

ADDENDUM NO. 1
VILLAGE OF THREE OAKS, MICHIGAN
WATER SYSTEM IMPROVEMENTS PROJECT

CONTRACT A – Water Main & Appurtenances
CONTRACT B – Production Well No. 3
CONTRACT C – Tower Repainting
DECEMBER 1, 2010

Addendum No. 1 to the Plans and Specifications for the Village of Three Oaks Water System Improvements Project, as prepared by Wightman & Associates, Inc. dated October 2010.

Addendum No. 1 supplements and modifies the Contract Documents relating to the above referenced project. This Addendum shall be deemed a part of the Contract Documents, and to the extent that the provisions of the other Contract Documents are in conflict herewith, this Addendum shall control. Revised proposal sheets are attached.

Contract A

1. Final completion date for all work under Contract A shall be November 15, 2011. Water will not be available for flushing water mains when Contract C is being completed.
2. The unit for 6" Pipe Underdrain should be LFT. See Revised Proposal Sheet P-10. The underdrain is to be sock wrapped pipe placed to drain water main trenches to catch basins at intersections where directed by Engineer.
3. As part of the PVC alternate for the project, the Village will need to buy a new Saddle Service Tap Machine as well as associated pipe and appurtenance inventory. An allowance of \$20,000 has been added to Revised Proposal Sheet P-9 for purchase of these items by the Village. This allowance shall be included in the contractors total bid for the PVC alternate for comparison purposes.
4. The bids will be reviewed with and without the meter reading system and meter items (items 20, 21, 22, 23, and 24). The Village reserves the right to award the contract to the bidder that is low after these items have been excluded. All bids must include data sheets and detailed specifications for the proposed meter reading system and meters included in the bid.
5. All meters in the Village are to be replaced. New meters sizes are to match existing meter sizes. The meters are now listed as items 21, 22, 23, and 24 based on the four meter sizes in the Village. See Revised Proposal Sheet P-10.
6. All meter pits in water main replacement areas shall be replaced unless otherwise directed by Owner. Meter pits elsewhere in the Village are to be replaced on an as needed basis as determined by Owner. Almost all meters in the Village are located in meter pits. All 5/8" and 1" meters shall be placed in 20" diameter meter pits. The larger 1-1/2" and 2" meters shall be placed in 36" diameter meter pits. The meter pits are to meet the original type specified. The 20" diameter and 36" diameter meter pits are to be bid separately as items 18 and 19 respectively. See Revised Proposal Sheet P-10.
7. The CONTRACTOR shall circle the PVC material type as well as the hydrant type on Revised Proposal Sheet P-10 as part of his bid submittal.

8. The Fire Hydrant specification shall be revised to allow Clow and East Jordan Iron Works in addition to Kennedy and Waterous as manufacturers. Fire Hydrants shall have a 6" pressure class 350 ductile iron pipe or C900 or C909 PVC water main from the auxiliary valve to the main to be paid for under their respective bid items.
9. All PVC pipe installed by open-cut method must meet NSF Standard 61.
10. All new water service pipe is to be Type K copper. Water services are to extend to the property line and be connected to existing service.
11. Cold Milling of the HMA Surface has been added as a separate pay item (item 25). This item will include only the milling to depth of 1-1/2" outside of the 8' wide trench which is incidental to water main construction.
12. All damaged tiles and pipes must be repaired by the contractor. The Village will mark the location of known sewer laterals. Any repairs required to laterals whose location has been marked within 5 feet of its actual location will be considered incidental to the water main construction. Undocumented sewer laterals exist within the water main trench area. Repairs that must be made to unmarked sewer laterals damaged in the course of water main construction will be paid for under pay item 33, Repair Unmarked Sewer Laterals. All repairs must be completed using in-kind materials or as approved by engineer and be water tight connections using Furnco adaptors or other approved sleeves.
13. The existing road base for Maple, Beech, East Linden and East Locust Streets is concrete. The base for North Elm is a combination of street bricks, concrete and gravel. Street bricks are to be delivered to the Village at the DPW building. All other roads are bituminous with an existing base of gravel, slag or R/R rock. The existing conditions are to the best of our knowledge and are provided for contractor information. Pavement replacement should follow paving schedule and details in plans.
14. The easement area at the east end of Chestnut, Walnut and Buckeye Streets must be cleared of all trees, stumps, and debris, ready for farming. This clearing shall also include the east side of the property line extending 330 feet north of Chestnut Street and 175 feet south of Buckeye Street. The portion of Buckeye Street that extends east outside of the right-of-way should also be saw cut and removed. This work shall be bid as a lump sum under item 34, Easement Clearing. See attached sketch for additional information.

Contract B

1. Final completion date for all work under Contract B shall be July 31, 2011.
2. A Variable Frequency Drive shall be installed at Well #3 and the cost for this work shall be included under item 4, Building and Site Electrical, and shall be in accordance with the detailed specification for Variable Frequency Drive on DS-62. The drive shall be sized to operate a 20hp, 240V, 3 phase motor.

3. The Control System specification shall be revised to include the following:

The central control panel shall be located in the treatment plant adjacent to the existing control panel.

The existing automatic dialing alarm monitor in use at the central control panel shall be reused in the new control panel. No new dialer will need to be purchased.

Operation Modes – The system shall be capable of operating in two modes. The normal mode will be the Tower Elevation mode in which the system will operate based on the pressure signal from the water tower and turn wells on and off at preset water elevations. The System Pressure mode will operate based on the pressure signal from the treatment plant and will be used to operate the system at a constant pressure when the water tower is out of service.

- a. Tower Elevation – In tower elevation mode, the system shall turn on the lead pump when the water elevation in the tower reaches an elevation determined by the Owner. The lead pump shall continue to run until the water elevation reaches the lead pump off elevation. If the water elevation drops to the lag pump on elevation, the lag pump shall be turned on. The lag pump shall continue to run until the water elevation reaches the lag pump off elevation. This sequence shall continue for the lead and all lag pumps until all pumps are running or all pumps are turned off. The motor speed for each pump shall be ramped up at startup and down at shutoff for a period of 30 seconds. This time shall be adjustable and set at each individual VFD. A high water/pressure and low water/pressure alarm signal shall be sent if the water elevation reaches the respective elevation.
- b. System Pressure – In system pressure operation mode, the system shall turn on the lead pump when the water pressure drops below the operating pressure determined by the Owner. The lead pump shall ramp up in speed until the operating pressure is reached and the speed of the pump shall be automatically adjusted to maintain the operating pressure. If the pressure drops below the operating pressure, the lead pump shall continue to run at full speed and the lag pump shall be turned on and ramp up in speed until the operating pressure is reached. The speed of the lag pump shall be automatically adjusted to maintain the operating pressure. If the pressure rises above the operating pressure, the lag and subsequent pumps shall be turned off until the operating pressure is reached and maintained. This sequence shall continue until all pumps are running or all pumps are turned off. The motor speed for each pump shall be ramped up at startup and down at shutoff for a period of 30 seconds or until the operating pressure is reached. This time shall be set at each individual VFD. A high water/pressure and low water/pressure alarm signal shall be sent if the water elevation reaches the respective elevation.
- c. General – The operation mode shall be selectable and shall switch to system pressure mode and send a signal loss alarm if the signal from the water tower is lost for more than 5 minutes. After a signal from the water tower is restored for five minutes, the system shall resume normal operation.

4. The right angle drive at Well #5 is to remain.

5. The transfer switches at the water tower, well #4 and well #5 will be located outside and will require a NEMA type 4 enclosure.

6. The transfer switch at well #3 will be located inside and will require a NEMA type 1 enclosure.

7. The tower monitoring panel shall be insulated and equipped with a thermostat and heater and shall also have an integral indicator showing height of water in tower in feet.
8. Item 11, Standby Generator for the Water Tower, will be revised to include supply and installation of a new 7.5kW generator that meets the previously defined Standby Generator specifications. The existing 10kW generator at the treatment plant will be delivered to the owner after removal.
9. The Standby Generator Specification shall be revised to include Cummins as an approved manufacturer in addition to Generac.
10. All of the well locations are connected via existing telecommunication lines to the control panel at the treatment plant. Those existing telecommunication lines are to be used for the new control system.
11. Construction of Well #3 Building will require a building permit from the Village.
12. Asbestos removal shall be included in item 12, Demolition Well #3 Building. The existing building has asbestos siding. All applicable state and federal regulations for removal must be followed by the contractor.
13. The Well Building Structure specification shall be revised to include the following:
 - a. Trusses may be used in lieu of rafters and ceiling joist. The roof loading is:
LL = 50psf
DL = 15psf
Total Load = 65psf
Provide sealed shop drawings of truss system for review by the engineer and provide final truss drawings sealed by a State of Michigan licensed engineer.
 - b. Revise the roof overhang from 2'-0" to 1'-6" and provide a smooth face CMU at top bond beam course of CMU as required to provide a smooth surface for the soffit attachment.
 - c. The hollow metal door frame is to have a 4" head. The total frame height is to be 7'-4".
 - d. The door and frame shall be shop primed and field painted with two coats of DTM paint. Prepare door and frame as required by paint manufacturer.
 - e. Attach trusses or rafters to the base plate with Simpson H2.5 hurricane ties.
 - f. Grace Products dry block water repellent shall be added, per the manufacturer's recommendation, to the mortar.
 - g. All work shall comply to the following construction codes:

Michigan Building Code, 2006 edition
Michigan Plumbing Code, 2009 edition
Michigan Mechanical Code, 2009 edition
International Fuel Gas Code, 2006 edition
National Electrical Code (NFPA 70), 2008 edition
Michigan Barrier Free Code
National Fire Prevention Code, NFPA 72, 2006 edition
Americans with Disabilities Act

Contract C

1. All work included in Contract C shall be completed between August 15 and October 31, 2011.
2. Item 18 has been removed.

The Contractor hereby acknowledges receipt of this Addendum No. 1 and shall include a signed copy with the bid.

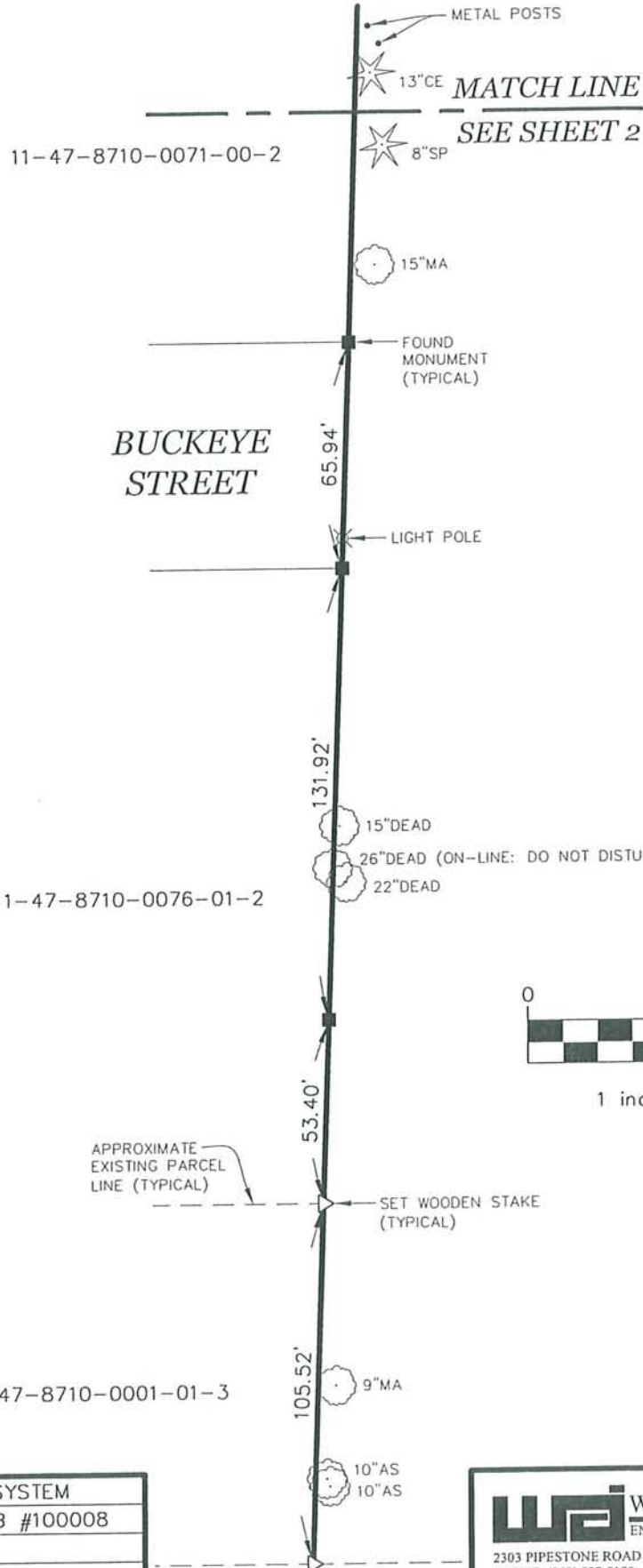
Contractor

By

Title

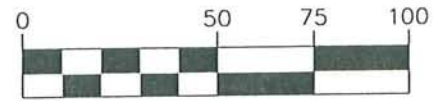
Date

EASEMENT CLEARING SKETCH



LEGEND

- AS = ASH
- CE = CEDAR
- MA = MAPLE
- SP = SPRUCE



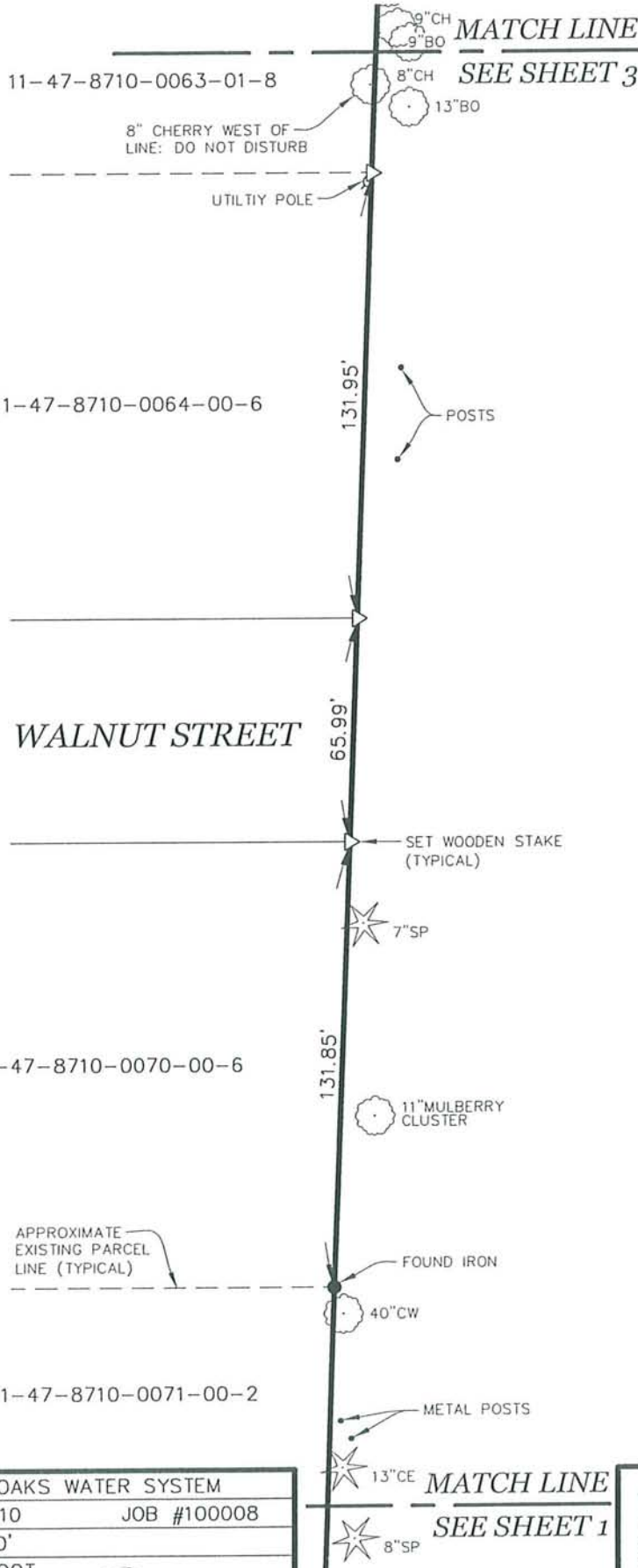
1 inch = 50 ft.

CLIENT: THREE OAKS WATER SYSTEM	
DATE: 12/1/2010	JOB #100008
SCALE: 1" = 50'	
DRAWN BY: T. ROOT	
CHECKED BY: J. KAMER	

WAI WIGHTMAN & ASSOCIATES, INC.
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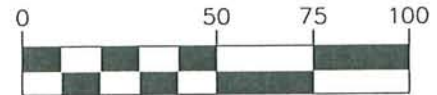
SECTION 2, T 8 S, R 20 W A-100008-ECS

EASEMENT CLEARING SKETCH



LEGEND

- BO = BOX ELDER
- CE = CEDAR
- CH = CHERRY
- CW = COTTONWOOD
- SP = SPRUCE



1 inch = 50 ft.

SECTION 2, T 8 S, R 20 W A-100008-ECS

CLIENT: THREE OAKS WATER SYSTEM
DATE: 12/1/2010 JOB #100008
SCALE: 1" = 50'
DRAWN BY: T. ROOT
CHECKED BY: J. KAMER

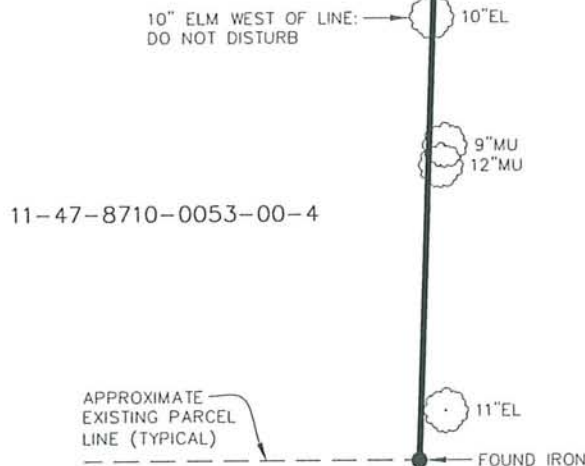
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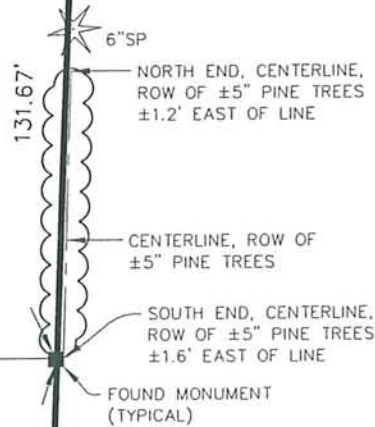
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EASEMENT CLEARING SKETCH

PINE STREET

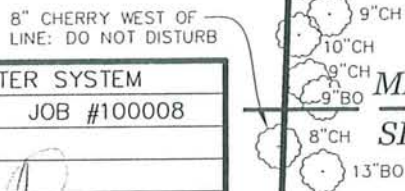


11-47-8710-0054-01-9



CHESTNUT STREET

11-47-8710-0063-01-8



LEGEND

- BO = BOX ELDER
- CH = CHERRY
- EL = ELM
- MU = MULBERRY
- SP = SPRUCE



1 inch = 50 ft.

MATCH LINE
SEE SHEET 2

CLIENT: THREE OAKS WATER SYSTEM
DATE: 12/1/2010 JOB #100008
SCALE: 1" = 50'
DRAWN BY: T. ROOT
CHECKED BY: J. KAMER

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SECTION 2, T 8 S, R 20 W, A-100008-ECS

**VILLAGE OF THREE OAKS
WATER SYSTEM IMPROVEMENTS PROJECT
CONTRACT A – WATER MAIN AND APPURTENANCES
PROPOSAL**

ITEM NO	ESTIMATED QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE
<i>Alternate A – Pressure Class 350 Ductile Iron Pipe Water Main</i>					
1A	29,540	LFT	8" Pressure Class 350 Ductile Iron Pipe Water Main		
2A	1,765	LFT	6" Pressure Class 350 Ductile Iron Pipe Water Main		
SUBTOTAL BID ENTERED – ALTERNATE A – PRESSURE CLASS 350 DUCTILE IRON PIPE WATER MAIN =				\$	\$
<i>Alternate B – C900 or C909 PVC Water Main</i>					
1B	29,540	LFT	8" C900 or C909 PVC Water Main		
2B	1,765	LFT	6" C900 or C909 PVC Water Main		
SUBTOTAL BID ENTERED – ALTERNATE B – C900 or C909 PVC WATER MAIN =				\$	\$20,000.00
<i>Part C - Appurtenances</i>					
3	1	L.S.	Mobilization		
4	13,040	LBS	Compact Ductile Iron Fittings		
5	97	EA	8" Gate Valve and Box		
6	60	EA	6" Hydrant, Valve and Box		
7	40	EA	Remove Existing Hydrant		
8	12	EA	Connect to Existing 8" Water Main – Dry Tap Method		
9	4	EA	Connect to Existing 6" Water Main – Dry Tap Method		
10	9	EA	Connect to Existing 4" Water Main – Dry Tap Method		
11	7	EA	Connect to Existing 8" Water Main – Wet Tap Method		
12	4	EA	1" Water Service		
13	2	EA	2" Water Service		
14	14,145	LFT	1" Water Service Pipe		
15	870	LFT	2" Water Service Pipe		
16	465	EA	Reconnect 1" Water Service		

**VILLAGE OF THREE OAKS
WATER SYSTEM IMPROVEMENTS PROJECT
CONTRACT A – WATER MAIN AND APPURTENANCES
PROPOSAL**

ITEM NO	ESTIMATED QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE
17	13	EA	Reconnect 2" Water Service		
18	535	EA	20" Dia. Meter Pit		
19	3	EA	36" Dia. Meter Pit		
20	1	L.S.	Meter Reading System		
21	736	EA	5/8" Meter Replacement, Complete		
22	83	EA	1" Meter Replacement, Complete		
23	3	EA	1-1/2" Meter Replacement, Complete		
24	8	EA	2" Meter Replacement, Complete		
25	11,800	SYD	Cold Milling HMA Surface		
26	4,508	TON	HMA, 13A		
27	3,381	TON	HMA, 36A		
28	751	SYD	Conc Pavt, Nonreinf, 9 inch		
29	100	SYD	Conc Pavt, Nonreinf, 6 inch		
30	4,250	SFT	Concrete Sidewalk Replacement		
31	1,065	LFT	Concrete Curb and Gutter Replacement		
32	4,000	LFT	6" Pipe Underdrain		
33	100	EA	Repair Unmarked Sewer Laterals		
34	1	LS	Easement Clearing		
SUBTOTAL BID ENTERED – PART C – APPURTENANCES =				\$	

FIRM NAME: _____ **TOTAL BID ENTERED – ALTERNATE A AND PART C – CLASS 350 DIP \$** _____

TOTAL BID ENTERED – ALTERNATE B AND PART C – C900 or C909 PVC \$ _____

- Contractor shall circle pipe material type
- Contractor shall circle hydrant type-Kennedy, Waterous, EJW, Clow

VILLAGE OF THREE OAKS
WATER SYSTEM IMPROVEMENTS PROJECT
CONTRACT B – PRODUCTION WELL NO. 3

PROPOSAL

ITEM NO	ESTIMATED QUANTITY	UNIT	DESCRIPTION	UNIT PRICE	TOTAL PRICE
1	1	L.S.	Mobilization		
2	1	L.S.	Meter, Valves, and Piping		
3	1	L.S.	Well Building Structure		
4	1	L.S.	Building and Site Electrical		
5	1	L.S.	Control System		
6	1	L.S.	VFD for Well #4		
7	1	L.S.	Standby Generator for Well #3		
8	1	L.S.	Standby Generator for Well #4		
9	1	L.S.	Standby Generator for Well #5		
10	1	L.S.	Standby Generator for Iron Removal Plant		
11	1	L.S.	Standby Generator for Water Tower		
12	1	L.S.	Demolition Well #3 Building		

FIRM NAME: _____ **TOTAL BID ENTERED \$** _____

VILLAGE OF THREE OAKS
WATER SYSTEM IMPROVEMENTS PROJECT
CONTRACT C – TOWER REPAINTING
PROPOSAL

<i>ITEM NO</i>	<i>ESTIMATED QUANTITY</i>	<i>UNIT</i>	<i>DESCRIPTION</i>	<i>UNIT PRICE</i>	<i>TOTAL PRICE</i>
1	1	L.S.	Grout Repair		
2	1	L.S.	Splash Pad		
3	1	L.S.	Wet Interior Roof Hatch		
4	1	L.S.	Access Tube Hatch		
5	1	L.S.	Platform Hatches		
6	1	L.S.	Fill Pipe Deflector Bar		
7	1	L.S.	Fill Pipe Insulation		
8	1	L.S.	Overflow Flap Gate		
9	1	L.S.	Condensate Line		
10	1	L.S.	Mud Valve		
11	1	L.S.	Fall Prevention Device		
12	1	L.S.	Roof Vent		
13	1	L.S.	Safety Rail		
14	1	L.S.	Weld Roof Beams		
15	1	L.S.	Exterior Overcoat		
16	1	L.S.	Wet Interior Repaint		
17	1	L.S.	Dry Interior Repaint		

FIRM NAME: _____ **TOTAL BID ENTERED \$** _____

Revised P-12

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