Exhibit 3.2.6

Patrick Engineering Concept
Potable Water Line Cost Estimate

PATRICK
ENGINEERING INC.

300 West Edwards Street
Suite 200
Springfield, IL 62704-1907
Tel: (217) 525-7050
Fax: (217) 525-7053

December 18, 2009

Mr. Vasu Pinapati
Tenaska Taylorville LLC
1044 North 115th Street, Suite 400
Omaha, NE 68154-4446

Reference: Concept Potable Water Line Cost Estimate
Taylorville Energy Center, Taylorville, IL

Dear Mr. Pinapati:

This letter report has been prepared for Tenaska Taylorville LLC (Tenaska) to summarize the services performed in developing an engineer's opinion of the probable cost to construct a potable water line from the City of Taylorville to the proposed Taylorville Energy Center (TEC) site north of the City. The following paragraphs detail:

- Design information
  - Proposed route location
  - Site visit and observations
  - Design input data
  - Potential design issues
- Cost estimates and limitations.

DESIGN INFORMATION

Patrick utilized the conceptual route developed under a separate scope of services as the base route for the water main. Patrick obtained additional information from Tenaska, the TEC plant engineering consultant (Kiewit-Burns & McDonnell, or KBM), and the City of Taylorville Water Department regarding the plant's required pressure and demand, the existing pressure, flow, and location of the main that will be extended to the TEC, and City specifications regarding water main construction. Patrick also reviewed State of Illinois regulations for water main construction (Title 35 Ill. Admin. Code Part 653), and conducted a site visit to assess local conditions that may impact construction of the water main.

Proposed Route. The proposed route begins on Old Oak Road, less than ¾ mile from the City's Water Treatment Plant, where the City has an existing 8" PVC main along Old Oak Road. The proposed route travels north into agricultural fields west of the Glen Haven cemetery, up to Illinois Route 48, and follows the east side of Route 48 to County Road 1550 North (CR 1550N). The proposed route will then turn northwest and cross Route 48 and the Norfolk Southern Railroad right-of-way at a right angle. West of the railroad, the proposed route travels through agricultural fields up to the TEC property line. The route will extend west to County Road 1400 East (CR 1400E) and then along the east side of CR 1400E up to the pre-determined connection point. The total length of the water main is approximately 15,000 linear feet (2.8 miles) to the

KBM connection point. Approximately 20.5 acres may be required for construction (60-foot easement along 15,000 linear feet of water main), of which 3 acres is on the proposed TEC site. Drawings of the proposed water main route are provided as Attachment A.

Site Visit and Observations. Patrick's site visit was conducted on October 20, 2009. Patrick met with local Tenaska representatives to discuss the project, and then performed a "windshield" survey (notes and photographs) of the proposed water main route where accessible by local roads. The "windshield" survey indicated the following:

- Several underground utilities will be encountered along the proposed route. Telephone cable (along Old Oak Road, Illinois 48, and CR 1400E), a City water well pump house and raw water line, a ConocoPhillips petroleum pipeline, and an Illinois Consolidated fiber optic line were observed to either parallel or cross the proposed route.
- A deep agricultural drainage ditch needs to be crossed along CR 1400E. This ditch runs through the TEC site, and appears to be roughly 8-10 feet deep and 20-30 feet wide.

No other potential obstructions were noted along the route during the "windshield" survey.

Design Input Data. Per Tenaska, the water main will supply potable water for drinking, sanitary use, and occasional laboratory use for the TEC; the main will not supply fire protection water. KBM supplied the anticipated demand data – 15 gallons per day per person during construction (anticipated 1,000 construction workers maximum), 35 gallons per day per person during operations (anticipated 200 workers day shift, 50 workers night shift). From this data, and from Illinois public water supply regulations[1], Patrick estimated the design flow (maximum hourly use) to be 100 gallons per minute (100 gpm). KBM indicated that during construction, peak water consumption of up to 500 gpm may be necessary. KBM also indicated that the water pressure from the incoming water main should be 80 pounds per square inch (80 psi).

The City of Taylorville supplied information to Patrick on the existing water main and their specifications and preferences for the water main. Patrick has assumed that the City will be responsible for the operation and maintenance of the water main, and therefore the design should accommodate their requirements and recommendations.

The City indicated that they prefer the minimum size of the water main to be 8-inch diameter. The main may be constructed using PVC C900 SDR14 (200 psi pressure rating) or ductile iron pipe. The City requires hydrants every 600 feet; however, for cost estimating purposes, Patrick assumed that hydrants will not be allowed in the agricultural fields. (Ten additional hydrants with associated valves and fittings would be needed if the 600-foot spacing is required in fields.)

Patrick selected an 8-inch diameter PVC pipe for the pipeline. The 8-inch PVC pipe is the minimum acceptable size, and would be more cost-effective for the proposed length of the line compared to ductile iron. An 8-inch PVC C900 SDR14 pipe (7.76-inch inside diameter) would have the capacity to transport up to 1,180 gpm at the maximum recommended pipeline velocity of 8 feet per second (ft/sec).

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[1] Title 35, Ill. Admin. Code, Part 653: Design, Operation, & Maintenance Criteria.

The water pressure at the existing City water main is less than 80 psi. Therefore, a booster pump station will be required at some point along the pipeline to increase the water pressure to the required 80 psi. The likely location of the booster station would be along County Road 1400 East, near the TEC site. Patrick anticipates that the booster station will be located within the road right-of-way and not on Tenaska property (preferred for City operation & maintenance).

The booster station is anticipated to be an aboveground structure with up to three (triplex) variable-speed pumps. A triplex pump station design could accommodate the larger flows anticipated during construction (up to 500 gpm) by operating each of the pumps in parallel. After construction, when anticipated flows would be on the order of 100 gpm, only one of the pumps would operate at any given time, but the station would have two backup pumps. The booster station may also include an optional tank to maintain pipeline system pressure during low demand periods.

A summary of the design parameters and process flow diagram is provided as Attachment B.

Potential Design Issues. As noted previously, there are some potential design issues to address (e.g., utility locations & crossings, booster pump station). None of the design issues appear to be a "fatal flaw" to the proposed design. Patrick anticipates that the main can be shifted to avoid parallel utilities, can be deepened at utility and ditch crossings, and the booster station can be designed to accommodate construction peak flows as well as be constructed within a road right-of-way.

COST ESTIMATE

Patrick developed estimated quantities of materials and prepared a cost estimate for the potable water main construction based on the previously discussed concept design, along with recommendations from the Illinois Department of Agriculture "Pipeline Construction Standards and Policies for Agricultural Impact Mitigation".

To develop costs, Patrick utilized 2009 Means Heavy Construction Cost Data adjusted for regional conditions, costs from prior applicable projects, vendor costs, or costs estimated from experience. The cost estimate provided is in December 2009 (current) dollars.

Construction of the water main is an estimated $943,000. A budgetary estimate of $189,000 is included for surveying, engineering design (geotechnical, mechanical, structural, and civil) and permitting. Construction engineering support and documentation by an engineer's representative is estimated at $75,000. Land acquisition costs for the pipeline easement are estimated at $10,000. A 15% contingency ($141,000) is also included to account for miscellaneous cost items that the concept design level of detail does not include.

The total estimated cost for the potable water main construction project is $1.35 million. The design is conceptual, so costs are expected to be accurate within a range of plus or minus 30 percent (+/- 30%) – i.e., the project cost range may be between $0.94 million and $1.75 million. An itemized cost table is provided as Attachment C. Construction costs appear to be consistent

with recent water main project bids obtained for various locations in northern and southern Illinois.

LIMITATIONS

Patrick's concept design and opinion of cost is based upon the current available information from Tenaska and the City of Taylorville. If future conditions arise that necessitate changes to the design and project cost, such conditions may not be accurately represented in Patrick's opinion of cost.

Patrick is pleased to have had this opportunity to provide engineering services to Tenaska. Please contact either of the undersigned if you require further information regarding this report.

Sincerely,

PATRICK ENGINEERING INC.

Matthew E. Minder, P.E.
Project Engineer

Chris Burger, P.E.
Vice President

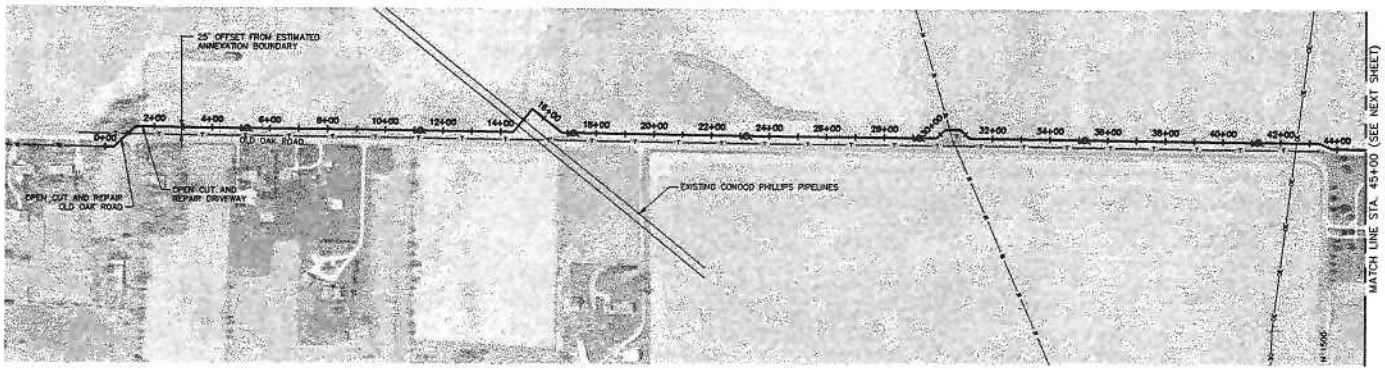
MEM/mem

Enclosures: As noted

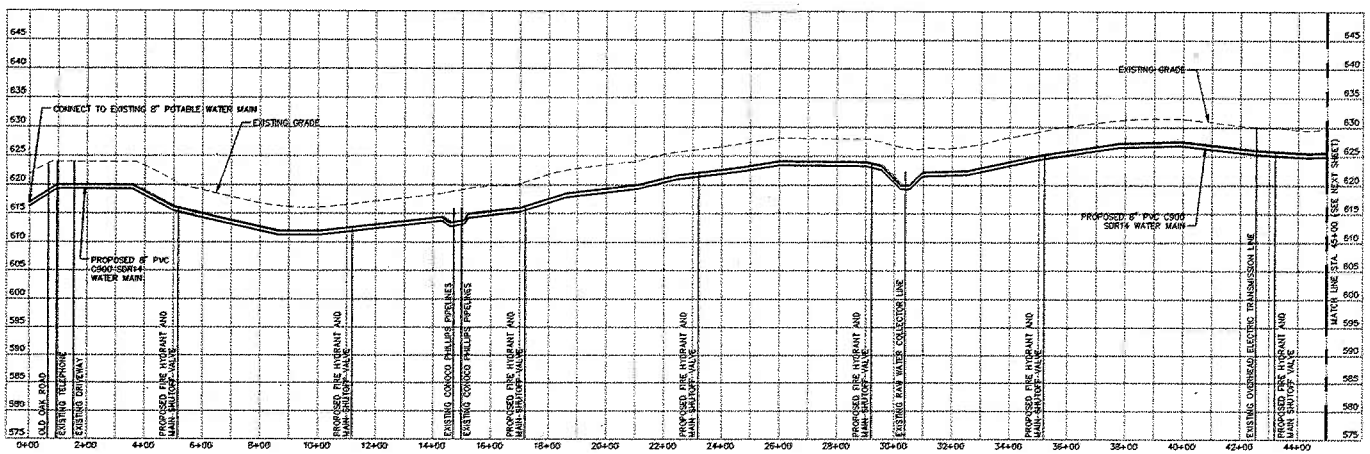
P:\Tenaska\20953.074\Water\ltr-rpt121809.doc

ATTACHMENT A

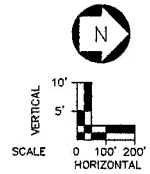
PLAN AND PROFILE DRAWINGS



PLAN VIEW
SCALE : AS SHOWN



PROFILE
SCALE : AS SHOWN



LEGEND:

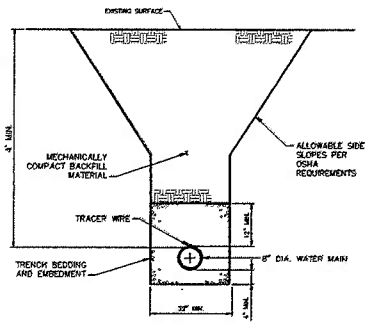
- PROPOSED POTABLE WATER MAIN
- PROPOSED FIRE HYDRANT AND SHUTOFF VALVE
- EXISTING WATER LINE
- EXISTING OVERHEAD POWER LINE
- EXISTING TELEPHONE LINE

NOTES:

1. PROFILE ELEVATIONS BASED ON "1/3-ARC SECOND NATIONAL ELEVATION DATASET", USGS, 2009 (1/3-ARC SECOND IS APPROXIMATELY 10 METERS).
2. EXISTING UTILITY LOCATIONS ARE BASED ON A LIMITED "WINDSHIELD" SURVEY OF THE SITE AND ARE SHOWN FOR ILLUSTRATION ONLY. ACTUAL LOCATIONS SHOULD BE FIELD VERIFIED AND SURVEYED.

SOURCE:

1. NORTHEAST QTR AND SOUTHEAST QTR, TAYLORVILLE, IL 3.75 MINUTE DIGITAL ORTHOPHOTO, 2005. ISGS GIS DATABASE.



TYPICAL TRENCH DETAIL
NOT TO SCALE

\\SPRINGFIELD2\PROJECTS\TENASKA\20953.074\DWG\POTABLE_WATER.DWG

REV.	DATE	DESCRIPTION

ISSUES & REVISIONS

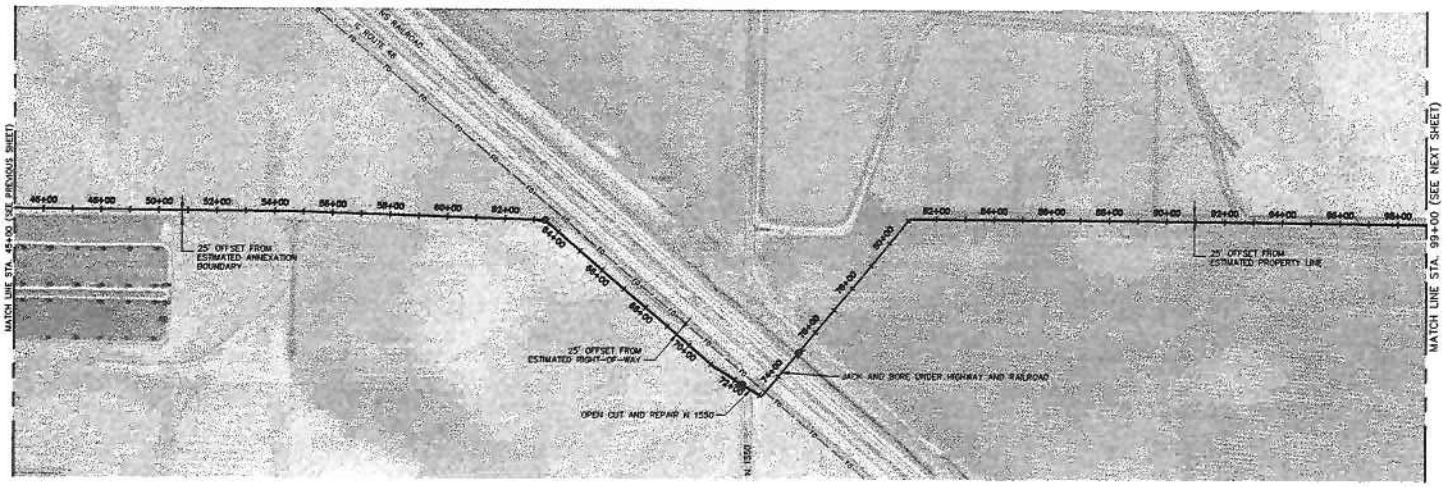
Owner: TENASKA TAYLORVILLE, LLC.

PATRICK ENGINEERING INC.
300 W. EDWARDS ST, SUITE 300 SPRINGFIELD, IL 62704-1907 TEL. (217) 525-7050 FAX (217) 525-7055
http://www.patrickengineering.com
PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000409

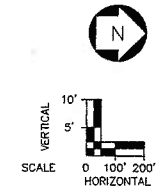
Project: TAYLORVILLE ENERGY CENTER PROPOSED POTABLE WATER LINE

Sheet Title: PRELIMINARY DESIGN PLAN, PROFILE, AND DETAIL STA. 0+00 TO STA. 45+00

PROJECT No.:	20953.074	DATE:	11/4/09
DESIGNED BY	JWD	SHEET No.	1
DRAWN BY	JWD		
CHECKED BY	DAK		
APPROVED BY	MEM	Sheet 1 of 3	



PLAN VIEW
SCALE AS SHOWN



LEGEND:

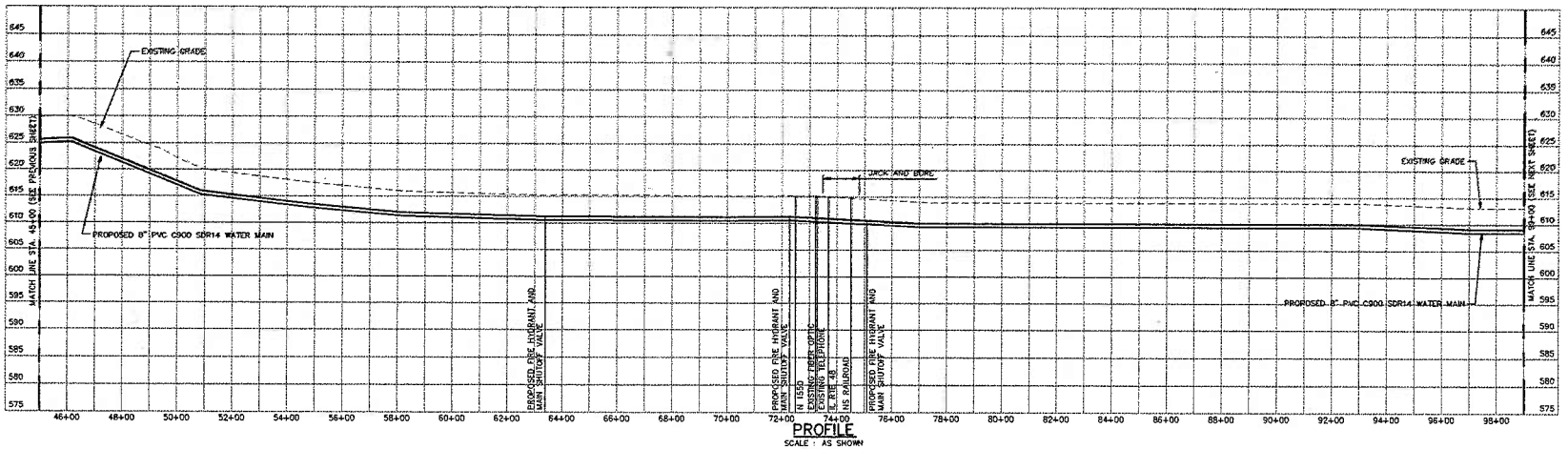
- PROPOSED POTABLE WATER MAIN
- PROPOSED FIRE HYDRANT AND SHUTOFF VALVE
- —FO— EXISTING FIBER OPTIC AND TELEPHONE LINES

NOTES:

1. PROFILE ELEVATIONS BASED ON "1/3-ARC SECOND NATIONAL ELEVATION DATASET", USGS, 2009 (1/3-ARC SECOND IS APPROXIMATELY 10 METERS).
2. EXISTING UTILITY LOCATIONS ARE BASED ON A LIMITED "WHISKSHIELD" SURVEY OF THE SITE AND ARE SHOWN FOR ILLUSTRATION ONLY. ACTUAL LOCATIONS SHOULD BE FIELD VERIFIED AND SURVEYED.

SOURCE:

1. NORTHEAST QTR AND SOUTHEAST QTR. TAYLORVILLE, IL 3.75 MINUTE DIGITAL ORTHOPHOTO, 2005. ISGS GIS DATABASE.
2.



PROFILE
SCALE : AS SHOWN

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REV.	DATE	DESCRIPTION
		ISSUES & REVISIONS

Owner:
TENASKA TAYLORVILLE, LLC.

PATRICK ENGINEERING INC.
360 W. EDWARDS ST. SUITE 300 TEL. (217) 585-7080
SPRINGFIELD, IL 62704-1907 FAX (217) 585-7089
http://www.patrickengineering.com
PROFESSIONAL DESIGN FIRM LICENSE NO. 184-002408

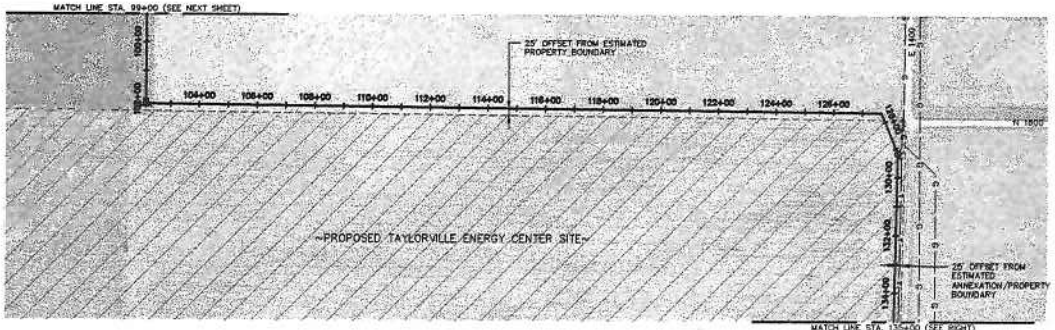
Project:
TAYLORVILLE ENERGY CENTER

Sheet Title:
PROPOSED POTABLE WATER LINE PLAN AND PROFILE STA. 45+00 TO STA. 99+00

PROJECT No.:	20953.074
DESIGNED BY	JWD
DRAWN BY	JWD
CHECKED BY	DAK
APPROVED BY	MEM

DATE: 11/4/09

SHEET No.
2
Sheet 2 of 3



PLAN VIEW
SCALE : AS SHOWN

LEGEND:

- PROPOSED POTABLE WATER
- PROPOSED BOOSTER STATION
- PROPOSED FIRE HYDRANT AND SHUTOFF VALVE
- EXISTING NATURAL GAS PIPELINE

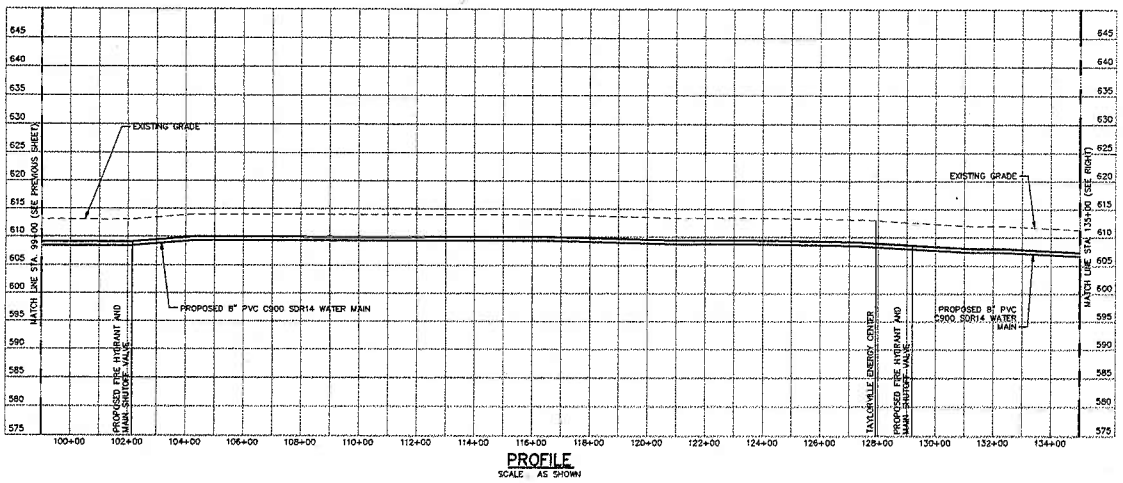
NOTES:

1. PROFILE ELEVATIONS BASED ON "1/3-ARC SECOND NATIONAL ELEVATION DATASET", USGS, 2009 (1/3-ARC SECOND IS APPROXIMATELY 10 METERS).
2. EXISTING PIPE LINE LOCATIONS ARE BASED ON A LIMITED "WINDSHIELD" SURVEY OF THE SITE AND ARE SHOWN FOR ILLUSTRATION ONLY. ACTUAL LOCATIONS SHOULD BE FIELD VERIFIED AND SURVEYED.
3. POTABLE WATER MAIN SHOWN ON PROPOSED TAYLORVILLE ENERGY CENTER SITE SHALL BE LOCATED WITHIN AN EASEMENT TO ALLOW FOR CITY ACCESS, OPERATION, AND MAINTENANCE.
4. POTABLE WATER MAIN SIZE SHALL BE REDUCED FROM 8" TO 4" IMMEDIATELY PRIOR TO BOOSTER STATION.

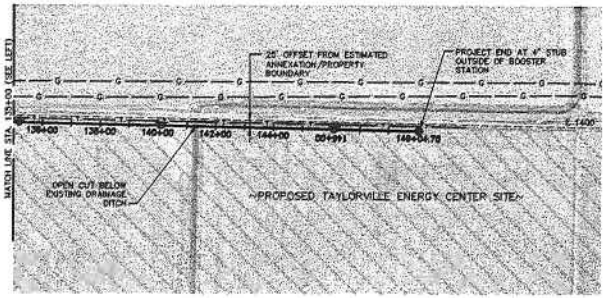
N

VERTICAL 10' 5'

SCALE 0 100' 200' HORIZONTAL



PROFILE
SCALE : AS SHOWN



PLAN VIEW
SCALE : AS SHOWN

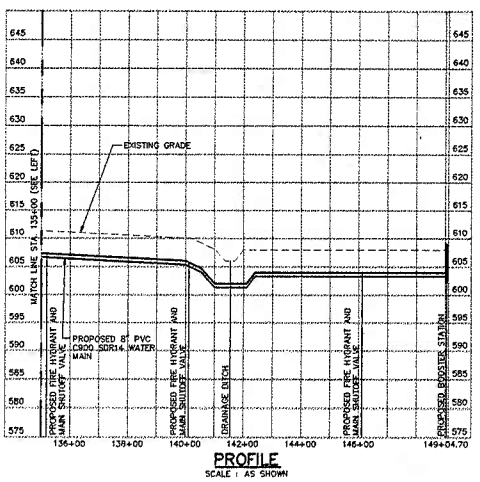
SOURCE:

1. NORTHEAST QTR AND SOUTHEAST QTR. TAYLORVILLE, IL 3.75 MINUTE DIGITAL ORTHOPHOTO, 2005. ISGS GIS DATABASE.
2. EXISTING NATURAL GAS PIPELINE LOCATIONS ARE APPROXIMATE AND ARE BASED ON PANHANDLE EASTERN PIPELINE DRAWINGS PROVIDED BY TENASKA, INC.

N

VERTICAL 10' 5'

SCALE 0 100' 200' HORIZONTAL



PROFILE
SCALE : AS SHOWN

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REV.	DATE	DESCRIPTION
		ISSUES & REVISIONS

Owner:
TENASKA TAYLORVILLE, LLC.

PATRICK ENGINEERING INC.
300 W. EDWARDS ST. SUITE 203 TEL. (217) 585-7230
SPRINGFIELD, IL 62704-1507 FAX (217) 585-7233
http://www.patrickengineering.com
PROFESSIONAL DESIGN FIRM LICENSE NO. 184-002409

Project:
TAYLORVILLE ENERGY CENTER

Sheet Title:
PROPOSED POTABLE WATER LINE PLAN AND PROFILE STA. 99+00 TO END STATION

PROJECT No.:	20953.074
DESIGNED BY	JWD
DRAWN BY	JWD
CHECKED BY	DAK
APPROVED BY	MEM

DATE: 11/4/09

SHEET No. 3

Sheet 3 of 3

ATTACHMENT B

DESIGN PARAMETERS SUMMARY DATA & PROCESS FLOW DIAGRAM

PATRICK ENGINEERING INC.

Project No	20953.074		
Project	Tenaska – Taylorville Energy Center		
Calculated by	MEM	Date	10/22/09
Checked by	JX	Date	10/28/09
Title	Potable Water Line Design	Sheet 1	of 3

Problem Statement:
Provide preliminary design of the potable water line extension from the City of Taylorville's existing water line on Old Oak Road to the proposed Taylorville Energy Center (TEC).

Existing utilities were noted alongside and across the proposed route of the water line:

1. Existing telephone buried cable (along west side of Old Oak Road, along east side of Illinois 48, along east side of County Road 1400 East).
2. Existing ConocoPhillips petroleum pipeline (across Old Oak Road).
3. Existing City raw water line from water well field (across Old Oak Road).
4. Existing IL Consolidated Communications fiber optic line (along east side of Illinois 48).

The general location of the existing utilities were noted, but were not surveyed. Thus, the potential obstructions to construction of the water line are unknown until accurate locations can be obtained from the utility companies.

Given:

1. Preliminary route of potable water line (see plan / profile sheets)
2. Data from Burns & McDonnell:
    a. Day shift = 200 persons
    b. Night shift = 50 persons
    c. Construction workers = 1,000 persons
    d. Construction demand = 15 gallons/person per day
    e. Delivery pressure = 80 psi at TEC
    f. End Point:
3. Data from City of Taylorville:
    a. Old Oak Road is served by an 8" water main branching off a 10" main from the Water Treatment Plant.
    b. The 8" main terminates approximately 1,060 feet north of Lincoln Trail Road.
    c. The 10" main from the WTP supplies ~800 gpm to customers east of the WTP @ pressure of 70 psi.
    d. A 6" main is the minimum size the City allows.
    e. One or more hydrants may be added along the line for periodic flushing.
    f. The City specifications for water line pipe are provided on Sheet 6.
    g. The City provided a map showing new water main construction west of the WTP. A 16" main will pass roughly 1.5 miles south of the Tenaska facility. The 16" main should be in service prior to construction of Tenaska potable water supply pipeline. This could provide an alternate supply for the TEC site.
    h. City specifications letter (see attached)
4. Illinois Public Water Supply regulations, Title 35, Part 653: Design, Operation, & Maintenance Criteria.
    a. Minimum water pressure = 20 psi
    b. Minimum usage = at least 50 gallons/person per day
    c. Avg. daily rate of usage (ADRU) = 2x average daily usage (expressed in gpm)
    d. Maximum daily rate of usage (MDRU) = 1.5x avg daily rate of usage
    e. Maximum hourly rate of usage (MHRU) = 2x avg. daily rate of usage

Assumptions:

1. Pipeline design will start at existing end of Taylorville water main, and end prior to the water meter at TEC.
2. Booster pump(s), if required along the water main, shall be operated and maintained by the City.

Methodology:
Design Flow
During construction, Burns & McDonnell indicate a demand of 15 gpd/person x 1000 persons = 15,000 gallons/day
ADRU = 2x15,000 gpd / 1440 minutes/day = 20.8 gpm
MDRU = 1.5 x 20.8 gpm = 31gpm
MHRU = 2 x 20.8 gpm = 42 gpm

During operations, base demand off of 8-hour day shift = 50 gpd/person x 200 persons = 10,000 gallons/day shift
= 30,000 gallons/day
ADRU = 2x30,000 gpd / 1440 minutes/day = 42 gpm
MDRU = 1.5 x 42 gpm = 63 gpm
MHRU = 2 x 42 gpm = 84 gpm – round to 100 gpm to account for potential growth

Therefore, use **100 gpm** as the design capacity for the water main.

Line / Pump Sizing:
Per attached email, the hydrant tests at connection point indicate the static pressure is 64 psi. (147.7ft)
The flow through one 2.5" nozzle is 920 gpm with tested pressure of 30 psi.
920 gpm = 2.05 ft/s
Velocity through the 2.5" orifice.
2.05/(3.14*(2.5/24)^2)=60.2 ft/sec
Using Jet's kinetic energy equation, Friction head loss:

$$E_f = (\frac{1}{C_V^2} - 1)(\frac{V_0^2}{2g_c})$$

$$E_f = (\frac{1}{0.82^2} - 1)(\frac{60.2^2}{2*32.2}) = 27\,ft$$

The total dynamic head is: 30*2.308+27=96.24 feet.
Based on the hydrant test, using the above two points from the tests, assume the flow and system pressure has linear relation.

USING AFT FATHOM TO MODEL THE SYSTEM AND ESTIMATE THE HEAD LOSS AT THE END OF THE SYSTEM:
INPUT
Pipe ID: 8" Nominal C900 PVC DR14 (Pressure Class 200 psi), average ID = 5.91 inches
Pipe Length = 15,000 feet
Estimated Equivalent Length of Fittings (elbows, valves, hydrants, etc.) = 5% of total = 750 feet
Total equal length: 15,000+750=15,750 ft.
Assume the pump is at city property.

Scenario 1:
As a conservative assumption, assume the future usage before booster pump is 300 gpm with 20 psi pressure. (Maximum Booster pump scenario)
Since the design flow rate is 100 gpm, using 4" pipe. (2.6ft/sec)

Output,

From attached sheet, the static pressure before booster pump is 685 feet-610 feet=85 feet (37 psi) with 104 gpm.
The required pressure is 80psi.
Therefore the booster pump is: 80psi-37psi = 43 psi @ 100 gpm

Pump estimated hp:
Assume 40% overall efficiency, the estimate hp is:

$$hp = \frac{\Delta P Q}{1714*0.4}$$

$$= \frac{43*100}{1714*0.4} = 6.2hp$$

Scenario 2.

Assume there will be no other future water usage besides the designed 100 gpm.

Output,

From attached sheet, the static pressure before booster pump is 749.6 feet-610 feet=139.6 feet (60 psi) with 104 gpm.
The required pressure is 80psi.
Therefore the booster pump is: 80psi-61psi = 19 psi @ 100 gpm

Pump estimated hp:
Assume 40% overall efficiency, the estimate hp is:

$$hp = \frac{\Delta PQ}{1714 * 0.4}$$

$$= \frac{20 * 100}{1714 * 0.4} = 3.0hp$$

Conclusions:
The designed booster pump is in the range from 3.0 hp(no other water usage in line) to 6.2 hp. (Assume additional 300 gpm water usage @20 psi inline.)

Minder, Matt

From: Pinapati, Vasu [vpinapati@TENASKA.com]
Sent: Wednesday, October 14, 2009 7:00 PM
To: Minder, Matt; Gerking, Kyle T.
Cc: Burger, Chris
Subject: FW: Potable water consumption/pressure for TEC

From: Dean, Tom [mailto:tdean@burnsmcd.com]
Sent: Wednesday, October 14, 2009 5:33 PM
To: Pinapati, Vasu
Cc: Jurczak, Jim; Brewer, Steven J.; Vala, Justin J.; 52297; Tyson.Bundy; angelina.randolph@kiewit.com
Subject: FW: Potable water consumption/pressure for TEC

Vasu,

See below information to answer your questions on potable water consumption.

Tom Dean, PE, PMP
Project Manager, Process & Industrial Group
Burns & McDonnell
Direct: 816-822-3873
Main: 816-333-9400
Mobile: 816-286-9383
Fax: 816-822-3416
www.burnsmcd.com
Proud to be one of FORTUNE's 100 Best Companies To Work For

From: Wiebe, Layne
Sent: Thursday, October 08, 2009 2:00 PM
To: Dean, Tom; Jones, Clarence; Gallagher, David; Jurczak, Jim; Schilling, Don A; Leis, Darrell
Subject: RE: Potable water consumption/pressure for TEC

Recommendation is about 11,000 gal/day. 80psig supply pressure at the site supply point. Construction demand of 15 gpd/person. For the 1,000 construction personnel this would be 15,000 gpd. Nighttime usage can be figured off of the chart below based upon your assumed staffing numbers for the night shift.

	no. people	gal/day*	total	
day shift	200	35	7000	
night shift	50	35	1750	
SubTotal			8750	gal/day
growth factor			25%	
Total			**11,000**	**gal/day**
* recommended useage per Ill Dept of Public Health, Drinking Water Code, Sec. 900				

Layne Wiebe
Associate Mechanical Engineer, Energy Group
Burns & McDonnell
Direct: 816-822-3988
Main: 816-333-9400
www.burnsmcd.com

Minder, Matt

From: water department [water@ctitech.com]
Sent: Wednesday, October 28, 2009 8:22 AM
To: Minder, Matt; Pinapati, Vasu; kgerking@tenaska.com
Cc: Mayor Brotherton; Jack Brown; Joe Greene
Subject: Re: Potable Water Line - Additional Questions

Matt - The issue of ownership for the line will have to go before the City Council and Mayor, with the main size and booster calculations and specifications to be reviewed by the City Engineer Joe Greene of Greene and Bradford. I will cc both this e-mail.

The hydrant at the end of the main on Old Oak Road tests at 920 gpm with 30 psi flow pressure through one 21/2" nozzle. Static pressure is 64 psi.

The City would prefer an 8" line.

The City Water Dept. specifications state that a hydrant be located every 600 feet, although I need to review the easements to see if above ground appurtanences are allowed. A hydrant outside the property would allow us a good flush point without having to gain access to the plant property.

----- Original Message -----
From: Minder, Matt
To: Pinapati, Vasu ; kgerking@tenaska.com ; water@ctitech.com
Sent: Tuesday, October 27, 2009 2:18 PM
Subject: Potable Water Line - Additional Questions

Gentlemen – we have a few additional questions we need you to clarify as we finish the design.
Please respond at your earliest convenience. Thank you.

All:

- It is presumed that the water main and the booster station (we believe we will need one to supply the required pressure of 80 psi at the plant) will be operated & maintained by the City, but initially paid for by the developer. Is this correct?

David:

- Do you have a hydrant test showing flow & pressure at the end of the line on Old Oak Road? A 3-point test is preferred if you have it. If not, can you provide some estimates as to flow/pressure at the end of this line?
- Does the City have a preference to use 6-inch or 8-inch pipe for the line out to the plant? 8-inch line may be more beneficial if later there were to be more users.
- Does the City prefer some number of hydrants (for example, every 1,000 feet?) along the line to allow periodic flushing? Or would just one hydrant at the end of the main be ok?

Vasu, Kyle:

- Is there any need for the City to provide fire protection water? I thought the answer to this was no, but please verify. If we do need to provide, what amount of flow is needed (500 gpm or more?)
- Currently we are designing for a 50 gpm flow.

Matthew E. Minder, P.E.
Patrick Engineering Inc.
300 W. Edwards St., Ste. 200
Springfield, IL 62704
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Fax: 217-525-7053
Email: mminder@patrickengineering.com

Patrick Engineering Inc. Confidentiality Notice: The information contained in the above e-mail message or messages (which includes any attachments) may contain confidential, proprietary, or legally privileged information. It is intended only for the use of

Taylorville City Water Dept.

2222 Lincoln Trail
Taylorville, IL. 62568
217-287-1441
Fax 217-824-8859
E-mail water@ctitech.com

Matt Minder
Patrick Engineering Inc.
300 W. Edwards St. Suite 200
Springfield, IL. 62704-1907

Dear Matt,

Enclosed you will find a hand sketched map (sorry our autocad is down) showing the routing of the transmission lines and sizes that would feed the proposed route for the water main to be extended to the Tenaska property.

The size of main needs to be configured hydraulically and reviewed by the City Engineer to ensure proper flow, but our design specifications do not change for 8" water main and above. We specify use of ductile iron pipe, Class 52, slip joint with ductile iron restrained joint fittings, or AWWA C900, DR14 slip joint with ductile iron mechanical restrained joint fittings. Specifications for restrained joints are EBAA Mega-lug® or equal.

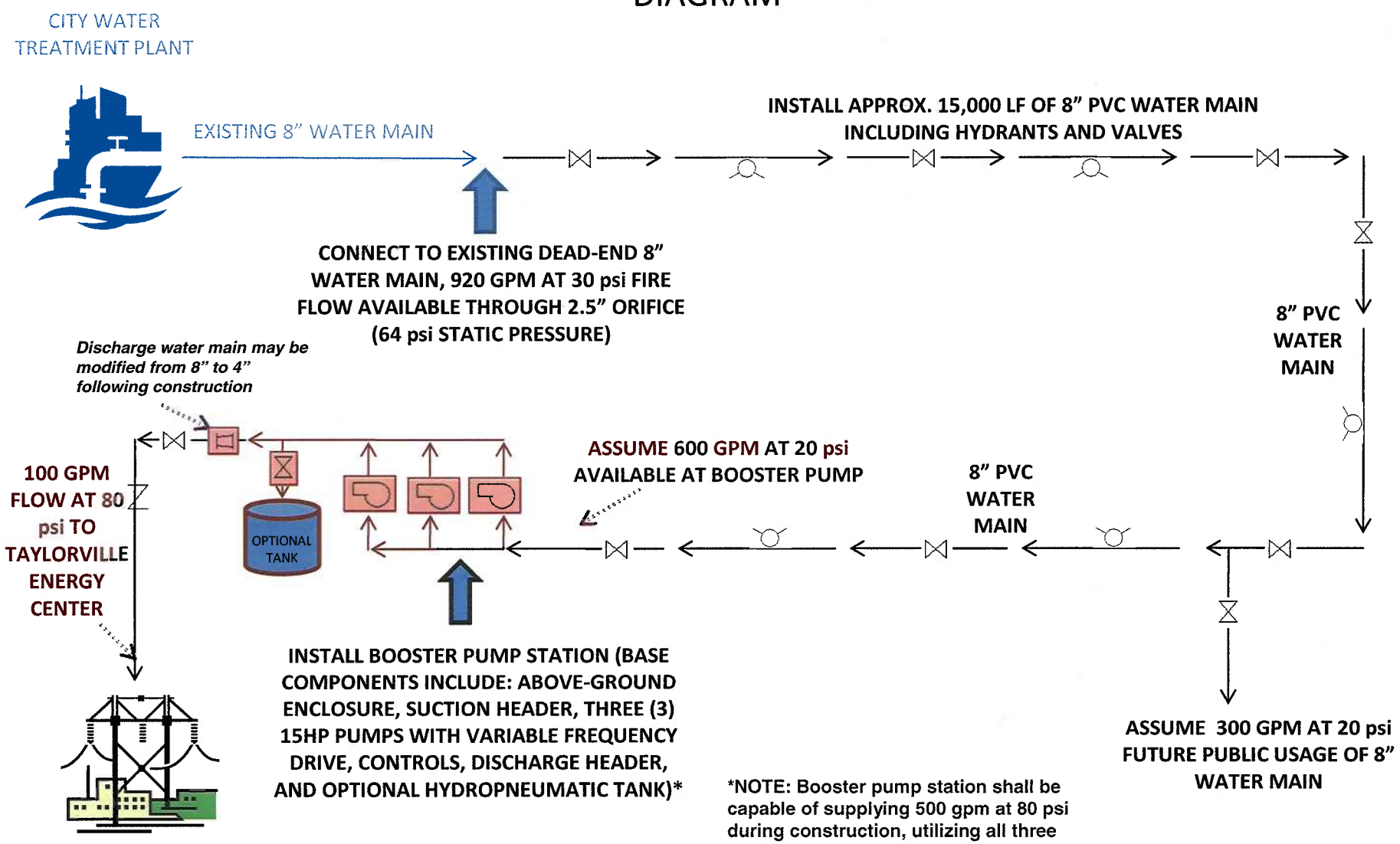
The existing 8 inch water main on Old Oak road terminates 1060 ft. north of Lincoln Trail, it is fed from a 10 inch main that runs from the treatment plant, the Cherokee St. Tower which is located roughly in the center of town is connected to the Water Treatment Plant by a 14 inch cast iron line and the High School Tank currently under construction will be fed from a 16 inch ductile iron line that runs to the Treatment Plant.

If you need any further particular information, please feel free to contact me.

David Speagle
D J Speagle
Water Superintendent

Cc: Mayor Greg Brotherton
Jack Brown
City Engineer Joe Greene

TAYLORVILLE ENERGY CENTER
CONCEPT POTABLE WATER MAIN PROCESS FLOW DIAGRAM



*NOTE: Booster pump station shall be capable of supplying 500 gpm at 80 psi during construction, utilizing all three pumps in parallel. Following construction, booster pump station shall provide 100 gpm at 80 psi utilizing one pump (pump-in-use shall rotate between the three available).

ATTACHMENT C

POTABLE WATER MAIN CONSTRUCTION PROJECT
ITEMIZED COST TABLE

TENASKA TAYLORVILLE LLC
POTABLE WATER LINE - CONCEPT DESIGN
ENGINEER'S OPINION OF PROBABLE PROJECT COST

Calculated By: JWD 12/16/09
Checked By: MEM 12/17/09

Item	Quantity	Units	Unit Cost	Cost	Assumptions	Source
General Conditions	1	LS	$ 40,000.00	$ 40,000	Mob/demob, traffic control, testing, disinfection, temp access roads	Patrick Estimate
Easements	78	Rod	$ 133.20	$ 10,390		Tenaska
Crop Damage	21	Acre	$ 500	$ 10,500		Patrick Estimate
Installation						
Excavation	16,157	CY	$ 6.85	$ 110,700	32" wide, pipe 5' deep, pipe dia. 8" nominal, 4" bedding below pipe	MHC 2009 31 23 16.13 0090 pg 211
Bedding	2,100	CY	$ 26.75	$ 56,200	4" below, haunch, 12" above pipe	MHC 2009 31 23 23.16 0200 & 0500 pg 228
Pipe	14,690	LF	$ 17.00	$ 249,800	8" PVC C900 SDR14	MHC 2009 33 11 13.25 4540 pg 314; adjusted for SDR14 wall pipe
Fittings (22.5°, 45°, 90° bends)	29	EA	$ 640	$ 18,600	Ductile iron w/thrust restraint	Patrick Estimate
Joint Restraints	58	EA	$ 156	$ 9,100		MHC 2009 33 11 13.25 8730 pg 315
Hydrants	15	EA	$ 2,075	$ 31,200	Mueller Centurion brand	MHC 2009 33 12 19.10 2080 pg 319
Gate Valve & Box	15	EA	$ 1,025	$ 15,400	6"	MHC 2009 33 12 16.10 3814 pg 318
Tee	15	EA	$ 940	$ 14,100	8" x 6"	MHC 2009 33 11 13.15 8240 pg 313
Joint Restraints	90	EA	$ 156	$ 14,100		MHC 2009 33 11 13.25 8730 pg 315
Butterfly Valve	15	EA	$ 2,100	$ 31,500	8"	MHC 2009 33 12 16.10 3180 pg 318
Joint Restraints	30	EA	$ 156	$ 4,700		MHC 2009 33 11 13.25 8730 pg 315
Backfill	14,119	CY	$ 2.39	$ 33,800	Excavated soils - bedding and pipe	MHC 2009 31 23 16.13 3000 pg 213
Rock Removal	1	LS	$ 2,000	$ 2,000		Patrick Estimate
Detection Wire & Stations	14,910	LF	$ 0.15	$ 2,300		Patrick Estimate
Jack and Bore Beneath Highway / Railroad						
Jacking Pits	1	LS	$ 10,000	$ 10,000		Patrick Estimate
Jack & Bore Installation	220	LF	$ 300	$ 66,000	Includes 20" to 24" steel casing pipe & 8" PVC main	Patrick Estimate
Booster Station	1	LS	$200,000	$ 200,000	Aboveground, triplex pump station, 15 hp pumps	Patrick Estimate
Street Repair - Base	27	SY	$ 10.50	$ 300	6' wide x 20' long	MHC 2009 32 11 23.23 0100 pg 275
Street Repair - Asphalt	27	SY	$ 7.95	$ 300	6' wide x 20' long	MHC 2009 32 12 16.13 0120 pg 276
Field Tile Repair	15	EA	$ 500	$ 7,500	A repair will be needed every 1000'	Patrick Estimate
Seeding	21	Acre	$ 675.18	$ 13,900	14,910 ft long x 60' wide	MHC 2009 32 92 19.14 1500 pg 298
TOTAL - CONSTRUCTION				**$ 952,390**		
MEANS COST ADJUSTMENT FOR LOCALITY - 1% DISCOUNT				**$ (9,524)**		
SURVEY, ENGINEERING DESIGN & PERMITTING - 20% OF TOTAL				**$ 188,573**		
CONSTRUCTION ENGINEERING SUPPORT & DOCUMENTATION - 8% OF TOTAL				**$ 75,429**		
CONTINGENCY FOR CONCEPT LEVEL DESIGN - 15% OF TOTAL				**$ 141,430**		
			PROJECT TOTAL	**$ 1,348,298**		

ESTIMATED PROJECT MINIMUM COST (-30%): $943,809
ESTIMATED PROJECT PROBABLE COST: $1,348,298
ESTIMATED PROJECT MAXIMUM COST (+30%): $1,752,787