County of Fort Bend and State of Texas, under the jurisdiction of the Commissioners Court of Fort Bend County, Texas, pursuant to and in accordance with minimum requirements and conditions of the above mentioned Commissioners' Court order set forth and specified to be by said principal done and performed, at the time and in the manner therein specified, and shall pay over and make good and reimburse Fort Bend County, all loss and damages which Fort Bend County may sustain by reason of any failure or default on the part of said principal, then this obligation shall be null and void, otherwise to remain in full force and effect.

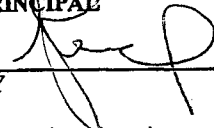
This bond is payable at the County Courthouse in the County of Fort Bend and State of Texas.

It is understood that at any time Fort Bend County deems itself insecure under this bond, it may require further and/or additional bonds of the principal.

EXECUTED this 13th day of August, 2014.

Petra Nova CCS I LLC

PRINCIPAL



BY

Aspen American Insurance Company

SURETY



BY Mark W. Edwards, II, Attorney-in-Fact



Aspen American Insurance Company  
175 Capital Boulevard, Rocky Hill, CT 06067

## POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, THAT Aspen American Insurance Company, a corporation duly organized under the laws of the State of Texas, and having its principal offices in Rocky Hill, Connecticut, (hereinafter the "Company") does hereby make, constitute and appoint: **Ronald B. Giadrosich; Mark W. Edwards II, Jeffrey M. Wilson, Evondia H. Woessner, William Milton Smith, Alisa B. Ferris, Robert R. Freel of McGriff Seibels & Williams, Inc.** its true and lawful Attorney(s)-in-Fact, with full power and authority hereby conferred to sign, execute and acknowledge on behalf of the Company, at any place within the United States, the following instrument(s) by his/her sole signature and act: any and all bonds, recognizances, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking and any and all consents incident thereto, and to bind the Company thereby as fully and to the same extent as if the same were signed by the duly authorized officers of the Company. All acts of said Attorney(s)-in-Fact done pursuant to the authority herein given are hereby ratified and confirmed.

This appointment is made under and by authority of the following Resolutions of the Board of Directors of said Company effective on April 7, 2011, which Resolutions are now in full force and effect;

**VOTED:** All Executive Officers of the Company (including the President, any Executive, Senior or Assistant Vice President, any Vice President, any Treasurer, Assistant Treasurer, or Secretary or Assistant Secretary) may appoint Attorneys-in-Fact to act for and on behalf of the Company to sign with the Company's name and seal with the Company's seal, bonds, recognizances, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said Executive Officers at any time may remove any such appointee and revoke the power given him or her.

**VOTED:** The foregoing authority for certain classes of officers of the Company to appoint Attorneys-in-Fact by virtue of a Power of Attorney to sign and seal bonds, recognizances, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, as well as to revoke any such Power of Attorney, is hereby granted specifically to the following individual officers of Aspen Specialty Insurance Management, Inc.:

**Michael Toppi, Executive Vice President, Scott Sadowsky, Senior Vice President, Kevin W. Gillen, Senior Vice President, Mathew Raino, Vice President, and Ryan Field, Assistant Vice President.**

This Power of Attorney may be signed and sealed by facsimile (mechanical or printed) under and by authority of the following Resolution voted by the Boards of Directors of Aspen American Insurance Company, which Resolution is now in full force and effect:

**VOTED:** That the signature of any of the Officers identified by title or specifically named above may be affixed by facsimile to any Power of Attorney for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any and all consents incident thereto, and any such Power of Attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company. Any such power so executed and certified by such facsimile signature and/or facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking so executed.

IN WITNESS WHEREOF, Aspen American Insurance Company has caused this instrument to be signed and its corporate seal to be hereto affixed this 2nd day of January, 2014.

STATE OF CONNECTICUT

SS. ROCKY HILL

COUNTY OF HARTFORD

Aspen American Insurance Company

Ryan Field, Assistant Vice President

On this 2nd day of January, 2014 before me personally came Ryan Field to me known, who being by me duly sworn, did depose and say, that he/she is Assistant Vice President, of Aspen American Insurance Company, the Company described in and which executed the above instrument; that he/she knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; and that he/she executed the said instrument on behalf of the Company by authority of his/her office under the above Resolutions thereof.

*Patricia C. Taber*  
Notary Public

My commission expires: May 31, 2016

### CERTIFICATE

I, the undersigned, Ryan Field of Aspen American Insurance Company, a stock corporation of the State of Texas, do hereby certify that the foregoing Power of Attorney remains in full force and has not been revoked; and furthermore, that the Resolutions of the Boards of Directors, as set forth above, are now and remain in full force and effect.

Given under my hand and seal of said Company, in Rocky Hill, Connecticut, this 13th day of August, 2014

By:

Name: Ryan Field, Assistant Vice President



\* For verification of the authenticity of the Power of Attorney you may call (860) 760-7728 or email: [Patricia.Taber@aspen-insurance.com](mailto:Patricia.Taber@aspen-insurance.com)

# COUNTY OF FORT BEND

## Engineering Department

301 JACKSON STREET  
RICHMOND, Texas 77469

Johnny Ortega  
Permit Administrator

1124 Blume Road  
Phone: (281) 633-7500

### PERMIT APPLICATION REVIEW FORM FOR CABLE, CONDUIT, AND POLE LINE ACTIVITY IN FORT BEND COUNTY

PERMIT NO. 084666

The following "Notice of Proposed Cable, Conduit, and/or Pole Line activity in Fort Bend County" and accompanying attachments have been reviewed and the notice conforms to appropriate regulations set by Commissioner's Court of Fort Bend County, Texas.

- X (1) Complete Application Form.
- X a. Name of road, street, and/or drainage ditch affected.
- X b. Vicinity map showing course of direction.
- X c. Plans and specifications.

- X (2) Bond:
- District Attorney, approval when applicable.
- Perpetual bond currently posted.
- No.
- Amount
- X Performance bond submitted.
- No. SU42801
- Amount \$5,000.00
- Cashier's Check.
- No.
- Amount

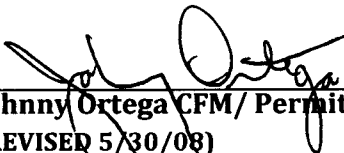
- (3) Verbal permission given for emergencies, to start construction before approved in Commissioner's Court.

         Precinct Engineer Acknowledgment          Date         

         Precinct Commissioner Acknowledgment          Date         

- (4)
- Drainage District Approval when applicable

We have reviewed this project and agree it meets minimum requirements.

  
Johnny Ortega CFM/ Permit Administrator  
(REVISED 5/30/08)

08/20/2014  
Date

**NOTICE OF PROPOSED CABLE, CONDUIT AND/OR POLE LINE ACTIVITY  
IN, UNDER, ACROSS OR ALONG ROADS, STREETS, HIGHWAYS AND DRAINAGE DITCHES  
IN FORT BEND COUNTY**

APPLICANT'S JOB NO. \_\_\_\_\_  
 PERMIT No. Submittal PCT. No. 1  
 BOND No. SW 42901

Formal notice is hereby given that Petra Nova CCS1 LLC  
 proposes to lay, construct, maintain and/or repair cable, conduit and/or pole line, in, under,  
 across, or along roads, streets, highways and drainage ditches in Fort Bend County, as follows:

**In, Under, or Across Roads and/or Drainage Ditches**

Road or Ditch Name	Distance & Direction From Nearest Intersection	Length of Crossing	Type of Construction Bored: Jacked: Driven: Cased
<u>Smithers Lake</u>	<u>2,420ft SW</u>	<u>155'</u>	<u>X<sup>(1)</sup></u>

**Along Roads and/or Drainage Ditches**

Road or Ditch Name	Distance & Direction From Nearest Intersection	To	Distance
<u>Rabbs Prairie</u>	<u>2715ft S</u>	<u>Smithers Lake Rd</u>	<u>2,200' (2)</u>

**General Description**

(1) overall bore 1,935 feet (2) temporary construction only

The Location and description of the proposed installation and appurtenances is more fully shown on the attached detail drawings. The laying, construction, maintenance and/or repair of the proposed installation shall be subject to "A Revised Order Regulating the Laying, Construction, Maintenance and/or Repair of Cables, Conduits, and/or Pole Lines, In, Under, Across, or Along Roads, Streets, Highways and Drainage Ditches in Fort Bend County, Texas, Under the Jurisdiction of the Commissioners Court of Fort Bend County, Texas," as passed by Commissioners Court of Fort Bend County, Texas, dated the 3rd. day of August, 1987, recorded in Volume 639 of the Minutes of the Commissioners Court of Fort Bend County, Texas.

Written notices are required: 1) 48 hours in advance of start of construction and  
 2) when construction is complete and ready for final inspection.

Mail to: Permit Administrator/Fort Bend County Engineering  
 P.O. Box 1449, Rosenberg, TX 77471.

Violation of requirements shall constitute grounds for job shut down.

COMPANY NAME: Petra Nova CCS1 LLC  
 AGENT and/or OWNER

[Signature]  
 (Signature)

NAME & TITLE Greg Kennedy, VP  
 (Please Print)

DATE 8/18/14

ADDRESS 1000 Main  
 (Street/P.O. Box)

Houston TX 77002  
 City State Zip

TELEPHONE NO: 713-304-0919  
 (accessible 24 hrs/day, 7 days/week)

Does project  
 comply with Fort  
 Bend County  
 Outdoor Lighting  
 Ordinance?

Yes ( )

No ( )





RabbsPrairieRd

SmithersRd

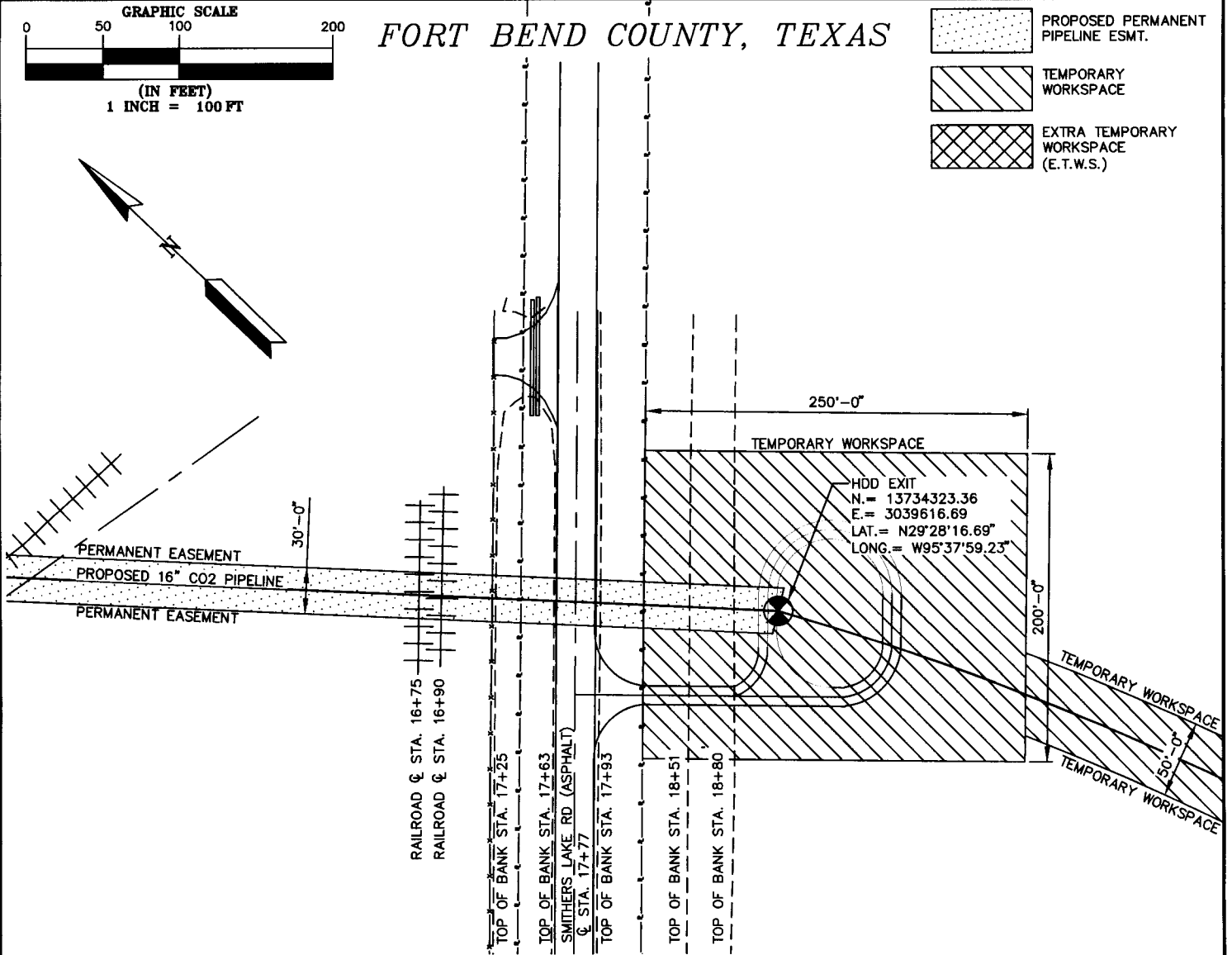
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Imagery Date: 4/8/2014 29°27'50.40" N 95°38'25.13" W elev 66

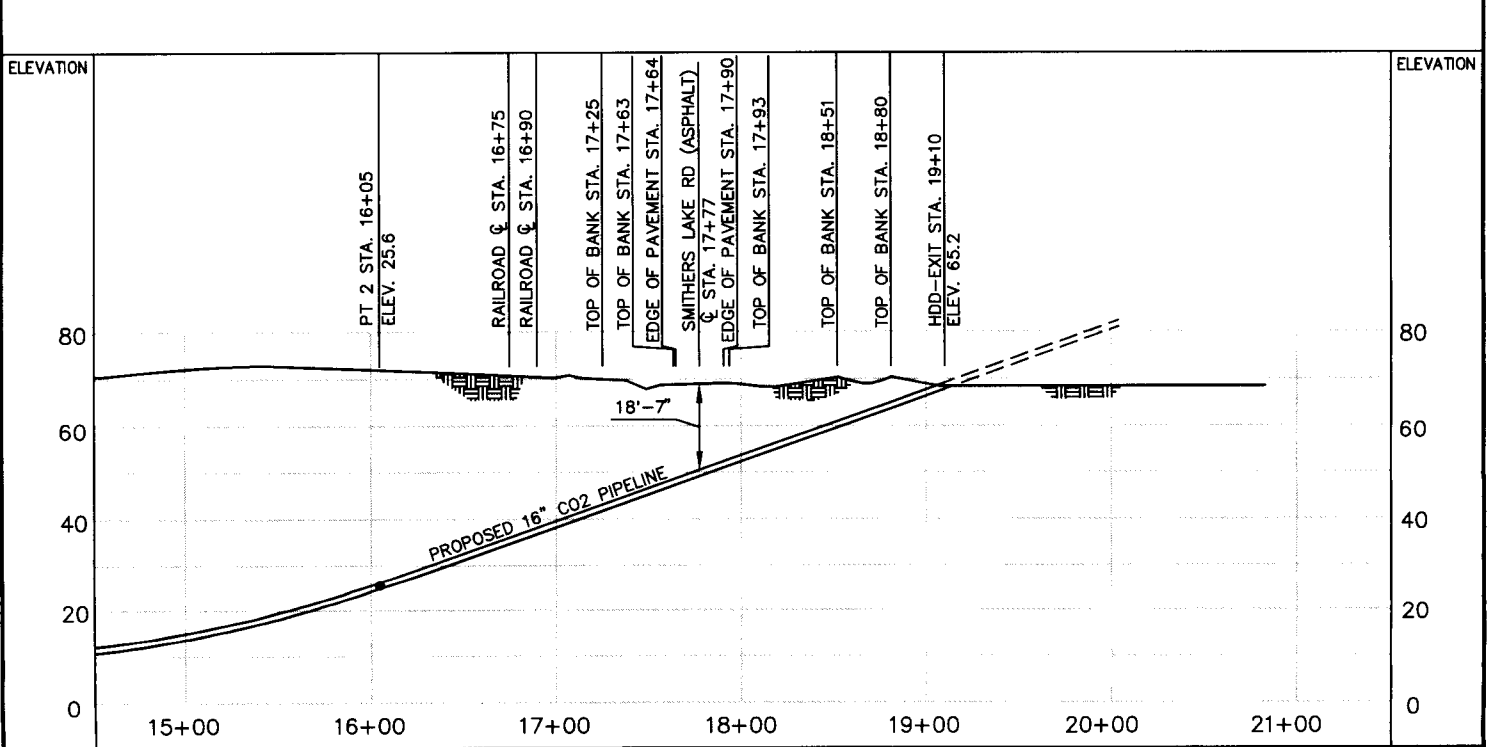




**PLAN**  
SCALE: HOR. 1"=100'

**SMITHERS LAKE RD (ASPHALT)**

**PROFILE**  
SCALE: HOR. 1"=100'  
SCALE: VER. 1"=40'



DATE: 07/25/14  
REVISED:  
REVISED:

ALL DISTANCE AND COORDINATES ARE TEXAS STATE PLANE  
SOUTH CENTRAL ZONE (4204), NAD 83, NAVD 88.

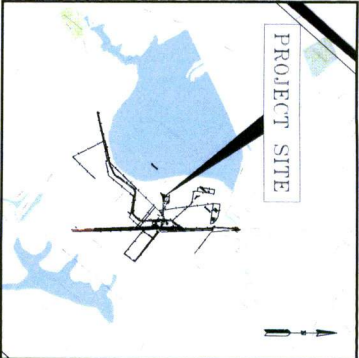
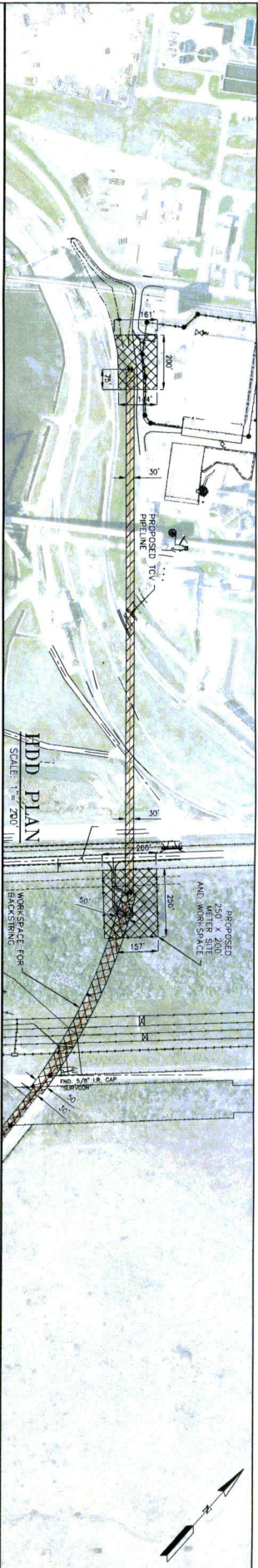
**SPECIFICATIONS:**  
CONTENTS: LIQUID CO2  
DIAMETER (OD): 16"  
GRADE: X-60, PSL-2, ERW  
WALL THICKNESS: 0.500"  
MOP/DESIGN PRESSURE: 2,200 PSIG (ANSI 900)  
COATING: 16-18 MILS FBE + 20-30 MILS ARO  
CONSTRUCTION METHOD: HDD

<p>PROJECT: TCY CO2 PIPELINE JOB NUMBER: 11132 DATE: 07/25/2014 SCALE: 1"=100' SURVEYOR: SAM, INC. TECHNICIAN: DRAWING: TRACT ID: PARTY CHIEF: FIELD BOOKS:</p>	<p>PROJECT CONSULTING SERVICES, INC. TEXAS ENGINEERING REGISTRATION # 6814</p> <p>1800 WEST LOOP SOUTH, SUITE 900 HOUSTON, TX 77057-7088 (713) 968-7880 FAX (713) 968-7088 www.pcsconsulting.com</p>	<p>PETRA NOVA CCS 1, LLC</p>	<p>PROPOSED CO2 PIPELINE CROSSING SMITHERS LAKE RD. PAGE 1 OF 1</p>
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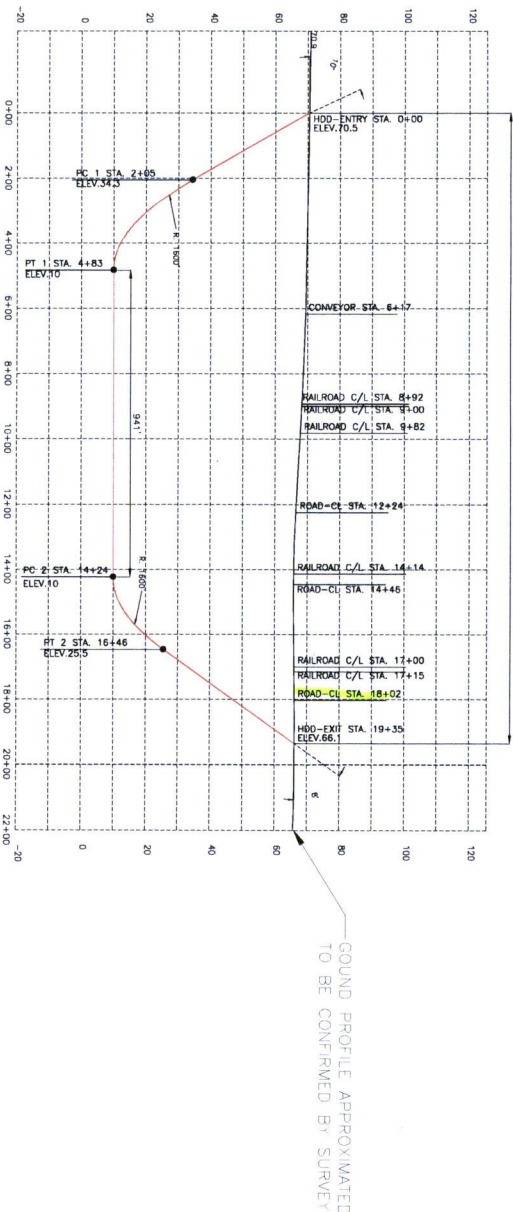






VICINITY MAP

DIRECTIONAL DRILL DATA FORT BEND COUNTY, TEXAS		
DESCRIPTION	STATION (ft)	ELEVATION (ft)
ENTRY Ø 12"	0+00	70.5'
PC 1 RADIUS (1,600 ft RADIUS)	2+05	34.3'
PT 1	4+83	10.0'
PC 2 (1,600 ft RADIUS)	14+24	10.0'
PT 2	16+46	25.5'
EXIT Ø 8"	19+35	66.1'
HORIZONTAL DISTANCE = 1935'		
DIRECTIONAL DRILL PIPE LENGTH = 1943'		



HDD PROFILE

NOTES

- NOTE:
- GRID PROJECTION BASED ON NAD 83 TEXAS STATE PLANE, SOUTH CENTRAL ZONE, US FEET.
  - CONTRACTOR IS RESPONSIBLE FOR VERIFYING LOCATION AND DEPTH OF ALL EXISTING PIPELINES, UTILITIES, AND OBSTRUCTIONS PRIOR TO CONSTRUCTION.
  - WELDING PROCEDURES AND QUALIFICATIONS SHALL COMPLY WITH API 1104 AND ASME B31.8 CODE. CRACKS ARE UNACCEPTABLE.
  - CONTRACTOR SHALL COMPLY WITH ALL ENVIRONMENTAL STANDARDS AS REQUIRED BY COMPANY AND WITH ALL APPLICABLE ENVIRONMENTAL REGULATIONS.
  - ACCESS: ALL EQUIPMENT MUST ACCESS THE SITE ALONG THE CONSTRUCTION RIGHT-OF-WAY OR FROM APPROVED ACCESS ROADS.
  - WORK AREA: MAXIMUM WORK AREA LIMITS ARE DEFINED ON THE DRAWINGS. RESTRICT SITE CLEANING TO WITHIN THE WORK AREA. LIMITATIONS INDICATED FOR THE DRILLING HDD ENTRY AND HDD EXIT POINTS. FULBACK/MAKEUP AREA, AND, WHEN APPLICABLE, ALONG THE FAUSE RIGHT-OF-WAY. DURING CONSTRUCTION OF THE CROSSING, CLEANING BETWEEN THE HDD ENTRY AND EXIT POINTS REQUIRES PRIOR APPROVAL FROM THE ENVIRONMENTAL INSPECTOR AND IS LIMITED TO THE MINIMUM NECESSARY TO STRING LOCATION WIRES AND INSTALL PUMPS AND PIPING TO OBTAIN WATER (WHERE APPROVED).
  - WATER SOURCE: DRILL WATER AND PRE-INSTALLATION HYDROSTATIC TEST WATER SHALL BE OBTAINED FROM A SOURCE PROVIDED BY PERMIT CONDITIONS.
  - SPILL PREVENTION: RETAINING OF ALL EQUIPMENT SHALL BE PERFORMED AND COMPLETED IN ACCORDANCE WITH SPEC PLAN.
  - EROSION AND SEDIMENT CONTROL: CONTRACTOR SHALL SUPPLY, INSTALL, AND MAINTAIN SEDIMENT CONTROL STRUCTURES AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
  - WATER DISPOSAL: CONTRACTOR SHALL DISPOSE OF EXCESS DRILL WATER IN ACCORDANCE WITH PERMIT CONDITIONS. UNDER NO CIRCUMSTANCE SHALL DRILLING FLUIDS BE DISPOSED OF IN WATERBODIES OR WETLANDS, DRILLING AND THE WATERSHEDS OF THE STATE OF TEXAS. THIS SHALL BE OBTAINED AND COLLECTED TO THE EXISTING PRODUCTION, AND DISPOSED OF AS DIRECTED BY THE COMPANY REPRESENTATIVE IN ACCORDANCE WITH PERMIT CONDITIONS AND FACILITY MITIGATION PLAN.
  - CLEAN-UP/STABILIZATION/RESTORATION: ALL DISTURBED AREAS SHALL BE RETURNED TO APPROXIMATE ORIGINAL CONTOURS, DISTURBED AREAS SHALL BE SEED AS DESCRIBED IN THE ENVIRONMENTAL SPECIFICATIONS.
  - SURVEY DATA PROVIDED PROVIDED SHAL INC.
- PERMIT SPECIFICATIONS:
- 16" OD x 0.500" WT. API 5L X60 W/ 14-16 MILS PRE & 30-35 MILS AFT COATING
- DESIGN FACTOR OF 1.5
- DESIGN PRESSURE/MAOP: 2220 PSIG
- TEST PRESSURE/MAOP: 2220 PSIG
- TEST DURATION: MINIMUM 4 HOURS DURING PRE-INSTALLATION
- TESTING AND 8 HOURS DURING POST INSTALLATION

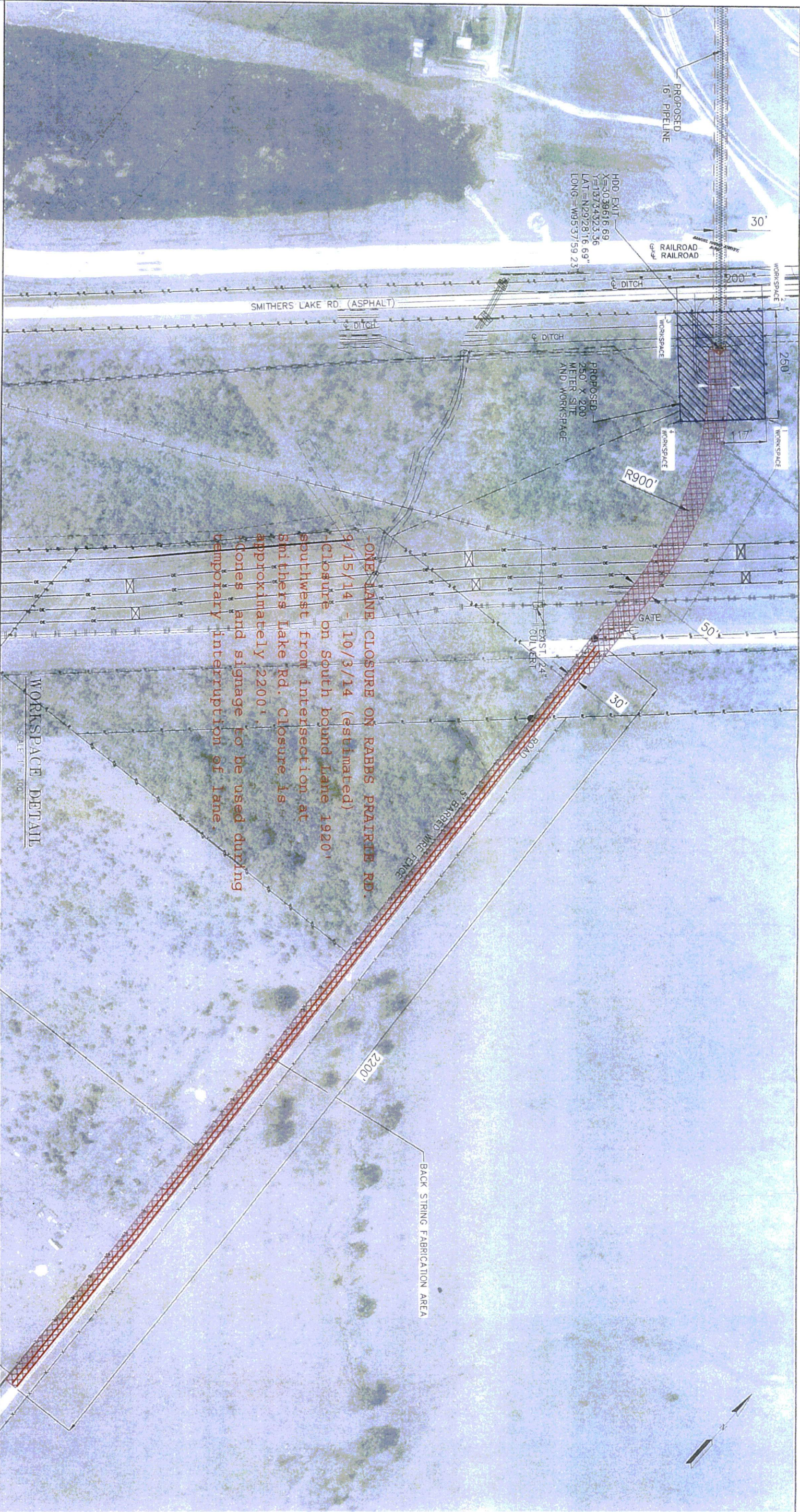
PROGRESS PRINTS

PIPELINE													PETRA NOVA CCS 1, LLC PRELIMINARY HDD DESIGN 16" CO2 SUPPLY PIPELINE												
PROPOSED ROUTE													FORT BEND COUNTY, TEXAS												
													REVISION												
													DESIGNED PCS												
													DRAWN WCA												
													CHECKED MRI												
													APPROVED PETRA NOVA												
													REVISION												
													DRAWING NUMBER												
													11132-HDD-001												
													SHEET												
													2 of 7												









ONE LANE CLOSURE ON RABBS PRAIRIE RD.  
9/15/14 - 10/3/14 (estimated)  
- Closure on South bound lane 1920' southwest from intersection at Smithers Lake Rd. Closure is approximately 2200'.  
Cones and signage to be used during temporary interruption of lane.

WORKSPACE DETAIL  
SCALE: 1" = 100'

Point Table					
Point #	Description	Northing	Easting	LAT	LONG
1	WORKSPACE	13734276.47	3039803.06	N029°28'16.17"	W095°37'57.14"
2	WORKSPACE	13734458.58	3039631.78	N029°28'18.02"	W095°37'59.02"
3	WORKSPACE	13734321.55	3039486.10	N029°28'16.71"	W095°38'00.71"
4	WORKSPACE	13734139.45	3039657.38	N029°28'14.86"	W095°37'58.83"

PIPELINE		INDUCTION BEAMS		MATERIAL SUMMARY		REFERENCE DRAWINGS		REVISION		DESIGNED		CHECKED		APPROVED		PETRA NOVA CCS 1, LLC		REVISION		DRAWING NUMBER		SHEET	
PROPOSED ROUTE		S/N	W.T. ANGLE	NO.	DESCRIPTION	QTY	DWG. NO.	NO.	DESCRIPTION	DATE	DESIGNED	PCS	LEL	CHECKED	MRI	WORKSPACE DETAIL		0		11132-WS-002		3 OF 7	
										08/07/14						16" SUPPLY PIPELINE							
																INLET METER STATION							
																FORT BEND COUNTY, TEXAS							