

**GEORGETOWN CHARTER TOWNSHIP**

**STANDARD CONSTRUCTION REQUIREMENTS**

**February 2025**

## TABLE OF CONTENTS

EXPLANATION OF THIS DOCUMENT	1
DEFINITIONS	1
SECTION 1 GENERAL REQUIREMENTS	1 - 18
SECTION 2 SPECIFICATIONS FOR EXCAVATING, TRENCHING AND BACKFILLING FOR UTILITIES	1 - 17
SECTION 3 SPECIFICATIONS FOR SURFACE CONSTRUCTION	1 - 7
SECTION 4 SPECIFICATIONS FOR WATERMAIN AND WATER SERVICES	1 - 38
SECTION 5 (WAS INTENTIONALLY DELETED)	
SECTION 6 SPECIFICATIONS FOR SANITARY SEWER	1 - 22
SECTION 7 SPECIFICATIONS FOR PUMP STATIONS AND FORCEMAIN	1 - 25
SECTION 8 (WAS INTENTIONALLY DELETED)	
SECTION 9 SPECIFICATIONS FOR SHARED USE PATHS AND SIDEWALKS	1 - 22
APPENDIX "A" STANDARD UTILITY LINE EASEMENT	
APPENDIX "B" WATER AND / OR SEWER DEVELOPMENT CONTRACT	
Contract Face Pages	
Contract Terms	
APPENDIX "C" ENGINEER'S CERTIFICATE FOR WATERMAIN AND SANITARY SEWER	
APPENDIX "D" WARRANTY BILL OF SALE	
APPENDIX "E" PRE-CONSTRUCTION MEETING AGENDA AND MINUTES TEMPLATE	
APPENDIX "F" STANDARD SIDEWALK EASEMENT	

EXPLANATION OF THIS DOCUMENT:

The purpose of this document is to provide Developers, Consulting Engineers and Contractors working in the Township the general requirements and standard construction requirements required by the Township for water supply systems, wastewater collection systems, and sidewalks which, after acceptance by the Township, will become public facilities.

THESE STANDARD CONSTRUCTION REQUIREMENTS SHALL BE INCORPORATED BY REFERENCED AS PART OF THE CONTRACT DOCUMENTS FOR THE ACQUISITION AND CONSTRUCTION OF THE WATER SUPPLY SYSTEM, WASTEWATER COLLECTION SYSTEM, AND/OR SIDEWALK PROJECT.

## DEFINITIONS

*Agreement* - The written contract between the Owner and Contractor covering the work to be performed.

*Contractor* - The person, partnership, corporation, or other legal entity with whom the Owner has entered into an agreement to construct the Work.

*Contract Documents* - The Agreement, plus any or all of the following additional documents, if they exist: 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 notice to proceed, bonds and insurance certificates, general conditions, supplementary conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all written amendments, change orders, work change directives, field orders, and Owner's Engineer's written interpretations and clarifications. THESE STANDARD CONSTRUCTION REQUIREMENTS SHALL BE INCORPORATED BY REFERENCE AS PART OF THE CONTRACT DOCUMENTS.

*Development Contract* - A written contract between the Owner and the Township covering various items regarding the Project.

*Owner* - The person, partnership, corporation, or other entity for whom the Work is being constructed and with whom the Contractor has entered into an Agreement.

*Owner's Engineer* - The Consulting Engineer employed by the Owner for the Project.

*Plans* - The drawings which show the scope, extent, and character of the Work to be furnished and performed by Contractor and which have been approved by the Township and are referred to in the Contract Documents.

*Project* - The water main, sanitary sewer, or sanitary force main construction project which will become a public facility.

*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.

*Township* - Georgetown Charter Township, Ottawa County, Michigan.

*Township's Engineer* - The person, firm or corporation used by the Township for consulting engineering purposes.

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

## SECTION 1

### GENERAL REQUIREMENTS

#### 1.01 DEVELOPMENT REQUIREMENTS

##### 1.01.01 Master Plans

The Township's water main and wastewater collection system master plans must be followed by the Owner's Engineer in the design of the Project. It is recommended that prior to any design being completed, that a meeting be scheduled with the Township to review these master plans.

##### 1.01.02 Standards/Ordinances

All work must conform to these Standard Construction Requirements and all applicable Township ordinances and rules and regulations.

To the extent applicable, the Georgetown Charter Township Code, Chapter 58 - Utilities, and all rules and regulations adopted thereunder, are considered part of these Standard Construction Requirements.

The Owner, the Owner's Engineer, and the Contractor must keep themselves fully informed of and must at all times comply with all local, state, and federal laws, rules, and regulations applicable to the Project.

THE PROCEDURE FOR GRANTING OF EXCEPTIONS TO THESE STANDARD CONSTRUCTION REQUIREMENTS IS:

- A. A written request for an exception must be prepared and filed by the Owner with the Township. This written request for exception must be prepared by the Owner's Engineer and shall be signed by both the Owner and the Owner's Engineer. The exception request must include all relevant supporting documentation and information, including information supplied by the Owner's Engineer. The burden of proof shall be on the Owner to provide convincing proof that the exception is necessary because it is impossible to comply with the Standard Construction requirements or compliance will cause extreme hardship. Additional cost alone is not justification for the granting of an exception.
- B. The Township will consider the exception request and consult with the Township Engineer as necessary. The Township will then give a written notice to the Owner stating the Township's decision on the exception request. The Township decision must be final and binding on the Owner.

1.01.03 Plan Review Process

**For water main and sanitary sewer.**

- A. The Owner's Engineer must supply to the Township the Owners name and address. Copies of all correspondence shall be sent to the Owner.
- B. Owner's Engineer must submit a preliminary site plan for the Project to the Township's Water and Sewer Department concurrent with submittal to the Township Planning Commission for review of any preliminary plat, preliminary planned unit development plan, rezoning request, preliminary site condominium approval request, site plan or any other planning approval document pertaining to the Project. Sites with future phasing must provide a master plan for utilities for the future phases. No water or sanitary sewer Project shall be undertaken unless in conformance with the Township Wastewater Collection System and Township Water Supply System Master Plans.
- C. Owner's Engineer must submit two sets of Plans and Specifications to the Township Water and Sewer Department.
- D. After review of the Plans and Specifications, the Township will issue a review letter to the Owner's Engineer. The review will be valid for two (2) years from the date of its issuance.
- E. Upon receipt of this review letter, any changes required must be made prior to the Township submitting the Plans and Specifications to EGLE for construction permits.

The following must be included on the construction plans or submitted as appropriate.

- 1. The plans must indicate the project name, the location of the project and a location sketch. Soil borings must be also included on the drawings showing type of soil and water table elevation.
- 2. The plans must have the developer's name, address, email, and phone number.
- 3. The plans must be sealed by a licensed professional engineer.
- 4. Easements for water and/or sewer lines must be detailed on the Plans. Easement areas must be accompanied by the proposed easement document. (See Appendix "A")
- 5. A general note must be included on the Plans stating that the construction must be done in accordance with the current Georgetown Charter Township Standard Construction Requirements.
- 6. The datum used and benchmark information is included.

7. For watermain projects, the permit application for water supply systems as required under the Authority of 1976 PA 399 as amended shall be completed and submitted.
8. For sanitary sewer projects, the permit application for wastewater systems as required under Authority of Part 41, Act 451, PA 1994 as amended shall be completed. The electronic submittal must be coordinated with the Water and Sewer Department.

1.01.05 Fire Protection Systems/Fire Hydrants

The Township must review/approve all fire protection systems. All fire hydrants must be on a public water main operated by the Township. Easements will be required when the water main and/or fire hydrants are on private property. The Owner's Engineer must meet with the Township Water Department prior to the design of all fire protection systems.

1.01.06 Wastewater Pumping Stations

All wastewater pumping stations to be operated by the Township will be reviewed by the Township's Engineer.

1.01.07 Agreement

The Agreement must incorporate by reference all of these Standard Construction Requirements and must provide that the Township is a third-party beneficiary of the Agreement and that all provisions of the Agreement in favor of the Owner and/or Township may be enforced by the Township. The Agreement shall be submitted to the Township for approval prior to its execution.

The Township must require a Development Contract between the Developer and the Township. (See Appendix "B")

1.01.08 Guarantee

The Agreement must provide that the Contractor must guarantee the completed Work for one year and must promptly repair, replace, restore, or rebuild, as the Township may determine, any finished Work in which defects of materials or workmanship may appear or to which damage may occur (or has occurred) because of such defects during the one-year period, except where other periods of maintenance and guarantee are provided. The one year period must begin on a date agreed upon in writing by the Owner, Contractor and the Township.

All subcontractors, manufacturer, or supplier warranties and guarantees, expressed or implied, with respect to any material or equipment used in or incorporated as a part of the Work must be obtained by the Contractor as agent for the Township, and all such warranties and guarantees must inure to the benefit of the Township without the necessity of separate transfer or assignment thereof; *provided* that if required by the Township, the Owner and Contractor must cause such subcontractors, manufacturers, or suppliers to execute such warranties and guarantees in writing to the Township and,

further, that the Agreement must provide that the Contractor will assign all such warranties and guaranties to the Township on request.

1.01.09 Cost Sharing

All cost sharing agreements (if any) between the Township and Owner must be in writing and must be signed and delivered prior to the start of construction.

1.01.10 Permits and Approvals

Prior to commencing construction of the Project, the following permits/approvals must be obtained (if applicable) by the Owner's Engineer:

- A. Township Water and Sewer Department.
- B. Ottawa County Road Commission Special Services
- C. Ottawa County Water Resources Commissioner - storm sewer, drain use, and Soil Erosion Sedimentation Control (Part 91 of PA 451).
- D. Michigan Department of Environment, Great Lakes, and Energy
  - 1) Water main construction permit (Act 399).
  - 2) Sanitary sewer construction permit (Part 41 of Act 451).
  - 3) Storm Water Discharge (Part 31 of Act 451).
  - 4) Soil Erosion and Sedimentation Control (Part 91 of Act 451).
  - 5) Inland Lakes and Streams (Part 301 of Act 451).
  - 6) Wetlands (Part 303 of Act 451).
  - 7) Floodplain (Part 31 of Act 451)
  - 8) NPDES (Part 41 of Act 451)
  - 9) Other

*No construction work on the Project shall commence until all of the above referenced permits/approvals which are applicable have been obtained, the Development Agreement has been signed, any necessary agreements with the Township have been signed and delivered, , appropriate evidence that all required insurance is in force has been filed with the Township, the Township has reviewed and approved the Agreement, and the preconstruction conference has been held.*

1.01.11 Indemnity/Insurance

1.01.11.01 Indemnity - General

The Contractor must agree in the Agreement that as a condition of performing the Work, the Contractor agrees to assume all liability for and protect, indemnify and save the Township, Ottawa County Road Commission, Ottawa County Water Resources Commissioner (including Road Commission's, Drain Commissioner's and Township's respective consulting engineers), their agents, consultants, officers, board members and employees, harmless from and against all actions, claims, demands, judgments, losses,

expenses of suits or actions and attorney fees for injuries to, or death of, any person or persons and loss or damage to the property of any person, or persons, whomsoever, and the Contractor's agents, contractors, subcontractors, officer and employees, arising in connection with or as a direct or indirect result of entering into and performance of the Work, whether or not due to or arising out of the acts of the Contractor or its agents, contractor, subcontractors, officers and employees, or by or in consequence of any negligence or carelessness in connection with the same or on account of liability of obligation imposed directly or indirectly upon any of the above named indemnified parties by reason of any law of the State of Michigan or the United States, now existing or which shall hereinafter be enacted, imposing any liability or obligations, or providing for compensation to any person or persons on account of or arising from the death of, or injuries to employees. The Contractor must pay, settle, compromise, and procure the discharge of any and all such claims and all such losses, damages, and expenses. The indemnified parties must have the option to retain their own attorney or attorneys and the reasonable expense thereof shall be paid by the Contractor.

#### 1.01.11.02 Insurance Requirements

The Agreement must provide that prior to commencing work, the Contractor must file with the Township, Ottawa County Road Commission and Ottawa County Water Resources Commissioner a certificate of insurance acceptable to the Township as proof that the Contractor has secured the types and amounts of insurance required by this subsection for the Project. The Township must have the right, in its sole discretion and at any time(s), to require the Contractor to file with the Township certified copies of any policies of insurance required by this subsection.

The Contractor must provide Owners and Contractors protective insurance coverage for the project in the amount of \$2,000,000.00 general aggregate and \$1,000,000 each occurrence naming Georgetown Charter Township as the insured and the Ottawa County Road Commission, Ottawa County Water Resources Commissioner (including the Water Resources Commissioner's, the Road Commission's and the Township's respective consulting engineers), and also Blendon Township if the project is within or borders these townships (and their respective consulting engineers) as the additional insureds. The named insureds must include all officers, consultants, agents, employees, and board members. The purpose of this insurance coverage is to protect the named insured for any actual or alleged liability arising out of the work performed by the Contractor, the Subcontractor(s), or Suppliers, on this Project. The OCP policy will provide primary, non-contributing coverage.

The certificate or certified policies filed with the Township shall provide for giving the Township 30 days prior written notice of any cancellation, material change in coverage or non-renewal of the insurance.

The furnishing by the Contractor of any insurance policies and/or insurance certificates and their acceptance or approval by the Township shall not release the Contractor from the obligation to provide sufficient insurance coverage as set forth herein and shall not waive liability of the Contractor to provide indemnification as provided above.

1.01.12 Bonds

The Township may require performance bonds for all of the Work or, as a minimum, for that portion of the Work within existing rights of way. (Bonds will be required when the Township is the Owner.)

1.01.13 Assessments/Charges/Fees

It is the responsibility of the Owner to make inquiry as to the amount of assessments, charges and fees applicable to the Project. Payment terms, if any, must be as agreed upon in writing with the Township.

The Township reserves the right to suspend the Work until all disputes between the Owner and Contractor are resolved.

1.01.14 Easements

All easements to be granted to the Township will be on forms as provided by the Township. All easements must be recorded and delivered to the Township prior to final approval of the project by the Township.

See Appendix A for standard utility line easement forms.

1.01.15 Connections/Final Acceptance

All major field changes must be drawn by the Engineer. The Contractor will be required to save lateral stakes, etc., until construction records are obtained by the construction observer. Construction records may not be completed until the other utilities have completed their work, in order to have more objects to tie witnesses to. Once all utilities have completed their work, the Township must obtain all pertinent record information for the water main, sanitary sewer, and sanitary force main. The Township will provide a redline markup set that the Engineer must use to generate the record drawings. The Engineer must provide final record drawings that must be sent back to the Township to review and accept if the redlines from the Township have been adequately shown on the record drawings.

Prior to service connections or final approval of the Project by the Township, the following items must, if applicable to the Project, be submitted to the Township:

- a) Signed Engineer's Certificate for Watermain and Sanitary Sewer ( Appendix "C").
- b) Executed Bill of Sale (Appendix "D").
- c) Record plans must be completed in AutoCAD or Microstation and submitted in PDF format to the township (see 6).
- d) Copies of Michigan EGLE construction permits.

- e) Final plat or Master Deed with Exhibit B showing dedicated easements.
- f) Letter of credit for uncompleted work. See Development Contract (Appendix “B”) between Owner and Township.
- g) All easements signed, delivered and recorded. All easement documents must be reviewed by the Township prior to signing and recording.
- h) All development fees paid.

In addition, all testing must have been completed and all complaints must have been resolved. Also, the date on which the guarantee period commences must have been agreed to in writing by the Township, Owner and Contractor. The Contractor must maintain the insurance requirements as noted in these specifications through the one year guarantee period.

1.01.16 Building Connections

Separate permits will be required for any water services or sewer connections into buildings. See Chapter 58 of the Township Code of Ordinances for requirements and regulations pertaining to private water systems, fire lines, sanitary sewer, as well as these Standard Construction Requirements.

**1.02 CONTRACTORS AND SUBCONTRACTORS RESPONSIBILITIES**

The Work must be performed by responsible contractors and subcontractors known to be skilled and regularly engaged in work of similar character and magnitude. The Owner must receive written approval from the Township of all contractors and subcontractors prior to entering into the Agreement.

1.02.01 General

All of the following Contractor responsibilities must be incorporated as part of the Agreement.

1.02.02 Safety and Protection

The Contractor must be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor must take all necessary precautions for the safety of, and must provide the necessary protection to prevent damage, injury or loss to:

the public and all persons on the Work site or who may be affected by the Work;  
all the Work and materials and equipment to be incorporated therein, whether in storage on or off site; and

other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, driveways, roadways, sidewalks/bike paths, structures, utilities and underground

facilities not designated for removal, relocation or replacement in the course of construction.

The Contractor must comply with all applicable laws and regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury or loss; and must erect and maintain all necessary safeguards for such safety and protection. The Contractor must notify owners of adjacent property and of underground facilities and utility owners when construction of the work may affect them, and must cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in this paragraph caused, directly or indirectly, in whole or in part, by the Contractor, any subcontractor, supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, must be remedied by the Contractor. The Contractors' duties and responsibilities for safety and protection of the Work must continue until such time as all the Work is completed and accepted.

1.02.03 Safety Representative

The Contractor must designate a qualified and experienced safety representative at the Work site, whose duties and responsibilities must be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

1.02.04 Emergencies

In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization from the Owner or the Township, is obligated to act to prevent threatened damage, injury or loss. The Contractor must give the Owner and the Township prompt written notice if the Contractor believes that any significant changes in the Work or variations from the Work have been caused thereby. If the Owner determines that a change in the Work is required because of the action taken by the Contractor in response to such an emergency, with prior written approval of the Township, the Owner may issue a change order or otherwise authorize a change in the Work to account for the consequences of the action taken with respect to the emergency.

An emergency telephone system (listing of number) must be set up and given to the Township so that the Contractor may be immediately notified of any unsafe conditions or emergencies encountered during times that the Contractor is not working on the Project. The Contractor must provide a local number and a local employee so that the Contractor may be contacted at any time (including weekends and holidays) 24 hours a day.

1.02.05 Supervision and Superintendence

The Contractor must supervise, inspect 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. The Contractor must be solely responsible for the means, methods, techniques, sequences and procedures of construction. The

Contractor must be responsible to see that the complete Work complies accurately with the Plans and Specifications.

The Contractor must keep on the Work at all times during its progress a competent superintendent, who will cooperate fully with the Township at all times, and who must not be replaced without written notice to the Township. The superintendent will be the Contractor's representative at the site and must have authority to act on behalf of the Contractor. All communications given to the superintendent must be as binding as if given to the Contractor.

1.02.06 Labor, Materials and Equipment

The Contractor must provide competent, suitably qualified personnel to perform the Work. The Contractor must at all times maintain good discipline and order at the site.

The Contractor must furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up, and completion of the Work.

All materials and equipment must be of good quality and new, except as otherwise provided in the Plans and Specifications. If required by the Township, the Contractor must furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment must be applied, installed, connected, erected, used, cleaned, and conditioned in accordance with instructions of the applicable supplier, except as otherwise provided in the Plans and Specifications.

1.02.07 Construction Records

The Contractor must provide construction record information and utilize standard record forms as provided by the Township.

**1.03 PROJECT MANAGEMENT**

1.03.01 Project Schedule

Contractor must provide a detailed construction schedule to the Township and the Ottawa County Road Commission at or prior to the pre-construction meeting. Contractor must be responsible for coordination of all work activities.

Contractor is responsible for sequencing construction operations in an efficient manner to minimize the length of service interruptions and to meet the Contract completion dates.

Certain projects may require street closings. The Contractor must coordinate its work with the Ottawa County Road Commission and the Township and must take all necessary precautions required by the Road Commission to minimize traffic interference.

1.03.02 Pre-Construction Meeting

A pre-construction meeting must be held with the Township, Ottawa County Road Commission, Ottawa County Water Resources Commissioner, the utility companies and other agencies affected by the proposed construction. The Township's construction observation procedures will be reviewed with regards to water main, sanitary sewer, and sidewalks. A pre-construction meeting agenda similar to Appendix E must be required to be completed prior to the meeting.

1.03.03 Authority of the Township and their Authorized Representatives

The Township and their authorized representatives have the authority to verify that the Project is being constructed in accordance with the Plans and Specifications, and the Standard Construction Requirements and the Development Agreement.

1.03.04 Construction Observers

Authority and Duties of Township Construction Observers:

Township construction observers will not supervise, direct, or have control of the Contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto. Township construction observers are not authorized to revoke, alter, enlarge or relax any of the Specifications nor to change the Plans in any particular. Township construction observers are not authorized to increase or decrease any Agreement item nor to add new items to the Agreement. Township construction observers will inform the Township as to the progress of the Work and the quality of the completed Work, and the quality of the materials being used. In no instance will any action or omission on the part of the Township construction observer relieve the Contractor of the responsibility for completing the Work in accordance with the Agreement.

The Township must review the completed Work, or such portions thereof which are eligible for acceptance, upon notification by the Contractor that the Work is complete or substantially complete. If the completed Work is not acceptable to the Township at the time of such review, the Township must inform the Owner and the Contractor orally or in writing as to the particular defects to be remedied.

Construction observation may be done by Township staff or the Township's representative. Construction observation will consist of daily observation of water main and sanitary sewer installation, witnessing the testing of water main and sanitary sewer and gathering of construction record information of all items related to water main and sanitary sewer construction, including laterals and water services. Observation will only occur during the Township's normal working hours unless the Township, Owner, and Contractor can come to an agreement on observation outside of working hours in which the Owner and/or Contractor would then cover the overtime costs for the Township observer to be on site.

All construction staking, compaction testing, major field changes and pay estimates will be the responsibility of Owner's Engineer.

The Owner's Engineer must periodically review the work for conformance to the Plans and Specifications and these Standard Construction Requirements. The Owner's Engineer must complete, sign and submit to the Township the Engineer's Certificate contained in Appendix "C".

The Township must accept the Work prior to placing water main, sanitary sewer, or sidewalk in service.

1.03.05 Construction Staking

Construction staking must be completed by the Owner of the Project. Conventional staking will be required by the Township for all construction Projects. These stakes must provide enough information that the Township staff can verify location and elevation of the utilities while being installed.

1.03.06 Material Testing

The Township reserves the right to sample and test any of the materials required for the proposed construction, either before or after delivery to the Project. All materials, which do not meet the requirements of the Specifications at the times they are to be used, must be rejected, unless the Contractor can demonstrate through additional tests, at the Contractor's expense, that the remainder of the pipe is satisfactory. The Township will then determine if the material is then authorized as acceptable in writing after the Contractor has completed additional tests.

The Contractor must furnish all materials reasonably required by the Township for sample testing and analysis necessary for the testing of materials as required by the Specifications.

Upon request, Contractor must provide certified standard test reports for materials used on the project.

The Engineer will perform required compaction testing. Contractor must provide Engineer a minimum 48 hours advance notice prior to performing work requiring compaction testing.

Contractor must provide a source list and gradation test results for all controlled fill backfill, road subbase, and aggregate base materials. Sampling and testing frequencies must be per MDOT requirements. On-site excavated material utilized for trench backfill must be tested once per stratum. Additional samples will be required at Engineer's discretion.

No separate payment will be made for gradation tests.

1.03.08 Contract Amendments/Change Orders/Notification/Concurrence

When necessary, the Owner or the Owner's Engineer will prepare for the Township's prior written approval Agreement amendments and change orders.

1.03.09 Disputes and Suspension of Work and Termination

All disputes between the Owner and Contractor must be reviewed and resolved in a timely manner.

**1.04 EXISTING UTILITIES**

1.04.01 General

Any utilities shown on the Plans are located according to the latest available information. It must be the responsibility of the Contractor to uncover the Township's sanitary sewer, sanitary force main, and/or water mains for a reasonable distance ahead of his construction operation to permit field adjustments where such might be made in grade, location or alignment of the proposed sewer and water main and/or appurtenances.

The Contractor must notify other units of government and the utility companies of the Contractor's schedule and obtain any necessary permits from them.

No claim for additional compensation will be allowed based on the work of the utility companies to replace, relocate, or repair their utility in the project area whether noted on the drawings or in the specifications or if deemed necessary during construction.

In the event of interruption to water or other utility services as a result of accidental breakage or as a result of being exposed or unsupported, the Contractor must promptly notify the Township or other utility owner and must cooperate with the Township and/or such owner in the restoration of service. If water service or other essential service is interrupted, repair work must be continuous until the service is restored. No work may be undertaken around fire hydrants until provisions for continued service have been approved by the Township Fire Department.

1.04.02 Utility Poles

When necessary, the Contractor must shore and brace utility poles that interfere with construction. Shoring and bracing must be such that sinking or excessive tilting does not take place. All relocation or removing and replacing of power poles, light poles and telephone poles must be done in accordance with the pole owner's standards and all expenses must be paid for by the Contractor. All arrangements for pole relocations must be completed by the Contractor with the pole owner at least 72 hours prior to need for relocations. Payment for utility pole protection must be included in the major items of construction. No additional payment will be made for utility pole protection.

**1.05 COMMUNITY RELATIONS AND PROTECTION OF ADJACENT PROPERTY**

The Contractor is entirely responsible for all damage to water pipes, electric conduits or cables, drains, sewers, gas mains, poles, telephone and telegraph lines, railroad bridges and tracks, streets, pavements, sidewalks, curbs, fences, street and highway bridges and culverts, building foundations, retaining walls or other structures of any kind met with during the progress of the work, and is liable for damages to public or private property resulting therefrom.

The Contractor must shore, brace, install sheeting, and/or then take all precautions necessary to protect against damage to existing structures due to dewatering, excavation, backfilling or other construction at the site. The Contractor must minimize the amount of excavation and site disturbance and must save existing structures and landscaping where possible.

## **1.06 MAINTENANCE OF TRAFFIC**

When working within the limits of existing streets, the Contractor must accommodate vehicular traffic in road rights-of-way as provided in the Specifications. Access to fire hydrants, water and gas valves must be maintained at all times during construction.

Where streets are partially obstructed, the Contractor must place and maintain temporary driveways, ramps, etc., which, in the opinion of the Ottawa County Road Commission and/or the Township, are necessary to accommodate the public.

The Contractor must inform the local police, schools, ambulance services and fire department in advance of its program of street obstruction and detours. Detouring and construction signage must be in accordance with MDOT Standards for Uniform Traffic Control and in accordance with the directions of the Ottawa County Road Commission.

### **a) For all portions, maintaining through traffic:**

All signs, barricades and other traffic control devices must be in accordance with the current Michigan Manual of Uniform Traffic Control Devices.

When shoulders or the edges of pavement are low, high, soft or rough while maintaining traffic on the pavement, the contractor must place and maintain a sufficient number of approved lighted devices to warn traffic adequately and safely during hours of darkness.

Signing for lane and shoulder closures must be in accordance with Ottawa County Road Commission and Michigan Department of Transportation requirements. Plastic drums and light arrow panels will be required.

### **b) For all closed portions of the roadway:**

The Contractor must erect Type III Barricades and advance warning signs at both ends of the closed portion(s) of the roadway and must also erect detour signs along the route(s) and maintain the detour route as necessary. All signs, barricades and other traffic control devices must be in accordance with the current Michigan Manual of Uniform Traffic Control Devices.

A signing plan for road closures and detours for each respective phase of the project must be submitted to the engineer by the contractor and approved by the Ottawa County Road Commission prior to commencement of work on that phase.

Access for business establishments and residences on the project must be maintained at all times. The contractor must provide all lighted plastic drums and signs within the closed portion of the roadway necessary for the protection of the

work and maintenance of local traffic through and around construction areas in accordance with the Standard Specifications.

All costs for detours and/or signage necessary to maintain or detour the traffic throughout the project must be considered included in the major items of work as shown in the proposal.

## **1.07 SITE MAINTENANCE**

The construction site must be maintained in a neat and orderly manner on a daily basis. Litter, debris, construction material, and other items must be properly handled to the Owner's requirements. Construction materials and debris must not be disposed of in the excavation.

Protection and maintenance of public safety is of critical concern. Trenches left open must be properly fenced with safety fencing; caution tape must not be utilized. No trenches must be left open more than 24 hours. Manholes must not be left open.

### **1.07.01 Right of Way and Easements**

The Contractor must confine its work to the public rights-of-way, easements and Owner's property. Any other area required for equipment or material storage or for construction operation must be the Contractor's responsibility.

The Contractor must assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any adjacent land or areas, resulting from the performance of the Work.

### **1.07.02 Access**

The Township and its representatives must be allowed access to all parts of the Work at all times and must be furnished such information and assistance by the Contractor as may be required to make a complete and detailed inspection.

### **1.07.03 Haul Routes**

Any spillage on public roadways used as haul routes must be cleaned daily.

Gravel roads must only be used by the Contractor when permission is given to the Contractor in writing by the Ottawa County Road Commission and only if the Contractor assumes responsibility of maintenance, dust control and restoration of the gravel roads to the satisfaction of the Ottawa County Road Commission.

### **1.07.04 Mail Service / Refuse Removal**

The contractor must temporarily relocate mailboxes that interfere with construction to a location easily accessible to the U.S. Post Office. Mailboxes must be replaced in a condition, elevation and location equal to that existing prior to construction. If the mailbox to be replaced was not in accordance with U.S Post Office requirements prior to construction, the Contractor must install the mailbox in such a way that it is as similar

to pre-construction condition as possible while also being in compliance with the U.S. Post Office requirements.

Contractor must maintain access to the front yard of properties for parcel delivery services.

Contractor must coordinate activities with waste haulers to allow continued service to the area under construction. This will require access to the individual properties or a central location for pick up. The Contractor will be responsible for transporting waste containers to a centralized location and returning them to their respective properties following trash pickup.

Contractor must provide residents with 24-hour notification of temporary mailbox relocation or refuse removal. The relocation of mailboxes and the facilitation of refuse removal must be incidental to the major items of construction.

1.07.05 Noise Control

Work must be conducted Monday through Saturday between the hours of 7:00 am and 8:00 pm (or sundown, whichever is earlier).

Contractor must exercise reasonable care to minimize noise generated by construction operations, bypass pumping, dewatering (if necessary), and all other activities. The Contractor must work with the Owner and Engineer to address all complaints from property owners.

1.07.06 Dust Control

All haul roads, detour roads and other public and private roads (including backfilled trenches), driveways and parking lots used by the Contractor must be maintained in a dust free condition. The control of the dust must be accomplished by the application of dust control materials and methods of application as approved and/or sweeping must be applied as often as is necessary to control the dust or if directed to do so by the Township (within 12 hours after notifications).

Cost of providing dust control must be considered incidental to the Project price and must not be charged back to the Township.

1.07.07 Casting Adjustments

Casting adjustments (manholes, water main valves, gas valves, etc.) required in order to meet the new/restored grade must be made by the Contractor.

1.07.08 Valve Turning/Plugs

The Township must be notified in writing prior to any valves being operated on the portion of water supply system operated by the Township. No such valves may be operated by the Contractor unless authorized in writing by the Township.

Where plugs are required in existing sanitary sewer manholes, they may not be removed until authorization is received in writing from the Township. These plugs must be provided and installed by the Contractor.

1.07.09 Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Materials

If, during the course of construction, any asbestos, PCBs, petroleum, hazardous waste or radioactive materials are uncovered or revealed at the Work site which were not shown or indicated on the Plans and Specifications, to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto in connection with the Work at the site, the Contractor must cease operations affecting the find and shall notify the Township and also the Owner in writing, who must notify the necessary parties. No further disturbance of the materials will ensue until the Contractor has been notified by the Owner and the Township that the Contractor may proceed. Removal and disposal of waste must be completed in accordance with Department of Public Health Standards and follow local, state, and federal regulations.

1.07.09 Protection of Natural Resources

Contractor must take all necessary steps to prevent damage to fish and game habitats and to preserve the natural resources of the State. Excavation and backfill must be carried out so as to minimize discharge of damaging material to any stream, lake, or reservoir.

Contractor must exercise caution in the discharge of waters from pumps, deep wells, or well point systems, in order that such discharges do not cause erosion, siltation, soil depositions, etc., in sewers, streams or other water courses or drainage structures.

Contractor must not permit any sand or debris of any kind to enter the existing ditches, streams, storm sewers or culverts.

The rules and regulations of all work must comply with Part 31 (Water Resources Protection), Part 301 (Inland Lakes and Streams Act), Part 91 (Soil Erosion), and Part 303 (Wetland Protection) of P.A. No. 451(Natural Resources and Environmental Protections Act of 1994).

1.07.10 Protection of Work

The Contractor must protect the Work until it is accepted by the Township in writing. Any part of the completed Work that is damaged prior to acceptance by the Township must be replaced at the Contractor's expense.

All completed Work that is found to be defective before the final acceptance of the completed Work, must be corrected and replaced immediately in conformance with the Specifications.

**1.08 PAYMENT**

Payment must be made by the Owner to the Contractor. The Township, unless it is the owner, must not have any liability to the Contractor for amounts due the Contractor under the Agreement, or for any part of the cost of the Project. The method of payment (lump sum, unit prices, etc.) is between the Owner and the Contractor.