

**DEPARTMENTAL INPUT
CONTRACT/PROJECT MEASURE ANALYSIS AND RECOMMENDATION**

New contract
 OTR
 CO
 SS
 BW
 Emergency

N/A
 Other

Re-Bid
 Other
 LIVING WAGE APPLIES: ___ YES ___ X NO

Requisition/Project No: RQWS1200024

Term of Contract: Upon Completion

Requisition/Project Title: Emergency Rehabilitation of Raw Water Mains

Description: Rehabilitate 4 lengths of 72" PCCP located at SW 64 St., between 87 and 92 Av., and 4 lengths of 96" PCCP located at NW 79 St. and Poinciana Blvd.

User Department(s): M-DWASD

Issuing Department: ISD PM

Contact Person: MAGGIE REYNALDOS

Phone: 305-375-4435

Estimated Cost: \$728,300

Funding Source: PROPRIETARY FUNDS

ANALYSIS

Commodity/Service No: 909		SIC:	
Trade/Commodity/Service Opportunities			
<div style="border: 1px solid black; padding: 5px; margin: 5px;"> Contract/Project History of Previous Purchases For Previous Three (3) Years Check Here <input checked="" type="checkbox"/> if this is a New Contract/Purchase with no Previous History </div>			
	<u>EXISTING</u>	<u>2ND YEAR</u>	<u>3RD YEAR</u>
Contractor:			
Small Business Enterprise:			
Contract Value:			
Comments:			
Continued on another page (s): ___ Yes ___ No			

RECOMMENDATIONS

SBE	Set-Aside	Sub-Contractor Goal	Bid Preference	Selection Factor
		%		
		%		
		%		
		%		

Basis of Recommendation:

Signed:

Date to DBD: 9/17/12

Date Returned to DPM: _____

RECEIVED
 DEPT. BUSINESS DEV.
 2012 SEP 17 PM 4:07



**SECTION #3
EMERGENCY PURCHASES**

NOTE TO DEPARTMENTS: COMPLETE ITEMS MARKED WITH (▶)

▶ REQUISITIO#:RQWS1200024 P.O. #: _____ BCC DATE: _____

▶ ACQUISITION DATE (Date Order Is Placed):07/07/11 and 8/01/11

▶ TITLE:	Fibrwrap Carbon Reinforced Polymer (CFRP) Internal Rehabilitation of 72-inch & 96-inch Prestressed Concrete Cylinder Pipe (PCCP)
▶ DESCRIPTION:	Supply and install Fyfe Company LLC Tyfo SCH Fibrwrap system to strengthen eight (8) lengths of "Priority One" PCCP Raw Water Main. "Priority One" category means the PCCP Pipes are either at high risk or very high risk of imminent and catastrophic rupture and failure.
▶ PURPOSE:	To internally reinforce and restore the pressure integrity condition of eight (8) lengths of PCCP raw water main; Four (4) lengths of 72-inch PCCP located S.W. 64 th Street between SW 87 th and SW 92nd Avenue, and four (4) lengths of 96-inch PCCP located at NW 79 th Street and Poinciana Boulevard. The eight (8) lengths were identified as "Priority One" from a pipeline condition assessment report from Pure Technologies and the rehabilitation performed by Fibrwrap Construction.

▶ Department(s):	▶ Allocation(s):
MDWASD	\$ 728,300.00

▶ TERM OF CONTRACT:	<input type="checkbox"/> One <input type="checkbox"/> Two <input type="checkbox"/> Three <input type="checkbox"/> Four <input type="checkbox"/> Five *Year(s)
	Months
	<input type="checkbox"/> Contract Period From _____ to _____
	<input checked="" type="checkbox"/> Upon Completion * From _____ to _____
	<input type="checkbox"/> Upon Delivery * _____ Days A.R.O. (after Receipt of Order)

Special Conditions:	<input checked="" type="checkbox"/> Insurance Type <u>07</u>
	<input type="checkbox"/> Performance/Payment Bond
	<input type="checkbox"/> Certificate of Competency
	<input type="checkbox"/> Living Wage Applies

SBE Measures:	<input checked="" type="checkbox"/> None	Review Committee Date: _____	
	<input type="checkbox"/> Set Aside		Item #: _____
	<input type="checkbox"/> Bid Preference		
	<input type="checkbox"/> Goal		
	<input type="checkbox"/> SBE <input type="checkbox"/> Micro Enterprise		
	<input type="checkbox"/> SBE <input type="checkbox"/> Micro Enterprise		
	<input type="checkbox"/> SBE <input type="checkbox"/> Micro Enterprise		

▶ Number of Price Quotation(s): Requested: 1 Received: 1

Awarded To Low Bidder: * YES NO, If "NO", provide explanation in the Comments section

Vendor: <u>Fibrwrap Construction SE LLC</u>	Vendor: _____
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Contract Value: \$728,300.00

Did Local Preference affect the outcome of the Award?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO, if "YES", provide detailed explanation in the "Comments" section
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UAP Included: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	• Will CITT Funds be used? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
	• Will Federal Funds be used? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

SECTION #3
EMERGENCY PURCHASES

- If UAP is not included, Attach written approval to waive UAP and provide an explanation in the "Comments" section

**Justification
and
Comments:**

To internally reinforce and restore the pressure integrity of four (4) lengths of 72-inch PCCP raw water main located at SW 64th Street between SW 87th Avenue and SW 92nd Avenue and four lengths of 96-inch PCCP located at NW 79th Street and Poinciana Boulevard. A total of eight (8) lengths were identified as "Priority 1" from a pipeline condition assessment report utilizing a non-destructive patented technology called Pipe Diver, a free swimming live PCCP inspection tool. This free swimming tool can be inserted into a closed pipeline system and operated for up to 36 hours before requiring retrieval and recharging.

The advantage that this technology has over conventional technologies that provide recorded video inspection results is that the Pipe Diver transmits a signal that, when combined with the patented software, is able to detect and locate the number of damaged or broken prestressing wires located inside the PCCP. All of the results and information are presented in a full assessment report that provides summary of damaged segments of the pipe and also ranks them in priority category and quantitative order of number of broken prestressing wires.

In the past eighteen months, WASD large diameter transmission lines for both Water Distribution and Wastewater Collection have experienced a series of catastrophic ruptures. The primary cause of these ruptures was determined to be age and a certain vintage of Prestressed Concrete Cylinder Pipe (PCCP) that was installed during the 1970's by a Contractor no longer in business. To provide a perspective summary of the overall condition, WASD is continuing to perform condition inspection and assessment reports of all large diameters PCCP piping infrastructure. Those identified as Priority One category, mean the PCCP Pipes are either at high risk or very high risk of imminent and catastrophic rupture and failure.

WASD Director John Renfrow has declared numerous emergency solicitations to deal with the repair and rehabilitation of all PCCP large transmission mains that are identified as "Priority One" risk of imminent rupture and failure by the Pipe Diver technology. The detailed reports from Pipe Diver have identified numerous lengths and sections of pipe Countywide that need to be repaired, replaced or rehabilitated ASAP. Because of the volume of data being reviewed and number of repairs that were deemed Priority One, it became challenging to maintain which projects were indentified as funded with an immediate notice to proceed issued and which projects would have to wait due to funding issues. The point person for initiating the requisitions and coordinating the project proposal requests for Emergency Repairs failed to account for these two projects. Please note that employee is no longer employed in the Water Distribution Division.

The 72-inch PCCP repair was okayed to proceed on 7/07/11 and the 96-inch was okayed to proceed on 8/01/11. Both rehabilitations were deemed highly critical because they serve as the main raw water feeds to the Hialeah Plant serving the residents of northern MD County, and Alexander Orr which serves the residents of southern MD County.

Because the department anticipated an ongoing requirement for this method of repair and rehabilitation of PCCP pipes, a sub-pool category for this particular method was established and currently exists as part of the MCC-PROGRAM-7360.

Fibwrap Construction is recognized worldwide for developing innovative techniques to strengthen and repair large diameter pipelines and the Fyfe Company Tyfo System coatings are NSF approved for use in structures containing potable water. Fibwrap was originally developed for seismic strengthening of bridge columns. Following the successful research and testing for use in both circular and rectangular columns, Fibwrap has also been successfully tested and used on nearly all concrete structural elements.

Background/Need to Know: Draft report revealed significant areas of prestressing degradation that required

SECTION #3
EMERGENCY PURCHASES

	immediate action to avert other potential ruptures and threats to the service pressure integrity of the Countywide water distribution service infrastructure.
Potential Issues:	Failure to take immediate action to the affected 72-inch and 96-inch raw water pipeline sections would almost assure another catastrophic rupture and potential failure of the entire water distribution system.

► **Signature(s):**

Gregory Hicks, CPPB

Contact Person

9/08/12

Date

(786) 552-8049

Telephone

9/17/12


Department Director Approval

Date

Department of Procurement Management Use Only

Signatures(s):

_____ Procurement Agent	_____ Date
_____ Procurement Supervisor	_____ Date
_____ Procurement Manager	_____ Date
_____ Division Director	_____ Date
_____ Vendor Assistance Section	_____ Date

**MIAMI-DADE WATER & SEWER DEPARTMENT
WATER DISTRIBUTION DIVISION**



FIBRWRAP CONSTRUCTION SE LLC.

MAIL REMITTANCE TO: **FIBRWRAP CONSTRUCTION SE LLC. / Accounts**
Receivable Department

Date: 09/04/12

ADDRESS: P. O. BOX 8656
Atlanta, GA 31106-0856
Tel. (404)371-4033 Fax (404) 371-4032

Total Amount: \$ 743,900.00
WEKO -SEAL TOTAL AMOUNT : \$ 15,600.00
TOTAL AMOUNT APPROVED: \$ 728,300.00

INVOICE #: 222-11835-11 and 227-11835-11

Invoice Date: 7/26/11 - 8/23/12
Contract No. FCISE - 11835- 11 rev.1

CUSTOMER ID: MIAMI DADE WATER & SEWER AUT

PROJECT/JOB NUMBER: **FCISE - 11835- 11 rev.1**

PROJECT Name: 72" AND 96" CARBON REINFORCED POLYMER
PCCP INTERNAL REPAIRS

Request Date: July 26, 2011 +
August 23, 2011

Project NUMBER: **W016530**

Client Name: **WASD/ Water Dist. Division**

***4 SPOOLS 72" FIBERWRAP CONSTRUCTION SERVICES - SW 64 ST FROM 87 AVE. TO 92 AVE.
*** 4 SPOOLS 96" FIBERWRAP CONSTRUCTION SERVICES - NW 79 ST/ PONCIANA

Fund	O&M Activity	Account	Org.	Location	Project Job Order ER Number	Project Activity	Transaction Amount
EW221	720467	722440	WS72081	13008	W016530	General	\$ 320,546.38
EW221	720467	722440	WS72081	13008	W016530	General	\$ 159,390.00
SUB-TOTAL AMOUNT APPROVED:							\$ 479,936.38
TOTAL APPROVED:							\$ 479,936.38

0000092657
REQ. NUMBER

MAT'L RECEIVED YES OR NO

INVOICE REC'D DATE: 9/4/2012

NOTE: WAKO SEAL BANDS POST CFRP OF \$15,600 WAS PROVIDED BY WASD. AS A RESULT, THE TOTAL OF \$ 743,900.00 LESS \$15,600 EQUALS TO AMOUNT APPROVED OF \$ 728,300.00

MAT'L REC'D DATE: 9/4/2012

BY WDD

APPROVED BY:
LUIS AGUIAR

MAT'L REC'D DATE: 9/4/2012

BY WDD

APPROVED BY:
RALPH TERRERO 9/5/12

FIBRWRAP CONSTRUCTION SE LLC

INVOICE DATE DUE DATE INVOICE NO
 07-26-11 08-25-11 222-11835-11

CONTRACT NO. CUSTOMER NO JOB NO.
 PO MIAMID 11835-11

TO:
 MIAMI-DADE WATER & SEWER DEPT
 ATTN: RALPH TERRERO
 3071 SW 38 AVENUE :
 SUITE 515
 MIAMI, FL 33146

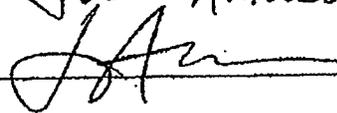
PROJECT:
 MIAMI DADE 96"-72" PCCP
 MIAMI, FL

DESCRIPTION	UNITS	UOF	PRICE	AMOUNT
TYFO FIBRWRAP SYSTEM 72"	1.00		309000.00	309,000.00

(40A.) 72" spools.
 7/7/11 to 7/16/11

S.W. 6th St. From 87 Ave to 98 Ave

The construction management Division
 can attest that the 72" Fibwrap work
 was completed.

Julio Amodeo, COMM. CHIEF.

 8/5/11

PAYMENT TERMS: NET 30 DAYS

AMOUNT BILLED	\$309,000.00
GST TAX	
RETENTION	.00
AMOUNT DUE	\$309,000.00

PLEASE PAY FROM THIS INVOICE.

Office
 777 Briarcliff Road NE • Atlanta, GA 30380
 Tel 404.371.4033 • Fax 404.371.4032

Accounting
 8380 Miraloni Drive, Suite E - San Diego, CA 92126
 Tel 858.444.2978 • Fax 858.444.2984



FIBRWRAP®

The Future of Construction Technology

INVOICE DATE
08-23-11

DUE DATE
09-22-11

INVOICE NO
227-11835-11 ✓

CONTRACT NO.
PO

CUSTOMER NO
MIAMID

JOB NO.
11835-11

TO:
MIAMI-DADE WATER & SEWER DEPT
ATTN: RALPH TERRERO
3071 SW 38 AVENUE
SUITE 515
MIAMI, FL 33146

PROJECT:
MIAMI DADE 96"-72" PCCP
MIAMI, FL

DESCRIPTION	UNITS	UOF	PRICE	AMOUNT
TYFO FIBRWRAP SYSTEM	1.00		419300.00	419,300.00

IVED
2' A 10' 56'
MIAMI-DADE WATER & SEWER DEPT
CONSTRUCTION MANAGEMENT

4 (CA) SPILLS 96" CA.
8/1/11 TO 8/4/11

N.W. 79th STREET / HWY 12 DONCIANA.

The Construction Management Division can attest that the work detailed in the attached invoice has been completed.

Julio Amoedo, Division Chief 9/2/11

96"

JW110007

AUG 31 2011
Miami-Dade Water & Sewer
Department
Assistant Director Water

PAYMENT TERMS: NET 30 DAYS

AMOUNT BILLED	\$419,300.00
GST TAX	
RETENTION	.00
AMOUNT DUE	\$419,300.00

PLEASE PAY FROM THIS INVOICE.

FIBRWRAP Construction SE, LLC
8380 Miralani Drive, San Diego, CA 92126
Office: (858) 642-0694 Fax: (858) 444-2982

www.fibrwrapconstruction.com



July 15, 2011

Ralph Terrero, P.E.
Assistant Director, Water Systems Operations
Miami-Dade County
Water & Sewer Dept.
3071 SW 38 Avenue, Suite 515
Miami, FL 33146
P: 786-552-8112
E: terrero@miamidade.gov

Quote #FCISE – 11835 – 11rev.1

SUBJECT: Tyfo Fibrwrap (CFRP) Carbon Reinforced Polymer PCCP Internal Repairs

Mr. Terrero,

It is a pleasure to provide you the following firm fixed price proposal to supply and install the Fyfe Co., LLC Tyfo SCH Fibrwrap system to strengthen four (4) "Priority 1" pipes of existing 96" diameter pre-stressed cylinder pipe and four (4) "Priority 1" pipes of existing 72" PCCP sections per your request. The PCCP sections are located in Miami-Dade County, Florida. Fibrwrap Construction, SE, LLC is licensed, bondable and Fyfe Co., LLC certified, meeting or exceeding all experience requirements. Fibrwrap Construction, SE, LLC is the most comprehensively trained applicator of the Fyfe Co., LLC Tyfo Fibrwrap Strengthening Systems.

Section 1 - PROPOSED SCOPE OF WORK – 96" PCCP Replacement

1. Submittal package including design calculations and shop drawings signed and sealed by a licensed Professional Engineer in the State of Florida, project schedule, safety plan, etc.
2. Fibrwrap Construction shall be onsite to perform the work as per agreed to schedule in accordance with Miami Dade shutdown schedule.
3. Mobilize all personnel, equipment and materials for the project.
4. Safety analysis and training shall take place prior to commencement of work as per site-specific requirements.
5. Installation of ventilation shall meet OSHA Mining and Tunneling Title 8 Procedures.
6. Air monitoring and gas monitoring of the pipeline shall meet OSHA and local requirements.
7. De-humidification requirements shall be provided.

Regional Office: Fibrwrap Construction SE, LLC
P.O. Box 8656, Atlanta, GA 31106-0856
P. 404-371-4033 F. 404-371-4032
E.info@fibrwrapconstruction.com www.fibrwrapconstruction.com

Ralph Terrero
8/17/12

FIBRWRAP CONSTRUCTION SE LLC

8. Preparation of necessary surfaces for installation utilizing either a 40,000 psi hydro-blast recovery unit to clean and prepare substrate surface.
9. Application of thickened layer of Fyfe Co. Tyfo® S primer, NSF 61 certified.
10. Installation of the Fyfe Co. Tyfo® Carbon Fiber systems, all NSF 61 certified. The pricing provided herein is based on applying one longitudinal layer of Tyfo® SCH 412X followed by four circumferential layers of Tyfo® SCH 412X, for a total of five layers of carbon fiber composite.
11. Each joint shall be chipped out down to the metallic joint ring, then provided with a dielectric barrier of one layer of Tyfo® SEH (Glass Fiber). This will be followed by bonding of the Carbon Fiber layers to the dielectric barrier. A single band expansion ring shall then be placed into the joint to prevent any leakage; the remainder of the joint groove on top of the expansion ring shall be grouted, resulting in a smooth joint, in line with the internal diameter of the pipe sections. All materials for the joint rehabilitation shall be provided by Fibrwrap Construction, SE, LLC.
12. Upon completion of the application of the carbon fiber composite layers, a final coating of the thickened Tyfo® S Durability Coating shall be applied for added protection over the entire rehabilitated system.
13. Heating and dehumidification of pipe sections to allow for curing.
14. Installation of traditional WEKO-Seal over the joints (if option is requested).
15. Onsite fabrication of sample witness panels.
16. Testing of 3 panels by an independent testing laboratory per ASTM D3039, if required.
17. Continuous QA/QC program.
18. Final clean-up and demobilization from work site shall be performed including but not limited removal of all trash, debris, equipment and Fibrwrap related scopes of work.

Section 1A - PROPOSED SCOPE OF WORK – 72" PCCP Replacement

19. Submittal package including design calculations and shop drawings signed and sealed by a licensed Professional Engineer in the State of Florida, project schedule, safety plan, etc.
20. Fibrwrap Construction shall be onsite to perform the work as per agreed to schedule in accordance with Miami Dade shutdown schedule.
21. Mobilize all personnel, equipment and materials for the project.
22. Safety analysis and training shall take place prior to commencement of work as per site-specific requirements.
23. Installation of ventilation shall meet OSHA Mining and Tunneling Title 8 Procedures.

Regional Office: Fibrwrap Construction SE, LLC
P.O. Box 8656, Atlanta, GA 31106-0856
P. 404-371-4033 F. 404-371-4032
E.info@fibrwrapconstruction.com www.fibrwrapconstruction.com

Handwritten signature
2/17/12

FIBRWRAP CONSTRUCTION SE LLC

24. Air monitoring and gas monitoring of the pipeline shall meet OSHA and local requirements.
25. De-humidification requirements shall be provided.
26. Preparation of necessary surfaces for installation utilizing either a 40,000 psi hydro-blast recovery unit to clean and prepare substrate surface.
27. Application of thickened layer of Fyfe Co. Tyfo® S primer, NSF 61 certified.
28. Installation of the Fyfe Co. Tyfo® Carbon Fiber systems, all NSF 61 certified. The pricing provided herein is based on applying one longitudinal layer of Tyfo® SCH 412X followed by three circumferential layers of Tyfo® SCH 412X, for a total of four layers of carbon fiber composite.
29. Each joint shall be chipped out down to the metallic joint ring, then provided with a dielectric barrier of one layer of Tyfo® SEH (Glass Fiber). This will be followed by bonding of the Carbon Fiber layers to the dielectric barrier. A single band expansion ring shall then be placed into the joint to prevent any leakage; the remainder of the joint groove on top of the expansion ring shall be grouted, resulting in a smooth joint, in line with the internal diameter of the pipe sections. All materials for the joint rehabilitation shall be provided by Fibrwrap Construction, SE, LLC.
30. Upon completion of the application of the carbon fiber composite layers, a final coating of the thickened Tyfo® S Durability Coating shall be applied for added protection over the entire rehabilitated system.
31. Heating and dehumidification of pipe sections to allow for curing.
32. Installation of traditional WEKO-Seal over the joints (if option is requested).
33. Onsite fabrication of sample witness panels.
34. Testing of 3 panels by an independent testing laboratory per ASTM D3039, if required.
35. Continuous QA/QC program.
36. Final clean-up and demobilization from work site shall be performed including but not limited removal of all trash, debris, equipment and Fibrwrap related scopes of work.

Section 2 - PRICING SCHEDULE

Total Cost for Fibrwrap Construction Services 96"...	\$ 412,800.00
Addition of conventional WEKO-Seal bands post CFRP Installation...	\$ 15,600.00
PURE/PPIC Rep to mark pipes for 96"...	\$ 6,500.00
Total Cost for Fibrwrap Construction Services 72"...	\$ 309,000.00
Total....	\$ 743,900.00

Regional Office: Fibrwrap Construction SE, LLC
P.O. Box 8656, Atlanta, GA 31106-0856
P. 404-371-4033 F. 404-371-4032
E.info@fibrwrapconstruction.com www.fibrwrapconstruction.com

Ray
8/17/12

FIBRWRAP CONSTRUCTION SE LLC

Taxes are included. Payment: Net 30 days

Section 3 - OWNER TO PROVIDE/EXCLUSIONS:

1. Access to work areas. Buyer to provide lay down area for storage of equipment and materials.
2. Dewatering of pipeline, including low elevation changes.
3. Lock out/Tag out. De-watering and filling of the pipe.
4. Pipe sanitizing, if required.
5. Traffic Control as required.
6. Condition assessment, structural design or testing of existing materials and structures.
7. Third party QA/QC and inspections.
8. Coordination with local agencies.
9. Permits and liquidated damages.
10. Any other item not specifically included in "Proposed Scope of Work".

Section 4 - ASSUMPTIONS:

1. Fibrwrap will have access to three (3) - 16"X18" boiler manholes.
2. Schedule - as determined with Miami Dade personnel and subjected to 24-hour working schedule.
3. Design pressure 150psi with surge pressure rated at 210psi.
4. Necessary insurance requirements (\$3,000,000 General Liability) and bond costs are included.
5. Fibrwrap Construction will provide a 10 year extended warranty on materials and workmanship.
6. All work will be completed internally with the Patented Tyfo Fibrwrap strengthening system and will limit the impact on lane closures. It is recommended a preconstruction meeting at least 2 weeks in advance to accommodate Miami Dade requirements and determine a coordinated working schedule.
7. Work will be completed in 2011.
8. Spools requiring repair and included in this proposal are identified by PURE numbers:
96" Line - 267, 299, 405 and 415.
72" Line - 1788, 1829, 1835 and 1846.

If you should have any questions or comments after review of this proposal, please feel free to contact me at any of the following:

D: 626-625-0255
F: 909-390-7030

Regional Office: Fibrwrap Construction SE, LLC
P.O. Box 8656, Atlanta, GA 31106-0856
P. 404-371-4033 F. 404-371-4032
E.info@fibrwrapconstruction.com www.fibrwrapconstruction.com

Robert
8/17/11

FIBRWRAP CONSTRUCTION SE LLC

E: Jason@fclp.com

Sincerely,

Jason Alexander
Chief Operating Officer
Fibrwrap Construction, SE, LLC

Regional Office: Fibrwrap Construction SE, LLC
P.O. Box 8656, Atlanta, GA 31106-0856
P. 404-371-4033 F. 404-371-4032
[E.info@fibrwrapconstruction.com](mailto:info@fibrwrapconstruction.com) www.fibrwrapconstruction.com

Jason Alexander
9/17/12

Requisition: 0000092657

Requester: KARINA AGUIRRE - **Business Unit:** WASD1 **Requisition ID:** 0000092657 **Date:** 9/4/2012

Comments: INV. 227-11835-11 - MIA 96"-72" PCCP - CONTACT DANIEL MATHEWS OR KARINA AGUIRRE FOR MORE INFORMATION **** SEE ATTACHED CONTRACT AND INVOICES.

Line	Description	Qty	Price	Curr	UOM	Total			
1	INV. 222-11835-11 - FIBRWRAP - 4 SPOOLS 72" FIBERWRAP CONSTRUCTION SERVICES - SW 64 ST FROM 87 AVE. TO 92 AVE.	1	309000	USD	JB	309000.00			
Line Comments << INV. 222-11835-11 - FIBRWRAP - 4 SPOOLS 72" FIBERWRAP CONSTRUCTION SERVICES - SW 64 ST FROM 87 AVE. TO 92 AVE. - CONTACT DANIEL MATHEWS OR KARINA AGUIRRE FOR MORE INFORMATION >>									
Sched Line	Ship To	Attention		Due Date	Qty	Total			
1	Douglas Storeroom	J. Amuedo		9/30/2012	1	309000			
Line	Location	Req Qty	Amount	Pct	GL Unit	Fund	Org	Account	Project
1	WASD1	1	309000	100	WASD1	EW221	WS72081	722440	W016530
Location CF1	O&M Activity Pr								
13008	720467								
Line	Description	Qty	Price	Curr	UOM	Total			
2	INV. 227-11835-11 - FIBRWRAP - 4 SPOOLS 96" FIBERWRAP CONSTRUCTION SERVICES - NW 79 ST/ PONCIANA. - CONTACT DANIEL MATHEWS OR KARINA AGUIRRE FOR MORE INFORMATION	1	419300	USD	JB	419300.00			
Line Comments << INV. 227-11835-11 - FIBRWRAP - 4 SPOOLS 96" FIBERWRAP CONSTRUCTION SERVICES - NW 79 ST/ PONCIANA. - CONTACT DANIEL MATHEWS OR KARINA AGUIRRE FOR MORE INFORMATION >>									
Sched Line	Ship To	Attention		Due Date	Qty	Total			
1	Douglas Storeroom	J. Amuedo		9/30/2012	1	419300			
Line	Location	Req Qty	Amount	Pct	GL Unit	Fund	Org	Account	Project
1	WASD1	1	419300	100	WASD1	EW221	WS72081	722440	W016530
Location CF1	O&M Activity Pr								
13008	720467								

Approval Status

Req Name: **FIBRWRAP 7/28/11 & 08/23/11**
Total: **728,300.00 USD**

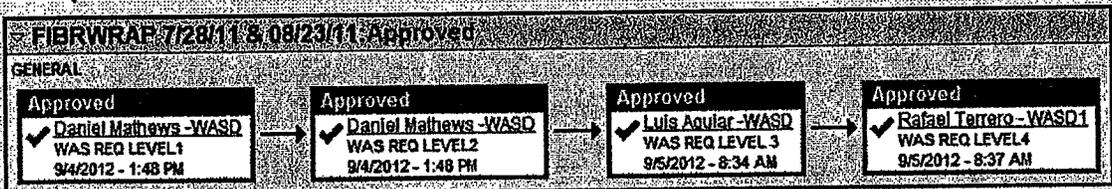
Requester: **KARINA AGUIRRE - WASD** EAMS Div Store:
Entered on: **09/04/2012** Business Unit: **WASD1**
Status: **Approved** Requisition ID: **0000092657**
Priority: **High**

Requester's Justification:
INV. 227-11835-11 - MIA 96"-72" PCCP - CONTACT DANIEL MATHEWS OR KARINA AGUIRRE FOR MORE INFORMATION ***** SEE ATTACHED CONTRACT AND INVOICES.

Line Information

Review/Edit Approvers

WASD Req's



Analytics

NAICS Association

237110 Water and Sewer Line and Related Structures Construction

This industry comprises establishments primarily engaged in the construction of water and sewer lines, mains, pumping stations, treatment plants and storage tanks. The work performed may include new work, reconstruction, rehabilitation, and repairs. Specialty trade contractors are included in this group if they are engaged in activities primarily related to water and sewer line and related structures construction. All structures (including buildings) that are integral parts of water and sewer networks (e.g., storage tanks, pumping stations, water treatment plants, and sewage treatment plants) are included in this industry.

***Cross-References.* Establishments primarily engaged in constructing marine facilities (e.g., ports), flood control structures, dams, or hydroelectric power generation facilities are classified in Industry 237990, Other Heavy and Civil Engineering Construction.**

2002 NAICS to 1997
NAICS

2002 NAICS to 1987
SIC

1997 Economic
Census

Bridge Between 1997 NAICS
and SIC

2002 NAICS	1997 NAICS	1987 SIC	Corresponding Index Entries
237110	234910	1623	Aqueduct construction
237110	235810	1781	Artesian well construction
237110	235810	1781	Capping of water wells
237110	234990	8741	Construction management, water and sewage treatment plant
237110	234910	8741	Construction management, water and sewer line
237110	234910	1623	Distribution line, sewer and water, construction
237110	235810	1781	Drilling water wells (except water intake wells in oil and gas fields)
237110	234910	1623	Fire hydrant installation
237110	235810	1781	Geothermal drilling
237110	234990	1629	Irrigation system construction

237110	234990	1629	Lagoon, sewage treatment construction
237110	234910	1623	Pumping station, water and sewage system, construction
237110	234990	1629	Reservoir construction
237110	234910	1623	Sanitary sewer construction
237110	234910	1623	Sewage collection and disposal line construction
237110	234990	1629	Sewage disposal plant construction
237110	234990	1629	Sewage treatment plant construction
237110	234910	1623	Sewer construction
237110	234910	1623	Sewer main, pipe and connection, construction
237110	234910	1623	Storm sewer construction
237110	234910	1623	Utility line (i.e., sewer, water), construction
237110	234990	1629	Water desalination plant construction
237110	234990	1629	Water filtration plant construction
237110	234910	1623	Water main and line construction
237110	234910	1623	Water pumping or lift station construction
237110	234910	1623	Water system storage tank and tower construction
237110	234990	1629	Water treatment plant construction
237110	235810	1781	Water well drilling, digging, boring or sinking (except water intake wells in oil
237110	235810	1781	Water well pump and well piping system installation