

**ADDENDUM NUMBER #1**

<u>PROJECT</u>	<u>BIDS DUE</u>
Glen Lake Community School Septic System & Drainfield Replacement GFA Project No: 23025	Date: April 16, 2024 Time: 10:00 AM Location: Glen Lake Community School 3375 Burdickville Road Maple City, MI 49664

The Addendum is issued prior to the receipt of bid proposals to amend the Contract Documents as follows. Bidders shall acknowledge receipt of this addendum by means of acknowledging on Page 1 of the Bid Form (EJCDC C-410).

GENERAL

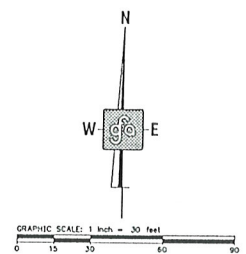
1. Clarification on limits of area to be cleared has been provided in attachment to this addendum as requested by contractor at Pre-Bid Meeting.
2. Proposed 8" gravity sanitary sewer crossing School access drive may NOT be directionally drilled. The sanitary sewer is required to be installed by methods of open cut due to the unknown location of existing utilities through this area.
3. All information regarding soil stockpiling and removal is provided on sheet C1.2 in Soil Erosion and Storm Water Control Notes. No soils are to be removed from site unless requested by owner or required due to soil conditions and/or excess excavation. Spoils are not to be stored on site.
4. Power source for proposed dosing pumps to be extended from existing Maintenance Building. Contract to coordinate with Electric Company. State Electrical Permit and Inspection WILL be required for this project.
5. Existing drainfield is to be abandoned in place.
6. Existing Specialty Landscaping areas will not be staked for construction, the existing Landscaping Plan is attached to this Addendum for reference. All specialty plantings are to be restored back to existing condition at the expense of the contractor. Any plantings damaged as a result of the project shall be replaced (in-kind) at no additional cost.
7. Technical specification Section 02900 Site Restoration has been provided for reference and use as applicable.
8. State Plumbing Permit and Inspection is not required for this project as confirmed with the State Building Code Office and the Local Health Department.

9. All restoration, including irrigation system restoration, is responsibility of the contractor.

### ATTACHMENTS

1. Limits of Clearing Site Plan
2. Park and Playground Landscaping Plan
3. Technical Specification 02900 Site Restoration

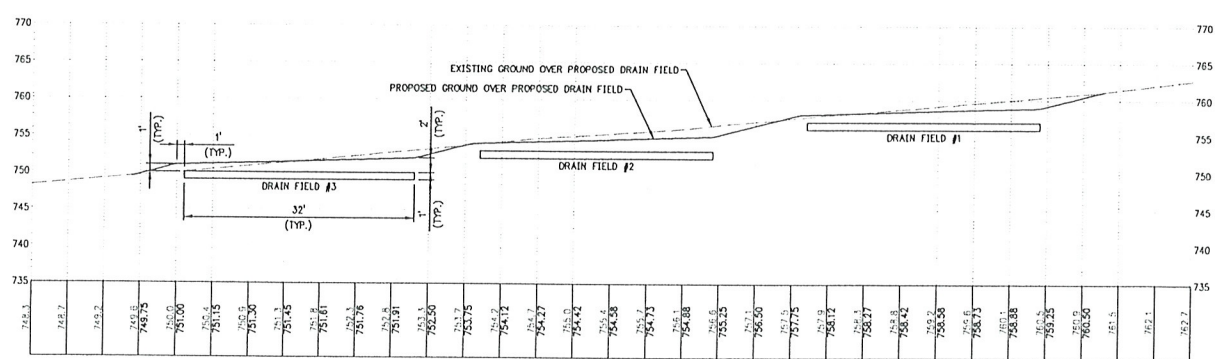
This Addendum No. 1 becomes part of the Contract Documents as of this date and supersedes the information in the originally issued Contract Documents where applicable. The Contractor shall acknowledge receipt of the Addendum in the Bid Schedule included with his/her bid.



**TEST PIT LOG**

- TP #1**  
0-10" LOAMY SAND TOPSOIL  
10"-2' LOAMY SAND  
2'-9" MEDIUM SAND W/ POCKETS OF SAND & STONE
- TP #2**  
0-10" LOAMY SAND TOPSOIL  
10"-6" LOAMY SAND  
6"-8" FINE TO MEDIUM SAND
- TP #3**  
0-10" LOAMY SAND TOPSOIL  
10"-3' LOAMY SAND  
3'-8" MEDIUM SAND
- TP #4**  
0-10" LOAMY SAND TOPSOIL  
10"-8" LOAMY SAND
- TP #5**  
0-10" LOAMY SAND TOPSOIL  
10"-8" LOAMY SAND
- TP #6**  
0-10" LOAMY SAND TOPSOIL  
10"-8" LOAMY SAND
- TP #7**  
0-10" LOAMY SAND TOPSOIL  
10"-2' LOAMY SAND  
2'-9" MEDIUM SAND W/ POCKETS OF SAND & STONE
- TP #8**  
0-10" LOAMY SAND TOPSOIL  
10"-6" LOAMY SAND  
6"-8" LOAMY SAND & GRAVEL
- TP #9**  
0-10" LOAMY SAND TOPSOIL  
10"-4" LOAMY SAND  
4"-8" MEDIUM SAND & GRAVEL

**DRAIN FIELD SECTION A-A**  
SCALE:  
HORIZONTAL: 1"=10'  
VERTICAL: 1"=10'



**DRAIN FIELD ELEVATIONS**

	FIELD #1	FIELD #2	FIELD #3
FINISH GRADE	758.0-759.0	754.0-755.0	751.0-752.0
BOTTOM OF STONE	756.00	752.00	749.00

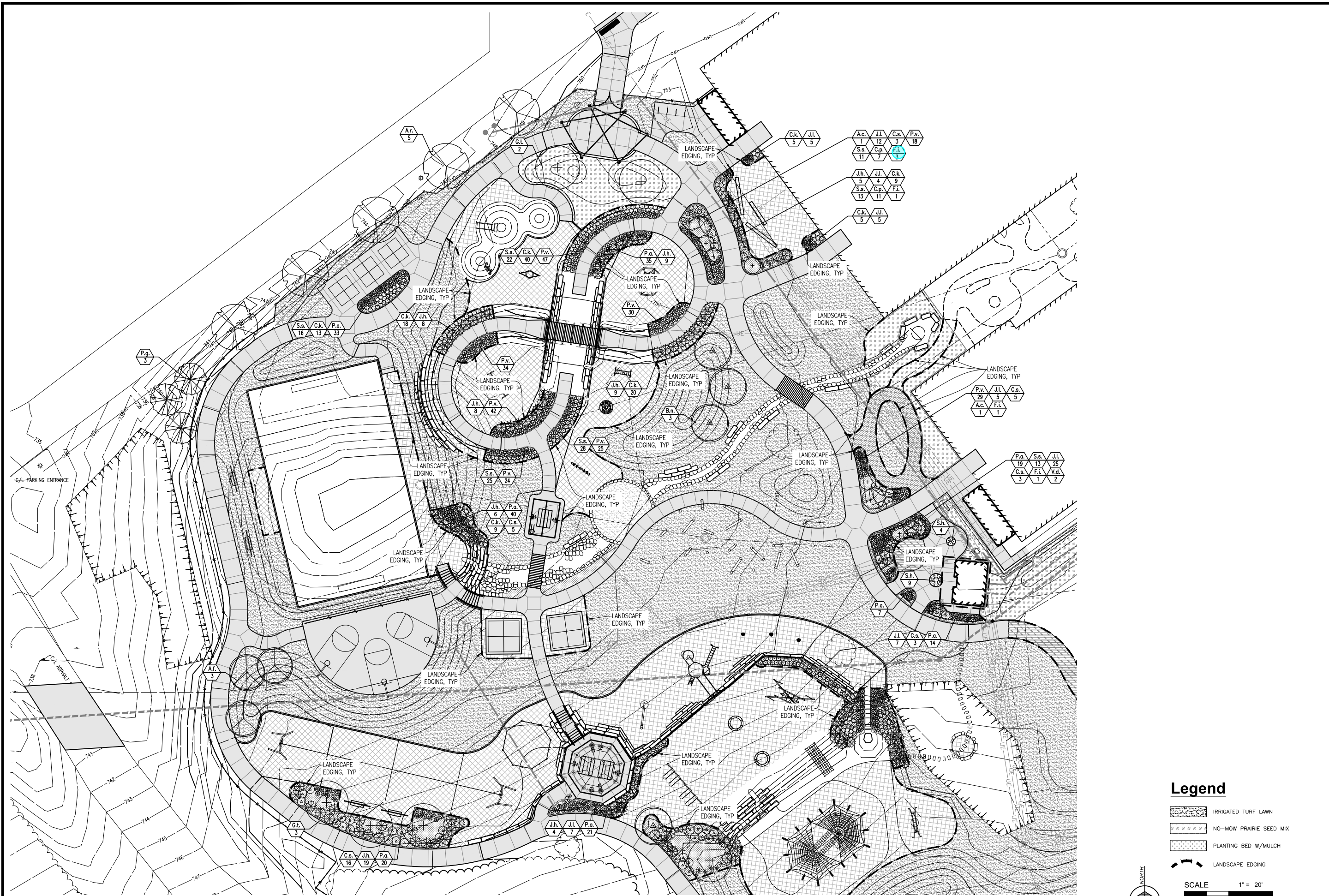
**ENGINEERING SURVEYING TESTING & OPERATIONS**
  
 123 West Front Street
   
 Traverse City, MI 49684
   
 http://gsoinc.com
   
 231.946.5874 (P)
   
 231.946.3703 (F)

NO.	DATE	BY	DESCRIPTION
1	12/15/2021	JAW	ISSUED FOR PERMITS
2	12/15/2021	JAW	ISSUED FOR PERMITS
3	12/15/2021	JAW	ISSUED FOR PERMITS
4	12/15/2021	JAW	ISSUED FOR PERMITS

**GLEN LAKE SCHOOL**  
**SEPTIC SYSTEM REPLACEMENT**  
**PROPOSED SOUTH SEPTIC PLAN**  
 SECTION 7, T.28 N., R.13 W.  
 KASSON TOWNSHIP, LEECLAND COUNTY, MICHIGAN

DRAWN BY: JAW/PJH  
 CHECKED BY: JAW/PJH  
 DATE: 12/15/21  
**23025**  
**C2.4**

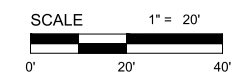
These documents are prepared in accordance with the contractual terms and conditions for this project.



**LANDSCAPE PLAN**  
SCALE: 1" = 20'

**Legend**

- IRRIGATED TURF LAWN
- NO-MOW PRAIRIE SEED MIX
- PLANTING BED W/MULCH
- LANDSCAPE EDGING



**Gosling Czubak**  
engineering sciences, inc.  
1280 Business Park Dr.  
Traverse City, Michigan  
231-946-9191 phone  
info@goslingczubak.com  
www.goslingczubak.com

CIVIL ENGINEERING  
SURVEYING  
ENVIRONMENTAL SERVICES  
GEOTECHNICAL  
CONSTRUCTION SERVICES  
DRILLING  
LANDSCAPE ARCHITECTURE

No.	Date	Revision	By

No.	Date	Revision	By

**LANDSCAPE PLAN  
PARK & PLAYGROUND  
GLEN LAKE COMMUNITY SCHOOLS**

Date Issued: 01-05-2021  
Date Surveyed: ---  
Designed By: KDH  
Drawn By: DAW  
Checked By: KDH  
Scale: AS SHOWN  
Original sheet size is 22x34

Location:  
SECTION 7  
T28N R13W  
KASSON TOWNSHIP  
LEELANAU COUNTY  
MICHIGAN

Project Number:  
2020707001.01

Sheet:  
**L1**

No.	Date	Revision	By

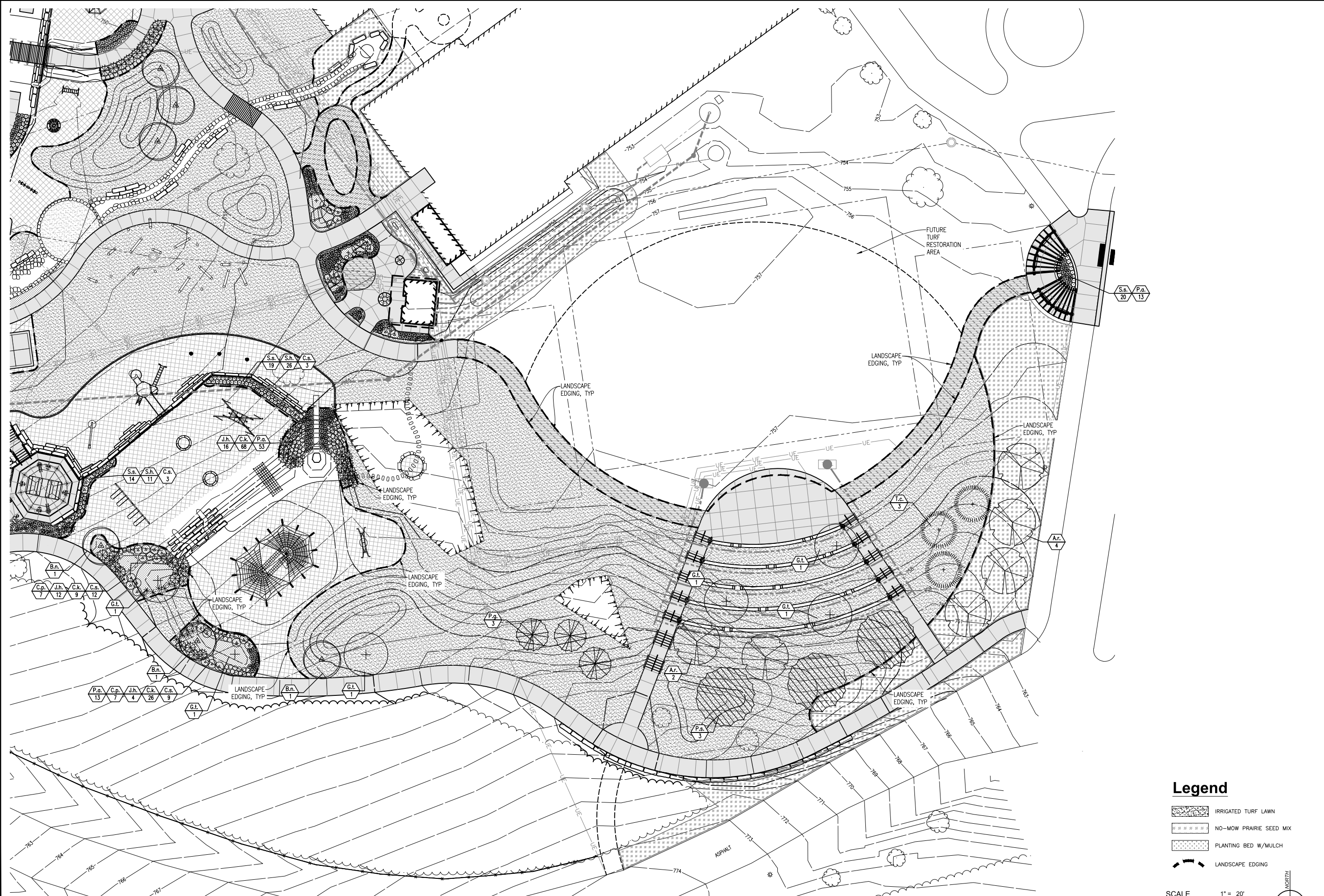
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**PARK & PLAYGROUND**  
**GLEN LAKE COMMUNITY SCHOOLS**

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 LEE LANAU COUNTY  
 MICHIGAN

Project Number:  
 2020707001.01

Sheet:  
**L2**



**LANDSCAPE PLAN**  
 SCALE: 1" = 20'

**Legend**

- IRRIGATED TURF LAWN
- NO-MOW PRAIRIE SEED MIX
- PLANTING BED W/MULCH
- LANDSCAPE EDGING

SCALE 1" = 20'

0' 20' 40'

NORTH

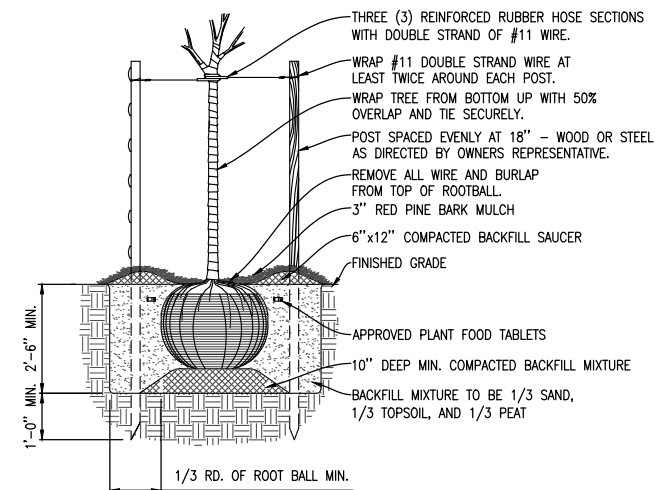
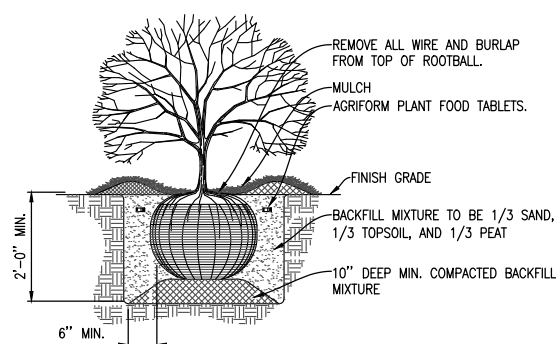
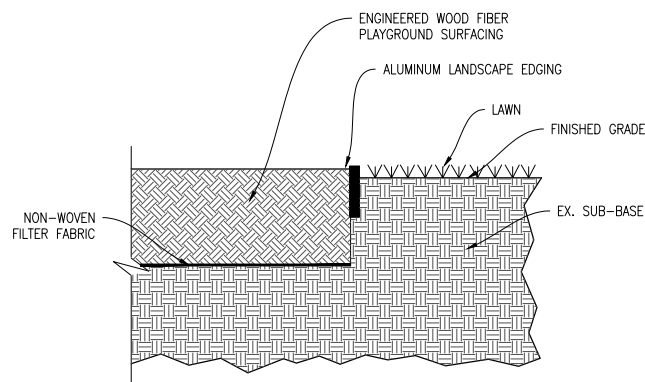
PLANT SCHEDULE

Key	Botanical Name Common Name	Size	Qty.	Notes
<b>LARGE DECIDUOUS TREES</b>				
A.r.	<i>Acer rubrum</i> 'October Glory' 'October Glory' Red Maple	3" Cal.	11	
A.f.	<i>Acer x fremanii</i> 'Autmn Blaze' Autumn Blaze Freeman Maple	3" Cal.	3	
A.c.	<i>Amelanchier canadensis</i> Shadblow Serviceberry	7' Ht. B&B	2	Multi-Stem (Min. 3 Stem)
B.n.	<i>Betula nigra</i> River Birch	7' Ht. B&B	6	Multi-Stem (Min. 3 Stem)
G.t.	<i>Gleditsia triacanthos</i> var. <i>inermis</i> 'shademaster' Shademaster Honeylocust	3" Cal.	11	
<b>EVERGREEN TREES</b>				
T.c.	<i>Tsuga canadensis</i> Canadian Hemlock	8'-10' Ht. B&B	3	
P.g.	<i>Picea glauca</i> 'densata' Black Hills Spruce	8'-10' Ht. B&B	6	
P.s.	<i>Pinus strobus</i> White Pine	8'-10' Ht. B&B	3	
<b>DECIDUOUS SHRUBS</b>				
V.d.	<i>Viburnum dentatum</i> Arrowwood Viburnum	#5 Pot	2	
F.i.	<i>Forsythia x intermedia</i> Border Forsythia	#5 Pot	6	
C.s.	<i>Cornus sericea</i> 'Insanti' 'Insanti' Red Osier Dogwood	#5 Pot	62	
<b>EVERGREEN SHRUBS</b>				
C.p.	<i>Chamaecyparis pisifera</i> 'Golden Mop' Gold Mop Threadleaf False Cypress	#3 Pot	32	
<b>GRASSES</b>				
S.s.	<i>Schizachyrium scoparium</i> Little Bluestem	#1 Pot	181	
P.a.	<i>Pennisetum alopecuroides</i> 'Hameln' Dwarf Fountain Grass	#1 Pot	268	
C.k.	<i>Calamagrostis x acutiflora</i> 'Karl Foerster' Feather Reed Grass	#1 Pot	222	
P.v.	<i>Panicum virgatum</i> 'Shenandoah' Shenandoah Switchgrass	#1 Pot	249	
S.h.	<i>Sporobolus heterolepis</i> Prairie Dropseed Grass	#1 Pot	50	
<b>GROUND COVERS</b>				
J.h.	<i>Juniperus horizontalis</i> 'Wiltonii' Blue Rug Juniper	#1 Pot	100	
J.l.	<i>Juniperus horizontalis</i> 'Lime Glow' Lime Glow Juniper	#1 Pot	70	

STAKE THE LOCATIONS OF ALL TREES AND MASS PLANTING AREAS AND OBTAIN APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. TREE LOCATIONS MAY BE ADJUSTED BASED ON THE FINAL CONFIGURATIONS OF THE ENTRANCES, SIGNAGE LOCATIONS AND EXTERIOR LIGHT STANDARD LOCATIONS. DO NOT OBSTRUCT SIGNAGE ON THE BUILDING. MAKE MINOR ADJUSTMENTS IN THE TREE LOCATIONS REQUIRED DUE TO LOCATIONS OF FIRE HYDRANTS OR OTHER UTILITY ITEMS.

General Landscape Notes

- CONTRACTOR SHALL ADEQUATELY DELINEATE PLANTING AREAS WITH MARKING PAINT OR OTHER APPROVED METHOD PRIOR TO INSTALLATION FOR APPROVAL BY LANDSCAPE ARCHITECT.
- REFER TO SPECIFICATION 02900 AND 02950 FOR LANDSCAPING, RESTORATION AND TURF GRASS INSTALLATION INFORMATION AND SPECIFICATION 02270 FOR EROSION CONTROL AND NETTED MULCH BLANKET INFORMATION.
- PROVIDE LANDSCAPE EDGING BETWEEN MASS PLANTING AREAS AND TURF/SEEDED AREAS AS INDICATED ON PLANS. PROVIDE SMOOTH FREEFORM CURVES FOR EDGE AS APPLICABLE. FINAL LAYOUT TO BE APPROVED BY LANDSCAPE ARCHITECT.
- PROVIDE EDGING EQUAL TO Sure-loc Brand ALUMINUM EDGING 3/8"x4", BROWN FINISH. PROVIDE SAMPLE OF ALUMINUM EDGING FOR APPROVAL BY LANDSCAPE ARCHITECT
- EXTERIOR SHRUBS AND GROUND COVER QUANTITIES SHOWN ON THESE PLANS ARE THE MINIMUM REQUIRED QUANTITIES. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE TO VERIFY QUANTITIES INDICATED ON THE PLANS. ALL EXTERIOR MASS PLANTING AND GROUND COVER BEDS ARE TO BE FULL WITH MATERIAL EQUALLY SPACED, AT THE DESIGNATED ON CENTER SPACING, AT THE TIME OF PLANTING. BEDS WHICH ARE NOT FULL AT THE TIME OF PLANTING, BASED ON THE DESIGNATED SPACING, SHALL HAVE ADDITIONAL MATERIAL ADDED AT NO EXPENSE TO THE OWNER.
- IN CASE OF A DISCREPANCY, THE NUMBER OF TREE/SHRUB SYMBOLS SHOWN ON THE PLANS SHALL TAKE PRECEDENCE OVER QUANTITY ON NUMERICAL LABEL OR PLANT SCHEDULE.
- PROVIDE A MINIMUM 3" DEPTH OF RED PINE LANDSCAPE MULCH (EQUAL TO RED PINE MULCH FROM TRAVERSE OUTDOOR, TRAVERSE CITY, MI) IN ALL PLANTING BEDS AS INDICATED ON PLANS. SUBMIT A SAMPLE OF THE MULCH TO THE LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION. FINISHED GRADE OF MULCH SHALL BE FLUSH WITH GRADE OF ALL ADJACENT PAVING AND CURBS TO ALLOW FOR SETTLING.
- THE LANDSCAPE CONTRACTOR SHALL PROVIDE PLANTING MIX FOR PLANTING MEDIUM FOR THE TREES AND SHRUBS. PROVIDE PLANTING MIX SAMPLE RATIO FOR APPROVAL BY LANDSCAPE ARCHITECT.
- THE OWNER SHALL PROVIDE A SOURCE OF WATER ON SITE AND WILL PAY ALL WATER COSTS. LANDSCAPE CONTRACTOR WILL FURNISH ALL NECESSARY HOSE EQUIPMENT, ATTACHMENTS AND ACCESSORIES FOR ADEQUATE IRRIGATION TO COMPLETE THE WORK SPECIFIED.
- COORDINATE THE LANDSCAPE INSTALLATION WITH THE EXTERIOR LIGHTING INSTALLATION. COORDINATE THE INSTALLATION WITH THE FINAL SITE PARKING AND PAVING PLAN. COORDINATE THE LANDSCAPE INSTALLATION TO INSURE VISIBILITY OF ALL TRAFFIC SIGNAGE. COORDINATE THE LANDSCAPE INSTALLATION WITH UTILITY LOCATIONS, ESPECIALLY CATCH BASINS, LIGHT STANDARDS AND FIRE HYDRANTS.
- STAKE THE LOCATIONS OF ALL TREES AND MASS PLANTING AREAS AND OBTAIN APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. MAKE MINOR ADJUSTMENTS IN THE TREE LOCATIONS REQUIRED DUE TO LOCATIONS OF FIRE HYDRANTS OR OTHER UTILITY ITEMS.
- TREES SHALL BE SELECTED WITH FORMS ADAPTABLE TO PLACEMENT ADJACENT TO SIDEWALKS AND VEHICULAR USE AREAS. TREES SHALL HAVE FORMS ADAPTABLE TO FUTURE PRUNING FOR PEDESTRIAN AND VEHICULAR CLEARANCE.
- ALL CONTAINER GROWN MATERIAL SHALL BE THOROUGHLY HAND WATERED UPON ARRIVAL, WHILE IN THE CONTAINERS, BEFORE PLANTING. DO NOT BIND OR STRAP THE TRUNKS IN THE REMOVAL FROM THE TRUCKS. PROTECT THE TRUNKS AT ALL TIMES.
- PROVIDE A MINIMUM 3'-0" DIAMETER TREE WELL WITH A 4" SAUCER FOR ALL TREES LOCATED IN TURF AREAS. PROVIDE 3" DEPTH OF MULCH INSIDE SAUCERS. REVIEW SUBSURFACE DRAINAGE CONDITIONS. INSTALL TREES "HIGH" IF NECESSARY, DUE TO SUBSURFACE CONDITIONS.
- PRUNE ANY ADDITIONAL TREES AS REQUIRED BY THE LANDSCAPE ARCHITECT, GENERAL CONTRACTOR OR OWNER.
- ALL MASS PLANTINGS SHALL BE EVENLY SPACED AS SHOWN ON PLANS TO ENSURE EVEN COVERAGE. SET PLANTS OFF CURBS AND WALKS TO PREVENT OVERGROWTH INTO UNWANTED AREAS.
- STRIP AND STOCKPILE TOPSOIL IN LOCATION APPROVED BY THE PROFESSIONAL. DO NOT STRIP TOPSOIL FROM AREAS TO BE RESTORED WITH NATIVE SEED EXCEPT IF DISTURBED BY EARTHWORK OR FOR NEW RETENTION AREAS AS INDICATED ON THE PLANS.



Revision				No.	Date	By

LANDSCAPE DETAILS  
PARK & PLAYGROUND  
GLEN LAKE COMMUNITY SCHOOLS

SECTION 02900  
SITE RESTORATION

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes:
1. Work necessary to restore all disturbed surfaces and areas receiving erosion control blanket. Final seed bed preparation (raking) shall be conducted by contractor and be approved by ENGINEER prior to seeding and mulching.
  2. Work necessary to complete seeding for turf areas and no-mow seed areas.
  3. Provide, establish, and maintain seed, mulch, and erosion control materials.
- B. Related Sections
- |       |                         |
|-------|-------------------------|
| 01025 | MEASUREMENT AND PAYMENT |
| 02200 | EARTHWORK               |
| 02270 | EROSION CONTROL         |
| 02950 | LANDSCAPING             |

1.02 UNIT PRICES

All work under this Section shall be considered incidental to the work unless specifically indicated on the BID SCHEDULE and referred to in Section 01025 MEASUREMENT AND PAYMENT.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Topsoil: Provide topsoil as specified in Section 02200 EARTHWORK.
- B. Common Restoration seed mix for disturbed areas: Provide seed information, mix specifications and seeding rate prior to approval and purchase of material. Provide seed mixture composed of the following proportion by weight, or approved equal: MDOT TDS Mix
- C. No-Mow Low-Profile Grass Mix: Seed mixture shall be **Low-Profile Prairie** seed mix supplied by Cardno Native Plan Nursery ([www.cardnonativeplantnursery.com](http://www.cardnonativeplantnursery.com), (574) 586-2412) and sowed at suppliers recommended PLS rate (minimum 39 PLS lbs./acre). Installation and establishment requirements attached at the end of this section. Provide seed information, mix specifications and seeding rate prior to approval and purchase of material. Apply per Cardno specific installation and maintenance procedures attached in this specification.
- D. Fertilizer:
1. Use fertilizer for turf grass areas only; DO NOT use in no-mow and stormwater seed areas.
  2. Provide chemical fertilizer with a 1-1-1 or 1-2-1 ratio of Nitrogen (N), Phosphoric Acid (P<sub>2</sub>O<sub>5</sub>), and Potash (K<sub>2</sub>O). P
  3. Provide net weight of contents, fertilizer specification and guaranteed analysis (soil test) for approval.
  4. Fertilizer available through Tri-Turf of Traverse City, MI. (800) 636-7039
- F. Mulching: Provide wood fiber mulch on all turf grass areas. Straw mulch conforming to MDOT Specification 8.21.11 is optional only if approved by the Engineer.
- F. Netted mulch blanket - refer to section 02270 EROSION CONTROL

PART 3 EXECUTION

3.01 TOPSOIL PREPARATION

- A. General:
1. Strip, screen, and stockpile topsoil for all irrigated lawn areas as called for in the plans.
  2. Prepare topsoil after finish grading of surfaces.
  3. Prepare soil to a friable condition by tilling, disking, harrowing, or otherwise loosening the soil to a depth of 4 inches.
  4. Break up all lumps of soil.
  5. Rake out all stones, rocks and debris larger than ¾”.

3.02 FERTILIZING

- A. Apply evenly on the prepared surface at a rate of 240 pounds per acre.
- B. Drill or broadcast method, placed no deeper than 1 inch.

3.03 SOWING TURF GRASS AND NO-MOW SEED

- A. Sow turf grass at a minimum rate of 150-175 pounds per acre, low maintenance at a minimum rate of 220 pounds per acre, or per suppliers recommendations as approved by the Professional.
- B. Method:
1. Sow the seed following or in conjunction with the fertilizer.
  2. Sow only while soil is in a friable condition.
  3. Do not sow through mulch.
  4. Sow seed mixture by mechanical broadcast method.
  5. Float seed sown by broadcast method so that 50% of the seed is mixed with the top ½” inch of the soil.
- C. Hydro-seeding:
1. Apply in 2-step process:
    - a. Apply seed with water and work into top inch of soil.
    - b. Apply wood fiber mulch after seeding with tackifier, final mulching method to be approved by LANDSCAPE ARCHITECT prior to installation.
    - c. Apply fertilizer with seed or before seeding. Work fertilizer into the top 2” of topsoil.
  2. Apply at a rate of 1440 pounds per acre for wood fiber mulch.
- D. Watering:
1. Water all seeded areas to establish a smooth and full vegetative cover. **IMPORTANT:** water application must occur to keep seed in a damp condition until germination takes place.
  2. Should erosion occur or the seed not grow within the guarantee period, re-grade and reseed the disturbed area at no additional cost.
- E. Seasonal limitations:
1. Apply seed between May 1 and September 1.
  2. Dormant seeding:
    - a. Permitted in limited areas to complete a project.
    - b. Apply after October 1, but not on frozen ground.

3.04 GROW-IN PROGRAM

- A. The Contractor is to provide an outline of a grow-in and post-installation site management program for the maturation of the seeded areas from the time that the seeding is completed until



one year later (to be renewed annually as negotiated) – the contractor will include labor and equipment necessary to complete the grow-in from one year of contract closeout. This grow-in program should be complete including monitoring for weed control, watering, controlled burns or mowing, exotic and invasive species eradication **and until density is obtained.**

- B. Indicate the name of the person that will be primarily in charge of this maintenance operation and the name of any subcontractors that will be providing the maintenance for the prairie / native seeding areas.
- C. Timing and duration of the grow-in program to be included in bid should commence immediately after contract closeout has occurred and conclude 1 year from that date or when all parties have agreed density is obtained, whichever is first.

#### 3.04 MULCHING

- A. Apply at a rate of 2 bales per 1000 square feet.
- B. Method:
  - 1. Apply immediately after seeding.
  - 2. Apply evenly and loose enough to allow sunlight and air to penetrate, but thick enough to reduce the rate of evaporation and erosion.
  - 3. Apply mulch adhesive as necessary at a rate of 150 gallons per acre.

END OF SECTION