

CITY OF LINCOLN PARK

RIOPELLE LIFT STATION REFIT

Advertisement, Instructions to Bidders, General Conditions
of Construction Contract, Contract, Specifications

Mayor and Council
City of Lincoln Park

Mayor Frank Vaslo

Council

Joseph Kaiser, President
Mario DiSanto
Mark Kandes

Donald Majors
Suzanne Moreno
Thomas Murphy

Donna Breeding
City Clerk

Steve Duchane – City Manager
Robert Bartok – Director of Public Services
Dennis Chegash – Director of Engineering & Building

City of Lincoln Park
Department of Public Services
500 Southfield Road
Lincoln Park, MI 48146
(313) 386-9000
FAX (313) 381-3002

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PART I
BIDDING REQUIREMENTS

**INVITATION TO BID
CITY OF LINCOLN PARK, WAYNE COUNTY, MICHIGAN
RIOPELLE LIFT STATION REFIT**

The City of Lincoln Park is accepting proposals for the

RIOPELLE LIFT STATION REFIT

In the City of Lincoln Park, Wayne County, Michigan

The City of Lincoln Park is accepting proposals for Contractors to provide the herein described services.

The work for this project will include, but not be limited to the following:

- **Installation of 2 replacement sewage pumps**
- **Installation of control panel and telemetry**
- **Installation of 2 check valves and 2 plug valves**
- **Installation and operation of a temporary sewer bypass**
- **Installation of a generator**
- **The majority of the components described above will be provided by the City. This contract is primarily for installation services. All individual quantities above are approximate and estimated.**

A MANDATORY PRE-BID MEETING WILL BE HELD AT THE LINCOLN PARK DPS, 500 SOUTHFIELD RD., LINCOLN PARK, MI., ON WEDNESDAY, AUGUST 24, 2011 AT 10:30 AM, LOCAL TIME. YOU MUST BE PRESENT AT THIS MEETING TO BE ELIGIBLE TO SUBMIT A BID.

Sealed bids will be received until 3:00 p.m. (local time), Wednesday, August 31, 2011, by:

**Donna Breeding, City Clerk, City of Lincoln Park
1355 Southfield Road
Lincoln Park, Michigan 48146**

Bids shall be publicly opened and read at the regularly scheduled City Council meeting at:

7:30 p.m. (local time), Tuesday, September 6, 2010

City of Lincoln Park
Municipal Office Building
1355 Southfield Road
Lincoln Park, Michigan 48146

The Contract Documents may be obtained after 12:00 p.m. on Monday, August 15, 2011; on the City Web Site at www.citylp.com or at the Lincoln Park Department of Building and Engineering at 1355 Southfield Road, Lincoln Park, Michigan 48146. Telephone 313-386-1800, ext.256/296. Bid documents are available at the Building and Engineering Department for a non-refundable fee of \$20.00 and may be mailed for an additional fee of \$5.00 (upon receipt of payment). All prospective bidders must register with the City when retrieving a plan set by contacting the Building Department at (313) 386-1800 x 256 or x 296 and submitting contact information. No bids will be accepted unless they first register with the City.

Each bidder must deposit, with his bid, surety in the form of a certified check, bank draft, or bid bond, in the sum of five percent (5%) of the amount of the proposal.

The City of Lincoln Park reserves that right to waive any irregularity, accept or reject any or all bids, and to accept the proposals that, in the City's opinion, are in the best interest of and to the advantage of the City of Lincoln Park. No bidder may withdraw his bid within 90 days after the date of bid opening.

City of Lincoln Park
Donna Breeding, City Clerk

INSTRUCTIONS TO BIDDERS

1. DEFINED TERMS

Disputes of definitions of terms should be resolved as interpreted by the Engineer. The term "Successful Bidder" means the qualified Bidder, but not necessarily the lowest Bidder, to whom the Owner (on the basis of Owner's evaluation) makes an award.

2. COPIES OF BIDDING DOCUMENTS

2.1. Sets of the Bidding Documents in the number and for the deposit sum, if any, stated in the Advertisement or Invitation may be obtained from Engineer (unless another issuing office is designated in the Advertisement or Invitation to Bid).

2.2. Complete sets of Bidding Documents shall be used in preparing Bids. Every Bidder should check that every set the Bidder obtains from the Owner or Engineer is complete; neither Owner nor Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.3. Owner and Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

3. QUALIFICATIONS OF BIDDERS

To demonstrate qualifications to perform the Work, each Bidder must be prepared to submit within five days of Owner's or Engineer's request written evidence of any information deemed necessary by the Engineer for Bid evaluation, such as but not limited to financial data, previous experience, evidence of authority to conduct business in the jurisdiction where the Project is located, evidence of Bidder's qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the contract. Failure to submit any such data within the five days gives the Owner or the Engineer the right to finally reject the Contractor's Bid. **Attendance at a prebid meeting will be required. No bid will be accepted unless the bidder has attended the prebid meeting scheduled for 10:30 AM, Wednesday, August 24, 2011, at the DPS Building located at 500 Southfield Rd., Lincoln Park, MI.**

4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE

4.1. Before submitting a Bid, each Bidder must (a) examine the Contract Documents thoroughly; (b) visit the site to familiarize himself with local conditions that in any manner affect cost, progress or performance of the Work; (c) familiarize himself with federal, state and local laws, ordinances, rules and regulations that may in any manner affect cost, progress or performance of the Work; and (d) study and carefully correlate Bidder's observations with the Contract Documents.

4.2. Reference may be made for the identification of those reports of investigations and tests of subsurface and latent physical conditions on the site or otherwise affecting cost, progress, or performance of the Work which have been relied upon by Engineer in preparing the Drawings and Specifications. Owner may make copies of such reports available to any Bidder requesting them. These reports are not guaranteed as to accuracy or completeness nor are they part of the Contract Documents. Before submitting his Bid each Bidder will, at his own expense, make sure additional investigations and tests as

the Bidder may deem necessary to determine his Bid for performance of the Work in accordance with the time, place, and other terms and conditions of the Contract Documents.

4.3. On request, Owner will provide each Bidder access to the site to conduct investigations and tests as each Bidder deems necessary for submission of his Bid.

4.4. It is the responsibility of the Contractor to arrange for all lands other than the ones upon which the project will ultimately be constructed. Lands which the Contractor will be responsible to arrange include, but are not limited to, land necessary to get access to the project, land for storage of material and equipment, etc.

4.5. The submission of a Bid will constitute an incontrovertible representation by the Bidder that he has compiled with every requirement of this Article 4 and all other Contract Documents and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Work.

5. INTERPRETATIONS

All questions about the meaning or intent to the Contract Documents shall be submitted to Engineer in writing. Replies, if any, may be issued if Engineer decides it to be in the interest of the project, by Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Engineer reserves the right not to answer questions received less than ten days prior to the date for opening of Bids. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

6. BID SECURITY

6.1. Bid Security shall be made payable to Owner in an amount of five percent of the Bidder's maximum Bid price and in the form of a certified or bank check or a Bid Bond (on form attached if a form is prescribed) issued by a Surety meeting the requirements of paragraph 5.1 of the General Conditions.

6.2. The Bid Security of the Successful Bidder will be retained until such Bidder has executed the Agreement and furnished the required Contract Security, whereupon it will be returned; if the Successful Bidder fails to execute and deliver the Agreement and furnish the required Contract Security with 10 days of the notice of Award, Owner may annul the Notice of Award and the Bid Security of that Bidder will be forfeited. The Bid Security of any Bidder whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of the fourteenth day after the "effective date of the Agreement" (which term is defined in the General Conditions) by Owner to Contractor and the required Contract Security is furnished or the ninety-first day after the Bid opening. Bid Security of other Bidders will be returned within fourteen days of the Bid opening.

7. CONTRACT TIME

The number of days within which, or the date by which, the Work is to be completed (the Contract Time) is set forth in the Bid Form and will be included in the Agreement.

8. LIQUIDATED DAMAGES

Provisions for liquidated damages, if any, are set forth in the Agreement.

9. SUBSTITUTE MATERIAL AND EQUIPMENT

The Contract, if awarded, will be on the basis of material and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or-equal" items. Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the "effective date of the Agreement." The procedure for submittal of any such application by Contractor and consideration by Engineer is set forth in paragraph 6.7, 6.7.1 and 6.7.2 of the General Conditions, which may be supplemented in the General Requirements.

10. SUBCONTRACTORS, ETC.

10.1 If the Engineer requires the identity of certain Subcontractors and other persons and organizations to be submitted to Owner in advance of the Notice of Award, the apparent Successful Bidder, and any other Bidder so requested, will within five days after the day of the Bid opening submit to Owner a list of all Subcontractors and other persons and organizations (including those who are to furnish the principal items of material and equipment) proposed for those portions of the Work as to which such identification is so required.

Such list shall be accompanied by an experience statement with pertinent information as to similar projects and other evidence of qualifications for each such Subcontractor, person, and organization if requested by Owner. If Owner or Engineer has any objection to any proposed Subcontractor, other person or organization, either may, before giving the Notice of Award, request the apparent Successful Bidder to submit an acceptable substitute without an increase in Bid price. If the apparent Successful Bidder declines to make any such substitution, the contract shall not be awarded to such Bidder, but his declining to make any such substitution will not constitute grounds for sacrificing his Bid Security. After giving the Notice of Award, if the Owner or Engineer, after due investigation, has reasonable objection to any Subcontractor, other person or organization, either may request the Successful Bidder to provide an acceptable substitute without an increase in the contract price. In such a case, neither the Owner nor the Engineer would be liable for any damages or remedies of either the Contractor or the Subcontractor or any other said person or organization. It is the responsibility of the Contractor to inform the Subcontractor, or other person or organization, to the provision of the contract prior to the parties being contractually bound.

11. BID FORM

11.1. The Bid Form is attached hereto; additional copies may be obtained from Engineer after payment of required charge.

11.2. Bid Forms must be completed in ink or by typewriter. The bid price of each item on the form must be stated in words and numerals; in case of a conflict, words will take precedence. However, if in the opinion of the Engineer, the conflict is a substantial one, then the Engineer has the full right to consider Contractor's Bid non-uniform and void and award the contract to another Bidder without the Engineer or Owner incurring any liability to the rejected Bidder.

11.3. Bids by corporations must be executed in the corporate name by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign) and the corporate office must be affixed and attested by the secretary or an assistant secretary. The corporate address shall be shown below the signature.

11.4 Bids by partnerships must be executed in the partnership name and signed by a partner whose title must appear under the signature, and the official address of the partnership must be shown below the signature.

11.5. All names must be typed or printed below the signature.

11.6. The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which shall be filled in on the Bid Form.)

11.7. The address to which communications regarding the Bid are to be directed must be shown.

12. SUBMISSION OF BIDS

Bids shall be submitted at the time and place indicated in the Invitation to Bid and shall be included in an opaque sealed envelope marked with the Project title and name and address of the Bidder and accompanied by the Bid Security and other required documents. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face thereof.

13. MODIFICATION AND WITHDRAWAL OF BIDS

13.1. Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

13.2. If, within twenty-four hours after Bids are opened, any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of his Bid, that Bidder may withdraw his Bid and the Bid Security will be returned. Thereafter, that Bidder will be disqualified from further Bidding on the Work.

14. OPENING OF BIDS

14.1. Bids will be opened Publicly, they will be read aloud and an abstract of the amounts of the base Bids and major alternates (if any) will be made available after the opening of Bids.

15. BIDS TO REMAIN OPEN

All Bids shall remain open for ninety days after the day of the Bid opening, but the Owner may, in his sole discretion, release any Bid and return the Bid Security prior to that date.

16. AWARD OF CONTRACT

16.1. Owner reserves the absolute right to reject any and all Bids, to waive any and all informalities and to negotiate contract terms with the Successful Bidder, and the right to disregard all nonconforming, non-responsive or conditional Bids. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. However, if in the opinion of the Engineer, the conflict is a substantial one, then the Owner has the full right to consider the Contractor's Bid non-uniform and void and award the contract to another Bidder without the Engineer or Owner incurring any liability to the rejected Bidder.

16.2. In evaluating Bids, Owner and Engineer shall consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements and alternates and unit prices if requested in the Bid Forms and any other consideration the Owner or Engineer deems pertinent. Owner may accept alternates in any order or combination.

16.3. Owner and/or Engineer may consider the qualifications and experience of Subcontractors and other person and organizations (including those who are to furnish the principal items of material or equipment) proposed for those portions of the Work as to which the identity of Subcontractors and other persons and organizations must be submitted as provided in Section 10 of Instructions to Bidders. Operating costs, maintenance considerations, performance data and guarantee of materials and equipment may also be considered by Owner and/or Engineer.

16.4. Owner and/or Engineer may conduct such investigations as they deem necessary to assist in the evaluations of any Bid and to establish the responsibility, qualifications, and financial ability of the Bidders, proposed Subcontractors and other persons and organizations to do the Work in accordance with the Contract Documents to Owner's satisfaction with the prescribed time.

16.5. Owner reserves the right to reject the Bid of any Bidder who does not pass any such evaluation to Owner's or Engineer's satisfaction.

16.6. If the contract is to be awarded, it will be awarded to the Bidder whose evaluation by Owner indicates to Owner that the award will be in the best interests of the Project.

16.7. If the contract is to be awarded, Owner will give the Successful Bidder a Notice of Award within ninety days after the day of the Bid opening.

17. PERFORMANCE AND OTHER BONDS

Paragraph 5.1 of the General Conditions sets forth Owner's requirements as to Performance and other Bonds. When the Successful Bidder delivers the executed Agreement to Owner, it shall be accompanied by the required Contract Security.

18. SIGNING OF AGREEMENT

When Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by at least three unsigned counterparts of the Agreement and all other Contract Documents. Within ten days thereafter, Contractor shall sign and deliver at least three counterparts of the Agreement to the Owner with all other Contract Documents attached. Within fifteen days thereafter, Owner will deliver all fully signed counterparts to

Contractor. Engineer will identify those portions of the Contract Documents not fully signed by Owner and Contractor and such identification shall be binding on all parties.

19. These Instructions to Bidders are incorporated in the Contract and made part thereof.

SPECIAL INSTRUCTIONS TO BIDDERS

1. It is the intent of the Owner to complete construction at the areas as shown on the contract drawings, however, the Owner reserves the right to delete locations shown in the drawings and to add other locations within the City of Lincoln Park. The contractor agrees by acceptance of the terms of this contract, that any location change in areas of construction will not be sufficient reason for additional charges or increased unit prices.
2. In accordance with Article 11, Section 11.9 of the Contract Documents, no change in contract unit price will be required if the actual quantity of work is, in general, within Twenty-five percent (25%) of the quantity indicated in the Contract Documents.
3. If applicable, prior to the beginning of any work the successful bidder shall meet with city officials to discuss the maintenance of traffic during the work. The successful bidder will present his requests for complete or partial street closing areas to the city at the pre-construction meeting for approval. The decision of the city will be final and no increase in bid unit prices will be permitted as a result of the city's decision.
4. If any utility companies and/or governmental agencies require any fees for items such as plan review, inspection, permitting, testing, staking, etc., these fees shall be paid by the contractor, shall be included in the pay items of the contract, and at no additional cost to the city.
5. Project completion will be required by October 28, 2011.
6. **NOTE: A valid binding contract is not created until all parties execute underlying agreements.**

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,

_____ as
Principal, and

_____ as
Surety, are

hereby held and firmly bound unto _____

as owner in the penal sum of _____

for payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

Signed this _____ day of
20 _____.

The Condition of the above obligation is such that whereas the Principal has submitted

to _____

a certain Bid, attached hereto and hereby made a part thereof to enter into a contract in writing for the:

RIOPELLE LIFT STATION REFIT

NOW, THEREFORE,

- (a) If said Bid shall be rejected, or in the alternate,
- (b) If said Bid shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish bonds for his faithful performance of said contract, and for the payment of all

persons performing labor or furnishing materials in connecting therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid,

then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the owner may accept such Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

(L.S.)

Principal

Surety

By: _____

IMPORTANT - Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

EXHIBIT A
PROPOSAL
FOR
RIOPELLE LIFT STATION REFIT

LINCOLN PARK, MICHIGAN

Bids will be Due on:

Wednesday, August 31, 2011, at 3:00 p.m. local time at the City Clerk's Office

Bids will be opened on:

Tuesday, September 6, 2011, at 7:30 p.m. local time at the City Council's Chamber

TO: Donna Breeding, City Clerk
City of Lincoln Park
1355 Southfield Road
Lincoln Park, Michigan 48146

Bidders: The undersigned has examined the plans, specifications, and locations of the above-described work and is fully informed as to the nature of the work and conditions relating to its performance and understands the quantities shown on the attached Itemized Bid Sheet are approximate only and are subject to either increases or decreases unless specifically mentioned otherwise in this Contract; the undersigned fully understands all the Contract Documents including but not limited to Article 5 (Bonds and Insurance) of the General Conditions.

The undersigned hereby proposes to furnish all necessary machinery, tools, equipment, and other means of construction to do all the work, furnish all materials, except as herein specified, and to complete the work in strict conformity with the requirements of the Proposal and Specifications, all at unit prices set forth in the Itemized Bid Sheet.

The undersigned further agrees, if awarded the contract, to deliver executed contract and bonds and furnish evidence of insurance within ten (10) days after the date of award.

The undersigned encloses a certified or cashiers check or bid bond in the amount of 5 percent of the bid payable to the order of the City of Lincoln Park of the County of Wayne, Michigan, as a guarantee of good faith and, if the contract is awarded to him, the undersigned agrees to forfeit as liquidated damages to the City of Lincoln Park, County of Wayne, Michigan, in the event of failure to enter into a contract and furnish satisfactory bonds to the City of Lincoln Park within ten (10) days after being notified of contract award.

Signed: _____ Address: _____

Firm Name: _____

Telephone: _____ Fax: _____

All erasures or alterations must be initialed by the bidder.

**RIOPELLE LIFT STATION REFIT
LINCOLN PARK, MICHIGAN**

ITEMIZED BID SHEET

ITEM	DESCRIPTION	EST. AMT.	UNIT	UNIT PRICE IN FIGURES	UNIT PRICE IN WORDS	AMOUNT
1	Install 2 ea. 2.2 HP, FLYGT Model NP-3085 sewage pumps w/ guide rails & bases, brackets, chains, cables, floats and hangers, including all hardware and appurtenances. (Pumps and appurtenances supplied by City).	1	LS			
2	Install 1 ea. NEMA 12/3 Duplex control panel w/ insulated steel enclosure, w/ 230 V - 1 phase to 230 V - 3 phase 230 V power, including circuit breakers, H-O-A switches, run lights, elapsed time meters, seal leak & high temp lights, panel heater and alarm light. (Control panel and enclosure supplied by City).	1	LS			
3	Re-install existing MISSION model 110 RTU alarm telemetry panel as mounted in the duplex control panel. (Telemetry panel & Mission Box supplied by City).	1	LS			
4	Install, maintain and operate above-ground temporary bypass sewer including traffic control, pump(s), temporary power, temporary sewer pipe and any necessary appurtenances.	1	LS			
5	Remove and replace 4" check valves located in dry well. (check valves supplied by City)	2	EA			
6	Remove and replace 4" plug valves located in dry well. (Plug valves supplied by City)	2	EA			
7	Remove all vegetation within fenced-in area and regrade to have positive drainage toward Riopelle Street (1% to 2% slope).	1	LS			

8	Install 6 mil polyethylene over regraded area.	600	SQFT			
9	Place & compact 6" – 8" layer of MDOT 9A aggregate to min. 95% of max. density, within fenced area.	725	SQFT			
10	Install 8" Concrete Pad w/ welded wire mesh, adjacent to existing concrete pad, including hook bolts & anchors @ 24" O.C. & expansion joint material.	176	SQFT			
11	Install Cummins – Onan Generator (supplied by city), including all connections to ¾" natural gas supply (at Riopelle ROW line) and electrical connections to pump control panel.	1	EA			

ITEMIZED BID SHEET – BID TOTAL:

\$ _____

RIOPELLE LIFT STATION REFIT

LINCOLN PARK, MICHIGAN

COMPANY NAME : _____
Print Name

ADDRESS: _____
Street

City **State** **Zip Code**

PHONE/FAX NOS:

_____ _____
Phone Number **Fax Number**

Email Address

BIDDER'S REPRESENTATIVE: _____
Print Name

BIDDER'S SIGNATURE: _____

DATE: _____

PART II

FORMS

AGREEMENT

THIS AGREEMENT is dated as of the _____ day of _____

in the year 20____ by and between the **CITY OF LINCOLN PARK**

hereinafter called OWNER, and _____

hereinafter called CONTRACTOR. WHEREAS OWNER AND CONTRACTOR, in

consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1. WORK

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

RIOPELLE LIFT STATION REFIT

Article 2. ENGINEER

The City of Lincoln Park, Director of Building and Engineering, which is hereinafter called ENGINEER, will have the right and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

Article 3. CONTRACT TIME

3.1. The Work shall be substantially completed within **30 days** of the Notice to Proceed, as provided in Paragraph 2.3 of the General Conditions, and completed and ready for final payment in accordance with paragraph 14.13 of the General Conditions within 45 days of the Notice to Proceed.

3.2. Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not substantially completed within the time specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense, and difficulties involved in providing in a legal or arbitration proceeding the actual loss suffered by OWNER if the Work is not substantially completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER, the City of LINCOLN PARK, \$1,000 (One Thousand Dollars) for each day that expires after the time specified in paragraph 3.1 for completion until the Work is completed.

Article 4. CONTRACT PRICE

Owner shall pay CONTRACTOR for performance of the Work in accordance with the Contract Documents in current funds as shown in Exhibit A - Proposal.

Article 5. PAYMENT PROCEDURES

CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions. CONTRACTOR is to use AIA Document G-702 for all Applications for Payment.

5.1. Progress Payments. OWNER shall make progress payments on account of the Contract Price on the basis on CONTRACTOR'S Applications for Payment as recommended by ENGINEER about 35 days after submittal of pay request by CONTRACTOR. Progress payments will be on the basis of the progress of the Work, the amount of which will be decided by the ENGINEER. Progress payments will be made in accordance with State Act 524.

5.2. Final Payment. Upon final completion and acceptance of the Work in accordance with paragraph 14.13 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said paragraph 14.13.

Article 6. CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following representations:

6.1. Whenever anywhere in these Contract Documents insurance is required, the name of the Owner and the name of its engineering consultant, if applicable, shall be added as additional names insured.

6.2. CONTRACTOR has fully and completely familiarized himself with the nature and extent of the Contract Documents, Work, locality, and with all local conditions and federal, state, and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Work.

6.3. CONTRACTOR has studied carefully all reports of investigation and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which were relied upon by ENGINEER in the preparation of the Drawings and Specifications and which have been identified in the Supplementary Conditions.

6.4. CONTRACTOR has fully and completely made or caused to be made at CONTRACTOR'S expense, examinations, investigations, tests and studies of data, in addition to those referred to in paragraph 6.3 of the Agreement, including, but not limited to, subsurface conditions, soil and underground strength conditions, whether latent or not, and any underground utility structures or obstacles and any other data that may possibly be deemed pertinent to the performance of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, and any additional examinations, investigations, tests, reports or similar data as will

be required by CONTRACTOR's agent at CONTRACTOR's expense. Such work should be considered incidental to the Contract Price.

6.5. CONTRACTOR has correlated the results of all such observations, examinations, investigations, tests, reports, and data with the terms and conditions of the Contract Documents.

6.6. CONTRACTOR has given the ENGINEER written notice of all conflicts, errors, discrepancies that he has discovered in the Contract Documents and the written resolution thereof by the ENGINEER is acceptable to the CONTRACTOR.

6.7. The CONTRACTOR accepts all risk directly or indirectly connected with the performance of the Contract.

6.8. The CONTRACTOR warrants that he has not been influenced by an oral statement or promise of the OWNER or the ENGINEER, but only by the Contract Documents.

Article 7. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire Agreement between OWNER and CONTRACTOR are attached to this Agreement, made a part thereof, and consist of the following:

- 7.1. This Agreement (pages 1 through 5 inclusive).
- 7.2. Exhibit A: Proposal and Itemized Bid Sheet.
- 7.3. All bonds identified as Exhibit B - Performance Bond, Exhibit C - Payment Bond, and Exhibit D - Maintenance and Guarantee Bond.
- 7.4. Notice of Award.
- 7.5. General Conditions.
- 7.6. Instructions to Bidders.
- 7.7. Special Provisions & Supplemental Specifications bearing the titles:

SPECIAL PROVISIONS & SUPPLEMENTAL SPECIFICATIONS

and consisting of ____ pages, as listed in the Table of Contents thereof.

7.8. Drawings numbered _____ inclusive each bearing the following general title:

RIOPELLE LIFT STATION REFIT

and Standard Drawings for: _____ numbered: _____

7.9. Addenda Numbers ____ to ____ Inclusive.

7.10. Contractor's Bid (pages ___ to ___ inclusive) marked Exhibit ___ (attach bid form only in special circumstances).

7.11. Documentation submitted by CONTRACTOR prior to Notice of Award (pages ___ to ___ inclusive).

7.12. Any modification, including Change Orders, duly delivered after execution of Agreement.

There are no contract documents other than those listed above in Article 7 of this Agreement. The Contract Documents may only be altered, amended or repealed by a Modification (as defined in Section 1 of the General Conditions).

Article 8. MISCELLANEOUS

8.1. Terms used in this Agreement which are defined in Article 1 of the General Conditions shall have the meanings indicated in the General Conditions.

8.2. No assignment by the CONTRACTOR hereto of any rights under or interest in the Contract Documents will be binding on the OWNER hereto without the written consent of the part sought to be bound; and specifically any not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law); and unless specifically stated to the contrary in any written consent to an agreement, no assignment will release or discharge the CONTRACTOR from any duty or responsibility under the Contract Documents.

8.3. OWNER and CONTRACTOR each binds himself, his partners, successors, assigns, and legal representatives to the other party hereto, his partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

Article 9. RESOLVING CONFLICTS

In resolving conflicts, errors, and discrepancies, the documents shall be given precedence in the following order: Agreement, Modification, Addenda, Supplementary Conditions, Instructions to Bidders, General Conditions, Special Provisions, Supplemental Specifications, Project Technical Specifications, Project Plan and Drawings, Standard Plans, Standard Specifications and Standard Notes. Figure dimensions on drawings shall govern over scale dimensions, and detailed drawings shall govern over general drawings.

IN WITNESS WHEREOF, the parties hereto have signed this Agreement in triplicate. One counterpart each has been delivered to OWNER, CONTRACTOR, and ENGINEER. All parties of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or by ENGINEER or their behalf.

This Agreement will be effective on _____, 20____.

OWNER CITY OF LINCOLN PARK _____

CONTRACTOR _____

By: _____
(CORPORATE SEAL)

By: _____
(CORPORATE SEAL)

Attest _____

Attest _____

Attest _____

Attest _____

Address for giving notices:

Address for giving notices:

Telephone: _____

Telephone: _____

EXHIBIT B - PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address and Telephone Number of Contractor)

a _____,
(Corporation, Partnership, or Individual)

Hereinafter called Principal, and _____,
(Name of Surety)

(Address and Telephone Number of Surety)

hereinafter called Surety, are held and firmly bound unto:

(Name of Owner)

(Address and Telephone Number of Owner)

hereinafter called Owner, in the penal sum of _____ Dollars,
(\$_____) in lawful money of the United States, for the payment of which sum well
and truly to be made, we bind ourselves, our heirs, executors, administrators and successors,
jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas the Principal entered into a
certain Contract with the Owner, dated the ____ day of ____, 20__, a copy of which is hereto
attached and made a part hereof for the construction of:

RIOPELLE LIFT STATION REFIT

NOW THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the
undertakings, covenants, terms, conditions and agreements of said Contract, including any
change of Work which may be required by Owner, with or without notice to the Surety, during
the original term thereof, any extensions thereof which may be granted by the Owner, with or
without notice to the Surety, including any change of Work which may be required by Owner,
with or without notice to the Surety, and if he shall satisfy all claims and demands incurred
under such Contract, and shall fully indemnify and save harmless the Owner from all costs and
damages which it may suffer by reason of failure to do so, and shall reimburse and repay the
Owner all outlay and expense which the Owner may incur in making good any default, then this
obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees
that no change, extension of time, alteration, or addition to the terms of the Contract or to work

to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in six (6) counterparts, each one of which shall be deemed an original, this the ____ day of _____, 20__.

ATTEST:

Principal

(Principal) Secretary

By: _____

(SEAL)

(Address)

(Witness as to Principal)

(Address)

(Telephone)

(Telephone)

Surety

ATTEST:

(Surety) Secretary

By: _____
Attorney-In-Fact

(SEAL)

(Address)

(Address)

(Telephone)

(Telephone)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is Partnership, all Partners should execute Bond.

EXHIBIT C - PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address and Telephone Number of Contractor)

a _____,
(Corporation, Partnership, or Individual)

Hereinafter called Principal, and _____,
(Name of Surety)

(Address and Telephone Number of Surety)

hereinafter called Surety, are held and firmly bound unto:

(Name of Owner)

(Address and Telephone Number of Owner)

hereinafter called Owner, in the penal sum of _____

Dollars, (\$_____) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas the Principal entered into a certain Contract with the Owner, dated the _____ day of _____, 20____, a copy of which is hereto attached and made a part hereof for the construction of:

RIOPELLE LIFT STATION REFIT

NOW THEREFORE, if the Principal shall promptly make payment to all persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such contract, and any authorized extensions or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such work, and all insurance premiums on said work, and for all labor, performed in such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract or to work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in six (6) counterparts, each one of which shall be deemed an original, this the _____ day of _____, 20_____.

ATTEST:

Principal _____

(Principal) Secretary

By: _____

(SEAL)

(Address)

(Witness as to Principal)

(Address)

(Surety)

ATTEST:

(Surety) Secretary

By:

Attorney-In-Fact

(SEAL)

(Address)

(Address)

(Telephone)

(Telephone)

NOTE: Date of Bond must not be prior to date of Contract. If Contractor is Partnership, all Partners should execute Bond.

EXHIBIT D

MAINTENANCE AND GUARANTEE BOND

KNOW ALL MEN BY THESE PRESENTS: that

and _____, Contractor, as Principal,

_____, as Surety,

are held and firmly bound into the _____

HEREINAFTER CALL THE Owner, in the sum of

_____ Dollars

(\$_____) good and lawful money of the United States of America, to be paid to said Owner, 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 every one of them jointly and severally firmly by these presents.

WHEREAS, the above named Principal has entered into a certain written Contract with the Owner, dated the _____ day of _____ A.D., 20____, for construction of work entitled:

RIOPELLE LIFT STATION REFIT

(hereinafter called the Contract). Which Contract and Specifications for said Work shall be deemed a part herein as fully as if set out herein.

NOW, THEREFORE, THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that by and under said Contractor, the above named Principal has agreed with the Owner that for a period of two years from the date of payment 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 Subcontractor, 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 and that whenever directed so to do by the Owner 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 OWNER and in case of failure to do so 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 OWNER 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 OWNER may take immediate steps to repair or barricade such defects without notice to the Contractor. In above accounting the OWNER 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 connection, the judgment of the OWNER or ENGINEER is final and conclusive. If the said Principal for a period of two (2) years from the date of payment of Final Estimate shall keep said work so constructed under said Contract in good order and repair and shall whenever notice is given as hereinbefore specified, at once proceed to make repair as in said notice directed, or shall reimburse said OWNER for any expense incurred by making such repairs, should the Principal or Surety fail to do as hereinbefore specified, and shall fully indemnify, defend and save harmless the OWNER 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. The Engineer's opinion as to whether the work performed is in good order and repair should be final.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their respective authorized officers this _____

day of _____ A.D., 20_____.

Signed, Sealed and Delivered
in the Presence of:

Principal (Seal)

Surety (Seal)

CONTRACTOR'S AFFIDAVIT

Current Estimate

STATE OF _____

COUNTY OF _____

The undersigned, _____,
Hereinafter called the Contractor, hereby represents that on _____,
_____ he/it was awarded a Contract by

hereinafter called the Owner, to _____,

in accordance with the terms and conditions of Contract No. _____; and
the undersigned further represent that all progress payments heretofore received
from the Owner on account of the Work have been applied by the Contractor to
discharge in full all of the Contractor's obligations incurred in connection with the
Work by all prior estimates.

This affidavit is freely and voluntarily given with full knowledge of the facts, on
this

_____ day of _____ A.D., 20_____.

Contractor

By _____

Title

Subscribed and sworn to before me this _____ day of _____,
in the year of our Lord, 20_____.

Notary Public

My Commission expires on: _____

CONTRACTOR'S AFFIDAVIT
Final Estimate

STATE OF _____

COUNTY OF _____

The undersigned, _____ hereby represents
that on _____, he/it was awarded a Contract by
_____, hereinafter called the Owner, to
_____;

in accordance with the terms and conditions of Contract No. _____; and
the undersigned further represent that the subject work has now been
accomplished, and the said Contract has now been completed.

The undersigned hereby warrants and certifies that all of his (its) indebtedness
arising by reason of the said Contract has been fully paid or satisfactorily
secured; and that all claims from subcontractors and others for labor and material
used in accomplishing said project, as well as all other claims arising from the
performance of the said Contract, have been fully paid or satisfactorily settled.
The undersigned further agrees that, if any such claim should hereafter arise, he
(it) shall assume responsibility for the same immediately upon request to do so
by the Owner.

The undersigned, for a valuable consideration, the receipt of which is hereby
acknowledged, does further hereby waive, release, and relinquish any and all
claims or right of lien which the undersigned has or may hereafter acquire upon
the subject premises for labor and material used in accomplishing said project
owned by the Owner.

This affidavit is freely and voluntarily given with full knowledge of the facts, on this
_____ day of _____ A.D., 20_____.

Contractor

By _____

Title

Subscribed and sworn to before me this _____ day of _____,
in the year of our Lord, 20_____.

Notary Public
My Commission expires on: _____

CONTRACTOR'S AFFIDAVIT

Construction Materials

STATE OF _____

COUNTY OF _____

The undersigned, _____,
Hereinafter called the Contractor, hereby represents that on _____,
_____ he/it was awarded a Contract by

hereinafter called the Owner, to _____,

in accordance with the terms and conditions of Contract; and the undersigned further represent that all materials used and installed on the project were received by a certified manufacturer's supplier and was installed per all applicable manufacturer's recommendations.

This affidavit is freely and voluntarily given with full knowledge of the facts, on this _____ day of _____ A.D., 20 _____.

Contractor

By _____

Title

Subscribed and sworn to before me this _____ day of _____,
in the year of our Lord, 20_____.

Notary Public
My Commission expires on: _____

PART III

CONDITIONS OF THE CONTRACT

GENERAL CONDITIONS

ARTICLE 1: DEFINITIONS

Whenever used in these General Conditions or in the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

Addenda: Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the bidding documents or the Contract Documents.

Agreement: The written agreement between **OWNER** and **CONTRACTOR** covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

Application for Payment: The form which is to be used by **CONTRACTOR** in requesting progress or final payment and which is to include such supporting documentation as is required by the Contract Documents.

Bid: The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

Bonds: Bid, performance and payment bonds and other instruments of security submitted on forms as required by Contract Documents.

Change Order: A written order to **CONTRACTOR** signed by **OWNER** authorizing an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time issued after the effective date of the Agreement.

Contract Documents: The Agreement, Addenda (which pertain to the Contract Documents), **CONTRACTOR**'s Bid (including documentation accompanying the Bid and any post-Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications, the Drawings as the same are more specifically identified in the Agreement, together with all Modifications issued after the execution of the Agreement and the Instructions to Bidders.

Contract Price: The moneys payable by **OWNER** to **CONTRACTOR** under the Contract Documents as stated in the Agreement.

Contract Time: The number of calendar days (computed as provided in paragraph 17.2) of the date stated in the Agreement for the completion of the Work.

CONTRACTOR: The person, firm, or corporation with whom **OWNER** has entered into the Agreement.

Day: A calendar day of twenty-four hours measured from midnight to the next midnight.

Defective: An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents or does not meet the requirements of any inspection, test, or approval referred to in the Contract Documents, or has been damaged prior to **ENGINEER**'s recommendation of final payment.

Drawings: The drawings which show the character and scope of the Work to be performed and are referred to in the Contract Documents.

Effective date of Agreement: The date indicated in the Agreement on which it becomes effective; but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

ENGINEER: The person, firm, or corporation named as such in the Agreement.

General Requirements: Section of Division 1 of the Specifications.

Modification: (a) A written amendment of the Contract Documents signed by both parties, (b) a Change Order. A modification may only be issued after the effective date of the Agreement.

Notice of Award: The written notice by **OWNER** to the apparent successful Bidder stating that upon compliance by the apparent successful Bidder with the conditions precedent enumerated therein, within the time specified **OWNER** will sign and deliver the Agreement.

OWNER: The public body or authority, corporation, association, partnership, or individual with whom **CONTRACTOR** has entered into the Agreement and for whom the Work is to be provided.

Project: The total construction of which the Work to be provided under the Contract Documents may be the whole or a part as indicated elsewhere in the Contract Documents.

Shop Drawings: All Drawings, diagrams, illustrations, schedules, and other data which are specifically prepared by **CONTRACTOR**, a Subcontractor, manufacturer, fabricator, supplier, or distributor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams, and other information prepared by a manufacturer, fabricator, supplier, or distributor and submitted by **CONTRACTOR** to illustrate material or equipment for some portion of the Work.

Specifications: Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

Subcontractor: An individual, firm, or corporation having a direct contract with **CONTRACTOR** or with any other Subcontractor for the performance of a part of the Work at the site.

Substantial Completion: The Work (or a specified part thereof) has progressed to the point where it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purpose for which it was intended; or if there be no such point established, when final payment is due in accordance with paragraph 14.13. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereof.

Work: The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor, and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.

GENERAL CONDITIONS

ARTICLE 2: PRELIMINARY MATTERS

DELIVERY OF BONDS

2.1. When **CONTRACTOR** delivers the executed Agreements to **OWNER**, **CONTRACTOR** may be required to furnish in accordance with paragraph 5.1.

COPIES OF DOCUMENTS

2.2. **OWNER** shall furnish to **CONTRACTOR** up to five copies (unless otherwise specified in the General Requirements) of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

COMMENCEMENT OF CONTRACT TIME: NOTICE TO PROCEED

2.3. The Contract Time will be presumed to commence to run on the first day after the effective date of the Notice to Proceed.

2.4. Blank

STARTING THE PROJECT

2.5. **CONTRACTOR** shall start to perform the Work on the date when the Contract Time commences to run, but no Work shall be done at the site prior to the date on which the Contract Time commences to run.

BEFORE STARTING CONSTRUCTION

2.6. Before undertaking each part of the Work, **CONTRACTOR** shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. **CONTRACTOR** shall promptly report in writing to **ENGINEER** any conflict, error or discrepancy which **CONTRACTOR** may discover; however, **CONTRACTOR** shall not be liable to **OWNER** or **ENGINEER** for failure to report any conflict, error or discrepancy in the Drawings and Specifications, unless **CONTRACTOR** had actual knowledge thereof or should reasonable have know thereof.

2.7. Blank

2.8. Before Work at the site is started, **CONTRACTOR** shall deliver to **OWNER** certificates (and other evidence of insurance requested by **OWNER**) which **CONTRACTOR** is required to purchase and maintain in accordance with paragraphs 5.3. and 5.4.

PRECONSTRUCTION CONFERENCE

2.9. Within five (5) days after the effective date of the Agreement, but before the issuance of the Notice to Proceed and the **CONTRACTOR** starts the Work at the site, a conference will be held for review and acceptance of the schedules to establish procedures for handling Shop Drawings and other submittals and for processing Applications for Payment and to establish a working understanding among the parties as to the Work.

GENERAL CONDITIONS

ARTICLE 3: CONTRACT DOCUMENTS: INTENT AND REUSE

INTENT

3.1. The Contract Documents comprise the entire Agreement between **OWNER** and **CONTRACTOR** concerning the Work. They may be altered only by a modification.

3.2. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. If during the performance of the Work, **CONTRACTOR** finds a conflict, error or discrepancy in the Contract Documents, he shall report it to **ENGINEER** in writing at once and before proceeding with the Work affected thereby; however, **CONTRACTOR** shall not be liable to **OWNER** or **ENGINEER** for failure to report any conflict, error or discrepancy in the Specifications or Drawings unless **CONTRACTOR** has actual knowledge thereof or should reasonably have known thereof.

3.3 It is the intent of the Specifications and Drawings to describe a complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work that may reasonably be inferred from the Specifications or Drawings as being required to produce the intended result shall be applied whether or not it is specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials or equipment, such words shall be interpreted in accordance with such meaning. Reference to standard Specifications, manuals or codes of any technical society, organization or association, or to the code of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual or code in effect at the time of opening of Bids (or on the effective dated of the Agreement if there were no Bids), except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall change the duties and responsibilities of **OWNER**, **CONTRACTOR** or **ENGINEER**, or any of their agents or employees from those set forth in the Contract Documents.

3.4. The Contract Documents will be governed by the law of the place of the Project.

REUSE OF DOCUMENTS

3.5. Neither **CONTRACTOR** nor any Subcontractor, manufacturer, fabricator, supplier or distributor shall have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal or logo of **ENGINEER**; and they shall not reuse any of them or part thereof on extensions of the Project or any other project without the written consent of **OWNER** and **ENGINEER** and specific written verification or adaptation by **ENGINEER**.

GENERAL CONDITIONS

ARTICLE 4: AVAILABILITY OF LANDS; PHYSICAL CONDITIONS; REFERENCE POINTS

AVAILABILITY OF LANDS

4.1. **CONTRACTOR** shall arrange for all lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

PHYSICAL CONDITIONS - INVESTIGATIONS AND REPORTS

4.2. Reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which have been relied upon by **ENGINEER** in preparation of the Drawings and Specifications - are not guaranteed as to accuracy or completeness and are not part of the Contract Documents.

UNFORESEEN PHYSICAL CONDITIONS

4.3. By signing the contract, the **CONTRACTOR** has represented that he has fully and completely made or caused to be made at **CONTRACTOR**'s expense examinations, investigations, tests, and studies of data in addition to those referred to in paragraph 6.2. of the Agreement, including but not limited to subsurface conditions, soil and underground strength conditions, whether latent or not, and any underground utility, structure or obstacle and any other data that may possibly be deemed pertinent to the performance of the Work at the Contract Price, within the Contract Time, and in accordance with the other terms and conditions of the Contract Documents; and any additional examinations, investigations, tests, reports or similar data as will be required by **CONTRACTOR** for such purposes will be performed by **CONTRACTOR** or **CONTRACTOR**'s agent at **CONTRACTOR**'s expense. Such work should be considered incidental to Contract Price.

REFERENCE POINTS

4.4. **OWNER** shall provide engineering surveys for construction to establish reference points which in his judgment are necessary to enable **CONTRACTOR** to proceed with the Work. **CONTRACTOR** shall be responsible for laying out the Work (unless otherwise specified in the General Requirements), shall protect and preserve the established reference points, and shall make no changes or relocations without the prior written approval of **OWNER**. **CONTRACTOR** shall report to **ENGINEER** wherever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations and shall be charged for replacement or relocation of such reference points by the **ENGINEER**, such changes being deducted from **CONTRACTOR**'s payment estimate.

GENERAL CONDITIONS

ARTICLE 5: BONDS AND INSURANCE

PERFORMANCE AND OTHER BONDS

5.1. **CONTRACTOR** shall furnish performance, payment, and maintenance and guarantee Bonds, each in an amount at least equal to the Contract Price, as security for the faithful performance and payment of all **CONTRACTOR's** obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date of final payment. **CONTRACTOR** shall also furnish such Bonds as are required in this Article. All Bonds shall be in the forms prescribed by the bidding documents in the state where the Project is located. All Bonds signed by an agent must be accompanied by a certified copy of the authority to act.

5.1.1. The insurance and Bonds required herein may be increased after award of Project is said increase if found reasonably necessary or required for the proper performance of the Project. Said increase shall be at the **CONTRACTOR's** expense.

5.1.2. The **CONTRACTOR** is under a continued obligation to submit insurance and Bonds as required herein. If at any time prior to final acceptance the **OWNER** discovers that any insurance or Bonds required herein were either not submitted by **CONTRACTOR** or not submitted in full compliance with the Contract Documents, then the **OWNER** has the option to require the **CONTRACTOR** to submit insurance and Bonds as required in the contract. In case of failure of **CONTRACTOR** to submit such bonds or insurance, the **OWNER** may elect any remedy that may reasonably protect the **OWNER's** interest. However, the originally submitted Bonds and insurance would continue to have full effect and force.

5.1.3. All Bonds shall be in the forms prescribed by the bidding documents or Supplementary General Conditions and be executed by such Sureties as (i) are licensed to conduct business in the state where the Project is located, and (ii) are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of the authority to act.

5.2. If the Surety on any Bond furnished by **CONTRACTOR** is declared a bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of paragraph 5.1., **CONTRACTOR** shall within five days thereafter substitute another Bond and Surety, both of which shall be acceptable to the **OWNER**.

CONTRACTOR'S LIABILITY INSURANCE

5.3. The insurance certificates required herein form a part of this Contract and until such required certificates are delivered to **OWNER** and approved by the **OWNER** and **ENGINEER** no valid Contract shall exist between the parties hereto. **IT IS ABSOLUTELY NECESSARY THAT ALL CERTIFICATES BE APPROVED BY THE CORPORATION COUNSEL BEFORE ANY WORK IS STARTED PURSUANT TO THIS CONTRACT.**

CONTRACTOR shall purchase and maintain such comprehensive general liability and other insurance as will provide protection from claims set forth below which may arise out of or result from **CONTRACTOR's** performance of the Work and **CONTRACTOR's** other obligations under the Contract Documents, whether such performance is by **CONTRACTOR**, by any Subcontractors, by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable.

THE CONTRACTOR SHALL FURNISH THREE CERTIFIED COPIES OF ALL CERTIFICATES OF INSURANCE POLICIES REQUESTED HEREIN. The OWNER and ENGINEER shall be names insured on each and every insurance policy required herein. The CONTRACTOR must furnish certificates for the following insurance:

5.3.1. Claims under workers' or workmen's compensation, disability benefits, and other similar employee benefit acts:

- | | |
|--------------------------|-----------|
| (1) State | Statutory |
| (2) Employer's Liability | Statutory |

5.3.2. Claims for damages because of bodily injury, occupational sickness or disease, or death of **CONTRACTOR's** employees:

- | | |
|--------------------------|-----------|
| (1) State | Statutory |
| (2) Employer's Liability | Statutory |

(1) Bodily Injury:

- | | |
|-------------|-----------------------------------------------------|
| \$1,000,000 | Each Occurrence |
| \$1,000,000 | Annual Aggregate, Products and Completed Operations |

(2) Property Damage:

- | | |
|-------------|------------------|
| \$1,000,000 | Each Occurrence |
| \$1,000,000 | Annual Aggregate |

(3) Property Damage Liability Insurance will provide Explosion, Collapse and Underground Coverage where Applicable.

(4) Personal Injury, with employment exclusion deleted:

- | | |
|-------------|------------------|
| \$1,000,000 | Annual Aggregate |
|-------------|------------------|

This insurance required by this paragraph 5.3. shall include the specific coverage and be written for not less than the limits of liability and coverage's provided herein or in the Supplementary Condition, or required by law, whichever is greater. The comprehensive general liability insurance shall include completed operations insurance. All such insurance shall contain a provision that the coverage afforded will not be canceled, materially changed, or renewal refused until at least thirty days' prior written notice has been given to **OWNER** and **ENGINEER**. All such insurance shall remain in effect until final payment and at all times thereafter when **CONTRACTOR** may be correcting, removing or replacing defective Work in accordance with paragraph 13.12. In addition, **CONTRACTOR** shall maintain such completed operations insurance for at least two years after final payment and furnish **OWNER** and **ENGINEER** with evidence of continuation of such insurance at final payment and one year thereafter.

5.4. The comprehensive general liability insurance required to paragraph 5.3 will include contractual liability insurance applicable to **CONTRACTOR's** obligations under paragraph 6.30 and 6.31.

OWNER'S AND CONTRACTOR'S PROTECTIVE LIABILITY INSURANCE

5.5. The **CONTRACTOR** shall maintain during the life of this contract Owner's and Contractor's Protective Liability Coverage in the name of:

- (1) The **OWNER**
- (2) The **ENGINEER**
- (3) Others, if specifically required by special permission in the Contract Documents.

This coverage shall include the entire Work. The **CONTRACTOR** shall furnish a Certificate of Insurance certifying that his Owner's and Contractor's Protective Liability Insurance includes all Subcontractors engaged in the Work. The Owner's and Contractor's Protective Liability Coverage shall contain the following endorsement:

"It is hereby understood and agreed that such insurance as is afforded shall include specific coverage for the so-called Explosion, Collapse and Underground Hazards, which covers damage, or structural injury to buildings or adjacent structures arising from operations under this Contract, including excavation or tunneling and damage sustained by wires, conduits, mains, sewers, and the like, occasioned by the Contractor's sub-surface operations."

The minimum limits of liability for all coverage's in the above shall be as follows, unless specifically required by special provision in the Specifications:

(1) Bodily Injury Liability:

\$1,000,000	Each Person
\$1,000,000	Each Occurrence
\$1,000,000	Aggregate

(2) Property Damage Liability:

\$1,000,000	Each Occurrence
\$1,000,000	Aggregate (except Auto)

In the event that an Umbrella Liability Policy is used to meet the limit requirements of the Specifications, the total limits available under the underlying coverage and the umbrella coverage shall not be less than \$1,000,000.

PROPERTY INSURANCE

5.6. Unless otherwise provided in these General Conditions, **CONTRACTOR** shall purchase and maintain property insurance upon the Work at the site to the full insurable value thereof (subject to such deductible amounts as required by law). This insurance shall include the interests of **OWNER, ENGINEER, CONTRACTOR**, and Subcontractor in the Work, shall insure against the perils of fire and extended coverage, shall include "all risk" insurance for physical loss and damage, including theft, vandalism, and malicious mischief, collapse and water damage, and such other perils as may be provided in these General Condition, and shall include damages, losses and expenses arising out of or replacement of any insured loss or incurred in the repair or replacement of any property (including fees and charges of engineers, architects, attorneys, and other professionals). If not covered under the "all risk" insurance or otherwise provided in the Supplementary Conditions, **CONTRACTOR** shall purchase and maintain similar property insurance in transit when such portions of the Work are to be included in an Application for Payment. The policies of insurance required to be purchased and maintained by **CONTRACTOR** in accordance with paragraphs 5.6 and 5.7 shall contain a provision that the coverage afforded will no be canceled or materially changed until at least thirty days' prior written notice has been given to the **OWNER** and **ENGINEER**.

5.7. Blank.

5.8. **OWNER** shall not be responsible for purchasing and maintaining any property insurance to protect the interests of **CONTRACTOR** or Subcontractors in the Work to the extent of any deductible amounts that are provided in this contract. If **CONTRACTOR** wishes property insurance coverage within the limits of such amounts, **CONTRACTOR** may purchase and maintain it at his own expense.

5.9. Blank.

WAIVER OF RIGHTS

5.10. **OWNER** and **CONTRACTOR** waive all right against each other and the Subcontractor and their agents and employees and against **ENGINEER** and separate contractors (if any) and their Subcontractor's agents and employees for damages caused by fire or other perils to the extent covered by insurance provided under paragraph 5.6 or any other property insurance applicable to the Work, expect such rights as they may have to the proceeds of such insurance held by **OWNER** as trustee. **CONTRACTOR** shall require similar written waivers from each Subcontractor (in accordance with paragraph 6.11 as applicable); each such waiver will be in favor of all other parties enumerated in this paragraph 5.10.

RECEIPT AND APPLICATION OF PROCEEDS

5.11. Any insured loss under the policies of insurance required by paragraph 5.6 shall be adjusted with **OWNER** and made payable to **OWNER** as trustee for the insured, as their interests may appear, subject to the requirements of any applicable mortgage clause and of paragraph 5.12. **OWNER** shall deposit in a separate account any money so received, and he shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.

5.12. **OWNER** as trustee shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within fifteen days after the occurrence of loss to **OWNER**'s exercise of this power. If such objection is made, **OWNER** as trustee shall make settlement with the insurers in accordance with such agreements as the parties in interest may reach. If required in writing by

any party in interest, **OWNER** as trustee shall upon occurrence of an insured loss give bond for the proper performance of his duties.

ACCEPTANCE OF INSURANCE

5.13. If **OWNER** has any objection to the coverage afforded by or other provisions of the insurance required to be purchased and maintained by **CONTRACTOR** in accordance with paragraph 5.3 and 5.4 on the basis of its not complying with the Contract Documents, **OWNER** will notify the **CONTRACTOR** in writing thereof within thirty days of the date of delivery of such certificates to **OWNER** in accordance with paragraph 2.7.

PARTIAL UTILIZATION - PROPERTY INSURANCE

5.14. If **OWNER** finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all Work, such use or occupancy may be accomplished in accordance with paragraph 14. 10; provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected the changes in coverage necessary thereby. The insurers provided the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or lapse on account of any such partial use or occupancy.

QUALIFICATIONS OF INSURERS

5.15. In order to determine financial strength and reputation of insurance carriers, all companies providing the coverage's required shall be licensed or approved by the Insurance Bureau of the State of Michigan and shall have a financial rating not lower than XI and a policyholder's service rating no lower than B+ as listed in A.M. Best's Key Rating Guide, current edition. Companies with ratings lower than B=:XI will be acceptable only upon written consent of the **OWNER**.

GENERAL CONDITIONS

ARTICLE 6: CONTRACTOR'S RESPONSIBILITIES

SUPERVISION AND SUPERINTENDENTS

6.1. **CONTRACTOR** shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. **CONTRACTOR** shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. **CONTRACTOR** shall be responsible to see that the finished Work complies accurately with the Contract Documents.

6.2. **CONTRACTOR** shall keep on the Work at all times during its progress a competent resident superintendent who shall not be replaced without written notice to **OWNER** and **ENGINEER** except under extraordinary circumstances. The superintendent will be **CONTRACTOR**'s representative at the site and shall have authority to act on behalf of **CONTRACTOR**. All communications given to the superintendent shall be as binding as if given to **CONTRACTOR**.

LABOR, MATERIALS, AND EQUIPMENT

6.3. **CONTRACTOR** shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. **CONTRACTOR** shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated herein, all Work at the site shall be performed during regular working hours, and **CONTRACTOR** will not permit overtime work or the performance of Work on Saturday, Sunday, or any legal holiday without **OWNER**'s consent.

6.4. **CONTRACTOR** shall furnish all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water and sanitary facilities, and all other facilities and incidentals necessary for the execution, testing, initial operation, and completion of the Work.

6.5. All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by **OWNER**, **CONTRACTOR** shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment.

6.6. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, supplier or distributor, except as otherwise provided in the Contract Documents.

EQUIVALENT MATERIALS AND EQUIPMENT

6.7. Whenever materials or equipment are specified or described in the Drawings or Specifications by using the name of a proprietary item or the name of a particular manufacturer, fabricator, supplier, or distributor, the naming of the item is intended to establish the type, function, and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other manufacturers, fabricators, suppliers, or distributors may be accepted by **OWNER** if sufficient information is submitted by **CONTRACTOR** to allow **OWNER** to determine that the material or equipment proposed is equivalent to that named. The procedure for review will be as set forth in paragraphs 6.7.1 and 6.7.2 below as supplemented in the General Requirements.

6.7.1. Requests for review of substitute items of material and equipment will not be accepted by **OWNER** and **ENGINEER** from anyone other than **CONTRACTOR**. If **CONTRACTOR** wishes to furnish or use a substitute item of material or equipment, **CONTRACTOR** shall make written application to **OWNER** through the **ENGINEER** for acceptance thereof, certifying that the proposed substitute will perform adequately the functions called for by the general design, be similar and of equal substance to that specified, and be suited to the same use and capable of performing the same functions that specified. The application will state whether in the Drawing or Specifications to adapt the design to the substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified shall be identified in the application, and available maintenance, repair, and replacement service will be indicated. The application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of each substitute, including costs of redesign and claims of other contractors affected by the resulting change. **OWNER** may require **CONTRACTOR** to furnish at **CONTRACTOR**'s expense additional data about the proposed substitute. **OWNER** may require **CONTRACTOR** to furnish at **CONTRACTOR**'s expense a special performance guarantee or other surety with respect to any substitute.

6.7.2 **ENGINEER** will record time required by **ENGINEER** and **ENGINEER**'s consultants in evaluating substitutions proposed by **CONTRACTOR** and in making changes in the Drawings or Specifications occasioned thereby. Whether or not **ENGINEER** accepts a proposed substitute, **CONTRACTOR** shall reimburse **OWNER** for the charges of **ENGINEER** and **ENGINEER**'s consultants for evaluating any proposed substitute.

CONCERNING SUBCONTRACTORS

6.8. **CONTRACTOR** shall not employ any Subcontractor or other person or organization (including those who are to furnish the principal items of materials or equipment), whether initially or as a substitute, against whom **OWNER** may have any objection. Acceptance of any Subcontractor, other person or organization by **OWNER** shall not constitute a waiver of any rights of **OWNER** to reject defective Work. After the giving of the Notice of Award, if the **OWNER**, after the investigation, has reasonable objection to any Subcontractor, other persons or organization, the **OWNER** may request the Successful Bidder to provide an acceptable substitute without an increase in the Contract Price. In such a case, neither the **OWNER** nor the **ENGINEER** would be liable for any damages or remedies of either the **CONTRACTOR** or Subcontractor or any other said person or organization. It is the responsibility of the **CONTRACTOR** to inform the Subcontractor or other person or organization to the provision of the contract prior to the parties being contractually bound.

6.9. **CONTRACTOR** shall be fully responsible for all acts and omissions of his Subcontractors and of persons and organizations directly or indirectly employed by them and of persons and organizations for whose acts any of them may be liable to the same extent that **CONTRACTOR** is responsible for the acts and omissions of persons directly employed by **CONTRACTOR**. Nothing in the Contract Documents shall create any contractual relationship between **OWNER** and **ENGINEER** and any Subcontractor or other person or organization having a direct contract with **CONTRACTOR** nor shall it create any obligation on the part of the **OWNER** or **ENGINEER** to pay or to see to the payment of any moneys due any Subcontractor or other persons or organizations.

6.10. The divisions and sections of the Specifications and the identifications of any Drawings shall not control **CONTRACTOR** in dividing the Work among Subcontractors or delineating the Work to be performed by any specific trade.

6.11. All work performed for **CONTRACTOR** by a Subcontractor will be pursuant to an appropriate agreement between **CONTRACTOR** and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of **OWNER** and **ENGINEER** and contains waiver provisions as required by paragraph 5.10. **CONTRACTOR** shall pay each Subcontractor a just share of any insurance moneys received by **CONTRACTOR** on account of losses under policies issued pursuant to paragraph 5.6. through 5.8.

PATENT FEES AND ROYALTIES

6.12. **CONTRACTOR** shall pay all license fees and royalties and assume costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others.

The **CONTRACTOR** shall familiarize himself with any such possible costs prior to bidding. **CONTRACTOR** hereby indemnifies and holds harmless **OWNER** and **ENGINEER** and anyone directly or indirectly employed by either of them from and against all claims, damages, losses and expenses (including attorney's fees) arising out on any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation of the Work of any invention, design, process, product, or device, and shall defend all such claims in connection with any alleged infringement of such rights.

PERMITS

6.13. Unless otherwise provided herein, **CONTRACTOR** shall obtain and pay for all construction permits and licenses. **CONTRACTOR** shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids. **CONTRACTOR** shall pay all charges of utility service companies for connections to the Work and for capital costs related thereto.

LAWS AND REGULATIONS

6.14. **CONTRACTOR** shall give all notices and comply with all laws, ordinances, rules, and regulations applicable to the Work. If **CONTRACTOR** observes that the Specifications or Drawings are at variance therewith, **CONTRACTOR** shall give **ENGINEER** prompt written notice thereof, any necessary changes shall be adjusted by an appropriate Modification. If **CONTRACTOR** performs any work knowing or having reasons to know that it is contrary to such laws, ordinances, rules and regulations, the **CONTRACTOR** shall bear all costs arising therefrom. It shall be the **CONTRACTOR**'s responsibility to make certain that the Specifications and Drawings are in accordance with such laws, ordinances, rules and regulations.

TAXES

6.15. **CONTRACTOR** shall pay all sales, consumer, use and other similar taxes required to be paid by him in accordance with the law of the place of the Project.

USE OF PREMISES

6.16. **CONTRACTOR** shall confine construction equipment, the storage of materials and equipment, and the operations of workmen to areas permitted by law, ordinances, permits or the requirements of the Contract Documents and shall not reasonably encumber the premises with construction equipment or other materials or equipment.

6.17. During the progress of the Work, **CONTRACTOR** shall keep the premises free from accumulation of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work, **CONTRACTOR** shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the site clean and ready for occupancy by **OWNER**. **CONTRACTOR** shall restore to their original condition those portions of the site not designated for alteration by the Contract Documents.

6.18. **CONTRACTOR** shall not load and permit any part of any structure to be loaded in any manner that will endanger the structure nor shall **CONTRACTOR** subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

RECORD DOCUMENTS

6.19. **CONTRACTOR** shall keep one record copy of all Specifications, Drawings, Addenda, Modifications, Shop Drawings and samples at the site in good order and annotated to show all changes made during the construction process. These shall be available to **ENGINEER** for examination and shall be delivered to **ENGINEER** for **OWNER** upon completion of the Work.

SAFETY AND PROTECTION

6.20. **CONTRACTOR** shall be solely responsible for initiating, maintaining and supervision all safety precautions and programs in connection with the Work. **CONTRACTOR** shall take all necessary precautions for the safety of and shall provide the necessary protection to prevent damage, injury or loss to (but not limited to) the following:

6.20.1. all employees on the Work and other persons who may be affected thereby,

6.20.2. all the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and

6.20.3. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

CONTRACTOR shall comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss and shall erect and maintain all necessary safeguards for such safety and protection. **CONTRACTOR** shall notify owners of adjacent property and utilities when prosecution of the Work may affect them. All damage, injury or loss to any property referred to in paragraph 6.20.2 or 6.20.3 caused, directly or indirectly, in whole or in part, by **CONTRACTOR**, any Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, shall be remedied by **CONTRACTOR**. **CONTRACTOR**'s duties and responsibilities for the safety and protection of the Work shall continue until such time as the Work is completed and **ENGINEER** has issued a notice to **OWNER** and **CONTRACTOR** in accordance with paragraph 14.13. that the Work is acceptable.

6.21. **CONTRACTOR** shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be **CONTRACTOR**'s superintendent unless otherwise designated in writing by **CONTRACTOR** to **OWNER**.

EMERGENCIES

6.22. In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, **CONTRACTOR**, without special instruction or authorization from **ENGINEER** or **OWNER**, is obligated to act to prevent threatened damage, injury or loss. **CONTRACTOR** shall give **ENGINEER** prompt written notice of any significant changes in the Work or deviations from the Contract Documents caused thereby.

SHOP DRAWINGS AND SAMPLES

6.23. After checking and verifying all field measurements, **CONTRACTOR** shall submit to **ENGINEER** for review, in accordance with the accepted schedule of Shop Drawings submission (see paragraph 2.8), five copies (unless otherwise specified in the General Requirements) of all Shop Drawings, which shall have been checked by **CONTRACTOR**. The data shown on the Shop Drawings will be complete with respect to dimensions, design criteria, materials of construction and like information to enable **ENGINEER** to review the information as required. The review by the **ENGINEER** is for the purpose of familiarizing the **ENGINEER** with the Work of the **CONTRACTOR** and does not constitute an approval by the **ENGINEER** of any of the submitted material. The **CONTRACTOR** is solely responsible for the correctness and accuracy of all submitted material.

6.24. **CONTRACTOR** shall also submit to **ENGINEER** for review, with such promptness as to cause no delay in Work, all samples required by the Contract Documents. All samples will have been checked by and stamped with the approval of **CONTRACTOR**, identified clearly as to material, manufacturer, any pertinent catalog numbers and the use for which intended. The review by the **ENGINEER** is for the purpose of familiarizing the **ENGINEER** with the Work of the **CONTRACTOR** and does not constitute an approval by the **ENGINEER** of any of the submitted materials. The **CONTRACTOR** is solely responsible for the correctness and accuracy of all submitted material.

6.25. At the time of each submission, **CONTRACTOR** shall in writing call **ENGINEER**'s attention to any deviations that the Shop Drawings or samples may have from the requirements of the Contract Documents.

6.26. **ENGINEER** will review the Shop Drawings and samples, but **ENGINEER**'s review shall be only for general and approximate conformance with the design concept of the Project and for general and approximate compliance with the information given in the Contract Documents and shall not extend to means, methods, sequences, techniques or procedures of construction or to safety precautions or programs incident thereto. The review of a separate item as such will not indicate a review of the assembly in which the item functions. **CONTRACTOR** shall make any corrections required by **ENGINEER** and shall return the required number of corrected copies of Shop Drawings and resubmit new samples for review (as stated above for general and approximate compliance). **CONTRACTOR** shall direct specific attention in writing to revisions other than the correction called for by **ENGINEER** on previous submittals. **CONTRACTOR**'s stamp of approval on any Shop Drawing or samples shall constitute a representation to **OWNER** and **ENGINEER** that **CONTRACTOR** has determined and verified all quantities, dimensions, field construction criteria, materials, catalog numbers, and similar data and assumes full and sole responsibility for doing so, and that **CONTRACTOR** has reviewed or coordinated each Shop Drawing or sample with the Requirements of the Work and the Contract Documents.

6.27. Where a Shop Drawing or sample is required by the Specifications, no related Work shall be commenced until the submittal has been reviewed by **ENGINEER**.

6.28. **ENGINEER**'s review of Shop Drawings or samples shall not relieve **CONTRACTOR** from any responsibility for any deviations from the Contract Documents unless **CONTRACTOR** has in writing called **ENGINEER**'s attention to such deviation at the time of submission and **ENGINEER** has given written concurrence and approval to the specific deviation nor shall any concurrence or approval by **ENGINEER** relieve **CONTRACTOR** from his sole responsibility for errors or omissions in the Shop Drawings.

CONTINUING THE WORK

6.29. **CONTRACTOR** shall carry on the Work and maintain the progress schedule during all disputes or disagreements with **OWNER**, including but not limited to disputes and disagreements concerning change of conditions, change of quantities, or change of scope of work. No Work shall be delayed or

postponed pending resolution of any damages or disagreements, except as **CONTRACTOR** and **OWNER** may otherwise agree in writing.

INDEMNIFICATION

6.30. To the fullest extent permitted by law, **CONTRACTOR** agrees to indemnify, defend, and save harmless the **OWNER**, their officials, employees, and agents, from and against all claims, damages, loss or expense (including but not limited to costs and attorney fees) by reason of any liability asserted or imposed upon the **OWNER**, their officials, agents or employees, for damages because of bodily injury, including death, at any time resulting therefrom, sustained by any person or persons or on account of damage to property, including loss of use thereof, arising out of or in consequence of the performance of the Work described herein, whether such injuries to persons or damage to property is due, or claimed to be due, directly or indirectly, to the negligence or omission of the **CONTRACTOR**, any Subcontractor, the **OWNER**, their officials, employees, or agents.

6.31. In any and all claims against **OWNER** and **ENGINEER** or any of their agents or employees by any employee of **CONTRACTOR**, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.30 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for **CONTRACTOR** or any Subcontractor under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

6.32. Blank.

GENERAL CONDITIONS

ARTICLE 7: WORK BY OTHERS

7.1. **OWNER** may perform additional work related to the Project by himself or have additional work performed by utility service companies or let other direct contracts therefore which shall contain General Conditions similar to these. **CONTRACTOR** shall afford the utility service companies and the other contractors who are parties to such direct contracts (or **OWNER**, if **OWNER** is performing the additional work with **OWNER'S** employees) all possible opportunity for the introduction and storage of materials and equipment and the execution of Work and shall properly connect and coordinate his Work with theirs.

7.2. If any part of **CONTRACTOR'S** Work depends for proper execution of results upon the work of any such other contractor or utility service company (or **OWNER**), **CONTRACTOR** shall inspect and promptly report to **ENGINEER** in writing defects or deficiencies in such work that render it unsuitable for such proper execution and results. **CONTRACTOR'S** failure so to report shall constitute an acceptance of the other work as fit and proper for integration with **CONTRACTOR'S** Work except for latent or non-apparent defects and deficiencies in the other work.

7.3. **CONTRACTOR** shall do all cutting, fitting, and patching of his Work that may be required to make its several parts come together properly and integrate with such other work. **CONTRACTOR** shall not endanger any work of others by cutting, excavating or otherwise altering their work.

7.4. If the performance of additional work by other contractors or utility service companies or **OWNER** was not noted in the Contract Documents, written notice thereof shall be given to **CONTRACTOR** prior to starting any such additional work.

GENERAL CONDITIONS

ARTICLE 8: OWNER'S RESPONSIBILITY

- 8.1. **OWNER** shall issue all communications to **CONTRACTOR** through **ENGINEER**.
- 8.2. The **ENGINEER** is designated as the representative of the **OWNER** during the period of the contract.

GENERAL CONDITIONS

ARTICLE 9: ENGINEER'S STATUS DURING CONSTRUCTION

OWNER'S REPRESENTATIVE

9.1. **ENGINEER** will be **OWNER**'s representative during the construction period, but authority to bind the **OWNER** is limited as set forth in Article 10.2 of these General Conditions.

VISITS TO SITE

9.2. **ENGINEER** through the **ENGINEER**'s inspector and construction engineer will make visits to the site at intervals appropriate to the various stages of construction, and possibly on a daily basis, to observe the progress and quality of the executed Work. **ENGINEER**'s inspector will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. **ENGINEER**'s efforts will be directed toward providing for **OWNER** a greater degree to confidence that the completed Work will conform to the Contract Documents. On the basis of such visits and on-site observations, **ENGINEER** will keep **OWNER** informed of the progress of the Work. Limitations on responsibility of **ENGINEER** stated above shall not be deemed altered even if **ENGINEER** has full-time inspector on the site.

CLARIFICATIONS AND INTERPRETATIONS

9.3. **ENGINEER** may issue within a reasonable time such written clarifications or interpretations of the Contract Documents (in the form of Drawings or otherwise) as **ENGINEER** may determine necessary. No increase in Contract Price or Contract Time is justified or allowed if the clarification or interpretation of the Contract Documents is inferable from the overall intent of the Contract Documents.

9.4. Blank.

9.5. Blank.

9.6. Blank.

9.7. Blank.

PROJECT PRESENTATION

9.8. If **OWNER** and Engineer agree, **ENGINEER** will furnish an inspector to assist **OWNER** in observing the performance of the Work. The duties, responsibilities and limitations of authority of any such inspectors, construction engineers, and assistants will be as provided in Article 9.2. above.

DECISIONS ON DISAGREEMENTS

9.9. **ENGINEER** will be the initial interpreter of the requirements of the Contract Documents. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the Work shall be referred initially to **ENGINEER** in writing with a request for a formal decision in accordance with this paragraph, which **ENGINEER** will render within the time the **ENGINEER** deems required to complete any related investigation of the claim. Written notice of each such claim, dispute and other matter shall

be delivered by the claimant to **ENGINEER** and the other party to the Agreement within fifteen days of the occurrence of the event giving rise thereto, together with any supporting data. In his capacity as interpreter, **ENGINEER** will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.10. The rendering of a decision by **ENGINEER** pursuant to paragraph 9.9 with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.16) will be a condition precedent to any exercise by **OWNER** or **CONTRACTOR** of such rights or remedies as either may otherwise have under the Contract Documents or at law in respect of any such claim, dispute or other matter.

LIMITATIONS ON ENGINEER'S RESPONSIBILITY

9.11. Neither **ENGINEER's** authority to act under this Article 9 or elsewhere in the Contract Documents nor any decision made by **ENGINEER** either to exercise or not exercise such authority shall give rise to any duty or responsibility of **ENGINEER** to **CONTRACTOR**, or any Subcontractor, any manufacturer, fabricator, supplier or distributor, or any of their agents or employees or any other person performing any of the Work.

9.12. Whenever in the Contract Documents the terms "as ordered," "as directed," "as required," "as allowed" or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper" or "satisfactory" or adjectives of like effect or import are used to describe requirement, direction, review or judgment of **ENGINEER** as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the Work for compliance with the Contract Documents. The use of any such term or adjective never indicates that **ENGINEER** shall have authority to supervise or direct performance of the Work or authority to undertake responsibility contrary to the provisions of paragraph 9.13. or 9.14.

9.13. **ENGINEER** will not be responsible for any of **CONTRACTOR's** means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and **ENGINEER** will not be responsible for any of **CONTRACTOR's** failure to perform the Work in accordance with the Contract Documents. The **CONTRACTOR** shall be solely responsible for any of **CONTRACTOR's** means, methods, techniques, sequences, or procedures, or the safety precautions and programs incidents thereto.

9.14. **ENGINEER** will not be responsible for the acts or omissions of **CONTRACTOR** or of any Subcontractors or of the agents or employees of any **CONTRACTOR** or Subcontractor or of any persons at the site or otherwise performing any of the Work. The **CONTRACTOR** will be solely responsible for the acts or omissions of **CONTRACTOR** or of any Subcontractors or of any other persons at the site or otherwise performing any of the Work.

GENERAL CONDITIONS

ARTICLE 10: CHANGES IN THE WORK

10.1. Without invalidating the Agreement, **OWNER** may, at any time or from time to time, order additions, deletions or revisions in the Work; these will be authorized by Change Orders. Upon receipt of a Change Order, **CONTRACTOR** shall proceed with the Work involved. All such Work shall be executed under the applicable conditions of the Contract Documents. If any Change Order causes a decrease in the Contract Price or a shortening of the Contract Time, an equitable adjustment will be made.

10.2. Engineer may authorize changes in the Work which, in his judgment, are reasonably required for the proper fulfillment of the contract.

10.3. Additional Work performed without authorization will not entitle **CONTRACTOR** to an increase in the Contract Price or an extension of the Contract Time, except in the case of an emergency as provided in paragraph 6.22 and except as provided in paragraphs 10.2.

10.4. **OWNER** shall execute appropriate Change Orders prepared by **ENGINEER** covering changes in the Work which are required by **OWNER** or required because of emergencies or because of uncovering Work found not to be defective or as provided in paragraph 11.9 or 11.10 or because of any other claim of **CONTRACTOR** for a change in the Contract Time or the Contract Price which is recommended by **ENGINEER**.

10.5. If notice of any change affecting the general scope of the Work or change in the Contract Price is required by the provisions of any Bond to be given to the Surety, it will be **CONTRACTOR's** sole responsibility to so notify the Surety, and the amount of each applicable Bond shall be adjusted accordingly. **CONTRACTOR** shall furnish proof of such adjustment to **OWNER** and **ENGINEER** without the need for either **OWNER** or **ENGINEER** requesting such proof.

GENERAL CONDITIONS

ARTICLE 11: CHANGE OF CONTRACT PRICE

11.1. The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to **CONTRACTOR** for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by **CONTRACTOR** shall be at this expense without change in the Contract Price.

11.2. The Contract Price may only be changed by a Change Order. Any claim for an increase in the Contract Price shall be based on written notice delivered to **OWNER** and **ENGINEER** within fifteen days of the occurrence of the event giving rise to the claim. Notice of the amount of the claim with supporting data shall be delivered within thirty days of such occurrence unless **ENGINEER** allows an additional period of time to ascertain accurate cost data. All claims for adjustment in the Contract Price shall be determined by **ENGINEER** if **OWNER** and **CONTRACTOR** cannot otherwise agree on the amount involved.

11.3. The value of any Work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:

11.3.1. Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved (subject to the provisions of paragraph 11.9).

11.3.2 By mutual acceptance of a lump sum.

11.3.3. On the basis of the Cost of the Work (determined as provided in paragraphs 11.4 and 11.5) plus a **CONTRACTOR's** Fee for overhead and profit (determined as provided in paragraph 11.6).

COST OF THE WORK

11.4. The term Cost of the Work means the sum of all costs necessarily incurred and paid by **CONTRACTOR** in the proper performance of the Work. Except as otherwise may be agreed to in writing by **OWNER**, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include and of the costs itemized in paragraph 11.5:

11.4.1. The payroll costs for employees necessary for efficient and acceptable production in the direct employ of **CONTRACTOR** in the performance of the Work under schedules of job classifications agreed upon by **OWNER** and **CONTRACTOR**. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages, plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' or workmen's compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing Work after regular working hours, on Sunday or legal holidays, shall be included in the above to the extent authorized by **OWNER**.

11.4.2. Cost of materials and equipment furnished and incorporated in the Work provided those materials and equipment are necessary for efficient and acceptable production as determined by **ENGINEER**.

11.4.3. Payments made by **CONTRACTOR** to the Subcontractors for Work performed by Subcontractors. If required by **OWNER**, **CONTRACTOR** shall obtain competitive bids from Subcontractors acceptable to **CONTRACTOR** and shall deliver such bids to **OWNER** who will then determine, with the advice of **ENGINEER**, which bids will be acceptable. If a subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work Plus a Fee, the Subcontractor's Cost of the Work shall be determined in the same manner as **CONTRACTOR**'s Cost of the Work. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

11.4.4. Blank.

11.4.5. Blank.

11.4.5.1. Blank.

11.4.5.2. Blank.

11.4.5.3. Blank.

11.4.5.4. Blank.

11.4.5.5. Blank.

11.4.5.6. Blank.

11.4.5.7. Blank.

11.4.5.8. Blank.

11.4.5.9. Blank.

11.5. The term Cost of the Work shall not include any of the following:

11.5.1. Payroll costs and other compensation of **CONTRACTOR**'s officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, lawyers, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by **CONTRACTOR** whether at the site or in his principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in subparagraph 11.4.1--all of which are to be considered administrative costs covered by the **CONTRACTOR**'s Fee.

11.5.2. Expenses of **CONTRACTOR**'s principal and branch offices other than **CONTRACTOR**'s office at the site.

11.5.3. Any part of **CONTRACTOR's** capital expenses, including interest on **CONTRACTOR's** capital employed for the Work and charges against **CONTRACTORS** for delinquent payments.

11.5.4. Cost of premiums for all Bonds and for all insurance whether or not **CONTRACTOR** is required by the Contract Documents to purchase and maintain the same including additional Bonds and insurance required because of changes in the Work.

11.5.5. Costs due to the negligence of **CONTRACTOR**, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly applied and making good any damage to property.

11.5.6. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 11.4.

11.6. The **CONTRACTOR's** fee allowed to **CONTRACTOR** for overhead and profit shall not exceed 15 percent of cost of labor and material.

11.6.1. Blank.

11.6.2. Blank.

11.6.2.1. Blank.

11.6.2.2. for costs incurred under paragraph 11.4.3, the Contractor's Fee shall be five percent; and if a subcontract is on the basis of Cost of the Work Plus a Fee, the maximum allowable to the Subcontractor as a fee for overhead and profit shall be ten percent.

11.6.2.3. Blank.

11.7. The amount of credit to be allowed by **CONTRACTOR** to **OWNER** for any such charge which results in a net decrease in cost will be the amount of the actual net decrease. When both additions and credits are involved in any one change, the combined overhead and profit shall be figured on the basis of the net increase, if any.

11.8. Whenever the cost of any Work is to be determined pursuant to paragraphs 11.4 and 11.5, **CONTRACTOR** will submit in form acceptable to **ENGINEER** an itemized cost breakdown together with supporting data.

ADJUSTMENT OF UNIT PRICES

11.9. Where the quantity of Work with respect to any item that is covered by a unit price differs materially and significantly from the quantity of such Work indicated in the Contract Documents, an appropriate Change Order may be issued on recommendation of **ENGINEER** to adjust the unit price.

In general, if the actual quantity of Work is within 25 percent of the quantity indicated in the Contract Documents (whether more or less), the difference shall not be considered material or significant. For larger differences, the **ENGINEER's** decision as to whether the amount of actual quantity of Work is materially and significantly different from the quantity indicated on the Contract Documents is final.

CASH ALLOWANCES

11.10. It is understood that **CONTRACTOR** has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be done by such Subcontractors, manufacturers, fabricators, suppliers, or distributors and for such sums within the limit of the allowances as may be acceptable to **ENGINEER**. **CONTRACTOR** agrees that the original Contract Price includes such sums as **CONTRACTOR** deems proper for costs and profit on account of cash allowances. No demand for additional cost or profit in connection therewith will be valid.

GENERAL CONDITIONS

ARTICLE 12: CHANGE OF CONTRACT TIME

12.1. The Contract Time may only be changed by a Change Order. Any claim for an extension in the Contract Time shall be based on written notice delivered to **OWNER** and **ENGINEER** within fifteen days of the occurrence of the event giving rise to the claim. Notice of the extent of the claim with supporting data shall be delivered within thirty days of such occurrence unless **ENGINEER** allows an additional period of time to ascertain more accurate data. All claims for adjustment in the Contract Time shall be determined by **ENGINEER** if **OWNER** and **CONTRACTOR** cannot otherwise agree. Any change in the Contract Time resulting from any such claim shall be incorporated in a Change Order.

12.2. The Contract Time will be extended in an amount equal time lost due to delays beyond the control of **CONTRACTOR** if a claim is made therefore as provided in paragraph 12.1. Such delays shall include, but not be limited to, acts or neglect by **OWNER** or others performing additional Work as contemplated by Article 7 or to fires, floods, epidemics, or acts of God, but not labor disputes or severe weather conditions.

12.3. All time limits for **CONTRACTOR** stated in the Contract Documents are of the essence to the **OWNER** and are incorporated as such in the contract.

GENERAL CONDITIONS

ARTICLE 13: WARRANTY AND GUARANTEE

TESTS AND INSPECTIONS

CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

WARRANTY AND GUARANTEE

13.1 **CONTRACTOR** warrants and guarantees to **OWNER** and **ENGINEER** that all Work will be in accordance with the Contract Documents and will not be defective. All defective Work, whether or not in place, may be rejected, corrected, or accepted as provided in this Article 13.

13.2. Blank.

TESTS AND INSPECTIONS

13.3. **CONTRACTOR** shall give **OWNER's** representative timely notice of readiness of the Work for all required inspections, tests or approvals.

13.4. If any law, ordinance, rule, regulation, code, or order of any public body having jurisdiction requires any Work (or part thereof) to specifically be inspected, tested or approved, **CONTRACTOR** shall assume full responsibility therefore, pay all costs in connection therewith, and furnish **OWNER** the required certificates of inspection, testing or approval. **CONTRACTOR** shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with **OWNER's** acceptance of a manufacturer, fabricator, supplier or distributor of materials or equipment submitted for approval prior to **CONTRACTOR's** purchase thereof for incorporation in the Work.

13.5. Blank.

13.6. If any Work that is to be inspected, tested or approved is covered without concurrence of **OWNER's** representative, it must, if required by **OWNER**, be uncovered for observation. Such uncovering shall be at **CONTRACTOR's** expense.

13.7. Neither observations by **ENGINEER** nor inspections, tests, or approvals by **ENGINEER**, **OWNER**, or others shall relieve **CONTRACTOR** from any of his obligations to perform the Work in accordance with the Contract Documents.

13.8. Blank.

13.9. Blank.

OWNER MAY STOP THE WORK

13.10. If the Work is defective or **CONTRACTOR** fails to supply sufficient skilled workmen or suitable materials or equipment, **OWNER** may order **CONTRACTOR** to stop the Work, or any portion thereof, until the cause for such order has been eliminated. **CONTRACTOR** shall incur all the expenses related directly or indirectly to such Work stoppage.

CORRECTION OR REMOVAL OF DEFECTIVE WORK

13.11. If required by **OWNER**, **CONTRACTOR** shall promptly, without cost to **OWNER**, either correct any defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by **ENGINEER**, remove it from the site and replace it with non-defective Work without any change in Contract Price.

TWO YEAR CORRECTION PERIOD

13.12 If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, **CONTRACTOR** shall promptly, without cost to **OWNER**, and in accordance with **OWNER**'s written instructions, either correct such defective Work or, if it has been rejected by **OWNER**, remove it from the site and replace it with non-defective Work. If **CONTRACTOR** does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, **OWNER** may have the defective Work corrected or the rejected Work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, shall be paid by **CONTRACTOR**.

ACCEPTANCE OF DEFECTIVE WORK

13.13. If, instead of requiring correction or removal and replacement of defective Work, **OWNER** prefers to accept it, **OWNER** may do so. In such case, if acceptance occurs prior to **ENGINEER**'s recommendation of final payment, a Change Order shall be issued incorporating the necessary revisions in the Contract Documents, including appropriate reduction in the Contract Price or, if the acceptance occurs after such recommendation, an appropriate amount shall be paid by **CONTRACTOR** to **OWNER**.

OWNER MAY CORRECT DEFECTIVE WORK

13.14. If **CONTRACTOR** fails within a reasonable time after written notice to proceed to correct and to correct defective Work or to remove and replace rejected Work in accordance with paragraph 13.11, or if **CONTRACTOR** fails to perform the Work in accordance with the Contract Documents (including any requirements of the progress schedule), **OWNER** may, after seven days' written notice to **CONTRACTOR**, correct and remedy any such deficiency. **OWNER** may exclude **CONTRACTOR** for all or part of the site, take possession of all or part of the Work, and suspend **CONTRACTOR**'s services related thereto, take possession of **CONTRACTOR**'s tools, appliances, construction equipment and machinery at the site and incorporated in the Work all materials and equipment stored at the site or for which **OWNER** has paid **CONTRACTOR** but which are stored elsewhere. **CONTRACTOR** shall allow **OWNER**, **OWNER**'s representatives, agents and employees such access to the site as may be necessary to enable **OWNER** to exercise his rights under this paragraph. All direct and indirect costs of **OWNER** in exercising such rights shall be charged against **CONTRACTOR**, and a Change Order shall be issued incorporating the necessary revisions in the Contract Documents and a reduction in the Contract Price. Such direct and indirect costs shall include, in particular but without limitation, compensation for additional professional services required and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of **CONTRACTOR**'s defective Work. **CONTRACTOR** shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributed to the exercise by **OWNER** of **OWNER**'s rights hereunder.

GENERAL CONDITIONS

ARTICLE 14: PAYMENTS TO CONTRACTOR AND COMPLETION

SCHEDULES

14.1 At least ten (10) days prior to submitting the first Application for a progress payment, **CONTRACTOR** shall (except as otherwise specified in the General Requirements) submit to **OWNER** a progress schedule, a final schedule of Shop Drawing submission and, where applicable, a schedule of values of the Work. These schedules shall be satisfied in form and substance to **OWNER**. The schedule of values shall include quantities and unit prices aggregating the Contract Price and shall subdivide the Work into component parts. These schedules are submitted strictly as information that may help the **OWNER** in scheduling and shall not be construed as binding the **OWNER** to pay the **CONTRACTOR** in accordance with such values if used in the progress payment.

APPLICATION FOR PROGRESS PAYMENT

14.2 At least ten (10) days before progress payment falls due (but not more often than once a month), **CONTRACTOR** shall submit to **ENGINEER** for review an Application for Payment filled out and signed by **CONTRACTOR** covering the Work completed as of the date of the Application and accompanied by supporting documentation. Each subsequent Application for Payment shall include an affidavit of **CONTRACTOR** stating that all previous progress payments received on account of the Work have been applied to discharge in full all of **CONTRACTOR**'s obligations reflected in prior Applications for Payment. Retainage with respect to progress payments will be at least 10 percent, unless state law required otherwise. Certified payrolls must be submitted with Contractor's Application for Payment (CDBG projects only).

CONTRACTOR'S WARRANTY OF TITLE

14.3 **CONTRACTOR** warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to **OWNER** at the time of payment free and clear of all liens, claims, security interests and encumbrances (hereafter in these General Conditions referred to as "Liens").

REVIEW OF APPLICATIONS FOR PROGRESS PAYMENT

14.4 **ENGINEER** will, within fifteen (15) days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to **OWNER** or return the Application to **CONTRACTOR** indicating in writing **ENGINEER**'s reasons for refusing to recommend payment. In the latter case, **CONTRACTOR** may make the necessary corrections and resubmit the Application. **OWNER** shall, within twenty-five (25) days of presentation to him of the Application for Payment with **ENGINEER**'s recommendation, submit payment recommendation to City Council for consideration.

14.5 By recommending any payments to the **CONTRACTOR**, **ENGINEER** will not thereby be deemed to have represented that exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work or that the means, methods, techniques, sequences, and procedures of construction have been reviewed or that any examination has been made to ascertain how or for what purpose **CONTRACTOR** has used the moneys paid or to be paid to **CONTRACTOR** on account of the Contract Price or that title or any Work, materials or equipment has passes to **OWNER** free and clear of any Liens.

14.6 Blank.

14.7. **ENGINEER** may refuse to recommend the whole or any part of any payment if, in his opinion, it would be incorrect to make such recommendation to Owner. He may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify such payment previously recommended to such extent as may be reasonable in **ENGINEER's** opinion to protect **OWNER** from loss because:

14.7.1. the Work is defective or completed Work has been damaged requiring correction or replacement,

14.7.2. written claims have been made against **OWNER** or Liens have been filed in connection with the Work,

14.7.3. the Contract Price has been reduced because of Modifications,

14.7.4. **OWNER** has been required to correct defective Work or complete the Work in accordance with paragraph 13.14,

14.7.5. of **CONTRACTOR's** unsatisfactory prosecution of the Work in accordance with the Contract Documents or

14.7.6. of **CONTRACTOR's** failure to make payment to Subcontractors or for labor, materials or equipment,

14.7.7. of previous overpayments to **CONTRACTOR**.

SUBSTANTIAL COMPLETION

14.8. When Contractor considers the entire Work ready for its intended use, **CONTRACTOR** shall, in writing to **OWNER** and **ENGINEER**, certify that the entire Work is substantially complete and request that **ENGINEER** issue a certificate of Substantial Completion. Within a reasonable time thereafter, **CONTRACTOR**, **ENGINEER**, and/or **OWNER** shall make an inspection of the Work to determine the status of completion. If **ENGINEER** does not consider the Work substantially complete, **ENGINEER** will notify **CONTRACTOR** giving his reasons therefore. If **ENGINEER** considers the Work substantially complete, **ENGINEER** may prepare and deliver to **OWNER** a statement of Substantial Completion which may fix the date of Substantial Completion. There may also be attached to the statement a tentative list of items to be completed or corrected before final payment. **OWNER** shall have twenty-one days after receipt to the tentative certificate during which he may make written objection to **ENGINEER** as to any provisions of the certificate or attached list. If, after considering such objections, **ENGINEER** concludes that the Work is not substantially complete, **ENGINEER** will within twenty-one days notify **CONTRACTOR** in writing, stating his reasons therefore.

14.9. **OWNER** shall have the right to exclude **CONTRACTOR** from the Work after the date of Substantial Completion, but **OWNER** shall allow **CONTRACTOR** reasonable access to complete or correct items on the tentative list.

PARTIAL UTILIZATION

14.10. Use of **OWNER** of completed portions of the Work may be accomplished prior to Substantial Completion of all the Work subject to the following:

14.10.1. **OWNER** at any time may request **CONTRACTOR** in writing to permit **OWNER** to use any part of the Work which **OWNER** believes to be substantially complete and which may be so used without significant interference with construction of the other parts of the Work.

14.10.2. In lieu of the issuance of a certificate of Substantial Completion as to part of the Work, **OWNER** may take over operation of a facility constituting part of the Work whether or not it is substantially complete if such facility is functionally and separately useable; provided that prior to any such takeover, **OWNER** and **CONTRACTOR** have agreed as to the division of responsibilities between **OWNER** and **CONTRACTOR** for security, operation, safety, maintenance, correction period, heat, utilities and insurance with respect to such facility.

FINAL INSPECTION

14.11. Blank.

FINAL APPLICATION FOR PAYMENT

14.12 After **CONTRACTOR** has completed all the Work and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents and other documents--all as required by the Contract Documents--and after **ENGINEER** has indicated that the Work appears to be acceptable (subject to the provisions of paragraph 14.16), **CONTRACTOR** may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents and such other data and schedules as **OWNER** may reasonably require, together with complete and legally effective releases or waivers (satisfactory to **OWNER**) of all Liens arising out of or filed in connection with the Work. In lieu thereof and as approved by **OWNER**, **CONTRACTOR** may furnish receipts or releases in full; an affidavit of **CONTRACTOR** that the releases and receipts include all labor, services, material and equipment for which a Lien could be filed; and that all payrolls, material and equipment bills, and other indebtedness connected with the Work for which **OWNER** or his property might in any way be responsible have been paid or otherwise satisfied; and consent of the Surety, if any, to final payment. If any Subcontractor, manufacturer, fabricator, supplier or distributor fails to furnish a release or receipt in full, **CONTRACTOR** may furnish a Bond or other collateral satisfactory to **OWNER** to indemnify **OWNER** against any Lien.

FINAL PAYMENT AND ACCEPTANCE

14.13. If, on the basis of **ENGINEER**'s review of the final Application for Payment and accompanying documentation--all as required by the Contract Documents--**ENGINEER** is satisfied that the Work has been completed and **CONTRACTOR** has fulfilled his obligations under the Contract Documents, **ENGINEER** may, within twenty days after receipt of the final Application for Payment, indicate in writing his recommendation of payment and present the Application to **OWNER** for payment. Thereupon **ENGINEER** will give written notice to **OWNER** and **CONTRACTOR** that the Work is acceptable subject to the provisions of paragraph 14.16. Otherwise, **ENGINEER** will return the Application to **CONTRACTOR**, indicating in writing the reasons for refusing to recommend final payment, in which case **CONTRACTOR** shall make the necessary corrections and resubmit the Application. If the Application and accompanying documentation are appropriate as to form and substance, **OWNER** shall, within thirty days after receipt thereof, pay **CONTRACTOR** the amount recommended by **ENGINEER**.

14.14. Blank.

CONTRACTOR'S CONTINUING OBLIGATION

14.15. **CONTRACTOR's** obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by **ENGINEER** nor the recommendation of any progress or final payment by **ENGINEER** nor the issuance of a certificate of Substantial Completion nor any payment by **OWNER** nor any failure to do so nor the issuance of a notice of acceptability by **ENGINEER** pursuant to paragraph 14.13. nor any correction of defective Work by **OWNER** shall constitute an acceptance of Work not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents.

WAIVER OF CLAIMS

14.16. The making and acceptance of final payment shall:

14.16.1. not constitute any waiver of any claims by **OWNER** against **CONTRACTOR**, including claims arising from unsettled Liens, from defective Work appearing after final inspection or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; also, it shall not constitute a waiver by **OWNER** of any rights in respect of **CONTRACTOR's** continuing obligations under the Contract Documents; and

14.16.2. constitute a waiver of all claims by **CONTRACTOR** against **OWNER** other than those previously made in writing and still unsettled.

GENERAL CONDITIONS

ARTICLE 15: SUSPENSION OF WORK AND TERMINATION

OWNER MAY SUSPEND WORK

15.1 **OWNER** may at any time and without cause suspend the Work or any portion thereof for a period of not more than one hundred and twenty days by notice in writing to **CONTRACTOR**. **CONTRACTOR** shall resume the Work on two weeks' notice by **OWNER**. **CONTRACTOR** will be allowed an increase in the Contract Price only as attributable to demobilization and remobilization cost and not to any other expense, including rental fee during suspension. The **CONTRACTOR** shall have the sole duty of informing in advance all Subcontractors and any interested parties about the provision. **OWNER** and **ENGINEER** are not liable for any loss of any party arising out of invoking this section.

OWNER MAY TERMINATE

15.2. Upon the occurrence of any one or more of the following events:

15.2.1. if **CONTRACTOR** is adjudged a bankrupt or insolvent,

15.2.2. if **CONTRACTOR** makes a general assignment for the benefit of creditors,

15.2.3. if a trustee or receiver is appointed for **CONTRACTOR** or for any of **CONTRACTOR**'s property,

15.2.4. if **CONTRACTOR** files a petition to take advantage of any debtor's act or to reorganize under the bankruptcy or similar laws,

15.2.5. if **CONTRACTOR** repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment,

15.2.6. if **CONTRACTOR** fails to make payments to Subcontractors or for labor, materials or equipment within sixty days of receiving said payment from **OWNER**,

15.2.7. if **CONTRACTOR** disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction,

15.2.8. if **CONTRACTOR** disregards the authority of **ENGINEER** or,

15.2.9. if **CONTRACTOR** otherwise violates in any substantial way any provisions of the Contract Documents. Restoration work shall always be deemed as a substantial provision of the Contract Documents.

OWNER may, after giving **CONTRACTOR** and his Surety seven days' written notice, terminate the services of **CONTRACTOR**, exclude **CONTRACTOR** from the site and take possession of the Work and of all **CONTRACTOR**'s tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by **CONTRACTOR** (without liability to **CONTRACTOR** for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which **OWNER** has paid **CONTRACTOR** but which are stored elsewhere, and finish the Work as **OWNER** may deem expedient. In such case **CONTRACTOR** shall pay the difference to **OWNER**. Such costs incurred by **OWNER** shall be verified by **ENGINEER** and incorporated in a Change Order; but in finishing the Work, **OWNER** shall not be required to obtain the lowest figure for the Work performed.

15.3. Where **CONTRACTOR**'s services have been so terminated by **OWNER**, the termination shall not affect any rights of **OWNER** against **CONTRACTOR** then existing or which may thereafter accrue. Any retention or payment of moneys due **CONTRACTOR** by **OWNER** will not release **CONTRACTOR** from liability.

15.4. Upon seven days' written notice to **CONTRACTOR**, **OWNER** may, without cause and without prejudice to any of the **OWNER**'s other rights or remedies, elect to abandon the Work and terminate the Agreement with the **CONTRACTOR**. In such case, **CONTRACTOR** shall be paid for Work executed and demobilization expenses only.

GENERAL CONDITIONS

ARTICLE 16: BLANK

GENERAL CONDITIONS

ARTICLE 17: MISCELLANEOUS

GIVING NOTICE

17.1. Whenever any provision of the Contract Documents requires the giving of written notice to the **CONTRACTOR**, it shall be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by mail to the last business address known to the giver of the notice. Notice to the **ENGINEER** is validly given if mailed by certified mail to his business office.

COMPUTATION OF TIME

17.2. When any period of time is referred to in the Contract Documents by days, it shall be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day shall be omitted from the computation.

GENERAL

17.3. Blank.

17.4. The duties and obligations imposed by these General Condition upon the **CONTRACTOR** and, in particular but without limitation, the warranties, guarantees and obligations imposed upon **CONTRACTOR** by paragraphs 6.30, 13.1, 13.11, 13.14, 14.3, and 15.2 and all of the rights and remedies available to either **ENGINEER** or **OWNER** which are otherwise imposed or available by law or contract, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this paragraph shall be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply. All representations, warranties and guarantees made in the Contract Documents by **CONTRACTOR** shall survive final payment and termination or completion of the Agreement.

GENERAL CONDITIONS

ARTICLE 18: CONSTRUCTION FOLLOW-UP

Not applicable for this project

PART IV

TECHNICAL SPECIFICATIONS

PUMP SPECIFICATIONS (Note: Pump Specifications are for the bidders information only.
The contractor will only be required to install city furnished pumps
& appurtenances)

REQUIREMENTS

Install 2 (two) Flygt explosion proof submersible non-clog wastewater pumps. Each pump is equipped with a 2.2 HP, submersible electric motor connected for operation on 230 volts, 3 phase, 60 hertz, 3 wire service, with minimum 80 feet of submersible cable (SUBCAB) suitable for submersible pump applications. The power cable shall be sized according to NEC and ICEA standards and also meet with P-MSHA Approval.

PUMP DESIGN CONFIGURATION

The pump is supplied with a mating cast iron 4 inch discharge connection, capable of delivering 100 GPM at 20 ft TDH. The pumps shall be automatically and firmly connected to the discharge connection, guided by no less than two guide bars extending from the top of the station to the discharge connection. Pumps and hardware shall be capable of being configured so pumps can be removed and serviced without personnel entering the wet well. Sealing of the pumping unit to the discharge connection shall be accomplished by a machined metal to metal watertight contact. Sealing of the discharge interface with a diaphragm, O-ring or profile gasket will not be acceptable. No portion of the pump shall bear directly on the sump floor. Each pump shall be fitted with stainless steel lifting chain. The working load of the lifting system shall be a minimum of 50% greater than the pump unit weight.

PUMP CONSTRUCTION

Major pump components are of grey cast iron, ASTM A-48, Class 35B, with smooth surfaces devoid of blow holes or other irregularities. The lifting handle shall be of stainless steel. All exposed nuts or bolts shall be AISI type 316 stainless steel construction. All metal surfaces coming into contact with the pumpage, other than stainless steel or brass, are protected by a factory applied spray coating of acrylic dispersion zinc phosphate primer with a polyester resin paint finish on the exterior of the pump. Sealing design shall incorporate metal-to-metal contact between machined surfaces. Critical mating surfaces where watertight sealing is required shall be machined and fitted with Nitrile rubber O-rings. Fittings will be the result of controlled compression of rubber O-rings in two planes and O-ring contact of four sides without the requirement of a specific torque limit.

Rectangular cross sectioned gaskets requiring specific torque limits to achieve compression shall not be considered as adequate or equal. No secondary sealing compounds, elliptical O-rings, grease or other devices shall be used.

COOLING SYSTEM

Motors are sufficiently cooled by the surrounding environment or pumped media. A water cooling jacket is not required.

CABLE ENTRY SEAL

The cable entry seal design shall preclude specific torque requirements to insure a watertight and submersible seal. The cable entry shall consist of a single cylindrical elastomer grommet, flanked by washers, all having a close tolerance fit against the cable outside diameter and the entry inside diameter and compressed by the body containing a strain relief function, separate from the function of sealing the cable. The assembly shall provide ease of changing the cable when necessary using the same entry seal.

MOTOR

The pump motor is a NEMA B design, induction type with a squirrel cage rotor, shell type design, housed in an air filled, watertight chamber. The stator windings shall be insulated with moisture resistant Class H insulation rated for 180°C (356°F). The stator shall be insulated by the trickle impregnation method using Class H monomer-free polyester resin resulting in a winding fill factor of at least 95%. The motor shall be inverter duty rated in accordance with NEMA MG1, Part 31. The stator shall be heat-shrink fitted into the cast iron stator housing. The use of multiple step dip and bake-type stator insulation process is not acceptable. The use of bolts, pins or other fastening devices requiring penetration of the stator housing is not acceptable. The motor shall be designed for continuous duty handling pumped media of 40°C (104°F) and capable of no less than 15 evenly spaced starts per hour. The rotor bars and short circuit rings shall be made of cast aluminum. Thermal switches set to open at 125°C (260°F) shall be embedded in the stator end coils to monitor the temperature of each phase winding. These thermal switches shall be used in conjunction with and supplemental to external motor overload protection and shall be connected to the control panel. The motor and the pump shall be produced by the same manufacturer.

The combined service factor (combined effect of voltage, frequency and specific gravity) shall be a minimum of 1.15. The motor shall have a voltage tolerance of plus or minus 10%. The motor shall be designed for operation up to 40°C (104°F) ambient and with a temperature rise not to exceed 80°C. A performance chart shall be provided upon request showing curves for torque, current, power factor, input/output kW and efficiency. This chart shall also include data on starting and no-load characteristics.

The power cable shall be sized according to the NEC and ICEA standards and shall be of sufficient length to reach the junction box without the need of any splices. The outer jacket of the cable shall be oil resistant chlorinated polyethylene rubber. The motor and cable shall be capable of continuous submergence underwater without loss of watertight integrity to a depth of 65 feet or greater.

The motor horsepower shall be adequate so that the pump is non-overloading throughout the entire pump performance curve from shut-off through run-out.

BEARINGS

The pump shaft shall rotate on two bearings. Motor bearings shall be permanently grease lubricated. The upper bearing shall be a single deep groove ball bearing. The lower bearing shall be a two row angular contact bearing to compensate for axial thrust and radial forces. Single row lower bearings are not acceptable.

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MECHANICAL SEAL

Each pump shall be provided with a tandem mechanical shaft seal system consisting of two totally independent seal assemblies. The seals shall operate in a lubricant reservoir that hydrodynamically lubricates the lapped seal faces at a constant rate. The lower, primary seal unit, located between the pump and the lubricant chamber, shall contain one stationary and one positively driven rotating, corrosion resistant tungsten-carbide ring. The upper, secondary seal unit, located between the lubricant chamber and the motor housing, shall contain one stationary tungsten-carbide seal ring and one positively driven rotating tungsten-carbide seal ring. Each seal interface shall be held in contact by its own spring system. The seals shall require neither maintenance nor adjustment nor depend on direction of rotation for sealing. The position of both mechanical seals shall depend on the shaft. Mounting of the lower mechanical seal on the impeller hub will not be acceptable. For special applications, other seal face materials shall be available.

The following seal types shall not be considered acceptable or equal to the dual independent seal specified: shaft seals without positively driven rotating members, or conventional double mechanical seals containing either a common single or double spring acting between the upper and lower seal faces. No system requiring a pressure differential to offset pressure and to effect sealing shall be used.

Each pump shall be provided with a lubricant chamber for the shaft sealing system. The lubricant chamber shall be designed to prevent overfilling and to provide lubricant expansion capacity. The drain and inspection plug, with positive anti-leak seal shall be easily accessible from the outside. The seal system shall not rely upon the pumped media for lubrication. The motor shall be able to operate dry without damage while pumping under load. Seal lubricant shall be FDA Approved, nontoxic.

PUMP SHAFT

Pump and motor shaft shall be the same unit. The pump shaft is an extension of the motor shaft. Couplings shall not be acceptable. The pump shaft shall be stainless steel – ASTM A479 S43100-T.

IMPELLER

The impeller(s) shall be of gray cast iron, Class 35B, dynamically balanced, semi-open, multi-vane, back-swept, non-clog design. The impeller vane leading edges shall be mechanically self-cleaned upon each rotation as they pass across a spiral groove located on the volute bottom. The internal volute bottom shall provide effective sealing between the pump volute and the multi-vane, semi-open impeller. The sharp spiral groove(s) shall provide the shearing edge(s) across

which each impeller vane leading edge shall cross during its rotation in order to remain unobstructed. The clearance between the internal volute bottom and the impeller leading edges shall be adjustable.

The impeller(s) vanes shall have screw-shaped leading edges that are hardened to Rc 45 and shall be capable of handling solids, fibrous materials, heavy sludge and other matter found in waste water. The screw shape of the impeller inlet shall provide an inducing effect for the handling of sludge and rag-laden wastewater. Impellers shall be locked to the shaft and held by an impeller bolt.

PROTECTION

All stators shall incorporate thermal switches in series to monitor the temperature of each phase winding. The thermal switches shall open at 125°C (260°F), stop the motor and activate an alarm.

A leakage sensor shall be available as an option to detect water in the stator chamber. The Float Leakage Sensor (FLS) is a small float switch used to detect the presence of water in the stator chamber. When activated, the FLS will stop the motor and send an alarm both local and/or remote. **USE OF VOLTAGE SENSITIVE SOLID STATE SENSORS AND TRIP TEMPERATURE ABOVE 125°C (260°F) SHALL NOT BE ALLOWED.**

The thermal switches and FLS shall be connected to a Mini CAS (Control and Status) monitoring unit. The Mini CAS shall be designed to be mounted in any control panel.

MISCELLANEOUS ACCESSORIES

New guide rail bases, stainless steel upper guide rail brackets, schedule 40 stainless steel guide rails and stainless steel intermediate brackets and stainless steel lift chains are to be installed to service the new pump installation. The installer will be responsible for measuring the existing wet well and supplying the appropriate materials, including all necessary stainless steel fasteners, to facilitate the installation of the pumps specified.

CONTROL PANEL SPECIFICATIONS

REQUIREMENTS

The electrical controls are designed for the control of two (2) 2.2 HP submersible pumps. The incoming power supply is single phase, 230 volts with VFD's and is to be converted to three phase, 230 volts to feed pumps. Controls described in these specifications shall meet the following specifications:

- Nema 12/3 Stainless Steel Enclosure
- Variable Frequency Drives
- Intrinsically Safe Relays
- UL Listing

SEQUENCE OF OPERATION

Control of the station shall be accomplished by the use of five (5) intrinsically safe non-mercury type float switches with a minimum of 80 feet of cable. The operating sequence of the level controls shall be: Redundant off and low water alarm, Pumps off, Lead pump on, Lag pump on and High water alarm.

ENCLOSURE

Controls are housed in a Nema 12/3 insulated stainless steel enclosure with three point latch and padlockable handle. The enclosure door is gasketed with a rubber composition material around the perimeter and shall be installed with a retainer to assure a positive weatherproof seal. The door shall open a minimum of 180 degrees. A padlock hasp is to be provided. A polished inner door shall be mounted on a continuous aluminum aircraft type hinge and shall contain cutouts for the protrusion of the circuit breakers and provide protection of the personnel from internal live voltages. All control switches, pilot indicators, elapsed time meters and other operational devices shall be mounted on the external surface of the dead front. The dead front door shall open a minimum of 150 degrees to allow for access to the equipment for maintenance. A $\frac{3}{4}$ " break shall be formed around the perimeter of the dead front to provide rigidity. A back plate shall be manufactured from 12 gauge sheet steel and be finished with a primer coat and two {2} coats of baked-on white enamel. All hardware shall be mounted using stainless steel machine thread screws. Sheet metal screws shall not be acceptable. All installed devices will be permanently identified with engraved legends.

CIRCUIT BREAKERS

All circuit breakers shall be heavy duty thermal magnetic or motor circuit protector (Square "D" type "FAL" or approved equal). Each breaker shall be sized to adequately meet the operating conditions of the load and have a minimum interrupting capacity of 10,000 amps at 230v and 18,000 at 460v. Breakers shall be indicating type, providing an "on-off-tripped" positions of the handle. They shall be quick make-quick break on manual and automatic operation and have inverse time characteristics. Breakers shall be designed so that tripping of one pole automatically trips all poles. Circuit breakers shall be manufactured by Square D (or approved equal).

VARIABLE FREQUENCY DRIVES

Variable frequency drives shall be provided to convert incoming single phase, 230 volt power to three phase, 230 volt power to feed pumps. VFD's shall be provided with adjustable overload protection, keypad and digital readout. The keypad of each VFD shall include an alphanumeric readout for all drive functions on a 32-character, backlit, LCD display. The backlit LCD alphanumeric digital readout shall present all diagnostic messages and parameter values in English with standard engineering units. Codes are not an acceptable alternative. The display shall have settings for high, medium, and low viewing angles. The keypad shall be capable of controlling the VFD and setting drive parameters. The keypad shall include a "HAND/OFF/AUTO", "SPEED SOURCE" selector, "PROGRAM/RUN" push-button, "ENTER" push-button, "SCROLL UP" and "SCROLL DOWN" arrow push-buttons. The Hand/Off/Auto function shall be coordinated with any remote Hand/Off/Auto switch, such that stopping and restarting at the VFD remains possible, but only according to the remote setting.

Available speed source selection shall include manual adjustment, automatic (4-20 mA, 0-10 VDC, floating point, or Serial Communication), and preset speeds. The VFD shall be software programmable to provide automatic restart after a fault trip condition resulting from overcurrent, overvoltage, undervoltage, or overtemperature. The VFD shall shut down and require manual reset and restart if the automatic reset/restart function is not successful within the programmed number of restart attempts. During the automatic restart attempts the LCD display shall show the warning, "START PENDING". An overcurrent speed reduction shall be activated to avoid tripping the drive during transient overloads. The drive shall return to set speed after the overload is removed. If the acceleration or deceleration rate is too rapid for the connected load, the drive shall automatically compensate to prevent a fault trip.

INTRINSICALLY LEVEL CONTROLS

The control panel shall be equipped with intrinsically safe level control outputs for the level probe and back-up float switches using panel mounted intrinsically safe barrier. The relays shall be UL listed. Individual LEDs shall be provided to indicate contact closer

GENERAL PANEL REQUIREMENTS

In addition to those items listed above, the control panel shall also include the following: Aluminum inner door, Mini Cas relays for seal leak/hi temperature detection, Nema 4 (or approved equal) rated H-O-A switches and run lights, elapsed time meters, alternator with lead/lag switch, low level and high level pilot lights, panel heater, control circuit breakers including circuit breakers to feed generator controls, block heater and charger, 115 VAC duplex GFI receptacle mounted on inner door, lightning arrestor and exterior panel mounted red lexan flashing alarm light. future telemetry. All wires shall be numbered and terminals shall be provided for remote device connections.

MAIN DISCONNECT

A properly sized service entrance rated main fused disconnect shall be provided and installed by the electrical contractor. The disconnect shall be a heavy duty, safety type featuring quick-make, quick-break operating mechanism, dual cover interlock and a color coded indicator handle. The disconnect shall be mounted on the outside of the main enclosure and shall be suitable for use as service entrance equipment. Disconnect manufactured by Square D (or approved equal).

ALARM TELEMETRY SYSTEM

The existing alarm telemetry system has the following characteristics and capabilities and shall be configured by the contractor to maintain the same level of service. No new hardware will be required for the reinstallation of the existing telemetry system and existing Mission box with the possible exception of wiring and/or mounting hardware.

A Mission Model M110 RTU (or approved equal) shall be installed and wired in the above enclosure. The monitoring RTU shall be enclosed in a NEMA 1 (or approved equal) flat pak enclosure. The RTU shall be powered by 12 volts AC and have a built in battery backup capable of keeping the RTU powered for 40 hours in case of primary AC failure. All terminations inside the RTU enclosure shall be low voltage AC or DC (28 volts or less). The RTU shall have two (2) analog, 10-bit resolution, 4-20ma or 0-5 vdc inputs, with four (4) alarm thresholds per input. The RTU shall have built in wiring fault, AC failure, communication failure and low battery detection. The

RTU shall have eight (8) digital inputs of which up to three (3) shall be capable of recording pump runtimes in one (1) minute resolution with hourly updates of runtimes and starts. The RTU shall have at least three (3) remotely controllable relay outputs. The RTU shall have up to two (2) optional pulse counting totalizers of which one can be programmed to report every 15 minutes.

The RTU shall have:

- Third generation cellular radios for transmitting data,
- Cellular carrier approvals of such cellular radios,
- Security encryption (128 bit) at all stages of data transfer and storage,
- Private IP addresses for all field radio devices,
- Consolidated situation awareness and diagnostic screen graphics for operators,
- Electronic access control keys to track personnel, maintenance and alarm response,
- Automatic pump performance analysis to early detect problems,
- Integrated rainfall monitoring for determining inflow and infiltration,
- Audit/history reports of alarm dispatch events with phone call recordings,
- Alarm filters to reduce nuisance/false alarm callouts,
- Guaranteed service price stability,
- Guaranteed hardware replacement costs.

The RTU shall be capable of reporting alarms and all supervisory information to a password protected customer web site, an OPC compliant HMI software package or both. The web site or HMI software package shall be capable of displaying all RTU alarms and supervisory data. This to include alarms, individuals accepting alarms, RTU electronic key/card reads with user names and time of read, pump run times with historical graphs, individual pump flow estimates, automatic daily analysis of pump runtimes for abnormalities with automatic customer notification of such abnormalities, pump starts, hourly analysis of excess pump starts with automatic notifications of excess pump starts, every hour radio health checks with automatic notification of non-reporting or poorly reporting RTU's, scaled and labeled pulse totalizations and if rainfall gauges are used, inter-day rainfall graphs. The customer web site or HMI software package shall be capable of reporting alarms via phone dialup, numeric pager dialup, alpha numeric pager, fax or email or any combination of the above. The customer web site or HMI software shall produce an audit report of every alarm or notification event with accurate results of all notification attempts. The customer web site or HMI software shall produce and deliver weekly reports which summarize alarms and responses, pump runtimes and flow estimates and all electronic key or card uses at the RTU sites.

The field hardware test transmissions shall indicate current and historical radio signal reception quality and shall report any radio signal outages and the duration of the outage.

The field unit shall be capable of optionally providing a method to monitor the wet well float circuit directly while providing auxiliary wet well alarm relay contact closures without the addition of a separate high wet well float. This optional circuitry shall detect high wet well conditions in the event of pump station AC failures.

CITY OF LINCOLN PARK
STANDARD GENERAL NOTES

1. All workmanship and materials shall be in accordance with the current standards and specifications of the City of Lincoln Park.
2. The contractor and his subcontractors shall attend a pre-construction meeting at a time and place arranged by the engineer in which various utility companies and governmental agency representatives will be present.
3. After a pre-construction meeting is held, the contractor shall notify the City a minimum of 48 hours prior to the start of construction for inspection.
4. Contractor shall notify Miss Dig for existing utility stake out 72 hours in advance of construction. The project will be billed for excessive stakeouts.
5. Locations and elevations of existing underground utilities as shown on the plans are approximate. No guarantee is either expressed or implied as to the completeness or accuracy thereof. The contractor shall be exclusively responsible for determining and verifying the location, depth, and elevation of existing utilities, and proposed utilities crossing the construction area prior to start of construction. Contractor shall notify engineer if any conflicts are apparent or if locations and depth differ significantly from the plans.
6. All properties or facilities in the surrounding areas, public or private, destroyed or otherwise damaged by the contractors operations shall be replaced or repaired to the satisfaction of the authority having jurisdiction of the property or facility by the contractor at his own expense.
7. Contractor shall provide and maintain all necessary barricades and traffic control devices required by the current standards and specifications of the City of Lincoln Park, other agencies having jurisdiction, and the Michigan Manual of Uniform Traffic Control Devices (MMUTCD).
8. All required soil erosion and sedimentation control measures must be in place prior to starting construction. All installation and maintenance of soil erosion and sedimentation control measures are incidental to the contract.

9. All trenches under or within three (3) feet of existing or proposed pavement, curb, sidewalks, and driveways shall be backfilled with 21A stone (Trench B) and compacted in one (1) foot layers to minimum 95 percent of maximum unit weight. (Modified Proctor).
10. All trenches within or parallel and adjacent to right-of-way, except where 21A stone (Trench B) backfill is required, shall be backfilled with suitable excavated material (excluding blue clay) compacted in one (1) foot layers to minimum 95 percent of maximum unit weight (Modified Proctor). This trench shall be designated Trench "A".

CITY OF LINCOLN PARK

STANDARD GENERAL NOTES

11. All public improvements and private improvements connecting to a public utility and/or right of way shall be field staked under the supervision of a professional engineer or land surveyor licensed to practice in the State of Michigan. **All field staking and layout is to be provided by the Contractor and is to be incidental to the contract.**
12. Four (4) inches of 2NS or pea pebble bedding shall be placed under all utilities and to one (1) foot above the top of the pipe.
13. All public improvements and private improvements connecting to a public utility and/or right of way shall be field staked under the supervision of a professional engineer or land surveyor licensed to practice in the State of Michigan. **All field staking and layout is to be provided by the Contractor and is to be incidental to the contract.**
14. All work within Wayne County and State of Michigan rights-of-way shall be in accordance with County & State specifications. Permits may be required.
15. All disturbed lawn areas shall be restored with 3 inches of topsoil and Excelsior mulch blankets. All mulch blankets are to be supplied and installed as per 2003 MDOT Standards Specifications for Construction under Section 816.

CITY OF LINCOLN PARK

STANDARD SOIL EROSION AND SEDIMENTATION CONTROL NOTES

1. No grubbing, stripping, site balancing, excavation or other earth movement shall begin until an approved soil erosion permit has been obtained from the city building official, a pre-construction meeting has been held, and all temporary soil erosion control measures are in place.
2. All soil erosion control measures shall comply with the current Lincoln Park ordinances, Wayne County Erosion Control Manual, and Part 91, Soil Erosion and Sedimentation Control of 1994, PA 451.
3. All soil, miscellaneous debris, and other material eroded from the site, spilled, dumped, or otherwise deposited on public streets during transit to and from the construction site shall be promptly removed.
4. Discharge waters from pumping operations must be pumped to silt traps or heavily grassed areas.
5. The contractor shall adhere to the following general construction principals:
 - a. Whenever feasible, natural vegetation shall be retained and protected
 - b. Where inadequate vegetation exists, temporary or permanent vegetation shall be established
6. All temporary erosion control measures shall be removed once permanent control measures are fully functional unless ordered by the Engineer to be left in place. Care shall be taken during removal to minimize siltation in nearby drainage courses.
7. All temporary measures shall be left in place until the area is stabilized with permanent measures and/or ordered to be removed by the Engineer.

CITY OF LINCOLN PARK

STANDARD PAVING AND PAVEMENT REPLACEMENT NOTES

1. All construction shall conform to current City of Lincoln Park Specifications for Paving.
2. Compaction of all pavement subbase to be minimum 95% of maximum unit weight (Modified Proctor) prior to placement of concrete pavement. No paving shall take place prior to the successful testing of the compaction of the backfill and/or subbase.
3. All radii at intersections are to be 25 feet unless otherwise noted or as directed by the City Engineer.
4. All concrete shall have a minimum cement content of six (6) sacks per cubic yard, a slump of 2 to 4 inches, an air content of 5.5 ± 1.5 percent and a 28 day minimum compressive strength of 3,500 psi. The concrete shall consist of 6AA coarse aggregate, 2NS fine aggregate and Type 1A (Air-Entrained) Portland Cement conforming to ASTM C-150. Slag is not permitted.
5. The contractor shall submit, prior to the pre-construction meeting, a concrete mix design from the supplier and a 21A stone sample for approval by the City Engineer.
6. New road pavement shall be as described in the plans and/or specifications. New driveway pavement shall be 6" thick concrete with thickened edges unless otherwise noted.
7. Contractor must give residents advance notice prior to the removal of driveways.
8. Existing concrete pavement and curb sections shall be saw cut the full depth of the pavement prior to their removal.
9. Any excavation necessary to install replacement pavement at the proposed grades shall be performed by the contractor.
10. If the pavement is being replaced, the minimum thickness of replacement concrete allowed for roadways is 8 inches.
11. If the drive approach or sidewalk located in the approach is being replaced, the minimum thickness of replacement concrete is 6 inches. If the sidewalk is located outside the approach, the minimum thickness of concrete allowed is 4 inches.
12. All replacement pavement for roadways be placed on 8 inches of 21A stone; 6 inches of 21A stone for driveways and sidewalks located in drive approaches, and 4 inches of Class II Sand for sidewalks not located in drive approaches.
13. Before placing the replacement pavement, the contractor shall install ½" diameter hook bolts and anchors (Philip Red Heads or approved equal) into the existing pavement. These bolts shall be placed at a minimum of 2 feet (center to center).
14. 21A stone, compacted in place to minimum 95% of maximum unit weight (Modified Proctor), shall be placed where additional base is required to meet proposed pavement grades.

CITY OF LINCOLN PARK

STANDARD PAVING AND PAVEMENT REPLACEMENT NOTES

15. The contractor shall remove unsatisfactory subgrade as determined by the City Engineer and replace the unsatisfactory subgrade with 21A stone compacted to minimum 95% of maximum unit weight (Modified Proctor). This item to be compensated as “Subgrade Undercutting (CIP)” as described in the proposal.
16. All joints in concrete pavement areas, including curb and gutter, shall be sealed with hot-poured, elastic-type compound, approved by the City Engineer and is incidental to the contract.
17. Contractor shall protect all trees and shall be responsible for replacing any trees damaged by his operations.
18. All disturbed lawn areas shall be restored with 3 inches of topsoil and Excelsior mulch blankets. All mulch blankets are to be supplied and installed as per 2003 MDOT Standards Specifications for Construction under Section 816.
19. It shall be the responsibility of the paving contractor to adjust the top of all existing structures (sewers, manholes, catch basins, inlets, gatewells, etc., except hydrants) to the final grade as required by the City of Lincoln Park or as directed by the City Engineer.

PART V
SPECIAL PROVISIONS

**SPECIAL PROVISION
FOR
UTILITY COORDINATION**

1 OF 1

Description

For protection of underground utilities and in conformance with Public Act 53, the contractor shall dial 1-800-482-7171 a minimum of three working days, excluding Saturdays, Sundays, and holidays prior to beginning each excavation in areas where public utilities have not been previously located. Members will thus be routinely notified. This does not relieve the contractor of the responsibility of notifying utility owners who may not be a part of the "Miss Dig" alert system.

Public Utilities

The following Public utilities have facilities located within the Right-of-Way:

City of Lincoln Park	313/386-9000
DTE Energy	734/397-4343
DTE Energy – Michcon	313/388-6114
Ameritech	313/389-9829

The owners of existing service facilities that are within grading or structure limits will move them to locations designated by the Engineer or will remove them entirely from the street Right-of-Way. Owners of Public Utilities will not be required by the County/City to move additional poles or structures in order to facilitate the operation of construction equipment unless it is determined by the Engineer that such poles or structures constitute a hazard to the public or are extraordinarily dangerous to the Contractor's operations.

No additional compensation will be paid to the Contractor for delays due to material shortages or other reasons beyond the control of the County/City, or for delays on construction due to the encountering of existing utilities that are, or are not, shown on the plans.

Work stoppages by employees of utility companies which result in a delay of utility revisions on any portion of this project may be considered the basis for a claim for an extension of time for completion, but will not be considered the basis for a claim for extra compensation or an adjustment in contract unit prices.

If any utility companies and/or governmental agencies require any fees for items such as plan review, inspection, permitting, testing, staking, etc., these fees shall be paid by the contractor, shall be included in the unit prices of the contract, and at no additional cost to the city.

PART VI

MEASURE & METHOD OF PAYMENT

MEASURE & METHOD OF PAYMENT

GENERAL

A. PRICES AND MEASUREMENTS:

Payment for work under this contract will be based on a unit price or lump sum for work actually completed. Final measurements of the work will be made and recorded by the Engineer to determine the amount of work done and thereby determine the total cost. The method of applying the unit prices to measured quantities will be as herein specified. Payment will include the cost of all labor, tools, materials, and equipment necessary to do the work.

Several items may have been included in the bid form but may be deemed unnecessary during the construction process. These items have been included in order to establish a unit price in the event that the item of work is necessary. The Contractor should be aware that these items may increase, decrease, or be zero based on field conditions, or Owner direction. No alteration of unit price will be considered as a result of the reduction of any bid items.

B. INCIDENTAL ITEMS:

Any items of work indicated as incidental or included shall be considered as part of the project work and shall be completed at no additional expense to the Owner. Incidental or included items shall include labor, materials, and equipment that may not be specifically listed in the Bid Form or in the drawings or specifications, but which are necessary to complete the work.

PROJECT CLEANUP

Payment for this work shall not be paid for separately, but shall be included in the pay items of the contract and include all labor, material, and equipment necessary to perform the work.

MISCELLANEOUS

The completion of the earthwork, as specified, will not be paid separately, but will be included in the pay items of the contract.

PART VII

SUPPLEMENTAL SPECIFICATIONS

**RIOPELLE PUMP STATION REFIT
CITY OF LINCOLN PARK**

**BID SPECIFICATIONS
AUGUST 2011**

SCOPE OF WORK

1. Install above ground by-pass including, but not limited to approximately 100 L.F. temporary sewer pipe & pump as needed to transport sewage from upstream MH to a MH downstream of the pump station. Contractor shall install and operate temporary bypass to insure no surcharge occurs upstream of the access point to the sanitary sewer. The bypass shall remain active until the rehabilitation of the pump station is complete and the new pumps are on line.
2. Install two new 2.2 HP pumps, guide rails, floats, cables, brackets, hangers, 4" ductile iron pipes & fittings, flanges & hardware.
3. Install new electrical controls & cabinet.
4. Re-install existing alarm telemetry panel.
5. Install 6" thick, MDOT P2 concrete slab between the existing wet and valve chamber to dimensions shown. The slab be secured to the existing adjacent structures by the installation of 5/8" dia. Hook bolts & anchors (Phillips "Red Heads" or equal) @ 24" O.C.
6. Remove and dispose of all vegetation within the approx.. 22' x 42' fenced in area, regrade to insure positive drainage (1% min. to 2% max. slope), install 6 mil polyethylene w/ 6" to 8" (CIP) uniform layer of MDOT 9A. Surface of concrete slab at the pump station shall be 1" to 2" above aggregate surface.

The contractor is responsible for providing the following materials:

- Concrete, hook bolts & anchors, joint material & welded wire mesh.
- MDOT 9A for installation within the 22' x 42' fenced area.
- 6 mil polyethylene for installation within the 22' x 42' fenced area.
- Wall sleeves for penetration of wet well & valve chamber.
- Miscellaneous hardware.

The following materials will be supplied by the City of Linclon Park:

- 2 ea. 2.2 h.p. Flygt pumps
- 2 ea. Guide rail bases, upper brackets, guide rails & lift chains
- 1 ea. Duplex control panel w/ single phase to 3 phase converter
- 1 ea. Alarm telemetry panel
- 5 ea. Non-mercury float switches w/ cables & support brackets
- 2 ea. 4" APCO or M&H swing check valves
- 2 ea. 4" Dezurik PEC Plug Valves`
- Lot 4" flanged ductile iron pipe, valves and fittings in Wet Well & Valve Vault
- 2 – 4" F-PE DIP Length 13'6" (wet well)
- 2 – 4" Megaflanges (wet well)
- 2 – 4" DIP 90 Bends (wet well)
- 2 – 4" F-PE DIP Length 6'0" (exiting wet well)
- 2 – 4" Megalugs with Accessories
- 2 – 4" F-PE DIP Length 6'0" (entering vault valve)
- 2 – 4" DIP 90 Bends (valve vault)
- 1 – 4" DIP Side Outlet T (valve vault)
- 1 – 4" Blind Flange (valve vault)

- 1 – 4” F-PE DIP Length 4’0” (valve vault)
- 1 – 4” Megaflange (valve vault)
- 6 – 4” Stainless Steel Flange Joint Accessories (wet well)
- 12 – 4” Standard Flange Joint Accessories (valve vault)
- Link-Seals for pipe penetrations
- CUMMINS/ONAN Natural Gas 20 Kw Residential Series (RS) generator set with weather protective sound enclosure.
- One (1) 200 Amp Automatic Transfer Switch in **Nema 3R** enclosure.

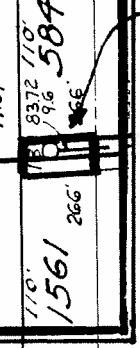
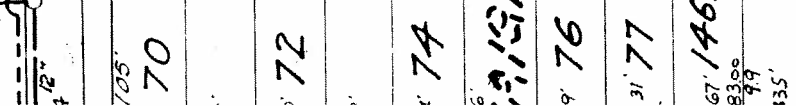
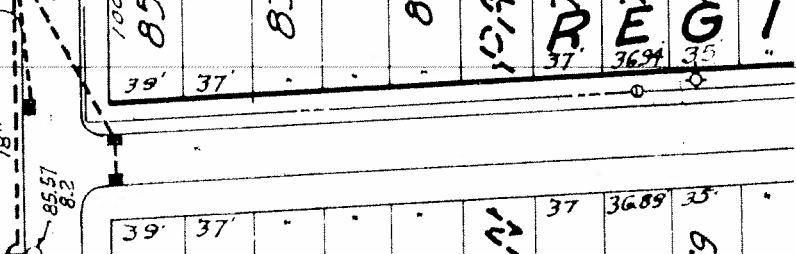
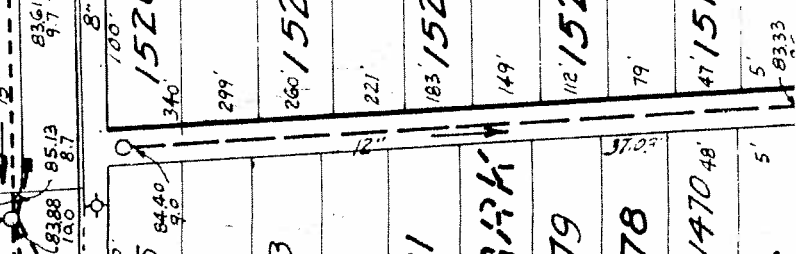
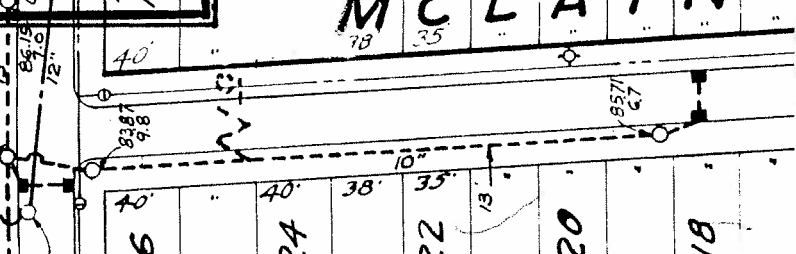
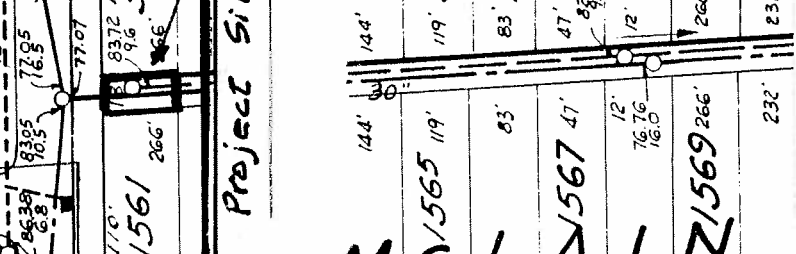
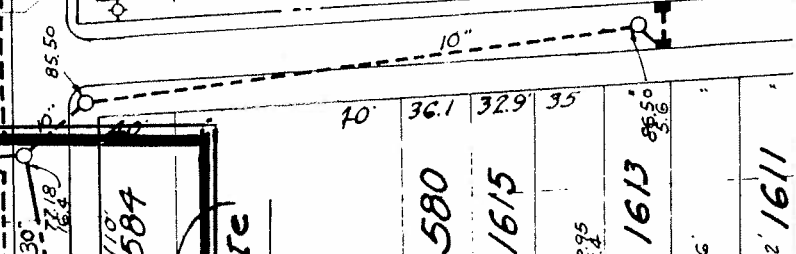
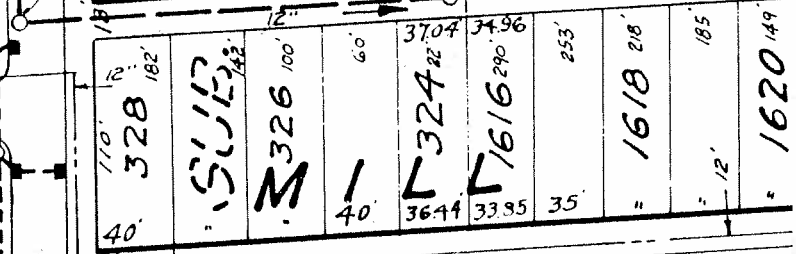
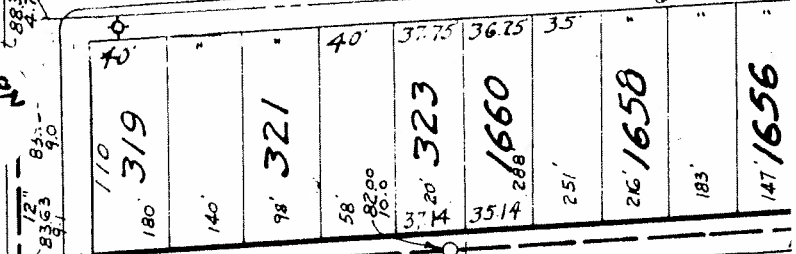
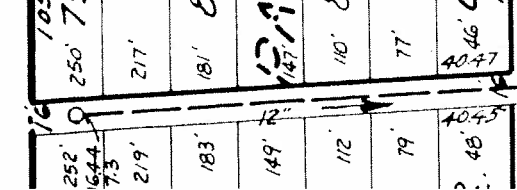
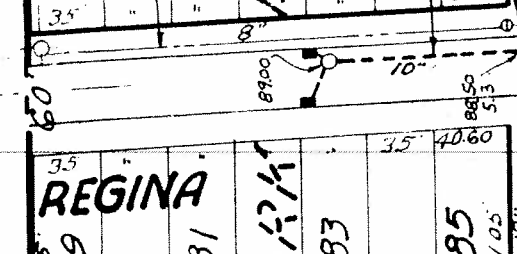
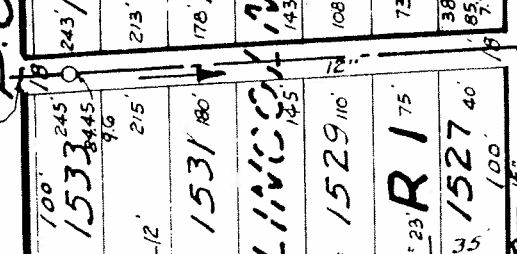
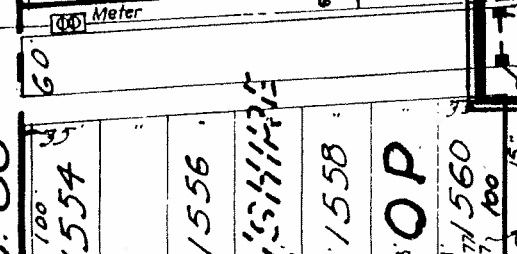
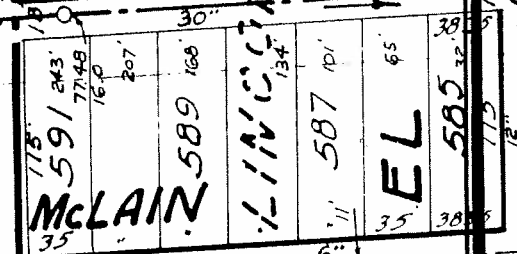
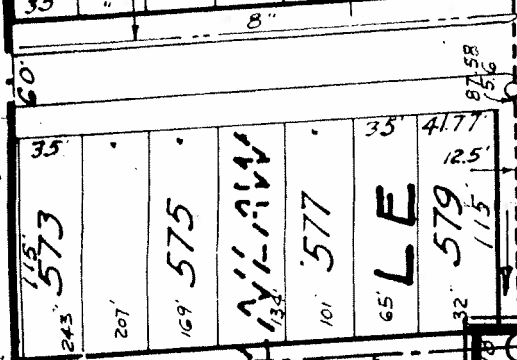
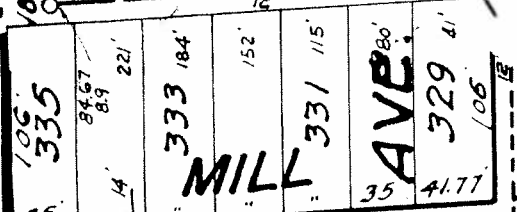
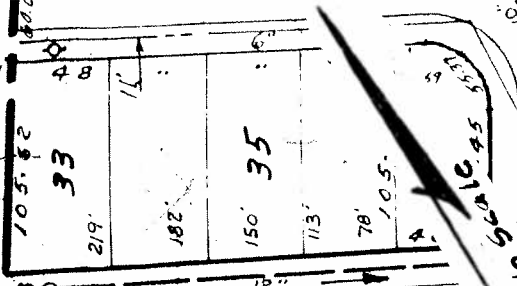
(See attached specifications for detailed descriptions)

The materials described above are to be installed per manufacturers specifications. All hardware not supplied with the referenced items are to be the contractors responsibility to secure and install and are to be incidental to the job. Stainless steel fasteners are to be used throughout, unless otherwise supplied/included with materials provided by the City. Any welding required will also be incidental to the job.

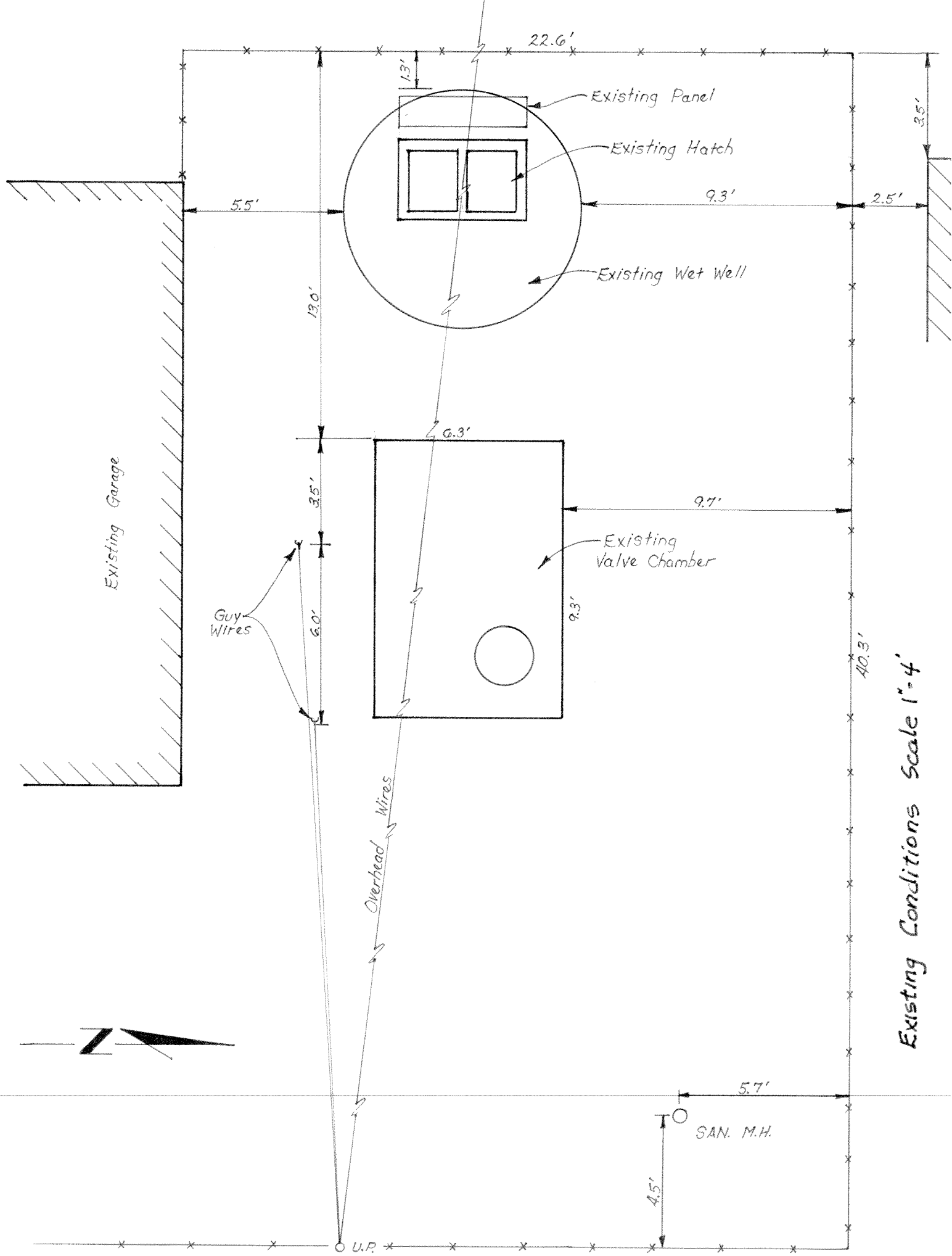
The contractor shall work closely with the pump supplier (Kennedy Industries) throughout the installation and start-up process. The contractor shall be ultimately responsible for coordination of all construction activities. The job is essentially a turn-key project and will be considered substantially complete after the pump station has been shown to operate properly in all aspects and per manufacturers specifications, including but not limited to:

- Pump operation
- Float/switch operation
- Valve operation
- Alarm operation
- Telemetry operation
- Generator operation

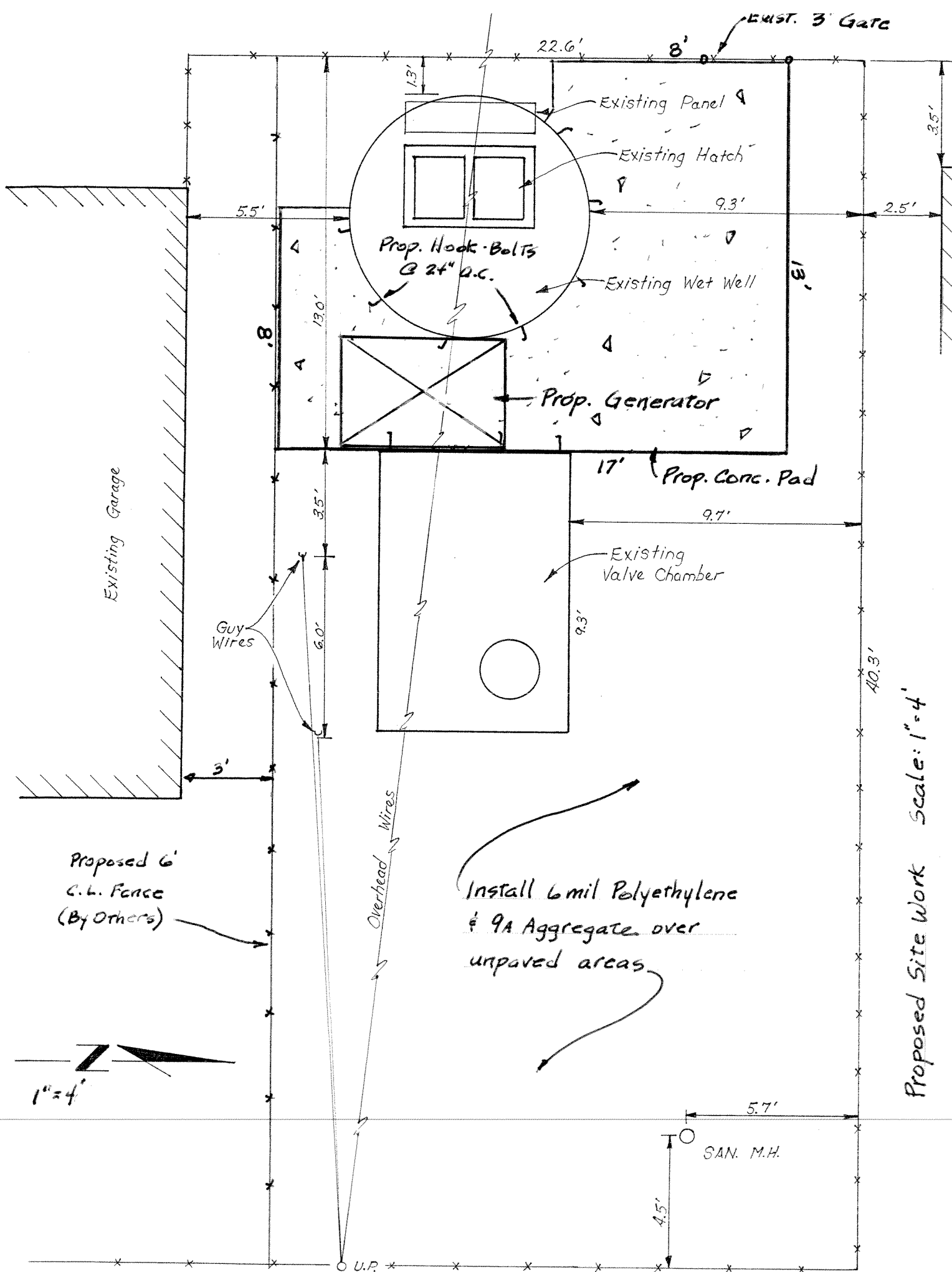
CLEVELAND



RIOPELLE PUMP STATION REFIT - LOCATION MAP



Existing Conditions Scale 1"=4'



Install 6 mil Polyethylene # 9A Aggregate over unpaved areas

Proposed Site Work Scale: 1"=4'

SAN. M.H.

22.6'

1.3'

Existing Panel

Existing Hatch

5.5'

9.3'

2.5'

Remove & Replace Pumps & Appurtenances

Existing Wet Well

13.0'

Remove & Replace Check & Plug Valves

6.3'

Existing Valve Chamber

9.7'

Existing Garage

Guy Wires

3.5'

6.0'

9.3'

40.3'

Remove & Replace all Piping, Bends & Valves between Pumps & downstream flange joint in Valve Chamber

Overhead Wires



5.7'

SAN. M.H.

4.5'

U.P.

Scale 1"=4' Proposed Pump Station/Valve Chamber Construction