

## **SITE GENERAL PROVISIONS**

### **1.00 GENERAL**

#### 1.01 Description

A. The contractor shall provide all labor, material, tools and equipment necessary for the preparation and completion of the project and restoration of the site.

#### 1.02 Protection of Trees and Other Amenities

A. Trees which interfere with the work, and the removal of which is permitted, shall be removed by the contractor in a safe manner. Any tree that needs trimming for the construction of sewer shall be trimmed by a certified tree person experienced in tree trimming and pruning, at no additional cost to the project.

B. Protection and restoration of property: the contractor shall restore at his own expense, any public or private property damaged or injure in consequence of any act or omission on his part, or on the part of his employees or agents, to a condition equal or better than that existing before such injury or damage was done. If the contractor neglects to restore or make good such damage or injury, the owner may upon 48 hours notice proceed to restore or make good such damages or injury and to order the cost thereof deducted from any monies that are due or may become due the contractor for his work.

C. Where it is the policy of any utility owner to make its own repairs to damaged conduit or other structures, the contractor shall cooperate to the fullest extent with the utility and shall see that his operations interfere as little as possible with these operations, and the contractor shall assume the cost of any charge thereof.

#### 1.03 Temporary Roadways

A. The location and construction of any temporary roadways and/or access drives shall be subject to the approval of the engineer.

#### 1.04 Work Area and Storage of Materials

A. The working area shall be organized in an orderly manner with storage and tool sheds offices, and sanitary facilities, parking area for employees, and all other necessary facilities developed and maintained by the contractor. The contractor shall keep the site and all haul lanes reasonable clean and dust free.

B. Cleanliness of the work: The Contractor shall at all times keep the street or highway and any public or private premises temporarily occupied by him for the purpose of work under this contract free of accumulation of waste material or rubbish caused by his employees or work. This requirement shall also apply to any areas in the vicinity of the work which are affected by the contractor's construction or hauling operations.

C. The contractor shall periodically or as directed during the progress of work, remove and legally dispose of all surplus excavated material and debris and keep the project area and public right-of-way reasonable clear. Upon completion of the work, he shall removal temporary construction facilities, debris, and unused material provided for the work and put the whole site of the work and public right-of-way in a neat and clean condition. Trash burning on the site will be subject to prior approval of the owner and existing state and local agencies.

D. Trucks hauling excavated material, concrete, sand, stone, or other loose material from and to the site shall be tight so that no spillage will occur on adjacent street. Before trucks start away from the site, their loads shall be carefully trimmed, by hand, if necessary.

E. Power driven sweeping equipment shall be available to adequately clean daily, or as often as necessary in the opinion of the engineer, all areas which become a nuisance and source of complaint due to the operations of the contractor, subcontractor, or material suppliers to the project.

F. A rotary sweeper (or equivalent) may be used when, in the opinion of the engineer, the conditions inherent with using this equipment are not objectionable insofar as traffic and abutting developed properties are concerned.

G. When the use of a rotary sweeper is not adequate in keeping dust laid or for any other objectionable feature, a power driven pickup type sweeper (or equivalent) will be required to be furnished by the contractor for use on the project.

H. If the contractor shall fail to keep the above noted areas cleaned of dust or debris resulting from his operations, and thereby shall create any public nuisance, he shall be notified by the engineer. If within 2 hours after receipt of such notice the contractor shall fail to clean such areas satisfactorily, the engineer may have the owner perform the work and all cost of such cleaning shall be paid for by the contractor.

I. All materials, supplies, and equipment, whether furnished by the contractor or by the owner, shall be delivered, stored and handled as to prevent the inclusion of foreign material and/or damage by water, freezing, breakage or other causes. The engineer may require the contractor to provide an enclosed storage shed for the storage of the above mentioned materials, supplies, and equipment. Packaged material shall be delivered in the original unopened containers and shall be stored until ready for use. All material which has been stored shall meet the requirements of the specification at the time they are used in the project.

J. The contractor shall begin work and operate at such points as the engineer may deem necessary and shall thereafter prosecute the work in such order as may be prescribed by the engineer.

K. In case of a dispute arising between two or more contractors or other as to the respective rights of each under these specifications, the engineer shall determine the matters at issue and shall define the respective rights of the various interests involved in order to secure the completion of all parts of the work in general harmony and with satisfactory results, and his decision shall be final and binding on all parties concerned and shall not in any way be cause for claim for extra compensation by any of the parties.

L. Where the contractor is required to do work within the right-of-way under the jurisdiction of governmental bodies, he shall meet the requirements of said governmental bodies for the work and storage within their jurisdiction. Such requirements must be met as a minimum requirement, and if the specifications given herein impose further limitations on the work, they shall also be met as the required work standard.

M. The contractor shall at all times be aware of inconveniences caused to the abutting property owners and general public. Where undue inconveniences are not remedied by the contractor, the owner, upon four hours notice, reserves the right to perform the necessary work and to deduct the cost thereof from the money due the contractor.

N. When it is apparent that construction operations may endanger the foundations of any utility conduit, or support of any structure, the contractor shall notify the utility owner of this possibility and he shall take steps as may be required to provide temporary bracing or support of conduit or structures.

#### 1.05 Existing Public Utilities

A. Existing public utilities and underground structures, such as pipe lines, electrical conduits, sewers, and water lines are shown on the plans. The information shown is believed to be reasonably correct and complete; however, neither the correctness nor the completeness of such information is guaranteed.

B. The contractor shall conduct his operations so as to not damage any existing utility whether shown in the plans or not. The contractor shall correct, at his own expense, any injury caused during the operations of his subcontractors or suppliers.

C. If the contractor desires, or is required by the utility companies, to relocate any power or telephone poles to facilitate his work, any expense encountered for such relocations shall be borne by the contractor.

D. In all cases where permit or inspection fees are required by utility companies in connection with changes to or temporary support of their conduits, the contractor shall secure such permits and pay all inspection fees.

E. Where it is the policy of any utility owner to make this own repairs to damaged conduit or other structures, the contractor shall cooperate to the fullest extent with the utility and he shall see that his operations interferes as little as possible with those operations. The contractor shall pay for all charges for these repairs.

F. Individual gas, water, and sanitary services to residential and commercial buildings may be encountered in the course of construction the proposed sewer, even though they are not shown on the plans. It shall be the contractor's responsibility to repair any such damaged due to his operations and to bear all cost.

G. In instances, existing sewers or drains will be encountered along the line of work. In all such cases, the contractor shall perform this operations in such a manner that sewer services will not be interrupted/and shall, at his own expense, make all temporary provisions to maintain sewer service.

H. Unless otherwise indicated in the plans, the contractor shall replace any disturbed sewer at the locations to be established by the engineer such that sufficient clearance for the sewer will be provided.

I. The contractor shall receive no extra compensation for the replacement or relocation of sewers or drained encountered, or for relaying at a new grade where called for by the plans unless a separate bid item has been included in the proposal.

J. Where existing water mains are encountered in the work they shall be maintained in operation. If necessary, they shall be re-laid using ductile iron pipe of the type and with joints as specified by the owner.

K. The contractor will receive no extra compensation for the relaying and/or lowering or raising of water mains, except where a separate bid item has been included in the proposal.

L. Where existing gas mains are encountered, the contractor shall arrange with the gas company for any necessary relaying, and shall pay for the cost of such work.

M. The contractor shall submit shop drawings for review indicating the proposed methods to protect or support existing utilities, prior to commencement of work in the area of the utility requiring protection.

#### 1.06 Notification to Utilities

A. The contractor shall contact "MISS DIG" not less than 72 hours before starting construction for assistance in locating utilities or for any work to be done on utilities. The toll free number is 1-800-482-7171.

#### 1.07 Sanitary Requirements

A. The contractor shall provide adequate sanitary facilities for all persons employed on the project. The sanitary facilities shall conform in every way to the requirements of the "General Safety Rules and Regulations for the Construction Industry."

#### 1.08 Utilities

A. The contractor shall make necessary arrangements for the provisions on utility services, temporary or permanent, required under this contract. The contractor shall pay all cost for such connections and services.

B. All utility services shall be inspected by and shall meet the requirements of the applicable codes and governmental bodies.

#### 1.09 Pumping and Drainage

A. Adequate pumping and drainage facilities shall be provided and water, from whatever source, entering the work during any stage of construction shall be removed promptly and disposed of in a manner satisfactory to the engineer. All pumping and drainage shall be done with no damage to the property or structures and without interference with the right of the public, owners of private property, pedestrians, vehicular traffic, or the work of other contractors. Dewatering shall be done in such a manner that the soil under or adjacent to the existing structures shall not be disturbed, removed, or displaced.

B. The overloading or obstructing of existing drainage facilities shall not be permitted, and the contractor shall be solely responsible for any damages caused to such existing drainage facilities during his operations.

#### 1.10 Survey Monument

A. Monuments or other recognized property boundary markers at the street intersections, section corners, acreage or lot corners, and right-of-way lines shall be preserved and protected. Where such monuments or markers must be removed during construction, the engineer shall be notified and the contractor shall make all necessary arrangements, at his own expense, with a land surveyor registered in the state of Michigan to have these monuments or markers properly witnessed prior to disturbance or removal and later reset by the registered land surveyor.

#### 1.11 Staking

A. The engineer will establish the location and elevation of points on the project.

B. The contractor shall give the engineer at least five working days prior notice of the need for staking.

C. The contractor shall carefully preserve all stakes established by the engineer. Any stakes originally established by the engineer and subsequently disturbed or destroyed shall be replaced by the engineer at the expense of the contractor.

D. During construction, the contractor shall from time to time assist the engineer by furnishing a competent engineer's helpers for checking of elevations, etc., deemed necessary by the engineer.

#### 1.12 Right of Way and Easement

A. Work under this contract is to be performed at the project site on property of the owner or within public streets, highways or alleys or within specified rights-of-way or easements acquired for the purpose. The contractor is cautioned that the activities of his agents and employees and of all equipment operators, truckers and delivery men employed by him or his subcontractors or material suppliers must be confined to such areas. Any damages to property, streets, highways, rights-of-way or easements are the sole responsibility of the contractor and must be promptly settled by him.

#### 1.13 Explosives

A. Explosives may be brought or used on the premises only with the written consent of the owner. If explosives are used, the contractors shall comply with all laws, rules, and regulations governing their use.

The contractor shall be fully responsible for the safety of all persons and property and any approval by the owner shall not relieve the contractor of such responsibility.

B. All fees and assessments in connections therewith shall be paid for by the contractor, the cost of which shall be included in the proposal. The contractor shall be responsible for furnishing sufficient, properly qualified safety inspectors as required by the state and local governing bodies. The cost of providing for and meeting the requirements for handling explosives shall be at no extra cost to the owner.

## **2.00 EXECUTION**

### **2.01 Control of Water Pollution and Siltation**

#### **A. General Requirements**

1. The contractor shall conduct his work in a manner to comply with the soil erosion and sedimentation control act of 1972, (MICH PA 347) that will not cause damage siltation or pollution of the water in streams, rivers, lakes, and reservoirs. The engineer shall advise the Department of Environmental Quality (DEQ) of the proposed work. All work of water pollution and siltation control is subject to inspection by the DEQ and/or the Calhoun County Road Commission.

2. The contractor shall be responsible for obtaining the Soil Erosion and Sediment Control (SESC) permit from the Calhoun County Road Commission. The Cost of the permit shall be included considered incidental to the project and included in other items. All necessary items needed for the SESC permit shall be considered incidental.

2. All applicable regulations of fish and wildlife agencies and statutes to the prevention and abatement of pollution shall be complied within the performance of the contract.

3. Construction operations shall be conducted in such manner so to reduce erosion to the practicable minimum and prevent damage siltation to streams or lakes. The area of erodible land exposed to the elements by grading operations, including gravel pits, waste or disposal areas and haul roads, at any one time shall be subject to approval of the engineer and duration of such exposure prior to final trimming and finishing of the areas shall be as short as practical. The engineer shall have full authority to order the suspension of grading and other operations pending adequate and proper performance of trimming, finishing, and maintenance work or to restrict the area of erodible land exposed to the elements.

4. The disturbance of lands and waters that are outside the limits of construction as staked is prohibited, except as found necessary and approved by the engineer.

5. The contractor shall conduct his work in such manner as to prevent the entry of fuels, oils, bituminous materials, chemicals, sewage, or other harmful materials into streams, rivers, lakes, or reservoirs.

6. Water from aggregate washing or other operations containing sediment shall be treated by filtration, by use of a settling basin or other means to reduce the sediment content to a level acceptable to the DEQ.

7. All waterways shall be cleared as soon as practical of falsework, piling, debris or other obstructions placed during the construction operations not a part of the finished work. Care shall be taken during construction and removal of such barriers to minimize the muddying of a stream.

#### **B. Erosion Protection – Open Cut Sewers**

1. In order to limit the length of time that the exposed area subject to the elements and the subsequent conditions causing erosion, the contractor shall adhere to the following requirements:

a. Burlap silt traps shall be placed between the frame and cover of all manholes and catch basins in the construction area. The burlap shall be periodically replaced if silt buildup causes the trap to function improperly.

b. Sewer construction, including installation of pipe, backfilling, surface restoration and removal of excess excavation shall be accomplished in one continuous operation. Backfill, removal of excess excavated stabilization shall follow pipe laying by no more than 100 feet.

#### C. Application of permanent Stabilization

1. Permanent stabilization shall be applied to all areas disturbed by the contractor during completion of the work required by the contract.

2. The Stabilization shall be accomplished within 7 days of completion of the final earth change provided that change is made within the stated season for such stabilization.

3. If the final earth change is accomplished outside of the stated seeding or sodding season, temporary stabilization shall be applied within 7 days of completion of the final earth change and shall be replaced with permanent stabilization as soon after the following April 20<sup>th</sup> as the ground is workable.

#### D. Application of Temporary Stabilization

1. Permanent stabilization shall be applies in area where initial work has caused disturbance and the final earth change will not be completed immediately and to areas where the final earth change is completed between October 1<sup>st</sup> and April 20<sup>th</sup>.

2. Temporary stabilization shall be applied to areas where the final earth change has been completed, including final grading and top soil placement, between the dates of October 1<sup>st</sup> and April 20<sup>th</sup>. The disturbed areas shall have mulch placed and anchored as described in the following paragraphs. After April 20<sup>th</sup>, areas to be seeded shall be seeded through the mulch. Mulch shall be added and anchored as necessary to replace the lost prior to April 20<sup>th</sup>. Where sod is to be placed, the mulch will be removed or worked into the soil. If worked into the soil, the fertilizer application rate shall be increased by 25%

3. Areas disturbed by construction activities but on which the final earth change has not been made shall be graded to provide positive drainage and shall be stabilized to prevent erosion.

4. Areas which receive an initial earth change during the period October 15<sup>th</sup> to April 1<sup>st</sup> and will not receive further work for any length of time within that season shall have mulch placed and anchored. If work is not anticipated in such areas prior to the following July 1<sup>st</sup>, the area shall be seeded with temporary seeding on or shortly after April 1<sup>st</sup>.

5. Areas which receive an initial earth change between April 1<sup>st</sup> and October 15<sup>th</sup> and on which no further work is anticipated with 3 months shall received temporary seeding and mulch.

6. Areas which receive an initial earth change and on which further work is to be done within 3 months shall be graded to provide positive drainage and shall have mulched placed and anchored.

#### E. Seeding for Temporary and Permanent Stabilization

##### 1. Site Preparation

a. The seedbed immediately before seeding shall be firm but not so compact as to prohibit the seed from securing adequate germination or root penetration. Topsoil shall be replaced after grading operations for permanent stabilization. No topsoil id required for temporary stabilization. Tillage implements shall be used as necessary to provide at least a 3 inch depth of firm but friable soil, free of large clods and stones and other debris. All seeding shall be protected by mulching.

## 2. Fertilizer

- a. Basic fertilizer applications for grass – 1000 lbs per acre of 12-12-12 or equivalent.
- b. Work fertilizer into the soil either before or during final seedbed preparation. Where hydroseeding is done, the fertilizer may be applied at the time of seeding.

## 3. Seeding Dates

- a. Seed shall be applied from April 20<sup>th</sup> to October 1<sup>st</sup> for permanent stabilization and from April 1<sup>st</sup> to October 15<sup>th</sup> for temporary stabilization and the seeded areas shall be kept moist for 14 days to insure growth. If the site is readied for seeding during non-seeding months, it shall be protected by mulching. The site can be seeded later through the mulch. Seeding shall not be done on frozen soil or if the soil is snow covered.

## 4. Seeding

- a. Seed in a moist firm seedbed. Seed from ¼ to not over ½ inch in depth. Seeding shall be MDOT mixture TUF or the like.

## 5. Irrigation

- a. The contractor shall apply water to the new seedings daily to insure that the seed bed is moist enough to allow germination and growth of the seeds.

## 6. Mulching

- a. Immediately after seeding, mulch all seeded areas with unweathered small grained straw (preferable wheat) or hay spread uniformly at the rate of 2 tons per acre or 100 lbs per 1000 square foot.

## 2.02 Weekend and night Work

- A. The Contractor is required to prosecute work done under this contract during the hours of daylight, and no work will be permitted at night or on Saturdays and Sunday, except to save property or life or as specifically authorized or approved by the engineer.

## 3.00 Maintaining Traffic

### A. General

1. The contractor shall so conduct his work that inconvenience to residents and the traveling public is minimized. At least limited traffic shall be permitted, except for those periods when, because of actual construction, curing of concrete, etc., travel is impossible, or when travel by the public is too hazardous. At least one-half of the pavement width shall be left in passable condition when pipes are being installed across streets or highways. Liability provisions of these contract documents are not waived by the provisions of this paragraph. Before any streets or highways are closed to traffic, permission shall be secured from the owner and the engineer.

### B. Barricades and Lights

1. The contractor shall provide, erect and maintain barricades, suitable and sufficient electric flasher lights, and take all necessary precautions for the protection of the public, or as direct by the engineer.
2. All barricades and obstructions shall be illuminated at night for the full period of reduced visibility and at least from sunset to sunrise. The cost of these items shall be included in other items.

C. Payment

1. No direct payment will be made for the temporary construction signs or barricades. The cost of these items shall be included in the cost of other items.