

INVITATION TO BID

BID: #itb-fh-06-07-1316
ITEM: 2006 Fuel Tank Replacement Project
DEADLINE: Thursday, August 3, 2006, 10:00 a.m., local time
PREBID MEETING: N/A

1. SUBMISSION AND RECEIPT OF BIDS

Bids to receive consideration shall be received prior to the specified time of opening as designated on the bid form. **NO LATE BIDS WILL BE ACCEPTED.** The City reserves the right to postpone the bid opening for its own convenience. Bidders shall use the bid documents furnished as none other may be accepted. Bids are considered received when in the possession of the City Clerk. All Bids shall be labeled with the Bid # and Name as well as the aforementioned bid opening date/time on the outside of the envelope. Bids shall be sealed when submitted. Separate bids shall be submitted on each bid number and bids shall be typewritten or written in ink and legibly prepared. Bids having any erasures or corrections thereon may be rejected unless explained or initialed by the bidder. **If you are submitting a "No bid", do not follow the above directions but send a letter to the Purchasing Division indicating your desire to be kept on the bid list.** Bids shall be mailed or delivered to City of Farmington Hills, City Clerk's Office, 31555 Eleven Mile Road, Farmington Hills, MI 48336-1165 **before** the stated deadline. **No faxed or electronic bids will be accepted.**

2. RESPONSIVE BIDS

All pages and the information requested herein shall be furnished completely in compliance with instructions. The manner and format of submission is essential to permit prompt evaluation of all bids on a fair and uniform basis. Unless otherwise specified, the City reserves the right to accept any item in the bids. Bidders may submit bids on any item or group of items, provided however, that the unit prices are shown as required. Accordingly, the City reserves the right to declare as non-responsive, and reject any incomplete bid if material information requested is not furnished, or where indirect or incomplete answers or information is provided. Alterations to the written requirements will negate any response.

3. OFFICIAL DOCUMENTS

The City of Farmington Hills shall accept NO CHANGES to the bid document made by the Vendor unless those changes are set out in the "Exceptions" provision of the Authorized Version of the bid document. It is Vendor's responsibility to acquire knowledge of any change, modifications or additions to the Authorized Version of the bid document. Any Vendor who submits a bid and later claims it had no knowledge of any change, modifications or additions made by the City of Farmington Hills to the Authorized Version of the bid document, shall be bound by the bid, including any changes, modifications or additions to the Authorized Version. If a bid is awarded to a Vendor who claims that it had no knowledge of changes, modifications or additions made by the City of Farmington Hills to the Authorized Version of the bid, and that Vendor fails to accept the bid award, the City of Farmington Hills may pursue costs and expenses to re-bid the item from that Vendor. The Authorized Version of the bid document shall be that bid document appearing on the MITN with amendments and updates.

The City of Farmington Hills officially distributes bid documents from the Purchasing Division or through the Michigan Intergovernmental Trade Network (MITN). **Copies of bid documents obtained from any other source**

are not considered official copies. Only those vendors who obtain bid documents from either the Purchasing Division or the MITN system are guaranteed access to receive addendum information, if such information is issued. If you obtained this document from a source other than the sources indicated, it is recommended that you register on the MITN site, www.govbids.com, and obtain an official copy.

4. INTERPRETATION OF BID AND/OR CONTRACT DOCUMENTS

Any interpretation to a bidder regarding the Bid and/or Contract Documents or any part thereof is valid only if given by the City's Purchasing Division staff. Any information given by departmental contacts is unofficial. Interpretations may or may not be given orally (may be written) dependent upon the nature of the inquiry. Interpretations that could affect other bidders will be in writing and issued by the Purchasing Division. All inquiries shall be made within reasonable time prior to the stated deadline in order that a written response in the form of an addendum, if required, can be processed before bids are opened. Inquires received that are not made in a timely fashion may or may not be considered.

5. CHANGES AND ADDENDA TO BID DOCUMENTS

Each change or addendum issued in relation to this bid will be on file in the Purchasing Division. It shall be the bidder's responsibility to make inquiry as to the changes or addenda issued. All such changes or addenda shall become part of the contract and all bidders shall be bound by such changes or addenda.

6. SPECIFICATIONS

Unless otherwise stated by bidder, the bids will be considered as being in strict accordance with the City's applicable standard specifications, and any special specifications outlined in the bid document. Reference to a particular trade name, manufacturer's catalogue, or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of the City, and should not be construed as excluding bids on other types or materials, equipment and supplies unless otherwise stated. However, the bidder, if awarded the contract, will be required to furnish the particular item referred to in the specifications or description unless departure or substitution is clearly noted and described in the bid. The City reserves the right to determine if equipment/product or service being bid is equal to the specified equipment/product or service requested.

7. ALTERNATE BIDS

Bidders are cautioned that any alternate bid, unless requested by Purchasing, or any changes, insertions, or omissions to the terms and conditions, specifications, or any other requirements or this bid, may be considered non-responsive, and at the opinion of the City, may result in rejection of the bid.

8. PRICING

Prices shall be stated in units of quantity specified in the Bid Document. In case of a discrepancy in computing the amount of the bid, the unit price bid will govern.

9. QUANTITIES

All quantities stated, unless indicated otherwise are estimates and the City reserves the right to increase or decrease the quantity at the unit price bid as best fits its needs.

10. DELIVERY

Bids shall include all charges for delivery, packing, crating, etc., unless otherwise stated in the bid document. All deliveries will be FOB: Delivered. General delivery hours are 8:30 a.m. to 3 p.m. Monday-Friday.

11. TAXES, TERMS AND CONDITIONS

The City of Farmington Hills is exempt from Federal Excise and State Sales Tax. Please review The State of Michigan's REVENUE ADMINISTRATIVE BULLETIN 1999 – 2 for clarification <http://www.treas.state.mi.us/lawrules/rabs/1999/rab9902.htm> The City's tax number is 38-6006902. Payment terms are Net 30 days upon receipt and acceptance. Cooperative members will provide their tax-exempt status if required by the awarded vendor

12. AWARD

The bid will be awarded to that responsible, responsive bidder whose bid, conforming to this solicitation, will be most advantageous to the City, price and other factors considered. The City reserves the right to accept or reject any or all bids, in part or whole and to waive informalities and minor irregularities in bids received. Unless otherwise specified in the bid document the City reserves the right to accept any item in the bid on an individual basis. Bidders may submit bids on any item or groups of items provided unit prices are clearly shown and a notation is made on the bid document clearly indicating Bidder's intent.

13. WITHDRAWAL OF BIDS

Bids may be withdrawn in person by a bidder, or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the stated bid deadline. No bid may be withdrawn for at least 90 days after bid opening except the successful company whose prices shall remain firm for the entire contract period. In case of error by the bidder in making up a bid, the Purchasing Division staff may, by discretion, reject such a bid upon presentation of a letter by the Bidder which sets forth the error, the cause thereof, and sufficient evidence to substantiate the claim.

14. DEFAULT CONDITIONS

In case of default by the contractor, the City of Farmington Hills may procure the articles or services from other sources and hold the bidder responsible for any excess cost occasioned thereby. In case of error by the bidder relating to a Contract, the Purchasing Division may, by discretion, upon presentation of a written explanation by the bidder substantiating the error, reject the Contract and award to the next qualified bidder; such error may be subject to default conditions.

15. INFRINGEMENTS AND INDEMNIFICATIONS

The bidder, if awarded a contract, agrees to protect, defend, and save the City and the cooperative members listed herein, its officials, employees, departments and agents harmless against; any demand for payment for the use of any patented material, process, or device that may enter into the manufacture, construction, or from a part of the work covered by either order or contract; and from suits or a charge of every nature and description brought against if for, or on account of, any injuries or damages received or sustained by the parties by or from any of the facts of the contractor, the contractor's employees, or agents; from all liability claims, demands, judgments and expenses to persons or property occasioned, wholly, or in part, by the acts or omissions of the bidder, contractor, agents or employee.

16. INSURANCE(REQUIRED FOR WORK ON OR WITHIN CITY PROPERTY/FACILITIES)

The awarded bidder furnishing labor in/on City/public premises agrees to hold the City of Farmington Hills and cooperative members harmless from liability loss and will maintain minimum coverage outline below. An Acord form outlining coverage will be returned with the bid documents.

16.1.	General Liability	\$1,000,000.00
16.2.	Automobile Liability - Any Auto	\$1,000,000.00

- 16.3. Excess Liability \$1,000,000.00
- 16.4. Workers' Compensation and Employers Liability per State statute.

Additionally, the City of Farmington Hills will be named as additionally insured. Thirty days written notice of cancellation/reduction material change will be provided. All documents will be forwarded to the City of Farmington Hills, Purchasing Division, 31555 Eleven Mile Road, Farmington Hills, MI 48336-1165.

- 16.5 The Contractor shall be certified and licensed UST installer in the State of Michigan and maintain pollution liability insurance per MDEQ requirements. A copy of all required insurance shall be provided at the preconstruction meeting. The Contractor shall have the responsibility of notifying and coordinating reviews and inspections by all local and state officials, including the City of Farmington Hills Fire Department/Fire Marshal. All inspection and registration fees shall be paid by the Owner.**

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SITE VISIT

A site visit may be scheduled by contacting Jerry Brock 248-871-2872. All interested contractors should schedule a tour. It will be an excellent opportunity to view the area and to obtain additional information needed to complete the bid.

Any and all questions regarding this Proposal must be submitted in writing to the project coordinator, Jerry Brock 248-871-2872. Said questions must be received no later than the Friday, July 28, 2006. These questions and answers may be provided in writing as an addendum, where appropriate, to all those who are listed as having received a proposal package. Questions regarding the project and selection process shall be directed to Kelly Monico between the hours of 8:00 A.M. and 2:30 P.M., Monday through Friday. The evaluating team will respond through the above contact persons only.

BIDDER'S RESPONSIBILITY

Each bidder shall visit the site of the proposed work and fully acquaint himself with conditions, work site boundaries, terrain and area herein described so that he may fully understand the locations, difficulties and restrictions attending the execution of the work under the proposed contract. Bidders are encouraged to schedule a field meeting with a DPW Supervisor (248-871-2850) to ensure that the bidder is familiar with the locations, specifications and schedules called out in the specifications. Bidders shall thoroughly examine and be familiar with the drawings and contract documents. Any apparent omissions, errors or discrepancies in plans or specifications shall be reported to the engineer in ample time before the date of lettering. The failure or omission of any bidder to receive and examine any form, instrument, addendum or other document, or to visit the site and acquaint themselves with existing conditions, shall in no way relieve any bidder from any obligation with respect to his bid, or to the contract. The submission of a bid shall be taken as prima facie evidence of compliance with this section.

ESTIMATE OF QUANTITIES

The quantities listed in these documents are estimates and approximate only and such quantities are subject to increase or decrease. Should it be for the best interest of the City to do so, the City reserves and shall have the right to increase or decrease the quantities of work done under this Contract and to make changes in the plan and specifications that may increase or decrease quantities shall be negotiated under terms of these contract documents.

PRICES BID

The prices shall cover the costs of any nature, incident to and growing out of the work, in explanation, but not in limitation thereof, the prices stated in the Proposal by the bidder, shall include the cost of everything necessary for the performance and completion of this contract in the manner and time prescribed, including the furnishing of all material, tools, equipment, transportation, labor, supervision, all costs on account of loss by damage or destruction of the work, unforeseen difficulties encountered, for settlement of damages, for replacement of defective work and materials, and for all else necessary therefore and incidental thereto.

NAME, ADDRESS, AND LEGAL STATUS OF THE BIDDER

The name and legal status of the bidder, whether corporation, partnership, or individual, shall be stated in the Proposal. A corporation bidder shall give the state in which incorporated, a partnership bidder shall give all the names of the partners. Partnership and individual bidders will be required to state in the Proposal the names of all persons interested therein.

The place of residence of each bidder, or the office address in the case of a firm or company, with county and state must be given after his signature.

Anyone signing a proposal as an agent of another or others must submit with his proposal, legal evidence of his authority to do so.

QUALIFICATION OF BIDDER

The City may make such investigations as it deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the City all such information and data for this purpose as the City may request. Such information may include past performance records, list of available personnel, plant and equipment, description of work to be done simultaneously with the City's project, financial statement, or any other pertinent information. The City reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the City that such bidder is properly qualified to carry out the obligations of the Contract and to complete the work contemplated therein. Conditional bids will not be accepted.

BID SECURITY

Each bid must be accompanied by cash, certified check of the bidder, or a bid bond duly executed by the bidder as principal and having as surety thereon a surety company approved by the City, in the amount of 5% of the bid as a guarantee on the part of the bidder that he will, if called upon to do so, enter into contract in the attached form, to do the work covered by such Proposal and at the price stated therein and to furnish acceptable surety for its faithful and entire fulfillment. Such cash, checks or bid bonds will be returned to all except the three lowest bidders within a reasonable time after the accuracy of all the bids have been determined, and the remaining cash, checks or bid bonds will be returned promptly after the City and the accepted bidder have executed the Contract, or if no award has been made within ninety (90) days after the date of the opening of bids, upon demand of the bidder at any time thereafter, so long as he has not been notified of the acceptance of his bid.

If said bidder shall neglect or refuse to execute a contract, including all required bonds and insurance documents, within fifteen (15) days after written notice by the Owner, the amount of the bid deposit or bond shall be forfeited to the Owner as liquidated damages for such refusal or neglect.

PERFORMANCE BOND

The bids shall be accompanied by a letter from a surety company satisfactory to the City stating that the necessary bonds will be furnished by it to the Contractor bidding in the event he is successful.

The Bidder shall furnish a surety bond in an amount at least equal to the total bid, one hundred percent (100%) of the first year of the contract as security for faithful performance. The surety bond must remain in effect for the full term of the contract. The bond form included with this document shall be the one used.

LABOR AND MATERIAL BOND

The successful bidder shall be required to furnish a Labor and Material Bond in an amount at least equal to the total bid, one hundred percent (100%) of the first year of the contract sum as security for payment of all persons performing labor, furnishing materials and equipment rental in connection with this Contract. The surety bond must remain in effect for the full term of the contract. The bond form included with this document shall be the one used.

MAINTENANCE AND GUARANTEE BOND

The successful bidder shall be required to furnish a Maintenance and Guarantee Bond, equal to 25% of the contract sum, for a period of two (2) years from the date of approval of Final Estimate, to keep in good order and repair any defect in all the work done under this contract, either by the principal or his subcontractors. The bond form included with this document shall be the one used.

WITHDRAWING PROPOSAL

A proposal after being submitted may be withdrawn when a request is made in writing by the bidder before the time designated in the advertisement for the opening of proposals.

AWARD OF CONTRACT

The City reserves the right to reject any or all proposals, to waive irregularities and/or informalities, and to make the award that in the opinion of the City Council is in the best interest, and to the advantage of the City of Farmington Hills. The award of the contract will be made by the City Council of Farmington Hills or its designated representative within ninety (90) calendar days following the opening of the bids.

ORDER OF WORK

The right to prescribe the order in which the work called for under this contract is to be done will be retained by the City.

SUNDAY AND HOLIDAY WORK

There shall be no construction, regardless of the noise levels, on Sundays and legal holidays. When it is determined that special circumstances exist, or it is in the best interest of the City, allowances may be made to allow construction only in non-residential areas or where there is a threat to public health, safety or welfare. Permission must be given in writing and authorized by the City Manager or the Director of Public Services. A copy of the written authorization shall be forwarded to the Police Department. The contractor/builder receiving the authorization shall keep a copy of the authorization at the construction site.

LEGAL STATUS BIDDER

Fill out the appropriate section and strike out the other two.

Corporation: State in which incorporated: _____

Official title of person signing proposal: _____

Address of signer: _____

Names and Titles of the corporation's officers:

Name	Title
------	-------

_____	_____
-------	-------

Name	Title
------	-------

_____	_____
-------	-------

Name	Title
------	-------

_____	_____
-------	-------

Partnership:

Name of Members	Address
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_____	_____
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_____	_____
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_____	_____
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_____	_____
-------	-------

_____	_____
-------	-------

Individual:

Official Name	Address
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_____	_____
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_____	_____
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**ITEMIZED BID
 2006 FUEL TANK REPLACEMENT PROJECT**

ITEMIZED PROPOSAL:

The undersigned proposes to furnish the bid items listed below in accordance with the enclosed specifications and at the unit prices indicated.

DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	AMOUNT
1. Fuel tank replacement	LUMP SUM	1	\$	\$
2. Contaminated soil processing	CUBIC YARD	10	\$	\$
3. Contaminated water	55-gallon Drums	5	\$	\$
TOTAL BID				

OPTIONAL BID ITEMS(I & II):

DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	AMOUNT
1. Optional Canopy	EACH	1	\$	\$
2. Optional Concrete Replacement	CUBIC YARD	130	\$	\$
3. Pavement Sawcutting	LN. FT.	40	\$	\$

NOTE: The optional bid proposals are independent of the bid for the fuel tank replacement. The City reserves the right to accept or reject optional bid items (individually or collectively), without affecting the bidder's price on the fuel tank proposal project.

ACKNOWLEDGEMENT OF OFFICIAL DOCUMENTS

I _____, certify that I have read section 3 (Official Documents) of the invitation to bid and that the bid proposal documents contained herein were obtained directly from the City of Farmington Hills Purchasing Office of MITN website, www.govbids.com and is an official copy of the authorized version.

SIGNATURE OF AUTHORIZED COMPANY REPRESENTATIVE _____

AUTHORIZATION:

The undersigned herein submitted this proposal and agrees to enter into an agreement with the City of Farmington Hills in accordance with the contract documents. In submitting this complete and signed proposal, it is understood that the right is reserved by the City of Farmington Hills to reject any or all bids and to make such award that, in the option of the City Council, is in the best interest of the City of Farmington Hills.

NAME OF BIDDER: _____

BUSINESS ADDRESS OF BIDDER: _____

CITY/STATE/ZIP: _____

BUSINESS TELEPHONE NO. OF BIDDER: _____

FAX NO. OF BIDDER _____

EMAIL OF BIDDER _____

CONTACT PERSON _____

AUTHORIZED SIGNATURE: _____

TITLE OF SIGNER: _____

DATE OF SIGNATURE: _____

NOTE: All items set forth herein shall be bid in full accordance with these bidding and/or contract documents and accompanying plans, complete.

THE AGREEMENT

(TO BE COMPLETED ONLY AFTER AWARD)

THIS AGREEMENT, made and entered into this _____ day of _____, 20____, by and between the City of Farmington Hills, Oakland County, Michigan, Party of the First Part, hereinafter called OWNER, and Party of the Second Part, _____, hereinafter called the Contractor. WITNESSETH, that the Contractor and the Owner, for the consideration hereinafter named agree as follows:

ARTICLE I - THE WORK

It is agreed that the Contractor shall furnish all the labor, materials and equipment and perform all the work shown and called for on the drawings and described in the Specifications entitled

2006 FUEL TANK REPLACEMENT PROJECT

prepared by the City of Farmington Hills, Department of Public Services, Oakland County, Michigan, acting as, and in these Contract Documents entitled, the Engineer, and shall do everything required by the Contract Documents, the Contract Documents being hereby defined to include the Supplemental Specifications, Specifications, General Conditions and drawings, and any supplements hereto attached.

ARTICLE II - THE TIME

It is agreed that the Contractor shall begin work under this Contract upon receipt of written notice to proceed and shall execute it in such manner as will bring the entire work to completion within 30 calendar days after the date specified on the notice to proceed, except as such time limits may be advanced in accordance with the provisions herein. The notice to proceed, rate of progress, and date of completion are considered essential elements of the Contract.

It is agreed that if the Contractor shall be unavoidably delayed in beginning of fulfilling this contract by reason of excessive storm or floods or by acts of Providence, strikes, or by court injunction, or by stopping of the work by the Owner because of any emergency or public necessity, or reason of alterations ordered by the Owner, the Contractor shall have no valid claim for damage on account of any cause or delay; but he shall in such case be entitled to such an extension of the above time limit herein as the Engineer shall adjudge to be just and reasonable; provided, however, that formal claim for such extension shall be made in writing by the Contractor within a week after the date upon which such alleged cause or delay shall have occurred.

ARTICLE III - OWNER'S RIGHT TO COMPLETE

It is agreed that if at any time the Contractor should abandon this work; or if he should be adjudged a bankrupt, or if his performance of this Contract is being unnecessarily or unreasonably delayed; or if he should make a general assignment for the benefit of his creditors; or if a receiver should be appointed on account of his insolvency; or if he should persistently or repeatedly fail to supply enough properly skilled workmen or sufficient suitable materials for the work; or if he should habitually fail to make prompt payment to subcontractors or to pay promptly for materials and labor; or if he should persistently disregard laws or ordinances or the directions of the Engineer; or if he should willfully violate any of the substantial provisions of this Agreement; then in such case the Owner, after giving the Contractor and his sureties written notice thereof, may order him to discontinue all work under this contract, or any part thereof, and shall cease to have any right to the possession of the ground. The Owner shall have the right to finish the work, or part thereof, by contract or otherwise as he may elect, and for that purpose to take possession and make use of such materials, tools, building appliances

and equipment as may be found upon the work, and to charge the cost and expense of such completion to the Contractor. The Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the Contract price shall exceed the expense of finishing the work, including compensation for additional managerial and administrative services, the amount of such excess shall be paid to the Contractor; and if such expenses shall exceed such unpaid balance, the Contractor shall pay the Owner the amount of such excess.

It is further understood and agreed that the foregoing provisions of this article are without prejudice to any other right or remedy which the Owner may have under this Agreement.

ARTICLE IV - ASSIGNMENT OF CONTRACT

It is agreed that the Contractor shall not assign or transfer this Contract or sublet any part of the work embraced in it, except with the written consent of the Owner to do so. Any intent to use subcontractors shall be disclosed on the subcontractor form provided herein.

It is further agreed that all parts of the work which may be performed by a sub-contractor shall be done in conformity with and be subject to all the provisions of the Contract Documents exactly as if performed by the Contractor and his immediate employees and workmen. No subletting of the work shall in any way diminish or weaken the responsibility of the Contractor for all parts of the work or less his obligations and liabilities under this Agreement.

It is likewise agreed that the Contractor shall not assign, either legally or equitable, any of the monies payable to him under this Agreement, or his claim thereto, except with the written consent of the Owner.

ARTICLE V - INSURANCE

REFER TO INSURANCE REQUIREMENTS AS OUTLINED IN THE INSTRUCTIONS TO BIDDERS, GENERAL CONDITIONS, AND SPECIFICATIONS.

ARTICLE VI - PROTECTION OF PROPERTY

The Contractor shall protect all public property and private property from injury or loss arising in connection with this Contract. He shall, without delay, make good any such damage, injury or loss, and shall defend and save the City harmless from all such damages or injuries occurring because of his work.

ARTICLE VII – THE CONTRACT SUM

And it is agreed that, in consideration of the faithful and entire performance by the Contractor of his obligations under this contract, the Owner, shall pay to him, at the time and in the manner hereinafter stipulated, an amount as determined by the measured quantities and the respective unit prices herein name:

**CONTRACT SUM
 2006 FUEL TANK REPLACEMENT PROJECT
 CITY OF FARMINGTON HILLS – DPW**

ITEMIZED PROPOSAL:

The undersigned proposes to furnish the bid items listed below in accordance with the enclosed specifications and at the unit prices indicated.

DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	AMOUNT
1. Fuel tank replacement	LUMP SUM	1	\$	\$
2. Contaminated soil processing	CUBIC YARD	10	\$	\$
3. Contaminated water	55-gallon Drums	5	\$	\$
TOTAL BID				

OPTIONAL BID ITEMS:

DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE	AMOUNT
1. Optional Canopy	EACH	1	\$	\$
2. Optional Concrete Replacement	CUBIC YARD	130	\$	\$
3. Pavement Sawcutting	LN. FT.	40	\$	\$

NOTE: The optional bid proposals are independent of the bid for the fuel tank replacement. The City reserves the right to accept or reject optional bid items (individually or collectively), without affecting the bidder's price on the fuel tank proposal project.

IN WITNESS WHEREOF, the parties have caused these presents to be signed personally or by their duly authorized officers or agents and their seals affixed and duly attested the day and year first written above for the **2006 FUEL TANK REPLACEMENT PROJECT**.

City of Farmington Hills - Municipality

WITNESSES

BY: _____
Steve Brock, City Manager/Date

BY: _____
Kathryn Dornan, City Clerk/Date

CONTRACTOR

WITNESSES

_____ BY: _____
Signature (Company Officer)/Title

Print name
_____ BY: _____

Contractor's signature (s) must be notarized:

STATE OF)
 SS.
COUNTY OF)

Subscribed and sworn to before me this _____ day of _____, 20____.

Notary Public
_____ County, _____

My Commission Expires: _____

CITY OF FARMINGTON HILLS
STANDARD SPECIFICATIONS
FOR
FUEL TANK REPLACEMENT

The City of Farmington Hills Specifications for Fuel Tank Replacement includes, by this reference, the most recent Michigan Department of State Highways Standard Specifications for Highway Construction. The Michigan Department of State Highways Standard Specifications may be modified or supplemented by specifications that are included and made a part of the project proposed.

Should there be a discrepancy between the City of Farmington Hills General Specifications and the plans or Supplemental Specifications, the plans and Supplemental Specifications shall take precedence.

SUBCONTRACTORS

The contractor shall not sublet, assign or transfer the contract or any portion of any payment due the contractor hereunder, without the written consent of the City. If it is the intention of the bidder to use subcontractor(s) for any of the work called for herein, the bidder shall provide the information required for each subcontractor, below.

Name of Firm: _____

Contact Person: _____ Title: _____

Address: _____

Phone (____) _____ Fax # (____) _____

Work to be performed for general contractor: _____

Name of Firm: _____

Contact Person: _____ Title: _____

Address: _____

Phone (____) _____ Fax # (____) _____

Work to be performed for general contractor: _____

LABOR AND MATERIAL BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____
_____ of the _____
_____ hereinafter called the Surety, and held and
firmly bound unto the CITY OF FARMINGTON HILLS, Oakland County, Michigan in the sum of _____
_____ Dollars \$ _____ to the
payment whereof, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and
assigns, jointly and severally, firmly by these presents. Sealed with our seals and dated this _____ day of
_____, 20____.

This section will be filled out by the City of Farmington Hills

WHEREAS, the above-named Principal has entered into a certain contract with the City of Farmington Hills, hereinafter called the Owner, dated the _____ day of _____, 20____, for the 2006 Fuel Tank Replacement Project, (hereinafter called the Contract) which the contract and specifications for said work shall be deemed a part thereof, as fully as if set out herein.

AND WHEREAS, this bond is given in compliance with and is subject to all the provisions and conditions of P.A. No. 213, 1963, as amended, being M.S.A. 5.2321 (1) to 5.2321 (11), inclusive.

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH that if the above-named Principal, legal representatives, or successors shall pay or cause to be paid to all claimants, subcontractors, persons, firms and corporations, as the same may become due and payable, all indebtedness which may arise from said Principal to a claimant, a subcontractor or party performing labor for furnishing materials, or a subcontractor to any claimant, person, firm or corporation on account of any labor performed or materials furnished in connection with the contract construction, and work herein referred to, then this obligation shall be void; otherwise to remain in full force and effect.

This bond is given upon the express conditions that any changes, alterations, or modifications that may be hereafter recorded or made in the construction and complete installation of the work herein referred to, or the placing of an inspector or superintendent thereon by the Owner shall not operate to discharge or release the sureties thereon.

IN WITNESS THEREOF, the parties hereto have caused this instrument to be executed by their respective authorized officers this _____ day of _____, 20__.

_____(SEAL)

_____(SEAL)

Principal

_____(SEAL)

_____(SEAL)

Surety

Signed, sealed and delivered in the presence of:

Bonds correct in form:

Attorney

MAINTENANCE AND GUARANTEE BOND

KNOW ALL MEN BY THESE PRESENTS, THAT _____ as Principal, and _____ as Surety, are held and firmly bound unto the City of Farmington Hills, Oakland County, Michigan in the sum of _____ Dollars \$ _____ good and lawful money of the United States of America, to be paid to said City of Farmington Hills, its legal representatives, and assigns, for which payment well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, and each and everyone of them jointly and severally firmly by these presents.

Sealed with our seals and dated this _____ day of _____ A.D., 20_____.

This section will be filled out by the City of Farmington Hills

WHEREAS, the above named principal has entered into a certain written contract with the City of Farmington Hills, dated this _____ day of _____ 20____, wherein the said principal covenanted and agreed as follows:

NOW, THEREFORE, the condition of this obligation is such, that by and under said Contract, the above named principal has agreed with the City of Farmington Hills, that for a period of two (2) years from the date of approval of Final Estimate, to keep in good order and repair any defect in all the work done under said Contract, either by the principal or his subcontractors, or his material suppliers, that may develop during said period, due to improper materials, defective equipment, workmanship or arrangements, and any other work affected in making good such imperfections, shall also be made good all without expense to the Owner, excepting only such part or parts of said work as may have been disturbed without the consent or approval of the principal after the final acceptance of the work, and that whenever directed so to do by the City of Farmington Hills by notice served in writing, either personally, or by mail, on the principal at _____ OR _____, legal representatives, or successors, or on the surety at _____ will proceed at once to make such repairs as directed by said City of Farmington Hills; and in case of failure so to do within one week from the date of service of such notice, or within reasonable time not less than one week, as shall be fixed in said notice, then the said City shall have the right to purchase such materials and employ such labor and equipment as may be necessary for the purpose, and to undertake, do and make such repairs, and charge the expense thereof to, and receive same from said principal or surety.

If any repair is necessary to be made at once to protect life and property, then and in that case, the said City may take immediate steps to repair or barricade such defects without notice to the contractor. In such accounting, the said City shall not be held to obtain the lowest figures for the doing of the work, or any part thereof, but all sums actually paid therefore shall be charged to the principal or surety. In this principal for a period of two (2) years from the date of approval of Final Estimate shall keep said work so constructed under said contract in good order and repair, excepting only such part or parts of said work which may have been disturbed without the consent or approval of said principal after the final acceptance of same and shall, whenever notice is given as herein before specified, at once proceed to make repair as in said notice directed, or shall reimburse said City for any expense incurred by making such repairs, should the principal or surety fail to do as herein before specified, and shall fully indemnify, defend and save harmless the said City from all suits and actions for damages of every name and description brought or claimed against it for or on account of any injury or damage to person or property received or sustained by any party or parties by or from any of the acts or omissions or through the negligence of said principal, servants, agents, or employees, in the prosecution of the work included in said contract, then the above obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their respective authorized officer this _____ day of _____, 20_____.

Signed, Sealed and Delivered in the Presence of :

_____ L.S.

_____ L.S.

* Amount equal to 25% of the Contract Sum.

GENERAL CONDITIONS OF CONTRACT

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GENERAL CONDITIONS

1. DEFINITIONS

The following terms used in this contract shall be construed and defined as follows:

- "Board" - "Owner" - The persons, firm, corporation, or governmental agency for whom the work is being done.
- "Engineer" - The Engineer appointed by the Board or Owner, acting personally or by any of its authorized agents.
- "Contractor"- The person or firm contracting to perform the work.
- "Subcontractor" - The person or firm employed by the Contractor to furnish materials or service whether or not he employs labor at the site of the work.
- "Work"- All labor, materials, equipment, transportation, construction equipment and other facilities necessary to be done or furnished by the Contractor to complete the contract.

"Written Notice" shall be deemed to have been "duly served" when such notice shall have been given or mailed to the Contractor of his superintendent at the site of the work or the address set forth herein, or when such notice shall have been given or mailed to the Owner at the address set forth herein.

2. EXECUTION, CORRELATION AND INTENT OF DOCUMENTS

The original and two counterparts of the Contract shall be signed by the Owner and the Contractor.

The work under this Contract shall consist of the items listed in the proposal, including all incidentals necessary to fully complete the project in accordance with the Contract Documents.

3. CONTRACT DRAWINGS AND SPECIFICATIONS

The work to be done is shown on the accompanying set of original drawings, Specifications and General Conditions prepared by the City of Farmington Hills, and are hereby made a part of this Contract, it being mutually understood and agreed that when taken together, the plans and contract documents, including the Specifications and General Conditions, are complimentary, and what is called for by any one shall be binding as if called for by all. The intent of the Contract Documents is to include in the contract price the cost of all labor and materials, water, fuel, tools, plant, equipment, light, transportation and all other expenses as may be necessary for the proper execution and completion of the work.

These original drawings may be supplemented by other drawings furnished by the Contractor and approved by the Engineer or supplied to the Contractor by the Engineer during the progress of the work as he may deem to be necessary or expedient. All such supplementary contract drawings or instructions are intended to be consistent with the Contract Documents, true developments thereof and reasonably inferable therefrom. Therefore, no extra charge will be allowed on a claim that particular supplemental contract drawings or instructions differed from the Contract Documents, incurring extra work, unless the Contractor has first brought the matter, in writing to the Engineer's attention for proper adjustment before starting on the work covered by such and has received from the Engineer an order in writing to so proceed. These original and supplementary drawings constitute the drawings according to which the work is to be done. The Contractor shall keep at the site of the work an approved or conformed copy of all drawings and specifications and shall at all times give the Engineer or Owner access thereto.

If any inconsistency, omission or conflict shall be discovered in either specifications or drawings, or if in any place the meaning of either or both shall be obscure, or uncertain, or in dispute, the Engineer shall decide as to the true intent of the documents, and said Engineering decision shall be final and conclusive and binding on all of the parties in interest.

4. SHOP DRAWINGS

Where called for in the specifications, the Contractor shall submit to the Engineer for approval in not less than two copies, details, specifications, cuts, and drawings of such equipment and structural work as may be required. The Contractor shall make any changes or alterations required by the Engineer, and re-submit same without delay. The approval of the Engineer shall not relieve the Contractor or responsibility for errors in the drawings as the Engineer's checking is intended to cover compliance with the drawings and specifications and not to enter into every detail of the shop work. No work shall be undertaken until the Engineer has approved the shop drawings.

5. GUARANTEE

The Contractor, as a condition precedent to final payment, shall execute an approved guarantee through a Maintenance and Guarantee Bond furnished by the same company furnishing Labor and Material and Performance Bonds for the particular improvement and in the amount of the Contract to the Owner warranting for a period of two years from the date of final payment to keep in good order and repair any defect in all the work done under the contract, either by the Contractor or his subcontractors, or the material suppliers, that may develop during said period for any reason due to improper materials, defective equipment, workmanship, or arrangements, and any other work affected in making good such imperfections shall also be made good, all without expense to the Owner.

6. INFORMATION BY THE CONTRACTOR

The Contractor shall submit to the Engineer, full information as to the materials, equipment and arrangements which the Contractor proposes to furnish. This information shall be complete to the extent that the Engineer may intelligently judge if the proposed materials, equipment and arrangements conform to the requirements of the contract.

The approval of information covering materials, equipment and arrangements by the Engineer shall in no way release the Contractor from his responsibility for the proper design, installation and performance of any material, equipment or arrangement, or from his liability to replace same, should it prove defective.

7. GENERAL REQUIREMENTS FOR MATERIALS AND WORKMANSHIP

In the specifications where a particular material or piece of equipment is specified by reference to some particular make, type, or equal, it is not the intent to limit competition but to set up by such reference a standard of quality most easily understood and defined. If materials or equipment of other make or type than that specified by name are offered by the Contractor, they will be given full consideration by the Engineer and the Engineer's decision will be final and binding on all the parties in interest as to whether the materials or equipment offered are equal to those specified.

Unless otherwise stipulated in the specifications, all equipment, materials and articles incorporated in the work covered by this contract are to be new and of the best grade of their respective kinds for the purpose. The Contractor shall if required, furnish such evidence as to kinds and quality of materials as the Engineer may require.

The Contractor shall furnish suitable tools and building appliances and employ competent labor to perform the work to be done, and any labor or tools or appliances that shall not in the judgment of the Engineer be suitable or competent to produce this result, may be ordered from the work by him and such labor or tools or appliances shall be substituted therefore by the Contractor as will meet with the approval of the Engineer, provided however, that this approval by the Engineer shall not render said Engineer in any way liable for any claims of any nature because of this approval. If not otherwise provided,

material or work called for in this contract shall be furnished and performed in accordance with well known established practices and standards recognized by Architects, Engineers and the trades.

Progress of Work and Regular Cleanup

The intent of these specifications is to provide qualitative guidelines for the orderly execution of the contract requirements. Insofar as the Contractor make satisfactory progress and maintains an effective cleanup crew following the construction operations, the direction of the work force shall be solely his responsibility. If, however, in the judgment of the Owner, adequate cleanup and site restoration efforts are not being expended, including but not limited to; roadway, driveway and drainage maintenance, removal of surplus materials, restoration of signs, mailboxes and like items, further construction shall be halted and work forces directed to the restoration activity until proper order is restored. This shall not be construed as cause for additional compensation.

8. TESTING AND SAMPLING

Where called for in the specifications, samples of materials in the quantity named shall be submitted to the Engineer for approval. Where tests are required, they shall be made at the expense of the Contractor, except as otherwise called for in the Specifications. For materials covered by ASTM or Federal Specifications, unless otherwise stipulated, the required tests are to be made by the manufacturer and his certificates, therefore submitted to the Engineer.

9. LINE AND GRADE

The Engineer will set suitable stakes and marks showing the locations and elevations of the various parts of the work, but the Contractor shall provide such special stakes, labor and assistance as the Engineer may require in setting the same. No work shall be undertaken until such stakes and marks shall have been set by the Engineer. The Contractor shall take due and proper precautions for the preservation of these stakes and marks, and shall see to it that the work at all times proceeds in accordance therewith.

For tunnel work, the Contractor shall accurately locate the work from the reference points established by the Engineer and shall be responsible for the proper setting of the model, both as to line and grade. He shall use such methods and means as are necessary to properly do this work. The Engineer will carry line and grade down to the bottom of each shaft. The Contractor will start and carry on the work from the points thus established. As the work progresses and the tunnel masonry is completed, the Engineer will carry forward along the completed work, reference points both as to line and grade, from which points the Contractor shall set the models and carry forward the work. It is the intent that such points will be maintained up to distances not greater than 120 feet behind the open heading. The Contractor shall furnish and set proper wood blocks where requested so as to facilitate the establishing of the reference points.

10. PATENTS AND ROYALTIES

The Contractor shall indemnify, keep and save harmless the Owner from all liabilities, judgments, costs, damages and expenses which may in any way come against the Owner by reason of the use of any patented materials, machinery, devices, equipment or processes furnished or used in the performance of the work under this contract or by reason of the use of patented design furnished by the Contractor and accepted by the Owner. Such liability of the Contractor shall apply in the case of a patented process only when said process is used by the Contractor and of his own volition. In the event of any claim, suit or action at law or inequity of any kind, whatsoever, is made or brought against the Owner involving any such patents, then the Owner shall have the right to retain from the money due and to become due the Contractor, such sufficient sum to protect itself against loss as shall be considered necessary by the Owner and such sum may be retained by the Owner until such suit or claim shall have been settled and evidence to that effect shall have been furnished to the satisfaction of the Owner.

11. PERMITS AND REGULATIONS

The Contractor shall secure at no cost to the Owner, all permits and licenses necessary for the prosecution of the work. The Contractor shall keep himself fully informed of all laws, ordinances and regulations in any manner affecting those engaged or employed in the work, or the materials used in the work, or in any way affecting the conduct of the work and of all orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. He shall at all times observe and comply with, and shall cause all his agents and employees to observe and comply with all existing and future laws, ordinances, regulations, orders and decrees. Provided, that if the drawings and specifications are at variance therewith, the Contractor shall promptly notify the Engineer in writing and any necessary changes shall be adjusted as provided in the agreement.

12. PROTECTION OF WORK AND PROPERTY

The Contractor shall continuously maintain adequate protection of all his work from damage and shall protect all public property and private abutting property from injury or loss arising in connection with this Contract. He shall, without delay, make good any such damage, injury or loss, and shall defend and save the Owner harmless from all such damages or injuries occurring because of his work. He shall furnish and maintain all passageways, barricades, guard fences, lights and danger signals, provide watchmen and other facilities for protection required by public authority or by local conditions, at no additional cost to the Owner.

In an emergency affecting the safety of life or of the work or of adjoining property, the Contractor, without special instruction or authorization from the Owner, shall take such action as may be necessary to prevent such threatened damage, injury, or loss.

The Contractor shall assume full responsibility of loss or damage to the work during the entire construction period resulting from caving earth and from storms, floods, frosts and other adverse weather conditions, and from all other causes whatsoever not directly due to the acts or neglect of the Owner and shall turn the finished work over to the Owner in good condition and repair at the time of the final estimate. This responsibility of the Contractor shall cover all those elements included as alterations under this contract in exactly the same manner as the regular work is covered.

13. RESPONSIBILITY FOR ADJOINING STRUCTURES

The Contractor shall assume full responsibility for the protection of all pavements, curbs, bridges, railroads, poles and any other surface structures and all water mains, sewers, telephone lines, gas mains and any other underground services and structures along and near the work which may be affected by his operations, and shall indemnify, defend, and save harmless the Owner against all damages or alleged damages to any such structure arising out of his work. The Contractor shall bear the cost of repair or replacement of any such structure damaged as a result of his operations.

The Engineer has endeavored to show on the plans the locations of all existing structures, including improved roadways and utilities, both on surface and underground. Should it be necessary to remove such structures to install the new work, the Contractor shall include the cost of removing and replacing in his bid price, unless otherwise specified.

No trees or shrubbery of any kind shall be removed or destroyed by the Contractor without the consent of the Owner. Ample precautions shall be taken by the Contractor to protect such trees and shrubs as are to remain in place by surrounding them with fences or other protection before construction work begins. Shrubby that has to be removed shall be preserved in a manner acceptable to the Owner. Details concerning removal and/or replacement of trees and shrubs are specified in General Specifications.

14. MAINTENANCE OF SERVICE

At the completion of the working day, all road and driveway crossings shall be maintained with a slag surface throughout the contract, or until the surface is restored to its final approved condition. All drainage must be open and flowing freely at the

end of each day where existing conditions presently permit ditch flow or where this can be accomplished with minimal ditching. Maintenance, as described herein, shall be considered incidental to the completion of the project.

Drainage through existing sewers, drains, ditches and other water courses shall be maintained at all times during construction and all nearby gutters and drainage systems shall be kept open for drainage. Where existing sewers are encountered in the line of the work which interfere with the construction, the flow in the sewers including both dry weather flow and storm flow, shall be maintained by constructing a satisfactory flume, or by pumping, or by both.

All detours shown on the Drawings or required because of the Contractor's operation, shall be built and maintained at the Contractor's expense. All mailboxes disrupted, removed, or disturbed during the course of construction shall be temporarily relocated and reset to a serviceable location, as directed by the Engineer. This temporary relocation shall occur immediately after the disruption, removal or disturbance of such mailbox in order that mail service may be continuously maintained. When the project has been completed and accepted, the mailboxes shall be reset by the Contractor in accordance with local postal regulations, as well as in accordance with all other state and local statutes, which can be obtained from the Post Office at no cost to the owner or the City. Any mailboxes or posts damaged by the Contractor shall be replaced with mailboxes and/or posts equivalent to those existing at the expense of the Contractor and at no cost to the owner or the City.

Safety precautions shall be followed at all street openings. Substantial barricades shall be erected as deemed necessary to prevent accidents to vehicular or pedestrian traffic and red flags by day, yellow lights by night, shall be diligently posted by the Contractor at all points of possible danger. In case detours or other traffic instructions are necessary, suitable warning or direction signs shall be erected and maintained by the Contractor.

15. STORAGE OF MATERIALS

Materials and equipment distributed, stored and placed upon or near the site of the work shall at all times be so disposed as not to interfere with work being prosecuted by other Contractors in the employ of the Owner, or with street drainage, or with fire hydrants or with access thereto, and not to hinder any more than may be necessary the ordinary traffic of the street.

16. RELATION TO OTHER CONTRACTORS

The Contractor shall so conduct his operations as not to interfere with or injure the work of other contractors or workmen employed on adjoining or related work, and he shall promptly make good any injury or damage which may be done to such work by him or his employees or agent. Should a contract for adjoining work be awarded to another contractor, and should the work of one of these contracts interfere with that of the other, the Engineer shall decide which contractor shall cease work for the time being and which shall continue or whether the work in both contracts shall continue at the same time and in what manner.

17. ENGINEER'S STATUS

Construction review of the work shall be done by the Engineer. Such review shall mean the authority to reject all work and materials which do not conform to the plans and/or technical construction specifications being part of the total Contract; to direct and determine the sequence of operations in order to expedite the work in an orderly and workmanlike manner, not in situations or under conditions of an emergency nature which may develop on site; and to decide engineering questions which may arise resulting from interpretation of the intent of the plans and technical specifications to properly execute the work. To enforce this construction review, the Engineer has the authority to stop the work until the particular problem has been corrected.

In accordance with generally accepted construction practices, the Contractor will be solely and completely responsible for conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours. The duty of the Engineer to conduct construction review of

the Contractor's performance is not intended to include review of the adequacy of the Contractor's safety measures, in, on, or near the construction site.

18. FACILITIES FOR INSPECTION

The Owner, the Engineer and their employees shall at all times have the right to enter upon the premises upon which work is being done, or upon which material is stored for the work under this contract and to inspect the work and materials, and to ascertain whether or not the construction is carried out in accordance with this contract, and the Contractor shall furnish all reasonable facilities, and give ample time for such inspection. All materials shall be subject to mill and shop inspection, as provided in the specifications. The Contractor shall promptly remove from the premises all materials rejected by the Engineer as failing to meet contract requirements, whether incorporated in the work or not, and the Contractor shall replace and re-execute his own work in accordance with the contract and without expense to the Owner and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.

If the Contractor does not remove such rejected work and materials promptly after written notice, the Owner may remove them and store the material at the expense of the Contractor.

19. CONTRACTOR'S RESPONSIBILITY

The Contractor shall assume full responsibility for the work and take all precautions for preventing injuries to persons and property on or about the work, shall bear all losses resulting to him on account of the amount or character of the work, or because the conditions under which the work is done are different from what was estimated or expected, or on account of the weather, floods, elements, or other causes and he shall assume the defense and save harmless the Owner and its individual officers and agents from all claims relating to labor provided and materials furnished for the work; to inventions, patents and patent rights used in doing the work; to injuries to any persons or property received or sustained by or from the Contractor, his agents or employees in doing the work or arising out of the work performed or to be performed; and to any act, or neglect of the Contractor, his agents or employees.

The mention of any specific duty or liability of the Contractor in this or in any part of the Contract Documents shall not be construed as a limitation or restriction upon any general liability or duty imposed on the Contractor by the Contract Documents.

20. CONTRACTOR'S SUPERVISION AND ORGANIZATION

The work under this contract shall be under the direct charge and direction of the Contractor. The Contractor shall give efficient superintendence to the work, using his best skill and attention. The Contractor shall at all times keep on the site of the work, during its progress, a competent superintendent and any and all necessary foremen and assistants. The superintendent shall represent and have full authority to act for the Contractor in the latter's absence, and all directions given to him shall be as binding as if given to the Contractor. On written request in each case, all such directions will be confirmed in writing to the Contractor. The Contractor shall employ only competent, efficient workmen and shall not use on the work any unfit person or one not skilled in the work assigned to him, and shall at all times enforce strict discipline and good order among his employees. Whenever the Engineer shall notify the Contractor, in writing, that any man on the work is in the opinion of the Engineer, careless, incompetent, disorderly, or otherwise unsatisfactory; such man shall be discharged from the work and shall not again be employed on it, except with the written consent of the Engineer.

The Contractor shall establish and maintain an office on the site of the work, or at some convenient point adjacent thereto, during the continuance of this Contract and shall have at all times during working hours, a representative authorized to receive and execute any and all orders, when given by the Engineer; and such order, when given out and received by said representative, shall be deemed to have been given to and received by the Contractor. Copies of the drawings and specifications shall at all times be kept on file by the Contractor at readily accessible points near the work.

21. SUB-CONTRACTS

The Contractor shall not sublet, assign, or transfer this contract or any portion thereof or any payment due him thereunder, without the written consent of the Owner.

Assignment or subletting the whole or any portion of this contract shall not operate to release the Contractor or his bondsmen hereunder from any of the contract obligations.

The Contractor shall, as soon as practicable after the signing of the contract, notify the Engineer in writing of the names and subcontractors proposed for the work and shall not employ any that the Engineer may object to as incompetent or unfit.

If the Contractor shall cause any part of the work under this Contract to be performed by a subcontractor, the provisions of this Contract shall apply to such subcontractor and his officers and employees in all respects as if he and they are employees of the Contractor and the Contractor shall not be in any manner thereby relieved from his obligation and liability; and the work and materials furnished by the subcontractor shall be subject to the same provisions as if furnished by the Contractor.

22. ERRORS AND CORRECTIONS IN DRAWINGS AND SPECIFICATIONS

The Contractor shall examine and check all drawings and specifications furnished by the Owner for dimensions, quantities, and coordination with other parts of the work on this or related contract and shall notify, in writing, the Engineer of any and all errors, omissions, or discrepancies he may discover by examining and checking of same. The Contractor shall not be allowed to take advantage of such error, omission, or discrepancy, as full instructions will be furnished by the Engineer, and the Contractor shall carry out such instructions as if originally specified. In no case shall the Contractor proceed with the work in uncertainty, and any work done by the Contractor after the discovery of any error, omission, or discrepancy, until authorized, will be at the Contractor's risk and responsibility. The work is to be made complete and to the satisfaction of the Engineer, notwithstanding any minor omissions in the specifications or plans.

23. CHANGES IN THE WORK

The Owner shall have the right to require, by written order, changes in addition to, or deductions from the work required by the Contract Documents; provided that if changes, additions, or deductions are made, the general character of the work as a whole is not changed thereby. Adjustments in the Contract price, if any, because of any change, addition, or deduction in the work shall be determined as hereinafter provided, and any claim for extension of time for completion shall be adjusted at the time of ordering the change, addition, or deduction. No claim for change, addition, or deduction, or adjustment of price, or extension of time for completion thereof, shall be made or allowed unless done in pursuance of a written order from the Owner specifically authorizing such change, addition, or deduction. Drawings without a written order shall not be considered such authority. Written notice of such claims shall be made to the Engineer before the commencement of the work. Where the written order diminished the quantity of work to be done, this shall not constitute a basis for a claim for damages or anticipated profits on the work that may be dispensed with.

Under circumstances, which in the judgment of the Engineer, so necessitates the Engineer shall have authority to require, by written order, changes, in addition to, or deductions from the work. Such written order by the Engineer shall be subject to later confirmation by the Owner when the extent and costs have been established.

It is understood and agreed that in case any change in, addition, to, or deduction from the work is required, said change shall in no way invalidate the Contract and shall not affect or discharge the bonds furnished by the Contractor.

The Contractor, without extra charge, shall make such slight alterations as may be necessary to make adjustable parts fit to fixed parts, leaving all complete and in proper shape when done.

24. BASIS FOR DETERMINING COST OF CHANGES IN THE WORK

Adjustments, if any, in the contract price by reason of change in the work shall be limited to the amount specified in the written order authorizing the change in the work. Adjustments shall be determined by one or more of the following methods, the Owner reserving the right to select the method or methods at the time the written order is issued.

- (a) An acceptable lump sum proposal: To facilitate checking and acceptance, the proposal shall be itemized with quantities and prices given for the various items.
- (b) Unit prices: The unit prices may be the "Unit Price" set in the Agreement, or fixed by subsequent agreement between the Owner and the Contractor.
- (c) On a cost-plus limited-basis: Not to exceed a specified maximum limit of cost.

"COST" as herein used shall be the actual and necessary costs incurred by the Contractor by reasons of the change in the work for:

- (1) Labor
- (2) Materials
- (3) Equipment rental
- (4) Insurance premiums

(1) Labor Costs shall be the amount shown on the Contractor's payrolls with payroll taxes added when such taxes can be shown to have been incurred. In no case shall the rates charged for labor exceed the rates paid by the Contractor for the same class of labor employed by him to perform work under the regular items of the contract.

(2) Material Costs shall be the net price paid for material delivered to the site of the work. If any material previously required is omitted by the written order of the Owner after it has been delivered to or partially worked on by the Contractor and consequently will not retain its full value for other uses, the Contractor shall be allowed the actual cost of the omitted material less a fair market value of the material as determined by the Owner.

(3) Equipment Rental shall be the actual additional cost incurred for necessary equipment. Costs shall not be allowed in excess of usual rentals charged in the Detroit district for similar equipment of like size and condition, including the costs of necessary supplies and repairs for operating the equipment. No cost, however, shall be allowed for the use of equipment on the site in connection with other work unless its use incurs actual and additional costs to the Contractor. If equipment not on the site is required for the change in the work only, the cost of transporting such equipment to and from the site shall be allowed.

(4) Insurance Premiums shall be limited to those based on labor payroll and to the types of insurance required by the Contract. The amount allowed shall be limited to the net cost incurred as determined from the labor payroll covering the work. The Contractor shall, upon request of the Owner, submit verification of the applicable insurance rates and premium computations.

"PLUS" as herein used is defined as a percentage to be added to the items of "COST" to cover superintendence, use of ordinary tools, bonds, overhead expense and profit. The percentage shall not exceed 15 percent on work done entirely by the Contractor and shall not exceed an aggregate total of 20 percent on work done by a subcontractor.

"SPECIFIED MAXIMUM LIMIT OF COST" is the amount stated in the written order of the Owner authorizing the change in the work. The amount to be allowed the Contractor shall be the "Cost" and "Plus" the percentage or the specified maximum, whichever is the lesser amount.

The Contractor shall keep complete, accurate, daily record of the net actual cost of charges in the work and shall present such information in such form and at such times as the Owner may direct.

25. USE OF COMPLETED PORTIONS OF THE WORK

The Owner may, at any time during the progress of the work after written notice to the Contractor, take over and place in service any completed portions of the work which are ready for service, although the entire work of the Contract is not fully completed, and notwithstanding the time for completion of the entire work or such portions that may not have expired. In such event, the Contractor will be relieved of further work on or maintenance of said portion, except as covered by his guarantee of same.

26. PAYMENT WITHHELD

The Owner may withhold or, on account of subsequently discovered evidence, nullify the whole or a part of any certificate for progress payment to such extent as may be necessary to protect itself from loss on account of:

- a) Defective work not remedied.
- b) Claims filed or reasonable evidence indicating probable filing of claims.
- c) Failure of the Contractor to make payments properly to subcontractors or for material or labor.
- d) A reasonable doubt that the Contract can be completed for the balance then unpaid.
- e) Damage to another Contractor.

When the above grounds are moved, payment shall be made for amounts withheld because of them.

27. CONTRACTOR'S RIGHT TO STOP WORK

If the work should be stopped under an order of any court or other public authority for a period of three months, through no act or fault of the Contractor or of anyone employed by him; or if the Owner should fail to pay to the Contractor within sixty days of its maturity and presentation any sum certified by the Engineer, provided no appeal is taken, the Contractor may, upon seven days written notice to the Owner and the Engineer, stop work or terminate this Contract and shall receive from the Owner payment in full for all work executed, as determined from the prices contained in the approved detailed estimate as computed by the Engineer, but no claim for extra compensation or damages shall be made or allowed because of such termination of the Contract.

28. "OR EQUAL CLAUSE"

Whenever in any of the Contract Documents an article, material, or equipment is defined by describing a proprietary product, or by using the name of a manufacturer or vendor, the term, "or equal", if not inserted, shall be implied. The specific article, material or equipment mentioned shall be understood as indicating the type, function, minimum standard of design, efficiency and quality desired and shall not be construed in such a manner as to exclude manufacturers' products of comparable quality, design and efficiency. The Contractor shall comply with the requirements of the Contract Documents relative to an Owner's approval of materials and equipment before they are incorporated in the work.

29. CLEANING-UP

The Contractor shall, as directed by the Engineer, remove at his own expense from the Owner's property and from all public and private property all temporary structures, rubbish and waste materials resulting from his operations. This requirement

shall not apply to property used for permanent disposal of rubbish or waste materials in accordance with permission of such disposal granted to the Contractor by the Owner thereof.

30. SAFETY

All construction procedures shall comply with the Safety Code of the State of Michigan and appropriate portions of the Occupational Safety and Health Act, 1970.

31. EMERGENCY REPAIR

When the Contractor is not actively performing work on a particular construction site, but where delayed construction operations, testing and/or surface restoration work yet remains to be completed to meet the requirements of the specifications, situations arise of an emergency nature as a result of such uncompleted work which may affect directly or indirectly, public and/or private property, or which may ultimately, either indirectly or directly, affect the health, safety and welfare of individuals or the general public. Since it is the continued delay in the correction of these deficiencies which has long been a source of concern, trouble and inconvenience to the Owner, the Contractor and the public, the intent of this article is to provide a procedure to eliminate these problems as they may occur. While these problem situations can and do readily develop as emergencies, the Engineer shall direct field related operations and require immediate efforts by the Contractor to remedy the deficiency in a method of his choosing because of his expertise in the field, time being of the essence. The correction of the "emergency" which may arise when no activity exists on the construction site shall be handled in the following manner:

1. The Engineer shall inspect the site, take any necessary photographs and/or prepare any necessary sketches of conditions at the site to determine that the situation constitutes an emergency.
2. The Engineer then has three alternative sources of manpower and equipment to be selected to remedy the emergency situation in the following order:
 - a) The Contractor under contract with the Owner to perform all work on the site location in question;
 - b) The City's Division of Public Works; or
 - c) An independent contractor designated by the Owner.

Since the nature and extent of most unfinished work on a particular construction site is well known by both the Engineer's authorized agent and the contractor at the time of declaring such an "emergency situation" as set forth hereinbefore; the Contractor under contract to the Owner for the particular project, would be the first party notified and would be expected to respond immediately with necessary manpower and equipment to remedy the problem.

If a reasonable time to respond to the emergency notification is not evident, in the best judgment of the Engineer, then the Contractor shall be judged to have waived his rights to physically correct the problem, but not his obligations to pay for such physical correction or damages resulting therefrom. The Engineer shall then contact the City's Division of Public Works for their assistance in correcting the "emergency situation". Where existing commitments by the Division of Public Works prohibit their immediate response to the request by the Engineer, the Engineer shall finally direct that corrective measures be performed by the independent contractor previously contacted with by the Owner to perform such emergency work when so directed.

Since the cost for all remedial work undertaken by the Contractor on this project shall be borne by the Contractor and it is necessary to engage the services of the Division of Public Works or an independent contractor, then all costs incurred would be deducted from monies due and payable to the contractor on the particular project as set forth on any ensuing regular job estimates.

Typical costs which will be deducted from contract monies due would be as set forth hereafter:

1. Payroll wages, benefits and taxes.
2. Material bills.
3. Equipment rental (Detroit area rates) and moving costs.
4. 15% profit and overhead for independent contractor.
5. 10% Administrative costs.
6. Inspection costs.

32. NOTIFY MISS DIG

The Contractor is responsible to notify Miss Dig for all sites within this contract. Three (3) days advance notice must be given. No work shall be performed unless sites are properly staked.

CALL MISS DIG AT 1-800-482-7171

GENERAL SPECIFICATIONS INDEX

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NOTE: All items listed under General Specifications are incidental to the construction of this project, unless otherwise specified in the Supplemental Specifications.

1. UTILITIES FOR PROSECUTING THE WORK

Unless otherwise provided in these specifications, the Contractor shall make his own arrangements for items such as electricity, gas, water and sewer services for his use in field offices and for construction of the work, including temporary power installation for use in completing his contract, and shall pay all costs therefore.

2. SPECIFICATIONS BY REFERENCE

Where reference is made in specifications or standards of any technical society, association, governmental agency, etc., it is understood and agreed that such specifications or standards are a part of the Specifications as though fully repeated therein.

The following listed letters or abbreviations shall be interpreted as indicated:

- "A.S.T.M." shall mean the American Society for Testing Materials.
- "A.W.W.A." shall mean the American Water Works Association.
- "A.S.A." shall mean the American Standards Association.
- "A.I.S.I." shall mean the American Iron and Steel Institute
- "M.D.O.T." shall mean the Michigan Department of Transportation.

3. CLEANLINESS AND PROGRESS OF THE WORK

The Contractor shall keep the work and all property occupied by him in a neat and orderly condition at all times. Waste materials, rubbish and debris shall not be allowed to accumulate. Contractor's equipment, temporary buildings, and excess materials shall be promptly removed as they become no longer needed for the progress of the work. At the completion of the work, the premises shall be left raked clean.

4. STREET CLEANLINESS

The Contractor shall clean and keep clean the streets, the work and public or private property occupied by him, from waste materials or refuse resulting from his operations. Trucks hauling excavated materials, cement, sand, stone or other loose materials from or to the site shall be tight so that no spillage will occur on adjacent streets. Before trucks start away from the site, their loads shall be trimmed. Should the Contractor be negligent of his duties in maintaining the proper street cleanliness, the Owner will take necessary steps to perform such cleaning and shall charge the Contractor for all the costs.

5. MAINTENANCE OF TRAFFIC

During the progress of the work, the Contractor shall accommodate both vehicular and pedestrian traffic as provided in these specifications and as indicated on the drawings. In the absence of specific requirements, the Contractor shall maintain such traffic. However, the Contractor shall provide for the following:

a) General Traffic Control:

All construction signing and traffic control shall be in accordance with the guidelines and provisions of the Michigan Manual of Uniform Traffic Control Device. The Contractor shall provide barricades and advance warning signs as specified on the Signing Diagrams, or as directed by the Engineer, and provide any signs and barricades within the project area necessary to protect traffic. The Contractor shall not begin any operation on the project until all of the specified/necessary signs have been installed and approved by the Engineer. The Contractor shall provide, attach, and maintain three yellow battery operated flasher lights on each Type III barricade, including those barricades on detour routes, if designated, and one yellow battery operated flasher light on each barricade and channelizing device furnished by the Contractor. There shall be two yellow battery operated flasher lights on each advance warning sign specified on the plans.

b) Existing Warning and Regulatory Signs:

Existing traffic control signs and street name signs shall be removed, temporarily reset and maintained by the Contractor. Upon completion of the project, traffic control signs and street name signs will be reset in their proper position in accordance with the City's sign inventory or at the direction of the Engineer. All existing permanent signs on this project are to be preserved and maintained as incidental to the project. All signs which are damaged during the course of construction will be charged to the contractor. The City will inventory all signs at the beginning of a project, and upon project completion, before final acceptance is made.

c) Partial Street and Access Obstructions:

Where streets are partially obstructed, the Contractor shall place and maintain temporary driveways, ramps, bridges and crossings that are necessary to accommodate the public. In the event of the Contractor's failure to comply with the foregoing provisions, the Owner may, with or without notice, cause the same to be done and deduct the cost of such work from any monies due or to become due the Contractor under this contract; but the performance of such work by the Owner, or at his insistence, shall serve in no way to release the Contractor from his liability for the safety of the traveling public.

d) Flag Control:

The Contractor shall direct traffic using flag control in accordance with the specifications of the Michigan Manual of Uniform Traffic Control Devices and M.D.O.T.'s Current Standard Specifications for Construction. The Contractor shall use flag control for all construction operations that interfere with normal traffic flow and where specified by the Engineer. All advanced signing and equipment shall be incidental to the project or included in the specified flag control pay item.

e) Miscellaneous:

Along with the above, the Contractor shall provide flagmen, warning signs and barricades as necessary to direct and protect vehicular and pedestrian traffic, as determined necessary by the Owner.

Job instruction signs, such as "Danger", "Keep-Off", etc. shall be furnished, erected and maintained by the Contractor as may be required to safely conduct the work. Such signs shall be neat appearing, kept in good condition and promptly removed when their usefulness has expired.

6. DISPOSAL OF EXCAVATED MATERIAL

Excavated material permitted to be used for backfill may be deposited along line of work where working room permits. All materials in excess of the quantity permitted for backfilling and all materials unsuitable for backfilling shall be hauled away by the Contractor. Where the surplus excavated material is wanted by the Owner, it shall be disposed of within the incorporated limits of the Governmental Agency at locations which are designated by the Owner or his representative, all at the Contractor's expense. Material not wanted by the Owner shall be disposed of by the Contractor at sites obtained by him, at his expense. He shall provide all labor and equipment for spreading such materials at the place of dumping and shall leave such areas in a neat and generally level condition.

7. FINAL CLEANUP AND GRADING

Upon completion of construction and before final payment is due, the Contractor shall restore his working area to as clean a condition as existed before his operations were started. He shall go over the entire line of work and refill any places that may have settled. He shall then regrade and put in shape all backfilled trenches, all fills he may have made from excess excavated materials, and all other areas that may have been disturbed through his operations. For final inspection, the Contractor, on request of the Engineer, shall supply assistance and tools and other equipment necessary for making a complete inspection.

8. PUBLIC AND PRIVATE UTILITIES

The Engineer has endeavored to show all existing subsurface and surface utility facilities, both public and private, on the plans. However, there is no guarantee that all such facilities are shown and there is no guarantee that the locations designed and the elevations shown are correct. It is understood that the Contractor shall contact all utility companies, public or private prior to starting construction to verify all locations and elevations.

Where any utilities, public or private, such as water, sewer (storm or sanitary), gas, telephone, electric, sprinkler systems or any other are encountered, the Contractor must provide adequate protection for them and he will be held responsible for any damages to such utilities arising from his operations. When it is apparent that construction operations may endanger the foundation of any such utility conduit, cable, or the support of any utility structure or appurtenance, the Contractor shall notify the utility owner of this possibility and he shall take such steps as may be required to provide temporary bracing or support. When it is necessary in order to carry out the work that a pole, electric or telephone, structure, or any other conduit or cable be moved to a new location, or moved and replaced after construction, the Contractor shall arrange with the Owner of the utility, public or private, for the removing of such pole or poles, or other conduit or cable, and shall pay all costs therefore.

Where it is the policy of any utility owner to make his own repairs to damaged conduit or other structures, the Contractor shall cooperate to the fullest extent with the utility and he shall see that his operations interfere as little as possible with those operations and shall bear all costs therefore.

9. HOURS OF WORK

City ordinances require that construction activity is allowed only between the hours of 7:00 a.m. and 7:00 p.m., Monday through Saturday. When it is determined that special circumstances exist or it is in the best interest of the City, allowances may be made to allow construction only in non-residential areas or where there is a threat to public health, safety, or welfare. Permission must be given in writing and authorized by the City Manager or the Director of Public Services. A copy of the written authorization shall be forwarded to the Police Department. The contractor/subcontractor/builder receiving the authorization shall keep a copy of the authorization at the construction site at all times.

10. CONTRACTOR'S INFORMATION

Information to be submitted by the Contractor, relative to materials, equipment and arrangements, shall be in the form and presented in the manner herein specified. The Engineer shall determine the form in which the various information is to be submitted, whether by drawings, specifications, lists, cuts, samples or otherwise.

In general, drawings shall be required to show shop and field fabrication, assembly, or erection, and to show arrangements. Specifications shall supplement the drawings whenever in the opinion of the Engineer such are required, and shall be used when drawings are not required.

Any information prepared by other than the Contractor for submission to the Engineer, shall first be sent directly to the Contractor, who shall keep adequate records of such information and be responsible for submitting it to the Engineer at the proper time so as to prevent delays in the work. The Contractor shall thoroughly check all information to be submitted as regards measurements, sizes, materials, and details, to satisfy himself that it conforms to the contract requirements. Information found to be incorrect, incomplete, or otherwise in error, shall be returned to its original source for correction before submission to the Engineer. After the information has been approved by the Contractor, he shall place thereon the date of his approval and the signature of the checker and submit the information to the Engineer.

If any of the information, (duplicate copies are originally required) submitted by the Contractor is found by the Engineer to not meet the contract requirements, one copy of such information shall be returned to the Contractor by the Engineer, marked with the notation, corrections or changes that are required. Returned unapproved information shall be revised or corrected by the Contractor and resubmitted as before.

After the work has been completed, information previously approved shall be corrected to correspond to the work as actually installed, in case there is any difference, and submitted to the Engineer in duplicate as a prerequisite to final payment.

11. SAMPLES FOR TEST

The Contractor shall furnish all samples of materials necessary for tests as determined by the Engineer. All samples taken for analysis and tests shall be taken in such manner as to be truly representative of the entire lot under test. The Contractor shall furnish such assistance and facilities as the Engineer may require for collecting, storing and curing samples. He shall also pay the cost of delivering the testing.

12. SOURCE OF MATERIALS AND EQUIPMENT

The Contractor shall be free to secure the approved materials and equipment from sources of his own selection. However, if the Engineer finds that the work will be delayed or adversely affected in any way because a selected source of supply cannot furnish a uniform product in sufficient quantity, or the product is not suitable for the work, the Engineer shall have the right to require the original source of supply be changed by the Contractor. The Contractor shall have no claim for damage for additional compensation because of this requirement.

13. MATERIALS, DELIVERY, STORAGE AND HANDLING

All material shall be so delivered, stored and handled as to prevent the inclusion of foreign materials and the damage of materials by water or breakage. Packaged materials shall be delivered in original, unopened packages and stored until ready for use. Package of materials showing evidence of damage shall be rejected.

All materials that have been stored shall be subject to re-test and must meet the requirements of their respective specifications at the time they are used in the work.

14. WATER

All water used in connection with the work shall be from the local water department. The Contractor shall secure the required permit from the local Department of Water Supply for water used and shall bear all expenses of such permit and for the water used. Where water is not available from a local water department, the Contractor shall obtain his own source of supply, the quality of which shall be subject to the approval of the Engineer.

15. CONTROL SURVEYS

The Engineer shall survey lines and grades as may be necessary for the proper control of the work, but this shall not relieve the Contractor of responsibility for making careful and accurate measurements and for constructing the work to the lines shown on the drawings.

The Contractor shall furnish and place all necessary lumber and other material and give assistance at the site for staking out the work. The Contractor's working operations which interfere with the Engineer's surveying activities shall be temporarily suspended for such reasonable time as the Engineer may deem necessary. The Contractor shall receive no extra compensation for any materials or services furnished by him incidental to these operations of the Engineer. The Contractor shall carefully preserve the points furnished by the Engineer and any points destroyed on the part of the Contractor shall be re-established by the Engineer at the expense of the Contractor.

16. **BACKFILL**

For purposes of these specifications, backfill shall be considered as that material placed in open cut excavations above an elevation 12 inches over the outside top of the utility or installation.

- a) Backfill for all trenches in public rights-of-way when whole or any portions thereof lie under, cross or run within 5.0 feet of an parallel to proposed or existing concrete, asphalt or aggregate surfaced roadways, or combinations thereof, driveways, parking areas or walkways, shall be porous material as defined hereafter and mechanically compacted in place in one (1) foot layers or less to a minimum compaction of 95%.
- b) Unless specified elsewhere, all trenches under road shoulders defined as the area from the edge of pavement, whether concrete or asphalt to the adjacent road ditch or the area within eight (8) feet of said pavement edge, whichever is the lesser, shall be backfilled as described under (a) above. Aggregate surfaced roadways with parallel ditches shall not be considered to have a shoulder area so that backfill of all trenches between top of banks of parallel road ditches adjacent to the traveled aggregate roadway shall be as described in (a) above.
- c) Backfill for all trenches not included in limitations described under (a) and (b) above or in permanent easements adjacent thereto or permanent easement across graded and improved sites, all unless specified elsewhere may be selected excavated material (excluding blue clay) mechanically compacted in place to produce a minimum 90% compaction.
- d) When select excavated material is permitted to be used for backfill, this material shall be free of rocks, rubble, roots, stumps, refuse, organic materials, blue clay, and other materials which would not, in the opinion of the Engineer, facilitate compaction or assume proper settlement or which would damage or displace the utility or installation.
- e) Specified compaction means not less than the percentage required based on the maximum unit weight at optimum moisture content when tested in accordance with AASHTO Specification T-180 or ASTM D-1557-64T. If the excavated material is not suitable to obtain the minimum compaction required, the Contractor shall at his expense, remove unsuitable material or add porous materials, or both, to obtain the compaction specified. Compaction tests will be made by a representative of the Owner and paid for by the Owner, unless otherwise specified.
- f) Whatever type of backfilling is required, its costs shall be included in the price bid per lineal foot of installing the utility or installation.
- g) Porous backfill material shall meet the following gradation specifications where specified on the plans, or elsewhere in the contract.
 1. Gravel, stone or slag meeting gradation requirements of M.D.O.T. Specification designation 21A or 22A.
 2. Gradation requirements of M.D.O.T. Specification for Porous Material Grade "A", approved by the Engineer.
 3. Gradation requirements of M.D.O.T. Specification for Porous Material Grade "B", approved by the Engineer.
 4. Approved bank-run sand or sand-gravel uniformly graded that will contain less than 10% clay or loam and pass a 3/4 inch mesh screen respectively, approved by the Engineer.
 5. Class II sand or gravel backfill shall conform to M.D.O.T. Specification No. 8.02.06 of the 1990 Standard Specifications for construction.

17. MORTAR FOR BRICK WORK AND PIPE JOINTS

Mortar for brick work or block work in sewers or appurtenances and for pipe joints shall be mixed by volume in the proportions of one part Portland cement to two parts sand. A bag of cement shall be considered one cubic foot. The cement and sand shall be first mixed dry to a uniform color in a batch mixer or a tight mortar box, and then mixed thoroughly with water which shall be added gradually to the required consistency. Mortar shall be mixed in batches of such sizes as will be used within one hour. Any mortar which has set sufficiently to require retempering shall not be used.

The amount of material in the sand removable by decantation shall not exceed 2% by weight. Not less than 90% of the material shall pass a No. 8 sieve and at least 95% shall be retained on a 100 sieve.

18. CONCRETE GRADING

Different grades of concrete shall meet compressive strength as follows:

Grade AA.....	4000 lbs.....	28 days
Grade A.....	3500 lbs.....	28 days
Grade B.....	3000 lbs.....	28 days
Grade C.....	2500 lbs.....	28 days

19. FINAL TRIM AND CLEANUP

The following items shall constitute Final Trim and Cleanup, the damage, repair, or replacement of which shall be the responsibility of the Contractor. The cost of this work shall be incidental to the cost of the project, unless otherwise specified elsewhere in this proposal.

- a) All concrete pavements, gravel roadways, with or without asphalt surfacing driveways or service drives and approaches to same, either concrete, gravel or asphalt surfaced and all sidewalks or house walks disturbed by the Contractor shall be replaced. All necessary removal and replacement shall meet the current specifications of the governmental unit or agency having jurisdiction.

When the utility as proposed for construction will be located under an existing concrete pavement, and when the residual pavement is five feet or more in width, it may be left in place. However, if the residual pavement is less than five feet from a pavement joint or from the face of the curb, it shall be removed and replaced. If the residual pavement to be removed is adjacent to the curb, the curb shall be removed and a new curb poured integral with the pavement. All concrete pavement which is not removed to a joint shall be saw cut to a depth equal to 2/3 thickness prior to removal. All concrete pavement replaced shall be to a thickness with or without reinforcing mesh and with or without hook bolts as required by the Governmental Agency having jurisdiction thereof. All damaged or undermined pavement shall be removed and replaced.

All concrete pavement and/or driveway approaches under the jurisdiction of the City of Farmington Hills shall meet the specifications for Grade AA, 3500 lb. concrete, with air-entrained cement, course aggregate gradation equal to City pavement standards and properly cured with white membrane curing compound.

If the pavement removed has an asphaltic concrete surface, the surface shall be removed to a distance one foot beyond the limits of the removed concrete pavement. The butt joint in asphaltic concrete removal shall be prepared by sawing through the total depth of asphaltic concrete. The surface shall be replaced with a nominal thickness of asphaltic concrete meeting the requirements of the Agency having jurisdiction both as to materials and method of replacement.

All asphalt replacement under the jurisdiction of the City of Farmington Hills shall be M.D.O.T. Div. 4, No. 11 bituminous mixture modified with 20AA aggregate, minimum 50% crushed, with asphalt penetration 85-100.

When the utility as proposed for construction will be located under an existing gravel pavement, an equivalency of 8" of 22A roadside gravel shall be placed over approved compacted sand backfill, as stated in Item 28 of these General Specifications. It shall be maintained at this thickness and blended in to provide a smooth, continuous, uniform grade.

b) All necessary grading shall be done to fit adjoining ground elevations.

Where existing drainage ditches are disturbed or destroyed, they shall be restored to the original cross-section by the Contractor. Where there are no existing drainage ditches within the limits of the contract, drainage ditches shall be installed to the standard cross-section for ditches or as directed by the Engineer.

c) Established lawn areas disturbed by the Contractor shall be restored in the following manner:

- 1) All lawn areas damaged during the work shall be graded and seeded as described in this section. Sod shall be required instead of seeding at locations indicated on the Drawings or when ordered by the Engineer. Where sodding is required, the Contractor shall restore the existing lawn areas with Class A sod, as specified in Section 6.53 "Turf Establishment" of the 1990 M.D.O.T. Standard Specifications for Construction. All sod shall be placed on a two-inch bed of topsoil. This topsoil shall be rich black earth, free from sod, stones, weed stalks, or debris.
- 2) When seeding is required, the Contractor shall rebuild the existing lawn areas with Class A seed, as specified in Section 6.53 "Turf Establishment" of the 1990 M.D.O.T. Standard Specifications for Construction, except that Class A seed shall be sown at a rate of 200 lbs/acre and will not be paid for until satisfactory germination has been accepted. The top four inches (4") of trench backfill shall be made with selected topsoil preserved or secured elsewhere for this purpose.

This topsoil shall be rich black earth, free from sod, stones, weed stalks, or debris. The trench surface shall be carefully raked to an even level with all stones, sticks, and other debris removed. The lawn seed mixture shall be distributed in an amount not less than twenty pounds of 10-6-4 commercial fertilizer per one thousand square feet into the area. Seed shall not be sown between June 15 and August 15, or between October 15 and April 15, or at any time when the soil has insufficient moisture to insure proper germination. After sowing, the surface shall be lightly raked with a steel garden rake or equivalent, and rolled with a light lawn roller. Seeded areas shall receive a proper mulch of clean wheat or oat straw, chopped to a maximum length of three inches. All lawn repair, whether seeding or sodding shall be incidental to laying the pipe unless listed as a separate bid item on the proposal. Contractor shall be responsible for the watering of the lawn areas for a period of 14 calendar days after seeding and sodding.

- 3) Shrubs, small trees and other planting which may be damaged during any phase of the work shall, with the permission of the owner, be replanted as directed, or removed to an area provided by the Contractor and "heeled in" until such time as they can be replanted in their original location. The work shall be done in an acceptable manner and the Contractor shall be required to replace any shrubs or trees that fail to survive.
 - d) Private ornamental gas or electric lights, fences, shrubs, rip-rap material, small out buildings and similar items placed or installed in street rights-of-way or public or private utility easements by the property owner shall be carefully removed and placed on the adjacent property at the location designated by the property owner.
 - e) Items under "d" above where damaged or disturbed in construction easements, or private property adjacent thereto, shall be repaired and/or restored to original condition.

20. EROSION AND SEDIMENT CONTROL

In compliance with the Soil Erosion and Sedimentation Control Act (P.A. 347 of 1973), the City of Farmington Hills has adopted by reference the latest rules promulgated by the Michigan Department of Natural Resources relative to said Act.

In general, the Contractor shall take necessary precautions to positively prevent erosion and resultant sediment run-off into existing open or enclosed drains, because all such run-off eventually reaches natural streams. To accomplish such control, it may be necessary to build various types of gravel filters, sand bag traps, straw bale traps or barriers or other approved means to filter sediment or combinations of same. For these S.A.D. projects, we suggest the consideration of utilizing the following types of sediment control, either singly or in combination, or other means which may prove equally effective. (See Detail Sheet).

1. Stone outlet filter within a straw bale berm;
2. Stone outlet filter within an earth berm;
3. Straw bale diversion berm;
4. Ditch sediment trap.

In each case, the purpose is to settle out and/or filter out the sediment being carried away in storm flow as a result of removing natural vegetation (or hard surface areas) and exposing subsoil's during construction operations. It will be necessary to construct such erosion control systems during construction, so they will be functional at any and at all times. It is absolutely necessary to inspect operational erosion control installation after each storm and perform any needed repairs, cleaning of filter media or other adjustments as may be required.

The erosion and sediment control systems must remain in operable condition until final site restoration has been accomplished, to-wit:

- a) All areas to receive sod are properly sodded.
- b) All areas to receive seed and mulch are so treated and the new grass reaches acceptable growth and density.
- c) All areas to be resurfaced (drives, walks, roadways) are paved; and
- d) In general, all surplus earth has been removed and no areas disturbed during construction remain vulnerable to further erosion as a direct result of the construction activity.

All costs for this work, installation, materials, labor, and maintenance shall be considered incidental to the project.

SUPPLEMENTAL SPECIFICATIONS

CITY OF FARMINGTON HILLS DIVISION OF PUBLIC WORKS 2006 FUEL TANK REPLACEMENT PROJECT

The City of Farmington Hills is accepting bids for replacement of the underground fuel storage tanks at the DPW facility located at 27245 Halsted Road, Farmington Hills MI (map attached). The project consists of removal of two 10,000-gallon tanks and installation of a new single 20,000-gallon, two-compartment tank per the site plan sketch (this and other graphic specifications only available by calling the DPW at (248) 871-2850). Although the City will pay the cost of the permits, it remains the contractor's responsibility to provide plans, shop drawings, information, and forms as required by the governing agency(s).

All materials used in the course of this project shall be new, unless otherwise specified. The existing fleet management system shall be reinstalled and returned to full operation, per manufacturer's specifications. All fuel dispensing systems and electronic components of the fuel management system shall be removed by qualified technicians and stored at a specified storage location at the DPW. The fuel dispensing system shall be reinstalled and returned to full operation, per manufacturer's specifications.

These specifications reference specific makes and models in order to establish a minimum acceptable standard. Such references are not intended to eliminate any manufacturer from the bidding process. Compliance with the "spirit of the specification" is not acceptable. Deviations shall be clearly called out in writing and explained in an attachment to the bidder's submitted proposal. Failure to follow these instructions may constitute grounds for elimination of the bidder's proposal from consideration. Deviations will be permitted only if determined to be in the best interest of the City.

The unit prices called out in the itemized proposal shall include all necessary labor, equipment, materials and incidentals to complete the project as specified. All soft costs and miscellaneous costs shall be included with the first bid item; Fuel Tank Replacement. Unit prices called out for optional items shall be complete, including all necessary labor, equipment, materials, and incidentals. No hidden costs or extras.

Permits:

All permits, registrations and other paperwork are the responsibility of the successful contractor.

All permit and inspection documents required for this project, including the fuel island canopy, shall be administered by Tom Williams, Farmington Hills Building official (or his designee), and Jerry Brock, Project Manager/DPW Supervisor.

Applicable building permits and plan reviews are required. All building and electrical **inspections must be completed and approved** by the Building Division prior to approval of payment. DPW will pay the permit fees.

Site Conditions--Failure or Omission: Before submitting a proposal, each bidder must make a careful study of these specifications and proposal, and fully assure itself as to cost, quality, and quantity of the materials required, and/or services. The Prospective bidder must visit and inspect the Farmington Hills DPW property to fully inform itself as to all existing conditions and limitations and availability of services required that may effect the execution of the work under the contract. The DPW yard is open Monday through Friday, 7:00 AM to 3:00 PM, for this review (also refer to specification for construction hours). Failure to visit and be acquainted with conditions at the site shall in no respect relieve the bidder from any obligation imposed by their proposal or by contract. The submittal of a bid shall be taken as prima facie evidence of compliance with all instructions contained herein.

The fact that any item or procedure is not specifically called out in this specification does not excuse the contractor from supplying all items necessary for the proper performance of this fueling station at the DPW. The contractor's proposal

must cover all contingencies, including all labor, equipment, materials, and incidentals necessary for completion of the contract as specified.

Environmental Consultant

The City of Farmington Hills is hiring an environmental consultant. The successful bidder shall work in cooperation with the consultant to make certain the City of Farmington Hills is compliant with all specifications and regulatory standards/obligations. The consultant shall have the authority to issue a stop work order, if circumstances warrant.

The contractor shall follow practices that ensure environmental due diligence to prevent contamination or exposure while performing activities associated with this project.

Contractor Certification

The Contractor shall be certified and licensed UST installer in the State of Michigan and maintain pollution liability insurance per MDEQ requirements. A copy of all required insurance shall be provided at the preconstruction meeting. The Contractor shall have the responsibility of notifying and coordinating reviews and inspections by all local and state officials, including the City of Farmington Hills Fire Department/Fire Marshal. All inspection and registration fees shall be paid by the Owner.

Cleanup:

The work zone shall be kept clean, safe, and orderly on a daily basis. No hazardous or unbarricaded excavations shall remain at the end of the work day. Once begun, the work shall be continuous, there shall be no interruptions to the work progress other than delays caused by weather.

Shop Drawings and As-Builts

The contractor shall submit two (2) copies of shop drawings of the fuel system for review and approval one week prior to the scheduled start of work, or as required by MDEQ. Drawings shall include all critical dimensions, locations of fittings and accessories, manholes, risers, spill containers, piping schematic, manways, pavement penetrations, hold-down straps, secondary containment collar, etc. The drawings shall include a project footprint and two dimensional elevations.

During and following construction, drawings shall be corrected by the contractor to accurately illustrate the project "as-built". As-built plans shall be submitted to the City for review and approval before final payment can be released. The underground tank system design shall keep pavement penetrations to a minimum and compliant with code. The manholes, risers, spill containers and fill boxes shall be located at the south fuel island to protect these appurtenances from truck and snow plow damages. The design shall incorporate a remote tank fill system in the fuel island per the design drawings.

Governing standards:

- State Fire Marshall Office, Department of Environmental Quality, Department of Natural Resources, Environmental Protection Agency, Farmington Hills Fire Department and Farmington Hills Building Department.
- ASTM current specification for Glass Fiber Reinforced Polyester Underground Petroleum Storage Tanks.
- U.L. Underwriters Laboratories, Inc. Underground Storage Tanks, piping and components for Petroleum Products. Underwriters Laboratories (UL) Standard for Safety 1316, File MH 9061 for storage of flammable liquids.
- National Fire Protection Association (NFPA) Standards
- National Fire Protection Association (NFPA 30 Flammable and Combustible Liquids Code, [NFPA 31] Standards for Installation of Oil-Burning Equipment, [NFPA 30A] Automotive and Marine Service Station Code, [NFPA 70] National Electrical Code.
- Plastic Piping System Components and Related Materials, Standard 15.
- General Service Administration, Public Building Service Guide current Specification, PBS: 1568.

- All tanks and piping shall be properly installed in accordance with manufacturer's instructions
- "Petroleum Equipment Institute Publications, Recommended Practices for Installation of Underground Liquid Storage Systems" or "American Petroleum Institute Publication Installation of Underground Petroleum Storage Systems."
- Current U.L.Non-metallic pipe standard and pipe connections for flammable and combustible gas.
- Current ASTM Specifications for steel, black, hot-dipped, zinc-coated welded and seamless pipe.
- Current ASTM Specification Filament Wound Reinforced Thermosetting Resin in pipe.

Existing Petroleum Products:

The fuel products in the tanks will be pumped down by the city to the best of our ability before the project begins. The residual product, water and material in the tanks shall be drained and properly disposed of by the contractor as part of the project, included in the bid price for fuel tank replacement.

Concrete:

The DPW staff will remove and dispose of the existing concrete "flatwork" in the areas specified in the project (concrete only, inspection and compaction of aggregate base remains the contractor's responsibility). The amount of concrete necessary for removal will be determined by DPW supervisors Walter Lay, Jerry Brock and the successful bidder prior to the start of the project. Concrete at the fuel island and concrete associated with the (optional) canopy footings will remain the contractor's responsibility. Coordination of concrete work time table and material requirements must be approved by Walter Lay, the city's representative for concrete work. Walter Lay must be contacted a week prior to the beginning of the project, as a minimum.

Concrete Replacement (Optional Bid Item):

Except the fuel islands and optional canopy footings, City staff shall install the surrounding concrete pavement. However, if staff time is not available for the replacement of concrete, the itemized proposal requires unit pricing (include all necessary labor, equipment, and material) for this segment of the project. See enclosed concrete specifications and estimated quantities.

Removal of Existing Fuel System:

The Contractor shall furnish the labor, materials, equipment, appliances, services (hauling, disposal, etc.) and perform operations necessary for the removal of four (4) fuel dispensers, two fuel island terminals and two fuel island light pole and store them in the DPW pole barn. The contractor shall remove and dispose of all piping (primary and secondary), couplers, valves and fittings, the existing two (2) 10,000 gallon underground storage tanks and associated fuel components. Note: The DPW will provide temporary fueling for its fleet from above-ground tanks located in the DPW pole barn or from the City Hall fueling station during construction.

For the benefit of the bidders, the following list provides a description (manufacturers, models, etc.) of some of the existing system elements that will be removed by the contractor.

1. Clawson Tank Company fuel tanks
2. Tank & Dispenser Sumps: Environ Products, Inc.
3. Tank Leak Detection System: PetroVend
4. Dispensers: Gasboy
5. Fill and Overfill Prevention Assembly: OPW
6. Product Piping: UL 971 label approved APT or Environ Products, Inc.
7. Product Inventory Gauging System: PetroVend
8. Fuel Management: PetroVend
9. Groundwater Monitoring Wells if required: OPW
10. Manholes: Ramco
11. Island Forms: Formex

Existing tank removal:

Currently, the City of Farmington Hills DPW currently has two (2) 10,000 gallon (one diesel and one unleaded), single-wall STI-P3 underground storage tanks, installed in the late 1970's. In 1997, the DPW installed one (1) (waste oil) 1000 gallon double-wall steel fiberglass coated underground storage tank at our DPW facility. The waste oil tank is not a part of this project but caution must be used not to damage it. The Contractor shall furnish the labor, materials, equipment, appliances, services, hauling and disposal, and perform operations necessary for the removal of the two existing underground storage tanks. The successful bidder shall be responsible for the disposal of contaminated soils and sign all required manifest forms as the generator. The tanks are currently located within 10 feet of the DPW building's foundation and the diesel tank has been red tagged by DEQ. Where the two tanks are removed, the tank excavations shall be filled to proper grade with clean, dry city-approved 98% compacted backfill. The backfilling compaction shall be performed in 12" lifts. When the new tanks are installed, the contractor shall use the excavated material as backfill in the old UST excavation cavity(s), provided the material is suitable backfill, not contaminated and can achieve the specified compaction, 98%. All fill materials must meet or exceed Michigan Construction Codes for properties and 98% compaction.

UST Design

The successful Contractor shall furnish the labor, materials, equipment, appliances, services necessary to install:

- One (1) new compartmentalized underground fuel storage tank.
- Two (2) new fuel islands including the concrete for the islands.
- Reinstallation of the existing tank monitoring/leak detection system
- Reinstallation of existing fleet fuel management system.

The compartmentalized tank shall be double-wall UL labeled, constructed to meet governing standards with certification i.e., UL 1316 Underwriters Laboratories labels shall be affixed to the tank. All products must be State of Michigan, Department of Environmental Quality, approved.

The tank shall be tested and installed according to the Xerxes Installation Manual and Operating Guidelines for Double-Wall Fiberglass Underground Storage Tanks in effect at time of installation. All tank equipment and piping shall be inspected and air tested before being installed. Any defects observed shall be immediately brought to the attention of the Owner. It is the sole responsibility of the Contractor to correct any deficiencies in strict compliance with the manufacturers' recommendations, at no cost to the Owner. The contractor and contractors' personnel shall be trained by the tank manufacturer, the state, and all other required approval agencies.

Fuel Storage Tank Installation:

The contractor's personnel shall be certified by the tank system manufacturer and all governing agencies as required by law. The contractor shall install and test the tank to document compliance according to current installation instructions provided with manufacturer's tank specifications. The tank shall not be unloaded from the truck manually. The tank shall be unloaded consistent with manufacturer's guidelines and requirements. The capacity of lifting equipment must be checked before unloading or moving the tank.

The depth of the excavation shall be determined by the contractor after the presence or absence of groundwater has been determined. This determination shall be based on the condition of the excavation and the impact of heavy truck traffic at the DPW site. These excavation parameters required by the tank manufacturer must be followed. The tank shall be installed in a dry hole. If necessary, pumps and well points shall be provided by contractor to keep the excavation water free during installation.

Contractor shall not install tank on timber, blocks, or cradles. Specifications provided by the tank manufacturers shall govern installation and backfill procedures. In part, these specifications shall require the tank to be placed on 12-inch thick bed of clean class II sand; smooth and level, free of voids around and adjacent to the tank. The peastone gravel surrounding the tank shall be 1/8 to 1/2 inch diameter pea gravel, or equal approved by the tank manufacturer, with not more than 5% (by weight) passing No. 8 sieve. The gravel shall conform to ASTM C-33 (naturally rounded aggregate, free flowing). The dry gravel density must be a minimum of 95 lbs. per cubic foot.

Place compacted layers of fill in lifts no greater than 12 inch depth, each. Backfill shall be placed to ensure a complete filling of voids between tank, ballast pad, and side of excavations without hand tamping.

Underground Fuel Storage Tank:

The contractor shall provide and install a new Xerxes Corporation 20,000-gallon, approximately 120"X 38', compartmentalized double-wall fiberglass reinforced plastic (FRP) Underwriters Laboratories-labeled underground storage tank or city approved equivalent.

Tank Dimensions:

The tank shall have nominal capacity of 20,000 gallons; 8,000 gasoline and 12,000 diesel. The tank shall have an approximate nominal outside diameter of 10 feet and approximate tank length of 37' feet 9" inches. Exact dimensions shall be determined by the manufacturer. The tank shall meet the following design criteria:

Loading Conditions and Internal Load Test:

The tank shall withstand a 5-psig air-pressure test with 5:1 safety factor. The contractor shall individually test tanks for leakage prior to installation. The maximum tank test pressure is 5 psi.

Vacuum Test:

To verify structural integrity, every standard 10' diameter tank, or smaller, shall be vacuum tested by the manufacturer at the factory to 11.5" of mercury.

Surface Loads:

Tank shall withstand surface H-20 axle loads when properly installed according to manufacturer's current Installation Manual and Operating Guidelines.

External Hydrostatic Pressure:

The tank shall be capable of being buried in ground with 7' of overburden over the top of the tank, the hole fully flooded and a safety factor of 5:1 against general buckling. The tank shall support accessory equipment, such as heating coils, drop tubes, submersible pumps and ladders, when properly installed.

Product Storage:

The tank shall be capable of storing non-pressurized typical petroleum products. The tank shall be vented to atmospheric pressure. The tank shall be capable of storing petroleum products identified in the manufacturer's current literature including diesel, gasoline, alcohols, and alcohol-gasoline mixtures.

Tank Materials:

The tank shall be manufactured with 100% resin and glass-fiber reinforcement. No sand fillers.

Interstitial Space:

The tank shall have a space between the primary and secondary walls to allow for the free flow and containment of leaked product from the primary tank. The space also allows the insertion of the monitoring device through a monitoring fitting.

Anchor Straps:

The tank straps shall be made from Fiberglass Reinforced Products (FRP) anchor straps as supplied by tank manufacturer. The number and location of straps shall be specified by the tank manufacturer.

Manways:

The tank manways shall be flanged and complete with UL-listed gaskets, bolts, and covers. Tank shall be watertight. Manway extensions shall be FRP length as required on the approved shop drawings.

Fill Tubes:

Fill tubes shall be FRP, 4" in diameter, with a 6" x 4" double-tapped reducer bushing and include a 6" NPT fitting. Tubes shall terminate a minimum of 4" from the bottom of tank and a minimum of 6" as required for 12'-diameter tanks.

Gauge Plates:

The gauge plates shall be installed under each service fitting and manway opening.

NPT Threaded Fittings:

All standard threaded fittings shall be half-couplings and shall be 4" or 6" diameter. Reducers shall be used for smaller sizes and called out on shop drawings provided by contractor. The strength of the NPT fittings shall withstand a minimum of 150 foot-pounds of torque and 1,000 foot-pounds of bending, both with a 2:1 safety factor.

Monitor Fittings:

Each monitor fitting shall consist of a 4" NPT fitting on the tank.

Spill and Overfill Prevention Assembly:

Provide and install new five (5)-gallon spill tubs with pull drains for each fuel product. Provide and install overfill prevention valve for each fuel product and a 4" fill cap Model #634TT for each fuel product. City staff shall approve these components, or equivalent components, prior to installation.

Tank Sumps:

Provide new watertight sump enclosures mounted to the tank. All penetrations through tank sumps shall be made with approved materials per manufacturer's recommendation.

Piping

The piping and piping products must be certified by the State of Michigan DEQ. The contractor shall be certified by the piping manufacturer and Michigan DEQ. The contractor shall provide new, flexible, double-wall piping installed inside 4" secondary containment corrugated piping for diesel and gasoline products. All piping runs shall be continuous. There shall be no fittings or connections for in-ground primary and secondary containment pipes. The piping shall be laid to slope uniformly from the dispenser sump to the tank sump at a minimum of 1/8" per foot. Piping shall be installed with a minimum 6" thick bedding and clean backfill of uniformly graded round pea gravel, not less than 1/8" nor larger than 3/4" in diameter. Piping shall be sealed in strict accordance with the manufacturer's specifications. The outer secondary containment system shall undergo an air pressure hold test (3-5 psi) after installation and before and after the final backfill. The flexible inner primary system shall be subject to 50 psi air pressure hold test prior to and after final backfilling. The primary and secondary piping shall be guaranteed against leakage for the life of the tanks.

Vent Piping

The below-grade section of the vent pipe shall be constructed of new, single-wall, 2" fiberglass "Red Thread" piping. The piping shall be laid to slope uniformly front vent riser to tank at a minimum of 1/8" per foot. Piping shall be installed with a minimum 6" thick bedding and backfill of clean, uniformly graded round aggregate of pea gravel, not less than 1/8" nor larger than 3/4" in diameter. This section shall be connected to the above-ground section, constructed of Sch 40 galvanized steel riser pipe, which shall extend 2'-0" above the building's roof line.

Submersible Pumps:

The existing 1-1/2 hp 208 volt Red Jacket, submersible pumps shall be replaced with new submerged pumps. The new pumps shall be Red Jacket, or city approved equivalent. The new pumps shall supply fuel to two diesel and two unleaded dispensers with a total of three hoses for each product. The existing fuel pumps shall be turned over to city staff.

Emergency Stop Control System

Replace the current emergency control system, located on the south wall of the DPW building, that automatically cuts power to the fuel pumps and dispensers in the event of an emergency. Note that there are two other emergency shutdown controls located on the fuel island terminals.

Fuel Island Forms

Provide and install two (2) 4'-0" wide x 26'-0" long x 9" deep corrosion resistant metal island forms with rounded ends and rolled 1 7/8" rub-rail bead. The forms to be constructed of 12 gauge prime steel plate. The contractor shall be responsible for the concrete for the islands (refer to attached concrete specifications). Paint the island forms safety yellow with two coats of enamel paint.

Fuel Island Light

Contractor shall reinstall the existing overhead fuel island lights over each fuel dispenser. If the City approves the proposal for the optional canopy, this lighting will not be reinstated.

Remote island tank fills:

In the south island, install remote tank fills for the new UST system.

Bumper Posts

Install eight (8) concrete-filled 6" diameter 7'-0" long bumper posts to be located at each end corner of the islands per drawing. Paint bumper post Safety Yellow with two (2) coats of enamel paint.

Dispensers:

Re-install the diesel and unleaded fuel dispensers. The reinstalled dispensers shall include new external filters, swivels, new hose breakaway valves, new 12'-0" hoses, hi-mount hose retriever devices, and automatic fuel nozzles. The project requires all new materials from the dispenser to the tank. Consult the manufacturers for storage recommendations.

Dispenser Sumps

Provide four (4) new dispenser sumps Model #DDS-2414 with stabilizer bars. All penetrations through dispenser sumps must be made with approved manufacturer material per manufacturer's recommendation. Install new fire valve OPW 10 RF 1-1/2", or city approved equivalent.

Tank Monitor and Leak Detection System:

Provide and install new product level probes, interstitial sensors, and sump sensors for the new tank system. The equipment shall be connected to existing leak detection console in the DPW. The existing level probes and sump sensors from the existing diesel and gasoline tanks shall be removed and turned over to city staff.

Electrical System:

All electrical wiring for the complete project shall be replaced with new wiring. All wiring shall be the proper type, size, and color per applicable standards. All wiring circuits will be properly labeled for independent circuit identification. All wiring for the pumps, dispensers and lighting shall be in conduits separate from the conduits for the Petrovend and CCG system wiring. The contractor shall not re-use any wiring from the old system.

Reinstallation of Fuel Management System:

Reinstall the Petrovend K800 automated stand alone fuel management system. The fuel system is designed for unattended fuel dispensing, 24 hours a day. The re-installation of this unit shall be in compliance with the manufacturers installation specifications. The electrical supply shall come from the DPW building dedicated for the controller only, separate from the electrical supply dedicated to the pump or dispenser. The fuel island terminals (2) shall be reinstalled on concrete bases 18" inches above surrounding flatwork. The units shall be reinstalled pointed east, as they are now. The contractor shall test and confirm that the thermostatically controlled F.I.T. heater for winter season operates properly. Reinstall the panic or emergency stop button(s) to stop fuel dispensing immediately in case of an emergency.

Deadline:

All work called for herein shall be completed within thirty (30) working days of the date of the Proceed to Work Order. All tank notifications to the State shall be the responsibility of the successful bidder to ensure this deadline can be achieved.

Barricades:

Barricades, safety tape and temporary fencing shall be provided by the contractor at his cost to secure excavations, construction zone and work area.

Project Warranty:

There shall be a minimum two year warranty on the complete project, materials and workmanship independent of the fuel tank and piping. There shall be a five-year compaction warranty against concrete shifting or buckling. There shall also be a list of emergency contacts for 24-hour service.

In addition, there shall be manufacturer's standard 30-year limited warranty which begins at the completion of the project. The contractor shall complete the installation checklist provided by the manufacturer. Copies of the installation checklist must be retained by the tank owner and installation contractor to validate any future warranty claim.

The canopy shall have a manufacturer's unlimited five year warranty for the canopy and installation. The cosmetic portions will be warranted for five years.

Start-Up and Training:

When the system is operational, there shall be a complete demonstration session scheduled with DPW supervisory staff to ensure that City staff is confident the system is installed properly, operating properly, and the entire system is working per manufacturer's specifications.

Miscellaneous:

No deviation from any of specifications will be permitted unless agreed to in writing by the DPW Supervisor. Upon completion of the project, it is the contractor's responsibility to test and ensure the complete fuel system will be 100% operational. All work shall be complete and tested. Incidentals not specified shall be the responsibility of the contractor. All work specified must be complete before payment will be authorized.

Damages:

Any damages caused by the contractor to adjacent pavement, structures, etc., shall be repaired by the contractor at his cost, including re-cutting pavement with concrete saw (patch job not acceptable).

Miss Dig

Contractor is responsible for contracting Miss Dig for staking utility locations.

Construction Hours:

Monday through Friday, 7:00 a.m. to 7:00 p.m., unless otherwise approved by DPW. No work is permitted on Sunday unless approved in advance, in writing, by the City administration. No work shall be scheduled on City of Farmington Hills Holiday's, as follows: New Year's Eve, New Year's Day, President's Day, Good Friday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, Day following Thanksgiving Day, Christmas Eve Day and Christmas Day.

Items Not Enclosed with Bid

The bidders must contact the City for site plans and items that cannot be transferred via the internet.

- Site plan
- MDOT construction specifications available from www.michigan.gov.

OPTIONAL ITEMS

I. Optional Canopy

The City of Farmington Hills is accepting proposals for the purchase and installation of a 32' X 64' canopy. It is the responsibility of the successful bidder to erect the canopy in accordance with the fuel island manufacturer's specifications. The Canopy shall meet or exceed all State, local and Federal safety requirements. The bidders price shall include furnishing all materials, shipping and assembly of the canopy at the DPW site. All deviations from these specifications shall be clearly called out and explained in detail below the specification. All materials shall be corrosion resistant and compatible with adjacent materials. The canopy erection shall not interfere with the UST project. The canopy footings shall be installed even if the award of the contract does not include the canopy option. We are including the footings to allow for installation of the canopy at a later date.

Design Load:

Canopy must meet the City of Farmington Hills' Building Department structural requirements. Bidder's plans and design must be approved by Building Division's Structural Engineer. The canopy structure shall meet the State of Michigan's and the City Building Division's live load, snow load and wind load requirements.

Canopy Drawings:

Canopy manufacturer shall supply shop drawings with the bid. The manufacturer supplied state sealed drawings; including dimensions, details, material specs, etc, with shop drawings for approval.

Canopy Dimensions:

The canopy shall be 32' X 48' industry standard canopy with Anti-Bird Prongs

Frame:

A-36 structural wide flange steel beams, shop primed with oxide primer.

Deck:

3" deep x 16" wide, 20 gauge G-90 galvanized steel - deck pans flat on bottom with white acrylic 80 gloss finish. (Not stucco embossed). Decking shall be attached with bolt type panel clips. Decking shall not be pierced by bolts, nor shall clips require welding.

Fascia:

36" inch "Brown" composite pre-finished 24 gauge aluminum, laminated to 1" foam core center with 24 gauge galvanized steel backer attached to 2" x 1" steel channel.

Lighting:

Canopy lighting shall be furnished by contractor. The canopy shall have eight (8) outdoor type 320 LSI Scoffed canopy light fixtures with a light sensor to automatically turn the lights on and off. There shall be an outdoor type manual controller to turn the lights on and off independent of the sensor.

Finishes:

- A) Columns - shop primed - composite enamel brown to match existing building.
- B) Deck pans - roll coated polyester white (pre-finished).
- C) Fascia - baked enamel composite (pre-finished).
- D) Sample paint chits shall be provided for exact color selection.

Clearances:

The canopy shall be erected with a minimum clearance of fourteen feet, six inches (14.5 ft.).

Drainage:

Canopy drains shall be attached in cooperation with DPW staff.

II. Optional Concrete Specifications

DESIGN AND CLASSIFICATIONS:

Grade A concrete will be designed on the basis of three thousand, five hundred pounds (3,500) per square inch compressive strength when cured in moist air at 70 degrees F. for 28 days. A design mix shall be submitted prior to start of construction.

The following table describes the grade of concrete, the compressive strength at 28 days in pounds per square inch, the minimum number of barrels of cement required per cubic yard of concrete, and the approximate proportions of fine and coarse aggregate:

Grade	Min. Comp. Str. 28 days lbs. per sq. in.	Min. cement barrels/c.y. of concrete	Proportions
A	3,500	1.50	1:2:3 1/4

NOTE: The above figures are approximate only and must be adjusted for the particular aggregate used.

The concrete mixture shall be designed for the materials to be used and shall be subject to the approval of the Inspector.

The materials used shall conform to the specifications found under the "Materials" requirements of these MDOT Specifications.

The type of cement used shall be standard Portland cement, air entraining.

No admixtures shall be used unless approved by the Inspector.

Depth of concrete, expansion and control joints, and type of finish shall match existing and surrounding concrete. Expansion paper shall be installed where new concrete abuts existing pavement. Hook bolts shall be installed at intervals per inspectors requirements. Curing control and protection of new concrete shall be performed in accordance with general specifications and MDOT specifications.

Concrete shall be air-entrained with 5% +/- 1% entrained air.

TESTS:

The City, at its own expense, shall reserve the right to test cement, fine aggregate, coarse aggregate, and reinforcing steel and test cylinders. Testing shall be done by an approved independent testing laboratory. All sampling and testing shall be done in accordance with the latest revision of the A.S.T.M. applicable specifications.

CITY OF FARMINGTON HILLS

