



City of Derby WPCA  
Workshop  
September, 12, 2012

Richard Bartholomew  
Leo DiSorbo – Chairman  
Carolyn Duhaime

John Saccu  
James Gildea

Meeting Called to Order: 6:00pm

**Roll Call:** Leo DiSorbo, Chairman, John Saccu, Carolyn Duhaime, and Richard Bartholomew. Also present Lindsay King, Plant Superintendent, Dan Lorence and Anthony DiSimon from Weston and Sampon. Joe Coppola also present.

Joe Coppola said that the WPCA should build a list, prioritize what is absolute necessity. You should isolate the concept. Like Roosevelt Drive, purchase land, design the pump station, purchase the pump station, estimate what that is, what you think the specs are what it's going to cost for engineering, do that for every priority.

Once you get that going then we can work on the question. We will need explanatory text. Bond Council will help with explanatory text.

There are different types of bonds that the WPCA can go out for with different type of interest rates. The referendum part the City has to back, that goes against what the City can go out to get. We will talk about how you will pay it back, and how to structure the bills.

We will have to figure out if the payback is City wide or userwide. Will the people on the Ansonia line have to pay. These are questions that will have to be answered. You can lump things into one question.

The WPCA should have more workshops, by the end of October the WPCA should have all their prorites done so we can start grouping what the question is. Then you will get values and then start with Public Hearings in December.

Say if you need 6 months to engineer Roosevelt Drive, if the referendum passes, we can sell notes to get funds so the engineering can be done. Usually you do two public hearings, in this case you might want to do four or five.

Next workshop will be Oct. 24, 2012 at 6:00pm.

Keith said if it's a revenue antisipation bond then it will be a WPCA project approved by all tax payers, if it's a general obligation bond one might argue that maybe a commity appointed by the board of aldeman to oversee it is put in place. It wouldn't change your inner workings you would have to come to a meeting to get them to approve the bills.

Discussion of the proposed Roosevelt Drive Pump Station & Rt.34 sewer replacement. Hand out given. The WPCA will have to purchase land for this. Talked about bringing the force main right to the plant so we don't have to upgrade gravity pipes.

If the WPCA were to replace the pipes in RT34 without the states redoing the road it would be about another 2 million dollars.

Upgrades to the plant about 9 million. Anaerobic Digestion System could come out if we needed to save money.

Division Street Pump Station, this will eliminate the siphon. South Division St. in bad shape. Needs to be done.

Burtville Ave. Wastewater pumping station and the East Derby Wastewater pumping Station.

Workshop adjourn.

Respectfully Submitted

A handwritten signature in cursive script that reads "Marcy McGuire".

Marcy McGuire

**Roosevelt Drive Wastewater Pumping Station  
Drypit Wastewater Pumping Station Replacement Project  
Engineer's Opinion of Probable Construction Costs  
September 12, 2012**

<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Description</u>	<u>Cost</u>
3	EA	\$85,000	Drypit Wastewater Pumps	\$255,000
3	EA	\$55,000	Wastewater Pump VFD's	\$165,000
1	LS	\$175,000	Backup Generator	\$175,000
1	LS	\$150,000	Electrical System	\$150,000
1	LS	\$200,000	Instrumentation Control System	\$200,000
1	LS	\$20,000	Process Piping	\$20,000
1	EA	\$350,000	Fine Screen	\$350,000
1	LS	\$950,000	Cast In place Concrete Drypit/Wetpit	\$950,000
1800	SF	\$150	Pumping Station CMU Building	\$270,000
800	SY	\$45	Paving	\$36,000
2800	CY	\$35	Excavation	\$98,000
1500	CY	\$75	Rock Excavation	\$112,500
1	LS	\$500,000	Support of Excavation	\$500,000
1	LS	\$250,000	Dewatering	\$250,000
1	LS	\$100,000	Retaining Wall	\$100,000
1	LS	\$250,000	Gravity Sewer Modifications	\$250,000
<b>Construction Sub Total</b>				<b>\$3,882,000</b>
<b>Contractor Bonds &amp; Insurance (7.5%)</b>				<b>\$300,000</b>
<b>Contingency (20%)</b>				<b>\$777,000</b>
<b>Engineering (20%)</b>				<b>\$777,000</b>
<b>Land Procurement</b>				<b>\$500,000</b>
<b>OPC Project Cost</b>				<b>\$6,236,000</b>

**OPINION OF PROBABLE COST  
ROOSEVELT DRIVE WWPS FORCE MAIN AND GRAVITY SEWER REALIGNMENT PROJECT**

*prepared for the  
City of Derby, Connecticut  
by*

Weston & Sampson Engineers, Inc.

Item No.	Description	Unit	Estimated Quantity	Unit Cost	Total Cost
<b>Sewer Force Main</b>					
1a	14-inch ductile iron pipe	LF	100	\$125.00	\$12,500.00
1b	16-inch ductile iron pipe	LF	3,050	\$150.00	\$457,500.00
<b>Gravity Sewer And Appurtenances</b>					
2a	8-inch PVC pipe	LF	660	\$200.00	\$132,000.00
2b	12-inch PVC pipe	LF	1,350	\$300.00	\$405,000.00
2c	15-inch PVC pipe	LF	0	\$350.00	\$0.00
2d	18-inch PVC pipe	LF	0	\$400.00	\$0.00
2e	24-inch PVC pipe	LF	0	\$450.00	\$0.00
2f	30-inch PVC pipe	LF	50	\$500.00	\$25,000.00
<b>Sewer Service Connections</b>					
3a	8" X 6" PVC Wye or Tee	EA	5	\$200.00	\$1,000.00
3b	12" X 6" PVC Wye or Tee	EA	5	\$500.00	\$2,500.00
3c	15" X 6" PVC Wye or Tee	EA	0	\$900.00	\$0.00
3d	18" X 6" PVC Saddle/Insertion Wye or Tee	EA	0	\$1,100.00	\$0.00
3e	24" X 6" PVC Saddle/Insertion Wye or Tee	EA	0	\$1,500.00	\$0.00
3f	6-inch PVC building connections	LF	500	\$150.00	\$75,000.00
<b>Rock Excavation and Disposal</b>					
4a	Rock Excavation and Disposal	CY	1,000	\$150.00	\$150,000.00
<b>Miscellaneous Earthwork</b>					
5a	Changes in Earthwork	CY	500	\$50.00	\$25,000.00
5b	Unsuitable Material	CY	500	\$50.00	\$25,000.00
5c	Test Pits	CY	250	\$20.00	\$5,000.00
5d	Additional Crushed Stone	CY	500	\$50.00	\$25,000.00
<b>Surface Restoration</b>					
6a	Cross Country Surface Restoration	LS	1	\$50,000.00	\$50,000.00
<b>Pavement Replacement</b>					
7a	Temporary Trench Pavement - Local Road	LF	290	\$15.00	\$4,350.00
7b	Permanent Trench Pavement - Local Road	LF	290	\$35.00	\$10,150.00
7c	Temporary Trench Pavement - State Road	LF	3,070	\$35.00	\$107,450.00
7d	Permanent Trench Pavement - State Road	LF	1,740	\$75.00	\$130,500.00
7e	2" Milling and Overlay	SY	3,870	\$25.00	\$96,750.00
7f	Additional Pavement	TON	100	\$150.00	\$15,000.00
<b>Manholes And Appurtenances</b>					
8a	Precast Concrete Manhole	EA	11	\$6,500.00	\$71,500.00
8b	Precast Concrete Vault	EA	1	\$75,000.00	\$75,000.00
8c	Combination Air/Vacuum Release Manhole	EA	2	\$20,000.00	\$40,000.00
<b>Directional Drilling</b>					
9a	Directional Drilling Under Railroad	LS	1	\$250,000.00	\$250,000.00
<b>Dust Control</b>					
10a	Calcium Chloride	LB	2,000	\$1.50	\$3,000.00
<b>Environmental Protection</b>					
11a	Inlet Protection	EA	35	\$250.00	\$8,750.00
11b	Temporary Silt Fence	LF	1,500	\$10.00	\$15,000.00
<b>Dewatering</b>					
12a	Dewatering	LS	1	\$50,000.00	\$50,000.00
<b>Uniformed Officers for Traffic Control</b>					
13a	Uniformed Officers for Traffic Control	HR	900	\$65.00	\$58,500.00

<b>CONSTRUCTION SUB TOTAL</b>	<b>\$2,326,450.00</b>
<b>CONTRACTOR BONDS AND INSURANCE (7.5%)</b>	<b>\$175,000.00</b>
<b>CONTINGENCY (20%)</b>	<b>\$466,000.00</b>
<b>ENGINEERING (20%)</b>	<b>\$466,000.00</b>
<b>OPC PROJECT COST</b>	<b>\$3,433,450.00</b>

**OPINION OF PROBABLE COST  
ROUTE 34 SEWER REPLACEMENT PROJECT**

*prepared for the  
City of Derby, Connecticut  
by*

Weston & Sampson Engineers, Inc.

Item No.	Description	Unit	Estimated Quantity	Unit Cost	Total Cost
<b>Sewer Force Main</b>					
1a	14-inch ductile iron pipe	LF	0	\$125.00	\$0.00
1b	16-inch ductile iron pipe	LF	0	\$150.00	\$0.00
<b>Gravity Sewer And Appurtenances</b>					
2a	8-inch PVC pipe	LF	1,190	\$200.00	\$238,000.00
2b	12-inch PVC pipe	LF	1,060	\$300.00	\$318,000.00
2c	15-inch PVC pipe	LF	440	\$350.00	\$154,000.00
2d	18-inch PVC pipe	LF	350	\$400.00	\$140,000.00
2e	24-inch PVC pipe	LF	830	\$450.00	\$373,500.00
2f	30-inch PVC pipe	LF	0	\$500.00	\$0.00
<b>Sewer Service Connections</b>					
3a	8" X 6" PVC Wye or Tee	EA	20	\$200.00	\$4,000.00
3b	12" X 6" PVC Wye or Tee	EA	10	\$500.00	\$5,000.00
3c	15" X 6" PVC Wye or Tee	EA	10	\$900.00	\$9,000.00
3d	18" X 6" PVC Saddle/Insertion Wye or Tee	EA	5	\$1,100.00	\$5,500.00
3e	24" X 6" PVC Saddle/Insertion Wye or Tee	EA	5	\$1,500.00	\$7,500.00
3f	6-inch PVC building connections	LF	2,500	\$150.00	\$375,000.00
<b>Rock Excavation and Disposal</b>					
4a	Rock Excavation and Disposal	CY	100	\$150.00	\$15,000.00
<b>Miscellaneous Earthwork</b>					
5a	Changes in Earthwork	CY	500	\$50.00	\$25,000.00
5b	Unsuitable Material	CY	500	\$50.00	\$25,000.00
5c	Test Pits	CY	250	\$20.00	\$5,000.00
5d	Additional Crushed Stone	CY	500	\$50.00	\$25,000.00
<b>Surface Restoration</b>					
6a	Cross Country Surface Restoration	LS	1	\$10,000.00	\$10,000.00
<b>Pavement Replacement</b>					
7a	Temporary Trench Pavement - Local Road	LF	2,350	\$15.00	\$35,250.00
7b	Permanent Trench Pavement - Local Road	LF	2,350	\$35.00	\$82,250.00
7c	Temporary Trench Pavement - State Road	LF	1,500	\$35.00	\$52,500.00
7d	Permanent Trench Pavement - State Road	LF	0	\$75.00	\$0.00
7e	2" Milling and Overlay	SY	0	\$25.00	\$0.00
7f	Additional Pavement	TON	100	\$150.00	\$15,000.00
<b>Manholes And Appurtenances</b>					
8a	Precast Concrete Manhole	EA	31	\$6,500.00	\$201,500.00
8b	Precast Concrete Vault	EA	0	\$50,000.00	\$0.00
8c	Combination Air/Vacuum Release Manhole	EA	0	\$20,000.00	\$0.00
<b>Directional Drilling</b>					
9a	Directional Drilling Under Railroad	LS	0	\$250,000.00	\$0.00
<b>Dust Control</b>					
10a	Calcium Chloride	LB	1,500	\$1.50	\$2,250.00
<b>Environmental Protection</b>					
11a	Inlet Protection	EA	50	\$250.00	\$12,500.00
11b	Temporary Silt Fence	LF	0	\$10.00	\$0.00
<b>Dewatering</b>					
12a	Dewatering	LS	1	\$50,000.00	\$50,000.00
<b>Uniformed Officers for Traffic Control</b>					
13a	Uniformed Officers for Traffic Control	HR	1,040	\$65.00	\$67,600.00

<b>CONSTRUCTION SUB TOTAL</b>	<b>\$2,253,350.00</b>
<b>CONTRACTOR BONDS AND INSURANCE (7.5%)</b>	<b>\$170,000.00</b>
<b>CONTINGENCY (20%)</b>	<b>\$451,000.00</b>
<b>ENGINEERING (20%)</b>	<b>\$451,000.00</b>
<b>OPC PROJECT COST</b>	<b>\$3,325,350.00</b>

**City Derby Water Pollution Control Authority**  
**WPCF Upgrades - Phase I**  
**Engineer's Opinion of Probable Construction Costs**  
**September 12, 2012**

<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Description</u>	<u>Cost</u>
1	LS	\$605,000	<b>Influent Pumping Station Upgrades</b>	\$605,000
			<i>Includes: Process Piping</i>	\$150,000
			<i>Demolition</i>	\$50,000
			<i>Wastewater Pumps</i>	\$180,000
			<i>Pump Controls</i>	\$90,000
			<i>Equipment Installation</i>	\$135,000
1	LS	\$1,042,500	<b>Headworks - Screening System</b>	\$1,042,500
			<i>Includes: Concrete</i>	\$260,000
			<i>Excavation</i>	\$40,000
			<i>Dewatering</i>	\$40,000
			<i>Fine Screen w/ Compactor</i>	\$375,000
			<i>Building Above</i>	\$140,000
			<i>Equipment Installation</i>	\$187,500
1	LS	\$542,500	<b>Headworks - Grit Removal System</b>	\$542,500
			<i>Includes: Demolition</i>	\$20,000
			<i>Grit System</i>	\$350,000
			<i>Misc. Metals</i>	\$25,000
			<i>Gratings</i>	\$25,000
			<i>Equipment Installation</i>	\$122,500
1	LS	\$1,235,000	<b>Anaerobic Digestion System</b>	\$1,235,000
			<i>Includes: Process Piping</i>	\$150,000
			<i>Demolition</i>	\$50,000
			<i>Sludge Transfer Pumps</i>	\$135,000
			<i>Pump Controls</i>	\$50,000
			<i>Cover and Mixing System</i>	\$850,000
			<i>Equipment Installation</i>	\$492,500
1	LS	\$1,195,500	<b>Waste Sludge Dewatering System</b>	\$1,195,500
			<i>Includes: Solids Handling Equipment</i>	\$570,000
			<i>TWAS Transfer Pumps</i>	\$90,000
			<i>Process Water System Modifications</i>	\$17,500
			<i>Process Piping and Appurtenances</i>	\$50,000
			<i>Filtrate Containment</i>	\$15,000
			<i>Sludge Conveyor/Loadout System</i>	\$150,000
			<i>System Controls</i>	\$60,000
			<i>Component Installation</i>	\$243,000
1	LS	\$750,000	<b>Site Electrical Systems Modificaitons</b>	\$750,000
			<i>Includes: Power Panel Boards</i>	\$150,000
			<i>Service Entrance Modificaitons</i>	\$115,000
			<i>Standby Generator</i>	\$155,000
			<i>Conduit and Wire</i>	\$175,000
			<i>Motor Control Centers</i>	\$155,000

**City Derby Water Pollution Control Authority**  
**WPCF Upgrades - Phase I**  
**Engineer's Opinion of Probable Construction Costs**  
**September 12, 2012**

<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Description</u>	<u>Cost</u>
1	LS	\$750,000	<b>Instrumentation and SCADA System Modificaitons</b>	<b>\$750,000</b>
			<i>Includes: SCADA Panels</i>	<i>\$160,000</i>
			<i>SCADA Telemetry</i>	<i>\$75,000</i>
			<i>Operator Interface and Control Station</i>	<i>\$40,000</i>
			<i>Process Control Instruments</i>	<i>\$175,000</i>
			<i>Conduit and Wire</i>	<i>\$300,000</i>
			<b>OPC Construction Sub Total</b>	<b>\$6,121,000</b>
			<b>Contractor Bonds &amp; Insurance (7.5%)</b>	<b>\$460,000</b>
			<b>Contingency (20%)</b>	<b>\$1,225,000</b>
			<b>Engineering (20%)</b>	<b>\$1,225,000</b>
			<b>OPC Project Cost</b>	<b>\$9,031,000</b>

**Division Street Wastewater Pumping Station  
 Drypit Wastewater Pumping Station Replacement Project  
 Engineer's Opinion of Probable Construction Costs  
 September 12, 2012**

<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Description</u>	<u>Cost</u>
2	EA	\$25,000	Submersible Wastewater Pumps	\$50,000
2	EA	\$20,000	Wastewater Pump VFD's	\$40,000
1	LS	\$55,000	Backup Generator	\$55,000
1	LS	\$75,000	Electrical System	\$75,000
1	LS	\$55,000	Instrumentation Control System	\$55,000
1	LS	\$55,000	Process Piping	\$55,000
1	LS	\$100,000	Precast Wetwell and Valve Vault	\$100,000
1	LS	\$85,000	Precast Concrete Building	\$85,000
500	SY	\$45	Paving	\$22,500
500	CY	\$35	Excavation	\$17,500
120	CY	\$75	Rock Excavation	\$9,000
1	LS	\$125,000	Support of Excavation	\$125,000
1	LS	\$200,000	Dewatering	\$200,000
1200	LF	\$150	6" PVC Forcemain	\$180,000
1	LS	\$125,000	Bridge Crossing	\$125,000
1	LS	\$75,000	Gravity Sewer Modifications	\$75,000
<b>Construction Sub Total</b>				<b>\$1,269,000</b>
<b>Contractor Bonds &amp; Insurance (7.5%)</b>				<b>\$100,000</b>
<b>Contingency (20%)</b>				<b>\$254,000</b>
<b>Engineering (20%)</b>				<b>\$254,000</b>
<b>OPC Project Cost</b>				<b>\$1,877,000</b>



**South Division Street Wastewater Pumping Station  
Submersible Wastewater Pumping Station Replacement Project  
Engineer's Opinion of Probable Construction Costs  
September 12, 2012**

<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Description</u>	<u>Cost</u>
2	EA	\$25,000	Submersible Wastewater Pumps	\$50,000
2	EA	\$20,000	Wastewater Pump VFD's	\$40,000
1	LS	\$50,000	Backup Generator	\$50,000
1	LS	\$75,000	Electrical System	\$75,000
1	LS	\$50,000	Instrumentation Control System	\$50,000
1	LS	\$55,000	Process Piping	\$55,000
1	LS	\$25,000	Precast Wetwell Modificaitons and Valve Vault	\$25,000
1	LS	\$85,000	Precast Concrete Building	\$85,000
500	SY	\$45	Paving	\$22,500
1	LS	\$20,000	Excavation	\$20,000
120	LF	\$75	6" Forcemain Interconnection	\$9,000
1	LS	\$15,000	Dewatering	\$15,000
1	LS	\$10,000	Gravity Sewer Modifications	\$10,000
<b>Construction Sub Total</b>				<b>\$507,000</b>
<b>Contractor Bonds &amp; Insurance (7.5%)</b>				<b>\$40,000</b>
<b>Contingency (20%)</b>				<b>\$102,000</b>
<b>Engineering (20%)</b>				<b>\$102,000</b>
<b>OPC Project Cost</b>				<b>\$751,000</b>

**Burtville Avenue Wastewater Pumping Station  
Submersible Wastewater Pumping Station Replacement Project  
Engineer's Opinion of Probable Construction Costs  
September 12, 2012**

<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Description</u>	<u>Cost</u>
2	EA	\$25,000	Submersible Wastewater Pumps	\$50,000
1	LS	\$55,000	Backup Generator	\$55,000
1	LS	\$75,000	Electrical System	\$75,000
1	LS	\$55,000	Instrumentation Control System	\$55,000
1	LS	\$55,000	Process Piping	\$55,000
1	LS	\$100,000	Precast Wetwell and Valve Vault	\$100,000
1	LS	\$85,000	Precast Concrete Building	\$85,000
500	SY	\$45	Paving	\$22,500
1	LS	\$10,000	Precast Concrete Building	\$10,000
1	LS	\$75,000	Support of Excavation	\$75,000
1	LS	\$50,000	Dewatering	\$50,000
1	LS	\$15,000	Gravity Sewer Modifications	\$15,000
<b>Construction Sub Total</b>				<b>\$648,000</b>
<b>Contractor Bonds &amp; Insurance (7.5%)</b>				<b>\$50,000</b>
<b>Contingency (20%)</b>				<b>\$130,000</b>
<b>Engineering (20%)</b>				<b>\$130,000</b>
<b>OPC Project Cost</b>				<b>\$958,000</b>

**East Derby Wastewater Pumping Station  
Drypit Wastewater Pumping Station Replacement Project  
Engineer's Opinion of Probable Construction Costs  
September 12, 2012**

<u>Quantity</u>	<u>Unit</u>	<u>Unit Cost</u>	<u>Description</u>	<u>Cost</u>
4	EA	\$90,000	Drypit Wastewater Pumps	\$360,000
4	EA	\$55,000	Wastewater Pump VFD's	\$220,000
1	LS	\$175,000	Backup Generator	\$175,000
1	LS	\$150,000	Electrical System	\$150,000
1	LS	\$200,000	Instrumentation Control System	\$200,000
1	LS	\$20,000	Process Piping	\$20,000
1	EA	\$350,000	Fine Screen	\$350,000
1	LS	\$1,125,000	Cast In place Concrete Drypit/Wetpit	\$1,125,000
2100	SF	\$150	Pumping Station CMU Building	\$315,000
800	SY	\$45	Paving	\$36,000
4020	CY	\$35	Excavation	\$140,700
2500	CY	\$75	Rock Excavation	\$187,500
1	LS	\$650,000	Support of Excavation	\$650,000
1	LS	\$350,000	Dewatering	\$350,000
1	LS	\$100,000	Retaining Wall	\$100,000
2200	LF	\$250	16" PVC Forcemain	\$550,000
1	LS	\$125,000	Railroad Crossing	\$125,000
1	LS	\$125,000	River Directional Drilling	\$125,000
1	LS	\$250,000	Gravity Sewer Modifications	\$250,000
<b>Construction Sub Total</b>				<b>\$5,429,200</b>
<b>Contractor Bonds &amp; Insurance (7.5%)</b>				<b>\$410,000</b>
<b>Land Procurement</b>				<b>\$500,000</b>
<b>Contingency (20%)</b>				<b>\$1,086,000</b>
<b>Engineering (20%)</b>				<b>\$1,086,000</b>
<b>OPC Project Cost</b>				<b>\$8,511,200</b>