AQUA PENNSYLVANIA, INC.
2011 RATE CASE
FILING REQUIREMENTS

H. Rate Structure and Cost of Service

RS1. Provide a complete (fully allocated) cost of service study if an interval of approximately three years has passed between a previous cost of service study and the historic test year date of the current filing. The cost of service study shall provide the necessary data to determine if the water rate structure is fair and equitable to all classifications of water users (including public and private fire protection customers) and reflects, as nearly as possible, the cost of providing the service. The study shall correspond to the test year proposed revenue requirements (future test year only, if used). Summaries of conclusions and all back-up calculations shall be made part of the submission of the cost of service study, and shall include the following:

a. A description of the allocation methods used. A comparison of the allocated cost of service by class with the present and proposed revenues. A cost of service schedule showing the Rate of Return produced by present and proposed rates by class of service.

b. Indicate if the method used for establishing the allocation factors in the Cost of Service Study deviates from the previous study submitted in the last rate case. If yes, indicate which allocation factors were changed and discuss the reason for the changes.

c. Supply the average day, the maximum day and the maximum hour deliveries to the system adjusted for storage for the historic test year and two prior years. Also provide workpapers, analyses, comparative data or other documentation supporting the estimated maximum day and peak hour demands by customer class reflected in the Company's cost of service study.

d. Explain thoroughly the methodology employed if the Company distinguishes between transmission and distribution mains in its allocation of costs.

e. Provide a detailed explanation of how storage is utilized to meet base, maximum day and maximum hour demands.

f. Provide workpapers, calculations and supporting documentation which develop the equivalent meters and equivalent service line weights reflected in the Company's cost of service study.

g. Provide all workpapers and supporting documentation for the fire flow requirement and duration utilized in the cost of service study.

h. Provide a breakdown of the number and size of private fire services according to the general water service class of customer.

i. Provide a calculation of the Company's base cost of water per unit of consumption.

j. Provide a detailed cost analysis that supports the Company's customer charges, by meter size, showing all direct and indirect costs included.

A. Please refer to Statement No. 5 and Exhibit 50-B.

AQUA PENNSYLVANIA, INC.
2011 RATE CASE
FILING REQUIREMENTS

H. Rate Structure and Cost of Service

RS2. Provide a listing of negotiated special rate contracts which includes a comparison of revenues under special rate contracts and under tariff rates. Provide the cost of service treatment of any deficiency in revenues resulting from the negotiated special rate contracts. Special rates are defined as rates not contained in the currently effective tariff.

A. Please refer to Exhibit 50-B and see the attached competitive rate study.

COVANTA PLYMOUTH RENEWABLE ENERGY, LP

FEASIBILITY STUDY

for

ALTERNATE WATER SUPPLY

from

ARCELOR MITTAL USA

October 26, 2010

21003.00

Cummings & Smith, Inc.
CONSULTING ENGINEERS

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COVANTA PLYMOUTH RENEWABLE ENERGY, LP

FEASIBILITY STUDY

for

ALTERNATE WATER SUPPLY

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October 26, 2010

Cummings & Smith, Inc.
Consulting Engineers
20 Bentley Place
Upper Montclair, NJ 07043
973-744-3353

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INTRODUCTION

The purpose of this study is to re-evaluate the feasibility of utilizing treated wastewater from the Arcelor Mittal USA Steel Company (former Lukens Steel Company) as make-up water for the condenser cooling system at the Covanta Plymouth Renewable Energy, LP waste to energy plant in Conshohocken, PA. This study is an update of a January 20, 1994 feasibility study performed for the then owner of the waste to energy plant, Montenay Energy Resources of Montgomery County, Inc., performed by Cummings & Smith, Inc.

At the present time the plant is using water supplied from the local water utility company, Aqua Pennsylvania, Inc., for potable water, boiler make-up, cooling water make-up and fire protection purposes. The tasks involved in preparing this report included determining the goals of Covanta Plymouth Renewable Energy, LP (Covanta Plymouth), gathering data, inspecting field conditions, meetings with Covanta and Arcelor Mittal USA plant representatives, evaluating alternatives and making recommendations.

The goals and objectives for this project were determined by consultation with representatives of Covanta Plymouth by letter, email and in a meeting held on October 8, 2010. On that date, we also met with representatives of Arcelor Mittal USA and to reviewed site of the Arcelor Mittal USA facilities, the site of the waste to energy plant, and the proposed route of the water supply pipe line. Data utilized for this study consisted of various materials and information received from the respective parties involved with the project.

The stated goals and objectives of Covanta Plymouth for this study were to determine if the alternate water supply using treated wastewater from the adjacent steel mill as proposed in the 1994 study was still available and in use by the current steel company, and to update the costs of construction and operation of the pipeline and related facilities needed to transport the treated wastewater to the Covanta waste to energy plant.

EXISTING CONDITIONS

At our October 8, 2010 meeting, representatives of the Covanta Plymouth waste to energy plant and the Acelor Mittal steel mill indicated that the essential components of the water supply system described in our 1994 report remain unchanged and in operation to this day.

The public utility water is supplied to the waste to energy facility through a 12" main for the fire protection system and a 6" main for the potable supply in the easterly plant access road. The two mains pass through the pump house adjacent to the cooling tower where they are valved and metered. The cooling system make-up water is taken from the fire protection main inside of the pump house. The make-up supply line feeds water to the cooling tower basin and is controlled automatically by level controls in the basin so that a constant water level is maintained within the basin. A control valve located within the pump house opens and closes as actuated by the level controls in the basin. The feed line is an insulated above ground pipe and it is our understanding that this section of pipe is heat traced to provide protection against freezing.

The water consumption rate for the waste to energy facility was been evaluated based on actual water use in 1994, as determined from the facility water bills from the Philadelphia Suburban Water Company and updated by information provided by Covanta Plymouth in 2010.The 1994 data indicated that the waste to energy plant used an average of 400 gallons per minute (gpm) over the period 11/10/1992 to 10/08/1993. Information provided by Covanta Plymouth indicated that the 2009 water use for cooling tower make-up was 203,000,000 gallons er year or approximately 393 gpm. The water use in cooling tower makeup has remained essentially unchanged since 1994.

The Arcelor Mittal USA steel mill water supply is from the Schulykill River, a city source and a single well. The city water is used for sanitary, potable, boilers and miscellaneous cooling. The well source is normally off but can be put on line for cooling water if needed. The river water is treated at a clarifier and used for a closed loop cooling system and for fire protection at the mill. In addition they maintain a 160,000 gallon tank for emergency use. Their current water demand from the Schuylkill River source is an average flow of 400 GPM. The river water is drawn by the use of two 2,500 GPM pumps and is circulated to the plant by the use of two Goulds 8,000 GPM double suction pumps which are located in a pump house adjacent to the clarifier. The clarified water is discharged from the pump house at 75 psi. Arcelor Mittal representatives indicated that they have recently (2010) received a permit from the Delaware River Basin Commission which allows 46.5 million gallons per month withdrawal from the Schuylkill River, approximately 1,076 gpm and an additional 13.4 million gallons per month, approximately 310 gpm withdrawal from the on-site well. The DRBC permit does not presently allow sale of water from Arcelor Mittal to other users, but representatives of Arcelor Mittal and the undersigned believe a modification could relatively easily be obtained to do so, particularly since the cooling water presently used by Covanta Plymouth is withdrawn by the public utility company from the same river basin, no net new withdrawal is required, simply a change from one in-basin supplier to another.

PROPOSED ALTERNATES

The 1994 feasibility study consisted of supply of the required Covanta Plymouth cooling water from the Arcelor Mittal USA clarifier basin using the existing Arcelor Mittal USA clarifier basin discharge pumps, then through a 10" ductile iron pipeline over two alternative routes to the Covanta Plymouth cooling tower basin.

Two additional alternate water supply alternatives were discussed with Covanta Plymouth in addition to the Arcelor Mittal USA water supply, an on-site well, and withdrawal from the quarry lake between the Arcelor Mittal facility and the Covanta Plymouth facility. It was decided that neither of these alternates would be pursued unless the costs of the Arcelor Mittal alternates became prohibitive. Both an on-site well and withdrawal from the quarry lake have the potential to be less expensive because both would involve significantly shorter pipelines, although both the well and the quarry source have other presently undetermined design features which would have to be confirmed. Covanta Plymouth has advised us to proceed with costing and completing the Arcelor Mittal alternates and only if they become uneconomical would the on-site well or quarry source be further investigated.

It was proposed to convey water from the Arcelor Mittal USA clarifier (pump discharge) to the resource recovery plant through a new underground water main. Arcelor Mittal would pump water from the river by use of their two existing river pumps at the required rate of demand. The river water will be treated at Arcelor Mittal's existing clarifier and pumped through their pump house to their facilities and to the resource recovery plant through the new main. The total demand will consist of the demand from the resource recovery plant plus Arcelor Mittal's on-site demand. Arcelor Mittal's existing facilities can deliver the river water from their clarifier at the required flow and pressure. However, they are subject to power failures and an approximate ten day yearly shutdown for routine maintenance purposes. They have indicated that power failures are generally infrequent. To provide a back-up source of water and to provide a supply during shutdown periods and power failures at the Arcelor Mittal facilities, the public utility water source at the waste to energy plant should remain in place. In addition the existing public utility water source will also need to remain in place as a source of water for fire protection purposes.

We have investigated two alignments to route the proposed water main from the Arcelor Mittal site to the cooling tower basin, which we feel represent the only feasible alternatives. The first alignment involves utilizing the Upper Marion and Plymouth Railroad (UMPRR) right-of-way that extends from the Arcelor Mittal property across the property owned by Tornetta Realty situated between Arcelor Mittal and the plant property to the west of the Glasgow Quarry. The second alignment involves routing the proposed pipe to the plant entrance road within the Conshohocken Road right-of-way. The two alignments are indicated on Drawing No. G-001, Project Area Plan.

The first alternate involves connecting to the Arcelor Mittal USA system at an existing, but presently unused, 10" main located within the driveway between the maintenance building and an underground concrete valve vault. The connection would be made by cutting the existing 10" main and installing two new gate valves, one to control flow to the resource recovery plant and one to control flow through the existing main to the Arcelor Mittal maintenance building. A new meter chamber will be installed consisting of a 5' wide by 10' long by 5' deep concrete chamber, a 6" turbine flow meter, two 6" gate valves and a 6" by-pass line with a 6" gate valve. The new pipe would then extend along the Arcelor Mittal driveway to the UMPRR right-of-way and extend along the Railroad right-of-way located to the east of the mill property. The new pipe would cross under Conshohocken Road along the railroad service road. At the south side of Conshohocken Road the new pipe will cross under the tracks and run adjacent to the east side of the new track alignment to the resource recovery plant property line near the stormwater basin.

The new pipe will enter the Covanta Plymouth property at the downstream berm of the sediment basin. The pipe will then extend along the top of berm located to the north of the basin and continue towards the plant and around the south side of the plant adjacent to the concrete lined drainage channel and then to an underground control chamber adjacent to the east side of the cooling tower basin. The underground control chamber will consist of a 5' wide by 10' long by 5' deep concrete vault, two 6" gate valves, a 6" pilot operated control valve, a pressure gage and a 6" by-pass with a 6" gate valve. From the vault a discharge line will feed the cooling tower basin. A float valve in the basin will control flow to the basin and will maintain a constant water level in the basin. The existing level control for the public utility water supply will be adjusted so that the city water will function as a back-up supply to the Arcelor Mittal water supply. The discharge line will be installed underground to a point adjacent to the basin where a vertical riser will be installed to feed the basin from an above ground position. The top of the riser will be fitted with a 180 degree elbow to direct flow into the basin. The portion of the pipe that will need to be above ground will be provided with a heat trace and insulation to protect it from freezing. An alternate location f0r the meter chamber is where the new main enters the subject property near the sediment basin.

The second alternate involves connecting to the existing 10" main at the Arcelor Mittal USA site in the same manner as Alternate 1, and utilizing an alternate alignment to the resource recovery plant. The alignment consists of routing the new pipe within the Conshohocken Road right-of-way directly to the plant entrance road. The main will be situated along the southerly edge of the existing pavement to minimize disturbance to the pavement and to avoid obstructions adjacent to the side of the road. The main will then extend along the entrance road to the northerly property line where it will continue in an easterly direction along the northerly property line, around the back of the administration building along the top of the slope, across the driveway and will terminate at the westerly side of the cooling tower basin. An underground vault will be provided with the discharge line and controls situated as with Alternate 1. The alignment through the plant property is the shortest run to the basin from the access road and will minimize disturbance to the existing pavement and will avoid conflicts with existing utilities. Conshohocken Road is owned by the State of Pennsylvania and is under the jurisdiction of the Pennsylvania Department of Transportation

(PennDOT). Any construction performed within a state owned right-of-way requires approval by PennDOT and will be required to meet their standards.

The Arcelor Mittal pumps are currently discharging at a pressure of 75 psi or 173 feet of head.. The water bills for the resource recovery plant, represented in Figure 1, indicate an average consumption rate of 400 GPM. Based on our discussions with Covanta Plymouth, it is our understanding that the resource recovery plant wishes to have the capability of drawing up to 800 GPM to allow for potential peak flows. Therefore the pipeline from the Arcelor Mittal system has been designed for 800 gpm peak flow.

As indicated above, the new main will be designed to deliver a maximum flow of 800 GPM to the cooling tower basin. The total required pressure head is the summation of the pipe line friction loss, minor losses and the elevation head between the Arcelor Mittal pumps and the cooling tower basin. We have determined that a minimum diameter of 10" will be required for the design flows indicated, the calculations are represented in Figure 4. One change from the 1994 feasibility study is that the proposed water transmission main should be constructed of high density polyethylene (HDPE) pipe, in lieu of ductile iron as proposed in 1994. HDPE pipe for water mains was not available in 1994, but has in recent years become very commonly used for water system transmission and distribution mains.

The length of pipe required for Alternates 1 and 2 are 5,300 feet and 6,500 feet respectively. In addition gate valves will need to be installed at strategic locations to control flow. Air release valves situated within manholes will need to be installed at all high points to release trapped air and blow off valves will be installed at all low points to remove sediment deposits in the pipe. The recommended system configuration for each Alternate is indicated on Drawing No. G-001. Project Area Plan. A complete tabulation of the estimated quantities of materials for Alternates 1 and 2 are indicated in Figures 2 and 3 respectively.

The report prepared in 1994 by Betz Industrial concludes that the clarified water is acceptable for us as make-up water for the cooling system at the resource recovery facility if chemically treated. At the time when the report was prepared they where currently treating the water at the clarifier for iron and total suspended solids. As a result they have two years of water quality records as a basis of their recommendations. Betz has recommend that the clarified water be treated for corrosion inhibition, deposition control and microbiological control. No changes to the water treatment requirements are proposed in this update.

PERMIT REQUIREMENTS

The Covanta Plymouth waste to energy facility as well as the Arcelor Mittal USA steel facility are under the jurisdiction of several regulatory authorities. The waste to energy facility currently operates under a solid waste permit and air permits issued by the Pennsylvania Department of Environmental Protection. It is our understanding that the cooling tower does not have a separate air permit. The Arcelor Mittal USA facility has several permits that are relevant to it's operations, however it appears that the only two permits that will affect this project is a permit for the withdrawal of water from the river which is under the jurisdiction of the Delaware River Basin Commission and a NPDES Permit for the discharge to the river which is under the jurisdiction of the Pennsylvania Department of Environmental Resources. These permits will need to be amended regardless of which pipe routing alternate is chosen.

In addition to amending the existing permits, there will be new permits that will need to be applied for the new water source pipeline. A NPDES General Permit for construction activities, with respect to soil erosion and sediment control, will need to be obtained for either of the two alternates chosen. In addition if Alternate 2 is utilized then a PennDOT permit will also be required to install the new main within the Conshohocken Road right-of-way.

It is our understanding that Arcelor Mittal USA company is willing to amend the permits that have been issued for their facility as required for this project. The existing permits for the resource recovery facility that will need to be amended for this project will be the responsibility of Covanta Plymouth, as will any new permits required for the project. It is anticipated that the review time for the permits will be two to three months for the solid waste and air permits, 30 days for the NPDES permit for construction activities and three to four months for the PennDOT permit if Alternate 2 is utilized. The permits that will need to be amended by Arcelor Mittal USA should be reviewed within a two to three month period.

RECOMMENDATIONS

In evaluating the two alternates we have taken into consideration construction cost, operation, maintenance and water use assessments. For the purpose of this study we are basing our evaluation on an average constant water consumption of 400 GPM with the system sized to deliver up to 800 GPM if needed.

The estimated project capital costs for Alternates 1 and 2 are $752,170 and $1,221,590 respectively, in 2010 dollars, as shown in Figure 5 which follows the narrative of this report. Figures 2 and 3 represent itemized estimates of quantities and unit prices for the two alternates. The unit prices are based on published data and actual bid prices of similar projects. The quantity of rock excavation has been determined for estimating purposes without the benefit of a detailed subsurface investigation. The actual quantity of rock excavation may vary. The annual capital costs, amortization and interest, for Alternates 1 and 2 have been determined based on the total project cost over a 17 year period at 8.5% interest and are $128,719 and $209,051 per year respectively.

The operational cost associated with each of the two alternates will consist of operation and maintenance of the system and the chemical treatment. We would expect that over the life of the system routine maintenance will consist of repairing and replacing items such as valves, controls and meters, therefore an estimated budget of $7,500 per year should be allowed for routine maintenance of the system. The cost of chemical treatment has been updated from 1994 based on Covanta Plymouth's current chemical cost of treating cooling water.

As mentioned in the permit section of this report the project is located within the jurisdiction of the Delaware River Basin Commission (DRBC). Their regulations call for an assessment of $0.06/1,000 gallons of consumptive use for water diverted within the basin. Based on an average consumption of 400 GPM the yearly assessment would be $12,200 per year. In addition there will be the need to purchase city water when the Arcelor Mittal facility is not in operation. It can be expected that there will be approximately ten days of down time per year. At the current Aqua Pennsylvania, Inc., tariff block rates, the yearly cost of city water for both alternates will be $22,550 for public utility water used during Arcelor Mittal water system outages.

In addition, it can be expected that Arcelor Mittal will require reimbursement for the energy used in pumping water to Covanta Plymouth. We estimate, based on the present type of pumps, that the power consumption to deliver an average flow of 400 GPM will be 8.36 Kw-Hr/Hr for Alternate 1 and 8.82 Kw-Hr/Hr for Alternate 2. At the present PECO electric utility tariff, Supplement 102 to

Tariff No. 3 rates for large industrial services, we can expect the yearly energy cost of pumping to the resource recovery facility to be $4,422 and $4,650 per year for Alternates 1 and 2 respectively.

Based on the data presented in this report it is our opinion that using the wastewater from the Arcelor Mittal USA facilities for cooling water make-up is feasible, both technically and economically, and should be considered for use as the primary source for cooling tower make-up water. The existing city supply will need to remain on line for a source of potable water, fire protection and as a back-up to the Arcelor Mittal source. As previously mentioned Arcelor Mittal has a routine shutdown once a year and is subject to occasional power failures. It is our recommendation that Alternate 1 be utilized for the pipe route from Arcelor Mittal to the Covanta Plymouth site. However the use of this alternate relies on the success in obtaining the necessary right-of-way from both the quarry owner and the short line railroad. In the event that they are unsuccessful, then Covanta Plymouth can consider utilizing Alternate 2 for the pipe route.

The selection of Alternate 1 as the desirable route of the new pipe is based on several considerations. The first factor is the difference in cost between the two alternates. Figures 2, 3 and 5 represent the estimated costs for each of the two alternates. As indicated, the total estimated costs for Alternates 1 and 2 are $752,170 and $1,221,590 respectively. The reason for the higher cost of utilizing the Conshohocken Road right-of-way is the longer pipe run and the extra cost to meet PennDOT standards. As indicated in the estimate they will require crushed stone bedding and select backfill for the pipe installation. In addition they will require traffic control and one of their inspectors to be on-site full time during the pipe installation within their right-of-way. Also any future work or maintenance of the main will require approval and inspections from their office.

Estimated annual costs and savings are presented in Figure 6.

Estimated annual cost of obtaining public utility (potable) water for use in the Covanta Plymouth cooling towers, at 203,000,000 gallons per year at the current Aqua Pennsylvania, Inc. tariff is $823,032.

The estimated annual cost of using the Arcelor Mittal USA source via the pipe route in Alternate 1 is $239,191, or approximately $1.14 per 1,000 gallons used.

The estimated annual cost of using the Arcelor Mittal USA source via the pipe route in Alternate 2 is $319,751, or approximately $1.58 per 1,000 gallons used.

The estimated annual savings without amortization and interest are $635,841 and $555,281 for Alternates 1 and 2 respectively, yielding a gross payback of 1.2 years and 2.2 years.

The steps required to complete this project include finalizing an agreement between Arcelor Mittal and Covanta Plymouth, amending existing permits, obtaining new permits, finalizing design, preparing construction documents, obtaining bids, issuing and completing a contract for construction. In addition, if the recommended alternate is utilized, a right-of-way agreement or easement will need to be obtained from the quarry owner and the short line railroad.

Respectfully submitted,
Cummings & Smith, Inc.

Gary L. Smith, PE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
PROFESSIONAL
GARY LEE SMITH
ENGINEER
No. 26334-E

FIGURE 1

SUMMARY

OF PRESENT COOLING

WATER CONSUMPTION

PERIOD	TOTAL USAGE GAL./PERIOD	DAILY AVERAGE	
		GPD	GPM
2009	203,000,000	556,164	386 - use 400

FIGURE 2

COST ESTIMATE FOR

ALTERNATE 1

No.	Description	Unit	Quantity	Unit Price	Amount
1	10" HDPE, SDR-17 IPS	LF	4,225	$42.00	$175,978.00
2	10" DI Gate Valve w/Curb Box	EA	6	$1,964.00	$11,783.00
3	Air Release Manhole	EA	2	$3,715.00	$7,429.00
4	Control Vault	EA	1	$11,052.00	$11,052.00
5	Meter Vault	EA	1	$14,691.00	$14,691.00
6	10" Blow-Off Valve	EA	2	$2,646.00	$5,292.00
7	Heat Trace and Pipe Insulation	LS	LS	LS	$16,055.00
8	Crushed Stone Bedding	Accounted for in other Items.			
9	Rock Excavation	CY	500	$143.00	$71,500.00
10	Driveway Pavement Restoration	SY	330	$23.00	$7,653.00
11	Soil Erosion Control	LS	LS	LS	$6,907.00
Subtotal					$328,260.00
	Markups to Bare Cost				
	Sales Tax 3% (6% on mat'l)	3%			
	Gen. Contractor Overhead & Profit	25%			
	Field Supervisor	3%			
	Permits	2%			
	Security & Cleanup	3%			
	Location Factor	12%			
	Total % added to Project Cost	48%			$157,565.00
Total Estimated Construction Cost					**$485,825.00**

Notes:

1. 10" HDPE includes excavation and backfill.

2. Control vault includes 5'x 10'x 5' concrete vault with cover hatch, 3 - 6" gate valves, 6" pilot operated float valve, 6" by-pass line, pressure gage and NEMA 4X control panel.

3. Meter vault includes 5'x 10'x 5' concrete vault with cover hatch, 2 - 4" gate valves, 6" by-pass line, 6" gate valve and 4" turbine flow meter.

4. Air release manhole includes 4' diameter concrete manhole with cast iron cover, 6" air release valve and 6" gate valve.

FIGURE 3

COST ESTIMATE

FOR

ALTERNATE 2

No.	Description	Unit	Quantity	Unit Price	Amount
1	10" HDPE, SDR-17 IPS	LF	5,400	$42.00	$224,890.00
2	10" DI Gate Valve w/Gate Valve	EA	2	$5,891.00	$11,783.00
3	Air Release Manhole	EA	2	$5,572.00	$11,144.00
4	Control Vault	EA	1	$11,052.00	$11,052.00
5	Meter Vault	EA	1	$14,691.00	$14,691.00
6	10" Blow-Off Valve	EA	1	$2,646.00	$2,646.00
7	Heat Trace and Pipe Insulation	LS	LS	LS	$20,520.00
8	Crushed Stone Bedding	Accounted for in other Items			
9	Rock Excavation	CY	1,000	$143.00	$143,000.00
10	Driveway Pavement Restoration	SY	350	$23.00	$8,138.00
11	Soil Erosion Control	LS	LS	LS	$8,700.00
12	Roadway Pavement Restoration	SY	500	$98.00	$48,770.00
13	Select Backfill	CY	800	$54.00	$43,568.00
14	Traffic Control	LS	LS	LS	$12,000.00
15	PennDot Inspection Fee	HR	160	$65.00	$10,400.00
SubTotal					$571,301.00
Total Markup to Project		48%	(See Figure 2 for detail)		$274,249.00
Total Estimated Construction Cost					**$845,550.00**

Notes:

1. 10" DIP includes excavation and backfill.

2. Control vault includes 5'x 10'x 5' concrete vault with cover hatch, 3 - 6" gate valves, 6" pilot operated float valve, 6" by-pass line, pressure gage and NEMA 4X control panel.

3. Meter vault includes 5'x 10'x 5' concrete vault with cover hatch, 2 - 4" gate valves, 6" by-pass line, 6" gate valve and 4" turbine flow meter.

4. Air release manhole includes 4' diameter concrete manhole with cast iron cover, 6" air release valve and 6" gate valve.

FIGURE 4

PIPE CALCULATIONS

Alt. No.	Flow GPM	Friction Loss				Minor Losses	Elevation Head	Total Head
		Diam.	R	Length	Loss			
1	800	10"	2.5	5,300'	21.2'	17.5'	50'	88.7'
2	800	10"	2.5	6,500'	26.0'	17.6'	50'	93.6'
Avail.	----	----	----	----	----	----	----	173'

Notes:

1) Friction loss based on Hazen Williams equation with C=130 for 10" SDR-17 HDPE pipe.

2) R = Hydraulic radius = Diam./4

3) Elevation Head = 150 (At Cooling Tower)
- 100 (At pump house) = 50'

4) Discharge Head of 75 psi at pump house = 173' of head.

FIGURE 5

SUMMARY

OF

ESTIMATED PROJECT COSTS

Description	Alternate 1	Alternate 2
Construction Costs (C.C.)	$485,825	$845,550
Engineering		
a. Design	$76,500	$82,500
b. Survey	$12,750	$15,300
c. Permitting	$10,200	$19,500
d. Construction Phase	$43,600	$48,350
Legal and Miscellaneous @ 3% of C.C.	$14,575	$25,370
Contingencies @ 15% of C.C.	$72,900	$126,850
Subtotal	$716,350	$1,163,420
Financing Costs @ 5% of Subtotal	$ 35,820	$58,170
Total Estimated Project Cost	$752,170	$1,221,590

FIGURE 6

SUMMARY OF

ESTIMATED ANNUAL COSTS

Description	Yearly Cost		
	Current Use	Alternate 1	Alternate 2
Capitalized Cost	------	$128,719	$209,051
Chemical Treatment	$52,000	$64,000	$64,000
Maintenance	------	$7,500	$7,500
DRBC Assessment	------	$12,200	$12,200
Power Cost	------	$4,422	$ 4,650
City Water Charges	$823,032	$22,550	$22,550
Total	$875,032	$239,191	$319,751
Estimated Annual Savings w/o Arcelor Mittal Add'l Fees	------	$635,841	$555,281
Gross Payback, Years	------	1.18	2.20

Notes:

1. Capitalized Cost based on total projected project cost with 5% cost of financing for 17 years at 8.5% interest.

2. DRBC Assessment = 400 GPM(1,440 Min./Day)(365 Days/Year)($0.06/1,000 Gal.)

3. City water charges based on estimated ten days per year of alternate water supply down time.

4. Totals assume no fees from Arcelor Mittal other than DRBC assessments and power costs. Any additional fees will increase costs for Alternates 1 and 2 and reduce annual savings.

5. Gross Payback is equal to Estimated Project Cost divided by operating cost savings. Alternate 1: $752,170 / $635,841. Alternate 2: $1,1221,590 / $555,281.

APPENDIX A

Project Area Plan

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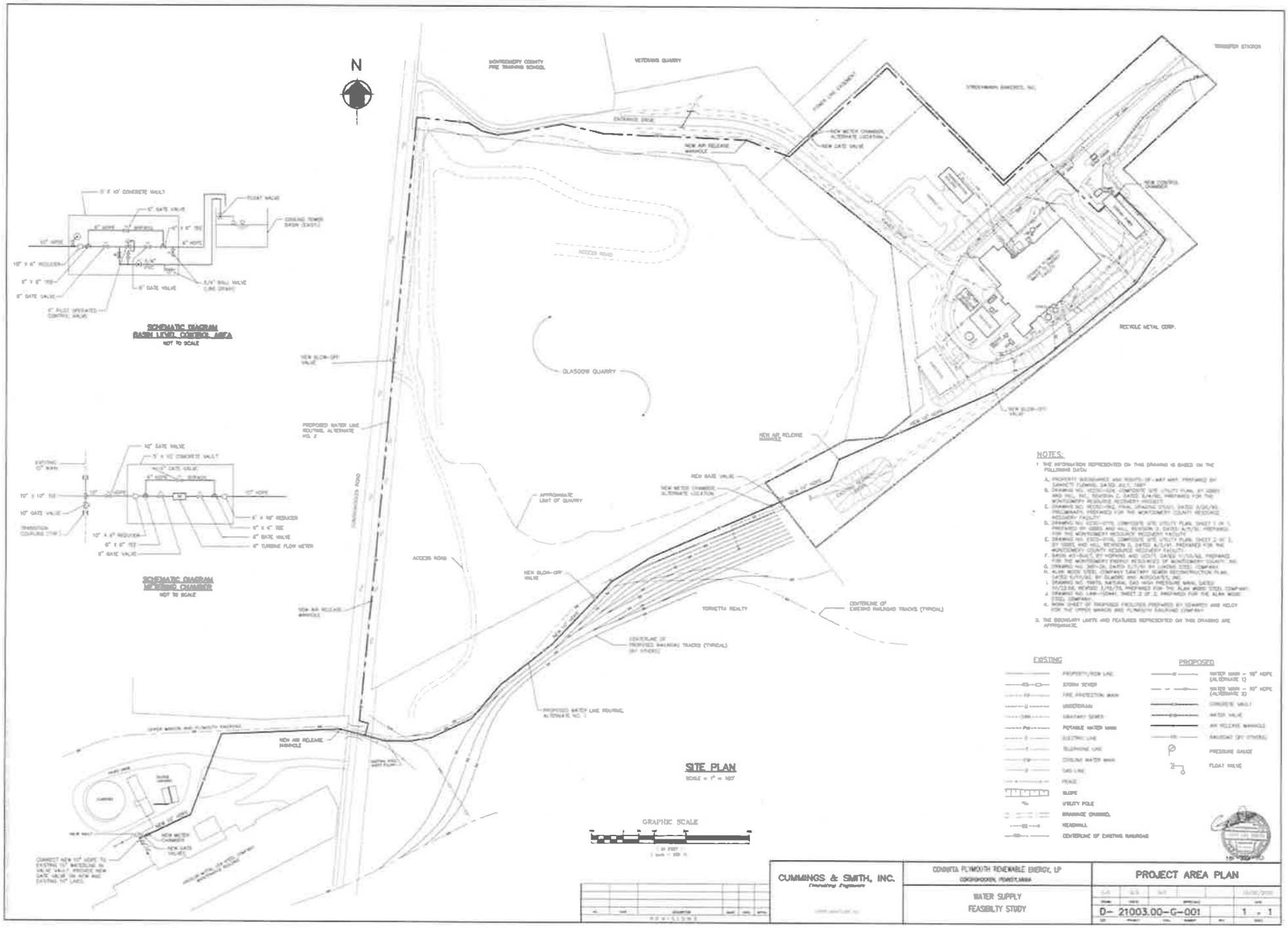

REVISIONS	CUMMINGS & SMITH, INC. Consulting Engineers	CORNITA PLYMOUTH RENEWABLE ENERGY, LP CONSHOHOCKEN, PENNSYLVANIA	PROJECT AREA PLAN
		WATER SUPPLY FEASIBILITY STUDY	D- 21003.00-G-001 1 - 1

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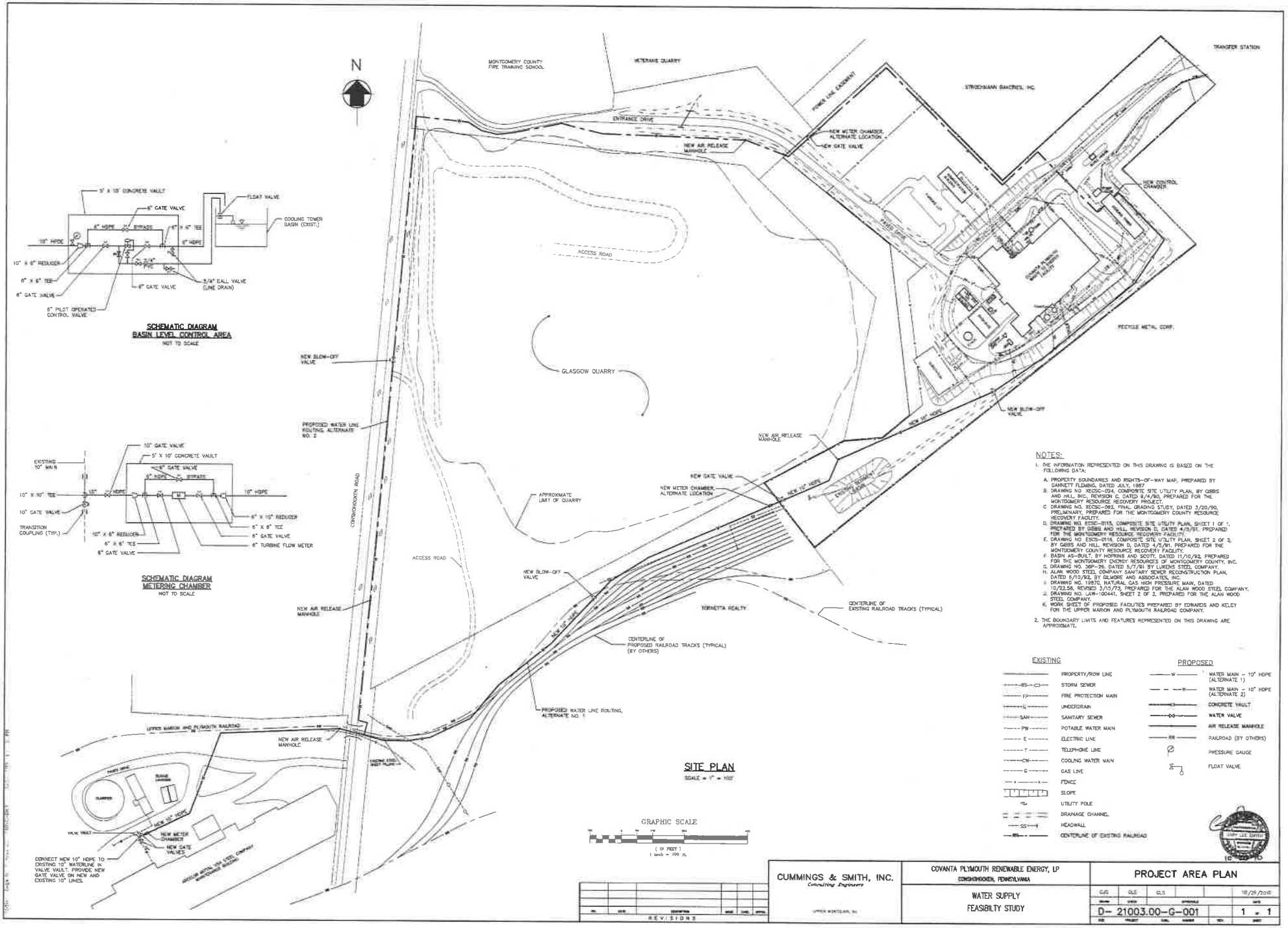

NOTES:

1. THE INFORMATION REPRESENTED ON THIS DRAWING IS BASED ON THE FOLLOWING DATA:
   - A. PROPERTY BOUNDARIES AND RIGHTS-OF-WAY MAP, PREPARED BY GANNETT FLEMING, DATED JULY, 1987
   - B. DRAWING NO. XECSC-024, COMPOSITE SITE UTILITY PLAN, BY GIBBS AND HILL, INC., REVISION C, DATED 8/4/90, PREPARED FOR THE MONTGOMERY RESOURCE RECOVERY PROJECT.
   - C. DRAWING NO. XECSC-092, FINAL GRADING STUDY, DATED 3/20/90, PRELIMINARY, PREPARED FOR THE MONTGOMERY COUNTY RESOURCE RECOVERY FACILITY.
   - D. DRAWING NO. ECSC-0113, COMPOSITE SITE UTILITY PLAN, SHEET 1 OF 1, PREPARED BY GIBBS AND HILL, REVISION C, DATED 4/5/91, PREPARED FOR THE MONTGOMERY RESOURCE RECOVERY FACILITY.
   - E. DRAWING NO. ESCS-0116, COMPOSITE SITE UTILITY PLAN, SHEET 2 OF 2, BY GIBBS AND HILL, REVISION D, DATED 4/5/91, PREPARED FOR THE MONTGOMERY COUNTY RESOURCE RECOVERY FACILITY.
   - F. BASIN AS-BUILT, BY HOPKINS AND SCOTT, DATED 11/10/92, PREPARED FOR THE MONTGOMERY ENERGY RESOURCES OF MONTGOMERY COUNTY, INC.
   - G. DRAWING NO. 36P-76, DATED 5/7/81 BY LUKENS STEEL COMPANY.
   - H. ALAN WOOD STEEL COMPANY SANITARY SEWER RECONSTRUCTION PLAN, DATED 9/10/92, BY GILMORE AND ASSOCIATES, INC.
   - I. DRAWING NO. 19870, NATURAL GAS HIGH PRESSURE MAIN, DATED 10/22/58, REVISED 3/10/73, PREPARED FOR THE ALAN WOOD STEEL COMPANY.
   - J. DRAWING NO. LAW-100441, SHEET 2 OF 2, PREPARED FOR THE ALAN WOOD STEEL COMPANY.
   - K. WORK SHEET OF PROPOSED FACILITIES PREPARED BY EDWARDS AND KELCY FOR THE UPPER MARION AND PLYMOUTH RAILROAD COMPANY.
2. THE BOUNDARY LIMITS AND FEATURES REPRESENTED ON THIS DRAWING ARE APPROXIMATE.

EXISTING		PROPOSED	
	PROPERTY/ROW LINE	W	WATER MAIN - 10" HDPE (ALTERNATE 1)
SS	STORM SEWER	W	WATER MAIN - 10" HDPE (ALTERNATE 2)
FP	FIRE PROTECTION MAIN		CONCRETE VAULT
UD	UNDERDRAIN		WATER VALVE
SAN	SANITARY SEWER		AIR RELEASE MANHOLE
PW	POTABLE WATER MAIN	RR	RAILROAD (BY OTHERS)
E	ELECTRIC LINE		PRESSURE GAUGE
T	TELEPHONE LINE		FLOAT VALVE
CW	COOLING WATER MAIN		
G	GAS LINE		
x	FENCE		
	SLOPE		
	UTILITY POLE		
	DRAINAGE CHANNEL		
SS	HEADWALL		
RR	CENTERLINE OF EXISTING RAILROAD		

JOHN LEE SMITH — COMMONWEALTH OF PENNSYLVANIA — REGISTERED

REVISIONS					
NO.	DATE	DESCRIPTION	MADE	CHKD	APPVD

CUMMINGS & SMITH, INC.
Consulting Engineers
UPPER MONTCLAIR, NJ

COVANTA PLYMOUTH RENEWABLE ENERGY, LP
CONSHOHOCKEN, PENNSYLVANIA

WATER SUPPLY
FEASIBILITY STUDY

PROJECT AREA PLAN

DRAWN	CHECK	APPROVED	DATE
CJS	CJS	CJS	10/26/2010

SIZE	PROJECT	DWG. NUMBER	REV.	SHEET
D	21003.00	G-001		1 = 1