City of Mt. Pleasant, Michigan

CONTRACT DOCUMENTS

for

Well #16 Rehabilitation, Pump & Motor Inspection and Repair

BRUCE KILMER
Mayor

KATHIE GRINZINGER
City Manager

ROGER ROUSSE
Director – Division of Public Works

Prepared by
MALCOLM FOX
Water Plant Superintendent

January 2012

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Specifications

THE CITY OF MT. PLEASANT, MICHIGAN

CITY HALL
320 W. Broadway • 48858-2447
(989) 779-5300

PUBLIC SAFETY
804 E. High • 48858-3595
(989) 779-5100

PUBLIC WORKS
1303 N. Franklin • 48858-4682
(989) 779-5400

NOTICE TO BIDDERS

WELL 16 REHABILITATION, PUMP & MOTOR INSPECTION AND REPAIR

The City of Mt. Pleasant, Michigan, is requesting sealed bids at the Office of the City Clerk, City Hall, 320 W. Broadway Street, Mt. Pleasant, Michigan 48858, until 1:30 p.m. (local time), on Tuesday, March 13, 2012, at which time and place the bids will be publicly opened and read. All bids shall be submitted in a sealed envelope, plainly marked "Well 16 Rehabilitation, Pump and Motor Inspection – March 13, 2012."

Proposals are solicited on a lump sum basis, for the following work:

Well #16 Rehabilitation, Pump & Motor Inspection and Repair

All bid proposals must be accompanied by a bid bond, bank cashier's check, bank draft, or certified check for not less than five percent (5%) of the bid price, made payable to the City of Mt. Pleasant.

Complete specifications are available at the Public Works Building, 1303 North Franklin Street, Mt. Pleasant, Michigan 48858, 8:00 a.m. to 4:30 p.m., Monday through Friday, or can be viewed and downloaded at no charge at www.mt-pleasant.org/depts/engineering/biddinginfo.htm.

The City of Mt. Pleasant reserves the right to accept or reject any or all bids, to waive any irregularities in the bids, and to select the bid considered most advantageous to the city.

Jeremy Howard
City Clerk

Malcolm Fox
Water Supervisor
(989) 779-5426

[Form05] City of Mt. Pleasant, Michigan

INSTRUCTIONS TO BIDDERS

1. Proposals

Proposals must be made upon the forms provided therefore, with the Bid amount both written and shown in figures, and all other data required submitted.

The Proposal, bound together with all Proposal Documents, must be enclosed in a sealed envelope marked as specified in the Notice to Bidders for such Bid and clearly indicating the name and address of the Bidder and must be received by the City Clerk, City Hall, 320 West Broadway Street, Mt. Pleasant, Michigan 48858, no later than the time and date specified in the Notice to Bidders. At such specified time, Proposals shall be publicly opened and read aloud.

2. Basis of Proposals

Proposals are solicited on the basis of unit price(s) and/or lump sum(s), as specified on the Proposal form.

The City of Mt. Pleasant (also referred to as "Owner"), reserves the right to accept any Bid, to reject any or all Bids, to waive any irregularities in the Bids, and to select the Bid considered most advantageous to the city.

3. Comparison of Bids

In comparing Bids, consideration shall be given to the time proposed for completion of the Contract, qualifications of Bidder, price differentials, alternate Proposals for the alternate items listed in the Proposal (if applicable), and any other pertinent factors. **The City of Mt. Pleasant grants a preference to businesses located within the Mt. Pleasant City Limits. The preference given is a differential above the low bid if the low bid is not from a City of Mt. Pleasant bidder. The differential allowed is 3% of the total for bids between $5,000 and $9,999 and 2% of the total for bids over $10,000. The maximum credit allowed is $1500.00.** The Owner reserves the right to make an award to the Bidder whose Proposal is deemed to be in the best interest of the Owner.

4. Time

Time is of the essence in the performance of the Contract, and each Bidder, by submitting a Proposal, certifies his/her acceptance of the time allowed by the Contract for the completion of the work specified.

5. **Indemnification**

The Contractor shall save and hold harmless the city and its employees from and against all claims, damages, losses, or expenses, including attorney's fees, arising out of or resulting from the performance of the work; provided that any such claim, damage, loss or expense is caused in whole or in part by any negligent or willful act of omission of the contractor, subcontractor, employee, or anyone under their direction. The Contractor shall at his/her own expense, defend any and all such actions and shall pay all attorney's fees, costs, and expenses pertaining thereto.

6. **Bid Deposits**

Each Proposal shall be accompanied by a certified check, or a Bid Bond by a recognized Surety Company similar to a U. S. Government Standard Form Bid Bond, in the amount of five percent (5%) of the total amount of the Bid, made payable to the City of Mt. Pleasant, subject to forfeiture to the Owner in the event of failure on the part of the successful Bidder to enter into the attached form of agreement to do the work specified by said Proposal at the price and within the time stated therein. The Bid Deposit of all Bidders, except the three (3) lowest acceptable Bidders, shall be returned within two (2) weeks after opening of bids. The bid deposits of the three (3) lowest acceptable bidders shall be returned within 48 hours after the executed Contract(s) have been finally approved by the Owner.

7. **Liquidated Damages**

A liquidated damage clause, as given in the Contract form, provides that the Contractor shall pay the Owner as liquidated damages, and not as a penalty, the amount indicated in the Proposal for each and every calendar day that the Contractor may be in default of substantial completion of the work required under said Contract.

8. **Insurance and Bonds**

The successful Bidder will be required to execute (2) Bonds, in the form attached hereto, with Surety acceptable to the Owner and insurance, as follows:

a. Bond in the amount of 100% of the Estimated Contract Price running to the City of Mt. Pleasant, Michigan, to insure the completion of the entire work, according to the statues of the State of Michigan in effect at that time.

b. Bond in the amount of 100% of the Estimated Contract Price running to the People of the State of Michigan for the protection of Subcontractors and Labor and Material Men, according to the statutes of the State of Michigan in effect at that time.

c. Insurance in the amounts required by City Ordinance as specified in the Section 1 - General Construction Specifications, attached hereto.

The successful bidder shall be required to furnish for each set of executed Contract Documents, and conformed copies thereof, an original conformed Performance Bond, Labor and Materials Bond, Maintenance Bond, and Insurance Certificates.

9. **Permits and Local Codes**

The Owner shall procure the required permits for municipal sanitary sewer construction, municipal water system construction, and soil erosion control.

The Contractor shall obtain, at his/her expense, all other required local construction permits and shall comply with local building code and inspection requirements.

10. **Qualifications of Bidders**

It is the intent of the Owner to award the Contract to a Bidder fully capable, both financially and with regard to experience, to perform and complete all work in a satisfactory and timely manner. Evidence of such competency must be furnished on the forms included in the proposal, listing projects of similar difficulty, scope of work, and size, which the Bidder has satisfactorily undertaken and completed.

It is the intention of the City to award the contract to a Contractor whose ability and financial resources are fully equal to the task of performing the work in a satisfactory manner. With this in view, the Proposal calls for at least five (5) references, using specific names of persons to contact concerning the Contractor's ability to do this particular class of work. References from municipalities are preferred. The mere ability to furnish a Performance Bond shall not be accepted as sufficient evidence of responsibility on the part of the Bidder. The Bidder may also be required to furnish evidence of his current financial status.

11. **Interpretation of Documents**

If any Bidder is in doubt as to the true meaning of any part of the Plans, Specifications or any Contract Document, he/she may submit to the Owner a written request for an interpretation thereof. Any interpretation made in response to such a query shall be made only by Addendum, duly issued, and a copy of such Addendum shall be mailed or duly delivered to each prospective Bidder. The Owner shall not be responsible for any other explanation or interpretation of the Contract Documents. Alternative proposals that are suggested by bidders will be given consideration, if presented before the bid opening. If accepted, an addendum will be issued and sent out to all potential bidders, so that they may bid on the alternatives that have been identified.

12. **Execution of Bid Proposal**

A Bid Proposal, which is not signed by the individual making it, should have

attached thereto a Power of Attorney evidencing authority to sign the Bid Proposal in the name of the person for whom it is signed.

A Bid Proposal, which is signed by a partnership, shall be signed by all of the partners or by an Attorney-in-Fact. If signed by an Attorney-in-Fact, there should be attached to the Bid a Power of Attorney evidencing authority to sign the Bid Proposal in the name of the partnership and such Power of Attorney shall be signed by all partners of the partnership.

A Bid Proposal, which is signed for a corporation, should have the correct corporate name thereof and the signature of the President, or other authorized officer(s) of the corporation, manually written below the corporate name and on the line indicating "By:_____." If such a Bid Proposal is manually signed by an officer other than the President of the corporation, a certified copy of a Resolution of the Board of Directors evidencing the authority of such officer(s) to sign the Bid Proposal should be attached thereto. Such a Bid Proposal should also bear the attested signature of the Secretary of the corporation and an impression of the corporate seal.

13. Execution of Contract

The successful Bidder to whom an award is made shall be required to enter into a written agreement, in the form attached hereto, within ten (10) days after receipt of the Notice of Award and copies of the documents to be executed. In the event the successful Bidder fails to comply with this provision, he/she may be considered by the Owner to have abandoned all his/her rights and interests in the award and his/her certified check or amount of the Bid Bond may be declared to be forfeited to the Owner, and the Contract may be awarded to another.

14. Bidder Responsibility For Conditions of Work and Site

The Bidder, or his/her representative, shall make personal investigation of the site of work and of existing structures and shall determine to his/her own satisfaction the conditions to be encountered, the nature of the ground, the difficulties involved in making connections to existing structures and pipes, and any and all other factors affecting the work proposed under the Contract.

The Bidder to whom the Contract is awarded shall not be entitled to any additional compensation by reason of conditions being different from those anticipated or by reason of his/her failure to fully acquaint himself/herself with the conditions at the site affecting the work of the Contract.

15. Changes in Work

If any change is required to be made in the work of the Contract, a payment adjustment therefore shall be determined as specified in the "TECHNICAL SPECIFICATIONS, Section 1 - General Construction Specifications" of the Contract.

[Form 24a]

City of Mt. Pleasant, Michigan

BID PROPOSAL

WELL #16 REHABILITATION,
PUMP & MOTOR INSPECTION AND REPAIR

TO: Office of the City Clerk
City Hall
320 E. Broadway Street
Mt. Pleasant, MI 48858

BID DATE: March 13, 2012
TIME: 1:30 p.m.

The undersigned, as Bidder, hereby declares that his bid is made in good faith without fraud or collusion with any person or persons bidding of the same Contract; that he has carefully read and examined the Contract Documents, including the Notice to Bidders, Instructions, Bond Forms, Technical and Detailed Specifications, and Contract Drawings, for the designated work and understands all of the same; that he, or his representative, has made such a personal investigation at the site as is necessary to determine the character and difficulties attending the execution of the proposed work; and he proposes and agrees that if this Proposal is accepted, he will contract with the Owner in the form of the Contract hereto annexed, to provide necessary machinery, tools, apparatus and other means of construction, including utility and transportation services, necessary to do all the work and furnish all the materials and equipment specified or referred to in the Contract Documents, including Addenda No. __, __, and __, in the manner and time therein prescribed, and according to the requirements of the Owner as therein set forth to furnish Contractor Bonds and Insurance required of the Contractor by the Contract Documents, and that he will take in full payment therefore the unit prices set forth in the following Proposal.

The Bidder understands that the Owner reserves the right to reject any or all bids and to waive any irregularities in the bidding.

The Bidder agrees that his bid shall be good and may not be withdrawn for a period of sixty (60) calendar days after the scheduled closing time for receiving the bids.

Upon receipt of a written Notice of Award of the Bid, the Bidder shall execute the formal Contract Agreement attached hereto within ten (10) days and shall deliver to the Owner a Surety Bond or Bonds required. In the event the Contract and Bond are not executed within the time above set forth, the Bid Deposit attached in the sum of five percent (5%) of the Bid Proposal shall become the property of the Owner as liquidated damages for the delay and additional expense to the Owner caused thereby.

The Bidder hereby agrees to commence work under this Contract on or before the date to be specified in the written Notice to Proceed executed by the Owner and to fully complete the project as stipulated in the Specifications within a period of one Hundred twenty (120) consecutive calendar days thereafter, as provided. The Bidder

further agrees to pay as liquidated damages the sum of Two Hundred Fifty Dollars ($250.00) for each consecutive calendar day thereafter, until substantial completion, that is when all work items in the proposal are complete and notification of substantial completion of work items and final quantities is given to the Director of Public Works by the contractor.

The below unit prices shall include all labor, materials, overhead, profit, insurance, etc., to cover the finished work of the several kinds specified, and the Bidder agrees to perform all of the work described in the Specifications and/or shown on the Plans for the following unit prices:

ITEM NO.	DESCRIPTION	LUMP SUM PRICE
#1	Well #16 Rehabilitation	$ _____
#2	Well #16 Pump & Motor Inspection and Repair	$ _____
		$
	TOTAL BID	==========
		(Figures)

_____

(Written)

_____ and_____/100 Dollars.

Alternate Bid

#1	Well #16 Rehabilitation	$ _____
#2	Well #16 Pump & Motor Inspection and Repair	$ _____
#3	Replace Check Valve	$ _____
		$
	TOTAL ALTERNATE BID	==========
		(Figures)

_____

(Written)

_____ and_____/100 Dollars.

Respectfully Submitted,

Company Name _____

Address _____

City _____ ST_____ Zip Code _____

Telephone Number _____ Fax _____

Email Address_____

Authorized Signature _____

Print or Type Name and Title _____

Date_____

EXPERIENCE QUESTIONNAIRE
TO BE FURNISHED BY BIDDER
CITY OF MOUNT PLEASANT, MICHIGAN

The signatory of this proposal guarantees the truth and accuracy of all statements and of all answers hereinafter made.

1. How many years have you been in business as a contractor under your present name?

_____

2. How many years have you been a principal officer of a firm under a different name?

_____

Name of Firm _____

3. What projects of a similar nature has your organization contracted for within the past five years? (NOTE: Fill out each blank completely.)

_____

	Name of Owner & Location	Name/Address/Phone # of Person in Charge as Reference	Type of Work	Value of Work	Date Completed
1.					
2.					
3.					
4.					
5.					
6.					

City of Mt. Pleasant, Michigan

NOTICE OF AWARD

TO: xxxxxxxxxxxxxxx

PROJECT Description: Well 16 Rehabilitation, Pump & Motor Inspection and Repair

THE CITY OF MT. PLEASANT (CITY) has considered your BID submitted March 13, 2012, for the above-described WORK in response to its NOTICE TO BIDDERS and INSTRUCTIONS TO BIDDERS.

You are hereby notified that your BID has been accepted for items in the amount of xxxx Dollars and XX/100 ($xx,xxx.xx).

You are required by the INSTRUCTIONS TO BIDDERS to execute the AGREEMENT and furnish the required CERTIFICATES OF INSURANCE within ten (10) calendar days from the date of this NOTICE to you.

If you fail to execute said AGREEMENT within ten (10) days from the date of this NOTICE, said CITY will be entitled to consider all your rights arising out of the CITY'S acceptance of your BID as abandoned. The CITY will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the CITY.

Dated March ___, 2012.

CITY OF MT. PLEASANT, MICHIGAN
Owner

By: _____
Roger Rousse, Director
Division of Public Works

RECEIPT OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged this _____ day of _____.

_____
Contractor

By: _____
Print or Type Name and Title

[Form44]

City of Mt. Pleasant, Michigan

PAYMENT BOND

(Under Act 213 of 1963)

KNOW ALL MEN BY THESE PRESENTS, That _____ as PRINCIPAL, and _____, a Corporation, organized and existing under the laws of the State of Michigan, and duly authorized to transact business in the State of Michigan, as SURETY, are held and firmly bound unto THE CITY OF MT. PLEASANT, MICHIGAN, as obligee, and hereinafter called "OWNER", in the just and full sum of _____ Dollars and __/100 ($_____) lawful money of the United States of America, for the payment whereof, the PRINCIPAL and SURETY bind themselves, their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the above PRINCIPAL has entered into a written contract with the OWNER, dated March 13, 2012, for the work known as:

Well #16 Rehabilitation, Pump & Motor Inspection and Repair

in accordance with the plans and specifications prepared by THE CITY OF MT. PLEASANT, DIVISION OF PUBLIC WORKS, Mt. Pleasant, Michigan, which contract is hereby referred to and made a part hereof as fully and to the same extent as if the same were entirely written herein; and

WHEREAS, this bond is given in compliance with and subject to the provisions of the Act 213 of the Public Acts of Michigan for the year 1963, as amended by subsequent acts to date.

NOW, THEREFORE, the conditions of this obligation are that if the PRINCIPAL and its subcontractors shall make all payments as they become due and payable of all amounts owing to subcontractors and to parties supplying labor or materials to the PRINCIPAL, or to its subcontractors, in the prosecution of the work provided for in said contract (intending to include herein all claimants as defined in Section 6 of Act 213 of 1963, as amended), then this obligation shall be void; otherwise, the same shall be in full force and effect; and

PROVIDED, that any alterations which may be made in the terms of the said contract, or in the work to be done under it, or the giving by the party of the first part of

said contract, any extension of the time for the performance of said contract or any other forbearance on the part of either part to the other, shall not in any way release the PRINCIPAL and the SURETY, or either of them, their heirs, executors, administrators, successors, or assigns, from any liability hereunder. Notice to the SURETY of any alterations, extensions of or of any forbearance being hereby waived.

IN WITNESS WHEREOF, signed and sealed this ____ day of _____.

WITNESSES: PRINCIPAL:

_____ By: _____ (Seal)

_____ By: _____ (Seal)

SURETY:

_____

_____ By: _____ (Seal)

Title: _____

LOCAL ADDRESS OF AGENT FOR SURETY:

_____

Name

_____

Address

[Form45]

City of Mt. Pleasant, Michigan

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, That _____ of _____, _____, as PRINCIPAL, and _____,a Corporation, organized and existing under the laws of the State of Michigan, and duly authorized to transact business in the State of Michigan, as SURETY, are held and firmly bound unto THE CITY OF MT. PLEASANT, MICHIGAN, as obligee, and hereinafter called "OWNER", in the just and full sum of _____ Dollars and _____/100 ($_____-) lawful money of the United States of America, for the payment whereof, the PRINCIPAL and SURETY bind themselves, their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the above PRINCIPAL has entered into a written contract with the OWNER, dated March 13, 2012, for the work known as:

Well #16 Rehabilitation, Pump & Motor Inspection and Repair

in accordance with the plans and specifications prepared by THE CITY OF MT. PLEASANT, DIVISION OF PUBLIC WORKS, Mt. Pleasant, Michigan, which contract is hereby referred to and made a part hereof as fully and to the same extent as if the same were entirely written herein; and

WHEREAS, this bond is given in compliance with and subject to the provisions of the Act 213 of the Public Acts of Michigan for the year 1963, as amended by subsequent acts to date.

NOW, THEREFORE, the conditions of this obligation are such that if the PRINCIPAL shall, in all respects, well and truly keep and perform the said contract, and shall pay all sums of money due or to become due for any labor, materials, apparatus, fixtures or equipment furnished for the purpose of constructing the work provided in said contract, and shall defend, indemnify and save harmless the OWNER against any and all liens, encumbrances, damages, demands, expenses, costs and charges of every kind, except as otherwise provided in said contract documents, arising out of or in relation to the performance of said work and the provisions of said contract, and shall remove and replace any defects in the workmanship or materials, as provided by contract, then this obligation shall be null and void; otherwise, it shall remain in full force and effect; and PROVIDED, that any alterations which may be made in the terms of the said contract, or in the work to be done under it, or any extension of the time for the performance of said

contract or any other forbearance on the part of either part to the other, or the placing of an inspector or resident engineer thereon by the OWNER, shall not in any way release the PRINCIPAL and the SURETY, or either of them, their heirs, executors, administrators, successors, or assigns, from any liability hereunder. Notice to the SURETY of any alterations, extensions of or of any forbearance being hereby waived.

IN WITNESS WHEREOF, signed and sealed this __ day of _____.

WITNESSES: PRINCIPAL:

_____ By: _____ (Seal)

_____ By: _____ (Seal)

SURETY:

_____

_____ By: _____ (Seal)

Title: _____

LOCAL ADDRESS OF AGENT FOR SURETY:

_____
Name

_____
Address

[Form30]

City of Mt. Pleasant, Michigan

ADMINISTRATIVE MEMO NO 8-78

Issued: October 10, 1978
Revised: June 21, 1989

Subject: **MINIMUM INSURANCE REQUIREMENTS FOR CONTRACTORS**

Summary Statement

The provision of adequate insurance by persons and businesses working for the city or on street right-of-way is essential to protect the public from the costs of injury or damage and to protect the city from unnecessary liability resulting from the acts of persons and businesses working for the city. Minimum insurance requirements are needed to provide this protection.

Memo

Persons or businesses which provide professional services to the city under the terms of a written contract or provide labor and/or material to accomplish work for the city or for others on or over street right-of-way or other city property shall carry insurance and bonds to protect the public and the City from exposure to unnecessary financial risks.

Prior to signing of contracts, issuance of purchase orders or permits, or other authorization to begin work, certificates of insurance evidencing the purchase of insurance in amounts not less than required by the Administrative memo or bid specifications, whichever is greater, shall be filed with City Clerk. Such certificates shall:

a. Show that the insurance is currently in force and termination date of each policy.

b. State the limits of liability of the policies covered by the certificate.

c. Show that the City of Mt. Pleasant is to be specifically named in policy as an "additional insured" and should be issued to the City of Mt. Pleasant as the certificate holder.

d. Provide that the City will receive not less than 10 days written notice of the cancellation of any listed policy.

e. Be issued in the name of an insurance company authorized to conduct business in the State of Michigan.

Required bonds shall be filed with the City Clerk prior to the signing of contracts or other authorizations to proceed with work.

Insurance and bonds shall meet or exceed the following requirements. Exceptions to recognize more or less hazardous operations and financial risks should be considered and with approval of the City Manager may be made in specifications or contract requirements prior to awarding contracts or issuing purchase orders.

INSURANCE REQUIREMENTS

Type	Limit of Liability	Required of: City Contractor	Contractor on R-O-W
Worker's Compensation and Employer's Liability	Statutory Coverage B		
	$100,000	X	X
Public Liability (including products and completed operations liability)			
Bodily Injury	$250,000 each person	X	X
	$500,000 each accident	X	X
Property Damage	$250,000 each accident	X	X
	$250,000 each aggregate	X	X
Automobile Liability (including hired cars and automobile non-ownership)			
Bodily Injury	$250,000 each person	X	X
	$500,000 each occurrence	X	X
Property Damage	$250,000 each accident	X	X
	$250,000 each aggregate	X	X
Additional Insured Clause	City of Mt. Pleasant to be specifically named in policy as an "additional insured"	X	X
Excess Liability (Required unless risk occurrence is nominal)	$1,000,000 each	X	

Persons or businesses engaged to provide labor and material in an amount in excess of $10,000, or who will receive partial payments as work progresses will provide labor, performance and material bonds equal to the value of the work being performed. Such bonds are not required where the work to be done is of a type in which the failure to perform will not adversely affect the city's ability to function or increase the city's cost of completing the work.

[Form43]

City of Mt. Pleasant, Michigan

NOTICE TO PROCEED

TO: _____ DATE:

_____

_____

PROJECT description: Well # 16 Rehabilitation, Pump & Motor Inspection and Repair

You are hereby notified to commence WORK by _____, in accordance with the CONTRACT dated _____, and you are to complete the WORK by _____.

CITY OF MT. PLEASANT, MICHIGAN
Owner

By: _____
Roger Rousse, Director
Division of Public Works

RECEIPT OF NOTICE

Receipt of the foregoing NOTICE TO PROCEED is hereby acknowledged this _____ day of _____.

_____
Company Name

By: _____
Print or Type Name and Title

City of Mt. Pleasant
2012 Well #16 Rehabilitation,
Pump & Motor Inspection and Repair

SPECIFICATIONS

The City of Mt. Pleasant is accepting bids for the inspection and rehabilitation of Well #16, located at 3995 East Deerfield Road, Mt. Pleasant, to include all the materials specified below, labor, equipment, and chemicals. The Pump Installation Report is attached.

1. The contractor must be a licensed well driller with demonstrated experience in Type 1 municipal water wells.

Item 1: Rehabilitation - Work on Well #16 shall be as follows:

1. Provide before and after television logs of the well casing and screen with a copy of each furnished to the Owner.
2. The casing shall be swabbed and scoured.
3. The screen shall be cleaned with either acid and chemicals or sonar jet combined with chemicals.
4. After chemical cleaning, the debris from the well shall be bailed or air lifted from the well and screen.
5. After the pump has been reinstalled, the well shall be chlorinated. Contractor is responsible for cleaning and chlorinating the well to provide a bacteria-free well.
6. After chlorination and the installation of the pump, a Pump Efficiency Field Test shall be performed. The Efficiency Test Report shall be submitted to the Owner.

NORMAL OVERHAUL

Item 2 – Pump and Motor Repair - Well #16

1. Complete motor overhaul with bearings.
2. Reconditioning of the head.
3. Stuffing box bearings.
4. A set of packings.
5. Water slinger.
6. Copper tube air line complete with gauge and fittings.
7. Pressure gauge complete with petcock and fittings.
8. Set of discharge nuts, bolts, and gaskets.
9. All new rubber line shaft bearings.
10. Realignment of all shafting.
11. Set of bronze bowl bearings.
12. Set of bronze wear bearings.
13. Metalize and machine impellers.
14. H.T.H. chlorine to sterilize well and pump.
15. Grease and paint.

16. All labor to include: mobilization to job site, setup, complete pump removal, demobilization to your shop, clean entire pump for inspection, installation of parts in items 1-15, mobilization to job site, setup, set complete pump, chlorination, and final demobilization. Before pulling the pump from Well #16, an Increment Head Capacity Test must be run so that the condition of the wells can be determined.

Item 3: Major Pump Repair Parts - Well #16

1. Pump column.
2. Combination coupling.
3. Shaft with stainless steel sleeve and C.S. coupling.
4. Check valve replacement
5. Pump casing replacement

Layne NORTHERN COMPANY Well 16

INDIANAPOLIS • MISHAWAKA • LANSING

PUMP INSTALLATION REPORT

File No. _____

Sales Order No. 54-3311 Date 3-31-89

Pump Mfg. LAYNE Serial No. 75995 PUMP 85449 HEAD Well No. 15

Owner MT. PLEASANT City MT. PLEASANT State MICH

Location of Well SOUTH OF BROOMFIELD RD

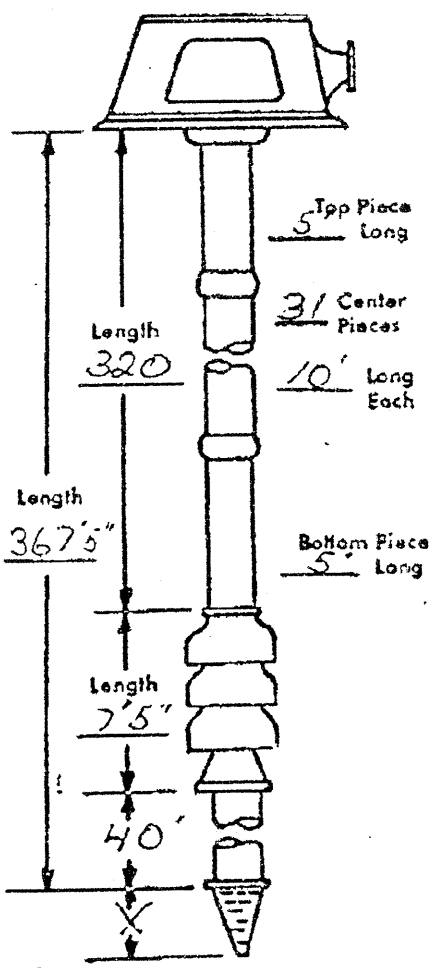
MOTOR: Make G.E. Type K Frame B-405TAIL Ser. No. SNS928118

HP 125 Volts 480 Line Voltage 480 Phase 3 RPM 1800

Was Motor Taken to a repair shop at this time? YES Where? LEM.

GEAR DRIVE: Make _____ Serial No. _____ Gear Ratio _____

ENGINE: Make _____ Model _____ Serial No. _____



PUMP HEAD Type TF1018

Discharge Pipe Size 10"

Located 2' above/below ground

Flanged YES Threaded _____

Separate Base Plate? NO

Head Shaft Length 5'2"

Dia. 1½" Coupled above X below _____

MOTOR SHAFT: Dia. 1½ Length 41¾

Thread Size in Head 1½ Keyway ⅜"

PUMP BOWL Type RKAH

Dia. 12" No. of Stages 7

Bowls - Cast Iron or ~~Bronze~~? GI

Shaft - SS X CS _____ Length _____

COLUMN Pipe Size 10"

Flanged _____ Coupled X

Special Paint? EPOXY

Oil Lube _____ Water Lube YES

Shaft Size 1½ SS _____ or CS X

Tubing Size _____ Stl _____ or Br _____

SUCTION PIPE Size 6"

Length 40' Special Paint? NO

Threads on Bottom? YES

Strainer NO Size _____

Rubber Bumper? NO

Well Seal? NO

NOTE — All measurements from top of pump foundation.

WELL INFORMATION

Inside Dia. 16" Depth 465' Static 6' Type: Gravel Wall / Tubular / Rock GW-1

Air Line Length 300' Strapped to Column? YES

Type Airline ¼" OD Plastic _____ Copper Tubing X Steel Pipe _____

PUMPING TEST - Pumped 622 GPM at 300+ Ft. Pumping Level _____

with 0 lbs. discharge pressure after ONE hours.

Pump to Waste Outside X Inside _____ Size 10" THD.O. FLANG

PULLING INSTRUCTIONS

Length of Poles required Big B.C. Special equipment or pulling instructions _____

Power Lines: NO

REMARKS: HAS #12 BOWLS + #15 EMPELLERS

Installer D. Stewart