

ADDENDUM No. 1

PROJECT: **LOT 4 STREETScape AND UTILITY PROJECT**
CLIENT: **CITY OF STURGIS**
ISSUE DATE: **APRIL 28, 2016**

The following clarifications and changes shall be included in the Plans and Specifications for the above referenced project, as prepared by Wightman & Associates, Inc. dated April, 2016

CLARIFICATIONS:

1. Bid opening is postponed until Monday, May 16.
2. Enclosed Exhibit A represents two alternative drive configurations under consideration by the City/MDOT to the parking area from M-66, a selection of which will be made by May 15, 2016. The unit prices necessary to construct the layout shown on the plans issued for bidding are also sufficient for the work shown for the alternatives on Attachment/Figure. The CONTRACTOR shall consider these alternative configurations in preparation of the bid amounts for the associated items and implement/construct the selected alternative without any adjustments to the prices bid. Final design documents for grading, hardscape improvements, and landscape improvements will be forthcoming after Award of Contract and prior to the Notice to Proceed.
3. No additional coloration or stamping will be required as part of Decorative Sidewalk, Conc, 6". Sawcut pattern indicated in the plans is required.
4. Bid form has been modified to provide more clear definition of a complete bid.

SPECIFICATIONS:

1. Page PS-3: Project Schedule has been updated relative to bid opening.
2. Page PS-41: Updated to clarify drainage structure sump depth.
3. Page PS-53: Updated to include pay items for and descriptions of paver stockpiles.
4. Pages PS-64 – PS-65: Landscaping specification updated to include new plant species.
5. Irrigation System, Complete: Section added.

DRAWINGS:

1. Sheet C1.0 Title Sheet: This sheet has been reissued with updated index of plans.
2. Sheet C4.1: Amenity Details is hereby incorporated into the plan set.
3. Sheet C7.0: Utility Plan and Profile:
 - a. Curb stop locations have been modified to fall within landscape spaces or sidewalk where possible.
 - b. Water main alignment has been straightened to avoid crossing electric primary between Sta. 51+00

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(269) 673-8465 ■ 264 WESTERN AVENUE, **ALLEGAN, MI**
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(269) 327-3532 ■ 9835 PORTAGE ROAD, **PORTAGE, MI**

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- and 54+00.
- c. Westerly connection of proposed sanitary sewer was shortened to avoid disturbing existing paved and/or landscaped areas.
- 4. Sheet C8.0: Westerly project boundary limits with the adjacent Moso Village project have been more clearly identified.
 - 5. Sheet C10.0:
 - a. Five additional landscape planting beds have been added to the project scope. Pavement, curb, sidewalk and other improvements surrounding these planting beds are by others.
 - b. Species identified for ground cover in the parking lot island has changed.
 - 6. Sheet C10.1:
 - a. Planting schedule was updated to reflect changes on sheet C10.0
 - b. A planting detail for Planter C was added.
 - 7. Sheet C12.0: Proposed Irrigation Layout Plan is hereby incorporated into the plan set.
 - 8. Sheet C12.1: Irrigation Details is hereby removed from the plan set.



ADDENDUM No. 1

ATTACHMENTS:

1. Plans:
 - a. C1.0
 - b. C4.1
 - c. C7.0
 - d. C8.0
 - e. C10.0
 - f. C10.1
 - g. C12.0
2. Project Specifications:
 - a. Page PS-3
 - b. Page PS-41
 - c. Page PS-53
 - d. Pages PS-64 – PS-65: Landscaping
 - e. Pages PS-66 – PS-71: Irrigation System, Complete
3. Pages P-1 – P-6: Proposal
4. Exhibit A: Driveway Alternatives

The bidder hereby acknowledges receipt of this Addendum and shall include a signed copy with their bid.

Company

Date

Signature

Title

Print or Type Name

PROJECT SPECIFICATION

FOR

PROGRESS SCHEDULE

Work must begin within ten (10) days after receiving the Notice to Proceed, or on or before another mutually agreeable date designated as the starting date in the Detailed Progress Schedule, whichever is later. In no case shall any work be commenced prior to receipt of the formal Notice to Proceed by the City. It is anticipated the CONTRACTOR will begin work operations on or about June 6, 2016, dependent upon CONTRACTOR's expediency in finalizing contractual arrangements.

The CONTRACTOR shall substantially complete all portions of the project within 16 weeks (112 calendar days), including weekends, with said time frame beginning on the date of the Notice to Proceed. Below is the anticipated milestone schedule. The work description milestones and dates noted below will form the basis throughout construction in determining whether a contractor is generally on schedule/track and shall be the minimum included on the Detailed Progress Schedule submitted by the CONTRACTOR. Adjustments to the below milestones are acceptable on the submitted Detailed Progress Schedule with the exception that all work must be substantially complete within 15 weeks (105 calendar days). Final completion shall follow within 30 calendar days.

<u>Description</u>	<u>Date</u>
Hold bid opening	May 16, 2016
Issue tentative Notice of Award to CONTRACTOR	May 26, 2016
Issue Notice to Proceed to CONTRACTOR	June 6, 2016
Hold preconstruction meeting	June 15, 2016
Mobilization to site by CONTRACTOR	June 15, 2016
Complete removals	June 15, 2016
Complete water main replacement and testing	June 29, 2016
Complete sanitary sewer main replacement and testing	July 20, 2016
Complete storm sewer main replacement and testing	July 29, 2016
Complete water/sanitary/storm service leads	August 5, 2016
Complete site electrical conduit/conductor/panel/foundation/etc. installation	August 17, 2016
Complete irrigation system installation	August 19, 2016
Complete site grading and preparation for final surfaces	August 26, 2016
Complete final surface restorations (paving, pavers, concrete, etc.)	September 9, 2016
Perform electrical/lighting system startups	September 16, 2016
Install complete landscaping and site amenities/achieve substantial completion	September 26, 2016
Achieve final completion	October 26, 2016

The CONTRACTOR shall coordinate and stage the project to accommodate the local holiday traffic and events, as well as all vehicular traffic in and out of the affected businesses. In particular "Sturgis Days Festival" occurs the last week of June and the CONTRACTOR should note increased traffic control and maintenance may be necessary to accommodate both work activities and increased traffic/pedestrian volumes.

The low, responsive bidder(s) for the work covered by this proposal will be required to meet with City of Sturgis representatives to work out a detailed progress schedule. The schedule for this meeting will be set after the contract is awarded.

PROJECT SPECIFICATION

FOR

STORM SEWER

Description

This work shall include all labor, materials and equipment necessary to install the various Storm Sewers as shown on the plans, as directed by the ENGINEER in the field, and as herein specified.

Materials

Pipe - Pipe material shall be as specified on plans. Pipe called out on plans as concrete (conc.) shall be Class C76-IV Sewer and manufactured by Lamar Corporation, Northern Concrete Pipe or equal. Pipe called out on plans as HDPE shall be sock wrapped perforated pipe per manufactures specifications and manufactured by Advanced Drainage Systems or Hancor. All with gaskets which meet ASTM F477, and shall be equal to N-12 as manufactured by Advanced Drainage Systems, Hi-Q or ECO-FIRST as manufactured by Hancor, or approved equal. The perforated pipe shall be installed per the manufacturer's specifications.

All drainage structures shall have 2' sumps and shall be of the open bottom type with 1 to 1-1/2" washed stone to a depth of 1" above the bottom of the sump unless noted otherwise on the plans.

Third Party Certification

All pipe shall be third party certified by an independent lab to ensure consistent high quality.

Construction Methods

The pipe and structures shall be installed in accordance with Section 402 and 403 in the 2012 Edition of the Michigan Department of Transportation Standard Specifications for Construction, "Storm Sewers and Drainage Structures", with Trench Detail B except for 24" Storm Sewer, HDPE whos trench detail shall match the Perforated Storm Sewer Trench Detail in the plans.

Pavement Removal/Replacement

Included as part of the work under applicable sewer items, all pavement and/or street and road surfacing which is not classified for measurement and payment under separate contract items for pavement replacement, shall be replaced and/or restored to a condition equal to or better than that which existed prior to the start of work.

Measurement and Payment

The CONTRACTOR will be paid the unit price bid for each foot of the various sizes of Storm Sewer, for each Drainage Structure, and for each Drainage Structure Cover actually installed which price will be payment in full for all work, equipment and materials, for a complete and functioning installation.

Pay Item

Pay Unit

24" Storm Sewer, HDPE	FT
12" Storm Sewer, Conc	FT
18" Storm Sewer, Conc	FT

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Following subgrade preparation, compact in place 4 inches of class II granular sub-base material.

Construct concrete base for pavers with 2 inch diameter weep drains in a grid pattern, spaced 42 inches on center both ways. Once concrete base has cured, fill weep drains with washed pea-stone free of fines and cover with geotextile fabric, overlapping weep holes at least 12 inches in every direction.

Following the below procedure, construct a minimum 25 square foot mockup of each paver type to verify selections made under sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution. Subject to compliance with requirements, approved mockups may become part of the completed work. CONTRACTOR shall coordinate timing of mockup inspection with ENGINEER and City prior to paver placement to minimize time gap between construction and inspection.

Place leveling course and screed to a thickness of 1 to 1-1/2 inches, taking care that moisture content remains constant and density is loose and uniform until pavers are set and compacted. Treat leveling course with herbicide to inhibit growth of grass and weeds.

Mix pavers from several pallets or cubes as they are placed to produce uniform blend of colors and textures. Cut pavers with motor-driven masonry saw equipment to provide clean, sharp, unchipped edges. Cut units to provide pattern indicated in the plans and to fit adjoining work neatly. Use full units without cutting where possible. Hammer cutting is not acceptable.

Paver joint pattern shall be a running bond with long direction oriented as shown on the plan pattern lines. Curving areas are to be installed without cutting pavers on the long edges. Group 3-5 pavers of the same color end to end. Do not exceed 1/16 inch unit-to-unit offset from flush (lippage) or 1/8 inch in 24 inches, following finished grades provided in the plans.

Set pavers with joint spacers, being careful not to disturb leveling base. Use string lines to keep straight lines. Fill gaps between units that exceed 3/8 inch with pieces cut to fit from full-size unit pavers. Vibrate pavers into leveling course with a low-amplitude plate vibrator capable of a 3500 to 5000 lbf compaction force at 80-90 hertz. Use vibrator with neoprene mat on face of plate or other means as needed to prevent cracking and chipping of pavers. Perform at least three passes across paving with vibrator.

Spread dry sand and fill joints immediately after vibrating pavers into leveling course. Vibrate pavers and add sand until joints are completely filled, then remove excess sand. Leave a slight surplus of sand on the surface for joint filling.

Measurement and Payment

The completed work as described will be measured and paid for at the contract unit prices for the following pay items. Stockpile items will be measured in manufacturer standard “cubes” (267 pavers).

<u>Pay Item</u>	<u>Pay Unit</u>
Paver, Type 1	SFT
Paver, Type 2	SFT
Paver, Type 4	SFT
Paver Base, Concrete	SFT
Stockpile, Paver, Type 1	EA
Stockpile, Paver, Type 2	EA
Stockpile, Paver, Type 4	EA

PROJECT SPECIFICATION

FOR

LANDSCAPING

Description

Furnish and plant trees, shrubs, other plants, topsoil, mulch, and the reseeding of all disturbed tree lawns specified on the plans and herein.

Materials

Plantings, planting preparation and other methods, watering requirements through fall 2016, and planting materials shall meet the requirements as specified or referred to herein, on the plans, and in section 815 of the 2012 MDOT "Standard Specifications for Construction".

1. Planting List

Botanical Name

Common Name

Trees

Acer X Freemanii 'Autumn Blaze'	Autumn Blaze Maple
Amelanchier X Grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry
Gleditsia Triacanthos Var. Inermis 'Skyline'	Skyline Thornless Honeylocust
Hydrangea Paniculata 'Tardiva'	Tardiva Hydrangea
Quercus Bicolor	Swamp White Oak

Shrubs

Buxus 'Glencoe'	Chicagoland Green Boxwood
Fothergilla Gardenii	Dwarf Fothergilla
Rhus Aromatica 'Gro-Low'	Grow-Low Fragrant Sumac
Ribes Aplinum 'Green Mound'	Green Mound Alpine Currant
Rosa X 'Red Knock Out'	Red Knockout Rose
Syringa X Boomerang	Boomerang Purple Lilac
Taxus X Media 'Densiflora'	Dense Spreading Yew
Viburnum Dentatum 'Blue Muffin'	Blue Muffin Viburnum

Grasses

Calamagrostis Acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass
Calamagrostis Brachytricha	Korean Feather Reed Grass
Carex Pensylvanica	Oak Sedge

Perennials

Allium 'Summer Beauty'	Summer Beauty Allium
Ajuga Reptans 'Dixie Chip'	Dixie Chip Bugleweed
Calamintha Nepeta Ssp. Nepeta	Calamint
Heuchera Mix	Mixed Coral Bells
Hemerocallis Mix	Mixed Daylily
Hosta 'Francee'	Francee Hosta
Liriope Spicata	Creeping Lily Turf
Mazus Reptans	Mazus

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Nepeta X Faassenii
Phlox 'Forever Pink'
Salvia Nemerosa 'May Night'

Catmint
Forever Pink Phlox
May Night Salvia

Measurement and Payment

The CONTRACTOR shall be paid his unit price bid for furnished and installing the necessary planting preparations and planting the trees, shrubs, and other plants as shown on the plans and as specified herein. Excavation, soil, pre-emergent chemical application, mulching, and any other preparation necessary to complete the planting beds are incidental to the planting pay items below.

<u><i>Contract Item (Pay Item)</i></u>	<u><i>Common Name</i></u>	<u><i>Pay Unit</i></u>
<i>TREES</i>		
AFAB	Autumn Blaze Maple	EA
AGAB	Autumn Brilliance Serviceberry	EA
GTIS	Skyline Thornless Honeylocust	EA
HPT	Tardiva Hydrangea	EA
QB	Swamp White Oak	EA
<i>SHRUBS</i>		
BG	Chicagoland Green Boxwood	EA
FG	Dwarf Fothergilla	EA
RAGL	Gro-Low Fragrant Sumac	EA
RAGM	Green Mound Alpine Currant	EA
RRKO	Red Knockout Rose	EA
SB	Boomerang Purple Lilac	EA
TMD	Dense Spreading Yew	EA
VDBM	Blue Muffin Viburnum	EA
<i>GRASSES</i>		
CAKF	Karl Foerster Feather Reed Grass	EA
CB	Korean Feather Reed Grass	EA
CP	Oak Sedge	EA
<i>PERENNIALS</i>		
ASB	Summer Beauty Allium	EA
ARD	Dixie Chip Bugleweed	EA
CNN	Calamint	EA
HMX	Mixed Coral Bells	EA
HEM	Mixed Daylilly	EA
HF	Francee Hosta	EA
LS	Creeping Lily Turf	EA
MR	Mazus	EA
NF	Catmint	EA
PFP	Forever Pink Phlox	EA
SNMN	May Night Salvia	EA

PROJECT SPECIFICATION

FOR

IRRIGATION SYSTEM, COMPLETE

Description

This work consists of all labor, equipment, and materials necessary for furnishing and installing a complete irrigation system including all trenching and backfilling; placing pipe, heads, controllers, valves, vacuum breakers, communication circuitry, valve boxes, drains and related equipment; testing; as-built drawings; clean-up; and related work necessary for a complete, operating system.

Approval

Wherever the terms “approval” or “approved” are used in the specifications they shall mean the approval of the OWNER in writing.

Before any work is started, a conference shall be held between the CONTRACTOR and the OWNER concerning the work under this Contract.

Coordination

Coordinate and cooperate with other contractors to enable the work to proceed as rapidly and efficiently as possible.

Inspection of Site

CONTRACTOR shall acquaint himself with all site conditions. Should utilities not shown on the plans be found during excavations, CONTRACTOR shall promptly notify the OWNER for instructions as to further action. Failure to do so will make CONTRACTOR liable for any and all damage thereto arising from his operations subsequent to discovery of such utilities not shown on plans.

CONTRACTOR shall make necessary adjustments in the layout as may be required to work around existing work at no increase in cost to the OWNER.

Protection of Existing Site Conditions

The CONTRACTOR shall take necessary precautions to protect existing site improvements to remain. Should damage occur, the CONTRACTOR shall repair the damage to its original condition at his own expense.

The OWNER reserves the right to substitute, add or delete any material or work as the work progresses. Adjustment to the contract price shall be negotiated if deemed necessary by the OWNER.

The OWNER reserves the right to reject material work which does not conform to the Contract Documents. Rejected work shall be removed or corrected at the earliest possible time.

Irrigation System Design

Irrigation system design provided by M.A.A.C. Property Services, 2344 Yankee Street, Niles, MI 49120.

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“As-Built” Irrigation Drawings

Prepare an “As-Built” drawing on a print which shall show deviations from the bid documents made during construction affecting the main line pipe, controller locations, control valves, quick-coupling valves and all sprinkler heads. The drawings shall also indicate and show approved substitutions of size, material and manufacturer’s name and catalog number. The drawings shall be delivered to the OWNER before final acceptance of work. Submit manufacturer’s data sheets for all materials (sprinkler heads, valves, controllers, dripper line, tubing, pipe) and all other related items to the OWNER.

Final Acceptance

Final acceptance of the work may be obtained from the OWNER upon the satisfactory completion of all work.

The CONTRACTOR will furnish the OWNER with two (2) sets of the following:

1. A product folder showing all major components of the system and
2. An instruction manual explaining how the system operates.

After completion, testing, and acceptance of the system, the CONTRACTOR will instruct the City’s personnel in the operation and maintenance of the system. The CONTRACTOR shall also provide all necessary special tools for maintaining the system.

Guarantee

All work shall be guaranteed for one year from date of acceptance against all defects in material, equipment and workmanship. Guarantee shall also cover repair of damage to any part of the premises resulting from leaks or other defects in material, equipment, and workmanship to the satisfaction of the OWNER. Repairs, if required, shall be done promptly at no cost to the OWNER. The Irrigation CONTRACTOR shall be responsible for blowing out the system by air compression in the fall following installation and turning on the system in the following spring during the guarantee period included in this price.

A full 2-year manufacturer’s warranty on all sprinkler heads, electric valves and controllers shall be provided by the CONTRACTOR. Any part proven to be defective within the 2-year warranty period shall be replaced with no cost to the owner for parts. After the 1-year labor warranty has expired, the OWNER shall be responsible for the labor to replace defective items.

Pipe warranty installation data form shall be filled out and forwarded to the company and warranty presented to the OWNER after completion and prior to payment.

Materials

I. General. All materials throughout the system shall be new and in perfect condition. After award of the Contract and prior to beginning work, the CONTRACTOR shall submit for approval, the complete list of materials which he proposes to install and shop drawings/submittals for all assemblies including but not limited to system drain and blow-off, backflow preventer, and sprinkle head risers. Quantities of materials and equipment need not be included. Written approval shall be required for ANY deviation from the specifications.

II. Plastic Piping. All main line pipe shall be 1 1/4" or larger SDR 26 polyvinyl chloride (PVC) pipe. All lateral pipe shall be minimum 80 psi, 1" poly.

III. Plastic Fittings. Main line fittings shall be SDR 26, polyvinyl chloride (PVC) as manufactured by Sloane, Lasco, or approved equal. All poly to swing pipe connections shall be made with 1"x3/8" poly tees or 1"x3/8" poly couplings. No saddles will be allowed. Any clamps must be stainless steel.

IV. Solvent Cement. Compatible with PVC pipe and of proper consistency. All solvent to be used in accordance with manufacturer's specification.

V. Piping Above Ground. Pipe and fittings installed above ground where necessary shall be Schedule 40 galvanized steel. Piping shall be painted with rust-resistant paint of a color suitable to OWNER.

VI. Sprinkle Head Risers. Sprinkle head riser assemblies shall include minimum 12" long flexible poly piping. Assembly details shall be included in submittal package.

VII. Drip Irrigation. Emitters and tubing shall be as specified on the plans.

VIII. Manual Valves. Valves for use above ground shall be either threaded or soldered gate valves.

Valves for use with 3" and smaller PVC and polyethylene pipe shall be all brass, threaded gate valves with a pronged type handle or 2" square operating nut.

Valves for use with 4" and 6" PVC shall be ring-tite, cast iron resilient wedge valves, brass trimmed, conforming to A.W.W.A. specifications for Class 150 valves equipped with a 2" Square Operating Nut.

IX. Automatic Control Equipment. Automatic controller shall be a Pro-C outdoor controller with modules by Hunter with WR-CLIK Wireless Rain-Clik system and remote port.

X. Electric Control Valves. Valves for use in electrically controlled automatic control system shall be electrically operated solenoid valves. The solenoid shall operate on 24 volts and will not continuously bleed water when in operation.

All valves shall be installed in valve boxes of appropriate size and of a type as described under valve boxes.

XI. Valve Boxes. All valves shall be protected by a two-piece valve box assembly consisting of a removable cover and box. Enclosure shall be high strength, polymer concrete composed of non-metallic, non-conductive materials, chemically inert and unaffected by moisture, corrosion and temperature changes. Boxes shall be sized as follows:

12" valve box and cover shall be used for all automatic valves.

Side walls to extend at least 2 inches below the bottom of the body; for deep mainline valves with appropriate extensions shall be used to reach depth of valves. Valve box shall not bear directly on pipe. Manufacturer shall be New Basis, or approved equal.

Valve boxes shall not be located in paved areas.

XII. Valve Operating Keys. The Contractor shall provide two sets of all the valve operating keys required to properly operate the system.

XIII. Electric. Electric control lines from each controller to the automatic valves shall be direct burial UF wire of a different color than the black and white wires used on the 115 Volt A.C. power to the controllers.

All wire shall be furnished in minimum 2,500' reels and spliced only at connections or tee locations in accordance with the previous governing specifications.

XIV. Control Wires. Electric control wires shall be multi strand wire, no less than 18 gauge, and any additional upsizing as required by controller manufacturer.

XV. Sleeves for Control Wires. Under all walks and paving and where indicated on drawings, PVC 1220-160 psi plastic pipe or galvanized heavy wall steel conduit.

XVI. Backflow Prevention. Backflow devices shall be installed on all cross connections between potable and non-potable water. CONTRACTOR shall conform to all applicable codes regarding backflow prevention. Backflow devices shall also be installed using copper or galvanized pipe. Model shall be 1" Febco and shall include a 3/4" blowout point on the out-going side of backflow assembly prevention assembly.

XVII. Pressure Regulating Valves. Pressure regulating valves shall be as shown on the plans and manufactured by Clay Company, or approved equal.

XVIII. Drains. An air hose connection of approved design will be required at the location called for on the plans so that the entire system can be drained by blowing it out with compressed air.

Execution

I. Workmanship. Layout work as accurately as possible to the drawings. The drawings, though carefully drawn, are generally diagrammatic to the extent that swing joints, offsets and all fittings are not shown. The CONTRACTOR shall verify site conditions. Any deviations from the plan shall be approved by the ENGINEER prior to installation.

The CONTRACTOR shall be responsible for full and complete coverage of all irrigated areas and shall make any necessary minor adjustments at no additional cost to the OWNER.

Any major revisions to the irrigation system must be submitted and answered in written form, along with any changes in contract price.

II. Excavating and Trenching. Perform all excavations as required for the installation of the work included under this section, including shoring of earth banks to prevent cave-ins, and any borings which may be required. Restore all surfaces, existing underground installation, etc., damaged or cut as a result of the excavations to their original condition and in a manner approved by the OWNER.

Trenches shall be made wide enough to allow a minimum of 6" between parallel pipe lines. Trenches for pipe shall be made of sufficient depths to provide the minimum cover from finish grade as follows:

1. 18" minimum cover over main lines
2. 14" minimum cover over control wires from controller to valves (or as required by code)
3. 12" minimum cover over lateral lines to head

- III. Pipe Assembly.** All mainlines and headers shall be kept to a minimum of 2 feet from all existing or proposed trees.

Install control valves where shown and group together where practical; place no closer than 12" to walk edges, buildings and walls.

Plastic pipe and fittings shall be solvent welded using solvents and methods as recommended by manufacturer of the pipe, except where screwed connections are required. Pipe and fittings shall be thoroughly cleaned of dirt, dust and moisture before applying solvent with a non-synthetic bristle brush.

Pipe may be assembled and welded on the surface. Make all connections between plastic pipe and metal valves or steel pipe with threaded fittings using plastic male adapters.

- IV. Closing of Pipe and Flushing Lines.** Cap or plug all openings as soon as lines have been installed to prevent the entrance of materials that would obstruct the pipe. Leave in place until removal is necessary for completion of installation.

Thoroughly flush out all water lines before installing heads, valves and other hydrants.

Test in accordance with paragraph on Hydrostatic Tests.

Upon completion of the testing, the CONTRACTOR shall complete assembly and adjust sprinkler heads for proper distribution.

- V. Hydrostatic Tests.** Request the presence of the OWNER in writing at least 48 hours in advance of testing.

Testing to be accomplished at the expense of the CONTRACTOR and in the presence of the OWNER.

Center load piping with small amount of backfill to prevent arching or slipping under pressure.

Apply a continuous and static water pressure of 60 psi when welded plastic joints have cured at least 24 hours and with the risers capped as follows:

1. Main lines and sub-mains to be tested for 12 hours.
2. Lateral lines to be tested for 2 hours.

Repair leaks resulting from tests.

- VI. Automatic Controllers.** Connect control valves to controller in a clockwise sequence to correspond with station setting beginning with Stations 1, 2, 3, etc.

- VII. Automatic Control Wiring.** Install control wires, sprinkler mains and laterals in common trenches wherever possible.

Install control wires at least 18" below finish grade and lay to the side and below main line. Provide looped slack at valves and snake wires in trench to allow for contraction of wires. Tie wires in bundles at 10' intervals.

Control wire splices will be allowed only runs more than 500 feet. Connections shall be as detailed.

All wire passing under existing or future paving, construction, etc. shall be encased in plastic or galvanized steel conduit extending at least 12" beyond edges of paving or construction.

VIII. Backfill and Compacting. After system is operating and required tests and inspections have been made, backfill excavations and trenches with clean soil, free of rubbish.

Backfill for all trenches, regardless of the type of pipe covered, shall be compacted to minimum 95% density.

Compact trenches in areas to be planted by thoroughly flooding the backfill. Jetting process may be used in those areas.

Dress off all areas to finish grades.

IX. Clean Up. Remove from the site, all debris resulting from work of this section and restore all areas to a well-groomed, clean established appearance by restoring turf areas, thoroughly cleaning paved areas and conducting all other related clean-up and removal activities.

Manufacturer's Qualifications

Irrigation products (i.e.: sprinklers, valves, controllers) shall be by Hunter. All irrigation system components shall be supplied by the regionally authorized distributors to provide single source responsibility for warranty service and operations to conform to specifications in all respects.

Measurement and Payment

The CONTRACTOR will be paid his lump sum price bid for the completed work, including conduits, for all piping, equipment, materials and labor to furnish and to install the completely operational irrigation system. The CONTRACTOR is responsible for initial start-up, first season shut-down, and second season start-up of the system and for training with the City staff, included in each item.

Pay Item

Pay Unit

Irrigation System, Complete

LS

PART 8

PROPOSAL

City of Sturgis
Lot 4 Streetscape and Utility Project

To the Owner: *City of Sturgis*
130 North Nottawa Street
Sturgis, MI 49091

Contractor: _____
Contact: _____
Official Address: _____

Phone: _____
Fax: _____
Email: _____

Gentlemen:

The undersigned, having become familiarized with the local conditions affecting the cost of the work, and with the Contract documents, including the Advertisement for Bids, Instructions to Bidders, General Conditions, Plans, General Specifications, Project Specifications, Contract, Proposal, Performance Bond, and Addenda and exhibits issued and attached to the specifications on file in the office of the ENGINEER, hereby propose to perform everything required to be performed and to provide and furnish all of the labor, materials, necessary tools, expendable equipment, and all utility and transportation services necessary to perform and complete in a workmanlike manner all work required for the construction and completion of this project for the ENGINEER, all in accordance with the above, including Addenda Nos. _____, issued thereto, for the prices, to wit:

(the proposal section follows)

City of Sturgis
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<p align="center"><u>CITY OF STURGIS</u> <u>LOT 4 STREETSCAPE AND UTILITY PROJECT</u> <u>PROPOSAL</u></p>					
<i>ITEM NO</i>	<i>ESTIMATED QUANTITY</i>	<i>UNIT</i>	<i>DESCRIPTION</i>	<i>UNIT PRICE</i>	<i>TOTAL PRICE</i>
BASE BID					
1	1	LS	Mobilization, Max \$10,000		
2	1	LS	Traffic Maintenance and Control		
3	1	LS	Machine Grading, Modified		
4	50	CYD	Subgrade Undercutting, Type II		
5	50	CYD	Trench Undercut and Backfill		
6	3	EA	Tree, Rem, 6 inch to 18 inch		
7	4	EA	Sign Rem		
8	360	LFT	Water Main, Rem		
9	1046	LFT	Pavt Mrkg, Longit, 6 inch or Less Width, Rem		
10	50	SYD	Pavt, Rem, Modified		
11	2496	SYD	HMA Surface, Rem		
12	9.5	CYD	Masonry and Conc Structure, Rem		
13	288	SYD	Sidewalk, Rem		
14	226	LFT	Curb and Gutter, Rem		
15	6	EA	Dr Structure, Rem		
16	275	LFT	Sewer, Rem, Less than 24 inch		
17	296	LFT	8" Water Main		
18	18	LFT	6" Water Main		
19	25	LFT	4" Water Main		
20	660	LBS	Compact Ductile Iron Fittings		
21	1	EA	8" Gate Valve and Box		
22	1	EA	Connect to Existing 8" Main		
23	1	EA	Connect to Existing 6" Main		
24	2	EA	Water Service, 1"		
25	1	EA	Water Service, 2"		
26	280	LFT	Water Service Pipe, 1"		
27	107	LFT	Water Service Pipe, 2"		
28	5	EA	Reconnect Existing Water Service, 1"		
29	3	EA	Reconnect Existing Water Service, 2"		
30	1	EA	Reconnect Existing Water Service, 4"		
31	236	LFT	8" PVC Sanitary Sewer		
32	247	LFT	6" Service Lead		
33	9	EA	8" x 6" Wye		

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34	1	EA	Sanitary Manhole, 4' Diameter		
35	244	LFT	24" Storm Sewer, HDPE		
36	71	LFT	12" Storm Sewer, Conc		
37	42	LFT	18" Storm Sewer, Conc		
38	223	LFT	6" Storm Sewer Lead, PVC		
39	9	EA	6" Storm Connection		
	1	EA	12" Storm Connection		
40	1	EA	Dr Structure, 60 inch dia Leaching Basin		
	2	EA	Dr Structure, 60 inch dia		
41	1	EA	Dr Structure, 48 inch dia		
42	3	EA	Dr Structure, 24 inch dia		
43	1	EA	Dr Structure Cover, Type C (EJ 7045 M1 Grate with 7060 T1 Hood)		
44	3	EA	Dr Structure Cover, Type G (EJ 1060 M1)		
45	3	EA	Dr Structure Cover, Type K (EJ 7045 M1 Grate with 7050 T1 Hood)		
46	1	EA	Dr Structure Cover, Type Q (EJ 1045)		
47	2	EA	Dr Structure, Adj, Case 1		
48	680	CYD	Subbase, CIP		
49	1225	SYD	Aggregate Base, 8 inch, Modified		
50	185	TON	HMA, 13A		
51	111	TON	HMA, 36A		
52	136	SYD	Conc Pavt, Nonreinf, 6 inch		
53	40	SYD	Conc Pavt, Reinf, 8 inch		
54	704	LFT	Curb and Gutter, Conc, Det F4		
55	44	LFT	Curb and Gutter, Conc, Det F4 valley detail		
56	130	LFT	Curb and Gutter, Conc, Det D2		
57	6	LFT	Curb and Gutter, Conc, Det D2 valley detail		
58	80	LFT	Curb and Gutter, Replace		
59	203	LFT	Curb, Conc, Band Detail		
60	260	LFT	Curb, Conc, Planter Detail		
61	0	LFT	Detectable Warning Surface		
62	25	SFT	Decorative Sidewalk, Conc, 6 inch		
63	19	SFT	Sidewalk, Conc, 4 inch		
64	147	SYD	Topsoil Surface, Furn, 6 inch		
65	7	LBS	Seeding, Mixture THM		
66	7	LBS	Fertilizer, Chemical Nutrient, Cl A		
67	147	SYD	Mulch Blanket		
68	2033	SFT	Paver, Type 1		
69	1180	SFT	Paver, Type 2		
70	512	SFT	Paver, Type 4		
71	3725	SFT	Paver Base, Concrete		

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72	1	EA	Stockpile, Paver, Type 1		
73	1	EA	Stockpile, Paver, Type 2		
74	1	EA	Stockpile, Paver, Type 4		
75	2385	LFT	Pavt Mrkg, Waterborne, 4 inch, White		
76	5	EA	Pavt Mrkg, Ovly Cold Plastic, Accessible Sym		
77	5	EA	Pavt Mrkg, Ovly Cold Plastic, Thru Arrow Sym		
78	1	LS	Site Electrical		
79	2	EA	Street Light Foundation, Street Light "A"		
80	4	EA	Street Light Foundation, Street Light "B"		
81	2	EA	Street Light "A", Installed		
82	4	EA	Street Light "B", Installed		
	2	EA	Traffic Sign Post Foundation, Modified		
83	594	LBS	Traffic Sign Post, Modified		
84	30.5	SFT	Traffic Sign, Modified		
85			Trees		
86	7	EA	AFAB (Autumn Blaze Maple)		
87	3	EA	AGAB (Autumn Brilliance Serviceberry)		
	4	EA	GTIS (Skyline Thornless Honey locust)		
88	1	EA	HTP (Tardiva Hydrangea)		
89	1	EA	QB (Swamp White Oak)		
90			Shrubs		
91	6	EA	BG (Chicagoland Green Boxwood)		
92	12	EA	FG (Dwarf Fothergilla)		
93	16	EA	RAGL (Gro-Low Fragrant Sumac)		
94	6	EA	RAGM (Green Mound Alpine Currant)		
95	41	EA	RRKO (Red Knockout Rose)		
	9	EA	SB (Boomerang Purple Lilac)		
96	12	EA	TMD (Dense Spreading Yew)		
97	10	EA	VDBM (Blue Muffin Viburnum)		
98			Grasses		
	18	EA	CAKF(Karl Foerster Feather Reed Grass)		
99	20	EA	CB (Korean Feather Reed Grass)		
100	8	EA	CP (Oak Sedge)		
101			Perennials		
102	4	EA	ASB (Summer Beauty Allium)		
103	30	EA	ARD (Dixie Chip Bugleweed)		
104	57	EA	CNN (Calamint)		
105	33	EA	HMX (Mixed Coral Bells)		
106	43	EA	HEM (Mixed Daylilly)		
107	5	EA	HF (Francee Hosta)		

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108	13	EA	LS (Creeping Lily Turf)		
109	500	EA	MR (Mazus)		
110	93	EA	NF (Catmint)		
111	8	EA	PFP (Forever Pink Phlox)		
112	16	EA	SNMN (May Night Salvia)		
113	3	EA	Planter A		
114	3	EA	Planter B		
115	1	LS	Trash Enclosure, Complete		
116	3	EA	Amenity 1, Trash Receptacle		
117	4	EA	Amenity 2, Chair 1		
118	3	EA	Amenity 3, Chair 2		
119	1	EA	Amenity 4, Table		
120	3	EA	Tree Grate		
121	1	LS	Irrigation System, Complete		
122	1	LS	Fire Pit, Complete		
				Base Bid Entered =	\$
Alternate Bid 1 – Cured In Place Pipe (CIPP) Sanitary Sewer Rehabilitation					
A1.1	289	LFT	8” CIPP Liner		
A1.2	10	EA	8” x 6” CIPP Lateral Connection		
A1.3	-236	LFT	8” PVC Sanitary Sewer (deduction from base bid)		
A1.4	-9	EA	8” x 6” Wye (deduction from base bid)		
				Subtotal Alternate Bid 1 Entered =	\$
Alternate Bid 2 – Underground Retention System					
A2.1	652	LFT	Retention System Piping		
A2.2	60	LFT	Retention System Header		
A2.3	2	EA	Retention System Cleanout		
				Subtotal Alternate Bid 2 Entered =	\$
Alternate Bid 3 – Parking Lot Repaving					
A3.1	2034	SYD	HMA Base Crushing and Shaping		
A3.2	185	TON	HMA, 13A		
A3.3	308	TON	HMA, 36A		
A3.4	-1046	LFT	Pavt Mrkg, Longit, 6 inch or Less Width, Rem (deduct. from base bid)		
				Subtotal Alternate Bid 3 Entered =	\$

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Accompanying this Proposal is a (Bid Bond, Certified Check, Bank Draft) in the amount of Five Percent (5%) payable to the City of Sturgis required by the Advertisement for Bids.

In submitting this bid, it is understood that the right is reserved for the ENGINEER to reject any and all bids. It is agreed that this bid may not be withdrawn for a period of seventy-five (75) days from the opening thereof.

If awarded a Contract, the undersigned agrees to begin work within 10 days of the effective date of Contract or a date agreed upon with the OWNER and further agrees to proceed with all possible dispatch, and fully complete the work as detailed in the Progress Schedule.

DATE

FIRM NAME

OFFICIAL ADDRESS:

BY:

(Note: Bidders should not add any conditions or qualifying statements to the bid as otherwise the bid may be declared irregular as being not responsive to the Advertisement for Bids.)