

ADDENDUM No. 2

ITB No. 4526

Rock Creek Sanitary Sewer Repair

Due: July 25, 2018 at 2:00 P.M. (Local Time)

The following changes, additions, and/or deletions shall be made to the Invitation to Bid for **Rock Creek Sanitary Sewer Repair, ITB No. 4526**, on which proposals will be received on/or before July 25, 2018, by 2:00 P.M. (Local Time).

The information contained herein shall take precedence over the original documents and all previous addenda (if any), and is appended thereto. **This Addendum includes 15 page(s).**

Bidder is to acknowledge receipt of this Addendum No. 2, including all attachments (if any) in its Bid by so indicating on pages ITB-1 of the Invitation to Bid Form. Bids submitted without acknowledgement of receipt of this addendum will be considered nonconforming.

The following forms provided within the ITB Document must be included in submitted bids at bid opening.

- **City of Ann Arbor Prevailing Wage Declaration of Compliance**
- **City of Ann Arbor Living Wage Ordinance Declaration of Compliance**
- **Vendor Conflict of Interest Disclosure Form**
- **City of Ann Arbor Non-Discrimination Ordinance Declaration of Compliance**

Bids that fail to provide these completed forms listed above upon bid opening will be rejected as non-responsive and will not be considered for award.

I. CORRECTIONS/ADDITIONS/DELETIONS

Section/Page(s)

Change

Bid Form/Page IB-1

Corrected bid form issues related to bid items with maximum bid amounts. Revised Bid Item #214 to reflect the change to an allowance item.

Detailed Specification
for Construction Sequencing

Revised to provide additional sewer bypass specifications.

Detailed Specification
for Restoration Special

Revised to clarify landscaping requirements and payment.

Drawing No. 2

Revised to include the proposed sewer bypass layout.

II. QUESTIONS AND ANSWERS

The following Questions have been received by the City. Responses are being provided in accordance with the terms of the ITB.

Question #1: Can soil information be provided for this project?

Answer: Included with this Addendum is a soil boring obtained in 2012 within the road adjacent to the property at 485 Rock Creek Drive. The data described above is furnished for information only, and it shall be expressly understood that the City and/or the Engineer will not be held responsible for any interpretation or conclusions drawn therefrom by the Contractor.

Question #2: Can strapped wolmanized wood shims be used in place of casing spacers for the section of sewer installed by bore?

Answer: Yes, in accordance with City Standard Detail SD-S-13, which is attached to this Addendum.

Question #3: Can flow rates for the existing sewer be provided?

Answer: Peak wet weather flows within the sewer are approximately 110 gallons per minute. Peak dry weather flows within the sewer are approximately 20 gallons per minute.

Question #4: Will the Owner please provide a copy of the pre-bid meeting sign in sheet?

Answer: The pre-bid meeting sign-in sheet is attached.

Bidders are responsible for any conclusions that they may draw from the information contained in the Addendum.

BID FORM

Section 1 – Schedule of Prices

Company: _____

Project: **Rock Creek Sanitary Sewer Repair**

Unit Price Bid –

| <u>Item</u> | <u>Description</u> | <u>Unit</u> | <u>Estimated Quantity</u> | <u>Unit Price</u> | <u>Total Cost</u> |
|-------------|--|-------------|---------------------------|--------------------|--------------------|
| 200 | General Conditions, Max \$30,000 | LS | 1 | \$ _____ | \$ _____ |
| 201 | Project Supervision, Max \$5,000 | LS | 1 | \$ _____ | \$ _____ |
| 202 | Audio-visual Recording | LS | 1 | \$ _____ | \$ _____ |
| 203 | Minor Traffic Control, Max \$2,500 | LS | 1 | \$ _____ | \$ _____ |
| 204 | Erosion Control, Inlet Filter | EA | 2 | \$ _____ | \$ _____ |
| 205 | Erosion Control, Silt Fence | FT | 100 | \$ _____ | \$ _____ |
| 206 | Sewer, SDR 35 PVC Pipe, 12 inch, Tr Det A | FT | 70 | \$ _____ | \$ _____ |
| 207 | Wye, SDR 35 PVC, 6 inch | EA | 1 | \$ _____ | \$ _____ |
| 208 | Sewer, SDR 35 PVC Pipe, Service Lead, 6 inch, Tr Det A | FT | 45 | \$ _____ | \$ _____ |
| 209 | Sanitary Sewer Cleanout | EA | 2 | \$ _____ | \$ _____ |
| 210 | Dr Str, Manhole, Type I, 48 inch dia, Sanitary | EA | 3 | \$ _____ | \$ _____ |
| 211 | Dr Str, Manhole, Type I, Addt'l Depth, 48 inch dia, Sanitary | FT | 10 | \$ _____ | \$ _____ |
| 212 | Restoration, Special | SYD | 450 | \$ _____ | \$ _____ |
| 213 | Site Tree and Shrub Removals | LS | 1 | \$ _____ | \$ _____ |
| 214 | Landscaping, Allowance \$15,000 | ALW | 1 | \$ <u>\$15,000</u> | \$ <u>\$15,000</u> |
| 215 | Structure Covers | LBS | 1200 | \$ _____ | \$ _____ |
| 380 | Sewer, Boring & Jacking 12" Inside 24" Casing | LF | 80 | \$ _____ | \$ _____ |
| 385 | Sewer Pipe Abandonment | LF | 125 | \$ _____ | \$ _____ |
| 386 | Sewer Manhole Abandonment | EA | 1 | \$ _____ | \$ _____ |

ESTIMATED TOTAL

\$ _____

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
CONSTRUCTION SEQUENCING

101

1 of 2

2/5/18

This section is intended as an outline of the desired sequence of sewer construction and restoration and does not include the full range of materials and processes needed to complete the work. Stations referenced are found along the centerline of sewer main construction.

1. Sewer Installation Stage 1 - Trenchless Installation - Construct 12" sewer main bore in the location as shown on the drawings. Bore shall be completed so that bypass pumping of the existing sewer main is not needed.

Location of the bore pit shall be as shown on the drawings and installed so as to minimize the disruption to landscaping in the area.

Work to include pit excavation, installation of casing pipe and interior carrier pipe as shown on the drawings and preparation for connection to carrier pipe on either end of the bore.

2. Sewer Installation Stage 2 – Construct sanitary sewer manholes 1 and 2 as shown on the drawings. Sanitary sewer manhole 1 shall be a doghouse-type manhole constructed on the existing 12 inch sewer main.

Sanitary sewer piping between manhole 1 and 2 shall be constructed and tested per standard specifications. No 30 day wait period prior to mandrel testing.

The Contractor shall provide for the bypass of main line flow around the sewer repair as necessary during the construction sequence. Construction shall be sequenced to minimize necessary bypass pumping as much as possible.

During wet weather events, the flow in the sewer will rise rapidly and may become surcharged. The Contractor shall maintain flow in such a manner as the existing flow can be adequately transported including wet weather flow. The 12" sewer main on this project has an approximate wet weather peak flow of 110 gallons per minute. The Contractor shall furnish, install, operate, and maintain temporary pumping facilities to service the upstream area including piping, pumps, sumps, controls, temporary plugs, and bulkheads. All pumps and generators shall be sound attenuated. Pump or generator noise shall be kept at or below 40 decibels at 100 feet from the source.

For sanitary sewerage, by-pass piping shall be steel, PVC Schedule 80, ABS truss pipe, or equivalent with solvent welded joints; HDPE with butt fused joints; or other completely watertight joints.

All by-passed flow shall be discharged to a sanitary sewer of acceptable size to handle the bypassed and existing flows. A proposed bypass pumping layout is provided on the Contract Drawings. Contractor shall install the bypass piping such that access is maintained at all driveways and along the roadway.

The Contractor shall plan his operation such that there will be no backups, leaks, or discharges of pollutants. The Contractor shall be completely responsible for any leaks,

spills, or discharges of effluent or other pollutants.

The Contractor shall also furnish and have available on-site, redundant pumping facilities in case of any failure of the pumping system including pumps, piping, electrical, connections, etc. Redundant pumping facilities also include having a backup power generator in case the primary power source fails. The Contractor shall provide an adequate labor force to oversee the by-pass pumping including providing labor to maintain 24 hour per day operation and emergency backup service. The Contractor will not be allowed to obstruct flows in any sewer unless the primary and redundant pumping and by-passing equipment is on site and in an operable condition.

All costs for pumping and by-passing flow shall be included in the unit price bid for sewer and manhole bid items.

The Contractor shall submit a by-pass pumping/diversion scheme to the Engineer for approval not less than 15 days prior to any anticipated by-pass pumping/diversion. By-pass plan shall include pumping capacity and expected flow rates. The Contractor will not be allowed to by-pass any flows until the by-pass pumping plan has been reviewed and accepted by the Engineer. Contract time shall continue while the by-pass plan is being reviewed and during the time requested revisions are being made. Delays encountered due to Engineer requested revisions shall not be considered for an extension of contract time.

Provision for temporarily handling the sewage from 485 Rock Creek must be maintained during period of time when 12 inch existing sewer is not in service. The lateral connection for 485 Rock Creek is shown on the drawings.

3. Sewer Installation Stage 3 – Construct sanitary sewer manhole 3 as shown on the drawings.

Bypass pumping or other flow diversion shall be performed to provide for suitable construction environment. Bypass pumping plan to be submitted for approval by the City.

Sanitary sewer manhole 3 shall be a standard manhole connected to the existing sanitary sewer and proposed sanitary as indicated in the standard specifications. Sanitary sewer piping between manhole 2 and 3 shall be constructed and tested per standard specifications. No mandrel testing required.

Construction of house service lateral piping to be completed per standard specifications after all testing of proposed sewer main and acceptance by the Owner.

4. Sewer Abandonment and Site Restoration – Existing sewer between manholes 1 and 3 shall be abandoned in place and filled with grout per detailed specification.

Immediately upon completed of abandonment of the sewer, all site restoration shall be completed. Temporary soil erosion control measures shall be left in place until restoration is established.

CITY OF ANN ARBOR
DETAILED SPECIFICATION
FOR
RESTORATION SPECIAL

212-14

1 of 3

02/05/18

a. Description. This work consists of preparing all manicured lawns and slopes on non-freeway projects designated for slope restoration on the plans or by the Engineer, and applying topsoil, fertilizer, seed, and mulch to those areas. Turf establishment shall be in accordance with section 816 of the Michigan Department of Transportation (MDOT) 2012 Standard Specifications for Construction and Standard Plan Series R-100, except as modified herein or otherwise directed by the Engineer.

b. Materials. The materials and application rates specified in sections 816 and 917 of the MDOT 2012 Standard Specifications for Construction apply unless modified by this special provision or otherwise directed by the Engineer.

1. Topsoil Surface: Place **4 inches** of topsoil in area disturbed areas to be restored. Topsoil shall be free of all stones one inch in diameter or greater.
2. Turf Seed Mixture: Use seed mixture type THM (Turf Loamy to Heavy).
3. Chemical Fertilizer Nutrient: Use Class A fertilizer.
4. Use Mulch Blankets on all areas to be restored. Mulch blankets shall be 100% coconut fiber (0.50 lbs/syd), with 100% biodegradable jute fiber netting (Top - 9.30lbs/1000sft, Bottom – 7.7lbs/1000sft).
5. Landscaping Trees and Bushes

c. Construction. Construction methods shall be in accordance to subsection 816.03 of the MDOT 2012 Standard Specifications for Construction. Begin this work as soon as possible after final grading of the areas designated for slope restoration but no later than the maximum time frames stated in subsection 208.03 of the Standard Specifications for Construction. It may be necessary, as directed by the Engineer, to place materials by hand.

Prior to placing topsoil, shape, compact and assure all areas to be seeded **are weed free**. Place topsoil to the minimum depth indicated above, to meet proposed finished grade. Remove any stones greater than or equal to 1 inch in diameter. If the area being restored requires more than the minimum depth of topsoil to meet finished grade, this additional depth must be filled using topsoil. Furnishing and placing this additional material is included in this item of work.

Topsoil shall be **weed and weed seed free** and friable prior to placing seed. Remove all stones from the topsoil greater than 1 inch in diameter. Apply seed mixture and fertilizer to prepared soil surface. Seed shall be incorporated into top ½ inch of topsoil.

If an area washes out after this work has been properly completed and approved by the Engineer, make the required corrections to prevent future washouts and replace the topsoil, fertilizer, seed and mulch blankets. This replacement will be paid for as additional work using the applicable contract items.

If an area washes out for reasons attributable to the Contractor's activity or failure to take proper precautions, replacement shall be at the Contractor's expense.

The Engineer will inspect the seeded turf to ensure the end product is well established, weed free, in a vigorous growing condition, and contains the species called for in the seeding mixture. **If areas do not promote growth, the Contractor shall apply new seed at its expense.**

If weeds are determined by the Engineer to cover more than ten percent of the total area of slope restoration, the Contractor shall provide weed control in accordance to subsection 816.03.J of the MDOT 2012 Standard Specifications for Construction. Weed control shall be at the Contractor’s expense with no additional charges to the project for materials, labor or equipment.

Any bushes or trees, or special ground cover within the project limits that are identified by the City as requiring replacement shall be replaced in kind and paid for through the allowance for landscaping provided in this specification.

A project site access plan is included in the construction documents showing the Contractor the approximate location, size and quantity of trees and shrubs that will require removal.

Prior to construction, the Contractor will meet with the City and Engineer in the field and determine which landscaping must be replaced. The landscaping will be documented and photographed by the Contractor for use in replanting, and a list of plants to be furnished and planted after construction will be agreed upon. All landscape replacement costs beyond standard topsoil, seed, fertilizer and mulch blanket shall be paid for through the allowance for landscaping provided in this specification.

After completion of other surface restoration, Contractor shall complete all landscaping, and include watering through the duration of the contract. Special care and watering instruction received from the supplier shall be submitted to the City for transfer to the homeowners. Landscaping shall be warranted for one year from planting.

d. Measurement and Payment. The completed work, as described, will be measured and paid for at the contract unit price for the following pay item:

| <u>Pay Item</u> | <u>Pay Unit</u> |
|--|-----------------|
| 212 – Restoration, Special..... | Square Yard |
| 213 – Site Tree and Shrub Removals | Lump Sum |
| 214 – Landscaping, Max \$15,000 | Lump Sum |

Site Tree and Shrub Removals This item of work will be paid for on a pro rata basis at the time of each progress payment. Measurement will be based on the ratio between work completed during the payment period and the total contract amount. When all of the work of this Contract has been completed, the measurement of this item shall be 1.0 Lump Sum, minus any deductions incurred for inadequate performance as described herein. This amount will not be increased for any reason, including extensions of time, extras, and/or additional work. Work includes close coordination with City during site mobilization efforts and shall be in accordance with the work proposed in the construction access plan.

The unit price for this item of work shall include all labor, material, and equipment costs to perform all the work specified in the Standard Specifications and as modified by this Detailed Specification.

Restoration, Special shall be performed in all areas disturbed by the Contractor to construct the Project as shown on the plans and as directed by the Engineer. The Contractor will restore areas disturbed by its operations not required by the Project at its own expense.

Landscaping, Allowance, \$15,000 This item of work will be paid for as an allowance. This allowance is to defer selection of actual landscaping materials and equipment to a later date following removal of existing landscaping. At Engineer's request, the Contractor obtain proposals for use in making final landscaping selections under the allowance. With Engineer's approval, purchase products and services selected by Engineer from the selected supplier. Payment will be based on invoices or delivery slips to show actual quantities of materials delivered and installed at the site for use in fulfillment of the allowance. Contractor's overhead, profit, and related costs for products and services ordered by Engineer under the allowance shall identified in the allowance and are not part of the Contract Sum. These costs include delivery, installation, taxes, insurance, equipment rental, and similar costs. At project closeout, unused amounts remaining in the allowance will be credited to the Owner by Change Order.

The unit price for this item of work shall include all labor, material, and equipment costs to perform all the work specified in the Standard Specifications and as modified by this Detailed Specification.

CONSTRUCTION NOTES:

- DRIVEWAYS AND ENTRANCES TO BUILDINGS, REAL PROPERTY, AND THE LIKE SHALL NOT BE BLOCKED EXCEPT FOR SHORT DURATIONS AND ONLY WHEN APPROVED BY THE ENGINEER. VEHICULAR AND PEDESTRIAN ACCESS SHALL BE MAINTAINED AT ALL TIMES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE ALL NECESSARY DRIVEWAY CLOSURES WITH THE PROPERTY OWNER(S) AND RESIDENT(S) IN THE AREAS OF CONSTRUCTION.
- THE LOCATION AND DEPTH OF ALL EXISTING UTILITIES AND SERVICE LEADS ARE TO BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
- LOCATION AND DEPTH OF UTILITIES AS DEPICTED ON THE PLANS IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXCAVATE AHEAD AND ADJUST DEPTH OF CONFLICT UTILITIES ACCORDINGLY. ANY DAMAGE TO UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY TO AVOID AND/OR REPAIR AS NECESSARY.
- THE CONTRACTOR IS TO TAKE SPECIAL CARE TO PROTECT THE EXISTING SEWER MAIN AND BE RESPONSIBLE FOR MAINTAINING CONSISTENT SEWER SERVICE.
- DURING NON-WORKING HOURS NO MORE THAN TEN (10) FEET OF TRENCH SHALL REMAIN OPEN; ANY OPEN TRENCH SHALL BE PROPERLY SECURED WITH PROTECTIVE FENCING. THIS WORK SHALL BE INCLUDED IN THE ITEMS OF WORK BEING UNDERTAKEN AND WILL NOT BE PAID FOR SEPARATELY.
- TRENCHES FOR NEW SEWER SERVICES SHALL BE EXCAVATED TO MISHA AND CITY OF ANN ARBOR FIELD SERVICES REQUIREMENTS.
- THE CONTRACTOR SHALL BACKFILL TRENCHES IN ACCORDANCE WITH TRENCH DETAIL SPECIFIED ON PLANS.
- THE CONTRACTOR SHALL CONSTRUCT, FLUSH, AND BACTERIOLOGICALLY TEST THE WATER MAIN PER DETAILED SPECIFICATION "WATER MAIN INSTALLATION AND TESTING" AND AS APPROVED BY THE ENGINEER. ALL CHLORINATED WATER SHALL BE DISCHARGED DIRECTLY INTO AN APPROVED SANITARY SEWER. THE CONTRACTOR SHALL SUPPLY ALL NECESSARY HOSES, FITTINGS AND THE LIKE TO ACCOMPLISH THIS WORK.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUOUS MAINTENANCE OF THE TEMPORARY ROAD SURFACE AND SOIL EROSION CONTROL MEASURES WITHIN THE CONSTRUCTION AREA UNTIL THE FULL COMPLETION OF THE PROJECT. THIS WORK SHALL BE INCLUDED IN THE ITEM OF WORK "GENERAL CONDITIONS".
- THE LOCATION OF MATERIAL STOCK PILES AND ON-SITE STAGING AREAS TO BE APPROVED BY THE ENGINEER.
- ALL STRUCTURES SHALL RECEIVE NEW CASTINGS AS DIRECTED BY THE ENGINEER, AS SPECIFIED ON THE STANDARD CASTING SCHEDULE. THE EXISTING CASTINGS ARE THE PROPERTY OF THE CITY OF ANN ARBOR. THE CONTRACTOR SHALL DELIVER TO CITY OF ANN ARBOR FIELD OPERATIONS AND MAINTENANCE FACILITY AT THE W.R. WHEELER SERVICE CENTER LOCATED AT 4251 STONE SCHOOL ROAD.
- ALL STRUCTURES SHALL RECEIVE NEW CASTINGS, EITHER TYPE B, TYPE Q, OR TYPE R AS SPECIFIED ON THE STANDARD CASTING SCHEDULE. THE EXISTING CASTINGS SHALL BE NEATLY STACKED ON-SITE IN A SINGLE LOCATION SO THAT CITY OF ANN ARBOR FORCES CAN RETRIEVE THEM AT A LATER DATE. THE CONTRACTOR SHALL ASSIST CITY FORCES BY LOADING THEM INTO THEIR CITY TRUCKS. ALL COSTS ASSOCIATED WITH STORING, STOCKPILING, AND LOADING CASTINGS INTO CITY VEHICLES SHALL BE INCLUDED IN THE ITEM OF WORK MOBILIZATION, MAX. ----- AND WILL NOT BE PAID FOR SEPARATELY.

GENERAL NOTES:

- NOTIFY THE CITY OF ANN ARBOR SOIL EROSION CONTROL OFFICE 48 HOURS PRIOR TO BEGINNING WORK ON THE PROJECT. PHONE: 734-794-6265.
- THE CONTRACTOR SHALL IMPLEMENT AND MAINTAIN THE SOIL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS DIRECTED BY THE ENGINEER AT ALL TIMES DURING CONSTRUCTION. ANY MODIFICATIONS OR ADDITIONS TO THE SOIL EROSION CONTROL MEASURES DUE TO CONSTRUCTION OR CHANGED CONDITIONS SHALL BE AS DIRECTED AND APPROVED BY THE ENGINEER.
 - ALL SOIL EROSION AND SEDIMENTATION CONTROL WORK SHALL CONFORM TO THE PERMIT REQUIREMENTS OF THE CITY OF ANN ARBOR, CITY ORDINANCE CHAPTER 63, CITY OF ANN ARBOR STANDARDS DIVISION VII, THE LAWS OF THE STATE OF MICHIGAN, AND THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
 - DAILY, OR AFTER ANY STORM EVENT, INSPECTIONS OF EROSION CONTROL MEASURES SHALL BE MADE BY THE CONTRACTOR. PERIODIC INSPECTIONS MAY BE MADE BY THE ENGINEER TO DETERMINE THE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES. ANY NECESSARY CORRECTIONS SHALL BE MADE WITHOUT DELAY, AND WITHOUT ADDITIONAL COST TO THE CITY OF ANN ARBOR.
 - EROSION AND SEDIMENTATION FROM WORK ON THE SITE SHALL BE CONTAINED ON THE SITE AND NOT BE ALLOWED TO COLLECT ON ANY OFF-SITE AREAS, ROADWAYS OR WATERWAYS.
 - ALL MUD/SOIL TRACKED ONTO ROADWAYS FROM THE SITE DUE TO CONSTRUCTION, SHALL BE PROMPTLY REMOVED BY THE CONTRACTOR. IF SO ORDERED, THE CONTRACTOR SHALL PROVIDE AND OPERATE A VACUUM-TYPE STREET SWEEPER, AT NO ADDITIONAL COST TO THE CITY OF ANN ARBOR, WITHIN FOUR (4) HOURS OF BEING SO ORDERED.
 - RESTORATION OF ALL DISTURBED AREAS, INCLUDING PLACEMENT OF TOPSOIL, LANDSCAPING SEED, FERTILIZER AND MULCH AND/OR SOD SHALL BE PERFORMED WITHIN FIVE (5) DAYS OF THE COMPLETION OF FINAL GRADE.
 - CONSTRUCTION OPERATIONS SHALL BE SCHEDULED AND PERFORMED SO THAT PREVENTATIVE SOIL EROSION CONTROL MEASURES ARE IN PLACE PRIOR TO EXCAVATION IN CRITICAL AREAS AND TEMPORARY STABILIZATION MEASURES ARE IN PLACE IMMEDIATELY FOLLOWING BACKFILLING OPERATIONS.
 - SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT SITUATIONS THAT PROMOTE EROSION.
 - PROPER DUST CONTROL SHALL BE MAINTAINED DURING CONSTRUCTION BY USE OF WATER TRUCKS AND/OR DUST PALLIATIVE AS REQUIRED.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND REMOVAL OF SOME MEASURES UPON AUTHORIZED COMPLETION OF THE PROJECT. FINAL COMPLETION OF PROJECT WILL NOT BE AUTHORIZED UNTIL ALL SITE WORK AND UTILITY CONSTRUCTION IS COMPLETE AND ALL SOILS ARE STABILIZED.
 - THE CONTRACTOR SHALL NOT GRADE INTO ADJACENT PROPERTIES. SILT AND PROTECTIVE FENCE SHALL BE INSTALLED AND MAINTAINED TO PREVENT GRADING, EROSION AND SEDIMENTATION INTO THE ADJACENT PROPERTIES.
 - TREE PROTECTION FENCING MUST REMAIN INTACT UNTIL RESTORATION OF THE SITE IS COMPLETE.
- SEQUENCE OF EROSION CONTROL MEASURES:**
- THE CONTRACTOR IS TO SUBMIT TO THE ENGINEER, A SEQUENCE OF CONSTRUCTION WITH RESPECT TO THE SOIL EROSION CONTROL MEASURES FOR REVIEW, COMMENT AND APPROVAL. THIS SCHEDULE IS TO INCLUDE INSPECTION AND REPAIR OF ALL TEMPORARY EROSION CONTROL MEASURES DAILY AND WITHIN 24 HOURS OF A STORM EVENT.

SAMPLE SOIL EROSION AND SEDIMENTATION CONTROL INSTALLATION MINIMUM REQUIREMENTS:

- INSTALL SILT FENCE, TREE PROTECTION FENCING, MUD MATS, INLET FILTERS ON EXISTING DRAINAGE FEATURES, AND ALL OTHER TEMPORARY SOIL EROSION CONTROLS, PRIOR TO ANY CLEARING OR EARTH MOVING OPERATION.
- REMOVE EXISTING PAVEMENT, CURB AND GUTTER AND STRIP AND STOCKPILE TOPSOIL AS NEEDED. STABILIZE STOCKPILE AS REQUIRED.
- PERFORM MACHINE GRADING OPERATIONS AND CONSTRUCT PAVEMENTS (MAINLINE, SIDEWALKS, DRIVES, ETC.).
- COMPLETE PAVEMENT RESTORATION WORK OPERATIONS IN ACCORDANCE WITH CONSTRUCTION SEQUENCE CONTAINED WITHIN THE SPECIAL PROVISION ENTITLED "MAINTAINING TRAFFIC AND CONSTRUCTION METHOD AND SEQUENCING" CONTAINED IN THE CONTRACT PROPOSAL.
- CONTINUALLY MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES, AS REQUIRED TO ALLOW DRAINAGE AND SEDIMENT REMOVAL. REMOVE ANY ACCUMULATED SEDIMENT IMMEDIATELY.
- TEMPORARY SEED AND INSTALL EROSION CONTROL BLANKET IN ALL DISTURBED AREAS.
- CLEAN OUT STORM SEWER SYSTEMS.
- REMEDY ANY NOTED DEFECTS TO THE SATISFACTION OF THE CITY OF ANN ARBOR'S SOIL EROSION AND SEDIMENTATION CONTROL OFFICIAL.
- ALL TEMP. SOIL EROSION CONTROL MEASURES MUST BE REMOVED, WITH ENGINEER'S APPROVAL, PRIOR TO FINAL INSPECTION

NOTE: THIS SEQUENCE IS FOR INFORMATION ONLY. IT IS INTENDED TO SHOW THE SEQUENCE OF CONSTRUCTION WITH RESPECT TO THE SOIL EROSION AND SEDIMENTATION CONTROL MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THEIR OWN DETAILED CONSTRUCTION SEQUENCE AND SCHEDULE TO THE ENGINEER FOR REVIEW, COMMENT, AND APPROVAL.

TEMPORARY SEEDING:

- SEED IN ACCORDANCE WITH PROJECT DRAWINGS AND SPECIFICATIONS.
- ANY DISTURBED AREA NOT PAVED, SEEDED, MULCHED, SODDED OR BUILT UPON BY NOVEMBER 15TH OR JUNE 30TH IS TO BE TEMPORARILY STABILIZED PER SPECIFICATIONS.

THE ESTIMATED COST OF SOIL EROSION AND SEDIMENTATION CONTROL MEASURES, TOPSOIL, SEEDING, AND MULCH = \$3,000

ESTIMATE OF EXCAVATION AND FILL FROM EXISTING TO FINAL GRADE:

- EXCAVATION = 0 CY, FILL = 0 CY

ON SITE SOILS PER THE USDA SOIL SURVEY OF WASHTENAW COUNTY, MICHIGAN:

- Sb - SEBEWA LOAM - IN DEPRESSION AREAS, BROAD LOW-LYING AREA, AND DRAINAGEWAYS OF OUTWASH PLAINS, VALLEY TRAINS, AND TERRACES. SLOPE IS 0% TO 2%.
- FoB - FOX SANDY LOAM - IN UPLAND AREAS AND ON OUT WASH PLAINS, KAMES, VALLEY TRAINS, TERRACES, AND MORAINES. SLOPES ARE UNIFORM OR SHORT AND COMPLEX.
- MdA - MATHERTON SANDY LOAM - IN DEPRESSION AREAS, BROAD LOW-LYING AREAS, AND ALONG DRAINAGEWAYS, OUTWASH PLAINS, VALLEY TRAINS, AND TERRACES. NEARLY LEVEL TO GENTLY SLOPING.
- MfA - METAMORA SANDY LOAM - IN DEPRESSION AREAS, BROAD, LOW-LYING AREAS, AND ALONG DRAINAGEWAYS OF TILL PLAINS AND MORAINES.
- NoB - NAPPANEE SILTY CLAY LOAM - ON FOOT SLOPES AND ALONG DRAINAGEWAYS OF TILL PLAINS, MORAINES, AND LAKE PLAINS. NEARLY LEVEL TO GENTLY SLOPING.

STRUCTURE TABLE

| MH# | Rim | Invert | Diameter | Costing |
|-----|--------|--------|----------|---------|
| 1 | 822.67 | 809.36 | 4' | Type B |
| 2 | 822.67 | 809.66 | 4' | Type B |
| 3 | 823.31 | 810.17 | 4' | Type B |



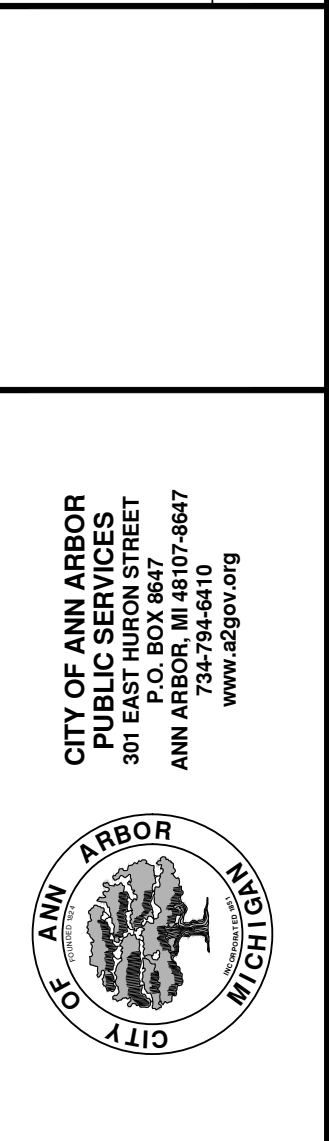
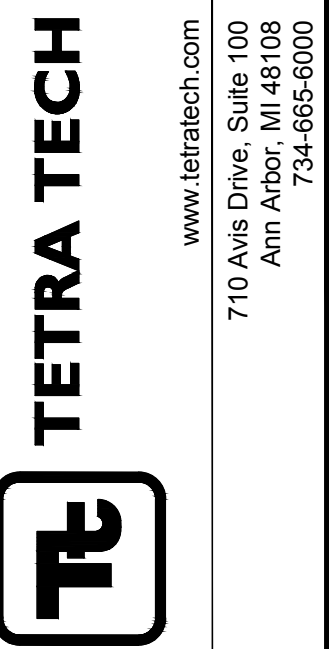
BYPASS PUMPING NOTES:

- APPROXIMATE PEAK FLOW RATE IN EXISTING 12" SEWER IS 110 GPM.
- SEE BYPASS PUMPING SPECIFICATIONS IN THE DETAILED SPECIFICATION FOR CONSTRUCTION SEQUENCING.

EXISTING LEGEND

- FIRE HYDRANT
- GATE VALVE IN BOX
- GATE VALVE IN WELL
- STOP BOX
- WATER VAULT
- WELL
- CATCH BASIN (SQ)
- CATCH BASIN (RD)
- STORM MANHOLE
- NON-CURB CATCH BASIN (SQ)
- END SECTION
- SANITARY MANHOLE
- CLEAN-OUT
- POST
- PEDESTRIAN SIGNAL SIGN
- HAND HOLE
- ORNAMENTAL LIGHT
- FLOOD LIGHT
- UNKNOWN MANHOLE
- TELEPHONE MANHOLE
- TELEPHONE RISER
- GAS VALVE
- GAS VENT
- GAS BOX
- ELECTRICAL RISER
- TRANSFORMER
- UTILITY POLE
- LAMP POLE
- GUY ANCHOR
- GUY POLE
- MONITORING WELL
- MAILBOX
- SOIL BORING
- TRAVERSE POINT
- BENCH MARK
- IRON PIPE
- MON BOX
- WATER MAIN
- WATER MAIN ABANDONED
- STORM SEWER
- STORM SEWER ABANDONED
- SANITARY SEWER
- SANITARY SEWER ABANDONED
- GAS MAIN
- GAS MAIN (DEAD)
- ELECTRICAL OVER HEAD
- ELECTRICAL UNDER GROUND
- ELECTRICAL DUCT BANK
- TELEPHONE OVER HEAD
- TELEPHONE UNDER GROUND
- TELEPHONE DUCT BANK
- CABLE TV OVER HEAD
- CABLE TV UNDER GROUND
- FIBER OPTIC
- FIBER OPTIC DUCT BANK
- BOUNDARY
- BUILDING
- CENTERLINE OF DITCH
- CENTERLINE/CROWN OF ROAD
- CONTOUR MAJOR
- CONTOUR MINOR
- EDGE OF WATER
- FLOODPLAIN
- FENCE
- GRAVEL
- GUARDRAIL
- STONE WALL
- R.O.W.
- TREELINE
- WETLAND
- EDGE OF BRUSH
- HEDGE
- TREE (DECIDUOUS)
- TREE (CONIFEROUS)
- SHRUB (DECIDUOUS)
- STUMP
- TREE TO REMAIN & PROTECT (DECIDUOUS) CRITICAL ROOT ZONE (C.R.Z.) = DIAMETER BREST HEIGHT (INCHES) X 10
- TREE TO REMAIN & PROTECT (CONIFEROUS) CRITICAL ROOT ZONE (C.R.Z.) = DIAMETER BREST HEIGHT (INCHES) X 10

7/18/2018 11:05:06 AM - \\NERS008\F51\PROJECTS\NERS31537\200-31537-17004\CAD\SHEETFILES\02-LEGEND.DWG - GOTHA, STEVEN



| MARK | DATE | DESCRIPTION |
|------|---------|--------------|
| 1 | 7/18/18 | ADDENDUM 101 |

CITY OF ANN ARBOR PUBLIC WORKS
485 ROCK CREEK DR
SANITARY SEWER REPAIR
LEGEND & GENERAL NOTES

Project No.: 200-31537-17004
Designed By: J. SIWEK
Drawn By: S. GOTHA
Checked By:



CTI and Associates Inc

BORING NUMBER: Rock Creek Dr B-4

PAGE 1 OF 1

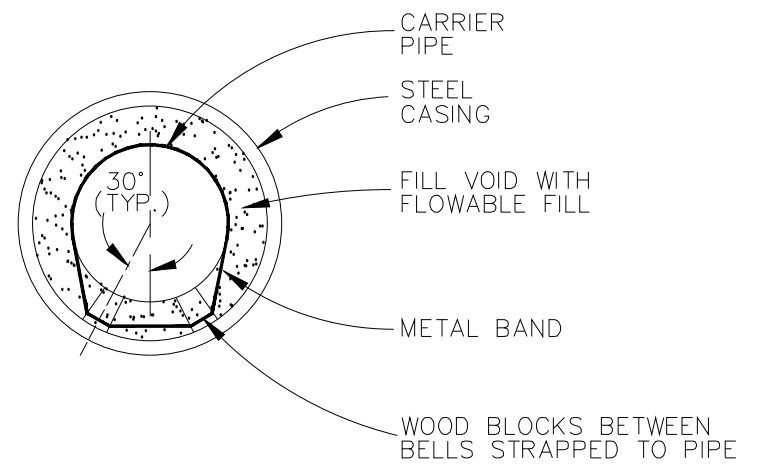
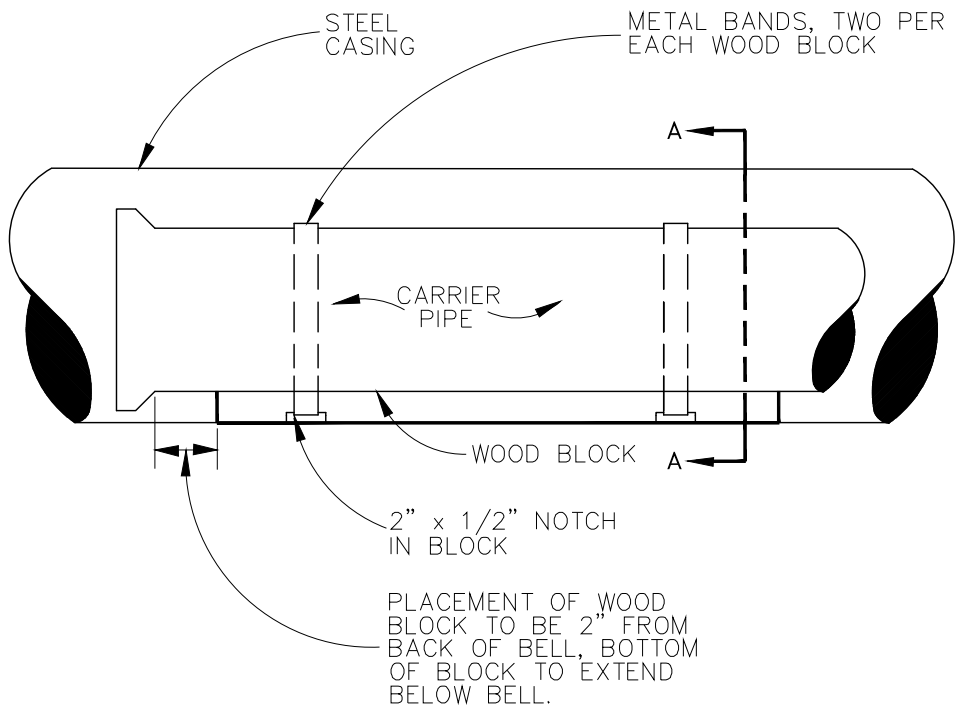
CLIENT City of Ann Arbor
PROJECT NUMBER 3122040060-1
DATE STARTED 10/5/12 **COMPLETED** 10/5/12
DRILLING CONTRACTOR Stearns Drilling
DRILLING METHOD 2-1/4 inch HSA
LOGGED BY G. Geerlings **CHECKED BY** T. Marsik
NOTES Boring backfilled with auger cuttings and patched.

PROJECT NAME 2012 Ann Arbor Misc. Geotechnical Services - North Area Borings
PROJECT LOCATION Ann Arbor, Michigan
GROUND ELEVATION N/A
GROUND WATER LEVELS:
DURING DRILLING None
AFTER DRILLING None
COLLAPSE DEPTH 6'0"


| DEPTH (ft) | GRAPHIC LOG | MATERIAL DESCRIPTION | SAMPLE TYPE NUMBER | RECOVERY % (RQD) | BLOW COUNTS (N VALUE) | POCKET PEN. (tsf) UNC. STRENGTH (psf) | NATURAL MOISTURE CONTENT (%) | ▲ SPT N VALUE ▲ | | |
|------------|-------------|---|--------------------|------------------|-----------------------|---------------------------------------|------------------------------|-----------------|----|----|
| | | | | | | | | 20 | 40 | 60 |
| 0.0 | | 2 inches of ASPHALT PAVEMENT | | | | | | | | |
| | | 10 inches of brown moist fine to medium SAND with gravel and some silt - (FILL) | GB | 100 | | | | | | |
| | | Brown moist sandy CLAY with silt and trace of gravel - (FILL) | SS 1 | 100 | 8-6-7 (13) | | | | | |
| 2.5 | | Light brown moist medium dense fine SAND with trace of silt - (SP) | SS 2 | 94 | 5-7-8 (15) | | | | | |
| 5.0 | | Brown moist medium dense clayey fine SAND with trace of gravel - (SC) | SS 3 | 100 | 5-4-10 (14) | | | | | |
| 7.5 | | | | | | | | | | |

Bottom of borehole at 7.5 feet.

Boring performed 6' east of curb, 64' north of driveway to 485 Rock Creek Drive



SECTION A-A

| | | | | | |
|---|---|-----------------|---------------|--|-------------|
| | | | | | |
| | | | | | |
| REVISIONS | | REV. NO. | DR. BY | CH. BY | DATE |
| PUBLIC SERVICES DEPARTMENT CITY OF ANN ARBOR | | | | | |
| SEWER BORE | | | | | |
| DR. BY | DF | CH. BY | CSS | DRAWING NO. | |
| SCALE | NONE | DATE | 11-6-92 | SD-S-13 | |
| INCH | 0  1 | | | SHEET NO. _____ OF _____ | |

PREBID MEETING SIGN-IN SHEET

PROJECT: ROCK CREEK SANITARY SEWER REPAIR

ITB 4526

Date: 7/9/18

MEETING SIGN-IN SHEET PLEASE PRINT

| NAME | REPRESENTING | MAILING ADDRESS | TELEPHONE | EMAIL |
|--------------------|--------------------------|---|--|-------------------------------------|
| Jacob Bailey | Bailey Exc. | Address: 1073 Toad Dr. City, State: Jackson, MI Zip: 49201 | Office: (517) 750-3530 Mobile: (517) 740-0371 Fax No. (517) 750-1095 | Jacob.bailey@Bailey-Excavati.ng.com |
| DAVID WILKIE | DOUGLAS N. HIGGINS, INC. | Address: 3390 TRAVIS POINTE RD. #A City, State: ANN ARBOR, MI Zip: 48108 | Office: (734) 996-9500 Mobile: (734) 216-3629 Fax No. (734) 996-8480 | dwilkie@dnhsgins.com |
| Thomas D. Morrison | Gibralter Construction | Address: 2650 Van Horn Rd. City, State: Trenton MI Zip: 48183 | Office: (734) 234-8005 Mobile: (734) 250-1780 Fax No. (734) 234-6672 | gibralterco@gmail.com |
| Jay Marshall | Stante | Address: 40912 Liberty Dr. City, State: Wixom Zip: 48399 | Office: (418) 624-0030 Mobile: () Fax No. () | jmarshall@stantebv.com |
| Nello Stante | Stante | Address: _____ City, State: _____ Zip: _____ | Office: (418) 624-0030 Mobile: () Fax No. () | nstante@stantebv.com |
| | | Address: _____ City, State: _____ Zip: _____ | Office: () Mobile: () Fax No. () | |
| | | Address: _____ City, State: _____ Zip: _____ | Office: () Mobile: () Fax No. () | |
| | | Address: _____ City, State: _____ Zip: _____ | Office: () Mobile: () Fax No. () | |

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Date: 7/9/18

PLEASE PRINT

| NAME | REPRESENTING | MAILING ADDRESS | TELEPHONE | EMAIL |
|---|-------------------------------------|---|--|--------------------------|
| Chris Elenbaas Public Works Engineer | City of Ann Arbor - Public Works | Address: 4251 Stone School Road City, State: Ann Arbor, MI Zip: 48107-8647 | Office: (734) 794-6350 x43311 Mobile: (734) 358-2029 Fax: (734) 994-0742 | celenbaas@a2gov.org |
| Ron Magee | FORSON CO. | Address: 7644 Whitmore Lk City, State: Brighton MI Zip: 48116 | Office: (810) 231-5188 Mobile: (810) 620-3324 Fax No. () | rmagee@forsoninc.com |
| Joe Sinek | Tetra Tech | Address: 710 Auis Dr City, State: Ann Arbor, MI Zip: 48108 | Office: (734) 213-4052 Mobile: (616) 291-7470 Fax No. () | joe.sinek@tetra-tech.com |
| Madelaine Frieseman | CITY OF ANN ARBOR | Address: _____ City, State: _____ Zip: _____ | Office: () _____ Mobile: () _____ Fax No. () _____ | |
| | | Address: _____ City, State: _____ Zip: _____ | Office: () _____ Mobile: () _____ Fax No. () _____ | |
| | | Address: _____ City, State: _____ Zip: _____ | Office: () _____ Mobile: () _____ Fax No. () _____ | |
| | | Address: _____ City, State: _____ Zip: _____ | Office: () _____ Mobile: () _____ Fax No. () _____ | |
| | | Address: _____ City, State: _____ Zip: _____ | Office: () _____ Mobile: () _____ Fax No. () _____ | |

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PROJECT: ROCK CREEK SANITARY SEWER REPAIR

ITB 4526

Date: 7/9/18

MEETING SIGN-IN SHEET PLEASE PRINT

| NAME | REPRESENTING | MAILING ADDRESS | TELEPHONE | EMAIL |
|-------------|--------------|--|--|------------------------------|
| NICK KASBER | ADS | Address: 1402 SECRETARIAT WAY City, State: Howell MI Zip: 48043 | Office: (734) 207-3967 Mobile: () Fax No. () | NICHOLAS.KASBER@ADS-PIPE.COM |
| MCK CLARKE | L.M. CLARKE | Address: 50850 PEMIS City, State: Belleville MI Zip: 48111 | Office: (734) 481-1563 Mobile: (810) 360-3116 Fax No. () 481-2000 | M.Clark@L.M.Clark.Co |
| | | Address: _____ City, State: _____ Zip: _____ | Office: () _____ Mobile: () _____ Fax No. () _____ | |
| | | Address: _____ City, State: _____ Zip: _____ | Office: () _____ Mobile: () _____ Fax No. () _____ | |
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