



**DOWNTOWN DEVELOPMENT AUTHORITY /
BROWNFIELD REDEVELOPMENT AUTHORITY BOARD**
Monday, July 29, 2019
12:00 noon
AGENDA

- I. CALL TO ORDER
- II. ROLL CALL
- II. APPROVAL OF MINUTES
 - Authorize Cargo to record the minutes
 - November 28, 2018 DDA Board Meeting
- IV. OLD BUSINESS
 - 1. None
- V. NEW BUSINESS
 - 1. Approve Bid for Replacement for Section of 172nd Avenue Storm Drain
 - 2. Other Items of Interest
- VI. PUBLIC COMMENTS/QUESTIONS (*Limited to three minutes, please*)
- VII. ADJOURNMENT

**GRAND HAVEN CHARTER TOWNSHIP
DOWNTOWN DEVELOPMENT AUTHORITY
WEDNESDAY, NOVEMBER 28, 2018**

I. CALL TO ORDER

Chair Heinritz called the meeting of the Grand Haven Charter Township Downtown Development Authority (DDA) Board to order at 12:04 p.m.

II. ROLL CALL

Board members present: Heinritz, Bekins, Robbins, Helder, Sphabmixay, Reenders, Luckey

Board members absent: Loftis, Rycenga

Also present was Manager Cargo.

Without objection, Heinritz requested that Cargo record the minutes.

III. APPROVAL OF MINUTES

Without objection, the minutes of the April 6, 2018 Downtown Development Authority meeting were approved.

IV. OLD BUSINESS

None

V. NEW BUSINESS

1. Cargo review the proposed 2019 budget, noting DDA's major construction project for FY 2019 will be the Robbins Road project between 172nd Avenue and 168th Avenue. This project has two major components including (1) the installation of concrete sidewalks on the south side of Robbins Road; and, (2) construction of an 8-inch watermain loop between 168th and 172nd Avenues, tying together three separate pipe segments now served by Grand Haven City.

Discussion was also held on the probability that Health Pointe will seek a 100% property tax exemption. Cargo and Reenders both noted that this will be opposed by the Township and, if authorized by the State of Michigan, would impact DDA cash reserves – but, not the funding for the capital project scheduled for 2019.

Motion by Robbins, supported by Luckey to recommend to the Grand Haven Charter Township Board that the FY 2019 DDA budget be approved, as presented. **Which motion carried.**

IV. PUBLIC COMMENTS/QUESTIONS

No public comments were received.

V. ADJOURNMENT

Without objection, Heinritz adjourned the meeting at 12:15 p.m.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "W.D. Cargo". The signature is written in a cursive, somewhat stylized font.

William D. Cargo, Recording Secretary

Grand Haven Charter Township

Downtown Development Authority

MANAGER'S MEMO

DATE: July 19, 2019

TO: DDA Board

FROM: Bill Cargo

SUBJECT: Approve Engineering Agreement – Replace Section of 172nd Avenue Storm Drain

The purpose of the July 29th DDA Board meeting is to authorize bids to replace a section of the 172nd Avenue Storm Drain (which was originally constructed in 1994).

As you may recall, because the Warber Drain project delayed the budgeted Robbins Road watermain and sidewalk project until 2020, I requested the Township's engineering firm (*i.e.*, *Prein & Newhof*) to address the separation of some of the large diameter storm drains along 172nd Avenue near Light Corporation.

Specifically, portions of pathway and yard along the 172nd Avenue south of Comstock have developed sinkholes and sags over the past ten years because of the separation of storm pipe joints that allows soil to enter the storm sewer. The length of the problem area is about 317 feet of large diameter storm drain near the Light Corporation and Shape Corporation facilities.

To remedy the situation, the Township has wrapped the certain gaps in the storm drains, injected mortar to fill the gaps, and installed internal steel bands to bridge the gaps.

Unfortunately, the remedies have not worked – in part because of the soil “shifting” causing an increase in the width of the gaps in the storm drains.

At this stage, the long-term solution is to replace about 154' of 60" storm pipe with 54" and replace another 163" of 48" storm pipe. (*Because of how the area developed, some of the storm drains can be downsized.*) The joints on these new sections of storm pipe will use a premium “O-ring” joint material – which was not available when the existing storm pipe was installed about 25 years prior. The O-rings should hold even with some pipe movement caused by existing soil conditions.

The construction cost of the proposed storm drain replacement project is about \$150k with the engineering totaling \$25k. There are sufficient cash reserves within the DDA Fund for this

project to be completed.

To proceed with this “maintenance” project, the following motion can be offered:

Move to authorize the *Prein and Newhof* to complete bids for the replacement of approximately 317 feet of large diameter storm drain along 172nd Avenue south of Comstock Street.

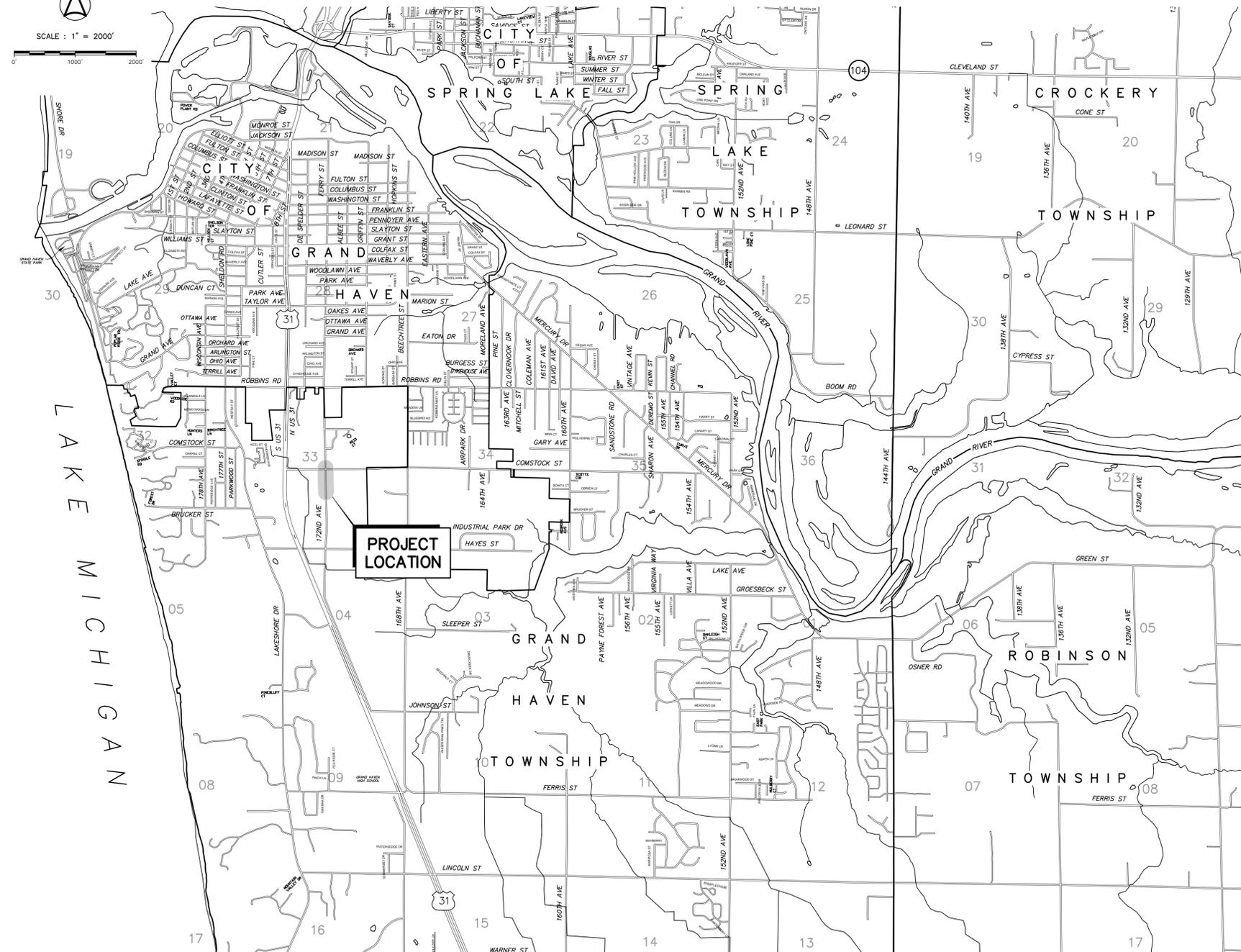
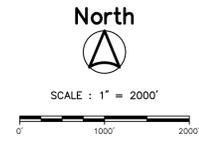
If there are any questions or comments, please contact me at your convenience.

GRAND HAVEN CHARTER TOWNSHIP

OTTAWA COUNTY, MICHIGAN

STORM SEWER IMPROVEMENTS

172ND AVENUE



PROJECT DATUM INFORMATION

COORDINATE SYSTEM :	STATE PLANE GRID
ZONE :	MICHIGAN SOUTH 2113
ELLIPSOID :	GRS 80
HORIZONTAL DATUM :	NAD 83 (2011)
VERTICAL DATUM :	NAVD 88
GEIOD :	GEIOD 12B
UNITS :	INTERNATIONAL FEET
PROJECT COMBINED SCALE FACTOR (PCSF) :	= 0.999910358303
GROUND DISTANCE =	GRID DISTANCE/PCSF

- GENERAL NOTES**
1. THE IMPROVEMENTS COVERED BY THESE PLANS SHALL BE DONE IN ACCORDANCE WITH THE 2012 MICHIGAN DEPARTMENT OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION EXCEPT WHERE OTHERWISE INDICATED ON THESE PLANS, IN THE PROPOSAL, SUPPLEMENTAL SPECIFICATIONS, OR SPECIAL PROVISIONS FOR THIS PROJECT.
 2. CONTRACTOR TO CALL MISS DIG (CALL TOLL FREE 1-800-482-7171) THREE WORKING DAYS BEFORE STARTING YOUR PROJECT. (EXCLUDING WEEKENDS AND HOLIDAYS)
 3. THE PROPOSED IMPROVEMENTS COVERED BY THESE PLANS SHALL BE IN ACCORDANCE WITH THE 2011 MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
 4. CONTRACTOR SHALL PRESERVE ALL GOVERNMENT AND PROPERTY CORNERS.

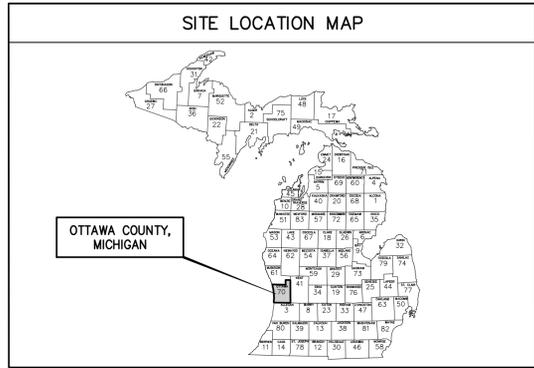
SOIL EROSION CONTROL NOTES

EROSION CONTROL BLANKET :
SOIL EROSION CONTROL BLANKET SHALL BE REPLACED ON ALL DISTURBED SLOPES THAT ARE 1 ON 3 OR STEEPER AND IN ALL DISTURBED DITCH BOTTOMS.

TEMPORARY SEEDING :
TEMPORARY SEEDING SHALL BE CAST ON ALL DISTURBED AREAS AS DIRECTED BY THE ENGINEER WITHIN 1 WEEK OF DISTURBANCE.

UTILITIES

TELEPHONE AT & T (SBC COMMUNICATIONS) RICK ARENDSSEN 245 E. 24TH HOLLAND, MI 49423 (616) 392-7017 RA1563@ATT.COM	CABLE TELEVISION CHARTER COMMUNICATIONS ROBERT JAWOROWSKI 315 DAVIS STREET GRAND HAVEN, MI 49417 (616) 607-2356 ROBERT.JAWOROWSKI@CHARTER.COM
ELECTRIC CONSUMERS ENERGY 4000 CLAY AVENUE SW GRAND RAPIDS, MI 49548 (616) 530-4097	WATER & SEWER GRAND HAVEN CHARTER TOWNSHIP MARK VERBERKMOES 13300 OAKBROOK DRIVE, SUITE 200 GRAND HAVEN, MI 49417 (616) 842-5988
GAS MICHIGAN GAS UTILITIES DAVE MAURER 1708 EATON DRIVE GRAND HAVEN, MI 49417 (269) 692-3911 DAMAURER@MICHIGANGASUTILITIES.COM	FIBER OPTIC MERIT NETWORK CARLOS RAMOS 1000 OAKBROOK DRIVE, SUITE 200 ANN ARBOR, MI 48104 (734) 527-5767 CRAMOS@MERIT.EDU



SHEET INDEX

SHEET No.	DESCRIPTION
1	COVER SHEET
2	MAINTENANCE OF TRAFFIC PLANS
3	172ND AVENUE

ISSUED FOR BIDS : JULY, 2019

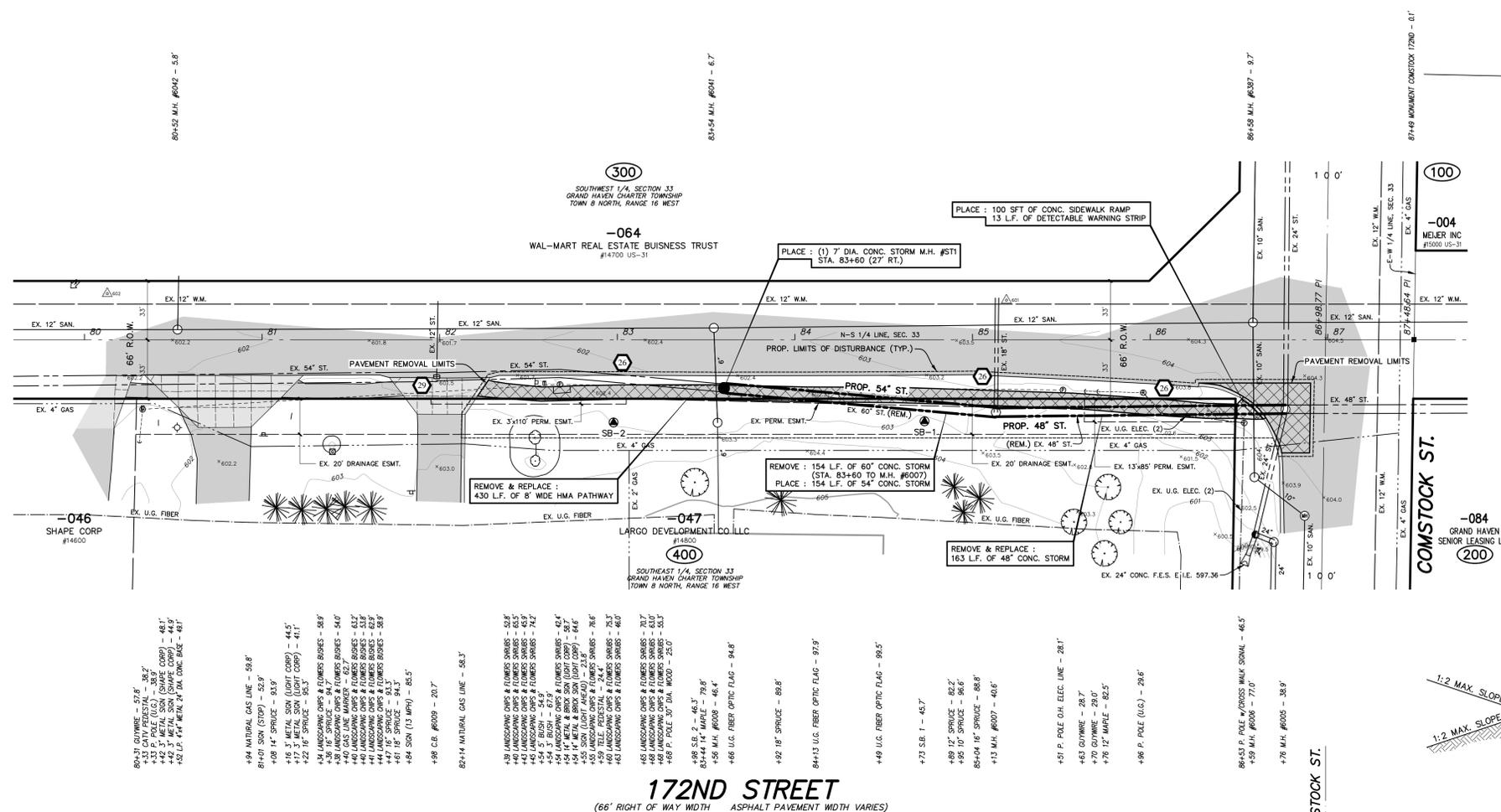
	PROJECT NO. 2180340
	SHEET NO. 1 OF 3



UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

BENCHMARK EL. 604.76
172ND AVENUE & COMSTOCK STREET
710 ± S & 30 ± W OF C/L 'X', HYDRANT,
TOP BOLT UNDER 'E' IN E/W
(1.8' A/GROUND)

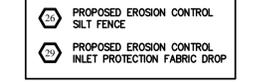
CONTROL POINT TABLE			
POINT No.	NORTHING	EASTING	ELEVATION
601	56441.792	1262918.160	603.58
602	564455.563	1262918.330	602.19



PAVEMENT REMOVAL LEGEND

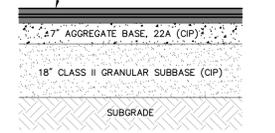


SOIL EROSION CONTROL LEGEND



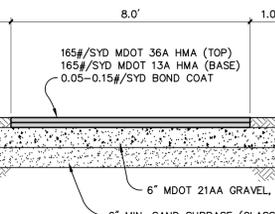
NOTE: PLACE SILT FENCE AS DIRECTED BY ENGINEER IN AREAS THAT ARE SUSCEPTIBLE TO EROSION.

165 #/SYD HMA LVSP (TOP)
165 #/SYD HMA LVSP (LEVELING)
220 #/SYD HMA LVSP (BASE)

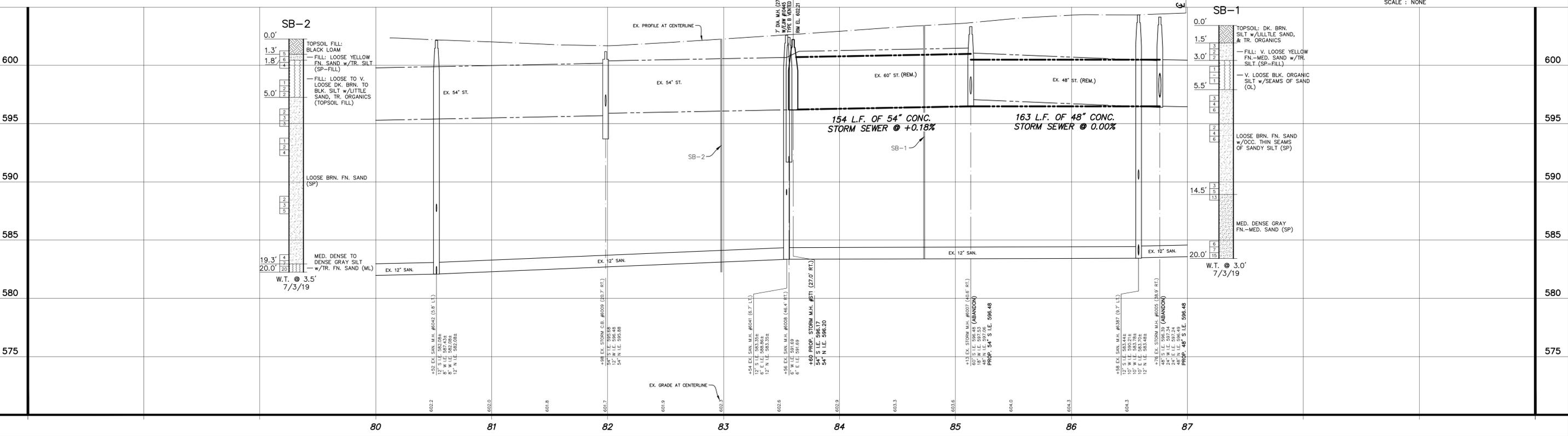


HMA PAVEMENT SECTION
SCALE: NONE

SAND SUBBASE PART OF MAJOR ITEMS OF WORK. PAVEMENT EDGES SHALL BE SAWCUT.



BITUMINOUS PATHWAY DETAIL
SCALE: NONE



811
UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OR AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

PROJECT DATUM INFORMATION
COORDINATE SYSTEM: STATE PLANE GRID
ZONE: MICHIGAN 2011H 2113
EARTH TIDAL DATUM: GRS 80
HORIZONTAL DATUM: NAD 83 (2011)
VERTICAL DATUM: NAVD 83
SEGS: 558
UNITS: INTERNATIONAL FEET
PROJECT COMBINED SCALE FACTOR (PCSF) = 0.99991058303
GROUND DISTANCE = GRID DISTANCE / PCSF

SCALES: 1" = 40' HORZ. (CONTOURS AT ONE FOOT INTERVALS)
1" = 4' VERT.

NO.	REVISIONS	BY	DATE

DRAWN: R.P.S.
DATE: JUNE '19
CHECKED: J.T.N.
DATE: JULY '19

Prein & Newhof
Engineers • Surveyors • Environmental • Laboratory

GRAND HAVEN CHARTER TOWNSHIP
OTTAWA COUNTY, MICHIGAN

STORM SEWER IMPROVEMENTS
172ND STREET

PROJECT NO. 2190340
SHEET NO. 3 OF 3

Project Specifications

Owner: Grand Haven Charter Township, Ottawa County, Michigan

Project Title: 172nd Storm Sewer Improvements

Project #: 2190340

1. GENERAL

1.1 Specifications

Work under this Contract shall be completed in accordance with the General and Supplementary Conditions, the Project Specifications, the with the Prein&Newhof Standard Specifications dated October, 2012.

Where a standard construction method or contract procedure is not specifically covered by the Contract Documents or shown on the drawings, the 2012 edition of the Michigan Department of Transportation (MDOT) Standard Specifications for Construction shall apply.

Except as written in these specifications, the order of precedence for resolving conflict, error, ambiguity, or discrepancy shall be as follows:

- a. Contract Documents, including these Project Specifications.
- b. Prein&Newhof Standard Construction Specifications October, 2012.
- c. 2012 MDOT Standard Specifications for Construction.

1.2 Project Management

1.2.1 Scheduling, Coordination, and Project Phasing

Contractor shall be responsible for coordination of all work activities, including all coordination necessary with businesses and home owners. No additional payment will be made for work during the night or on weekends.

The contractor shall provide the Owner (Grand Haven Charter Township), Engineer, and Ottawa County Road Commission a detailed schedule to complete the project. The schedule shall be reviewed by the Engineer for general conformity, if found to be in general conformity the Engineer will accept the proposed schedule. The Contractor shall consider the following when developing his schedule and phasing plan:

- a) All work on 172nd Street shall be completed by November 1, 2019.
- b) Contractor shall coordinate their work with the surrounding projects in the area with OCRC and Grand Haven Charter Township.

1.2.2 Construction Staking

Unless otherwise specified, construction stakes will be furnished by the Engineer. Contractor shall give 72 hour notice exclusive of weekends and holidays when requesting stakes.

Contractor shall exercise proper care in the preservation of all stakes set for their use or the use of the Engineer and if such stakes are damaged, lost or removed by Contractor's operation, the cost of resetting may be charged to Contractor. Any irregularity in grade and/or line stakes discovered by Contractor shall be reported to the Engineer for correction before proceeding with the work.

Contractor shall provide additional methods, materials, or equipment as may be necessary to facilitate laying out, inspecting and constructing the work. Contractor shall assume full responsibility for all detailed dimensions and elevations measured from the lines, grades and elevations established by the Engineer.

The construction stakes shall be left in place until the work has been completed and inspected. In the event of discrepancies in the location or grade of the work, Contractor shall be responsible for making the necessary corrections unless grade stakes are left in places that show evidence of an error in staking.

1.2.3 Meetings

Project meetings may be scheduled, as needed, throughout the project. Meetings shall be scheduled at the request of the Engineer and will facilitate the coordination of construction activities and the Contractor's adherence to the project schedule. Attendees at the meeting shall include representatives of the Owner, Engineer, and the Contractor.

1.3 Permits

The Owner will obtain a permit from Ottawa County Road Commission (OCRC) for the public rights-of-way work.

The Owner shall obtain Drain Use permits from the OCWRC. A copy of the permit will be forwarded to the Contractor upon receipt.

The Owner shall obtain a Part 91 of Act 451 permit from the OCWRC for the soil erosion and sedimentation control. A copy of the permit will be forwarded to the Contractor upon receipt. The contractor shall be responsible for completing a dewatering plan as part of the SESC permit.

The Contractor shall complete all work according to the aforementioned permits and will be responsible for any fines that may be incurred due to failure to meet any of the conditions of the permits. The Contractor will also be responsible for permit fees due to extensions of time if delays occur in the project and the delays are caused by the Contractor.

The Contractor shall obtain all other permits necessary for construction of this project. The Contractor shall pay for any charges or bonds required by agencies for permits, inspections, or similar charges to construct this project as shown on the drawings. The cost of obtaining permits shall be considered part of the major items of construction. The Contractor shall comply with all permit conditions.

1.4 Existing Utilities

The Contractor shall notify utility companies for utility locations prior to commencement of construction. Contractor shall cooperate with the utility companies in any repair, relocation or other work to be performed on the utility caused by the construction of the contract.

The Contractor shall refer to Section 5.05 of the Supplementary Conditions as to the responsibilities of the Contractor regarding underground facilities. No claim for additional compensation will be allowed based on the work of the utility companies to replace, relocate, or repair their utility in the project area whether noted on the drawings or in the specifications or if deemed necessary during construction.

All relocation or removing and replacing of power poles, light poles and telephone poles shall be done by the respective utility companies, unless otherwise specified. The Contractor shall coordinate the work operations with the utility companies.

The need for shoring and bracing of poles is likely, and shall be evaluated by the Engineer and Contractor prior to construction. Payment for shoring or bracing shall be included in the major items of construction as shown in the proposal and no additional payment will be made for this work.

The contractor shall refer to Section 3.08 of the Prein & Newhof specifications for Surface Restoration in regards to underground sprinkling damaged or in need of relocation during construction.

1.5 Community Relations and Protection of Adjacent Property

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

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

The cost of protection, replacement in their original positions and conditions or payment for damages thereto of pipe lines and structures affected by the work and the removal, relocation and rebuilding of pipe lines and structures called for on the drawings or specified shall be

deemed included in the major proposal items. No additional payment will be made for such work.

The Contractor shall, at all times in performance of the work, employ approved methods and exercise reasonable care and skill so as to avoid unnecessary delay, injury, damage or destruction of public utility installations and structures; and shall, at all times in the performance of the work, avoid unnecessary interference with, or interruption of, public utility services, and shall cooperate fully with the Owner and utility owners thereof to that end.

1.6 Traffic Control and Maintenance

All road shift phasing and layout shall follow the traffic detours found in the detail drawing sheets, the below traffic descriptions, and follow MDOT requirements.

- a) Northbound 172nd Avenue traffic south of Comstock Street shall be shifted to the “left only” turn lane. The existing through-traffic and right turn lane will be closed to traffic. Left turns onto Comstock Street will be prohibited, and traffic shall be detoured north along 172nd Avenue to Robbins Road.
- b) Westbound Comstock Street traffic will be shifted to the northern most lane, with the left only turn lane designated for eastbound traffic. Left turns shall be prohibited, with traffic detoured south along 168th Avenue to westbound Hayes Street.
- c) Eastbound Comstock Street traffic shall shift to the “left only” and “through-traffic” lanes, with the existing right turn lane closed to traffic. The “left only” turn lane will become the temporary “through-traffic” lane, with the existing “through-traffic” lane becoming the “right only” turn lane. East of 172nd Avenue, the existing eastbound lane shall be barricaded and closed to traffic. Left turns onto 172nd Avenue northbound shall be prohibited, and traffic shall be detoured to northbound 168th Avenue to westbound Robbins Road.

It is the contractor’s responsibility to provide the adequate number of signage at no additional cost to the owner. The Contractor shall inform the local police, ambulance service, fire department and public school system in advance of planned closures.

The contractor shall coordinate with other construction projects in the area as noted in Section 1.2.1 Scheduling Coordination, and Project Phasing above. The removal and replacement of existing permanent traffic signs shall be included and paid for in the below traffic control pay item. Any signs damaged by the Contractor shall be replaced in like kind or, when required, upgraded to meet current requirements at the Contractor’s expense. Any temporary pavement markings required to maintain traffic control shall be included in the below major item of work.

Contractor shall provide residents 24 hour notice prior to impacting their driveway(s). Traffic and access to businesses along 172nd Street shall be maintained at all times by utilizing flagging, temporary driveways and/or alternate access routes as necessary within the project limits for the duration of this project. Immediately after the work within the driveway is complete, Contractor shall restore the driveway with 21AA or 22A road gravel

such that the property owner has smooth access to their property. Temporary drives shall be maintained as necessary to keep a smooth riding surface. Maintenance of temporary drives shall be included in the major items of construction. Signage, lighting and maintenance of traffic in the case of night work shall be included in the major item of work below.

Payment for furnishing and maintaining all traffic control shall be paid lump sum and included in the following pay item. This includes all signs, barrels and temporary pavement markings needed to maintain traffic control. 65% of this item will be paid with the first payment estimate; the balance will be paid once the project is open to traffic in all areas:

- *Traffic Control*

1.7 Site Maintenance

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

1.7.1 Right-of-Way and Easements

Contractor shall confine the work to the rights-of-way and easements. Any other area required for equipment or material storage or for construction operation shall be the responsibility of the Contractor.

Damage to adjacent properties (including, but not limited to trees, driveways, fences, walls, etc.) not located within the right-of-way or easements is the responsibility of the Contractor. If damage occurs to any adjacent property, the Contractor must notify the on-site construction observer and/or the Owner's representative before the end of the working day.

1.7.2 Refuse Removal

Contractor shall coordinate activities with waste haulers to allow continued service to the area under construction. This will require access to the individual properties or a central location for pick up. The Contractor will be responsible for transporting waste containers to a centralized location and returning them to their respective properties following trash pickup. Contractor must provide residents with 48-hours notification of refuse removal. The facilitation of refuse removal shall be incidental to the major items of construction.

1.7.3 Noise Control

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

1.7.4 Protection of Natural Resources

1.7.4.1 Soil Erosion and Sedimentation Control

All work shall comply with the rules and regulations of Part 91 of P.A. No. 451. Contractor shall provide all necessary measures to prevent erosion until surface restoration is completed and approved.

Contractor shall place silt sack bags in all catch basins directly affected by construction. In addition, all catch basins in the project area are to be cleaned out at the completion of the project. An invoice from a professional cleaning service or a signed document/letter from the contractor will need to be submitted to the Ottawa County Water Resources Commissioner's office in order to close out the SESC permit.

Contractor will be named as the certified storm water operator on the soil erosion and sedimentation control permit and provide the certified operator. The Contractor shall maintain a copy of the inspection reports on site and provide a copy of the report to the Owner within 24 hours of being completed.

All soil erosion and sedimentation control material, labor, and work shall be included in the below listed pay items, unless specifically noted otherwise:

- *Erosion Control, Inlet Protection Fabric Drop*
- *Erosion Control, Silt Fence*

1.7.4.2 Protection of Work

Contractor shall take all necessary steps to prevent damage to fish and game habitats and to preserve the natural resources of the State. Excavation and backfill shall be carried out so as to minimize discharge of damaging material to any stream, lake, or reservoir. Contractor shall exercise caution in the discharge of waters from pumps, deep wells, or well point systems, in order that such discharges do not cause erosion, siltation, soil depositions, etc., in sewers, streams or other water courses or drainage structures.

Contractor shall not permit any sand or debris of any kind to enter the existing ditches, streams, storm sewers or culverts. The rules and regulations of all work shall comply with Part 31 (Water Resources Protection), Part 301 (Inland Lakes and Streams Act), Part 91 (Soil Erosion), and Part 303 (Wetland Protection) of P.A. No. 451 (Natural Resources and Environmental Protections Act of 1994).

1.8 Payment

Payment shall be made for the proposal items only. All of the work specified herein and indicated on the contract drawings shall be considered to be included in the unit prices shown in the proposal.

2. EXCAVATING TRENCHING AND BACKFILL

2.1 Pavement Removal

All work and construction methods related to pavement removal shall be in accordance with Section 2.03 of the Prein & Newhof Specifications and as herein specified. This work shall consist of removing, and disposing of all existing non-motorized pathways, sidewalks, sidewalk ADA ramps, bituminous road pavements, and all associated underlying courses regardless of thickness within the work limits. Work shall also include the cost to saw cut the full depth of the pavement.

Below are the anticipated pavement cross sections that will need to be removed:

- 172nd Street: 5+ inches of HMA and 7 inches aggregate base
- Bituminous non-motorized pathway: 3 inch thickness of bituminous pavement with 6 inches of aggregate base. If in the opinion of the Engineer the gravel base will not need to be disturbed, this shall remain. Payment will be the same for the area removed, but payment for replacement will be what is actually replaced.

All costs associated with removing and disposing of all pavement within the defined removal limits, as described above, shall be paid per square yard and included in the below pay item, regardless of pavement thickness:

- *Pavement Removal*

2.2 Curb and Gutter Removal

All work, materials, construction methods, measurement and payment shall be in accordance with Section 204 of the 2012 MDOT Standard Specifications for Construction.

All costs associated with removing and disposing of all curb and gutter within the defined removal limits, as described above, including all costs associated with saw cutting of the curb and gutter is included in the below pay items, paid per linear foot:

- *Concrete Curb and Gutter Removal*

3. SURFACE RESTORATION

3.1 Aggregate Base

All work, materials, and construction methods shall be in accordance with Section 302 of the 2012 MDOT Standard Specifications for Construction and as herein specified. This work consists of the placement of MDOT 21AA aggregate base (compacted in place) for all

bituminous road pavement, bituminous non-motorized pathway, road shoulder and aggregate drive approaches. The cost for preparing the sand subbase/subgrade as specified herein shall be considered included in the major items of work and no specific payment will be made therefor.

All work, materials, equipment, and labor to furnish and install the aggregate base shall be included in the below pay item, measured by the square yard:

- *6 inch Aggregate Base, 21AA*
- *7 inch Aggregate Base, 21AA*

3.2 Bituminous Pavement

All work, materials, and construction methods shall be in accordance with Section 501 and 802 of the 2012 MDOT Standard Specifications for Construction and as herein specified, along with Section 9.05 of Prein & Newhof Specifications for Non-motorized pathways. This work consists of the placement of HMA for all bituminous road pavement and the bituminous non-motorized pathways.

The application rates and types shall be as follows. Approved equals shall be approved by the Ottawa County Road Commission.

Roadways – 220#/sy of HMA LVSP base course; 165 #/sy HMA LVSP of level course; and 165 #/sy HMA LVSP of top course.

Non-Motorized Path – 165#/sy of HMA 13A base course and 165#/sy of HMA 36A top course

The roller method shall be used for compacting and nuclear density gauge testing shall be used for density.

Existing HMA bit valley curb located within project limits shall be placed back as existing. All work, material, equipment, and labor related to the construction and installation of the bit valley curb shall be included in the major items of work below.

All work, materials, equipment, and labor related to bituminous pavement shall be paid per ton and included in the below pay items:

- *HMA LVSP*
- *HMA13A*
- *HMA 36A*

Payment for all HMA items shall be limited to the measured area multiplied by the proposed application rate plus 10 percent, or the actual tons installed, whichever is less. Any overruns will not be paid for by the Owner.

3.3 Concrete ADA Sidewalk Ramps

All work, materials, equipment and construction methods related to concrete ADA sidewalk ramps shall be in accordance with Section 3.07, 9.06, & 9.08 of Prein & Newhof Specification, respectively. This work consists of the placement of pavement for all concrete sidewalk ramps, including ADA ramps at major intersections. New sidewalk ramps shall be replaced to existing conditions.

The ADA sidewalk ramp shall be constructed where noted on the drawings and shall be in accordance with MDOT Detail R-28-G and the Michigan Department of Transportation 2012 Standard Specifications for Construction. Sidewalk ramp grades shall be approved by Engineer prior to concrete placement.

The detectable warning plates shall be furnished and installed in accordance with MDOT R-28-J Sidewalk Ramp and detectable warning details. The coloring of the plates shall be brick red.

The *6 inch Concrete Sidewalk Ramp* shall be paid per square foot and the *Detectable Warning Surface* shall be paid per linear foot. All work, materials, equipment, and labor shall be included in the below pay item, measured by the square yard:

- *6 inch Concrete Sidewalk Ramp*
- *Detectable Warning Surface*

3.4 Curb and Gutter Installation

All work, materials, testing, and construction methods shall be in accordance with Section 802 of the 2012 MDOT Standard Specifications for Construction and Section 3.07.03 of Prein & Newhof Specifications. At non-motorized pathway and sidewalk locations, curb shall conform to ADA requirements. All curb and gutter removed shall be replaced as existing conditions and type. Existing curb types that are anticipated to be removed and replaced are MDOT Detail F4 curb and gutter and MDOT Type M-Drive opening.

All work, materials, equipment, and labor related to curb and gutter shall be included in the below pay item, measured by the linear foot:

- *Concrete Curb and Gutter, Type MDOT F4*

3.5 Pavement Markings

All work, materials, construction methods, measurement and payment shall be in accordance with Section 811 of the 2012 MDOT Standard Specifications for Construction and as herein specified. All permanent pavement markings disturbed by construction operations shall be replaced with new pavement markings after the HMA surface course has been placed. It is the Contractor's responsibility to match the existing pavement markings on site. All roadway pavement markings will be waterborne.

Measurement for payment of permanent pavement markings shall be by the linear foot for all line work. All work, materials, and labor related to the removal and installation of pavement markings shall be included in the below pay items:

- *4 inch Yellow Waterborne Pavt Mrkg*
- *6 inch White Waterborne Crosswalk Pavt Mrkg*

3.6 Turf Restoration

This work shall consist of furnishing and placing topsoil, seed, fertilizer, and mulch to all areas disturbed by the construction of this project. This work shall be in accordance with Section 3.09 of the Prein & Newhof Specifications for Surface Restoration. All landscaping disturbed or removed during the construction process shall be replaced back to existing conditions.

All work, materials, equipment, and labor necessary to perform the work as described above shall be included in the below pay item, paid as a lump sum:

- *Turf Restoration*

5. **STORM SEWER**

All work, materials, construction methods, testing, measurement and payment related to the removal or construction of storm sewer shall conform to Section 5 Specifications for Storm Sewer of the Prein&Newhof specifications. Excavation, pipe embedment, and backfill shall conform to Section 2 of the Prein & Newhof specifications. All dewatering, excavation, pipe embedment, backfill and final acceptance testing shall be included in the major storm sewer items of work listed below.

5.1 Storm Sewer Pipe Removal

All work, materials, and construction methods shall be in accordance with Section 203 of the 2012 MDOT Standard Specifications for Construction. The limits of removal shall be reviewed in the field with the engineer prior to removal.

All work, equipment, and labor shall be included in the below pay item, paid per linear foot:

- *Storm Sewer Removal*

5.2 Storm Sewer

Concrete storm sewer shall be C76 Class II with O-Ring joint gaskets. All materials related to storm sewer shall conform to Section 5.02.01.01 of the Prein&Newhof specifications unless otherwise specified.

All construction methods shall conform to Sections 5.04, 5.05, and 5.10 of the Prein&Newhof specifications. All pipe joints shall be wrapped in 22 inch geotextile fabric.

All work, equipment, and labor related to the construction of storm sewer pipe shall be paid per linear foot and conform to Section 5.11.02 of the Prein&Newhof specification.

- ____ *inch Storm Sewer*

5.3 Manholes

All manholes and casting materials shall conform with Section 5.02.08 of the Prein&Newhof specification. Manholes shall have an EJIW 1040 casting with a Type B solid cover.

The manhole construction methods shall conform to Section 5.08 of the Prein&Newhof specification.

All work, equipment, and labor shall be included in the below pay item and conform to Section 5.11.03 of the Prein&Newhof specification. This pay item shall include the cost of furnishing and installing new castings and adjusting rings and all costs associated with raising the structure to its final grade, and be paid per structure.

- *84 inch Storm Manhole*

Bid Proposal

Owner: Grand Haven Charter Township

Owner Address: 13300 168th Avenue, Grand Haven, MI 49417

Project Title: 172nd Storm Sewer Improvements

Bid Date & Time: August 7th, 2019 @ 10:00 a.m. Project #: 2190340

The undersigned, being familiar with the site, plans, specifications, and related documents, proposes to furnish all required labor, materials, tools and equipment to construct the project in accordance with the [unit prices/lump sum] on the following sheets.

Date Prepared: _____

Receipt of Addenda

Receipt of Addenda _____ through _____ is hereby acknowledged.

Summary of Bids

Total Bid \$ _____

The Owner reserves the right to accept or reject any or all bids and to waive any irregularities in the bidding. No partial bids will be accepted.

Contractors Signature

Contractor's Name

Business Address City Zip Code

Signature Title Date

Seal (if bidder is a corporation)

Bid Proposal - Unit Prices

Owner:

Grand Haven Charter Township

Project Title:

172nd Storm Sewer Improvements

Bid Date & Time:

Wednesday, August 7th, 2019 @ 10:00 a.m.

Project #:

2190340

Item No.	Description	Quantity	Unit	Unit Price	Total Amount
1	Pavement Removal	605	Syd	_____	_____
2	Concrete Curb and Gutter Removal	60	Ft	_____	_____
3	Storm Sewer Removal	317	Ft	_____	_____
4	54 inch Storm Sewer	154	Ft	_____	_____
5	48 inch Storm Sewer	163	Ft	_____	_____
6	84 inch Storm Catch Basin	1	Ea	_____	_____
7	7 inch Aggregate Base, 21AA	286	Syd	_____	_____
8	6 inch Aggregate Base, 21AA	319	Syd	_____	_____
9	HMA LVSP	83	Ton	_____	_____
10	HMA 13A	28	Ton	_____	_____
11	HMA 36A	28	Ton	_____	_____
12	Concrete Curb and Gutter, Type MDOT F4	60	Ft	_____	_____
13	6 inch Concrete Sidewalk Ramp	100	Sft	_____	_____
14	Detectable Warning Surface	13	Ft	_____	_____
15	Erosion Control, Silt Fence	410	Ft	_____	_____
16	Erosion Control, Inlet Protection Fabric Drop	1	Ea	_____	_____
17	4 inch Yellow Waterborne Pavt Mrkg	30	Ft	_____	_____
18	6 inch White Waterborne Crosswalk Pavt Mrkg	30	Ft	_____	_____

Item No.	Description	Quantity	Unit	Unit Price	Total Amount
19	Turf Restoration	1	Lsum		
20	Traffic Control	1	Lsum		
				Total Bid:	

Estimate of Probable Cost

Owner:

Grand Haven Charter Township

Project Title:

172nd Ave. Storm Sewer Improvements

Date:

July 2, 2019

Project #:

2190340

Item

<i>No.</i>	<i>Description</i>	<i>Quantity</i>	<i>Unit</i>	<i>Unit Price</i>	<i>Total Amount</i>
1	Pavement Removal	605	Syd	\$8.00	\$4,840.00
2	Concrete Curb and Gutter Removal	60	Ft	\$6.00	\$360.00
3	Storm Sewer Removal	317	Ft	\$35.00	\$11,095.00
4	54 inch Storm Sewer	154	Ft	\$225.00	\$34,650.00
5	48 inch Storm Sewer	163	Ft	\$205.00	\$33,415.00
6	84 inch Storm Catch Basin	1	Ea	\$8,000.00	\$8,000.00
7	7 inch Aggregate Base, 21AA	286	Syd	\$10.00	\$2,860.00
8	6 inch Aggregate Base, 21AA	319	Syd	\$10.00	\$3,190.00
9	HMA LVSP	83	Ton	\$100.00	\$8,300.00
10	HMA 13A	28	Ton	\$175.00	\$4,900.00
11	HMA 36A	28	Ton	\$175.00	\$4,900.00
12	Concrete Curb and Gutter, Type MDOT F4	60	Ft	\$30.00	\$1,800.00
13	6 inch Concrete Sidewalk Ramp	100	Sft	\$10.00	\$1,000.00
14	Detectable Warning Surface	13	Ft	\$50.00	\$650.00
15	Erosion Control, Silt Fence	410	Ft	\$5.00	\$2,050.00
16	Erosion Control, Inlet Protection Fabric Drop	1	Ea	\$200.00	\$200.00
17	4 inch Yellow Waterborne Pavt Mrkg	30	Ft	\$5.00	\$150.00
18	6 inch White Waterborne Crosswalk Pavt Mrkg	30	Ft	\$5.00	\$150.00
19	Turf Restoration	1	Lsum	\$2,500.00	\$2,500.00
20	Traffic Control	1	Lsum	\$25,000.00	\$25,000.00

Construction Estimate: **\$150,010.00**

Construction Contingency and Engineering: **\$40,000.00**

Total: \$190,010.00