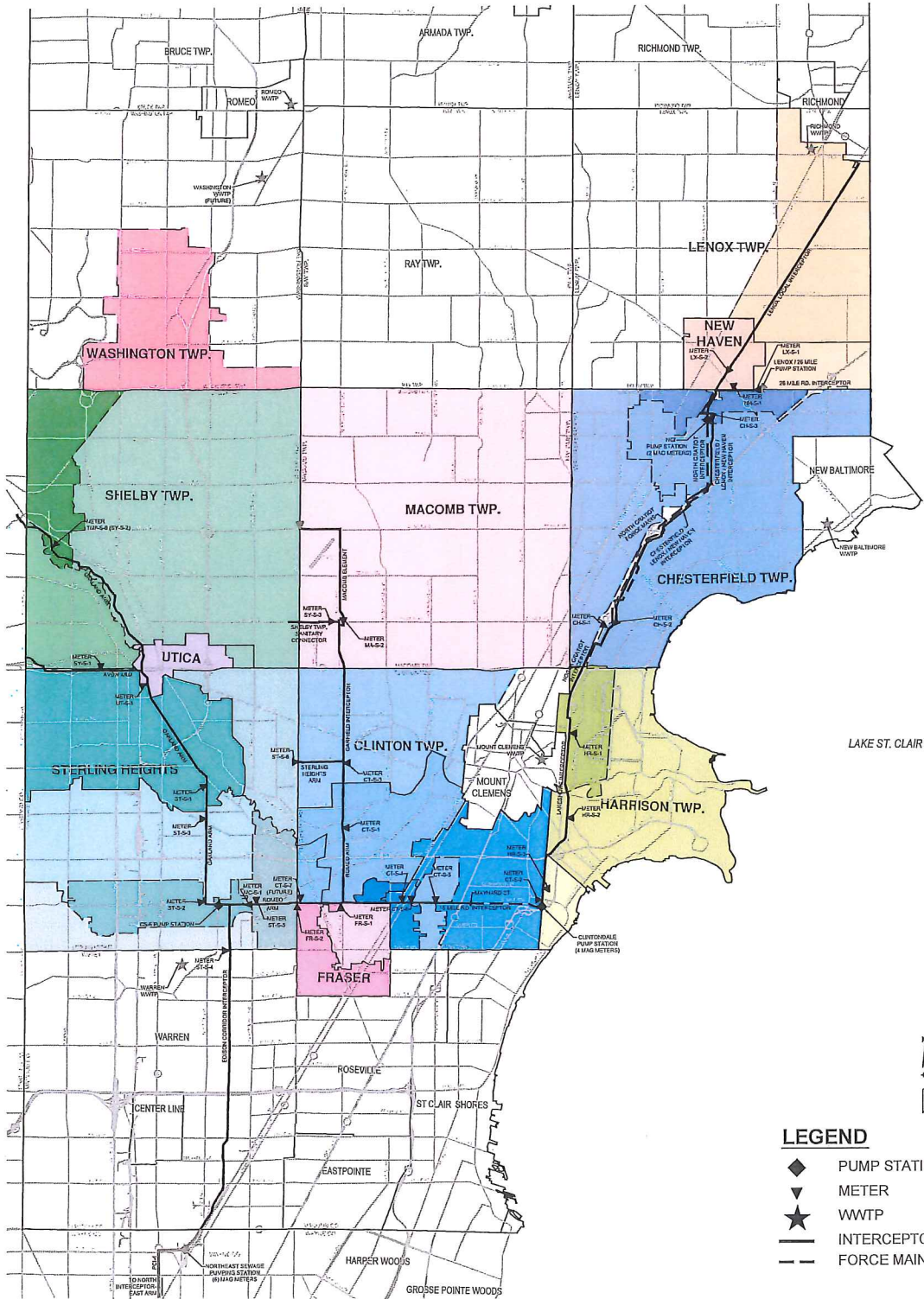


MACOMB INTERCEPTOR DRAIN
INTRA-COUNTY DRAINAGE BOARD
NOVEMBER 18, 2019
10:45 A.M.
AGENDA

	Page
1. Call of meeting to order and roll call	
2. Approval of Agenda for November 18, 2019	
3. Approval of Minutes for October 21, 2019	3
4. Public Participation	
5. Project Updates – Vince Astorino	
6. Drop Shaft Rehabilitation Award Recommendation – AEW Design – Vince Astorino	6
Motion: To accept the bid in the amount of \$1,157,147 and enter an agreement with Inland Water Pollution Control to rehabilitate the meter facility drop shaft and connecting sewer at the noted facilities	
7. Drop Shaft Rehabilitation Award Recommendation – NTH Design – Vince Astorino	13
Motion: To accept the bid in the amount of \$918,475 and enter an agreement with Inland Water Pollution Control to rehabilitate the meter facility drop shaft and connecting sewer at the noted facilities	
8. Consideration for approval of invoices (see attached)	16
9. Financial Report – Bruce Manning	17
10. Adjourn	

MACOMB INTERCEPTOR DRAIN DRAINAGE DISTRICT



- LEGEND**
- ◆ PUMP STATION
 - ◇ METER
 - ★ WWP
 - INTERCEPTOR
 - - - FORCE MAIN



Candice S. Miller
 MACOMB COUNTY PUBLIC WORKS COMMISSIONER

fitch
 UPDATED: FEBRUARY 2017

An adjourned meeting of the Intra-County Drainage Board for the **MACOMB INTERCEPTOR DRAIN** was held in the Office of the Macomb County Public Works Commissioner, 21777 Dunham, Clinton Township, Michigan, on October 21, 2019, at 11:06 A.M.

PRESENT: Candice S. Miller, Chair
Bryan Santo, Member
Robert Mijac, Member

ALSO PRESENT: Vince Astorino, Operations & Flow Manager, Brian Baker, Chief Deputy, Jeff Bednar, P.E., Environmental Resources Manager, Stephen Downing, Construction & Maintenance Manager, Bruce Manning, Financial Manager, Tom Stockel, Construction Engineer, Kellie Kource, Drain Account Specialist, Dan Heaton, Communications Manager, Macomb County Public Works; Joe Viviano, MIDD Attorney

The meeting was called to order by the Chair, Candice Miller. A motion was made by Mr. Mijac, supported by Mr. Santo to approve the agenda as presented.

Adopted: YEAS: 3
NAYS: 0

Minutes of the meeting of September 9, 2019 were presented. A motion was made by Mr. Mijac, supported by Mr. Santo to approve the minutes as presented.

Adopted: YEAS: 3
NAYS: 0

The meeting was opened to public participation, then closed, there being no comments from the public.

Mr. Astorino updated the board that we have secured the SRF funding for the Segment 5 lining. We will be out to bid in March 2020. Segment 6 is the next critical area and should be out to bid for design by early November.

Mr. Downing updated the board that we have 6 drop shaft sites out to bid which are due on November 4th and 5th. Bids for construction are scheduled for board approval in November. In addition, our meter maintenance 3 year agreement is up and will be going out to bid shortly. A recommendation will be presented to the board in December.

A motion was made by Mr. Mijac, supported by Mr. Santo to receive and file the project update by Mr. Astorino and Mr. Downing.

Adopted: YEAS: 3
NAYS: 0

Mr. Baker updated the board that we are looking to save \$3.2 million by refinancing the Clintondale Pump Station bond in early 2020 and have around \$3 million in leftover bond proceeds from this bond that will have to be applied to the refunding. We will let the communities know that while there will be an overall savings, we will need some of the savings back to apply to future project costs.

A motion was made by Mr. Mijac, supported by Mr. Santo to approve the resolution authorizing Macomb Interceptor Drain Drainage District, Clintondale Pump Station improvements drainage district refunding bonds.

Adopted: YEAS: 3
NAYS: 0

A motion was made by Mr. Mijac, supported by Mr. Santo to approve the change order #1 for \$140,000 for Segment 5 lining MASW Services – FK Engineering.

Adopted: YEAS: 3
NAYS: 0

A motion was made by Mr. Mijac, supported by Mr. Santo to approve the engineering services and contract oversight proposal from Fishbeck, Thompson, Carr & Huber Inc. for \$229,800 for the Sanitary Interceptor Inspection Program.

Adopted: YEAS: 3
NAYS: 0

A motion was made by Mr. Mijac, supported by Mr. Santo to approve change order #2 for \$200,000 for as-needed engineering services - FK Engineering.

Adopted: YEAS: 3
NAYS: 0

A motion was made by Mr. Mijac, supported by Mr. Santo to approve change order #1 for \$75,000 for as-needed engineering & flow control services – Metco Services.

Adopted: YEAS: 3
NAYS: 0

A motion was made by Mr. Mijac, supported by Mr. Santo to approve the final balancing change order reflecting a \$270,916 reduction and the liquidation damages settlement agreement with Lanzo Trenchless Technologies.

Adopted: YEAS: 3
NAYS: 0

A motion was made by Mr. Mijac, supported by Mr. Santo to approve the change order #1 for \$45,500 for odor & corrosion fan testing with Jacobs Engineering.

Adopted: YEAS: 3
NAYS: 0

The Chair presented the invoices totaling \$15,031,805.40 to the board for review and approval.

A motion was made by Mr. Santo, supported by Mr. Mijac to approve the invoices as presented.

Adopted: YEAS: 3
NAYS: 0

A motion to receive and file the financial report given by Mr. Manning was made by Mr. Mijac and supported by Mr. Santo.

Adopted: YEAS: 3
NAYS: 0

A motion was made by Mr. Mijac, supported by Mr. Santo, to enter into closed session at 11:27 a.m.

Adopted: YEAS: 3
NAYS: 0

Ms. Miller ended closed session and return the board to open session at 12:03 p.m.

A motion was made by Mr. Mijac, supported by Mr. Santo to approve the action discussed.

There being no further business, it was moved by Mr. Mijac, supported by Mr. Santo, that the meeting of the Macomb Interceptor Drain Board be adjourned.

Adopted: YEAS: 3
NAYS: 0

The meeting was adjourned at 12:03 p.m.



Candice S. Miller, Chair
Macomb County Public Works Commissioner

STATE OF MICHIGAN
COUNTY OF MACOMB

I certify that the foregoing is a true and correct copy of proceedings taking by the Intra-County Drainage Board for the Drainage District shown on the attached set of minutes, on October 21, 2019 the original of which is on file in the Public Works Commissioner's Office. Public notice of the meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1975, including, in the case of a special or rescheduled meeting or a meeting secured for more than 36 hours, notice by posting at least 18 hours prior to the time set for the meeting.



Candice S. Miller, Chair
Macomb County Public Works Commissioner

DATED: 10/21/19



Candice S. Miller

Public Works Commissioner
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

CC: FILE

From: Stephen Downing, Construction & Maintenance Manager

Date: November 14, 2019

Subject: Drop Shaft Rehabilitation Award Recommendation – AEW Design

The MIDDD budgeted in 2017/2018 and 2018/2019 for the rehabilitation of the six meter facilities that were rated as critical in the 2015 SAW Grant inspection. The budget for the design, construction and engineering oversight for the rehabilitation of the six meter facility drop shafts and connecting sewers is \$6,000,000. The design and construction administration was awarded in 2018 to two consultants, splitting the project into three sites each. The total cost for the engineering and construction administration is \$690,975.00, which leaves a remaining budget of \$5,309,025 for construction costs.

The Macomb County Public Works Office (MCPWO) solicited bids on the Michigan Inter-governmental Trade Network (MITN) for the rehabilitation of the drop shaft and connecting sewer at metering facilities ST-S-4, ST-S-5 and UT-S-1. The rehabilitation work includes cleaning and lining the drop manhole and connecting sewer, installation of new access hatches, installation of an energy dissipation unit to reduce H2S Gas generation and temporary by-pass pumping to facilitate the work.

The Request for Bid (RFB) was issued on MITN from 10-15-19 to 11-5-19 to 1562 Suppliers. A total of 61 suppliers downloaded the project documents. On 11-5-19 a bid was received from Inland Waters Pollution Control for a total of \$1,157,147. The design engineer, AEW, has reviewed and discussed the bid tabulation with Inland Waters Pollution Control to verify the full scope of services was considered in the bid. AEW has confirmed the bid is reasonable for the scope of services described in the construction drawings and specifications. The AEW construction cost estimate was \$1,275,115 which calculates an initial difference of \$117,968, a bid summary is attached for reference.

Upon approval of the award recommendation of both Drop Shaft Rehabilitation projects to Inland Waters Pollution Control we will be \$3,233,403 under budget. The award recommendation for the NTH design is submitted in a separate memo.

The recommendation is that the Macomb Interceptor Drain Drainage District Board to accept the bid and enter an agreement with Inland Water Pollution Control to rehabilitate the meter facility drop shaft and connecting sewer at the above noted facilities for \$1,157,147.

Attachments: AEW Award Recommendation
Bid Tabulation Summary

OFFICE LOCATION: 21777 Dunham Road, Clinton Township, Michigan 48036 • Phone: 586-469-5325 • Fax: 586-469-5933

MAILING ADDRESS: P. O. Box 806, Mt. Clemens, Michigan 48046-0806

ENGINEERING • Phone: 586-469-5910 • Fax: 586-469-7693 ♦ **SOIL EROSION** • Phone: 586-469-5327 • Fax 586-307-8264



ANDERSON, ECKSTEIN & WESTRICK, INC.
CIVIL ENGINEERS SURVEYORS ARCHITECTS

51301 Schoenherr Road
Shelby Township, MI 48315

586.726.1234
www.aewinc.com

November 14, 2019

Stephen Downing, Construction & Maintenance Manager
Macomb County Public Works
21777 Dunham Road
Clinton Township, Michigan 48036

Reference: Recommendation of Award
MIDDD Drop Shaft & Connecting Sewer Rehab at ST-S-4, ST-S-5 & UT-S-1
AEW Project No. 0211-0193
MCPWO Project No. WWS-2019-019

Dear Mr. Downing:

Following invitation and bid solicitation, we publicly opened bids for the referenced project at the Macomb County Public Works Offices on November 5, 2019. The certified low bidder is Inland Waters Pollution Control, Inc. (4086 Michigan Ave, Detroit, MI 48210) with a base bid of \$1,157,147.00 for the proposed plaza work. We have attached the bid tabulation for your use.

We recommend that the proposed work be awarded to Inland Waters Pollution Control, Inc. for a base bid amount of \$1,157,147.00. Inland Waters Pollution Control, Inc. is qualified to construct this project and has successfully performed similar work in the past.

Sincerely,

A handwritten signature in blue ink, appearing to read "Christopher R. Frayer", is written over a light blue background.

Christopher R. Frayer
Graduate Engineer

cc: Louis Urban, PE - AEW
Nick Bassett, PE - FKE
John Michalski, PE - ASI

Enclosure: Bid Tabulation

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TABULATION OF BIDS

MIDDD Dropshaft
 & Connecting Sewer Rehb
 AEW PROJECT NO. 0211-0193

Prepared by: Anderson, Eckstein and Westrick, Inc.
 51301 Schoenherr Road
 Shelby Township, MI 48315

DATE: 11/5/2019
 TIME: 10:00 AM

VENDOR RANKING

<i>RANK</i>	<i>VENDOR NAME</i>	<i>A. ST-S-4 Meter Facility Base Bid</i>	<i>B. ST-S-5 Meter Facility Base Bid</i>	<i>C. UT-S-1 Meter Facility Base Bid</i>	<i>BASE BID TOTAL</i>
1	Inland Waters Pollution Control, Inc.	\$ 516,370.00	\$ 396,858.00	\$ 243,919.00	\$ 1,157,147.00
2	AEW, Inc	\$ 616,050.00	\$ 445,185.00	\$ 213,880.00	\$ 1,275,115.00



TABULATION OF BIDS
 Macomb County Public Works
 MIDD Dropshaft
 & Connecting Sewer Rehb
 AEW PROJECT NO. 0211-0193

Inland Waters Pollution Control, Inc.
 4086 Michigan Ave.
 Detroit, MI 48210

AEW, Inc
 51301 Schoenherr Rd.
 Shelby Township, MI 48315

Item No.	Description	Estimated		Inland Waters Pollution Control, Inc.		AEW, Inc	
		Quantity	Units	Unit Price	Amount	Unit Price	Amount
A. ST-S-4 Meter Facility Base Bid							
1.	Mobilization, Max 3% of ST-S-4 Subtotal	1	LS	9,000.00	9,000.00	17,900.00	17,900.00
2.	Audio-Visual Record of Construction Influence Area	1	LS	500.00	500.00	2,000.00	2,000.00
3.	Permit Allowance	15000	DLR	1.00	15,000.00	1.00	15,000.00
4.	Traffic Control	1	LS	2,500.00	2,500.00	10,000.00	10,000.00
5.	Erosion Control	1	LS	1,800.00	1,800.00	4,000.00	4,000.00
6.	Permanent Bypass Crossing Structure	2	EA	15,000.00	30,000.00	10,000.00	20,000.00
7.	Trenchless Installation, 12" HDPE DR11	150	FT	190.00	28,500.00	150.00	22,500.00
8.	Temporary Bypass Pumping, 12"	1	LS	52,000.00	52,000.00	77,000.00	77,000.00
9.	Deconstruct MH, F&C, Remove	3	EA	1,800.00	5,400.00	500.00	1,500.00
10.	Deconstruct MH, Cone, Remove	3	EA	4,800.00	14,400.00	2,500.00	7,500.00
11.	Remove Platform, Concrete	1	EA	5,000.00	5,000.00	10,000.00	10,000.00
12.	Steps, Remove	1	LS	6,500.00	6,500.00	5,000.00	5,000.00
13.	MH, 48" Dia, Pre-Construction, Clean and CCTV	33	VFT	100.00	3,300.00	50.00	1,650.00
14.	MH, 72" Dia, Pre-Construction, Clean and CCTV	37	VFT	100.00	3,700.00	50.00	1,850.00
15.	Sanitary Sewer, Pre-Construction, Clean and CCTV, 48 Inch	210	FT	15.00	3,150.00	25.00	5,250.00
16.	Steel Reinforcement Preparation and Repairs, Including Patching	100	SFT	25.00	2,500.00	800.00	80,000.00
17.	Chemical Grout	50	GAL	125.00	6,250.00	400.00	20,000.00
18.	MH, Liner, Epoxy, Full Circumference	1095	SFT	32.00	35,040.00	40.00	43,800.00
19.	Sanitary Sewer, Liner, Epoxy, Full Circumference	2640	SFT	65.00	171,600.00	70.00	184,800.00
20.	Energy Dissipation Unit	1	LS	12,500.00	12,500.00	15,000.00	15,000.00
21.	Reconstruct MH, Precast Riser	2	EA	9,000.00	18,000.00	2,500.00	5,000.00
22.	Reconstruct MH, Flat Top	1	EA	25,000.00	25,000.00	1,500.00	1,500.00
23.	Reconstruct MH, Flat Top, Special	1	EA	25,500.00	25,500.00	20,000.00	20,000.00
24.	Restore MH, Cone	1	EA	7,500.00	7,500.00	1,000.00	1,000.00
25.	Reconstruct MH, F&C	2	EA	2,800.00	5,600.00	1,500.00	3,000.00
26.	Reconstruct MH Steps, Replace	1	LS	9,200.00	9,200.00	10,000.00	10,000.00
27.	MH, Post-Construction, CCTV	70	VFT	10.00	700.00	10.00	700.00



TABULATION OF BIDS
 Macomb County Public Works
 MIDD Dropshaft
 & Connecting Sewer Rehb
 AEW PROJECT NO. 0211-0193

Inland Waters Pollution Control, Inc.
 4086 Michigan Ave.
 Detroit, MI 48210

AEW, Inc
 51301 Schoenherr Rd.
 Shelby Township, MI 48315

Item No.	Description	Estimated Quantity	Units	Inland Waters Pollution Control, Inc.		AEW, Inc	
				Unit Price	Amount	Unit Price	Amount
28.	Sanitary Sewer, Post-Construction, CCTV, 48 Inch	210	FT	13.00	2,730.00	10.00	2,100.00
29.	Site Restoration	1	LS	5,000.00	5,000.00	15,000.00	15,000.00
30.	Topsoil Surface, Furn, 4 Inch	2000	SYD	3.00	6,000.00	2.50	5,000.00
31.	Seeding	2000	SYD	1.25	2,500.00	4.00	8,000.00
Sub-Total A. ST-S-4 Meter Facility:					516,370.00		616,050.00
B. ST-S-5 Meter Facility Base Bid							
32.	Mobilization, Max 3% of ST-S-5 Subtotal	1	LS	9,000.00	9,000.00	13,000.00	13,000.00
33.	Audio-Visual Record of Construction Influence Area	1	LS	500.00	500.00	2,100.00	2,100.00
34.	Permit Allowance	15000	DLR	1.00	15,000.00	1.00	15,000.00
35.	Traffic Control	1	LS	2,500.00	2,500.00	25,000.00	25,000.00
36.	Sidewalk, Rem	9	SYD	16.00	144.00	50.00	450.00
37.	Erosion Control	1	LS	1,800.00	1,800.00	3,000.00	3,000.00
38.	Permanent Bypass Crossing Structure	2	EA	15,000.00	30,000.00	10,000.00	20,000.00
39.	Trenchless Installation, 12" HDPE DR11	95	FT	190.00	18,050.00	150.00	14,250.00
40.	Temporary Bypass Pumping, 12"	1	LS	52,500.00	52,500.00	83,000.00	83,000.00
41.	Deconstruct MH, F&C, Remove	3	EA	1,800.00	5,400.00	500.00	1,500.00
42.	Deconstruct MH, Cone, Remove	3	EA	4,800.00	14,400.00	2,500.00	7,500.00
43.	Remove Platform, Steel & FRP	2	EA	5,000.00	10,000.00	2,500.00	5,000.00
44.	Steps, Remove	1	LS	3,650.00	3,650.00	5,000.00	5,000.00
45.	MH, 48" Dia, Pre-Construction, Clean and CCTV	75	VFT	100.00	7,500.00	50.00	3,750.00
46.	MH, 72" Dia, Pre-Construction, Clean and CCTV	15	VFT	115.00	1,725.00	50.00	750.00
47.	Sanitary Sewer, Pre-Construction, Clean and CCTV, 36 Inch	105	FT	28.00	2,940.00	25.00	2,625.00
48.	Steel Reinforcement Preparation and Repairs, Including Patching	60	SFT	35.00	2,100.00	800.00	48,000.00
49.	Chemical Grout	50	GAL	125.00	6,250.00	400.00	20,000.00
50.	MH, Liner, Epoxy, Full Circumference	1230	SFT	32.00	39,360.00	40.00	49,200.00
51.	Sanitary Sewer, Liner, Epoxy, Full Circumference	990	SFT	65.00	64,350.00	70.00	69,300.00
52.	Reconstruct MH, Precast Riser	2	EA	9,000.00	18,000.00	2,500.00	5,000.00
53.	Reconstruct MH, Flat Top	2	EA	25,000.00	50,000.00	1,500.00	3,000.00
54.	Restore MH, Cone	1	EA	7,500.00	7,500.00	1,000.00	1,000.00



TABULATION OF BIDS
 Macomb County Public Works
 MIDDD Dropshaft
 & Connecting Sewer Rehb
 AEW PROJECT NO. 0211-0193

Inland Waters Pollution Control, Inc.
 4086 Michigan Ave.
 Detroit, MI 48210

AEW, Inc
 51301 Schoenherr Rd.
 Shelby Township, MI 48315

Item No.	Description	Estimated Quantity	Units	Inland Waters Pollution Control, Inc.		AEW, Inc	
				Unit Price	Amount	Unit Price	Amount
55.	Reconstruct MH, F&C	3	EA	2,600.00	7,800.00	1,500.00	4,500.00
56.	Reconstruct MH Steps, Replace	1	LS	9,200.00	9,200.00	10,000.00	10,000.00
57.	MH, Post-Construction, CCTV	90	VFT	10.00	900.00	10.00	900.00
58.	Sanitary Sewer, Post-Construction, CCTV, 36 Inch	105	FT	26.00	2,730.00	10.00	1,050.00
59.	Sidewalk, Conc, 4 Inch	78	SFT	28.00	2,184.00	20.00	1,560.00
60.	Site Restoration	1	LS	5,000.00	5,000.00	20,000.00	20,000.00
61.	Topsoil Surface, Furn, 4 Inch	1500	SYD	3.00	4,500.00	2.50	3,750.00
62.	Seeding	1500	SYD	1.25	1,875.00	4.00	6,000.00
SUBTOTAL B. ST-S-5 Meter Facility Base Bid:					396,858.00		445,185.00
C. UT-S-1 Meter Facility Base Bid							
63.	Mobilization, Max 3% of UT-S-1 Subtotal	1	LS	9,000.00	9,000.00	5,900.00	5,900.00
64.	Audio-Visual Record of Construction Influence Area	1	LS	500.00	500.00	2,100.00	2,100.00
65.	Permit Allowance	15000	DLR	1.00	15,000.00	1.00	15,000.00
66.	Traffic Control	1	LS	2,500.00	2,500.00	5,000.00	5,000.00
67.	Erosion Control	1	LS	1,800.00	1,800.00	3,000.00	3,000.00
68.	Sidewalk, Rem	9	SYD	16.00	144.00	50.00	450.00
69.	Temporary Bypass Pumping, 12"	1	LS	44,000.00	44,000.00	72,600.00	72,600.00
70.	Deconstruct MH, F&C, Remove	3	EA	1,800.00	5,400.00	500.00	1,500.00
71.	Deconstruct MH, Cone, Remove	3	EA	4,800.00	14,400.00	2,500.00	7,500.00
72.	Steps, Remove	1	LS	3,600.00	3,600.00	5,000.00	5,000.00
73.	MH, 48" Dia, Pre-Construction, Clean and CCTV	38	VFT	150.00	5,700.00	75.00	2,850.00
74.	Sanitary Sewer, Pre-Construction, Clean and CCTV, 36 Inch	15	FT	75.00	1,125.00	100.00	1,500.00
75.	Steel Reinforcement Preparation and Repairs, Including Patching	5	SFT	35.00	175.00	800.00	4,000.00
76.	Chemical Grout	5	GAL	125.00	625.00	400.00	2,000.00
77.	MH, Liner, Epoxy, Full Circumference	480	SFT	32.00	15,360.00	40.00	19,200.00
78.	Sanitary Sewer, Liner, Epoxy, Full Circumference	145	SFT	120.00	17,400.00	100.00	14,500.00
79.	Reconstruct MH, Precast Riser	2	EA	9,000.00	18,000.00	2,500.00	5,000.00
80.	Reconstruct MH, Flat Top	2	EA	25,000.00	50,000.00	1,500.00	3,000.00



TABULATION OF BIDS
 Macomb County Public Works
 MIDD Dropshaft
 & Connecting Sewer Rehb
 AEW PROJECT NO. 0211-0193

Inland Waters Pollution Control, Inc.
 4086 Michigan Ave.
 Detroit, MI 48210

AEW, Inc
 51301 Schoenherr Rd.
 Shelby Township, MI 48315

Item No.	Description	Estimated Quantity	Units	Inland Waters Pollution Control, Inc.		AEW, Inc	
				Unit Price	Amount	Unit Price	Amount
81.	Restore MH, Cone	1	EA	7,500.00	7,500.00	1,000.00	1,000.00
82.	Reconstruct MH, F&C	3	EA	2,800.00	8,400.00	1,500.00	4,500.00
83.	Reconstruct MH Steps, Replace	1	LS	3,000.00	3,000.00	10,000.00	10,000.00
84.	MH, Post-Construction, CCTV	38	VFT	30.00	1,140.00	10.00	380.00
85.	Sanitary Sewer, Post-Construction, CCTV, 36 Inch	15	FT	95.00	1,425.00	10.00	150.00
86.	Sidewalk, Conc, 4 Inch	75	SFT	28.00	2,100.00	20.00	1,500.00
87.	Site Restoration	1	LS	5,000.00	5,000.00	10,000.00	10,000.00
88.	Topsoil Surface, Furn, 4 Inch	2500	SYD	3.00	7,500.00	2.50	6,250.00
89.	Seeding	2500	SYD	1.25	3,125.00	4.00	10,000.00
Sub-Total C. UT-S-1 Meter Facility:					243,919.00		213,880.00
BASE BID TOTAL = Sub-Total A + Sub-Total B + Sub-Total C				\$	1,157,147.00	\$	1,275,115.00
A. ST-S-4 Meter Facility Alternates							
A1	Sanitary Sewer, CIPP, 48 Inch, Full Length	210	FT	900.00	189,000.00	1,000.00	210,000.00
A2	Cementitious Grouting - Grout Material Only	200	CFT	125.00	25,000.00	100.00	20,000.00
A3	Installation of Grout Packers for Cementitious Grouting	15	EA	350.00	5,250.00	600.00	9,000.00
B. ST-S-5 Meter Facility Alternates							
B1	Sanitary Sewer, CIPP, 36 Inch, Full Length	77	FT	750.00	57,750.00	1,500.00	115,500.00
B2	Sanitary Sewer, CIPP, 36 Inch, Full Length	28	FT	900.00	25,200.00	2,500.00	70,000.00
B3	Cementitious Grouting - Grout Material Only	150	CFT	125.00	18,750.00	100.00	15,000.00
B4	Installation of Grout Packers for Cementitious Grouting	15	EA	350.00	5,250.00	600.00	9,000.00
C. UT-S-1 Meter Facility Alternates							
C1	Sanitary Sewer, CIPP, 36 Inch, Full Length	15	FT	3,000.00	45,000.00	5,000.00	75,000.00
C2	Cementitious Grouting - Grout Material Only	50	CFT	125.00	6,250.00	100.00	5,000.00
C3	Installation of Grout Packers for Cementitious Grouting	5	EA	350.00	1,750.00	600.00	3,000.00



Candice S. Miller

Public Works Commissioner
Macomb County

To: Macomb Interceptor Drain Drainage District Board Members

CC: FILE

From: Stephen Downing, Construction & Maintenance Manager

Date: November 14, 2019

Subject: Drop Shaft Rehabilitation Award Recommendation – NTH Design

The MIDD budgeted in 2017/2018 and 2018/2019 for the rehabilitation of the six meter facilities that were rated as critical in the 2015 SAW Grant inspection. The budget for the design, construction and engineering oversight for the rehabilitation of the six meter facility drop shafts and connecting sewers is \$6,000,000. The design and construction administration was awarded in 2018 to two consultants, splitting the project into three sites each. The total cost for the engineering and construction administration is \$690,975, which leaves a remaining budget of \$5,309,025 for construction costs.

The Macomb County Public Works Office (MCPWO) solicited bids on the Michigan Inter-governmental Trade Network (MITN) for the rehabilitation of the drop shaft and connecting sewer at metering facilities MA-S-2, CT-S-2 and HR-S-2. The rehabilitation work includes cleaning and lining the drop manhole and connecting sewer, installation of new access hatches, installation of an energy dissipation unit to reduce H₂S Gas generation and temporary by-pass pumping to facilitate the work.

The Request for Bid (RFB) was issued on MITN from 10-15-19 to 11-4-19 to 1561 Suppliers. A total of 57 suppliers downloaded the project documents. On 11-4-19 a bid was received from Inland Waters Pollution Control for a total of \$918,475. The design engineer, NTH, has reviewed and discussed the bid tabulation with Inland Waters Pollution Control to verify the full scope of services was considered in the bid. NTH has confirmed the bid is reasonable for the scope of services described in the construction drawings and specifications. The NTH construction cost estimate was \$1,550,249.36 which calculates an initial difference of \$634,774.36, a bid summary is attached for reference.

Upon approval of the award recommendation of both Drop Shaft Rehabilitation projects to Inland Waters Pollution Control, we will be \$3,233,403 under budget. The award recommendation for the AEW design is submitted in a separate memo.

The recommendation is that the Macomb Interceptor Drain Drainage District Board accept the bid and enter an agreement with Inland Water Pollution Control to rehabilitate the meter facility drop shaft and connecting sewer at the above noted facilities for a total of \$918,475.

Attachments: NTH Award Recommendation
Bid Tabulation Summary

OFFICE LOCATION: 21777 Dunham Road, Clinton Township, Michigan 48036 • Phone: 586-469-5325 • Fax: 586-469-5933
MAILING ADDRESS: P. O. Box 806, Mt. Clemens, Michigan 48046-0806
ENGINEERING • Phone: 586-469-5910 • Fax: 586-469-7693 ♦ **SOIL EROSION** • Phone: 586-469-5327 • Fax 586-307-8264



NTH Consultants, Ltd.

Infrastructure Engineering
and Environmental Services

41780 Six Mile Road, Suite 200
Northville, MI 48168
248.553.6300
248.324.5179 Fax

Mr. Stephen Downing
Construction and Maintenance Manager
Macomb County Department of Public Works
21777 Dunham Road
Clinton Township, MI 48043

November 13, 2019
NTH Project No. 61-180042-300

**Re: Recommendation for Award of Construction Contract
Metering Facility Drop Shaft and Connecting Sewer Rehabilitation
Macomb County Project Number WWS-2019-020**

Dear Mr. Downing:

NTH Consultants, Ltd. has reviewed the bid submitted by Inland Waters Pollution Control, Inc. (IWPC) on Monday, November 4, 2019 to the Macomb County Public Works Office for the repairs to Drop Structures CT-S-2, HR-S-2 and MA-S-2 in response to the solicitation for Contract Number WWS-2019-020. In our opinion, the submitted bid is responsive and responsible, and address the items required in the bidding documents, including Addendum Number 1.

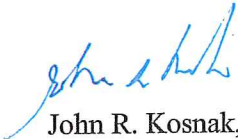
IWPC has provided confirmation that the entire scope of work as specified in the bidding documents is included in their bid price. The bid price provided by IWPC is below the engineer's estimate of probable construction costs.


As such, we recommend award of Contract Number WWS-2019-020 to IWPC for a Total Base Bid Price of \$918,475.00.

If you have any questions about the information provided, please contact me at 248.662.2725 or jkosnak@nthconsultants.com.

Sincerely,

NTH Consultants, Ltd.


John R. Kosnak, P.E.
Principal Engineer


Jason R. Edberg, P.E.
Senior Vice President

JRK/JRE/mlk

Macomb Drop Structure Rehabilitation - IWPC Bid Analysis

Item No.	Description	Estimated Quantity	Inland Proposal		NTH Estimate		Difference (Inland - NTH)		% Difference	
			Unit	Bid Price (\$/Unit)	Bid Amount (\$)	Unit	Bid Price (\$/Unit)	Bid Amount (\$)		Bid Unit Price (\$/Unit)
1	Mobilization/Demobilization	1	LS	\$ 40,000.00	\$ 40,000.00	\$ 70,000.00	\$ 70,000.00	\$ (30,000.00)	\$ (30,000.00)	-42.9%
2	Permit Allowance	1	EA	\$ 45,000.00	\$ 45,000.00	\$ 15,000.00	\$ 15,000.00	\$ 30,000.00	\$ 30,000.00	200.0%
3	Videos - Surface, Progress Videos in Work Areas (3 sites)	3	EA	\$ 600.00	\$ 1,800.00	\$ 5,000.00	\$ 15,000.00	\$ (4,400.00)	\$ (13,200.00)	-88.0%
4	Traffic Control (3 sites)	3	EA	\$ 2,500.00	\$ 7,500.00	\$ 3,000.00	\$ 9,000.00	\$ (500.00)	\$ (1,500.00)	-16.7%
5A	Bypass Pumping Operations, Site CT-S-2	1	LS	\$ 100,000.00	\$ 100,000.00	\$ 179,300.00	\$ 179,300.00	\$ (79,300.00)	\$ (79,300.00)	-44.2%
5B	Bypass Pumping Operations, Site HR-S-2	1	LS	\$ 72,000.00	\$ 72,000.00	\$ 146,850.00	\$ 146,850.00	\$ (74,850.00)	\$ (74,850.00)	-51.0%
5C	Bypass Pumping Operations, Site MA-S-2	1	LS	\$ 185,000.00	\$ 185,000.00	\$ 271,150.00	\$ 271,150.00	\$ (86,150.00)	\$ (86,150.00)	-31.8%
6A	Drop Manhole Reconstruction, Site CT-S-2 (Geopolymer)	1	LS	\$ 79,500.00	\$ 79,500.00	\$ 164,066.33	\$ 164,066.33	\$ (84,566.33)	\$ (84,566.33)	-51.5%
6B	Drop Manhole Reconstruction, Site HR-S-2 (Geopolymer)	1	LS	\$ 78,500.00	\$ 78,500.00	\$ 164,498.51	\$ 164,498.51	\$ (85,998.51)	\$ (85,998.51)	-52.3%
6C	Drop Manhole Reconstruction, Site MA-S-2 (Geopolymer)	1	LS	\$ 77,500.00	\$ 77,500.00	\$ 151,821.23	\$ 151,821.23	\$ (74,321.23)	\$ (74,321.23)	-49.0%
7A	Adit Sewer Restoration/Lining, Site CT-S-2 (Geopolymer)	1	LS	\$ 31,000.00	\$ 31,000.00	\$ 45,883.11	\$ 45,883.11	\$ (14,883.11)	\$ (14,883.11)	-32.4%
7B	Adit Sewer Restoration/Lining, Site HR-S-2 (Geopolymer)	1	LS	\$ 37,500.00	\$ 37,500.00	\$ 56,255.43	\$ 56,255.43	\$ (18,755.43)	\$ (18,755.43)	-33.3%
7C	Adit Sewer Restoration/Lining, Site MA-S-2 (Geopolymer)	1	LS	\$ 44,000.00	\$ 44,000.00	\$ 59,424.75	\$ 59,424.75	\$ (15,424.75)	\$ (15,424.75)	-26.0%
8A	Engineer Directed Concrete Repairs (Estimated)	50	SQFT	\$ 300.00	\$ 15,000.00	\$ 500.00	\$ 25,000.00	\$ (200.00)	\$ (10,000.00)	-40.0%
8B	Engineer Directed Chemical Grouting (Estimated)	300	GAL	\$ 125.00	\$ 37,500.00	\$ 90.00	\$ 27,000.00	\$ 35.00	\$ 10,500.00	38.9%
9	Site Restoration at Existing Manholes	1	LS	\$ 17,000.00	\$ 17,000.00	\$ 30,000.00	\$ 30,000.00	\$ (13,000.00)	\$ (13,000.00)	-43.3%
10A	2-Year Warranty Inspection, Site CT-S-2 (include bypass pumping)	1	LS	\$ 13,500.00	\$ 13,500.00	\$ 34,708.09	\$ 34,708.09	\$ (21,208.09)	\$ (21,208.09)	-61.1%
10B	2-Year Warranty Inspection, Site HR-S-2 (include bypass pumping)	1	LS	\$ 10,500.00	\$ 10,500.00	\$ 26,995.18	\$ 26,995.18	\$ (16,495.18)	\$ (16,495.18)	-61.1%
10C	2-Year Warranty Inspection, Site MA-S-2 (include bypass pumping)	1	LS	\$ 22,675.00	\$ 22,675.00	\$ 58,296.73	\$ 58,296.73	\$ (35,621.73)	\$ (35,621.73)	-61.1%
11	CCTV under 21 Mile Road at MA-S-2	1	LS	\$ 3,000.00	\$ 3,000.00					
A1	Drop Manhole Reconstruction, Site MA-S-2 including Option B Energy Dissipation (with deduct to exclude Option A Energy Dissipation)	1	LS	\$ 75,000.00	\$ 75,000.00					
TOTALS (includes option A1)					\$ 993,475.00	\$ 1,550,249.36	\$ 1,550,249.36	\$ (634,774.36)	\$ (634,774.36)	
TOTAL without option A1					\$ 918,475.00	\$ 1,550,249.36	\$ 1,550,249.36	\$ (634,774.36)	\$ (634,774.36)	

* Includes energy dissipation and manhole access hatch precast cost, \$64,400 + \$41,250 per location, along with coaling cost of \$72.03/SF

** NTH assumed \$72.03/SF for Option A adit coaling

*** For comparison, NTH LS estimate for overall warranty was distributed per ratio of Inland 10A - 10C price

**** Permit allowance was listed in the Bid Documents at \$45,000 we did not update the Engineer's Estimate to reflect the difference.

† CCTV under 21 Mile Road at MA-S-2 was not included in Engineer's Estimate by NTH; it is considered as an additional work item

‡ Item A1 is an alternative option for Item 6C; Engineer's Estimate did not include a cost for this item

Funding Source	Apportionment	Manager	Vendor	Amount	Invoice Detail	Project Summary	Project Balance		
Macomb Interceptor Drain	Chapter 20 Chesterfield - 7.1724% Clinton - 21.1566% Fraser - 4.0713% Harrison - 6.2117% Lenox - .9496% Macomb - 14.1023% New Haven - .8184% Shelby - 9.9387% Sterling Heights - 31.1032% Utica - 1.6497% Washington - 2.8262%	Administration	Rozycki	\$ 1,300.00	Invoice #35345-1019 - 10.19.19	Flow Monitoring O&M	\$ 15,400.00		
			Baker	\$ 1,377.50	Invoice #18920 - 09.01.19	Sale of Garfield - M59 Property			
			Baker	\$ 8,800.00	Invoice #18924 - 09.01.19	MIDD vs. Inland, Jay Dee, Metco			
			Astorino	\$ 29,394.84	Invoice #707997CH012 - 09.30.19	Odor & Corrosion Study	\$ 107,591.42		
			Astorino	\$ 735.75	Invoice #5636229 - 10.18.19	Storm Sentry			
			Astorino	\$ 611.35	Invoice #59862 - 10.24.19	Fuel Filter/Ball Joint - Keith Lumma			
			Astorino	\$ 1,687.50	Invoice #10543 - 10.16.19	Meter Maintenance			
			Astorino	\$ 62,179.65	Invoice #17-134-017 - 09.30.19	As-Needed - Segment 5 Grouting	\$ 12,435.86		
			Astorino	\$ 15,059.89	Invoice #17-134-016 - 09.30.19	As-Needed - Segment 5 Grouting			
			Astorino	\$ 5,919.00	Invoice #386745 - 09.30.19	Wastewater Master Plan	\$ 563,758.20		
			Downing	\$ 10,488.50	Invoice #42230 - 06.04.19	Legal Services - Contracts & Agreements			
			Astorino	\$ 16,215.21	Invoice #28001032 - 09.30.19	Sewage Flow Bill - September 2019			
			Astorino	\$ 4,425.00	Invoice #NID4493 - 10.31.19	Data Hosting Fee			
			Astorino	\$ 817.72	Invoice #9840759684 - 10.23.19	Monthly Services - 09.24.19 - 10.23.19			
			Astorino	\$ 587.36	Invoice #9840759684 - 10.23.19	Monthly Services - 09.24.19 - 10.23.19			
			Biofilter		Astorino	\$ 2,400.00	Invoice #2515 - 09.30.19	Switchgear Maintenance	
			Clintondale P.S.		Astorino	\$ 5,435.00	Invoice #154422 - 07.02.19	Camera Installation	
	Astorino	\$ 2,282.62		Invoice #19-499 - 09.30.19	Water and Sewer Bill				
15 Mile Sinkhole		Astorino	\$ 4,505.05	Invoice #WO19000913 - 09.13.19	3rd Quarter Preventative Maintenance				
		Baker	\$ 1,035.00	Invoice #18925 - 09.01.19	OMIDDD vs. MIDDD				
		Astorino	\$ 2,021.75	Invoice #123483 - 09.30.19	Warranty Investigation and Report				
		Astorino	\$ 16,210.00	Invoice #161024-35 - 09.30.19	Meter Maintenance	\$ 89,110.00			
Meters		Astorino	\$ 2,400.00	Invoice #2514 - 09.30.19	Switchgear Maintenance				
NGH		Astorino	\$ 115,251.27	Invoice #EST #5 - FINAL	MIDD Inspections				
SAW		Astorino	\$ 22,000.71	Invoice #51507097 - 09.30.19	SCADA Study	\$ 55,104.29			
SCADA		Astorino	\$ 333,140.67						
		Total	\$						

Budget to Actual
MIDDD
As of Oct 31, 2019 = 33%

DESCRIPTION	2020 FINAL BUDGET	ENCUMBERED	ACTUAL	REMAINING BUDGET	PCT UTILIZED
REVENUE ACCOUNTS					
GLWA-OMID	46,904,696		15,658,157	31,246,539	33.4%
OMID O&M	8,121,888		2,707,300	5,414,588	33.3%
Settlement	-		517,116	(517,116)	100.0%
Reimbursements	200,000		19,983	180,017	10.0%
PY Revenue-Fund Balance	9,610,000			9,610,000	0.0%
Washington Twp Meter Project	250,000			250,000	0.0%
Reimb-Local Communities	10,927,799		3,642,596	7,285,203	33.3%
Interest	300,000		133,613	166,387	44.5%
Total Revenue Accounts	76,314,383	-	22,678,764	53,635,619	29.7%
EXPENSE ACCOUNTS					
GLWA-OMID	46,904,696		15,658,157	31,246,539	33.4%
OMID O&M	8,121,888		2,707,300	5,414,588	33.3%
Public Works Wastewater Disposal Division	1,721,123		375,998	1,345,125	21.8%
Office Operations/Insurance	322,800		60,234	262,566	18.7%
SCADA	196,634		75,939	120,695	38.6%
Engineering					
GLWA Assistance	20,000		10,015	9,985	50.1%
Washington Township meter	500,000			500,000	0.0%
Data Review-Aquasight	240,000		200,000	40,000	83.3%
Contribution to Segment 5 Construction/Repairs	3,850,000			3,850,000	0.0%
15 Mile Interceptor Design East of Garfield (Seg 6)	1,000,000			1,000,000	0.0%
Seg 5 Engineering Design	1,000,000			1,000,000	0.0%
Drop Shaft Repairs(MA-S-2),CT-S-2, HR-S-2, ST-S-5,UT-S-1)	5,750,000		3,490	5,746,510	0.1%
System wide odor and corrosion study	350,000		129,787	220,213	37.1%
SY-S-1 & SY-S-2 Meter Rehab	1,200,000		12,094	1,187,907	1.0%
Meter Dye Dilution Testing/As needed	100,000			100,000	0.0%
Saw Grant	-		25,561	(25,561)	100.0%
McMARS Operations	50,000		5,760	44,240	11.5%
Aquasight Operations	50,000		50,000	-	100.0%
As Needed FTCH	50,000		5,188	44,812	10.4%
As Needed CH2M	70,000		20,394	49,606	29.1%
As needed FK Engineering	55,000		83,879	(28,879)	152.5%
As Needed Wade Trim	45,000		5,968	39,032	13.3%
As Needed Metco	70,000		51,972	18,028	74.2%
As Needed Applied Science	70,000			70,000	0.0%
Emergency Grouting	-		414,226	(414,226)	100.0%
Wastewater Master Plan/Contract Capacity	500,000		91,699	408,301	18.3%
Legal Services	500,000		189,818	310,182	38.0%
Clintondale PS O&M	345,000		170,575	174,425	49.4%
NGI O&M	330,000		39,938	290,062	12.1%
Meters O&M	415,000		95,055	319,945	22.9%
CS-3 O&M	226,000			226,000	0.0%
Biofilter O&M	277,500		81,793	195,707	29.5%
Contribution Life Cycle Reserve	171,700			171,700	0.0%
Interceptor O&M	1,000,000			1,000,000	0.0%
Stormwater Pump Stations	65,800		21,933	43,867	33.3%
Sewage Disposal Charges - Mt. Clemens	200,000		42,381	157,619	21.2%
Debt Service - Revenue Bonds	546,242		182,081	364,161	33.3%
Total Expense Accounts	76,314,383	-	20,811,234	55,503,149	27.3%

	O&M Balance 6/30/2019	O&M	Total 10/31/2019
Cash - Operating	25,896,373	1,867,530	27,763,903
Accounts Receivable			0
Assets			0
Liabilities			0
Revenues		22,678,764	22,678,764
Expenditures		20,811,234	20,811,234
			0
Equity*	25,896,373		27,763,903

Detail of 2019 Equity*

Projected reserve at 6/30/2019(No Land Sale)	12,180,673
Projected Engineering Reserve	9,610,000
Projected Sinkhole Surplus	3,400,000
Life Cycle Reserve	705,700