

# Request for Proposal (RFP)

## 2025 Sinking Fund: 2026 Site & Paving Work

**CLIENT:** Madison District Public Schools  
**DATE:** April 29, 2026

### SUBMISSION INFORMATION

<b>PROJECT DESCRIPTION:</b>	Contractor Services for Site & Pavement Work for Madison District Public Schools Sinking Fund Program
<b>OWNER/CLIENT:</b>	Madison District Public Schools 26550 John R. Road Madison Heights, MI 48071
<b>NON-MANDATORY PRE-PROPOSAL MEETING:</b>	Tuesday, May 12, 2026, at 2:00 PM EST starting at: Madison High School, 915 E. 11 Mile Madison Heights, MI 48071, then moving to: Wilkinson Middle School 26524 John R Rd, Madison Heights, MI 48071
<b>CLARIFICATIONS TO OWNER'S REPRESENTATIVE:</b>	Ron.zuhorski@plantemor.com
<b>LAST DATE FOR CLARIFICATIONS:</b>	Thursday, May 14, 2026 @ 2:00PM EST
<b>PROPOSAL DUE DATE:</b>	Tuesday, May 20, 2026 @ 2:00PM EST
<b>SUBMIT HARD COPY PROPOSAL TO:</b>	Mr. Ricky Malak Safety, Security, and Facilities Manager Madison District Public Schools 26550 John R. Road Madison Heights, MI 48071
<b>BIDDER INTERVIEWS:</b>	As Required and by invitation only week of May 25, 2026. Exact time and date to be determined.

## PROPOSAL DETAILS

Madison District Public Schools (MD) located in Madison Heights, Michigan provides a standard, traditional curriculum to a student body ranging from pre-kindergarten through the 12th grade. On November 5, 2025, the District’s voters passed a Sinking Fund which will run for 10 years until December 1, 2034. The funds levied will be used to improve facilities and infrastructure over life of the Sinking Fund program. This project is a part of those Sinking Fund improvements.

Madison District Public Schools (hereafter referred to as “Owner”) has engaged Plante Moran Realpoint (hereafter referred to as “PMR” or “Owner’s Representative”) to provide owner’s representation services for this project. Your firm is invited to submit a proposal for the services required in this request for proposal (RFP).

This RFP is a hybrid procurement combining price and qualifications. Award will be made to the responsive and responsible proposer whose proposal is determined to be most advantageous to the Owner, considering price, experience, capacity, and other factors. Price is not the primary determinant of award.

This RFP is being publicly advertised and includes minimum qualifications that must be met or exceeded. This RFP includes the following attachments:

- A. Project Scope
  - 1. Project Details
- B. Contract Documents
  - 1. Drawings and Specifications as prepared by Spalding DeDecker Engineering and Surveying:
    - i. Wilkinson Middle School (five drawing sheets)
    - ii. Madison High School (four drawing sheets)
    - iii. Project Manual (105 pages)
  - 2. Standard Form of Agreement AIA A105-2017, as modified
- C. Proposal Forms
  - 1. Proposal Form
  - 2. Familial Disclosure Statement
  - 3. Iran Disclosure Statement
  - 4. Non-Collusive Affidavit
  - 5. Criminal Background Disclosure Affidavit

This RFP does not commit Owner to award a contract or to undertake any financial obligation whatsoever with respect to the requirement referred to herein. Owner reserves the right to reject any proposal with or without cause, to not award a contract, or to award one or more contracts. Owner further reserves the right to waive any irregularity or informality in this RFP process or any proposal. Owner reserves the right to accept or reject, without consideration, any proposal which arrives late. Owner reserves the right to request additional information from any or all firms. In addition, notice is hereby given of the possibility that award may be made without discussion of the proposal. In the event a firm's proposal is accepted by Owner and the firm asserts exceptions, special considerations, or conditions after acceptance, Owner, in its sole and absolute discretion, reserves the right to thereafter reject the proposal and award another firm. Therefore, the firms should submit their best proposal initially from both technical and cost standpoints.

## A. PRE-PROPOSAL

- a. **CONFIDENTIALITY** — From the issue date of the RFP until a firm is selected and selection is announced, a prospective firm shall not communicate about the subject of the RFP or a firm's proposal with Owner, its board, or employees, except as permitted by the requests for clarifications paragraph. Your proposal and any modifications thereto shall be submitted only to the person(s) listed on the front page. Failure to comply strictly with Owner's instructions regarding the content and manner of submission of a proposal including, without limitation, disclosure of any information in the proposal or modifications thereof to any third party or other Owner's staff without the express, prior written approval of the Owner's Representative, shall result, at owner's sole discretion, in the immediate disqualification of the firm.
- b. RFP documents may be obtained at the e-Builder website created by PMR and noted on front page. Please contact Kathryn Newkirk at (248) 223-3070 or via email at [kathryn.newkirk@plantemoran.com](mailto:kathryn.newkirk@plantemoran.com) for e-Builder access instructions should you encounter any difficulties.

## B. ADDENDA

Any addendum to this RFP will be issued in writing by PMR on behalf of Owner. No information or representation other than that contained in such an addendum, whether received from an employee of Owner or other person, will be considered to have been modified or be grounds for deviation from any stipulation or requirement of this RFP.

## C. PROPOSAL FORMAT

Prepare and submit three (3) copies of your proposal package to the designee listed on the first page. Packages should be in 8.5" x 11" format.

The following proposal format is required:

- Cover Letter
- Section 1 – Proposal Forms
- Section 2 - Project Schedule for Defined Work Scope
- Section 3 – Bid Bonds Information
- Section 4 – Clarifications and Exceptions
- Section 5 – Additional Information (if any)

### SECTION 1 – PROPOSAL

- Utilize the proposal forms provided as attachments to this RFP. Editable electronic versions of these forms may be obtained at the location indicated on front page.

### SECTION 2 – PROJECT SCHEDULE FOR DEFINED WORK SCOPE

- Provide three proposed project schedules as requested in Project Details attachment.

### SECTION 3 – BID BONDS INFORMATION

- A bid security, cashier's check or certified check in the amount of five percent (5%) of the bid amount is required to be included with your proposal submission and shall be made payable to Madison District Public Schools.

### SECTION 4 - CLARIFICATIONS AND EXCEPTIONS

- Detail any clarifications, exceptions, or exclusions to this RFP (scope, schedule, fee, etc.)
- List any and all exceptions taken to the contract documents provided. For each exception, alternative language must be proposed. Owner reserves the right to reject any proposed alternative language.
- The prevalence of these exceptions will be considered in reviewing the proposal and in the final selection of the firm for the project. Proposals that do not acknowledge these agreements or do not provide specific alternative language may be rejected.

### SECTION 5 – ADDITIONAL INFORMATION

- Please include any additional relevant information.

## D. PROPOSAL SUBMISSION

Sealed proposals for the work, as described by the RFP package, will be received as noted on the front page. Please mark the envelope of all proposals with “Madison District Public Schools - Proposal for Concrete Replacement Contracting Services” and include your firm’s name as well. Please also follow the specific instructions related to electronic submission.

## E. RESPONSIVENESS

To be responsive, the proposal must set forth full, accurate, and complete information as required by this RFP and all attachments.

## F. MINIMUM QUALIFICATIONS

In addition to the other requirements of this RFP, the following minimum qualifications must be met by your firm in order to submit a proposal:

- Firm has been in business for at least the last five (5) consecutive years.
  - Firm is licensed to perform the required work in the State of Michigan.
  - Firm is familiar with and has experience in the public sector, including have at least five (5) Public sector clients in the last five (5) years.
1. Firm has completed concrete/paving projects of at least \$250,000 for at least five (5) Public sector clients within the last ten (10) years.

## G. FORM OF AGREEMENT

This is a request for proposal only. Proposals will be treated as offers to enter into contract with Owner. Owner and successful firm shall memorialize their contractual relationship and obligations using the form of contract attached to this RFP (“Contract”). The Contract contains many details regarding the services required under this RFP, as well as the terms and conditions under which the services shall be provided by the successful firm. The Contract should be reviewed carefully by each firm prior to submitting a proposal. Any exceptions to the terms and conditions contained in the Contract, or any other special considerations or conditions requested or required by the firm relative to this RFP or the form of Contract, shall be expressly and specifically enumerated by the firm and be submitted as part of its proposal, together with an explanation as to the reason such terms and conditions cannot be met by, or, in the firm’s opinion are not applicable to, the firm, provided however, that exceptions or special conditions of the firm will not be binding upon Owner unless those exceptions or special conditions are expressly accepted by Owner and incorporated into the final Contract. Following the selection of the successful firm, if any, by Owner, the

Contract will be finalized by the parties. The final Contract shall be subject to the review and approval by Owner’s legal counsel.

## H. DATA CONFLICTS

Where conflicts occur within this RFP, its contents, and addendum (including but not limited to the Standard Form of Agreement; general, supplemental, and other conditions; etc.) the more restrictive requirements shall govern — all in favor of the Owner.

## I. UNSOLICITED TERMS AND CONDITIONS

Proposals which take exception to Owner’s terms and conditions as a whole and substitute the firm’s standard terms and conditions may be rejected.

## J. EVALUATION OF PROPOSALS

Proposals will be evaluated based on overall best value to the District considering responsiveness, relevant experience, capacity, contract exceptions, and proposed pricing, and while price is an important factor and may be determinative where proposals are otherwise equal, the District reserves the right to award to the proposer whose proposal is determined to be most advantageous and in the District’s best interest.

Some considerations in the District’s best interest:

- Responsiveness and completeness
- Relevant experience with public-sector concrete/paving work
- Proposed pricing (lump sum and unit prices) is not the main determinate
- Capacity to perform work within required timeframes
- Number and scope of contract exceptions

Although issued as a Request for Proposal, this procurement is price-focused. Award may be made to the lowest responsive and responsible proposer, or otherwise in the best interest of the District as permitted by law. It shall be the Owner’s right to award either the defined scope and the IDIQ scope individually or jointly or not at all.

## **K. FEES/TAXES**

All proposals shall include all applicable taxes, including Social Security, unemployment, sales or use taxes, and any other taxes specifically levied on the work or on wages by local, city, state, or federal government, except real property taxes on the site. Proposals shall also include all premiums, assessments, and other like payments, charges, and costs incidental to the work covered by the contract documents.

## **L. PROPOSAL COSTS**

Any recipient of this RFP, or any firm who chooses to respond to this RFP, is responsible for any and all costs and liabilities incurred by it, or others acting on its behalf, in (1) preparing or submitting a proposal, (2) otherwise responding to this RFP, or (3) negotiating any Contract incidental to its proposal.

## **M. IRREVOCABILITY OF PROPOSALS**

All proposals submitted may not be withdrawn and shall be irrevocable for a minimum period of ninety (90) calendar days following the due date for receipt of proposals set forth on the front page.

## **N. AUTHORITY TO SIGN**

Proposals must be signed by an officer of the firm who is authorized to enter into binding agreements.

## **O. OPENING OF PROPOSALS**

At the specified location and due date stated on the first page, all submitted proposals shall be publicly opened, read aloud and dated. Any interested parties may attend. No immediate decision will be rendered.

## Attachment A1: Project Details

<b>PROJECT DESCRIPTION:</b>	<p>To support the District's endeavor to provide a quality learning environment, the District requires both an immediate “Defined Work Scope” of site work as described in the attached set of engineering documents and also an “Indefinite Delivery, Indefinite Quantity” (IDIQ) quantity of site work to be done on an annual basis.</p> <p>The amount of IDIQ work to be completed on an annual basis is estimated to be approximately \$100,000 per year for a total of \$500,000 over a five year period.</p> <p>The intention of this RFP is to secure a contractor for the Defined Scope of Work and competitively bid and fix in hourly labor and unit rates for various scopes of site work services for the IDIQ including:</p> <ol style="list-style-type: none"><li>1. Concrete</li><li>2. Asphalt</li><li>3. Miscellaneous as needed</li></ol> <p>The need for each specific category of Services will vary annually based on various factors. All responding vendors must self-perform the work bid and will be expected to coordinate with other District vendors and staff. Work is anticipated to occur throughout each year, but it is anticipated that most of the work will occur during the summer between academic calendar years.</p> <p>Contractor to provide labor, materials and equipment required for the concrete removal and replacement. If required, permit applications for soil work, grading, pavement, curb-cuts, etc. Contractor shall also attend necessary meetings to coordinate and accomplish work.</p> <p>Some work will require contractors to work within or adjacent to occupied spaces dependent to the needs of each specific assignment. Vendors may be required to erect temporary barricades to perform work in occupied spaces to meet</p>
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	<p>assignment schedule or objectives. Vendor is expected to provide protection of adjacent surfaces/equipment to the work area and must properly clean areas of work and adjacent or impacted areas.</p> <p>Vendor shall furnish all necessary labor, materials, equipment, transportation, supplies, travel, tools, insurance and waste removal (disposal/removal/recycling/toilet provisions) rental for the work. Vendor must furnish adequate personnel as required to perform an assignment in a timely fashion. Vendor must include a bid bond of 5% of any one work scope package proposed. A Performance and Payment Bond will be required for any work exceeding \$50,000.00 for either the Defined Work Scope or IDIQ work packages.</p> <p>The District, in its sole discretion, may award one or multiple vendors, to accept or reject any bid in whole or part, to waive any informalities in the bidding process, and to award a contract to other than the lowest bidder. The agreement with the selected vendor(s) and the District will be a one-year agreement that may be renewed at the District's sole discretion for (4) subsequent one-term years. The District may award assignments of work as it sees fit and does not constitute any guarantee of a minimum quantity of work performed for each year or per category.</p> <p>Selected vendor will be required to submit to background screening and comply with Madison District badging policies for all vendor personnel who will work on District property.</p> <p>All labor and materials/equipment as furnished and installed for the work must be warranted for a minimum of one-year from the assignment completion date.</p> <p>Construction will comply with all applicable codes, ordinances, regulations, etc., as enforced by the local, county, state, or relevant federal agencies.</p>
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	<p>Selected vendors will need to work with the District and District's other vendors and consultants, including District's Representative, A/E partners, etc. in order to coordinate and integrate the different portions of the Project.</p> <p>Where a conflict exists between any code and the design or standard, the vendor shall consult with the District and their A/E for clarification of conflicts.</p> <p>There are no Prevailing Wage requirements for this program.</p>
<p><b>SCHEDULES:</b></p>	<p><b>Defined Work scope:</b></p> <p>Successful contractor shall perform and close out the work in a “block of time” not more than two continuous weeks in duration. Included in bid, the Contractor shall offer the District three (3) different alternate blocks of time to do the work from which the District will select. These blocks of time shall be between the first and last possible days of construction as indicated below:</p> <ul style="list-style-type: none"> <li>• First possible day of construction: Last school day of 25/26 year: June 10, 2026</li> <li>• Last possible day of construction: Start of Classes 26/27 year: September 2, 2026</li> </ul> <p><b>IDIQ Work scope:</b></p> <p>Initial year to begin approximately September 1, 2026 and close out August 31, 2027. At District’s options, IDIQ work contract to be renewed each subsequent year for four (4) consecutive years ending August 31, 2031. No milestone schedule will be furnished for IDIQ Work within this RFP as specific needs are undetermined at the time. Work for a specific assignment is known, the District will issue assignment specific schedules.</p>
<p><b>PROJECT LOCATION/SITE INFORMATION:</b></p>	<p>Multiple schools throughout the district</p>

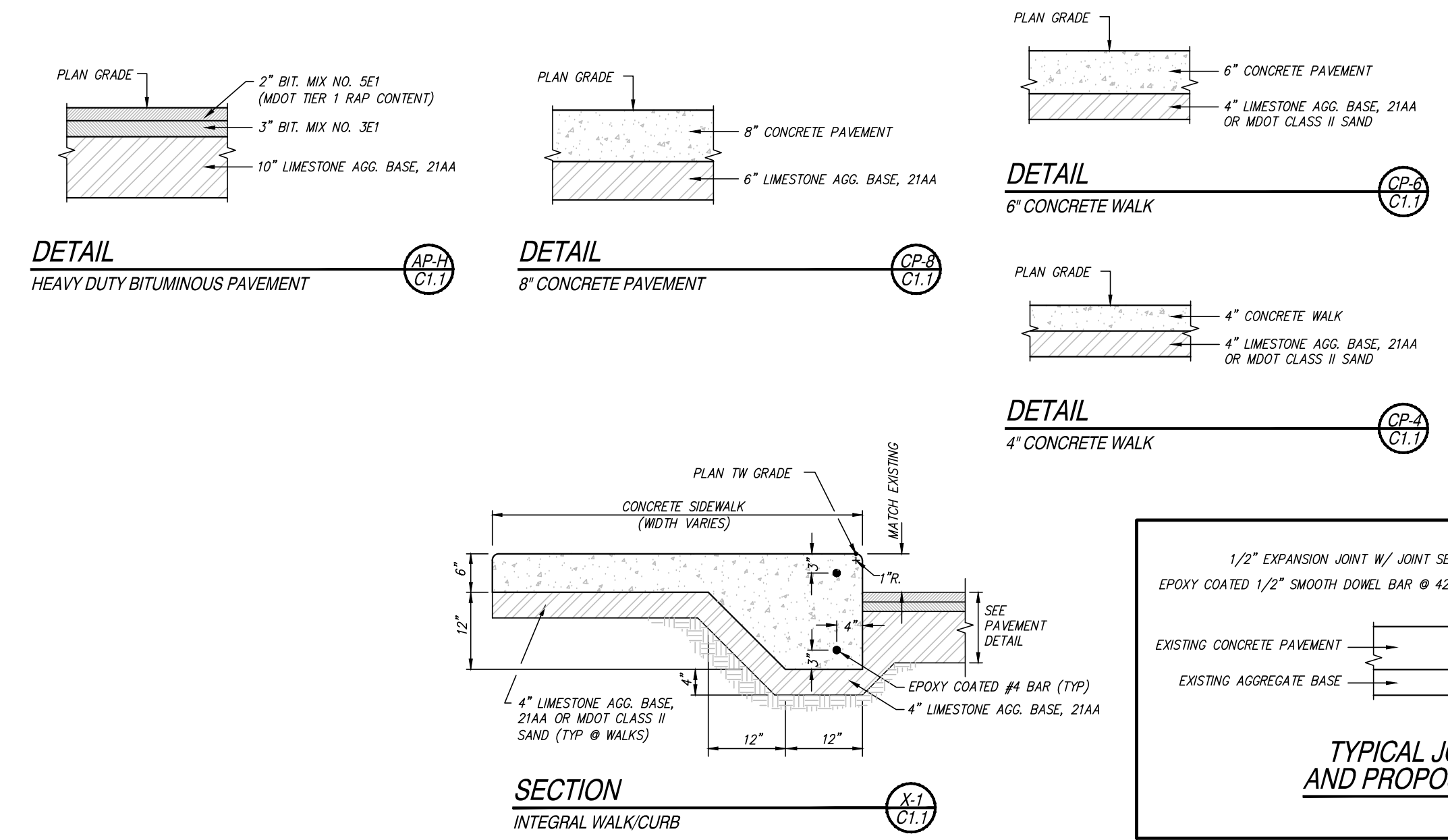
**ATTACHMENT B1:**

**Drawings and Specifications  
as prepared by  
Spalding DeDecker Engineering and Surveying:**

**i. Wilkinson Middle School (five sheets)**

**ii. Madison High School (four sheets)**

**iii. Project Manual (105 pages)**



**DEMOLITION NOTES - CONCRETE REPAIRS**

REMOVE CONCRETE PAVEMENT TO FULL DEPTH. SAWCUT FULL DEPTH TO NEAREST JOINT WHERE NEW PAVEMENT WILL BE PLACED ADJACENT TO EXISTING PAVEMENT.

REMOVE ASPHALT PAVEMENT TO FULL DEPTH. SAWCUT FULL DEPTH WHERE NEW PAVEMENT WILL BE PLACED ADJACENT TO EXISTING PAVEMENT. EXCAVATE EXISTING AGGREGATE BASE AND SUBGRADE AS NECESSARY TO INSTALL NEW PAVEMENT SECTION AS SHOWN ON THE PAVING PLANS.

ALL DEPRESSIONS CREATED BY DEMOLITION PROCEDURES SHALL BE BACKFILLED WITH CLASS II FILL MATERIAL, IN 8" LIFTS COMPACTED TO 95% OF MAXIMUM UNIT WEIGHT, UP TO PROPOSED SUBGRADE.

CONTRACTOR IS RESPONSIBLE FOR DOING AN EARTHWORK CALCULATION FOR CUT AND FILL REQUIREMENTS, AND IS RESPONSIBLE FOR INCLUDING IMPORT AND EXPORT OF MATERIALS IN THEIR BID. ALL EXCESS MATERIAL (INCLUDING TOPSOIL, CLEAN FILL, AND WASTE MATERIAL) SHALL BE REMOVED FROM THE SITE.

EXISTING SUPPORTED SLABS AT BUILDING ENTRY/DOORS TO REMAIN, UNLESS OTHERWISE DIRECTED. CONTRACTOR TO VERIFY LIMITS OF EXISTING SUPPORTED SLAB AND REMOVE ADJACENT WALKS AS SHOWN ON PLANS.

CONTRACTOR TO PROTECT EXISTING WALKS, PAVEMENT, CURBS, GUTTERS, WALLS, FENCES, GATES, LANDSCAPING AND TREES TO REMAIN DURING CONSTRUCTION.

**GRADING NOTES**

- CONTRACTOR TO PLACE ALL NEW PAVEMENT TO THE GRADES INDICATED, OR MATCH ORIGINAL GRADES IF NEW GRADES ARE NOT SHOWN. CONTRACTOR SHALL CONFIRM MINIMUM 1% PAVEMENT SLOPES ARE ATTAINED IN ALL AREAS.
- PROPOSED GRADES MAY BE BASED ON AN INTERPOLATION OF DATA SHOWN ON THE TOPOGRAPHIC SURVEY. THIS INTERPOLATED DATA IS APPROXIMATE AND COULD DIFFER SLIGHTLY BASED ON THE ACCURACY OF THE SURVEY. CONTRACTOR SHALL CONFIRM THAT THE PROPOSED GRADES SHOWN ON THIS PLAN WILL NOT CREATE A STANDING WATER CONDITION (I.E. A LOW SPOT) OR PAVEMENT SLOPES LESS THAN 1% OR AN UNSAFE CONDITION WITH SLOPES IN EXCESS OF 8%. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF THEY BELIEVE THAT ONE OF THESE SITUATIONS WILL OCCUR BASED ON THE PROPOSED GRADES.
- ALL PAVEMENT PLACED WITHIN HANDICAP PARKING AREAS (STALLS AND ACCESS AISLES) SHALL HAVE A MAXIMUM SLOPE OF 2% IN ANY DIRECTION, INCLUDING MEASURED DIAGONALLY ACROSS THE AREAS. CONTRACTOR SHALL ADJUST SLOPES AS NECESSARY TO PROVIDE ADA COMPLIANT SLOPES AS WELL AS PROVIDING RE-GRADED TRANSITION SLOPES OUTSIDE OF THE HANDICAP PARKING AREAS. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF TRANSITION ZONES WILL EXCEED MAXIMUM 5% SLOPES. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE PATTERNS WITH ALL NECESSARY PAVEMENT RE-GRADED.
- ALL HANDICAP RAMPS AND ADA ACCESSIBLE ROUTES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT VERSION OF MDOT DETAIL R-28 "SIDEWALK RAMP AND DETECTABLE WARNING DETAILS".
- CONTRACTOR IS RESPONSIBLE FOR CONTROLLING STORM WATER RUNOFF DURING CONSTRUCTION OPERATIONS. OF PARTICULAR CONCERN WILL BE THE TIME PERIOD AFTER THE SITE HAS BEEN STRIPPED AND NOT YET RESTORED, BUILT UPON, OR PAVED. CONTRACTOR MUST INSTALL OR CONSTRUCT APPROPRIATE TEMPORARY MEASURES TO PROTECT ADJACENT PROPERTIES.

**RESTORATION NOTE**

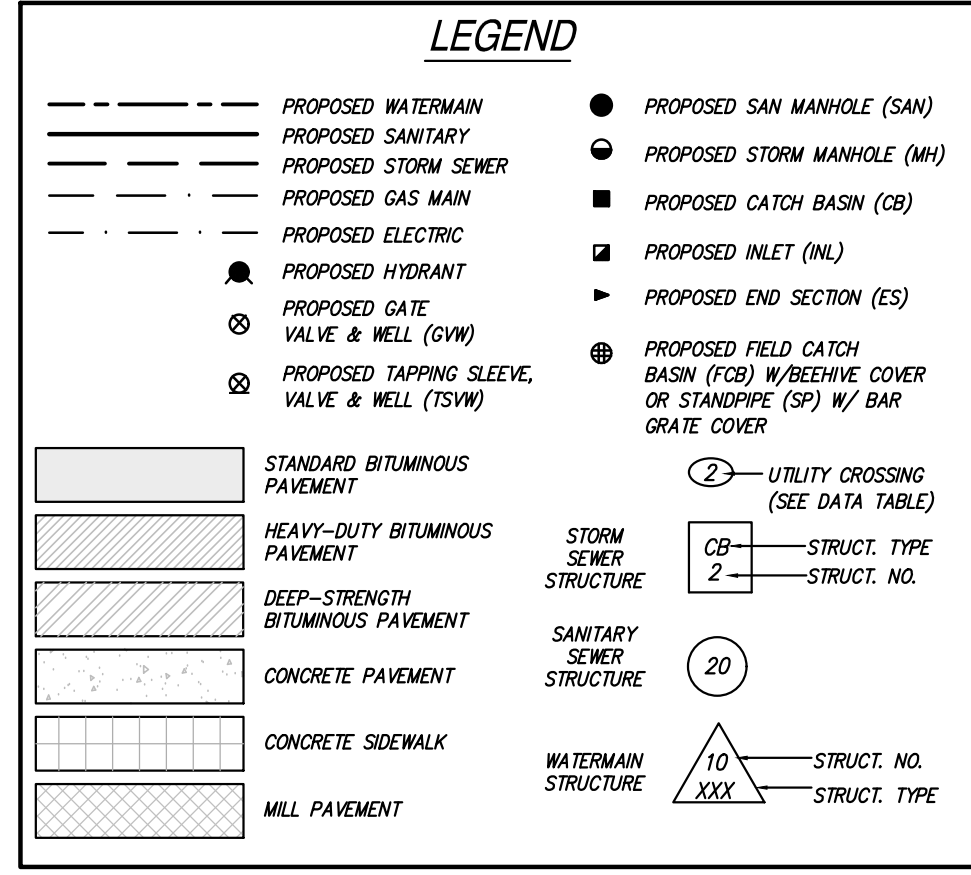
RESTORE ALL NON-PAVED AREAS WITH 3" OF CLEAN TOPSOIL AND SEED MIX (30% KENTUCKY BLUEGRASS, 30% PERENNIAL RYEGRASS, 30% CREEPING RED FESCUE). PLACE MULCH IN ALL SEED AREAS. ON SLOPES IN EXCESS OF 10% HORIZONTAL TO 1 VERTICAL, PLACE NORTH AMERICAN GREEN DISTRI MULCH BLANKET IMMEDIATELY AFTER SEEDING. USE METAL STAPLES PER MANUFACTURER'S RECOMMENDATIONS TO HOLD MATING IN PLACE.

**CONCRETE ENTRY SLABS**

AT EXISTING DOORS, REUSE EXISTING CONCRETE FOOTINGS AND REPLACE CONCRETE CAP ONLY, IF NO FOOTINGS EXIST, NOTIFY ENGINEER IMMEDIATELY.

**SOIL EROSION PREVENTION**

INSTALL INLET FILTERS WITHIN ALL EXISTING DRAINAGE STRUCTURES WITHIN INFLUENCE OF WORK AREAS.



**SURVEY NOTES**

- TOPOGRAPHIC AND/OR BOUNDARY SURVEY, INCLUDING PROPERTY LINES, LEGAL DESCRIPTION, EXISTING UTILITIES, SITE TOPOGRAPHY WITH SPOT ELEVATIONS, OUTSTANDING PHYSICAL FEATURES AND EXISTING STRUCTURE LOCATIONS MAY BE BASED ON RECORD DATA NOT MEASURED IN THE FIELD.
- THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING ALL INFORMATION SHOWN ON THIS SURVEY AND NOTIFYING THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
- CONTRACTOR SHALL UTILIZE A PRIVATE UTILITY LOCATOR TO STAKE PUBLIC AND PRIVATE UTILITY LOCATIONS PRIOR TO START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY, AT NO COST TO THE PROJECT, TO REPAIR OR REPLACE ANY DAMAGE CAUSED TO EXISTING UTILITIES.
- CONTRACTOR SHALL CONTACT MISS DIG (811) THREE WORKING DAYS PRIOR TO THE START OF CONSTRUCTION FOR STAKING OF UTILITIES.

**BASE PLAN NOTE EXCEPT WHERE SURVEY IS PROVIDED:**

BASE PLAN USED FOR PROJECT DESIGN IS A COMBINATION OF AERIAL IMAGERY AND FIELD INVESTIGATION. NO DETAILED SURVEY WORK WAS PERFORMED BY SPALDING DEDECKER. SPALDING DEDECKER WILL NOT BE HELD RESPONSIBLE FOR THE ACCURACY OF THE BASE PLAN OR FOR DESIGN OMISSIONS RESULTING FROM SURVEY INACCURACIES OR OMISSIONS.

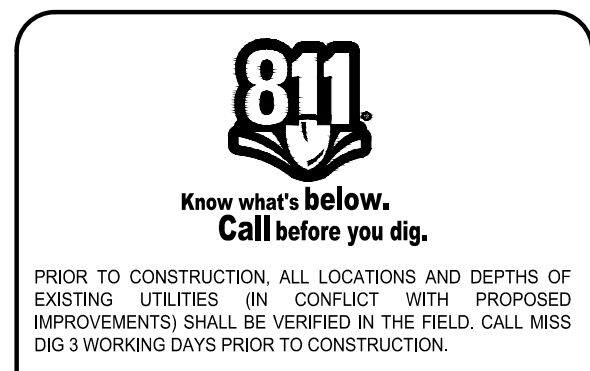
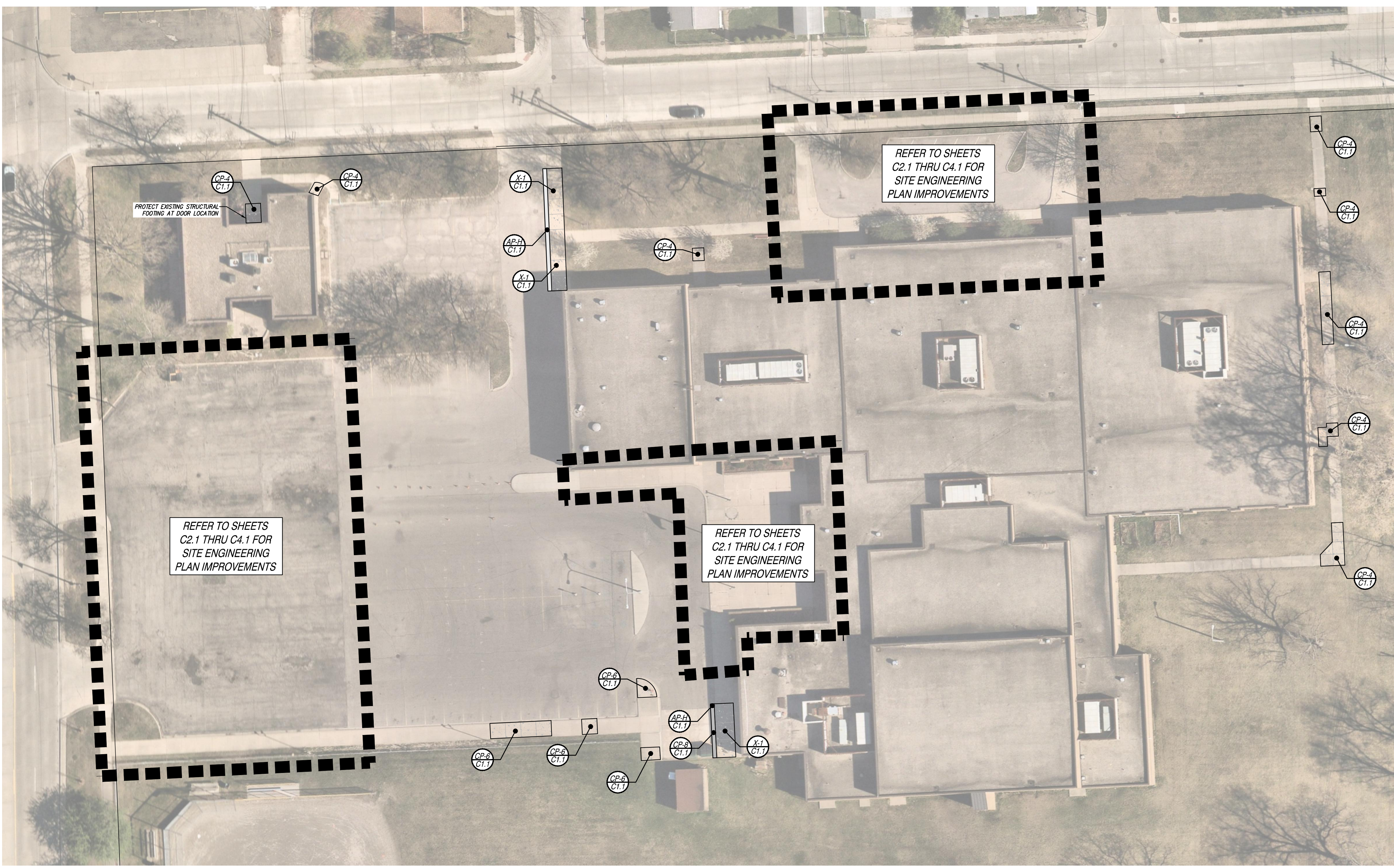
**PAVING CONSTRUCTION NOTES - CONCRETE REPAIRS**

- EARTHWORK AND PAVEMENT CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION UNLESS OTHERWISE NOTED IN THE FOLLOWING ITEMS.
- REMOVE ANY EXISTING TOPSOIL, VEGETATION, TREES AND OTHER DELETERIOUS MATERIALS TO EXPOSE THE SUBGRADE SOIL. TREE ROOTS SHALL BE COMPLETELY REMOVED.
- EXCAVATE TO THE DEPTH OF THE FINAL SUBGRADE ELEVATION TO ALLOW FOR GRADE CHANGES AND THE PLACEMENT OF THE RECOMMENDED PAVEMENT SYSTEM.
- THE TOP 12 INCHES OF THE EXPOSED SUBGRADE SHALL BE COMPACTED TO A DENSITY NO LESS THAN 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR (ASTM D 1557-91).
- THE FINAL SUBGRADE SHALL BE THOROUGHLY PROFFROLLED UNDER THE OBSERVATION OF A GEOTECHNICAL/PAVEMENT ENGINEER. LOOSE OR YIELDING AREAS WHICH CANNOT BE MECHANICALLY STABILIZED SHALL BE REMOVED AND REPLACED WITH ENGINEERED FILL OR AS DICTATED BY FIELD CONDITIONS.
- THE AGGREGATE BASE SHALL BE COMPACTED TO A DENSITY NO LESS THAN 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR (ASTM D 1557-91). THE BASE SHALL EXTEND A MINIMUM OF 1 FOOT BEYOND THE PAVED EDGE.
- ALL BITUMINOUS MATERIAL SHALL BE COMPACTED TO A DENSITY NO LESS THAN 97 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY THE MARSHALL METHOD.
- A BOND COAT OF SS-1H EMULSION IS REQUIRED BETWEEN THE LEVELING COURSE AND THE WEARING COURSE WHEN ERECTED 24 HOURS HAVE ELAPSED BETWEEN PLACEMENT OF THE BITUMINOUS COURSES OR THE SURFACE OF THE PAVEMENT HAS BEEN CONTAMINATED WITH DIRT, DUST, OR FOREIGN MATERIAL. THE BOND COAT SHALL BE APPLIED IN A UNIFORM MANNER OVER THE SURFACE AT A RATE OF 0.1 GALLONS/S.Y. IN THE EVENT A BOND COAT IS NOT REQUIRED, THE LEVELING COURSE MAY REQUIRE LOCALIZED BROOM CLEANING.
- PERFORMANCE GRADE PG58-28 ASPHALT CEMENT SHALL BE USED IN THE PRODUCTION OF ALL BITUMINOUS MIXTURES. RECLAIMED ASPHALT PAVEMENT (RAP) SHALL BE ALLOWED ONLY AS SPECIFIED BY THE CURRENT MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, UNLESS NOTED ON THE PROJECT DETAILS.
- CONSTRUCTION TRAFFIC SHALL BE MINIMIZED ON THE NEW PAVEMENT. IF CONSTRUCTION TRAFFIC IS ANTICIPATED ON THE PAVEMENT STRUCTURE, THE PLACEMENT OF THE FINAL LIFT SHALL BE DELAYED UNTIL THE MAJORITY OF THE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED. THIS ACTION WILL ALLOW REPAIR OF LOCALIZED FAILURE, IF ANY DOES OCCUR, AS WELL AS REDUCE LOAD DAMAGE ON THE PAVEMENT SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR TO ANY DAMAGED SECTION RESULTING FROM CONSTRUCTION ACTIVITY.
- RE-STRIPPE ANY DISTURBED PAVEMENT MARKINGS TO MATCH EXISTING, WHETHER SHOWN OR NOT, CONTRACTOR TO CONFIRM EXISTING PRIOR TO REMOVAL.
- CONTRACTOR SHALL PROTECT EXISTING CURB, GUTTER, SIDEWALK, WALLS, FENCES AND ALL OTHER EXISTING SITE FEATURES NOT INDICATED FOR REMOVAL OR REHABILITATION.
- PLACE EXPANSION JOINTS WHERE NEW CONCRETE PAVEMENT OR WALKS ADJUT BUILDING WALLS (PROPOSED OR EXISTING), CURB, OR EXISTING CONCRETE PAVEMENT. PLACE JOINT SEALANT ON ALL EXPANSION JOINTS.
- CONTRACTOR TO CONSTRUCT CONTRACTION AND EXPANSION JOINTS IN ALL NEW CONCRETE PAVEMENT. CONTRACTION JOINTS SHALL BE TOOLED WHERE SIDEWALK WIDTH IS 8' OR LESS, AND SHALL BE SPACED EQUAL TO THE WIDTH OF THE PAVEMENT (I.E. 8' SPACING FOR 8' WIDE WALKS, BUT NOT MORE THAN 10' APART). PLACE EXPANSION JOINTS WITH JOINT SEALANT AT MAXIMUM SPACING. CONTRACTOR SHALL GENERALLY MATCH THE JOINT PATTERNS FOR CONCRETE PAVEMENT WHEN SHOWN ON THE PLANS.
- CONCRETE PAVEMENTS SHALL MEET THE REQUIREMENTS FOR MDOT GRADE 4000 CONCRETE PER THE CURRENT MDOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- APPLY SILENCER SRT (OR APPROVED EQUIVALENT) ACRYLIC CURING COMPOUND ON ALL CONCRETE PAVING, CURBS, AND WALKS (APPLY PER MANUFACTURER RECOMMENDATIONS).

**OWNER**  
Madison District Public Schools  
26550 John R Road  
Madison Heights, MI 48071  
PHONE: (248) 399-7800

**CIVIL SHEET INDEX**

C1.1 - SITE IMPROVEMENT PLAN  
C2.1 - TOPOGRAPHICAL SURVEY (1 OF 2)  
C2.2 - TOPOGRAPHICAL SURVEY (2 OF 2)  
C3.1 - DEMOLITION PLAN  
C4.1 - SITE ENGINEERING PLAN



**UTILITY NOTE**

UTILITY INFORMATION ON THIS DRAWING MAY BE FROM INFORMATION DISCLOSED TO THIS FIRM BY THE VARIOUS UTILITY COMPANIES, CITY/COUNTY AGENCIES AND OTHER VARIOUS SOURCES. UNDERGROUND UTILITIES WHICH ARE ON PRIVATE PROPERTY ARE USUALLY NOT DELINEATED UPON A UTILITY COMPANY'S PUBLISHED PLANS. THEIR LOCATION, IF SHOWN UPON THIS SURVEY, ARE APPROXIMATED FROM FOUND PAINT MARKERS/STAKES, ETC. AS LOCATED BY THIS FIRM FROM SOURCES WHICH ARE UNKNOWN. NO GUARANTEE IS GIVEN AS TO THE COMPLETENESS OR ACCURACY THEREOF.

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**MADISON DISTRICT PUBLIC SCHOOLS WILKINSON MIDDLE SCHOOL PAVEMENT IMPROVEMENTS**

SITE IMPROVEMENT PLAN

SECTION 24  
TOWN 01 NORTH RANGE 11 EAST  
CITY OF MADISON HEIGHTS  
OAKLAND COUNTY, MICHIGAN

NO.	DATE	REVISION
1	12-19-25	OWNER REVIEW
2	01-13-26	BIDS

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DATE	DATE
10-23-25	10-23-25
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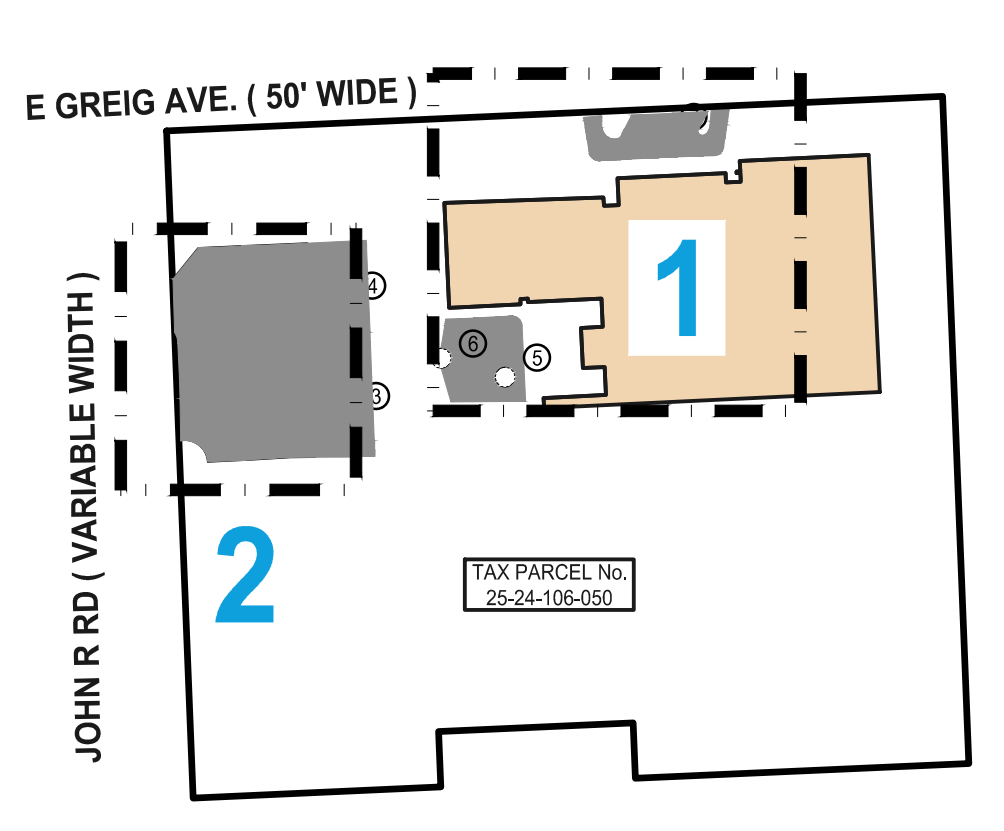
DRAWER: C. YANG  
DESIGNER: J. ENSLEY  
CHECKED: J. ENSLEY  
PROJECT MANAGER: J. ENSLEY  
DEPARTMENT MANAGER APPROVAL: T. SOVEL  
JOB NO.: NP25108  
SCALE: 1" = 30'

DATE: 10-23-25  
DATE: 10-23-25  
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DATE: 10-23-25  
DRAWING NO.: NP25108IMP  
SHEET NO.: C1.1

Plotted Jan 13, 2026, 9:21 AM by user: 1006 - Saved: 12/19/2025 by user: 1198  
 N:\NP25108\Projects\NP25108 - Madison Schools - Wilkinson Middle School - NP25108TPG\_DV-UPDATED.dwg

**LEGEND**

- MANHOLE
- CATCH BASIN
- SEWER CLEAN OUT
- GAS METER
- GAS SHUT OFF VALVE
- VALVE BOX
- GATE VALVE & WELL
- WATER SHUT OFF VALVE
- FIRE HYDRANT
- SPRINKLER VALVE BOX
- LAWN SPRINKLER HEAD
- UNVERIFIED MAPPED OBJECT
- ELECTRIC RISER OR METER
- TELEPHONE RISER
- CABLE TV RISER
- AIR CONDITION UNIT
- UTILITY POLE
- UTILITY POLE W/ LAMP EXTENSION (ARROW INDICATES DIRECTION OF ARM)
- LIGHT POLE
- LIGHT POLE WITH LAMP EXTENSION
- TRAFFIC SIGNAL
- POLE W/ TRAFFIC SIGNAL (OVER ROAD)
- GUY WIRE
- GROUND LEVEL DECORATIVE LIGHTING
- FLAG POLE
- METAL OR CONC. POST
- MAILBOX
- SIGN
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- PARKING METER
- BILLBOARD OR LARGE SIGN
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- DETECTABLE WARNING STRIP
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- DECIDUOUS TREE
- DECIDUOUS SHRUB
- CONFEROUS SHRUB
- SECTION CORNER
- TRAVERSE POINT
- STRUCTURE NUMBER
- SDA POINT No.
- SPOT ELEVATION
- TC TOP OF CURB ELEVATION
- GU GUTTER ELEVATION
- TP TOP OF PAVEMENT ELEVATION
- EM EDGE OF METAL ELEVATION
- TW TOP OF WALK ELEVATION
- TWALL TOP OF WALL ELEVATION
- BWALL BOTTOM OF WALL ELEVATION
- GR GROUND ELEVATION
- UG UNDERGROUND
- FO FIBER OPTIC
- CONC CONCRETE
- ASPH ASPHALT
- OVHG OVERHANG
- FF FINISH FLOOR ELEVATION
- DL DOOR LEDGE ELEVATION
- F.I. FOUND IRON
- F.I.P. FOUND IRON PIPE
- MON FOUND MONUMENT
- F.P.K. FOUND P.K. NAIL
- S.I. SET IRON W/SDA CAP
- S.P.K. SET P.K. NAIL
- S.P.K./TAG SET P.K. NAIL W/SDA TAG
- MAGTAG SET MAGNETIC NAIL W/SDA TAG
- M MEASURED
- R RECORD
- C CALCULATED
- INV. INVERT ELEVATION
- CMP CORRUGATED METAL PIPE
- G GAS
- SN SANITARY SEWER (SAN)
- ST STORM SEWER (STM)
- WM WATERMAIN (WM)
- OVHW OVERHEAD WIRE
- CS COMBINED SEWER
- STE STEAM LINE
- O OIL LINE
- F UG FIBER (COMM)
- E UG ELECTRIC (ELEC)
- PH UG PHONE (PH)
- C UG CABLE (CBL)
- CHAIN LINK FENCE (CL)
- WOOD FENCE
- WOVEN WIRE FENCE (WW)
- GUARD RAIL
- EDGE OF BRUSHWOODS
- CULVERT CENTERLINE OF DITCH
- MAJOR CONTOUR
- MINOR CONTOUR
- BOUNDARY LINES
- ROW LINES
- SECTION LINES
- PROPERTY LINES
- BUILDING
- ASPHALT
- CONCRETE
- GRAVEL/DIRT/MULCH
- BRICK/PAVERS
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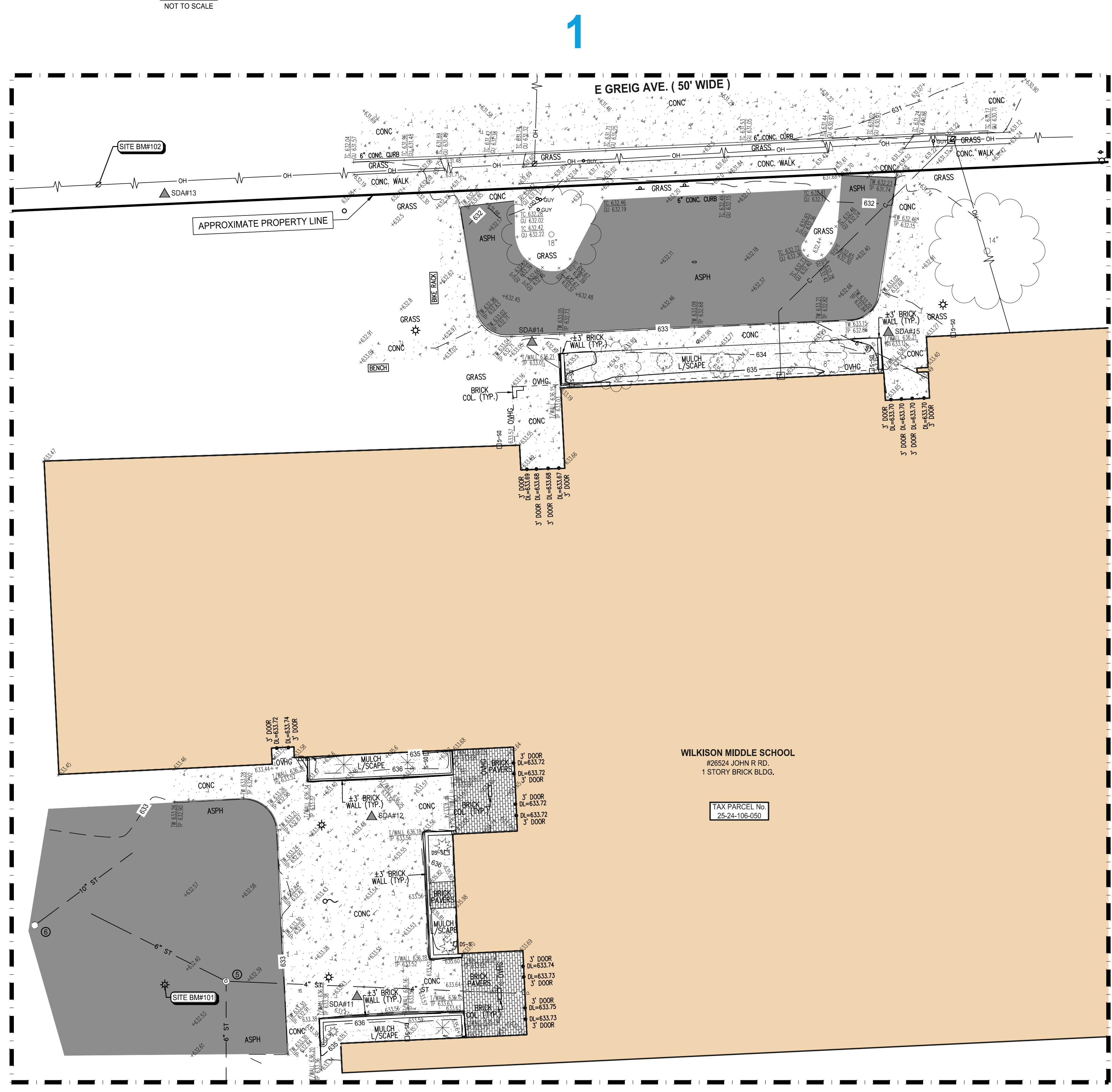
**BENCHMARK DESCRIPTIONS**  
DATUM: GPS-DERIVED NAVD'88

SITE BM#100	TOP OF SOUTHEAST BOLT ON LIGHT POLE CONCRETE BASE, LOCATED ALONG JOHN R RD, 26 FEET EAST FROM BACK OF WALK AND BETWEEN THE TWO ENTRANCES. ELEV: #633.88
SITE BM#101	TOP OF NORTHEAST BOLT ON LIGHT POLE CONCRETE BASE, LOCATED ON THE WEST PARKING LOT BY WEST BUILDING ENTRANCE, ±157 FEET SOUTH AND ±35 FEET EAST OF THE NORTHWEST BUILDING CORNER. ELEV: #633.93
SITE BM#102	SET A BENCH TIE IN SOUTH FACE OF UTILITY POLE, LOCATED ALONG EAST GREIG AVE, ±82 FEET NORTH AND ±17 FEET EAST OF THE NORTHWEST BUILDING CORNER. ELEV: #633.71

**LEGAL DESCRIPTION**  
SOURCE: ASK SERVICE TITLE COMMITMENT  
OWNER: MADISON DISTRICT SCHOOLS  
TAX PARCEL ID: 25-24-106-050  
ADDRESS: 26524 JOHN R ROAD

T1N, R11E, SEC 24, GROVELAND SUB, N 38 FT OF LOT 51, ALSO LOT 52 EXC WLY 27 FT OF BOTH SD LOTS, ALSO ALL OF LOT 84, ALSO N 38 FT OF LOT 85 09/18/91 FR 042 01/16/92 CORR

- SURVEYOR'S COMMENTS**
- THIS TOPOGRAPHICAL MAP IS BASED UPON A FIELD SURVEY PERFORMED BY SPALDING DEDECKER DURING AUGUST OF 2025.
  - THE PROPERTY LINES/RIGHT-OF-WAY LINES SHOWN ON THIS TOPOGRAPHICAL SURVEY ARE INTENDED TO BE AN APPROXIMATE GRAPHICAL REPRESENTATION OF THE PROPERTY LINES OF THE LANDS SURVEYED. SPALDING DEDECKER HAS BASED THE PROPERTY LINES AND RIGHT OF WAY LINES UPON A COMBINATION OF A PROVIDED LEGAL DESCRIPTION, FOUND FIELD MONUMENTATION AND OCCUPATION. THE BEARINGS AND DISTANCES AROUND THE PARCEL ARE NOT SHOWN DUE TO THE VARIATIONS THAT MAY EXIST BETWEEN THE RECORD PROPERTY DESCRIPTION AS SHOWN AND THE VARIATIONS LINES COMPUTED IN THE DRAWING. A COMPLETE PROPERTY LINE ANALYSIS IS NOT PART OF THE SCOPE OF SERVICES AND PROPERTY CORNERS HAVE NOT BEEN SET IN THE FIELD.
  - THIS SURVEY HAS BEEN PREPARED WITH THE BENEFIT OF A CURRENT INFORMATIONAL TITLE SEARCH WHICH INCLUDES THE LAST DEED OF RECORD AND A 100 YEAR SEARCH FOR ENCUMBRANCES. THE INFORMATIONAL TITLE SEARCH WAS PREPARED BY ASK SERVICE HAVING AN ORDER NUMBER OF 41032814 AND AN EFFECTIVE DATE OF 08-18-2025. ALL PLOTTABLE ENCUMBRANCES LISTED ON SCHEDULE B/H EXCEPTIONS OF THIS TITLE SEARCH HAVE BEEN SHOWN ON THIS SURVEY IF THEY FALL WITHIN THE LIMITS OF DETAILED MAPPING.
  - THE COORDINATE SYSTEM FOR THIS SURVEY IS THE STATE PLANE COORDINATE SYSTEM, MICHIGAN SOUTH ZONE (2113), BASED ON NAD83 (NRS2011). UNITS ARE INTERNATIONAL FEET. COORDINATES WERE ESTABLISHED USING A DATA LINK TO THE MDOOT CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS).
  - THE VERTICAL DATUM OF THIS SURVEY IS BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88) AS ESTABLISHED WITH RTK GPS MEASUREMENTS USING A DATA LINK TO THE MDOOT CONTINUOUSLY OPERATING REFERENCE STATIONS (CORS).
  - THE PARKING LOT STRIPING SHOWN ON THIS SURVEY IS APPROXIMATE. DIMENSIONAL AND/OR ORIENTATION VARIATIONS MAY EXIST. THIS DRAWING SHOULD NOT BE USED FOR A PARKING SPACE COUNT.
  - THE UTILITY INFORMATION SHOWN ON THIS SURVEY IS BASED UPON A COMBINATION OF RECORD INFORMATION AND FIELD MEASUREMENTS. A MISS DIG DESIGN TICKET NUMBER OF 2025082200151400 HAS BEEN REFERENCED TO THIS PROJECT AND A UTILITY PROVIDER CHART IS SHOWN ON THIS DRAWING. THERE ARE NO ASSURANCES THAT ALL PROVIDERS HAVE RESPONDED AND THE SURVEYOR DOES NOT GUARANTEE THAT ALL UNDERGROUND UTILITIES ARE SHOWN AND/OR POSITIONED PROPERLY ON THIS DRAWING DUE TO AMBIGUOUS PLANS AND RECORDS PROVIDED TO US. THE INFORMATION SHOWN ON THIS DRAWING IS INTENDED TO BE USED AS A GUIDE FOR POSSIBLE UNDERGROUND UTILITY CONFLICTS. IT IS THE RESPONSIBILITY OF OTHERS TO RESOLVE THE ACTUAL LOCATION OF ANY UNDERGROUND UTILITY THROUGH THE MISS DIG FIELD VERIFICATION SYSTEM PRIOR TO ANY SITE EXCAVATION. CALL 811 OR 800-482-7171.



**UTILITY CHART**

UTILITY PROVIDER	CONTACT #	MISS DIG RESULTS	DATE
AT&T TELEPHONE	(616) 881-2268	RECEIVED	8/25/2025
COMCAST CABLE TV	(855) 962-8525	RECEIVED	8/26/2025
CONSUMERS ENERGY GAS	(219) 500-2070	RECEIVED	9/11/2025
DTE ENERGY (ELECTRIC) ELECTRIC	(313) 552-2950	RECEIVED	8/27/2025
MADISON DISTRICT PUBLIC SCHOOLS FIBER OPTICS	(248) 318-5192	RECEIVED	8/25/2025
MADISON HEIGHTS CITY POTABLE WATER	(248) 589-2294	NOT RECEIVED	
MADISON HEIGHTS CITY SANITARY SEWER	(248) 589-2294	NOT RECEIVED	
MADISON HEIGHTS CITY SEWER (COMBINED SANI/STRM ONLY)	(248) 589-2294	NOT RECEIVED	
MADISON HEIGHTS CITY STORM SEWER	(248) 589-2294	NOT RECEIVED	
OAKLAND COUNTY DRAIN COMMISSIONER EXEMPT	(248) 858-1116	NOT RECEIVED	
OAKLAND COUNTY ROAD COMMISSION TRAFFIC	(248) 624-4870	NOT RECEIVED	
VERIZON WIRELESS FIBER OPTICS	(800) 624-9675	NOT RECEIVED	

**STRUCTURE TABLE**

THE STRUCTURE TABLE ON THIS DRAWING IDENTIFIES THE AS-SURVEYED UNDERGROUND UTILITY MANHOLES THAT WERE FIELD MEASURED USING REASONABLE AND TRADITIONAL SURVEYING PRACTICES. PIPE SIZES, DIRECTIONS AND ELEVATIONS ARE INDICATED BY A COMBINATION OF FIELD EVIDENCE AND AVAILABLE RECORD INFORMATION. UNDERGROUND UTILITY PIPE SIZES AND CONNECTIONS ARE MANY TIMES AMBIGUOUS. SOME STRUCTURES MAY HAVE PIPES WITH UNKNOWN CONNECTIONS, Sumps AND/OR PIPES THAT ARE FILLED WITH DEBRIS. IT WILL BE UP TO THE DESIGN ENGINEER TO LOOK AT THE PRESENTED SURVEY RESULTS AND DECIDE IF FURTHER INVESTIGATION BY OTHER METHODS SUCH AS VACUUM CLEAN OUT, UNDERGROUND RADAR, SMOKE TESTING AND PHYSICAL EXCAVATION IS REQUIRED AS AN ADDITIONAL SERVICE.

#	TYPE	RIM	SIZE	INVERT	DIRECTION	CONNECT
1	ROUND CATCH BASIN	632.52	6"	630.12	NE	
	TOP / WATER	629.92				
	TOP / DEBRIS	628.72				
2	ROUND CATCH BASIN	632.37	6"	629.97	SE	3
	TOP / WATER	629.77				
	TOP / DEBRIS	629.67				
3	ROUND CATCH BASIN	632.30	6"	630.39	NW	2
	TOP / WATER	630.30				
	TOP / DEBRIS	628.90				
4	ROUND CATCH BASIN	632.45	4"	630.25	NE	BLDG
	TOP / WATER	629.91				
	TOP / DEBRIS	628.35				
5	STORM MANHOLE	631.98	6"	628.68	NW	
	TOP / WATER	628.68				
	TOP / DEBRIS	628.08				
6	STORM MANHOLE	632.22	10"	627.47	NE	
	TOP / WATER	627.47				
	TOP / DEBRIS	626.22				
7	ROUND CATCH BASIN	631.99	6"	629.31	SE	BLDG
	TOP / WATER	628.59				
	BOTTOM	627.29				

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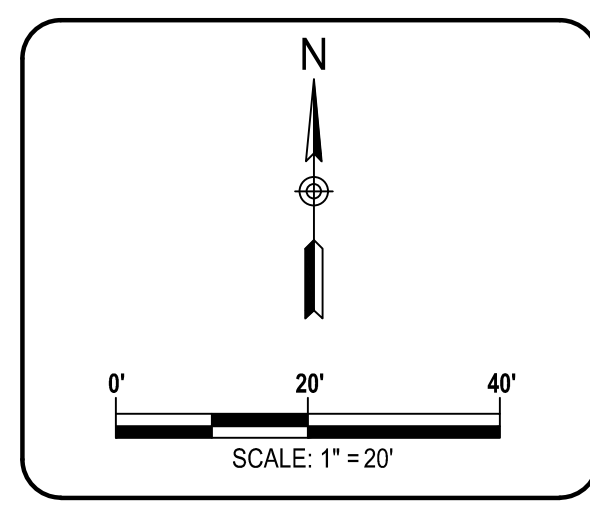
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**MADISON DISTRICT PUBLIC SCHOOLS WILKINSON MIDDLE SCHOOL PAVEMENT IMPROVEMENTS**

TOPOGRAPHICAL SURVEY  
(1 OF 2)

SECTION 24  
TOWN 01 NORTH RANGE 11 EAST  
CITY OF MADISON HEIGHTS  
OAKLAND COUNTY, MICHIGAN

NO.	DATE	REVISION
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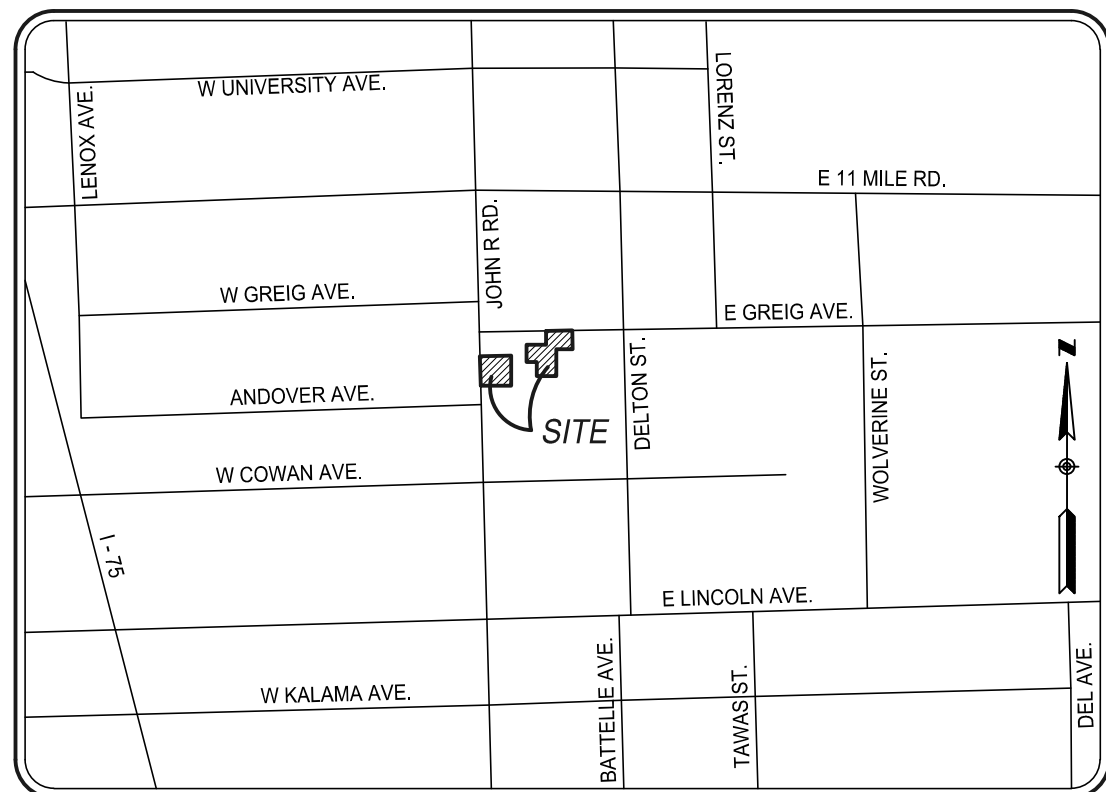
DRAWER: C. YANG  
DESIGNER: J. ENSLEY  
CHECKED: J. ENSLEY  
PROJECT MANAGER: J. ENSLEY  
DEPARTMENT MANAGER APPROVAL: T. SOVEL  
JOB NO: NP25108  
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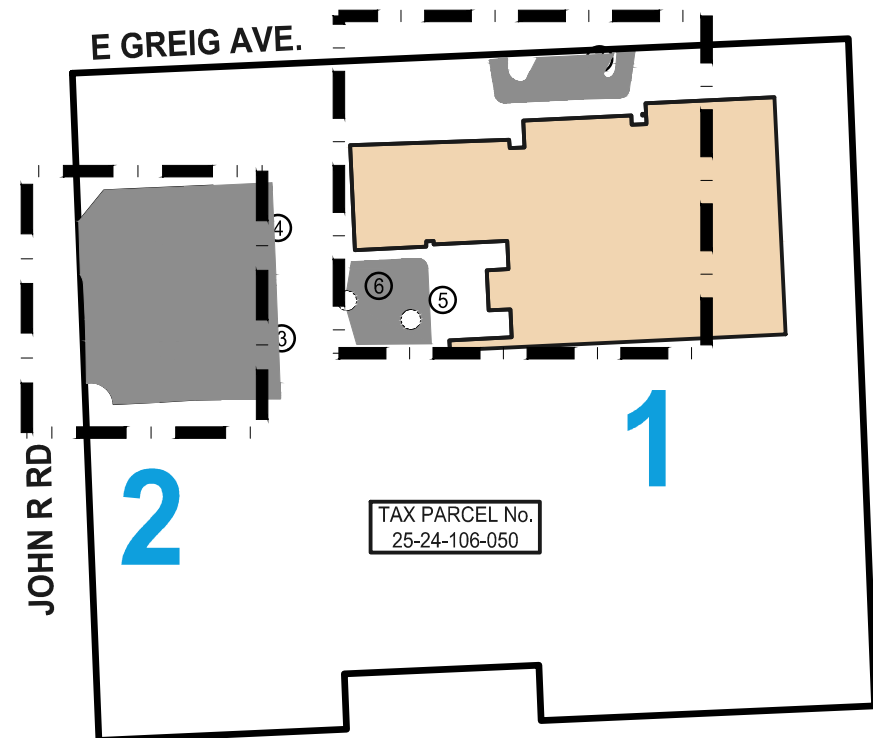
DRAWING NO: NP25108TPG-DV  
SHEET NO: C2.1

**LEGEND**

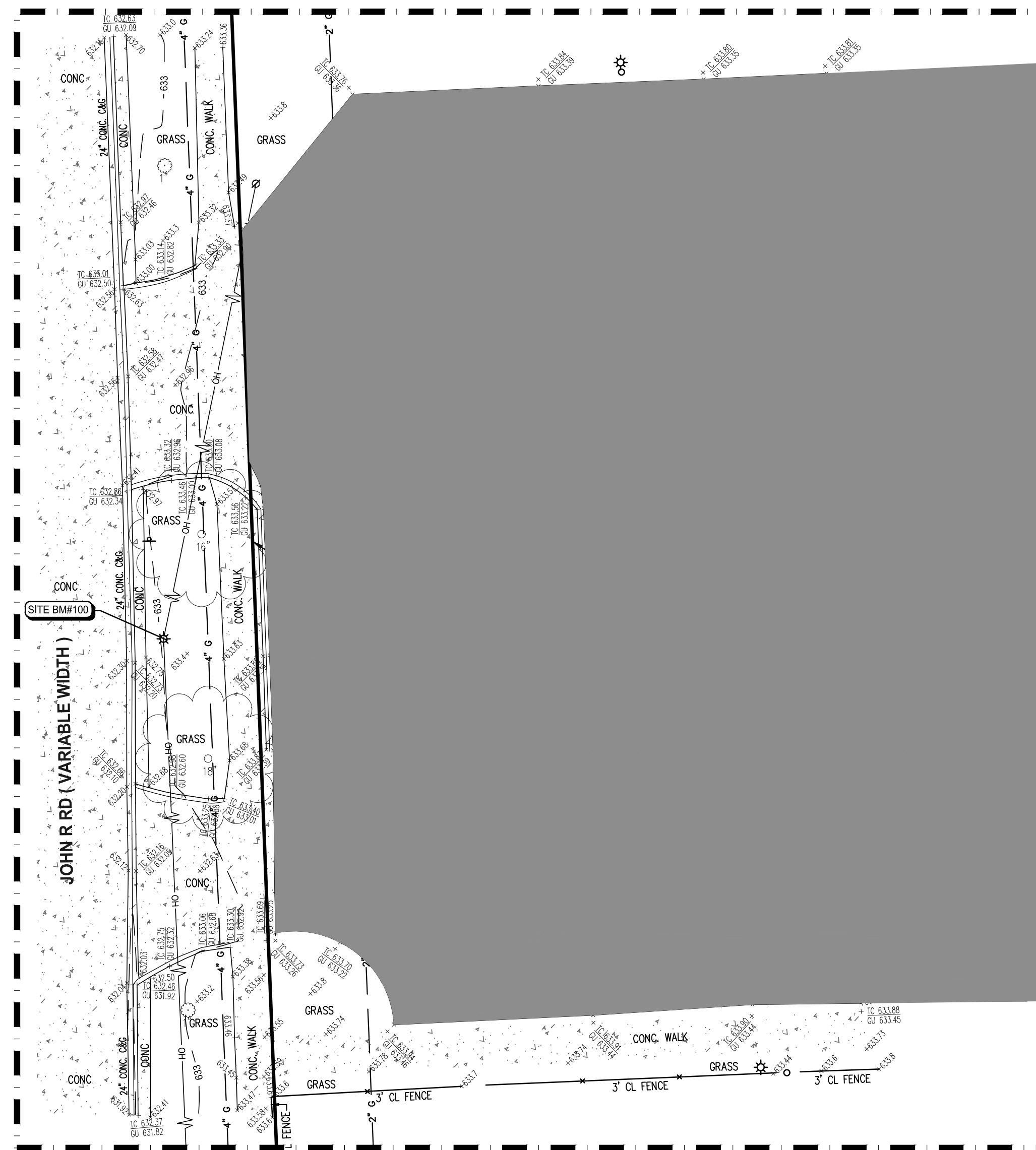
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**LOCATION MAP**  
NOT TO SCALE



**KEY MAP**  
NOT TO SCALE



2

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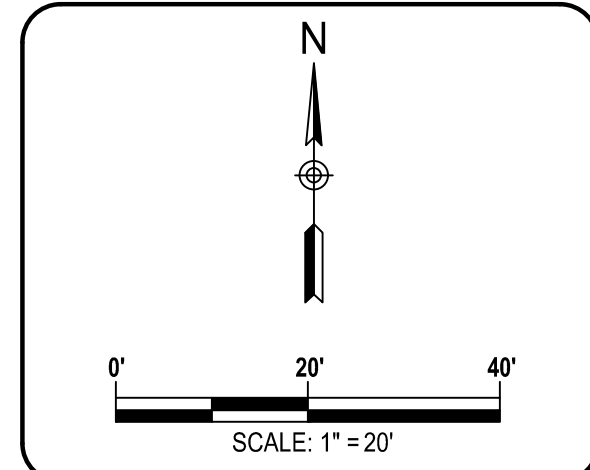
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**MADISON DISTRICT PUBLIC SCHOOLS WILKINSON MIDDLE SCHOOL PAVEMENT IMPROVEMENTS**

TOPOGRAPHICAL SURVEY  
(2 OF 2)

SECTION 24  
TOWN 01 NORTH RANGE 11 EAST  
CITY OF MADISON HEIGHTS  
OAKLAND COUNTY, MICHIGAN

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DRW. NO.	DATE	DRWING NO.
C. YANG	10-23-25	NP25108
J. ENSLEY	10-23-25	NP25108TPG-DV
J. ENSLEY	10-23-25	
J. ENSLEY	10-23-25	
T. SOVEL	10-23-25	

SCALE: 1" = 20' SHEET NO. C2.2

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 N:\NP2108.D Projects\NP2108 - Madison Schools - Wilkinson Schools - Wilkinson Middle School - NP2108DEM.dwg

**SURVEY NOTES**

1. TOPOGRAPHIC AND/OR BOUNDARY SURVEY INCLUDING PROPERTY LINES, LEGAL DESCRIPTION, EXISTING UTILITIES, SITE TOPOGRAPHY WITH SPOT ELEVATIONS, OUTSTANDING PHYSICAL FEATURES AND EXISTING STRUCTURE LOCATIONS MAY BE BASED ON RECORD DATA NOT MEASURED IN THE FIELD.
2. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING ALL INFORMATION SHOWN ON THIS SURVEY AND NOTIFYING THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
3. CONTRACTOR SHALL UTILIZE A PRIVATE UTILITY LOCATOR TO STAKE PUBLIC AND PRIVATE UTILITY LOCATIONS PRIOR TO START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY, AT NO COST TO THE PROJECT, TO REPAIR OR REPLACE ANY DAMAGE CAUSED TO EXISTING UTILITIES.
4. CONTRACTOR SHALL CONTACT MISS DIG (811) THREE WORKING DAYS PRIOR TO THE START OF CONSTRUCTION FOR STAKING OF UTILITIES.

**DEMOLITION NOTES**

- 1 REMOVE ASPHALT PAVEMENT TO FULL DEPTH. EXCAVATE SUBSURFACE AS NECESSARY. SAWCUT FULL DEPTH WHERE NEW PAVEMENT WILL BE PLACED ADJACENT TO EXISTING PAVEMENT. EXCAVATE EXISTING AGGREGATE BASE AND SUBGRADE AS NECESSARY TO INSTALL NEW PAVEMENT SECTION AS SHOWN ON THE PAVING PLANS, INCLUDING NEW AGGREGATE BASE.
- 2 REMOVE CONCRETE PAVEMENT TO FULL DEPTH. EXCAVATE EXISTING AGGREGATE BASE AND SUBGRADE AS NECESSARY TO INSTALL NEW PAVEMENT SECTION AS SHOWN ON THE PAVING PLANS, INCLUDING NEW AGGREGATE BASE. SAWCUT FULL DEPTH TO NEAREST JOINT WHERE NEW PAVEMENT WILL BE PLACED ADJACENT TO EXISTING PAVEMENT.
- 3 REMOVE CONCRETE CURB AND GUTTER. SAWCUT FULL DEPTH TO NEAREST JOINT, WHERE SHOWN. REMOVAL LIMITS TO BE FIELD VERIFIED BY ENGINEER.
- 4 PROTECT EXISTING UTILITY STRUCTURE TO REMAIN.
- 6 REMOVE EXISTING CONCRETE RAMP.
- 8 PROTECT EXISTING BRICK WALL OR COLUMN TO REMAIN.
- 7 PROTECT EXISTING LIGHT POLE TO REMAIN.
- 9 PROTECT EXISTING FLAG POLE TO REMAIN.
- 10 PROTECT EXISTING CONCRETE PAVEMENT TO REMAIN.
- 11 PROTECT EXISTING BRICK PAVEMENT TO REMAIN.
- 12 PROTECT EXISTING CURB AND GUTTER TO REMAIN.
- 13 PROTECT EXISTING TIMBER RETAINING WALL TO REMAIN.

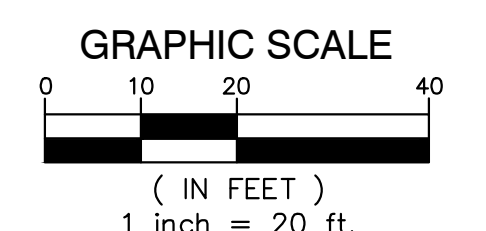
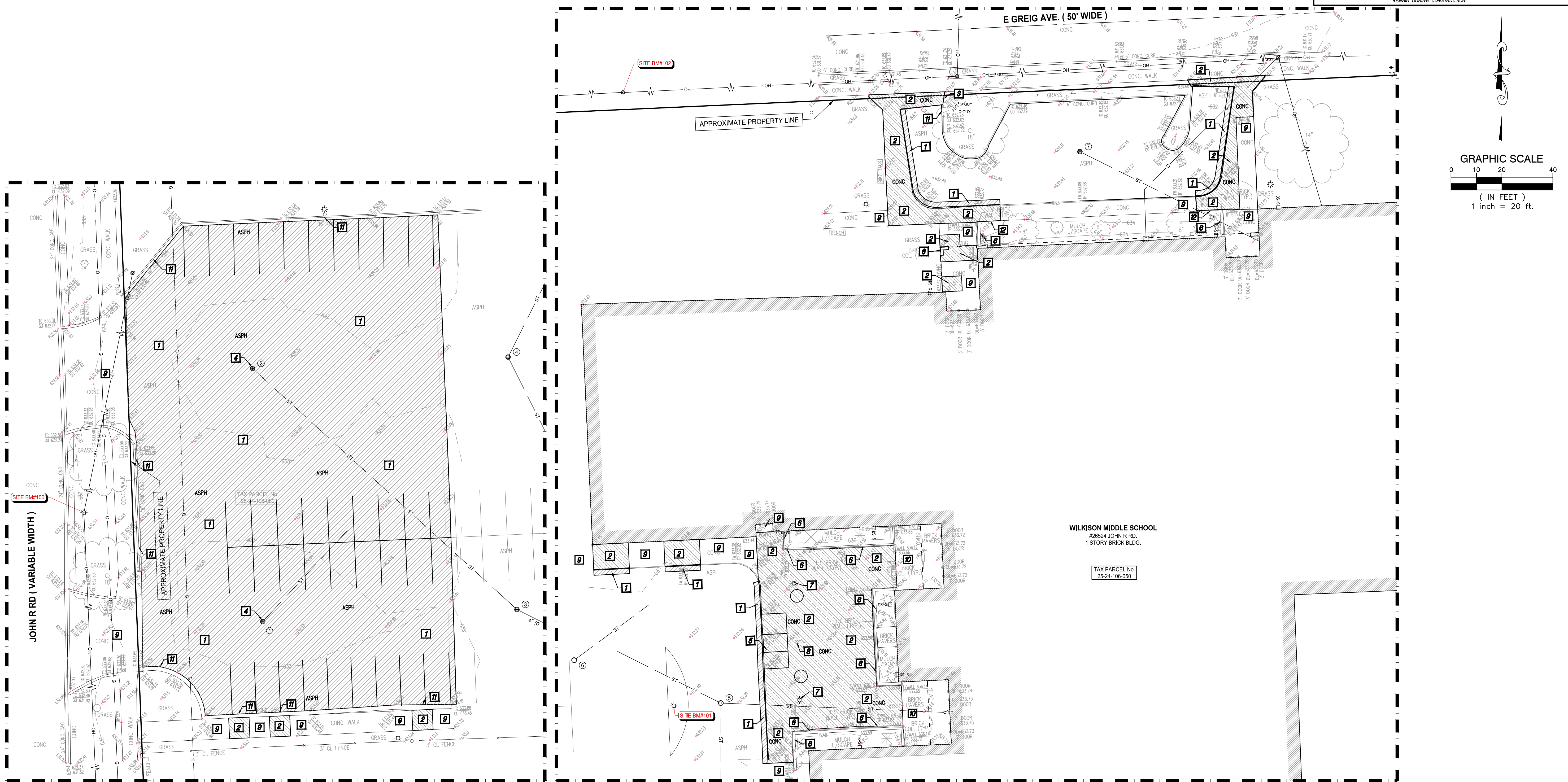
EXISTING SIGNAGE AND MAILBOXES WITHIN THE CLEARING LIMITS ARE TO BE REMOVED AND SALVAGED. STAGE IN ON SITE LOCATION AS SPECIFIED BY OWNER.

ALL DEPRESSIONS CREATED BY DEMOLITION PROCEDURES SHALL BE BACKFILLED WITH CLASS II FILL MATERIAL, IN 8" LIFTS COMPACTED TO 95% OF MAXIMUM UNIT WEIGHT, UP TO PROPOSED SUBGRADE.

CONTRACTOR IS RESPONSIBLE FOR DOING AN EARTHWORK CALCULATION FOR CUT AND FILL REQUIREMENTS, AND IS RESPONSIBLE FOR INCLUDING IMPORT AND EXPORT OF MATERIALS IN THEIR BID. ALL EXCESS MATERIAL (INCLUDING TOPSOIL, CLEAN FILL, AND WASTE MATERIAL) SHALL BE REMOVED FROM THE SITE.

EXISTING SUPPORTED SLABS AT BUILDING ENTRY/DOORS TO REMAIN, UNLESS OTHERWISE DIRECTED. CONTRACTOR TO VERIFY LIMITS OF EXISTING SUPPORTED SLAB AND REMOVE ADJACENT WALKS AS SHOWN ON PLANS.

CONTRACTOR TO PROTECT EXISTING WALKS, PAVEMENT, CURBS, GUTTERS, WALLS, FENCES, GATES, LANDSCAPING AND TREES TO REMAIN DURING CONSTRUCTION.



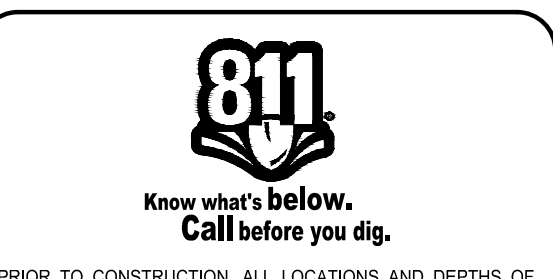
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PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES (IN CONFLICT WITH PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. CALL MISS DIG 3 WORKING DAYS PRIOR TO CONSTRUCTION.

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**MADISON DISTRICT PUBLIC SCHOOLS  
 WILKINSON MIDDLE SCHOOL  
 PAVEMENT IMPROVEMENTS**

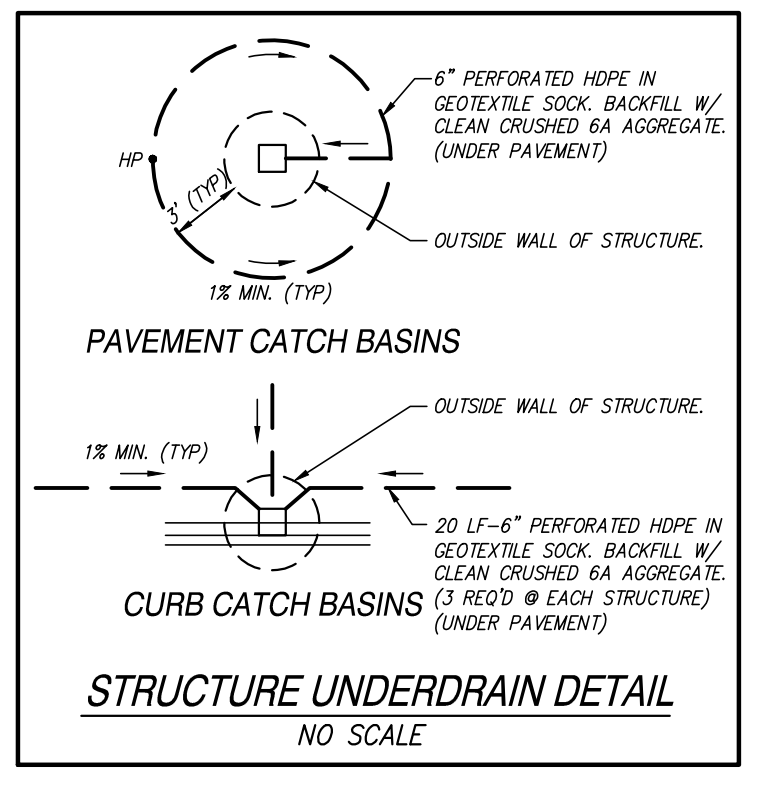
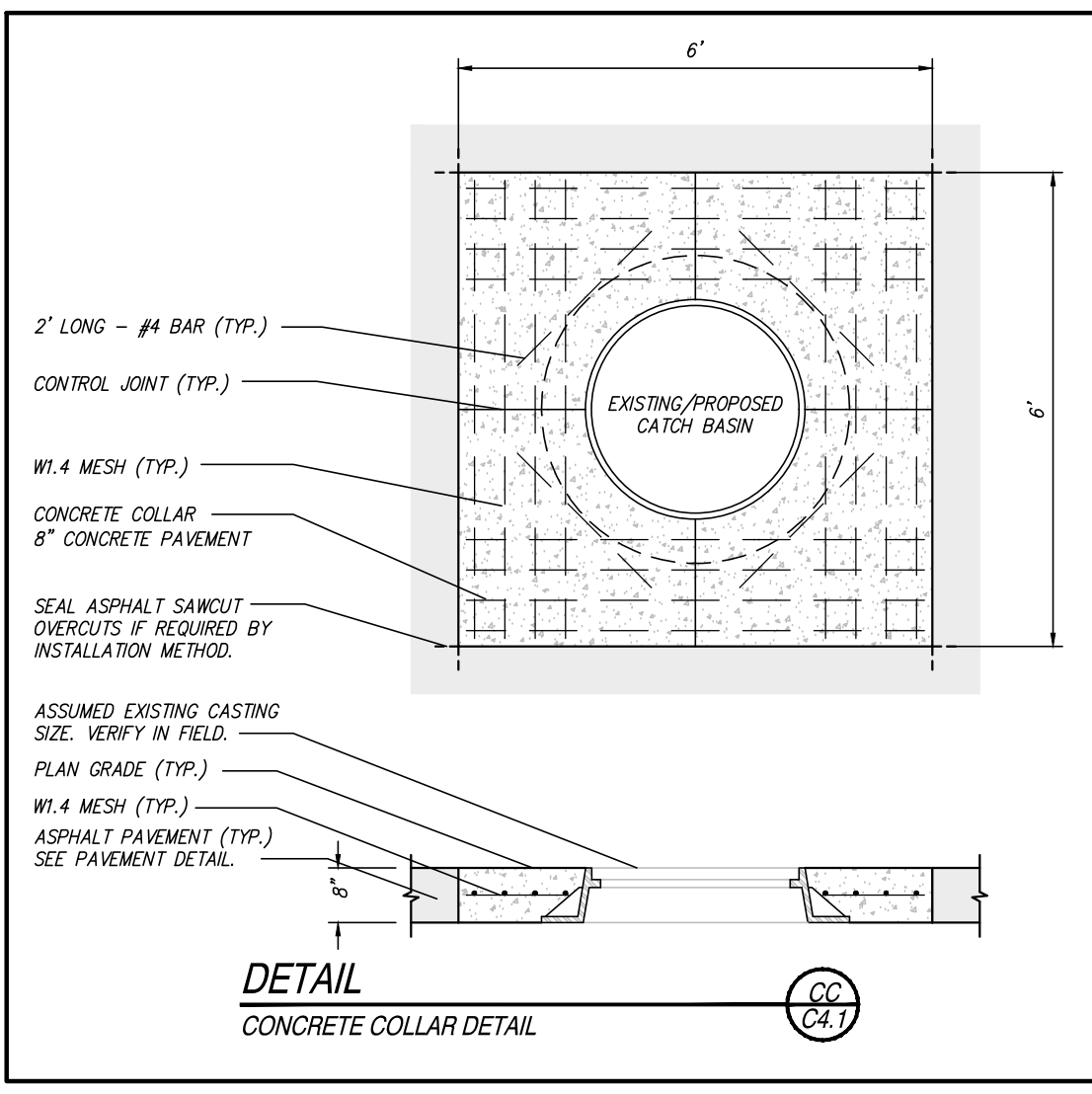
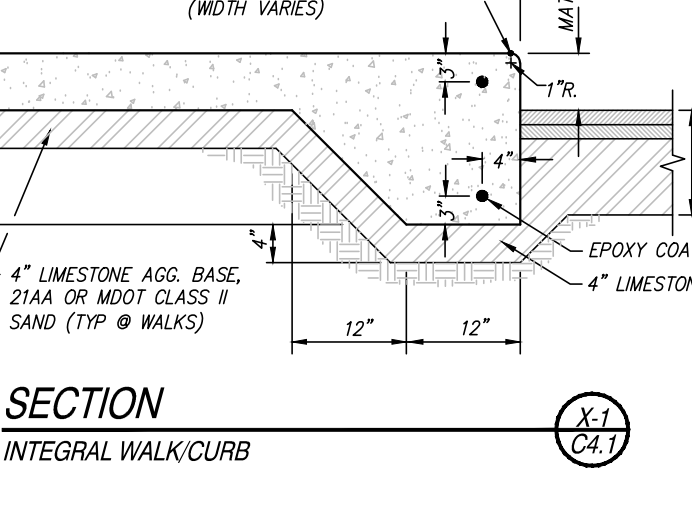
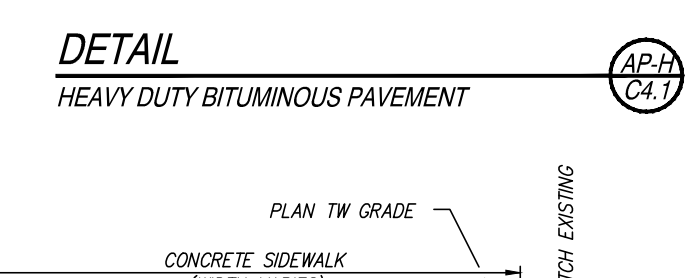
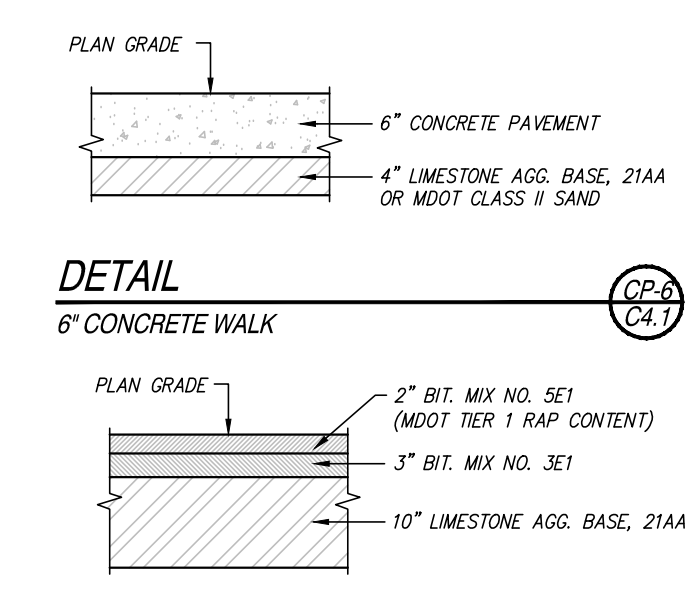
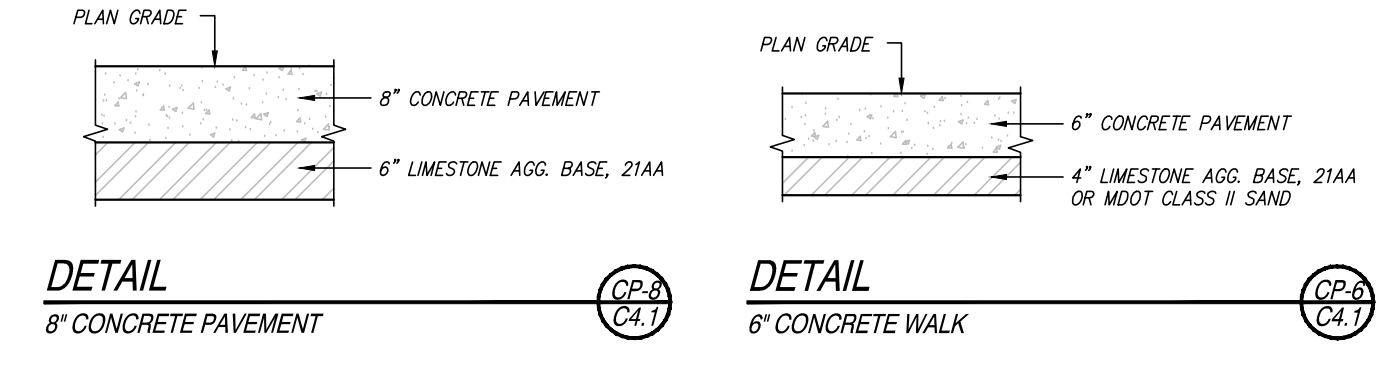
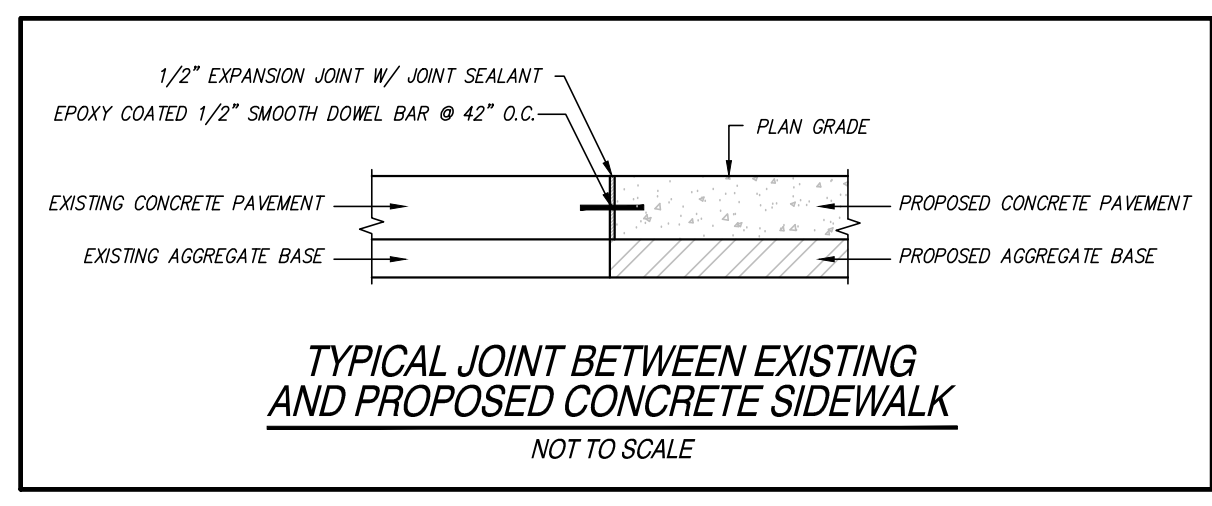
**DEMOLITION PLAN**

SECTION 24  
 TOWN 01 NORTH RANGE 11 EAST  
 CITY OF MADISON HEIGHTS  
 OAKLAND COUNTY, MICHIGAN

NO.	DATE	REVISION
1	12-19-25	OWNER REVIEW
2	01-13-26	BIDS

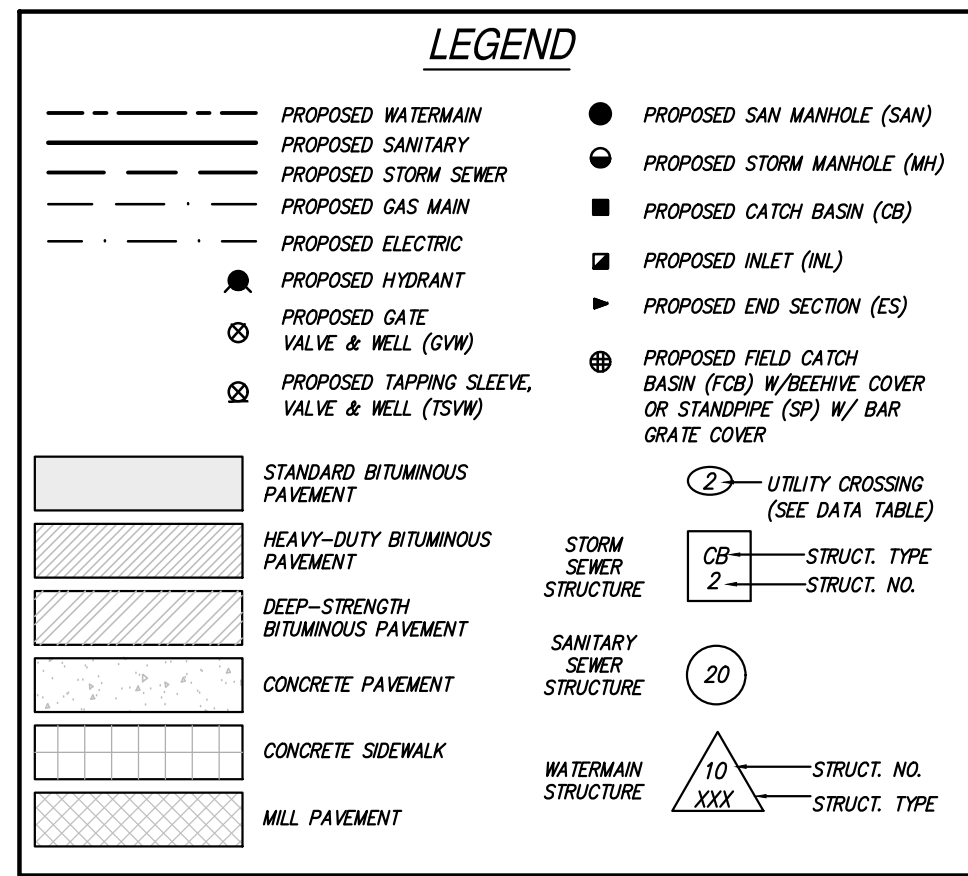
VERIFY SCALES  
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 IF NOT ONE INCH ON THIS SHEET,  
 ADJUST SCALES ACCORDINGLY

DRAWER	DATE
C. YANG	10-23-25
DESIGNER	DATE
J. ENSLEY	10-23-25
CHECKED	DATE
J. ENSLEY	10-23-25
PROJECT MANAGER	BID PLAN DATE
J. ENSLEY	10-23-25
DEPARTMENT MANAGER APPROVAL	DATE
T. SOVEL	10-23-25
JOB NO.	DRAWING NO.
NP25108	NP25108DEM
SCALE:	SHEET NO.
1" = 20'	C3.1



- GRADING NOTES**
- CONTRACTOR TO PLACE ALL NEW PAVEMENT TO THE GRADES INDICATED, OR MATCH ORIGINAL GRADES IF NEW GRADES ARE NOT SHOWN. CONTRACTOR SHALL CONFIRM MINIMUM 1% PAVEMENT SLOPES ARE ATTAINED IN ALL AREAS.
  - PROPOSED GRADES MAY BE BASED ON AN INTERPOLATION OF DATA SHOWN ON THE TOPOGRAPHIC SURVEY. THIS INTERPOLATED DATA IS APPROXIMATE AND COULD DIFFER SLIGHTLY BASED ON THE ACCURACY OF THE SURVEY. CONTRACTOR SHALL CONFIRM THAT THE PROPOSED GRADES SHOWN ON THIS PLAN WILL NOT CREATE A STANDING WATER CONDITION (I.E. A LOW SPOT OR PAVEMENT SLOPES LESS THAN 1% OR AN UNSAFE CONDITION WITH SLOPES IN EXCESS OF 5% CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF THEY BELIEVE THAT ONE OF THESE SITUATIONS WILL OCCUR BASED ON THE PROPOSED GRADES.
  - ALL PAVEMENT PLACED WITHIN HANDICAP PARKING AREAS (STALLS AND ACCESS AISLES) SHALL HAVE A MAXIMUM SLOPE OF 2% IN ANY DIRECTION, INCLUDING MEASURED DIAGONALLY ACROSS THE AREA. CONTRACTOR SHALL ADJUST SLOPES AS NECESSARY TO PROVIDE ADA COMPLIANT SLOPES AS WELL AS PROVIDING RE-GRADED TRANSITION SLOPES OUTSIDE OF THE HANDICAP PARKING AREAS. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF TRANSITION ZONES WILL EXCEED MAXIMUM 5% SLOPES. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE PATTERNS WITH ALL NECESSARY PAVEMENT RE-GRADED.
  - ALL HANDICAP RAMPS AND ADA ACCESSIBLE ROUTES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT VERSION OF MDOT DETAIL R-28 "SIDEWALK RAMP AND DETECTABLE WARNING DETAILS".
  - CONTRACTOR IS RESPONSIBLE FOR CONTROLLING STORM WATER RUNOFF DURING CONSTRUCTION OPERATIONS. OF PARTICULAR CONCERN WILL BE THE TIME PERIOD AFTER THE SITE HAS BEEN STRIPPED AND NOT YET RESTORED, BUILT UPON, OR PAVED. CONTRACTOR MUST INSTALL OR CONSTRUCT APPROPRIATE TEMPORARY MEASURES TO PROTECT ADJACENT PROPERTIES.

- RESTORATION NOTE**
- RESTORE ALL NON-PAVED AREAS WITH 3" OF CLEAN TOPSOIL AND SEED MIX (30% KENTUCKY BLUEGRASS, 20% PERENNIAL RYEGRASS, 50% CREeping RED FESCUE). PLACE MULCH IN ALL SEED AREAS. ON SLOPES IN EXCESS OF 10 HORIZONTAL TO 1 VERTICAL PLACE NORTH AMERICAN GREEN D5150 MULCH BLANKET IMMEDIATELY AFTER SEEDING. USE METAL STAPLES PER MANUFACTURERS RECOMMENDATIONS TO HOLD MATING IN PLACE.



- DRAINAGE STRUCTURE REPAIR:**
- WHERE NOTED ON THE PLANS, REPAIR EXISTING DRAINAGE STRUCTURES WITHIN PROPOSED WORK AREAS AS DESCRIBED BELOW.
- REMOVE AND SALVAGE EXISTING CASTING AND COVER TO BE RESET UNLESS IT IS NOTED ON THE PLANS TO BE REPLACED.
  - REMOVE EXISTING ADJUSTMENT MATERIALS (BLOCK/BRICK AND/OR GRADE RINGS).
  - INSTALL DRAINAGE STRUCTURE UNDERDRAIN PER "STRUCTURE UNDERDRAIN" DETAIL.
  - PLACE NEW PRECAST CONCRETE GRADE RINGS AND/OR BLOCKS/BLOCKS AND MORTAR.
  - FURNISH AND SET EXISTING (OR PROPOSED WHERE NOTED) CASTING AND COVER TO MATCH EXISTING RIM ELEVATION (OR REVISED RIM ELEVATION IF NOTED).
  - POINT UP NEW ADJUSTMENT SECTION WITH MORTAR CEMENT TO PROVIDE A WATER TIGHT SEAL.
  - INSTALL CONCRETE COLLAR AROUND STRUCTURE PER PLAN DETAIL.

- PAVING CONSTRUCTION NOTES**
- EARTHWORK AND PAVEMENT CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT MOST STANDARD SPECIFICATIONS FOR CONSTRUCTION UNLESS OTHERWISE NOTED IN THE FOLLOWING ITEMS.
  - REMOVE ANY EXISTING TOPSOIL, VEGETATION, TREES AND OTHER DELETTERIOUS MATERIALS TO EXPOSE THE SUBGRADE SOIL. TREE ROOTS SHALL BE COMPLETELY REMOVED.
  - EXCAVATE TO THE DEPTH OF THE FINAL SUBGRADE ELEVATION TO ALLOW FOR GRADE CHANGES AND THE PLACEMENT OF THE RECOMMENDED PAVEMENT SYSTEM.
  - THE TOP 12 INCHES OF THE EXPOSED SUBGRADE SHALL BE COMPACTED TO A DENSITY NO LESS THAN 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR (ASTM D 1557-91).
  - THE FINAL SUBGRADE SHALL BE THOROUGHLY PROFFERED UNDER THE OBSERVATION OF A GEOTECHNICAL/PAVEMENT ENGINEER. LOOSE OR YIELDING AREAS WHICH CANNOT BE MECHANICALLY STABILIZED SHALL BE REMOVED AND REPLACED WITH ENGINEERED FILL OR AS NOTED ON THE PROJECT DETAILS.
  - THE AGGREGATE BASE SHALL BE COMPACTED TO A DENSITY NO LESS THAN 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR (ASTM D 1557-91). THE BASE SHALL EXTEND A MINIMUM OF 1 FOOT BEYOND THE PAVED EDGE.
  - ALL BITUMINOUS MATERIAL SHALL BE COMPACTED TO A DENSITY NO LESS THAN 97 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY THE MARSHALL METHOD.
  - A BOND COAT OF SS-1H EMULSION IS REQUIRED BETWEEN THE LEVELING COURSE AND THE WEARING COURSE WHEN EITHER 24 HOURS HAVE ELAPSED BETWEEN PLACEMENT OF THE BITUMINOUS COURSES OR THE SURFACE OF THE PAVEMENT HAS BEEN CONTAMINATED WITH DIRT, DUST, OR FOREIGN MATERIAL. THE BOND COAT SHALL BE APPLIED IN A UNIFORM MANNER OVER THE SURFACE AT A RATE OF 0.1 GALLONS/S.Y. IN THE EVENT A BOND COAT IS NOT REQUIRED, THE LEVELING COURSE MAY REQUIRE LOCALIZED BROOM CLEANING.
  - PERFORMANCE GRADE PG58-28 ASPHALT CEMENT SHALL BE USED IN THE PRODUCTION OF ALL BITUMINOUS MIXTURES. RECLAIMED ASPHALT PAVEMENT (RAP) SHALL BE ALLOWED ONLY AS SPECIFIED BY THE CURRENT MOST STANDARD SPECIFICATIONS FOR CONSTRUCTION UNLESS NOTED ON THE PROJECT DETAILS.
  - CONSTRUCTION TRAFFIC SHALL BE MINIMIZED ON THE NEW PAVEMENT. IF CONSTRUCTION TRAFFIC IS ANTICIPATED ON THE PAVEMENT STRUCTURE, THE PLACEMENT OF THE FINAL LIFT SHALL BE DELAYED UNTIL THE MAJORITY OF THE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED. THIS ACTION WILL ALLOW REPAIR OF LOCALIZED FAILURE, IF ANY DOES OCCUR, AS WELL AS REDUCE LOAD DAMAGE ON THE PAVEMENT SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR TO ANY DAMAGED SECTION RESULTING FROM CONSTRUCTION ACTIVITY.
  - RESTRIPE PARKING LOTS AS SHOWN, USING 4" PAVEMENT MARKINGS - BLUE FOR BARRIER FREE SPACES, YELLOW FOR STANDARD SPACES. IF NEW PARKING LAYOUT IS NOT INDICATED, MATCH ORIGINAL STRIPING PATTERN.
  - CONTRACTOR SHALL PROTECT EXISTING CURB, GUTTER, SIDEWALK, WALLS, FENCES AND ALL OTHER EXISTING SITE FEATURES NOT INDICATED FOR REMOVAL OR REHABILITATION.
  - PLACE EXPANSION JOINTS WHERE NEW CONCRETE PAVEMENT OR WALKS ABUT BUILDING WALLS (PROPOSED OR EXISTING), CURB, OR EXISTING CONCRETE PAVEMENT. PLACE JOINT SEALANT ON ALL EXPANSION JOINTS.
  - CONTRACTOR TO CONSTRUCT CONTRACTION AND EXPANSION JOINTS IN ALL NEW CONCRETE PAVEMENT. CONTRACTION JOINTS SHALL BE TOoled WHERE SIDEWALK WIDTH IS 8' OR LESS AND SHALL BE SPACED EQUAL TO THE WIDTH OF THE PAVEMENT (I.E. 8' SPACING FOR 8' WIDE WALK), BUT NOT MORE THAN 10' APART. PLACE EXPANSION JOINTS WITH JOINT SEALANT AT MAXIMUM 50' SPACING. CONTRACTOR SHALL GENERALLY MATCH THE JOINT PATTERNS FOR CONCRETE PAVEMENT WHEN SHOWN ON THE PLANS.
  - CONCRETE PAVEMENT SHALL MEET THE REQUIREMENTS FOR MDOT GRADE 4000 CONCRETE PER THE CURRENT MOST STANDARD SPECIFICATIONS FOR CONSTRUCTION.
  - APPLY SLENORE SRT (OR APPROVED EQUIVALENT) ACRYLIC CURING COMPOUND ON ALL CONCRETE PAVING, CURBS, AND WALKS (APPLY PER MANUFACTURER RECOMMENDATIONS).

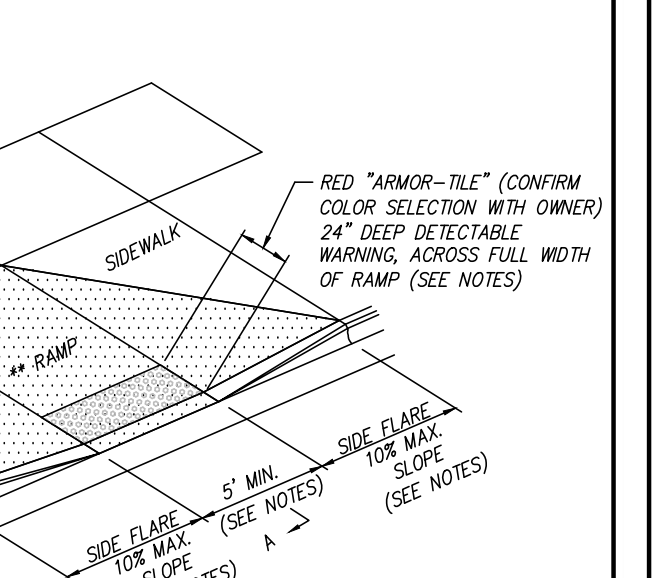
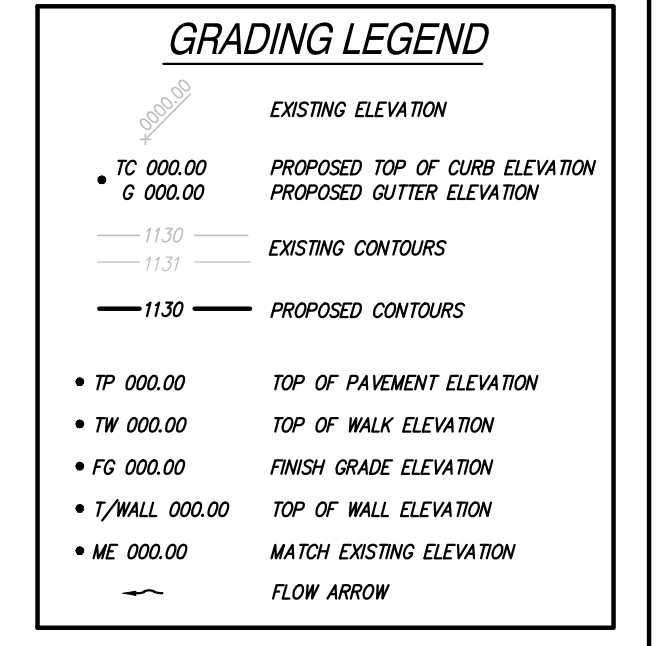
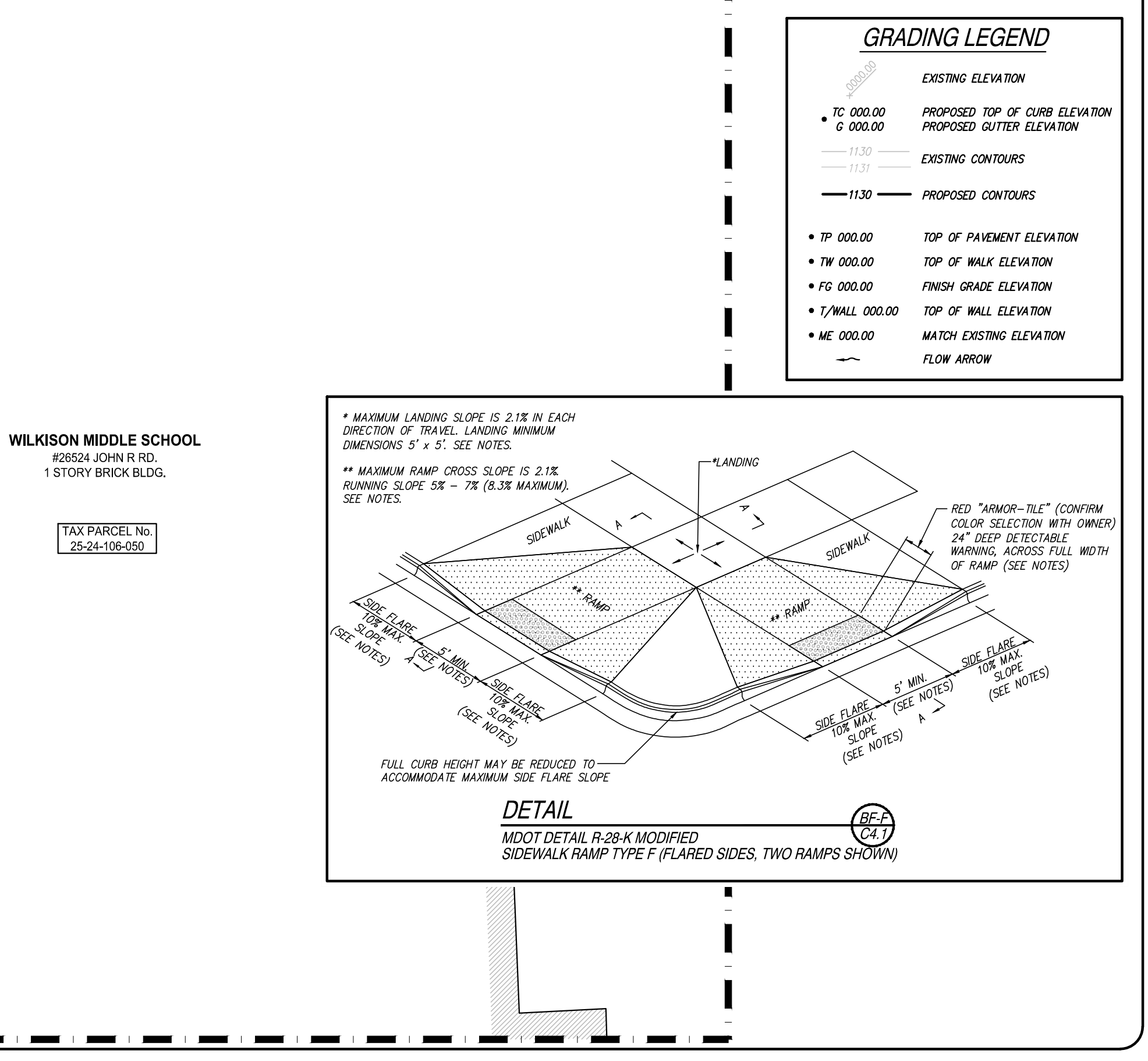
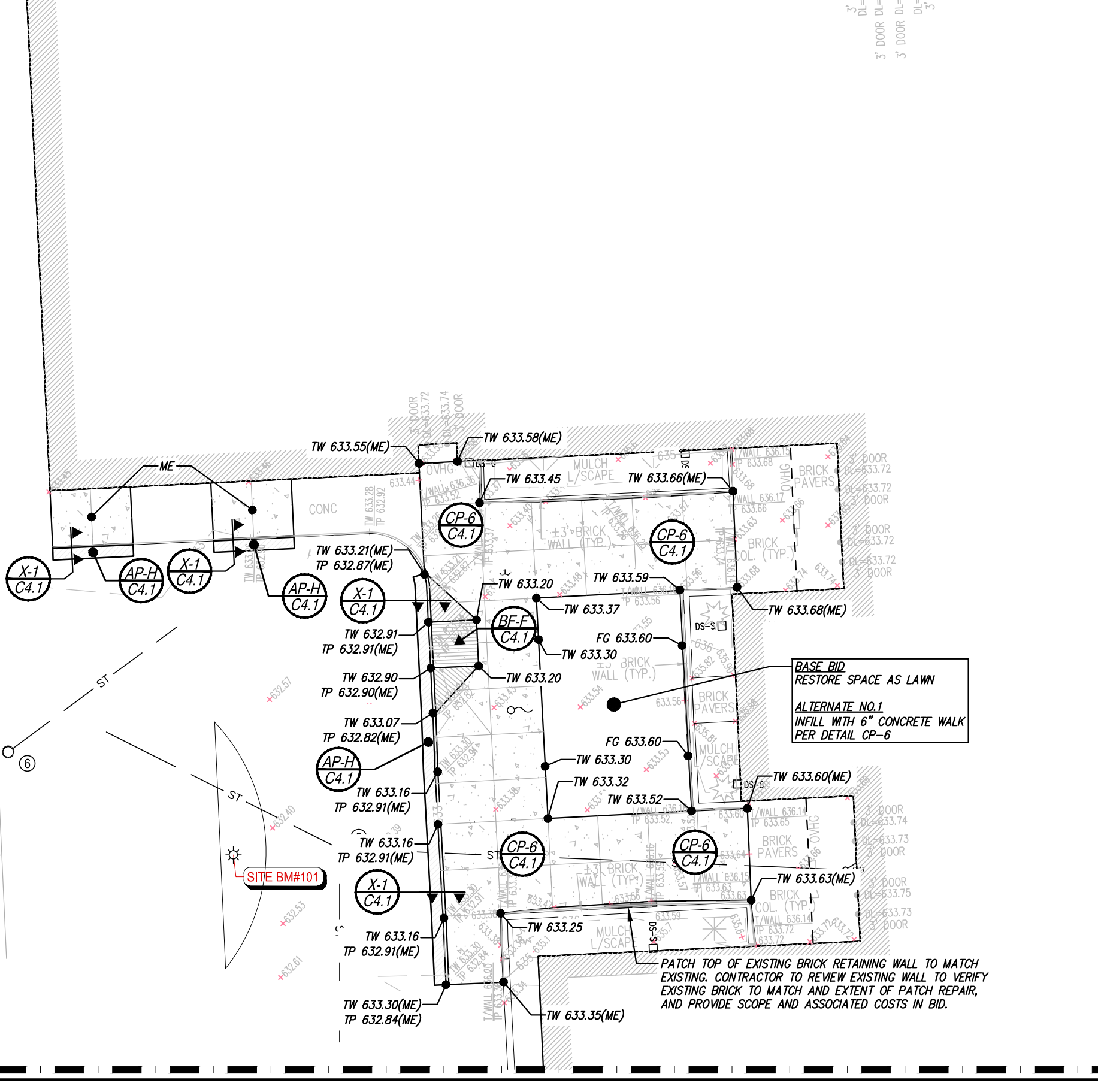
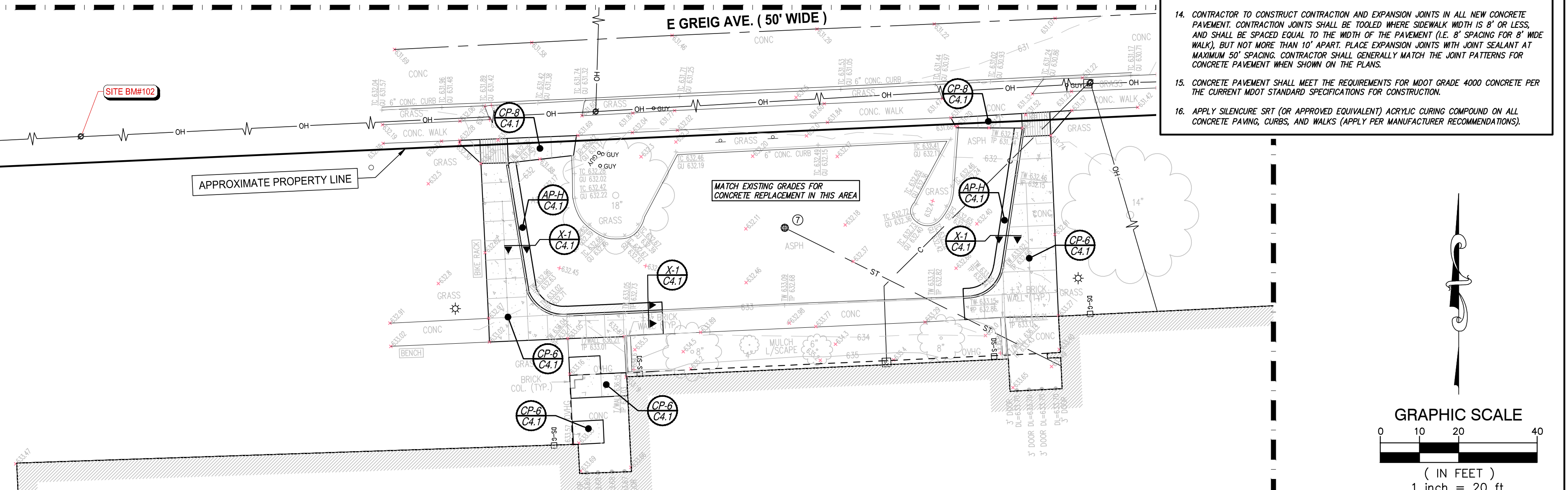
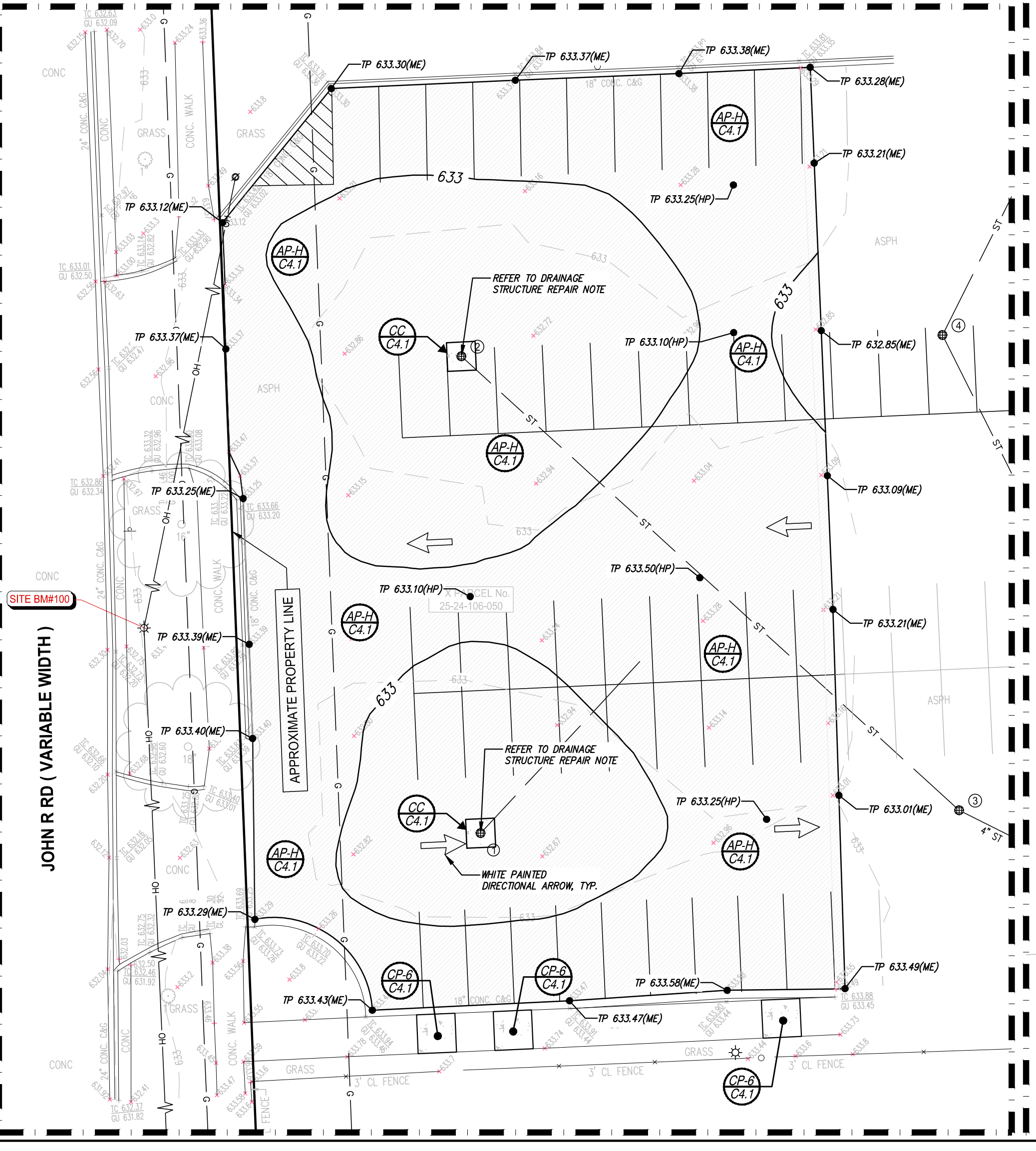
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**811**  
Know what's below.  
Call before you dig.

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**MADISON DISTRICT PUBLIC SCHOOLS WILKINSON MIDDLE SCHOOL PAVEMENT IMPROVEMENTS**

**SITE ENGINEERING PLAN**

SECTION 24  
TOWN 01 NORTH RANGE 11 EAST  
CITY OF MADISON HEIGHTS  
OAKLAND COUNTY, MICHIGAN

NO.	DATE	REVISION
1	12-19-25	OWNER REVIEW
2	01-13-26	BIDS

**VERIFY SCALES**  
BAR IS ONE INCH ON ORIGINAL DRAWING  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DRAWER	DATE
C. YANG	10-23-25

DESIGNER	DATE
J. ENSLEY	10-23-25

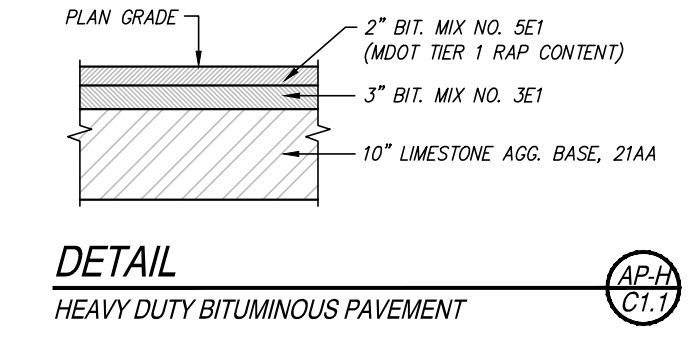
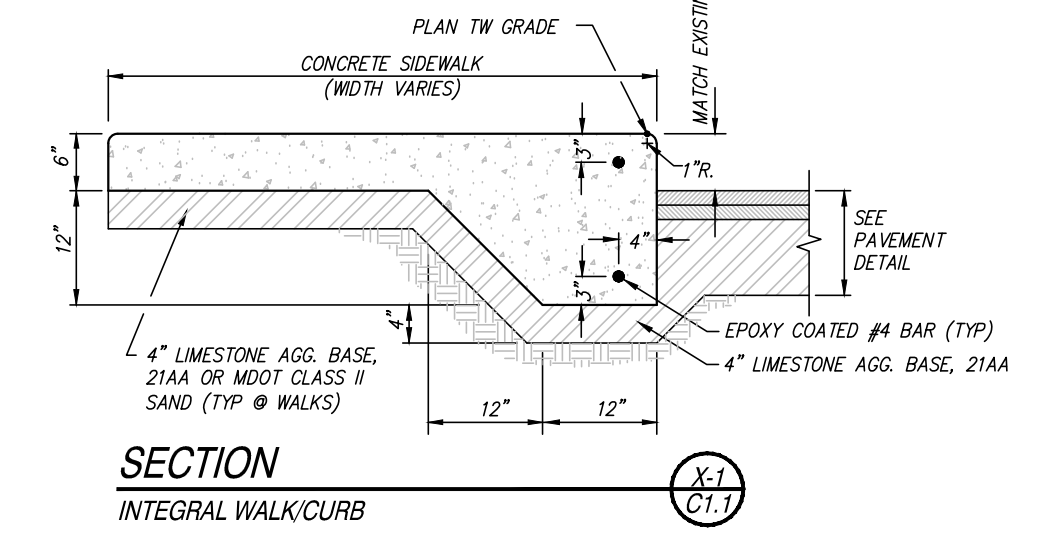
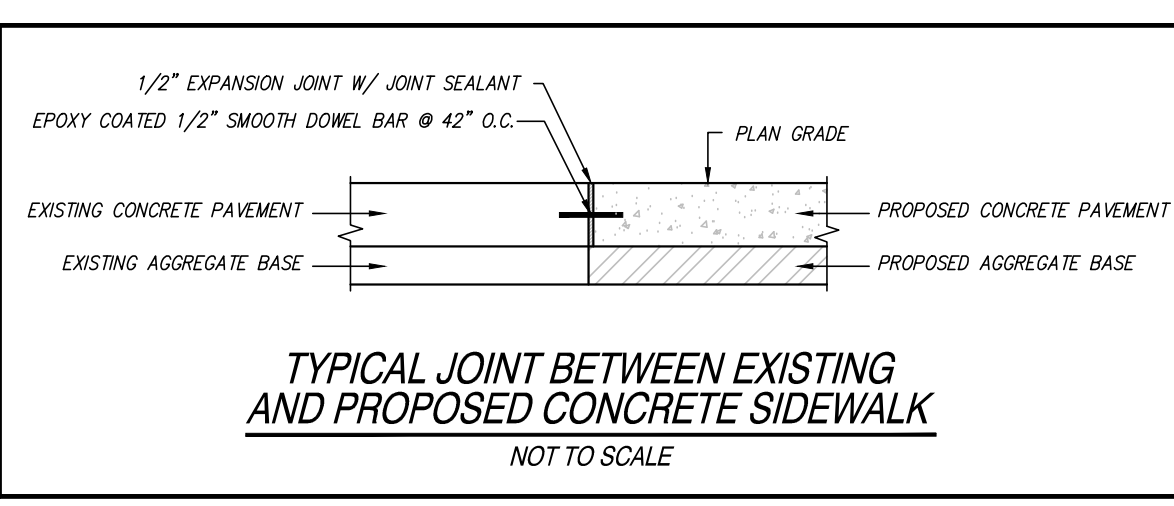
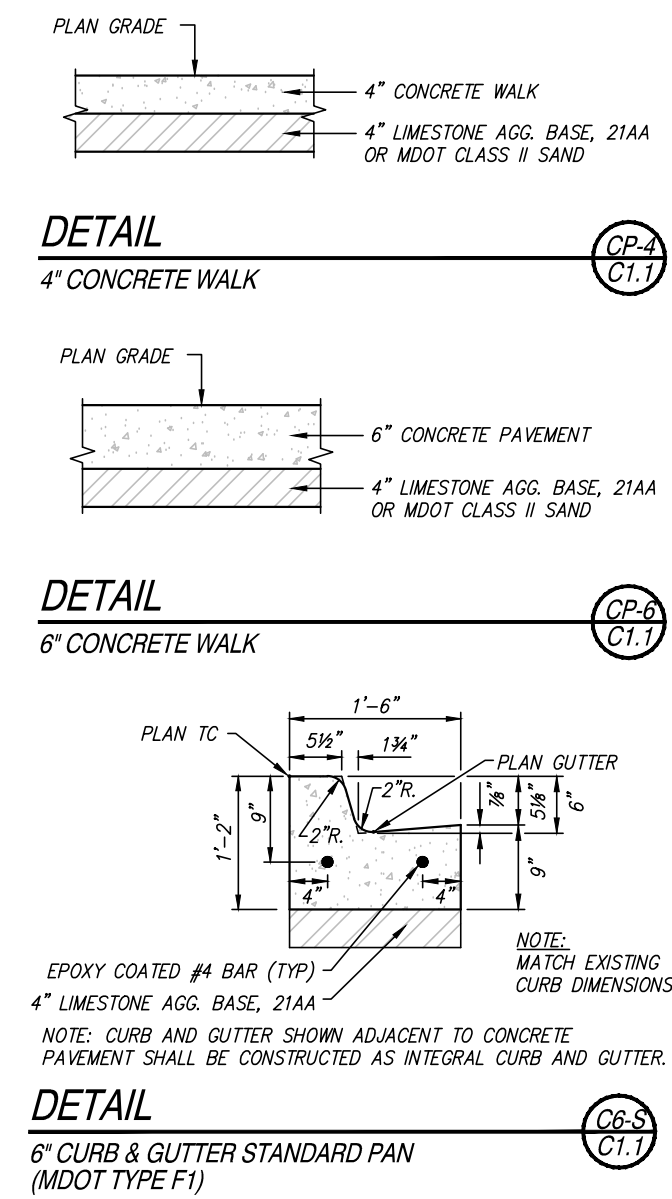
CHECKED	DATE
J. ENSLEY	10-23-25

PROJECT MANAGER	BID PLAN DATE
J. ENSLEY	10-23-25

DEPARTMENT MANAGER APPROVAL	DATE
T. SOVEL	10-23-25

JOB NO: NP25108 DRAWING NO: NP25108ENG  
SCALE: 1" = 20' SHEET NO: C4.1

REFER TO SHEETS  
C2.1 THRU C4.1 FOR  
PROPOSED WORK IN  
THIS AREA



**GRADING NOTES**

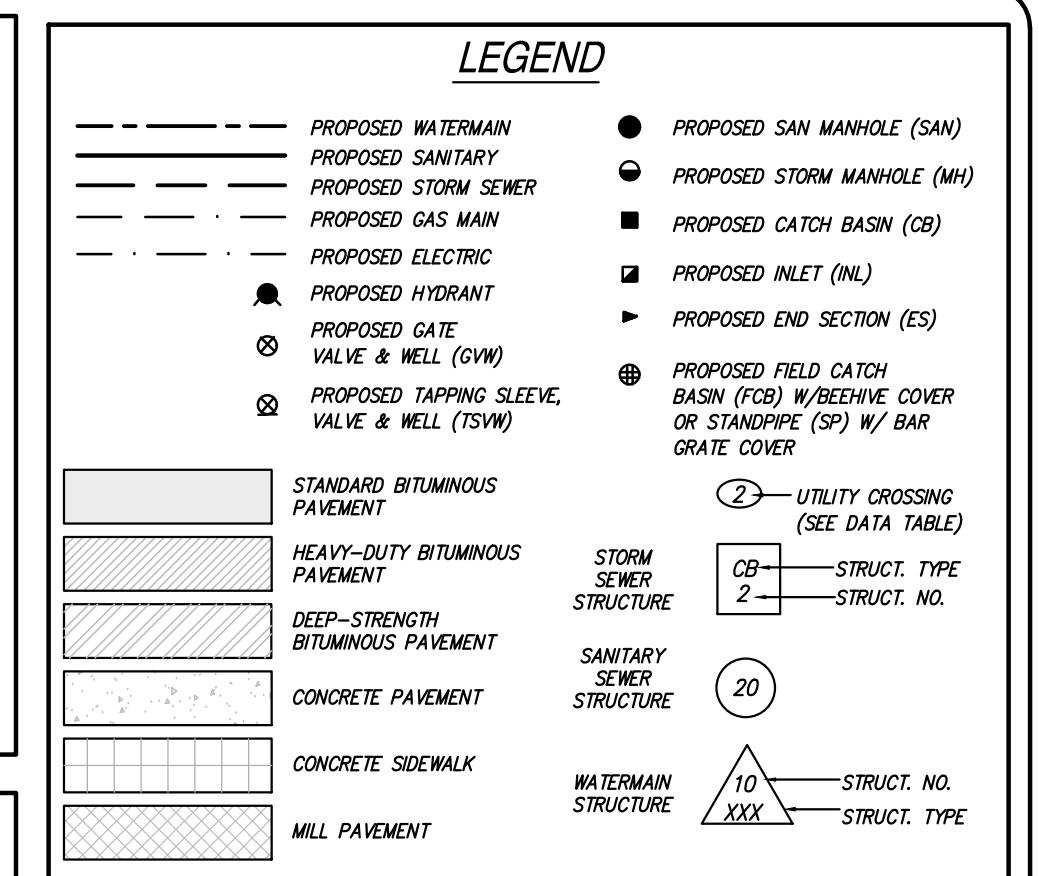
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- PROPOSED GRADES MAY BE BASED ON AN INTERPOLATION OF DATA SHOWN ON THE TOPOGRAPHIC SURVEY. THIS INTERPOLATED DATA IS APPROXIMATE AND COULD DIFFER SLIGHTLY BASED ON THE ACCURACY OF THE SURVEY. CONTRACTOR SHALL CONFIRM THAT THE PROPOSED GRADES SHOWN ON THIS PLAN WILL NOT CREATE A STANDING WATER CONDITION (I.E. A LOW SPOT) OR PAVEMENT SLOPES LESS THAN 1% OR AN UNSAFE CONDITION WITH SLOPES IN EXCESS OF 5%. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF THEY BELIEVE THAT ONE OF THESE SITUATIONS WILL OCCUR BASED ON THE PROPOSED GRADES.
- ALL PAVEMENT PLACED WITHIN HANDICAP PARKING AREAS (STALLS AND ACCESS AISLES) SHALL HAVE A MAXIMUM SLOPE OF 2% IN ANY DIRECTION, INCLUDING MEASURED DIAGONALLY ACROSS THE AREAS. CONTRACTOR SHALL ADJUST SLOPES AS NECESSARY TO PROVIDE ADA COMPLIANT SLOPES AS WELL AS PROVIDING RE-GRADED TRANSITION SLOPES OUTSIDE OF THE HANDICAP PARKING AREAS. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY IF TRANSITION ZONES WILL EXCEED MAXIMUM 5% SLOPES. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE PATTERNS WITH ALL NECESSARY PAVEMENT RE-GRADED.
- ALL HANDICAP RAMPS AND ADA ACCESSIBLE ROUTES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT VERSION OF MOOT DETAIL R-28 "SIDEWALK RAMP AND DETECTABLE WARNING DETAILS".
- CONTRACTOR IS RESPONSIBLE FOR CONTROLLING STORM WATER RUNOFF DURING CONSTRUCTION OPERATIONS OF PARTICULAR CONCERN WILL BE THE TIME PERIOD AFTER THE SITE HAS BEEN STRIPPED AND NOT YET RESTORED, BUILT UPON, OR PAVED. CONTRACTOR MUST INSTALL OR CONSTRUCT APPROPRIATE TEMPORARY MEASURES TO PROTECT ADJACENT PROPERTIES.

**RESTORATION NOTE**

RESTORE ALL NON-PAVED AREAS WITH 3" OF CLEAN TOPSOIL AND SEED MIX (30% KENTUCKY BLUEGRASS, 20% PERENNIAL RYEGRASS, 50% CREEPING RED FESCUE). PLACE MULCH IN ALL SEED AREAS ON SLOPES IN EXCESS OF 10% HORIZONTAL TO 1 VERTICAL. PLACE NORTH AMERICAN GREEN D550 MULCH BLANKET IMMEDIATELY AFTER SEEDING. USE METAL STAPLES PER MANUFACTURERS RECOMMENDATIONS TO HOLD MATTING IN PLACE.

**SURVEY NOTES**

- TOPOGRAPHIC AND/OR BOUNDARY SURVEY, INCLUDING PROPERTY LINES, LEGAL DESCRIPTION, EXISTING UTILITIES, SITE TOPOGRAPHY WITH SPOT ELEVATIONS, OUTSTANDING PHYSICAL FEATURES AND EXISTING STRUCTURE LOCATIONS MAY BE BASED ON RECORD DATA NOT MEASURED IN THE FIELD.
- THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING ALL INFORMATION SHOWN ON THIS SURVEY AND NOTIFYING THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
- CONTRACTOR SHALL UTILIZE A PRIVATE UTILITY LOCATOR TO STAKE PUBLIC AND PRIVATE UTILITY LOCATIONS PRIOR TO START OF CONSTRUCTION. IT IS THE CONTRACTORS RESPONSIBILITY, AT NO COST TO THE PROJECT, TO REPAIR OR REPLACE ANY DAMAGE CAUSED TO EXISTING UTILITIES.
- CONTRACTOR SHALL CONTACT MISS DIG (811) THREE WORKING DAYS PRIOR TO THE START OF CONSTRUCTION FOR STAKING OF UTILITIES.



**DEMOLITION NOTES - CONCRETE REPAIRS**

REMOVE CONCRETE PAVEMENT TO FULL DEPTH. SAWCUT FULL DEPTH TO NEAREST JOINT WHERE NEW PAVEMENT WILL BE PLACED ADJACENT TO EXISTING PAVEMENT.

REMOVE ASPHALT PAVEMENT TO FULL DEPTH. SAWCUT FULL DEPTH WHERE NEW PAVEMENT WILL BE PLACED ADJACENT TO EXISTING PAVEMENT. EXCAVATE EXISTING AGGREGATE BASE AND SUBGRADE AS NECESSARY TO INSTALL NEW PAVEMENT SECTION AS SHOWN ON THE PAVING PLANS.

REMOVE CONCRETE CURB AND GUTTER, SAWCUT FULL DEPTH TO NEAREST JOINT, WHERE SHOWN.

ALL DEPRESSIONS CREATED BY DEMOLITION PROCEDURES SHALL BE BACKFILLED WITH CLASS II FILL MATERIAL, IN 8" LIFTS COMPACTED TO SIDE OF MAXIMUM UNIT HEIGHT, UP TO PROPOSED SUBGRADE.

CONTRACTOR IS RESPONSIBLE FOR DOING AN EARTHWORK CALCULATION FOR CUT AND FILL REQUIREMENTS, AND IS RESPONSIBLE FOR INCLUDING IMPORT AND EXPORT OF MATERIALS IN THEIR BID. ALL EXCESS MATERIAL (INCLUDING TOPSOIL, CLEAN FILL, AND WASTE MATERIAL) SHALL BE REMOVED FROM THE SITE.

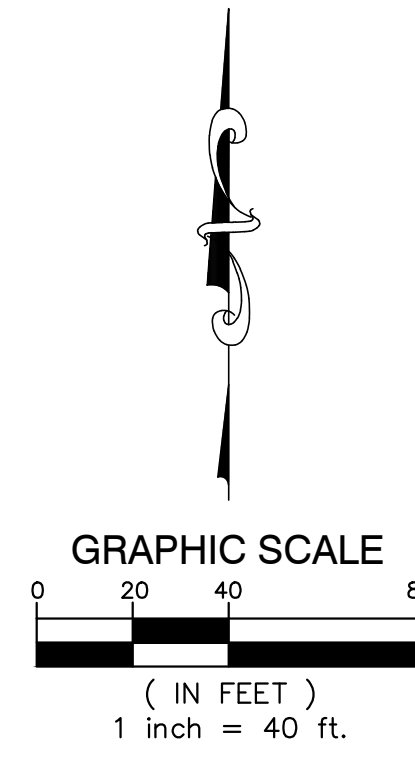
EXISTING SUPPORTED SLABS AT BUILDING ENTRY/DOORS TO REMAIN, UNLESS OTHERWISE DIRECTED. CONTRACTOR TO VERIFY LIMITS OF EXISTING SUPPORTED SLAB AND REMOVE ADJACENT WALKS AS SHOWN ON PLANS.

CONTRACTOR TO PROTECT EXISTING WALKS, PAVEMENT, CURBS, GUTTERS, WALLS, FENCES, GATES, LANDSCAPING AND TREES TO REMAIN DURING CONSTRUCTION.

**PAVING CONSTRUCTION NOTES - CONCRETE REPAIRS**

- EARTHWORK AND PAVEMENT CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT MOOT STANDARD SPECIFICATIONS FOR CONSTRUCTION UNLESS OTHERWISE NOTED IN THE FOLLOWING ITEMS:
- REMOVE ANY EXISTING TOPSOIL, VEGETATION, TREES AND OTHER DELETERIOUS MATERIALS TO EXPOSE THE SUBGRADE. SOIL TREE ROOTS SHALL BE COMPLETELY REMOVED.
- EXCAVATE TO THE DEPTH OF THE FINAL SUBGRADE ELEVATION TO ALLOW FOR GRADE CHANGES AND THE PLACEMENT OF THE RECOMMENDED PAVEMENT SYSTEM.
- THE TOP 12 INCHES OF THE EXPOSED SUBGRADE SHALL BE COMPACTED TO A DENSITY NO LESS THAN 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR (ASTM D 1557-91).
- THE FINAL SUBGRADE SHALL BE THOROUGHLY PROFFLED UNDER THE OBSERVATION OF A GEOTECHNICAL/PAVEMENT ENGINEER. LOOSE OR YIELDING AREAS WHICH CANNOT BE MECHANICALLY STABILIZED SHALL BE REMOVED AND REPLACED WITH ENGINEERED FILL OR AS DICTATED BY FIELD CONDITIONS.
- THE AGGREGATE BASE SHALL BE COMPACTED TO A DENSITY NO LESS THAN 95 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR (ASTM D 1557-91). THE BASE SHALL EXTEND A MINIMUM OF 1 FOOT BEYOND THE PAVED EDGE.
- ALL BITUMINOUS MATERIAL SHALL BE COMPACTED TO A DENSITY NO LESS THAN 97 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY THE MARSHALL METHOD.
- A BOND COAT OF 55-H EMULSION IS REQUIRED BETWEEN THE LEVELING COURSE AND THE WEARING COURSE WITHIN EITHER 24 HOURS OR 48 HOURS OF PLACEMENT OF THE BITUMINOUS COURSES OR THE SURFACE OF THE PAVEMENT HAS BEEN CONTAMINATED WITH DIRT, DUST, OR FOREIGN MATERIAL. THE BOND COAT SHALL BE APPLIED IN A UNIFORM MANNER OVER THE SURFACE AT A RATE OF 0.1 GALLONS/SY. IN THE EVENT A BOND COAT IS NOT REQUIRED, THE LEVELING COURSE MAY REQUIRE LOCALIZED BROOM CLEANING.
- PERFORMANCE GRADE PG58-28 ASPHALT CEMENT SHALL BE USED IN THE PRODUCTION OF ALL BITUMINOUS MIXTURES. RECLAIMED ASPHALT PAVEMENT (RAP) SHALL BE ALLOWED ONLY AS SPECIFIED BY THE CURRENT MOOT STANDARD SPECIFICATIONS FOR CONSTRUCTION, UNLESS NOTED ON THE PROJECT DETAILS.
- CONSTRUCTION TRAFFIC SHALL BE MINIMIZED ON THE NEW PAVEMENT. IF CONSTRUCTION TRAFFIC IS ANTICIPATED ON THE PAVEMENT STRUCTURE, THE PLACEMENT OF THE FINAL LIFT SHALL BE DELAYED UNTIL THE MAJORITY OF THE CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED. THIS ACTION WILL ALLOW REPAIR OF LOCALIZED FAILURE, IF ANY DOES OCCUR, AS WELL AS REDUCE LOAD DAMAGE ON THE PAVEMENT SYSTEM. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR TO ANY DAMAGED SECTION RESULTING FROM CONSTRUCTION ACTIVITY.
- RE-STRIPE ANY DISTURBED PAVEMENT MARKINGS TO MATCH EXISTING, WHETHER SHOWN OR NOT, CONTRACTOR TO CONFIRM EXISTING PRIOR TO REMOVAL.
- CONTRACTOR SHALL PROTECT EXISTING CURB, GUTTER, SIDEWALK, WALLS, FENCES AND ALL OTHER EXISTING SITE FEATURES NOT INDICATED FOR REMOVAL OR REHABILITATION.
- PLACE EXPANSION JOINTS WHERE NEW CONCRETE PAVEMENT OR WALKS ABUT BUILDING WALLS (PROPOSED OR EXISTING), CURB, OR EXISTING CONCRETE PAVEMENT. PLACE JOINT SEALANT ON ALL EXPANSION JOINTS.
- CONTRACTOR TO CONSTRUCT CONTRACTION AND EXPANSION JOINTS IN ALL NEW CONCRETE PAVEMENT. CONTRACTION JOINTS SHALL BE TOOLED WHERE SIDEWALK WIDTH IS 8' OR LESS, AND SHALL BE SPACED EQUAL TO THE WIDTH OF THE PAVEMENT (I.E. 8' SPACING FOR 8' WIDE WALKS), BUT NOT MORE THAN 10' APART. PLACE EXPANSION JOINTS WITH JOINT SEALANT AT MAXIMUM 50' SPACING. CONTRACTOR SHALL GENERALLY MATCH THE JOINT PATTERNS FOR CONCRETE PAVEMENT WHEN SHOWN ON THE PLANS.
- CONCRETE PAVEMENT SHALL MEET THE REQUIREMENTS FOR MOOT GRADE 4000 CONCRETE PER THE CURRENT MOOT STANDARD SPECIFICATIONS FOR CONSTRUCTION.
- APPLY SILENCURE SRT (OR APPROVED EQUIVALENT) ACRYLIC CURING COMPOUND ON ALL CONCRETE PAVING, CURBS, AND WALKS (APPLY PER MANUFACTURER RECOMMENDATIONS).

**BASE PLAN NOTE EXCEPT WHERE SURVEY IS PROVIDED:**  
BASE PLAN USED FOR PROJECT DESIGN IS A COMBINATION OF AERIAL IMAGERY AND FIELD INVESTIGATION. NO DETECTION SURVEY WORK WAS PERFORMED BY SPALDING DEDDECKER. SPALDING DEDDECKER WILL NOT BE HELD RESPONSIBLE FOR THE ACCURACY OF THE BASE PLAN OR FOR DESIGN OMISSIONS RESULTING FROM SURVEY INACCURACIES OR OMISSIONS.



**CIVIL SHEET INDEX**

C1.1	- SITE IMPROVEMENT PLAN
C2.1	- TOPOGRAPHICAL SURVEY
C3.1	- DEMOLITION PLAN
C4.1	- SITE ENGINEERING PLAN

**CONCRETE ENTRY SLABS**

AT EXISTING DOORS, REUSE EXISTING CONCRETE FOOTINGS AND REPLACE CONCRETE CAP ONLY, IF NO FOOTINGS EXIST, NOTIFY ENGINEER IMMEDIATELY.

**SOIL EROSION MEASURES**

INSTALL INLET FILTERS WITHIN ALL EXISTING DRAINAGE STRUCTURES WITHIN INFLUENCE OF WORK AREAS

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Madison Heights, MI 48071  
PHONE: (248) 399-7800

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PRIOR TO CONSTRUCTION, ALL LOCATIONS AND DEPTHS OF EXISTING UTILITIES (IN CONFLICT WITH PROPOSED IMPROVEMENTS) SHALL BE VERIFIED IN THE FIELD. CALL MISS DIG 3 WORKING DAYS PRIOR TO CONSTRUCTION.

**UTILITY NOTE**

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**MADISON DISTRICT PUBLIC SCHOOLS  
MADISON HIGH SCHOOL  
PAVEMENT IMPROVEMENTS**

**SITE IMPROVEMENT PLAN**

SECTION 13  
TOWN 01 NORTH RANGE 11 EAST  
CITY OF MADISON HEIGHTS  
OAKLAND COUNTY, MICHIGAN

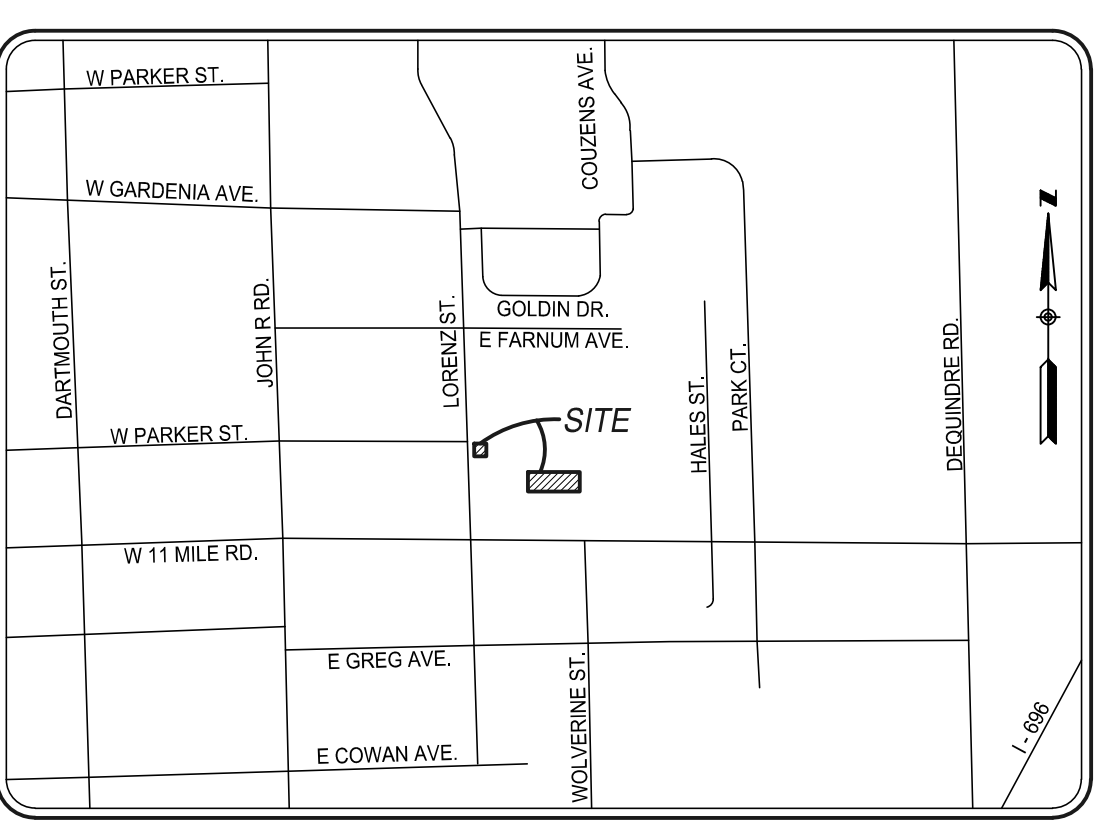
NO.	DATE	REVISION
1	12-19-25	OWNER REVIEW
2	01-13-26	BIDS

VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
IF NOT ONE INCH ON THIS SHEET,  
ADJUST SCALES ACCORDINGLY

DRAWER	DATE
C. YANG	10-23-25
DESIGNER	DATE
J. ENSLEY	10-23-25
CHECKER	DATE
J. ENSLEY	10-23-25
PROJECT MANAGER	BID PLAN DATE
J. ENSLEY	10-23-25
DEPARTMENT MANAGER APPROVAL	DATE
T. SOVEL	10-23-25
JOB NO.	DRAWING NO.
NP25107	NP25107IMP
SCALE:	SHEET NO.
1" = 40'	C1.1

**LEGEND**

- MANHOLE
- CATCH BASIN
- SEWER CLEAN OUT
- GAS METER
- GAS SHUT OFF VALVE
- VALVE BOX
- GATE VALVE & WELL
- WATER SHUT OFF VALVE
- FIRE HYDRANT
- SPRINKLER VALVE BOX
- LAWN SPRINKLER HEAD
- UNVERIFIED MAPPED OBJECT
- ELECTRIC RISER OR METER
- TELEPHONE RISER
- CABLE TV RISER
- AIR CONDITION UNIT
- UTILITY POLE
- UTILITY POLE W/ LAMP EXTENSION (ARROW INDICATES DIRECTION OF ARM)
- LIGHT POLE
- LIGHT POLE WITH LAMP EXTENSION
- TRAFFIC SIGNAL
- POLE W/ TRAFFIC SIGNAL (OVER ROAD)
- GUY WIRE
- GROUND LEVEL / DECORATIVE LIGHTING
- FLAG POLE
- METAL OR CONC. POST
- MAILBOX
- SIGN
- WATER FOUNTAIN
- PARKING METER
- BILLBOARD OR LARGE SIGN
- BASKETBALL HOOP
- BOULDER
- STATUE OR SCULPTURE
- BENCH
- BIKE RACK
- DETECTABLE WARNING STRIP
- PICNIC TABLE
- SOCCER GOAL
- STUMP
- DS-S DOWNSPOUT INTO STORM DRAIN
- DS-G DOWNSPOUT TO GROUND
- CONIFEROUS TREE
- DECIDUOUS TREE
- DECIDUOUS SHRUB
- CONIFEROUS SHRUB
- SECTION CORNER
- TRAVERSE POINT
- STRUCTURE NUMBER
- SDA POINT No.
- SPOT ELEVATION
- TC TOP OF CURB ELEVATION
- QU GUTTER ELEVATION
- PT TOP OF PAVEMENT ELEVATION
- EM EDGE OF METAL ELEVATION
- TW TOP OF WALK ELEVATION
- TWALL TOP OF WALL ELEVATION
- BWALL BOTTOM OF WALL ELEVATION
- GR GROUND ELEVATION
- UG UNDERGROUND
- FO FIBER OPTIC
- CONC CONCRETE
- ASPH ASPHALT
- OHNG OVERHANG
- FF FINISH FLOOR ELEVATION
- DL DOORLEGE ELEVATION
- F.I. FOUND IRON
- F.I.P. FOUND IRON PIPE
- MON FOUND MONUMENT
- F.P.K. FOUND P.K. NAIL
- S.I. SET IRON WISDA CAP
- S.P.K. SET P.K. NAIL
- S.P.K./TAG SET P.K. NAIL WISDA TAG
- MAG/TAG SET MAGNETIC NAIL WISDA TAG
- M MEASURED
- R RECORD
- C CALCULATED
- INV. INVERT ELEVATION
- CMP CORRUGATED METAL PIPE
- G GAS
- SH SANITARY SEWER (SH)
- ST STORM SEWER (STM)
- WM WATERMAIN (WM)
- OH OVERHEAD WIRE
- CS COMBINED SEWER
- STE STEAM LINE
- O OIL LINE
- F UG FIBER (COMM.)
- E UG ELECTRIC (ELEC.)
- T UG PHONE (PH)
- C UG CABLE (CB)
- CH CHAIN LINK FENCE (CL)
- W WOOD FENCE
- WV WOVEN WIRE FENCE (WW)
- GRV GRAVEL
- EDGE OF BRUSHWOODS
- CULVERT
- MAJOR CONTOUR
- MINOR CONTOUR
- BOUNDARY LINES
- ROW LINES
- SECTION LINES
- PROPERTY LINES
- BUILDING
- ASPHALT
- CONCRETE
- GRAVEL / DIRT / MULCH
- BRICK / PAVERS
- WATER
- WATER W/ VEGETATION



**BENCHMARK DESCRIPTIONS**

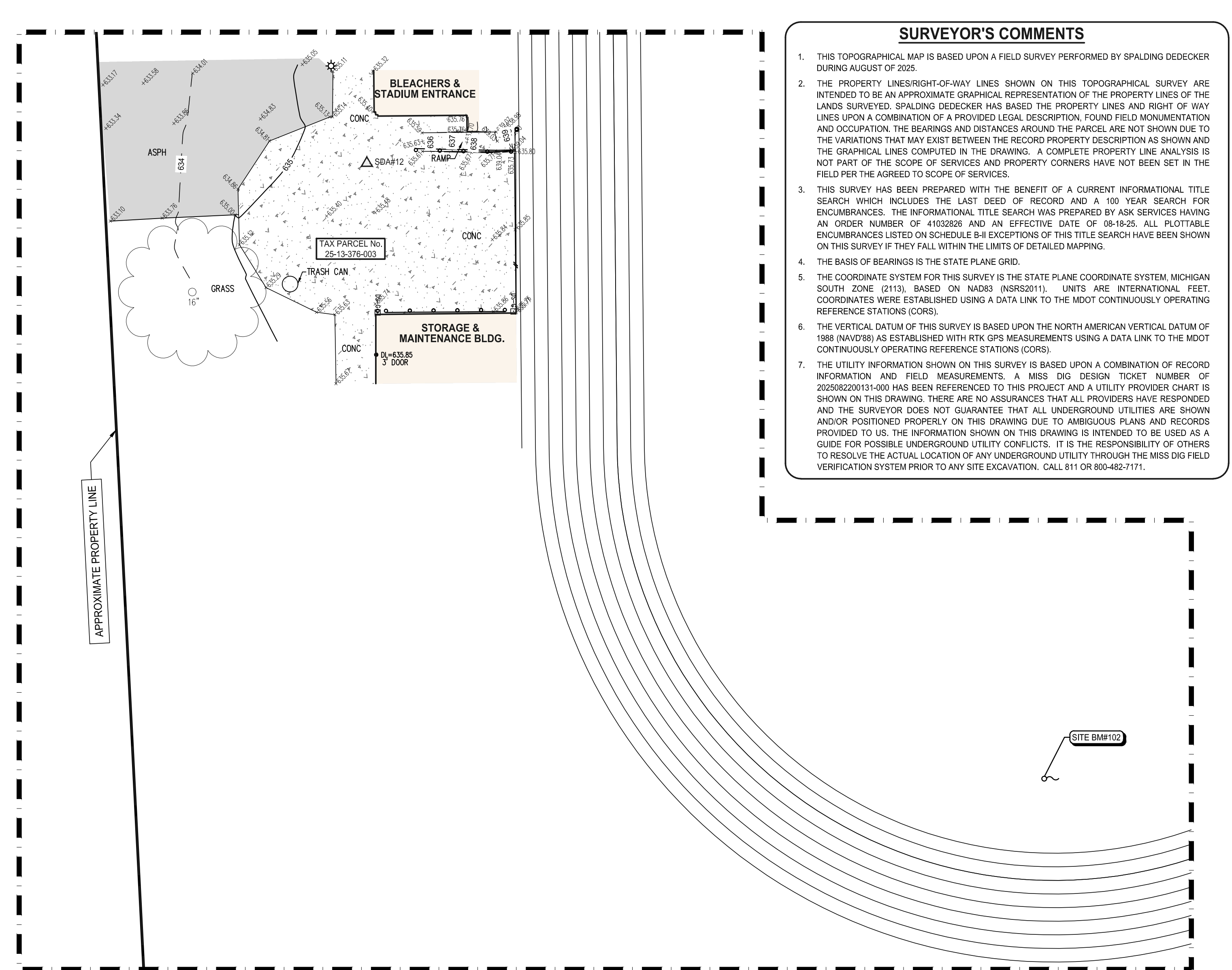
DATUM: GPS-DERIVED NAVD88

SITE BM#100	BENCHMARK ON THE NORTH FACE OF UTILITY LIGHT POLE. LOCATED NORTH SIDE OF DRIVEWAY ALONG NORTH DRIVEWAY TO GARAGE DOORS ON NORTH SIDE OF HIGH SCHOOL BUILDING +50 FEET NORTH AND +250 FEET EAST OF THE NORTHWEST CORNER OF BUILDING.	ELEV = +634.72
SITE BM#101	BENCHMARK ON THE NORTH FACE OF UTILITY LIGHT POLE. LOCATED NORTH SIDE OF DRIVEWAY ALONG NORTH DRIVEWAY TO GARAGE DOORS ON NORTH SIDE OF HIGH SCHOOL BUILDING +50 FEET NORTH AND +50 FEET EAST OF THE NORTHWEST CORNER OF BUILDING.	ELEV = +634.56
SITE BM#102	SCRIBE 'X' ON SOUTHWEST CORNER OF THE BASE FLAG POLE CONCRETE BASE LOCATED SOUTH SIDE OF STADIUM RUNNING TRACK. (SHOWN BUT IT IS OUTSIDE SURVEY LIMITS AREA.)	ELEV = +936.94

**LEGAL DESCRIPTION**

SOURCE: ASK SERVICES TITLE COMMITMENT  
 OWNER: MADISON DISTRICT PUBLIC SCHOOLS  
 TAX PARCEL ID: 25-13-376-003  
 ADDRESS: 915 EAST 11 MILE ROAD

T1N, R11E, SEC 13, PART OF SW 1/4 BEG AT S 1/4 COR, TH W 1228.08 FT, TH N 02-22-30 W 1678.20 FT, TH E 1243.71 FT, TH S 01-00-30 E 1077.03 FT TO BEG, EXC BEG AT PT DIST W 1193.08 FT & N 1648.20 FT FROM S 1/4 COR, TH S 00-06-21 W 160 FT, TH S 00-06-21 E 150 FT TO BEG, ALSO EXC NLY 30 FT, ALSO EXC WLY 35.03 FT, ALSO EXC BEG AT PT DIST N 00-54-01 E 668.86 FT FROM S 1/4 COR, TH N 87-17-36 W 293.09 FT, TH N 02-41-59 E 977.06 FT, TH S 87-25-19 E 262.38 FT, TH S 00-54-01 W 978.13 FT TO BEG, ALSO EXC SLY 60 FT TAKEN FOR RD 36.85 A 91090 FR 002



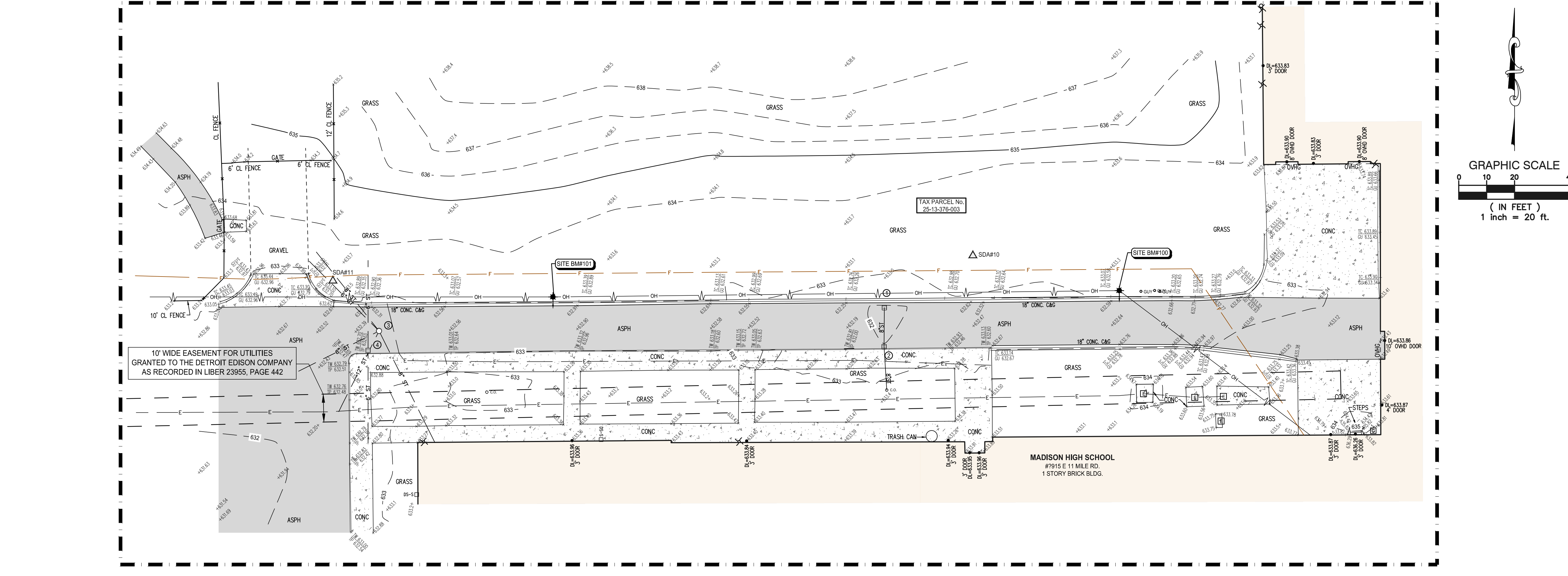
**UTILITY CHART**

UTILITY PROVIDER	CONTACT #	MISS DIG RESULTS	DATE
AT&T TELEPHONE	(616) 881-2268	RECEIVED	8/25/2022
COMCAST CABLE TV	(855) 962-8525	RECEIVED	8/25/2022
CONSUMERS ENERGY GAS	(219) 500-2070	NOT RECEIVED	N/A
DTE ENERGY (ELECTRIC) ELECTRIC	(313) 552-2950	RECEIVED	8/27/2022
MADISON DISTRICT PUBLIC SCHOOLS FIBER OPTICS	(248) 318-5192	RECEIVED	8/25/2022
MADISON HEIGHTS CITY POTABLE WATER	(248) 589-2294	NOT RECEIVED	N/A
MADISON HEIGHTS CITY SANITARY SEWER	(248) 589-2294	NOT RECEIVED	N/A
MADISON HEIGHTS CITY SEWER (COMBINED SANITARY/STORM ONLY)	(248) 589-2294	NOT RECEIVED	N/A
MADISON HEIGHTS CITY STORM SEWER	(248) 589-2294	NOT RECEIVED	N/A
OAKLAND COUNTY DRAIN COMMISSIONER	(248) 858-1116	NOT RECEIVED	N/A
OAKLAND COUNTY ROAD COMMISSION TRAFFIC	(248) 858-4870	NOT RECEIVED	N/A
VERIZON WIRELESS FIBER OPTICS	(800) 624-9675	NOT RECEIVED	N/A
WINDSTREAM COMMUNICATIONS FIBER OPTICS	(800) 289-1901	RECEIVED	8/22/2022

**STRUCTURE TABLE**

THE STRUCTURE TABLE ON THIS DRAWING IDENTIFIES THE AS-SURVEYED UNDERGROUND UTILITY MANHOLES THAT WERE FIELD MEASURED USING REASONABLE AND TRADITIONAL SURVEYING PRACTICES. PIPE SIZES, DIRECTIONS AND ELEVATIONS ARE INDICATED BY A COMBINATION OF FIELD EVIDENCE AND AVAILABLE RECORD INFORMATION. UNDERGROUND UTILITY PIPE SIZES AND CONNECTIONS ARE MANY TIMES AMBIGUOUS. SOME STRUCTURES MAY HAVE PIPES WITH UNKNOWN CONNECTIONS, SIMS AND/OR PIPES THAT ARE FILLED WITH DEBRIS. IT WILL BE UP TO THE DESIGN ENGINEER TO LOOK AT THE PRESENTED SURVEY RESULTS AND DECIDE IF FURTHER INVESTIGATION BY OTHER METHODS SUCH AS VACUUM CLEAN OUT, UNDERGROUND RADAR, SMOKE TESTING AND PHYSICAL EXCAVATION IS REQUIRED AS AN ADDITIONAL SERVICE.

#	TYPE	SIZE	INVERT	DIRECTION	CONNECTION
1	SQUARE-CATCH BASIN	5	628.85	SOUTH	2
	TOP / DEBRIS	5			
2	SQUARE-CATCH BASIN	1	629.01	NORTH	1
	TOP / DEBRIS	1	628.89	SOUTH	C.O.
3	STORM MANHOLE	8	628.17	SE	
	TOP / WATER	8	627.68	SW	
	TOP / DEBRIS	8	628.73	SW	
	TOP / WATER	8	628.78	NW	
	TOP / DEBRIS	8	627.88	NW	
4	SQUARE-CATCH BASIN	4	629.14	NORTH	
	TOP / DEBRIS	4	629.04	SOUTH	



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**MADISON DISTRICT PUBLIC SCHOOLS**  
**MADISON HIGH SCHOOL**  
**PAVEMENT IMPROVEMENTS**

TOPOGRAPHICAL SURVEY

SECTION 13  
 TOWN 01 NORTH RANGE 11 EAST  
 CITY OF MADISON HEIGHTS  
 OAKLAND COUNTY, MICHIGAN

NO.	DATE	REVISION
1	12-19-25	OWNER REVIEW
2	01-13-26	BIDS

VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DRAWN BY	DATE
C. YANG	10-23-25

DESIGNER	DATE
J. ENSLEY	10-23-25

CHECKED	DATE
J. ENSLEY	10-23-25

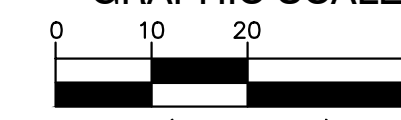
PROJECT MANAGER	BID PLAN DATE
J. ENSLEY	10-23-25

DEPARTMENT MANAGER APPROVAL	DATE
T. SOVEL	10-23-25

JOB NO: NP25107 DRAWING NO: NP25107TPG  
 SCALE: 1" = 20' SHEET NO: C2.1











Plotted: Jan 13, 2026, 10:56 AM by user: 1006 - Saved: 1/13/2026 by user: 1006  
 N:\NP\NL\Projects\NP25107 - Madison Schools - Madison HS\DWG\NP25107TPG\_DWG


GRAPHIC SCALE



( IN FEET )  
1 inch = 20 ft.

**DEMOLITION NOTES**

-  1 REMOVE ASPHALT PAVEMENT TO FULL DEPTH. EXCAVATE SUBSURFACE AS NECESSARY. SAWCUT FULL DEPTH WHERE NEW PAVEMENT WILL BE PLACED ADJACENT TO EXISTING PAVEMENT. EXCAVATE EXISTING AGGREGATE BASE AND SUBGRADE AS NECESSARY TO INSTALL NEW PAVEMENT SECTION AS SHOWN ON THE PAVING PLANS, INCLUDING NEW AGGREGATE BASE.
-  2 REMOVE CONCRETE PAVEMENT TO FULL DEPTH. EXCAVATE EXISTING AGGREGATE BASE AND SUBGRADE AS NECESSARY TO INSTALL NEW PAVEMENT SECTION AS SHOWN ON THE PAVING PLANS, INCLUDING NEW AGGREGATE BASE. SAWCUT FULL DEPTH TO NEAREST JOINT WHERE NEW PAVEMENT WILL BE PLACED ADJACENT TO EXISTING PAVEMENT.
-  3 REMOVE CONCRETE CURB AND GUTTER. SAWCUT FULL DEPTH TO NEAREST JOINT, WHERE SHOWN. REMOVAL LIMITS TO BE FIELD VERIFIED BY ENGINEER.
-  4 PROTECT EXISTING UTILITY STRUCTURE TO REMAIN.
-  5 REMOVE EXISTING CONCRETE RAMP.
-  6 PROTECT EXISTING UNDERGROUND ELECTRICAL TO REMAIN.
-  7 REMOVE AND SALVAGE TRASH CAN AND PICNIC TABLES. RESET TRASH CAN AND PICNIC TABLES UPON COMPLETION OF WORK.
-  8 PROTECT EXISTING CONCRETE PAVEMENT TO REMAIN.
-  9 PROTECT EXISTING UNDERGROUND FIBER TO REMAIN.
-  10 PROTECT EXISTING CONCRETE CURB AND GUTTER TO REMAIN.

 11 CLEAR AND GRUB TO THE LIMITS SHOWN. INCLUDE REMOVAL OF ALL SIGNS, POSTS, FOOTINGS, GRAVEL, BRUSH, SHRUBS, GRASS, AND TREES NOT INDICATED FOR PROTECTION, INCLUDING ROOTS, STRIP TOPSOIL, AND STOCKPILE ON SITE IN DESIGNATED LOCATION.

EXISTING SIGNAGE AND MAILBOXES WITHIN THE CLEARING LIMITS ARE TO BE REMOVED AND SALVAGED. STAGE IN ON SITE LOCATION AS SPECIFIED BY OWNER.

ALL DEPRESSIONS CREATED BY DEMOLITION PROCEDURES SHALL BE BACKFILLED WITH CLASS II FILL MATERIAL, IN 8" LIFTS COMPACTED TO SIZE OF MAXIMUM UNIT HEIGHT, UP TO PROPOSED SUBGRADE.

CONTRACTOR IS RESPONSIBLE FOR DOING AN EARTHWORK CALCULATION FOR CUT AND FILL REQUIREMENTS, AND IS RESPONSIBLE FOR INCLUDING IMPORT AND EXPORT OF MATERIALS IN THEIR BID. ALL EXCESS MATERIAL (INCLUDING TOPSOIL, CLEAN FILL, AND WASTE MATERIAL) SHALL BE REMOVED FROM THE SITE.

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**SURVEY NOTES**

1. TOPOGRAPHIC AND/OR BOUNDARY SURVEY, INCLUDING PROPERTY LINES, LEGAL DESCRIPTION, EXISTING UTILITIES, SITE TOPOGRAPHY, WITH SPOT ELEVATIONS, OUTSTANDING PHYSICAL FEATURES AND EXISTING STRUCTURE LOCATIONS MAY BE BASED ON RECORD DATA NOT MEASURED IN THE FIELD.
2. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING ALL INFORMATION SHOWN ON THIS SURVEY AND NOTIFYING THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
3. CONTRACTOR SHALL UTILIZE A PRIVATE UTILITY LOCATOR TO STAKE PUBLIC AND PRIVATE UTILITY LOCATIONS PRIOR TO START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY, AT NO COST TO THE PROJECT, TO REPAIR OR REPLACE ANY DAMAGE CAUSED TO EXISTING UTILITIES.
4. CONTRACTOR SHALL CONTACT MISS DIG (811) THREE WORKING DAYS PRIOR TO THE START OF CONSTRUCTION FOR STAKING OF UTILITIES.



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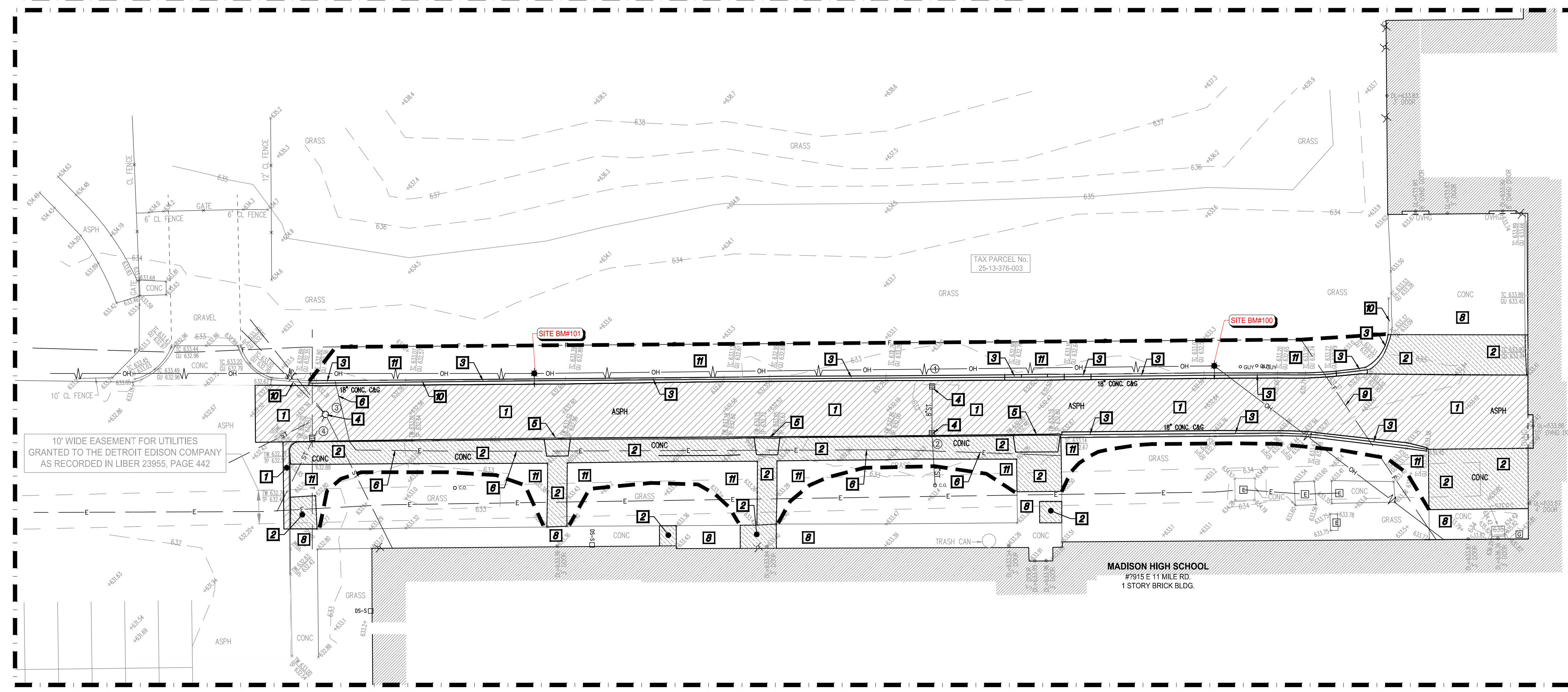
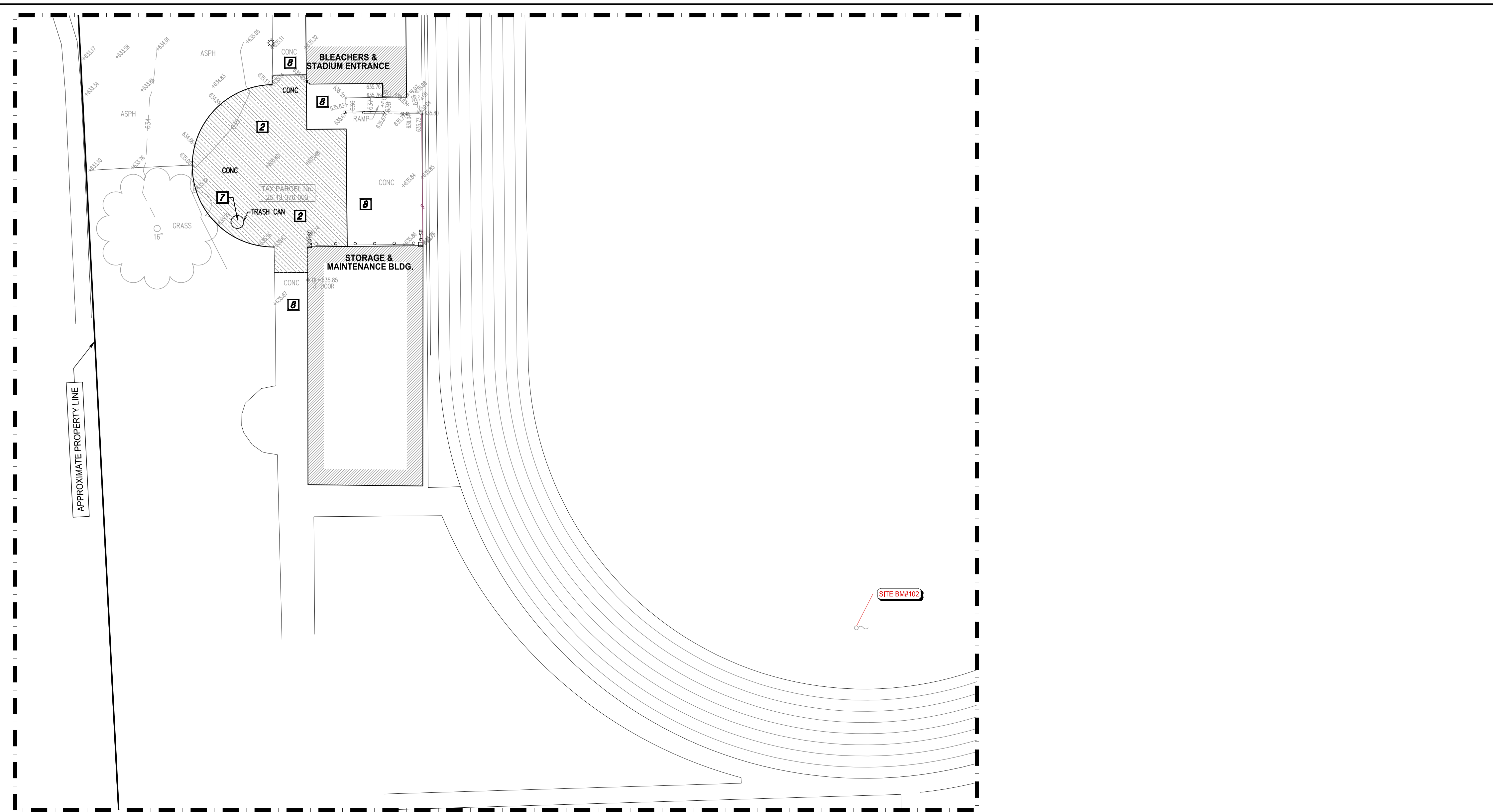
**MADISON DISTRICT PUBLIC SCHOOLS  
MADISON HIGH SCHOOL  
PAVEMENT IMPROVEMENTS**

**DEMOLITION PLAN**

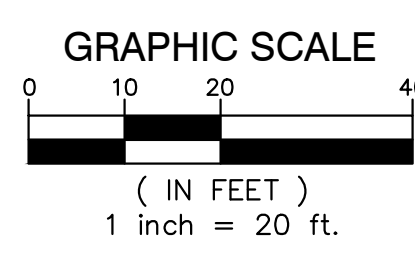
SECTION 13  
TOWN 01 NORTH RANGE 11 EAST  
CITY OF MADISON HEIGHTS  
OAKLAND COUNTY, MICHIGAN

NO.	DATE	REVISION
1	12-19-25	OWNER REVIEW
2	01-13-26	BIDS


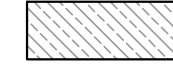





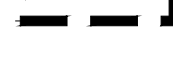



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DESIGNER	DATE
J. ENSLEY	10-23-25
CHECKED	DATE
J. ENSLEY	10-23-25
PROJECT MANAGER	BID PLAN DATE
J. ENSLEY	10-23-25
DEPARTMENT MANAGER APPROVAL	DATE
T. SOVEL	10-23-25
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**DEMOLITION NOTES**

-  1 REMOVE ASPHALT PAVEMENT TO FULL DEPTH. EXCAVATE SUBSURFACE AS NECESSARY. SAWCUT FULL DEPTH WHERE NEW PAVEMENT WILL BE PLACED ADJACENT TO EXISTING PAVEMENT. EXCAVATE EXISTING AGGREGATE BASE AND SUBGRADE AS NECESSARY TO INSTALL NEW PAVEMENT SECTION AS SHOWN ON THE PAVING PLANS, INCLUDING NEW AGGREGATE BASE.
  -  2 REMOVE CONCRETE PAVEMENT TO FULL DEPTH. EXCAVATE EXISTING AGGREGATE BASE AND SUBGRADE AS NECESSARY TO INSTALL NEW PAVEMENT SECTION AS SHOWN ON THE PAVING PLANS, INCLUDING NEW AGGREGATE BASE. SAWCUT FULL DEPTH TO NEAREST JOINT WHERE NEW PAVEMENT WILL BE PLACED ADJACENT TO EXISTING PAVEMENT.
  -  3 REMOVE CONCRETE CURB AND GUTTER. SAWCUT FULL DEPTH TO NEAREST JOINT, WHERE SHOWN. REMOVAL LIMITS TO BE FIELD VERIFIED BY ENGINEER.
  -  4 PROTECT EXISTING UTILITY STRUCTURE TO REMAIN.
  -  5 REMOVE EXISTING CONCRETE RAMP.
  -  6 PROTECT EXISTING UNDERGROUND ELECTRICAL TO REMAIN.
  -  7 REMOVE AND SALVAGE TRASH CAN AND PICNIC TABLES. RESET TRASH CAN AND PICNIC TABLES UPON COMPLETION OF WORK.
  -  8 PROTECT EXISTING CONCRETE PAVEMENT TO REMAIN.
  -  9 PROTECT EXISTING UNDERGROUND FIBER TO REMAIN.
  -  10 PROTECT EXISTING CONCRETE CURB AND GUTTER TO REMAIN.
  -  11 CLEAR AND GRUB TO THE LIMITS SHOWN. INCLUDE REMOVAL OF ALL SIGNS, POSTS, FOOTINGS, GRAVEL, BRUSH, SHRUBS, GRASS, AND TREES NOT INDICATED FOR PROTECTION, INCLUDING ROOTS, STRIP TOPSOIL, AND STOCKPILE ON SITE IN DESIGNATED LOCATION.
- EXISTING SIGNAGE AND MAILBOXES WITHIN THE CLEARING LIMITS ARE TO BE REMOVED AND SALVAGED. STAGE IN ON SITE LOCATION AS SPECIFIED BY OWNER.
- ALL DEPRESSIONS CREATED BY DEMOLITION PROCEDURES SHALL BE BACKFILLED WITH CLASS II FILL MATERIAL, IN 8" LIFTS COMPACTED TO SIZE OF MAXIMUM UNIT HEIGHT, UP TO PROPOSED SUBGRADE.
- CONTRACTOR IS RESPONSIBLE FOR DOING AN EARTHWORK CALCULATION FOR CUT AND FILL REQUIREMENTS, AND IS RESPONSIBLE FOR INCLUDING IMPORT AND EXPORT OF MATERIALS IN THEIR BID. ALL EXCESS MATERIAL (INCLUDING TOPSOIL, CLEAN FILL, AND WASTE MATERIAL) SHALL BE REMOVED FROM THE SITE.
- EXISTING SUPPORTED SLABS AT BUILDING ENTRY/DOORS TO REMAIN, UNLESS OTHERWISE DIRECTED. CONTRACTOR TO VERIFY LIMITS OF EXISTING SUPPORTED SLAB AND REMOVE ADJACENT WALKS AS SHOWN ON PLANS.
- CONTRACTOR TO PROTECT EXISTING WALKS, PAVEMENT, CURBS, GUTTERS, WALLS, FENCES, GATES, LANDSCAPING AND TREES TO REMAIN DURING CONSTRUCTION.

**SURVEY NOTES**

1. TOPOGRAPHIC AND/OR BOUNDARY SURVEY, INCLUDING PROPERTY LINES, LEGAL DESCRIPTION, EXISTING UTILITIES, SITE TOPOGRAPHY, WITH SPOT ELEVATIONS, OUTSTANDING PHYSICAL FEATURES AND EXISTING STRUCTURE LOCATIONS MAY BE BASED ON RECORD DATA NOT MEASURED IN THE FIELD.
2. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING ALL INFORMATION SHOWN ON THIS SURVEY AND NOTIFYING THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
3. CONTRACTOR SHALL UTILIZE A PRIVATE UTILITY LOCATOR TO STAKE PUBLIC AND PRIVATE UTILITY LOCATIONS PRIOR TO START OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY, AT NO COST TO THE PROJECT, TO REPAIR OR REPLACE ANY DAMAGE CAUSED TO EXISTING UTILITIES.
4. CONTRACTOR SHALL CONTACT MISS DIG (811) THREE WORKING DAYS PRIOR TO THE START OF CONSTRUCTION FOR STAKING OF UTILITIES.



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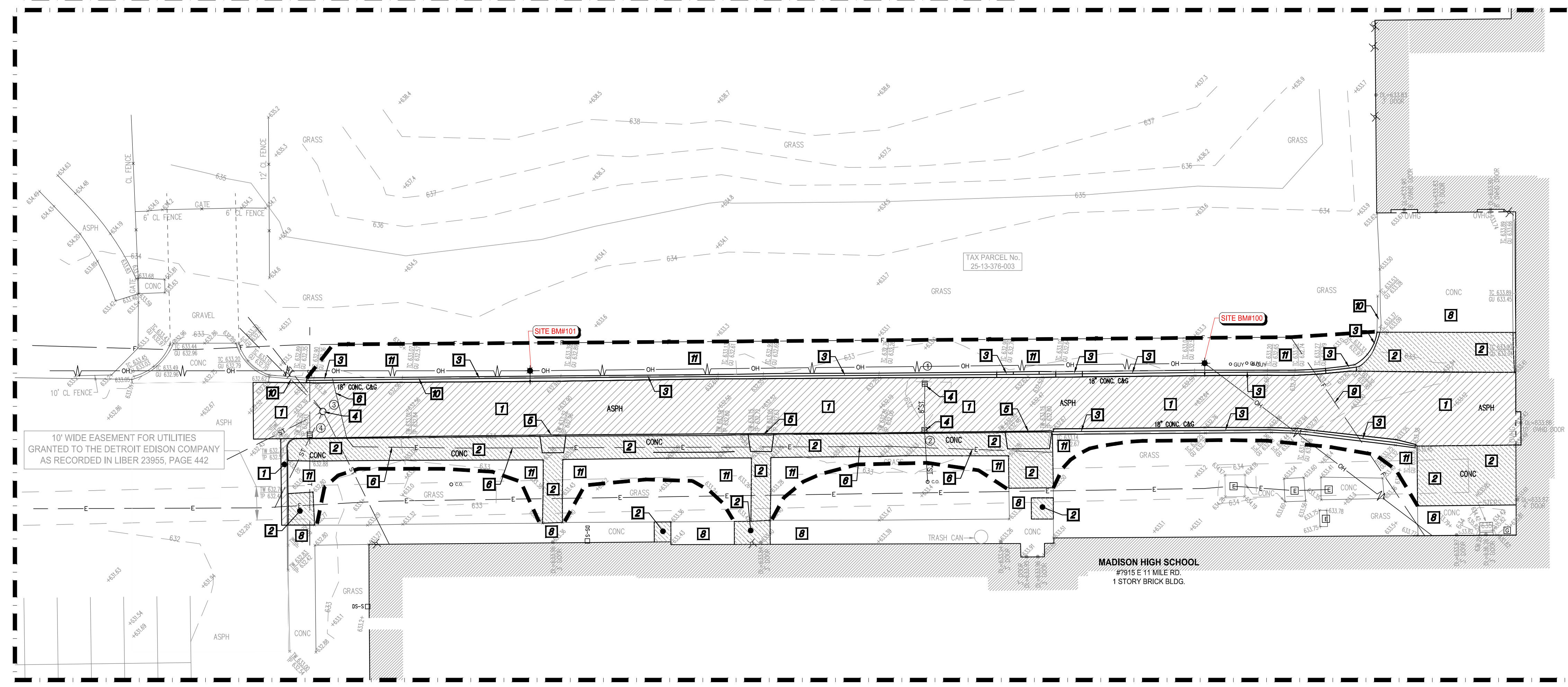
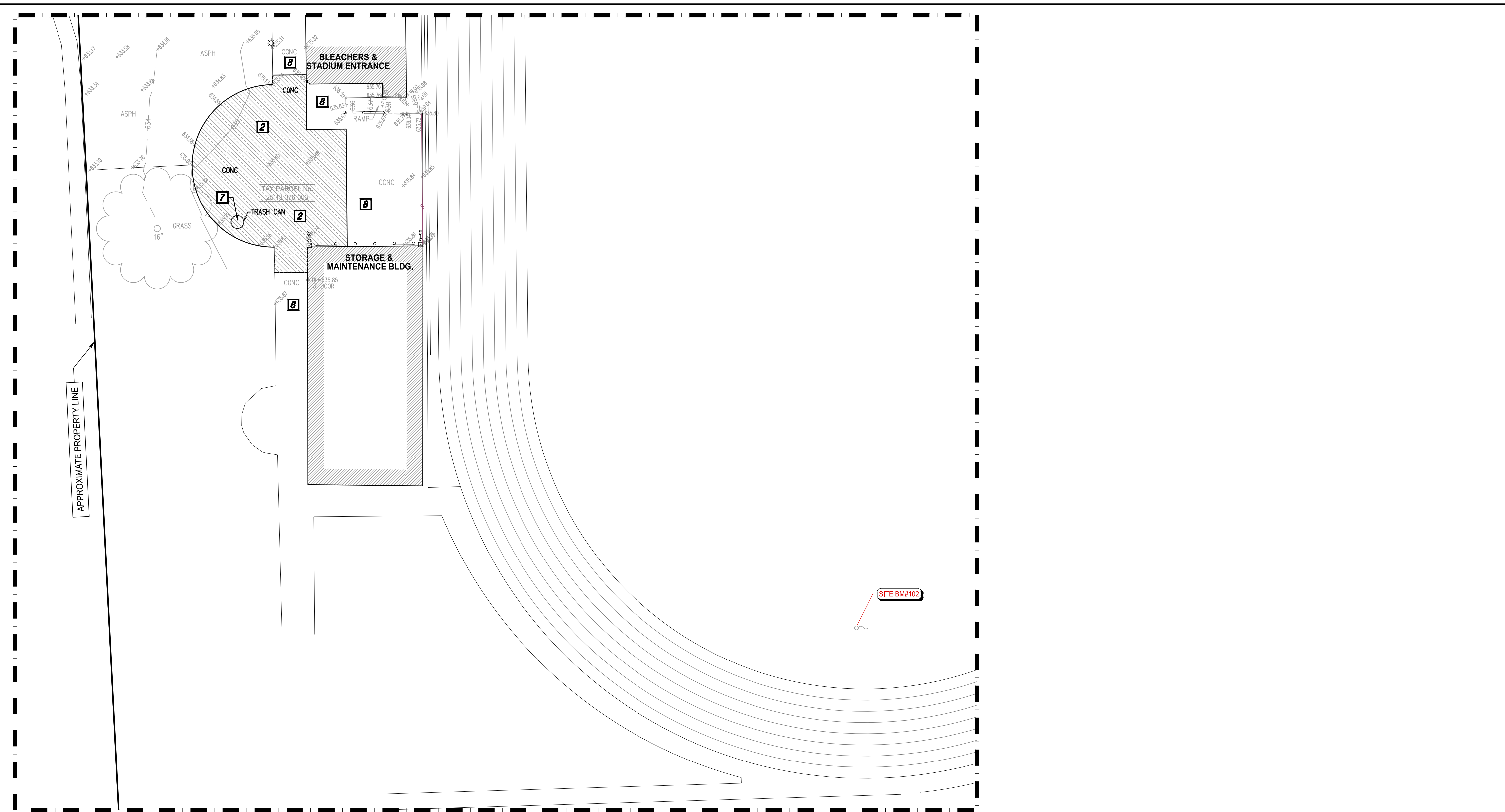
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MADISON HIGH SCHOOL  
PAVEMENT IMPROVEMENTS**

**DEMOLITION PLAN**

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**MADISON DISTRICT PUBLIC SCHOOLS**  
**2026 PAVEMENT IMPROVEMENTS**  
**MADISON HIGH SCHOOL**  
**WILKINSON MIDDLE SCHOOL**

**PROJECT MANUAL**

**FOR**

**MADISON DISTRICT PUBLIC SCHOOLS**  
**26550 JOHN R. ROAD**  
**MADISON HEIGHTS, MI 48071**

**PREPARED BY**

**SPALDING DEDECKER**  
**905 SOUTH BOULEVARD EAST**  
**ROCHESTER HILLS, MI 48307**

SECTION 00 0110 – TABLE OF CONTENTS

**DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS**

00 0110	TABLE OF CONTENTS
00 0115	LIST OF DRAWING SHEETS

**DIVISION 01 – GENERAL REQUIREMENTS**

01 1000	SUMMARY
01 3200	CONSTRUCTION PROGRESS DOCUMENTATION
01 3300	SUBMITTAL PROCEDURES
01 4000	QUALITY REQUIREMENTS
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01 6000	PRODUCT REQUIREMENTS
01 7329	CUTTING AND PATCHING
01 7700	CLOSEOUT PROCEDURES

**DIVISION 31 – EARTHWORK**

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31 1012	FINE GRADING
31 1018	SOIL EROSION CONTROL
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**DIVISION 32 – EXTERIOR IMPROVEMENTS**

32 1216	HOT-MIX ASPHALT CONCRETE PAVING
32 1313	CEMENT CONCRETE PAVEMENTS, CURBS AND GUTTERS
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**DIVISION 33 – UTILITIES**

33 4100	STORM SEWERS, UNDERDRAINS AND DRAINAGE STRUCTURES
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END OF SECTION 00 0110

SECTION 00 0115  
LIST OF DRAWING SHEETS

SECTION 00 0115 – LIST OF DRAWING SHEETS

**MADISON HIGH SCHOOL**

- C1.1 - SITE IMPROVEMENT PLAN
- C2.1 - TOPOGRAPHICAL SURVEY
- C3.1 - DEMOLITION PLAN
- C4.1 - SITE ENGINEERING PLAN

**WILKINSON MIDDLE SCHOOL**

- C1.1 - SITE IMPROVEMENT PLAN
- C2.1 - TOPOGRAPHICAL SURVEY (1 OF 2)
- C2.2 - TOPOGRAPHICAL SURVEY (2 OF 2)
- C3.1 - DEMOLITION PLAN
- C4.1 - SITE ENGINEERING PLAN

END OF SECTION 00 0115

SECTION 01 1000 – SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
  - 1. Work covered by the Contract Documents.
  - 2. Type of the Contract.
  - 3. Use of premises.
  - 4. Owner's occupancy requirements.
  - 5. Work restrictions.
  - 6. Specification formats and conventions.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification:
  - 1. Madison High School – 915 East 11 Mile Road, Madison Heights, MI 48071
  - 2. Wilkinson Middle School – 26524 John R. Road, Madison Heights, MI 48071
- B. Owner: Madison District Public Schools, 26550 John R. Road, Madison Heights, MI 48071
- C. Engineer: Spalding DeDecker, 905 South Blvd. E., Rochester Hills, MI 48307
- D. The Work consists of the following:
  - 1. The Work includes asphalt and concrete pavement improvements at the Madison High School and Wilkinson Middle School sites.

1.4 USE OF PREMISES

- A. General: Contractor shall have limited use of premises for construction operations as indicated on Drawings by the Contract limits.
- B. Use of Site: Limit use of premises to work in areas indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
  - 1. Owner Occupancy: Access to the buildings must be maintained throughout the project since staff may be occupying the building at various points during the project.

- C. Use of Existing Building: Repair damage caused by construction operations. Protect building during construction period.

#### 1.5 OWNER'S OCCUPANCY REQUIREMENTS

- A. Access to the buildings must be maintained throughout the project since staff may be occupying the building at various points during the project.

#### 1.6 WORK RESTRICTIONS

- A. On-Site Work Hours: Follow requirements of local municipality regarding work hours and/or noise ordinances.
- B. There is no smoking on school grounds.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
  - 1. Notify Owner not less than two days in advance of proposed utility interruptions.
  - 2. Do not proceed with utility interruptions without Owner's written permission.

#### 1.7 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 50-division format and CSI/CSC's "MasterFormat" numbering system.
  - 1. Section Identification: The Specifications use Section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete because all available Section numbers are not used. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of Sections in the Contract Documents.
  - 2. Division 01: Sections in Division 01 govern the execution of the Work of all Sections in the Specifications.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
  - 1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
  - 2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

SECTION 01 1000  
SUMMARY

- a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 1000

SECTION 01 3200 – CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:
  - 1. Preliminary Construction Schedule.
  - 2. Contractor's Construction Schedule.
  - 3. Field condition reports.
  - 4. Special reports.
- B. Related Sections include the following:
  - 1. Division 01 Section "Submittal Procedures" for submitting schedules and reports.
  - 2. Division 01 Section "Quality Requirements" for submitting a schedule of tests and inspections.

1.3 DEFINITIONS

- A. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
  - 1. Critical activities are activities on the critical path. They must start and finish on the planned early start and finish times.
  - 2. Predecessor Activity: An activity that precedes another activity in the network.
  - 3. Successor Activity: An activity that follows another activity in the network.
- B. Major Area: A story of construction, a separate building, or a similar significant construction element.
- C. Milestone: A key or critical point in time for reference or measurement.

1.4 SUBMITTALS

- A. Qualification Data: For scheduling consultant.
- B. Preliminary Construction Schedule: Submit two opaque copies with bid.
  - 1. Approval of cost-loaded preliminary construction schedule will not constitute approval of Schedule of Values for cost-loaded activities.

SECTION 01 3200  
CONSTRUCTION PROGRESS DOCUMENTATION

- C. Contractor's Construction Schedule: Submit four opaque copies of initial schedule, large enough to show entire schedule for entire construction period.
  - 1. Submit an electronic copy of schedule, using software indicated, on CD-R, and labeled to comply with requirements for submittals. Include type of schedule (Initial or Updated) and date on label.
- D. Field Condition Reports: Submit two copies at time of discovery of differing conditions.
- E. Special Reports: Submit two copies at time of unusual event.

1.5 QUALITY ASSURANCE

- A. Scheduling Consultant Qualifications: An experienced specialist in CPM scheduling and reporting, with capability of producing CPM reports and diagrams within 24 hours of Engineer's request.
- B. Prescheduling Conference: Conduct conference at Project site to comply with requirements in Division 01 Sections. Review methods and procedures related to the Preliminary Construction Schedule and Contractor's Construction Schedule, including, but not limited to, the following:
  - 1. Review software limitations and content and format for reports.
  - 2. Verify availability of qualified personnel needed to develop and update schedule.
  - 3. Discuss constraints, including phasing, work stages, area separations, interim milestones and partial Owner occupancy.
  - 4. Review delivery dates for Owner-furnished products.
  - 5. Review schedule for work of Owner's separate contracts.
  - 6. Review time required for review of submittals and resubmittals.
  - 7. Review requirements for tests and inspections by independent testing and inspecting agencies.
  - 8. Review time required for completion and startup procedures.
  - 9. Review and finalize list of construction activities to be included in schedule.
  - 10. Review submittal requirements and procedures.
  - 11. Review procedures for updating schedule.

1.6 COORDINATION

- A. Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B. Coordinate Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, progress reports, payment requests, and other required schedules and reports.
  - 1. Secure time commitments for performing critical elements of the Work from parties involved.
  - 2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

PART 2 - PRODUCTS

2.1 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A. Procedures: Comply with procedures contained in AGC's "Construction Planning & Scheduling."
- B. Time Frame: Extend schedule from date established for commencement of the Work to date of Substantial Completion.
  - 1. Contract completion date shall not be changed by submission of a schedule that shows an early completion date, unless specifically authorized by Change Order.
- C. Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:
  - 1. Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by Engineer.
  - 2. Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
  - 3. Submittal Review Time: Include review and resubmittal times indicated in Division 01 Section "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with Submittals Schedule.
  - 4. Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Engineer's administrative procedures necessary for certification of Substantial Completion.
- D. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
  - 1. Phasing: Arrange list of activities on schedule by phase.
  - 2. Work under More Than One Contract: Include a separate activity for each contract.
  - 3. Work by Owner: Include a separate activity for each portion of the Work performed by Owner.
  - 4. Work Restrictions: Show the effect of the following items on the schedule:
    - a. Coordination with existing construction.
    - b. Limitations of continued occupancies.
    - c. Uninterruptible services.
    - d. Partial occupancy before Substantial Completion.
    - e. Use of premises restrictions.
    - f. Provisions for future construction.
    - g. Seasonal variations.
    - h. Environmental control.
  - 5. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:
    - a. Subcontract awards.
    - b. Submittals.
    - c. Purchases.
    - d. Fabrication.
    - e. Sample testing.
    - f. Deliveries.
    - g. Installation.
    - h. Tests and inspections.

- i. Adjusting.
    - j. Curing.
  - E. Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice to Proceed, Substantial Completion, and Final Completion.
  - F. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis to demonstrate the effect of the proposed change on the overall project schedule.
  - G. Computer Software: Prepare schedules using a program that has been developed specifically to manage construction schedules.
- 2.2 PRELIMINARY CONSTRUCTION SCHEDULE
- A. Bar-Chart Schedule: Submit preliminary horizontal bar-chart-type construction schedule with bid.
  - B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities.
- 2.3 CONTRACTOR'S CONSTRUCTION SCHEDULE (GANTT CHART)
- A. Gantt-Chart Schedule: Submit a comprehensive, fully developed, horizontal Gantt-chart-type, Contractor's Construction Schedule within 15 days of date established for the Notice to Proceed. Base schedule on the Preliminary Construction Schedule and whatever updating and feedback was received since the start of Project.
  - B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line.
- 2.4 REPORTS
- A. Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare and submit a detailed report. Submit with a request for interpretation. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents.
- 2.5 SPECIAL REPORTS
- A. General: Submit special reports directly to Owner within one day(s) of an occurrence. Distribute copies of report to parties affected by the occurrence.
  - B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

PART 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

- A. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.
1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
  2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
  3. As the Work progresses, indicate Actual Completion percentage for each activity.
- B. Distribution: Distribute copies of approved schedule to Engineer, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.
1. Post copies in Project meeting rooms and temporary field offices.
  2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

END OF SECTION 01 3200

SECTION 01 3300 – SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. Related Sections include the following:
  - 1. Division 01 Section "Quality Requirements" for submitting test and inspection reports and for mockup requirements.
  - 2. Division 01 Section "Closeout Procedures" for submitting warranties.
  - 3. Divisions 31 through 33 Sections for specific requirements for submittals in those Sections.

1.3 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Engineer's responsive action.
- B. Informational Submittals: Written information that does not require Engineer's responsive action. Submittals may be rejected for not complying with requirements.

1.4 SUBMITTAL PROCEDURES

- A. General: Electronic copies of CAD Drawings of the Contract Drawings will not be provided by Engineer for Contractor's use in preparing submittals.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
  - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
    - a. Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Submittals Schedule: Comply with requirements in Division 01 Section "Construction Progress Documentation" for list of submittals and time requirements for scheduled performance of related construction activities.

SECTION 01 3300  
SUBMITTAL PROCEDURES

- D. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Engineer's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.
1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Construction Manager will advise Contractor when a submittal being processed must be delayed for coordination.
  2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
  3. Resubmittal Review: Allow 15 days for review of each resubmittal.
- E. Identification: Place a permanent label or title block on each submittal for identification.
1. Indicate name of firm or entity that prepared each submittal on label or title block.
  2. Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by Engineer and Construction Manager.
  3. Include the following information on label for processing and recording action taken:
    - a. Project name.
    - b. Date.
    - c. Name and address of Engineer and Construction Manager.
    - d. Name and address of Contractor.
    - e. Name and address of subcontractor.
    - f. Name and address of supplier.
    - g. Name of manufacturer.
    - h. Submittal number or other unique identifier, including revision identifier.
      - 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 06100.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 06100.01.A).
    - i. Number and title of appropriate Specification Section.
    - j. Drawing number and detail references, as appropriate.
    - k. Location(s) where product is to be installed, as appropriate.
    - l. Other necessary identification.
- F. Deviations: Encircle or otherwise specifically identify deviations from the Contract Documents on submittals.
- G. Additional Copies: Unless additional copies are required for final submittal, and unless Engineer or Construction Manager observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
1. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Engineer and Construction Manager.
  2. Additional copies submitted for maintenance manuals will not be marked with action taken and will be returned.
- H. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Engineer will return submittals, without review, received from sources other than Contractor.
1. Transmittal Form: Provide locations on form for the following information:
    - a. Project name.
    - b. Date.
    - c. Destination (To:).
    - d. Source (From:).

- e. Names of subcontractor, manufacturer, and supplier.
  - f. Category and type of submittal.
  - g. Submittal purpose and description.
  - h. Specification Section number and title.
  - i. Drawing number and detail references, as appropriate.
  - j. Transmittal number, numbered consecutively.
  - k. Submittal and transmittal distribution record.
  - l. Remarks.
  - m. Signature of transmitter.
2. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Engineer and Construction Manager on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same label information as related submittal.
- I. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
1. Note date and content of previous submittal.
  2. Note date and content of revision in label or title block and clearly indicate extent of revision.
  3. Resubmit submittals until they are marked "No Exceptions", "Exceptions Noted" or "Make Corrections Noted".
- J. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- K. Use for Construction: Use only final submittals with mark indicating "<Insert approval notation from Engineer's (and Construction Manager's) action stamp>"taken by Engineer[ and Construction Manager].

## PART 2 - PRODUCTS

### 2.1 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
  2. Mark each copy of each submittal to show which products and options are applicable.
  3. Include the following information, as applicable:
    - a. Manufacturer's written recommendations.
    - b. Manufacturer's product specifications.
    - c. Manufacturer's installation instructions.
    - d. Standard color charts.
    - e. Manufacturer's catalog cuts.
    - f. Wiring diagrams showing factory-installed wiring.
    - g. Printed performance curves.
    - h. Operational range diagrams.
    - i. Mill reports.

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- j. Standard product operation and maintenance manuals.
  - k. Compliance with specified referenced standards.
  - l. Testing by recognized testing agency.
  - m. Application of testing agency labels and seals.
  - n. Notation of coordination requirements.
- 4. Submit Product Data before or concurrent with Samples.
  - 5. Number of Copies: Submit four copies of Product Data, unless otherwise indicated. Engineer will return two copies. Mark up and retain one returned copy as a Project Record Document.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
- 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
    - a. Dimensions.
    - b. Identification of products.
    - c. Fabrication and installation drawings.
    - d. Roughing-in and setting diagrams.
    - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
    - f. Shopwork manufacturing instructions.
    - g. Templates and patterns.
    - h. Schedules.
    - i. Design calculations.
    - j. Compliance with specified standards.
    - k. Notation of coordination requirements.
    - l. Notation of dimensions established by field measurement.
    - m. Relationship to adjoining construction clearly indicated.
    - n. Seal and signature of professional engineer if specified.
    - o. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
  - 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 40 inches.
  - 3. Number of Copies: Submit four opaque copies of each submittal, unless copies are required for operation and maintenance manuals. Submit five copies where copies are required for operation and maintenance manuals. Engineer will retain two copies; remainder will be returned. Mark up and retain one returned copy as a Project Record Drawing.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
- 1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
  - 2. Identification: Attach label on unexposed side of Samples that includes the following:
    - a. Generic description of Sample.
    - b. Product name and name of manufacturer.
    - c. Sample source.
    - d. Number and title of appropriate Specification Section.
  - 3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.

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- a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
- b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
  - a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Engineer will return submittal with options selected.
5. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
  - a. Number of Samples: Submit three sets of Samples. Engineer and Construction Manager will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a Project Record Sample.
    - 1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
    - 2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.
- E. Product Schedule or List: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:
  1. Type of product. Include unique identifier for each product.
  2. Number and name of room or space.
  3. Location within room or space.
  4. Number of Copies: Submit three copies of product schedule or list, unless otherwise indicated. Engineer will return two copies.
    - a. Mark up and retain one returned copy as a Project Record Document.
- F. Application for Payment: Comply with requirements specified in Division 01 Sections.
- G. Schedule of Values: Comply with requirements specified in Division 01 Sections.

## 2.2 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
  1. Number of Copies: Submit two copies of each submittal, unless otherwise indicated. Engineer will not return copies.
  2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

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3. Test and Inspection Reports: Comply with requirements specified in Division 01 Section "Quality Requirements."
  
- B. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of engineers and owners, and other information specified.
  
- C. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.
  
- D. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
  
- E. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
  
- F. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
  
- G. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
  
- H. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
  
- I. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
  
- J. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:
  1. Name of evaluation organization.
  2. Date of evaluation.
  3. Time period when report is in effect.
  4. Product and manufacturers' names.
  5. Description of product.
  6. Test procedures and results.
  7. Limitations of use.
  
- K. Schedule of Tests and Inspections: Comply with requirements specified in Division 01 Section "Quality Requirements."
  
- L. Preconstruction Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

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- M. Compatibility Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- N. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- O. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment.
- P. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- Q. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:
1. Preparation of substrates.
  2. Required substrate tolerances.
  3. Sequence of installation or erection.
  4. Required installation tolerances.
  5. Required adjustments.
  6. Recommendations for cleaning and protection.
- R. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
1. Name, address, and telephone number of factory-authorized service representative making report.
  2. Statement on condition of substrates and their acceptability for installation of product.
  3. Statement that products at Project site comply with requirements.
  4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
  5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
  6. Statement whether conditions, products, and installation will affect warranty.
  7. Other required items indicated in individual Specification Sections.
- S. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.

2.3 DELEGATED DESIGN

- A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.

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1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Engineer.
  
- B. Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit three copies of a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
  1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Engineer and Construction Manager.
  
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ENGINEER'S / ACTION

- A. General: Engineer will not review submittals that do not bear Contractor's approval stamp and will return them without action.
  
- B. Action Submittals: Engineer will review each submittal, make marks to indicate corrections or modifications required, and return it. Engineer will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken, as follows:
  1. Final Release: Where submittals are marked "No Exceptions," that part of the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents; final acceptance will depend upon that compliance.
  2. Final But Restricted Release: When submittals are marked "Exceptions Noted" or "Make Corrections Noted", that part of the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents; final acceptance will depend on that compliance.
  3. Returned for Resubmittal: When submittal is marked "Revise and Resubmit", or "Rejected" do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations; resubmit without delay. Repeat if necessary to obtain a different action mark.
    - a. Do not permit submittals marked "Revise and Resubmit" or "Rejected" to be used at the Project site, or elsewhere where Work is in progress.
  
- C. Informational Submittals: Engineer will review each submittal and will not return it, or will return it if it does not comply with requirements. Engineer will forward each submittal to appropriate party.

SECTION 01 3300  
SUBMITTAL PROCEDURES

- D. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION 01 3300

SECTION 01 4000 – QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
  - 1. Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
  - 2. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
  - 3. Requirements for Contractor to provide quality-assurance and -control services required by Engineer, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
- C. Related Sections include the following:
  - 1. Division 1 Section "Cutting and Patching" for repair and restoration of construction disturbed by testing and inspecting activities.
  - 2. Divisions 31 through 33 Sections for specific test and inspection requirements.

1.3 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Engineer.
- C. Preconstruction Testing: Tests and inspections that are performed specifically for the Project before products and materials are incorporated into the Work to verify performance or compliance with specified criteria.
- D. Product Testing: Tests and inspections that are performed by a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with industry standards.

- E. Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.
- F. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- G. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- H. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
  - 1. Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespeople of the corresponding generic name.

#### 1.4 CONFLICTING REQUIREMENTS

- A. General: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Engineer for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Engineer for a decision before proceeding.

#### 1.5 SUBMITTALS

- A. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- B. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

#### 1.6 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
- B. Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.

SECTION 01 4000  
QUALITY REQUIREMENTS

1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
    - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
  2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.
  3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
  4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
  5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. **Manufacturer's Field Services:** Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 1 Section "Submittal Procedures."
- D. **Retesting/Reinspecting:** Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- E. **Testing Agency Responsibilities:** Cooperate with Engineer and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
  1. Notify Engineer and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
  2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
  3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
  4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
  5. Do not releases, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
  6. Do not perform any duties of Contractor.
- F. **Associated Services:** Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
  1. Access to the Work.
  2. Incidental labor and facilities necessary to facilitate tests and inspections.
  3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
  4. Facilities for storage and field curing of test samples.
  5. Delivery of samples to testing agencies.
  6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
  7. Security and protection for samples and for testing and inspecting equipment at Project site.
- G. **Coordination:** Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
  1. Schedule times for tests, inspections, obtaining samples, and similar activities.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 TEST AND INSPECTION LOG

- A. Prepare a record of tests and inspections. Include the following:
  - 1. Date test or inspection was conducted.
  - 2. Description of the Work tested or inspected.
  - 3. Date test or inspection results were transmitted to Engineer.
  - 4. Identification of testing agency or special inspector conducting test or inspection.
- B. Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for Engineer's reference during normal working hours.

3.2 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
  - 1. Comply with the Contract Document requirements for Division 1 Section "Cutting and Patching."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 01 4000

SECTION 01 4200 – REFERENCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 DEFINITIONS

- A. General: Basic Contract definitions are included in the Conditions of the Contract.
- B. "Approved": When used to convey Engineer's action on Contractor's submittals, applications, and requests, "approved" is limited to Engineer's duties and responsibilities as stated in the Conditions of the Contract.
- C. "Directed": A command or instruction by Engineer. Other terms including "requested," "authorized," "selected," "required," and "permitted" have the same meaning as "directed."
- D. "Indicated": Requirements expressed by graphic representations or in written form on Drawings, in Specifications, and in other Contract Documents. Other terms including "shown," "noted," "scheduled," and "specified" have the same meaning as "indicated."
- E. "Regulations": Laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, and rules, conventions, and agreements within the construction industry that control performance of the Work.
- F. "Furnish": Supply and deliver to Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- G. "Install": Operations at Project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- H. "Provide": Furnish and install, complete and ready for the intended use.
- I. "Project Site": Space available for performing construction activities. The extent of Project site is shown on Drawings and may or may not be identical with the description of the land on which Project is to be built.

1.3 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

- B. Publication Dates: Comply with standards in effect as of date of the Contract Documents unless otherwise indicated.
- C. Copies of Standards: Each entity engaged in construction on Project should be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.
  - 1. Where copies of standards are needed to perform a required construction activity, obtain copies directly from publication source.

#### 1.4 ABBREVIATIONS AND ACRONYMS

- A. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Thomson Gale's "Encyclopedia of Associations" or in Columbia Books' "National Trade & Professional Associations of the U.S."
- B. Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

AA	Aluminum Association, Inc. (The) www.aluminum.org	(703) 358-2960
AAMA	American Architectural Manufacturers Association www.aamanet.org	(847) 303-5664
AIA	American Institute of Architects (The) www.aia.org	(800) 242-3837 (202) 626-7300
AISC	American Institute of Steel Construction www.aisc.org	(800) 644-2400 (312) 670-2400
AISI	American Iron and Steel Institute www.steel.org	(202) 452-7100
ANSI	American National Standards Institute www.ansi.org	(202) 293-8020
ASCE	American Society of Civil Engineers www.asce.org	(800) 548-2723 (703) 295-6300
ASCE/SEI	American Society of Civil Engineers/Structural Engineering Institute (See ASCE)	
ASTM	ASTM International (American Society for Testing and Materials International) www.astm.org	(610) 832-9585
AWS	American Welding Society www.aws.org	(800) 443-9353 (305) 443-9353

SECTION 01 4200  
REFERENCES

BHMA	Builders Hardware Manufacturers Association www.buildershardware.com	(212) 297-2122
BIA	Brick Industry Association (The) www.bia.org	(703) 620-0010
CPA	Composite Panel Association www.pbmdf.com	(301) 670-0604
CSI	Construction Specifications Institute (The) www.csinet.org	(800) 689-2900 (703) 684-0300
GANA	Glass Association of North America www.glasswebsite.com	(785) 271-0208
HMMA	Hollow Metal Manufacturers Association (Part of NAAMM)	
IGCC	Insulating Glass Certification Council www.igcc.org	(315) 646-2234
IGMA	Insulating Glass Manufacturers Alliance www.igmaonline.org	(613) 233-1510
ISO	International Organization for Standardization www.iso.ch	41 22 749 01 11
	Available from ANSI www.ansi.org	(202) 293-8020
NAAMM	National Association of Architectural Metal Manufacturers www.naamm.org	(312) 332-0405
NFPA	NFPA (National Fire Protection Association) www.nfpa.org	(800) 344-3555 (617) 770-3000
NWWDA	National Wood Window and Door Association (Now WDMA)	
SGCC	Safety Glazing Certification Council www.sgcc.org	(315) 646-2234
SWRI	Sealant, Waterproofing, & Restoration Institute www.swrionline.org	(816) 472-7974

C. Code Agencies: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities in the following list. Names, telephone numbers, and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.

ICC	International Code Council	(888) 422-7233
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SECTION 01 4200  
REFERENCES

	<a href="http://www.iccsafe.org">www.iccsafe.org</a>	(703) 931-4533
ICC-ES	ICC Evaluation Service, Inc.  <a href="http://www.icc-es.org">www.icc-es.org</a>	(800) 423-6587 (562) 699-0543
D.	Standards and Regulations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the standards and regulations in the following list. Names, telephone numbers, and Web sites are subject to change and are believed to be accurate and up-to-date as of the date of the Contract Documents.	
ADAAG	Americans with Disabilities Act (ADA)  Architectural Barriers Act (ABA)  Accessibility Guidelines for Buildings and Facilities Available from Access Board <a href="http://www.access-board.gov">www.access-board.gov</a>	(800) 872-2253 (202) 272-0080

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 4200

SECTION 01 6000 – PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.
- B. Related Sections include the following:
  - 1. Division 01 Section "References" for applicable industry standards for products specified.
  - 2. Division 01 Section "Closeout Procedures" for submitting warranties for Contract closeout.
  - 3. Divisions 31 through 33 Sections for specific requirements for warranties on products and installations specified to be warranted.

1.3 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
  - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
  - 2. New Products: Items that have not previously been incorporated into another project or facility, except that products consisting of recycled-content materials are allowed, unless explicitly stated otherwise. Products salvaged or recycled from other projects are not considered new products.
  - 3. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
- C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.

1.4 SUBMITTALS

- A. Product List: Submit a list, in tabular form, showing specified products. Include generic names of products required. Include manufacturer's name and proprietary product names for each product.
1. Coordinate product list with Contractor's Construction Schedule and the Submittals Schedule.
  2. Form: Tabulate information for each product under the following column headings:
    - a. Specification Section number and title.
    - b. Generic name used in the Contract Documents.
    - c. Proprietary name, model number, and similar designations.
    - d. Manufacturer's name and address.
    - e. Supplier's name and address.
    - f. Installer's name and address.
    - g. Projected delivery date or time span of delivery period.
    - h. Identification of items that require early submittal approval for scheduled delivery date.
  3. Completed List: Within 10 days after date of commencement of the Work, submit 3 copies of completed product list. Include a written explanation for omissions of data and for variations from Contract requirements.
  4. Engineer's Action: Engineer will respond in writing to Contractor within 7 days of receipt of completed product list. Engineer's response will include a list of unacceptable product selections and a brief explanation of reasons for this action. Engineer's response, or lack of response, does not constitute a waiver of requirement to comply with the Contract Documents.
- B. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
1. Submit Substitution Request Form.
  2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
    - a. Statement indicating why specified material or product cannot be provided.
    - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
    - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
    - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
    - e. Samples, where applicable or requested.
    - f. List of similar installations for completed projects with project names and addresses and names and addresses of Engineers and owners.
    - g. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
    - h. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
    - i. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided

SECTION 01 6000  
PRODUCT REQUIREMENTS

- within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
- j. Cost information, including a proposal of change, if any, in the Contract Sum.
  - k. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
  - l. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
3. Engineer's Action: If necessary, Engineer will request additional information or documentation for evaluation within 7 days of receipt of a request for substitution. Engineer will notify Contractor of acceptance or rejection of proposed substitution within 7 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.
- a. Form of Acceptance: Change Order.
  - b. Use product specified if Engineer cannot make a decision on use of a proposed substitution within time allocated.
- C. Comparable Product Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
- 1. Engineer's Action: If necessary, Engineer will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Engineer will notify Contractor of approval or rejection of proposed comparable product request within 7 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.
    - a. Form of Approval: As specified in Division 01 Section "Submittal Procedures."
    - b. Use product specified if Engineer cannot make a decision on use of a comparable product request within time allocated.
- D. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 01 Section "Submittal Procedures." Show compliance with requirements.

1.5 QUALITY ASSURANCE

- A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.
- 1. Each contractor is responsible for providing products and construction methods compatible with products and construction methods of other contractors.
  - 2. If a dispute arises between contractors over concurrently selectable but incompatible products, Engineer will determine which products shall be used.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
- B. Delivery and Handling:
- 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.

SECTION 01 6000  
PRODUCT REQUIREMENTS

2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.

C. Storage:

1. Store products to allow for inspection and measurement of quantity or counting of units.
2. Store materials in a manner that will not endanger Project structure.
3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
4. Store cementitious products and materials on elevated platforms.
5. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
6. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
7. Protect stored products from damage and liquids from freezing.
8. Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

## 1.7 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.
1. **Manufacturer's Warranty:** Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
  2. **Special Warranty:** Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.
- B. **Special Warranties:** Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.
1. **Manufacturer's Standard Form:** Modified to include Project-specific information and properly executed.
  2. **Specified Form:** When specified forms are included with the Specifications, prepare a written document using appropriate form properly executed.
  3. Refer to Divisions 02 through 49 Sections for specific content requirements and particular requirements for submitting special warranties.
- C. **Submittal Time:** Comply with requirements in Division 01 Section "Closeout Procedures."

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, that are new at time of installation.
1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
  2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
  3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
  4. Where products are accompanied by the term "as selected," Engineer will make selection.
  5. Where products are accompanied by the term "match sample," sample to be matched is Engineer's.
  6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
  7. Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in Part 2 "Comparable Products" Article to obtain approval for use of an unnamed product.
- B. Product Selection Procedures:
1. Product: Where Specifications name a single product and manufacturer, provide the named product that complies with requirements.
  2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements.
  3. Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.
  4. Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
  5. Available Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product.
  6. Available Manufacturers: Where Specifications include a list of manufacturers, provide a product by one of the manufacturers listed, or an unnamed manufacturer, that complies with requirements. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product.
  7. Product Options: Where Specifications indicate that sizes, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide the specified product or system. Comply with provisions in Part 2 "Product Substitutions" Article for consideration of an unnamed product or system.
  8. Basis-of-Design Product: Where Specifications name a product and include a list of manufacturers, provide the specified product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product by the other named manufacturers.

SECTION 01 6000  
PRODUCT REQUIREMENTS

9. Visual Matching Specification: Where Specifications require matching an established Sample, select a product that complies with requirements and matches Engineer's sample. Engineer's decision will be final on whether a proposed product matches.
  - a. If no product available within specified category matches and complies with other specified requirements, comply with provisions in Part 2 "Product Substitutions" Article for proposal of product.
10. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product that complies with other specified requirements.
  - a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Engineer will select color, pattern, density, or texture from manufacturer's product line that does not include premium items.
  - b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Engineer will select color, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

## 2.2 PRODUCT SUBSTITUTIONS

- A. Timing: Engineer will consider requests for substitution if received within 10 days after commencement of the Work. Requests received after that time may be considered or rejected at discretion of Engineer.
- B. Conditions: Engineer will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Engineer will return requests without action, except to record noncompliance with these requirements:
  1. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner must assume. Owner's additional responsibilities may include compensation to Engineer for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
  2. Requested substitution does not require extensive revisions to the Contract Documents.
  3. Requested substitution is consistent with the Contract Documents and will produce indicated results.
  4. Substitution request is fully documented and properly submitted.
  5. Requested substitution will not adversely affect Contractor's Construction Schedule.
  6. Requested substitution has received necessary approvals of authorities having jurisdiction.
  7. Requested substitution is compatible with other portions of the Work.
  8. Requested substitution has been coordinated with other portions of the Work.
  9. Requested substitution provides specified warranty.
  10. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

## 2.3 COMPARABLE PRODUCTS

- A. Conditions: Engineer will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Engineer will return requests without action, except to record noncompliance with these requirements:

SECTION 01 6000  
PRODUCT REQUIREMENTS

1. Evidence that the proposed product does not require extensive revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
3. Evidence that proposed product provides specified warranty.
4. List of similar installations for completed projects with project names and addresses and names and addresses of Engineers and owners, if requested.
5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 01 6000

SECTION 01 7329 – CUTTING AND PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. Related Sections include the following:
  - 1. Divisions 31 through 33 Sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.
- C. Cutting: Removal of in-place construction necessary to permit installation or performance of other Work.
- D. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

1.3 QUALITY ASSURANCE

- A. Structural Elements: Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.
- B. Operational Elements: Do not cut and patch operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.
- C. Miscellaneous Elements: Do not cut and patch miscellaneous elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or that results in increased maintenance or decreased operational life or safety.
- D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.
- E. Cutting and Patching Conference: Before proceeding, meet at Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

1.4 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Comply with requirements specified in other Sections.
- B. In-Place Materials: Use materials identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.
  - 1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of in-place materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.
  - 1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with in-place finishes or primers.
  - 2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Temporary Support: Provide temporary support of Work to be cut.
- B. Protection: Protect in-place construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.
- C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.
- D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize interruption to occupied areas.

3.3 PERFORMANCE

- A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.
1. Cut in-place construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.
- B. Cutting: Cut in-place construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.
1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
  2. Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
  3. Concrete or Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
  4. Excavating and Backfilling: Comply with requirements in applicable Division 31 Sections where required by cutting and patching operations.
  5. Mechanical and Electrical Services: Cut off pipe or conduit in walls or partitions to be removed. Cap, valve, or plug and seal remaining portion of pipe or conduit to prevent entrance of moisture or other foreign matter after cutting.
  6. Proceed with patching after construction operations requiring cutting are complete.
- C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections.
1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
  2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.
    - a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
    - b. Restore damaged pipe covering to its original condition.
  3. Floors and Walls: Where walls or partitions that are removed extend one finished area into another, patch and repair floor and wall surfaces in the new space. Provide an even surface of uniform finish, color, texture, and appearance. Remove in-place floor and wall coverings and replace with new materials, if necessary, to achieve uniform color and appearance.
    - a. Where patching occurs in a painted surface, apply primer and intermediate paint coats over the patch and apply final paint coat over entire unbroken surface containing the patch. Provide additional coats until patch blends with adjacent surfaces.

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CUTTING AND PATCHING

4. Ceilings: Patch, repair, or rehang in-place ceilings as necessary to provide an even-plane surface of uniform appearance.
  5. Exterior Building Enclosure: Patch components in a manner that restores enclosure to a weathertight condition.
- D. Cleaning: Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar materials.

END OF SECTION 01 7329

SECTION 01 7700 – CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
  - 1. Inspection procedures.
  - 2. Warranties.
  - 3. Final cleaning.
- B. Related Sections include the following:
  - 1. Divisions 31 through 33 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete in request.
  - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
  - 2. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
  - 3. Complete final cleaning requirements, including touchup painting.
  - 4. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Engineer, that must be completed or corrected before certificate will be issued.
  - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
  - 2. Results of completed inspection will form the basis of requirements for Final Completion.

1.4 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
1. Submit a final Application for Payment.
  2. Submit certified copy of Engineer's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Engineer. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
  3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
  4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
- B. Inspection: Submit a request for final inspection for acceptance. On receipt of request, Engineer will either proceed with inspection or notify Contractor of unfulfilled requirements. Engineer will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Preparation: Submit three copies of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
1. Organize list of spaces in sequential order.
  2. Include the following information at the top of each page:
    - a. Project name.
    - b. Date.
    - c. Name of Engineer.
    - d. Name of Contractor.
    - e. Page number.

1.6 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Engineer for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.

SECTION 01 7700  
CLOSEOUT PROCEDURES

2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
  3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- C. Provide additional copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION 01 7700

SECTION 31 1000 – SITE CLEARING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.
- B. CAD files will be made available for use in construction staking. Contact the engineer regarding applicable fee and requirements for signing of the CAD File Transfer Agreement.

1.2 SUMMARY

- A. This Section includes the following:
  - 1. Protecting existing trees, shrubs and other vegetation to remain.
  - 2. Removing existing trees, shrubs and other vegetation.
  - 3. Clearing and grubbing.
  - 4. Stripping and stockpiling topsoil.
  - 5. Removing above-grade and below-grade site improvements.
  - 6. Disconnecting, capping or sealing, and abandoning site utilities in place or removing site utilities.
  - 7. Temporary erosion and sedimentation control measures.

1.3 DEFINITIONS

- A. Topsoil: Natural or cultivated surface-soil layer containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 2 inches in diameter; and free of subsoil and weeds, roots, toxic materials, or other nonsoil materials.
- B. Tree Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction, and defined by the drip line of individual trees or the perimeter drip line of groups of trees, unless otherwise indicated.

1.4 MATERIAL OWNERSHIP

- A. Except for stripped topsoil or other materials indicated to remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site unless otherwise noted on the plans.

1.5 SUBMITTALS

- A. Photographs or videotape, sufficiently detailed, of existing conditions of trees and plantings, adjoining construction, and site improvements that might be misconstrued as damage caused by site clearing.
- B. Record drawings, according to Closeout Procedures.
  - 1. Identifying and accurately locating capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.6 QUALITY ASSURANCE

- A. Preinstallation Conference: Conduct conference at Project site.

1.7 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
  - 1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
  - 2. Provide alternate routes around closed or obstructed traffic ways if required by owner or authorities having jurisdiction.
- B. Improvements on Adjoining Property: Authority for performing site clearing indicated on property adjoining Owner's property will be obtained by Owner before award of Contract. Contractor is to confirm that this authority has been obtained before beginning work on adjoining property.
- C. Salvable Improvements: Carefully remove items indicated to be salvaged and store on Owner's premises where indicated.
- D. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing.
- E. Do not commence site clearing operations until temporary erosion and sedimentation control measures are in place.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. Satisfactory Soil Materials: Requirements for satisfactory soil materials are specified earthwork sections.
  - 1. Obtain approved borrow soil materials off-site when satisfactory soil materials are not available on-site. Contractor is responsible for doing an independent earthwork computation and including all necessary import and/or export of materials in their bid.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction. If said points will be disturbed, establish new points prior to removal.
- B. Locate and clearly flag trees and vegetation to remain or to be relocated.
- C. Protect existing site improvements to remain from damage during construction.
  - 1. Restore damaged improvements to their original condition, as acceptable to Owner.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- A. Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to requirements of authorities having jurisdiction and the sediment and erosion control drawings, whichever is more stringent.
- B. Inspect, repair, and maintain erosion and sedimentation control measures during construction until permanent vegetation has been established.
- C. Remove erosion and sedimentation controls only after all areas are restored and stabilized.

3.3 TREE PROTECTION

- A. Erect and maintain temporary fencing around tree protection zones before starting site clearing. Remove fence when construction is complete.
  - 1. Do not store construction materials, debris, or excavated material within fenced area.
  - 2. Do not permit vehicles, equipment, or foot traffic within fenced area.
  - 3. Maintain fenced area free of weeds and trash.
- B. Do not excavate within tree protection zones, unless otherwise indicated.
- C. Where excavation for new construction is required within tree protection zones, hand clear and excavate to minimize damage to root systems. Use narrow-tine spading forks, comb soil to expose roots, and cleanly cut roots as close to excavation as possible.
  - 1. Cover exposed roots with burlap and water regularly.
  - 2. Temporarily support and protect roots from damage until they are permanently redirected and covered with soil.
  - 3. Coat cut faces of roots more than 1-1/2 inches in diameter with emulsified asphalt or other approved coating formulated for use on damaged plant tissues.
  - 4. Backfill with soil as soon as possible.

- D. Repair or replace trees and vegetation indicated to remain that are damaged by construction operations, in a manner approved by Engineer.

### 3.4 UTILITIES

- A. Locate, identify, disconnect, and seal or cap off utilities indicated to be removed.
  - 1. Arrange with utility companies to shut off indicated utilities.
  - 2. Owner will arrange to shut off indicated utilities when requested by Contractor.
- B. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:
  - 1. Notify Engineer not less than two days in advance of proposed utility interruptions.
  - 2. Do not proceed with utility interruptions without Engineer's written permission.
- C. Excavate for and remove underground utilities indicated to be removed.

### 3.5 CLEARING AND GRUBBING

- A. Remove obstructions, trees, shrubs, grass, and other vegetation to permit installation of new construction.
  - 1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
  - 2. Cut minor roots and branches of trees indicated to remain in a clean and careful manner where such roots and branches obstruct installation of new construction.
  - 3. Grind stumps and remove roots, obstructions, and debris extending to a depth of 18 inches below exposed subgrade.
  - 4. Use only hand methods for grubbing within tree protection zone.
- B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.
  - 1. Place fill material in horizontal layers not exceeding a loose depth of 8 inches, and compact each layer to a density equal to adjacent original ground.

### 3.6 TOPSOIL STRIPPING

- A. Remove sod and grass before stripping topsoil.
- B. Strip topsoil to whatever depths are encountered in a manner to prevent intermingling with underlying subsoil or other waste materials.
  - 1. Remove subsoil and nonsoil materials from topsoil, including trash, debris, weeds, roots, and other waste materials.

- C. Stockpile topsoil materials away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust.
  - 1. Stockpile topsoil material in locations approved by the Owner or Engineer.

3.7 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and as necessary to facilitate new construction.
- B. Remove slabs, paving, curbs, gutters, and aggregate base as indicated.
  - 1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut length of existing pavement to remain before removing existing pavement. Saw-cut faces vertically.
  - 2. Paint cut ends of steel reinforcement in concrete to remain to prevent corrosion.

3.8 DISPOSAL

- A. Disposal: Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, other vegetation and waste materials including trash and debris, and legally dispose of them off Owner's property.
  - 1. Burning of materials on project property is prohibited.

END OF SECTION 31 1000

SECTION 31 1012 – FINE GRADING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Attention is directed to Bidding and Contract Requirements, and General and Supplemental Requirements which are hereby made a part of this section.
- B. CAD files will be made available for use in construction staking. Contact the engineer regarding applicable fee and requirements for signing of the CAD File Transfer Agreement.

1.2 SUMMARY

- A. Work included: All labor, materials, necessary equipment and services to complete the Fine Grading work, as indicated on the drawings, as specified herein or both, except as for items specifically indicated as not in contract on the plans.

1.3 SITE INSPECTION

- A. The Contractor shall visit the site and acquaint himself with all existing conditions. The Contractor shall be responsible for his own subsurface investigations, as necessary, to satisfy requirements of this Section. All subsurface investigations shall be performed only under time schedules and arrangements approved in advance by the landscape Engineer or Owner's Representative.

1.4 UTILITIES

- A. Before starting site operations verify that the earlier Contractors have disconnected all temporary utilities which might interfere with the fine grading work.
- B. Locate all existing, active utility lines traversing the site and determine the requirements for their protection. Preserve in operating condition all active utilities adjacent to or transversing the site that are designated to remain.
- C. Observe rules and regulations governing respective utilities in working under requirements of this section. Adequately protect utilities from damage, remove or relocate as indicated, specified or required. Remove, plug or cap inactive or abandoned utilities encountered in excavation. Record location of active utilities.
- D. Contact "Miss Dig" for existing utilities survey confirmation.

1.5 QUALITY ASSURANCE

- A. Requirements of all applicable building codes and other public agencies having jurisdiction upon the work.
- B. Primary emphasis should be given to the aesthetic appearance and functioning of berming and swales, as directed by the Landscape Engineer or Owner's Representative. The Contractor shall

employ skilled personnel and any necessary equipment to insure that finish grading is smooth, aesthetically pleasing, drains well and is ideal for receiving sod and plant materials.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

#### A. Existing Soil:

1. Strip existing topsoil for new construction unless otherwise directed by Owner's Representative, free from debris, sod, biodegradable materials and other deleterious materials. The Contractor shall insure that all existing soil has sufficient percolation and surface drainage to support grasses and plant material and that extreme compaction occurs only in areas to receive paving.
2. In areas to receive seed, verify that soil is scarified to depth of 3 inches and that soil contains enough organic matter to support and encourage rooting of seeded lawn.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

#### A. Job Conditions

1. Dust control: Use all means necessary to prevent dust from construction operations from being a nuisance to adjacent property owners and from damaging finish surfaces on adjacent building, paving, etc. Methods used for dust control are subject to approval by the Engineer or Owner's Representative.
2. Burning: On-site burning will not be permitted.
3. Protection: Use all means necessary to protect curbs, gutters, sprinklers, utilities and vegetation designated to remain, and, in the event of damage, immediately make all repairs, replacements and dressings to damaged plants necessary to the approval of the Landscape Engineer. Contractor shall incur all cost for the replacement of damaged objects and vegetation.

### 3.2 SCHEDULING

- A. Schedule all work in a careful manner with all necessary consideration for adjoining property owners and the public.
- B. Coordinate schedule with other Contractors to avoid conflicts with their work.

### 3.3 EXCAVATION

- A. Excavate where necessary to obtain subgrades, percolation and surface drainage as required.
- B. Materials to be excavated are unclassified.

- C. Remove entirely any existing obstructions after approval by the Engineer's or Owner's Representative.
- D. Remove from site and dispose of debris and excavated material not required.

### 3.4 GRADING

- A. The Contractor shall establish finished grades as shown on the construction plans and as directed by the Engineer, including areas where the existing grade has been disturbed by other work.
- B. Finished grading shall be smooth, aesthetically pleasing, drain well and ready to receive sod and other plant material to full satisfaction of the Owner's Representative, Engineer and Construction Manager.

### 3.5 COMPACTION

- A. Compact each layer of fill in designated areas with approved equipment to achieve a maximum density at optimum moisture, AASHTO T 180 - latest edition.
  - 1. Under buildings, roadways, curbs, walks and other paved areas: compaction shall be to 95% of maximum density.
  - 2. Under landscaped area, compaction shall not exceed 85% of maximum density.
- B. No backfill shall be placed against any masonry or other exposed building surface until permission has been given by the Owner's Representative, and in no case until the masonry has been in place seven days.
- C. Compaction in limited areas shall be obtained by the use of mechanical tampers or approved hand tampers. When hand tampers are used, the materials shall be deposited in layers not more than four inches thick. The hand tampers used shall be suitable for this purpose and shall have a face area of not more than 100 square inches. Special precautions shall be taken to prevent any wedging action against masonry or other exposed building surfaces.

### 3.6 CORRECTION OF GRADE

- A. Bring to required grade levels areas where settlement, erosion or other grade changes occur. Adjust grades as required to carry drainage away from buildings and to prevent ponding around the buildings and on pavements.
- B. Remove all rock or objectionable material larger than one inch in any direction prior to commencing landscaping.
- C. Contractor shall be responsible for stabilizing grades by approved methods prior to landscaping, and shall be responsible for correction of grades as mentioned above, and clean up of any wash outs or erosion.

END OF SECTION 31 1012

SECTION 31 1018 – SOIL EROSION CONTROL

PART 1 - GENERAL

1.1 RELATED REQUIREMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.
- B. CAD files will be made available for use in construction staking. Contact the engineer regarding applicable fee and requirements for signing of the CAD File Transfer Agreement.

1.2 SUMMARY

- A. The work under this Section includes, but not limited to all work necessary for effective soil erosion control in conformance with Part 91, Act 451, PA 1994, the Soil Erosion and Sedimentation Control Act, Michigan Department of Natural Resources Environmental Protection Act guidelines and all pertinent local enforcing agency rules and regulations, having jurisdiction.

1.3 STANDARDS

- A. General: Perform all work under this Section in accordance with all pertinent rules and regulations, including, but not necessarily limited to those mentioned above and these Specifications.
- B. Conflicts: Where provisions of pertinent rules and regulations conflict with these Specifications, the more stringent provisions shall govern.

PART 2 - PRODUCTS

2.1 SEED, FERTILIZER, MULCH

- A. Refer to other Specification Section in Part 3.

PART 3 - EXECUTION

3.1 GENERAL

- A. Standards: Provide all materials and promptly take all actions necessary to achieve effective erosion control in accordance with the Soil Erosion and Sedimentation Control Act, Michigan Department of Natural Resources guidelines, local enforcing agency guidelines and these Specifications.
- B. Site evaluation: Prior to start of the Work, conduct a field evaluation of the site along with representatives of the Engineer and the local enforcing agency.

- C. Permits: Contractor is responsible for obtaining all pertinent permits including a Soil Erosion Control Permit if required from the county or local enforcing agency. Submit the NPDES Notice of Coverage when the soil erosion permit is received if not already done.

### 3.2 SEEDING AND MULCHING

#### A. General

1. All bare soil, unless otherwise required by the Contract Documents, shall be seeded, fertilized and mulched to create a protected condition. Use seed mix as indicated on the plans (if different seed mixes are indicated on the civil and landscape plans, the mix indicated on the landscape plans shall override). Critical areas shall be sodded as approved by the Engineer and as shown on the plans.
2. Seeding and mulching shall be performed immediately upon completion of a phase or section of the Work or as approved by the Engineer.
3. In all cases, seeding and mulching shall be performed within thirty (30) calendar days from the time the area was first disturbed.
4. During any period of time which the soil is unprotected, provide erosion control structures as necessary to minimize erosion and to keep any eroded soils on the site and out of ditches, rivers, storm sewers and wetlands.
5. Refer to the plans for notes regarding the use of turf reinforcement matting and/or mulch blankets (on all slope exceeding 1 vertical to 10 horizontal).

B. Seed: Seed shall be applied uniformly at a minimum rate of 48 pounds per acre.

C. Fertilizer: Fertilizer shall be applied uniformly at a minimum rate of 250 pounds per acre.

D. Mulch: Mulch shall be uniformly applied at a rate of two (2) tons per acre, or equal, on all seeded areas that have a slope of less than 1 vertical to 10 horizontal. Refer to note A5. above for additional slope stabilization requirements.

### 3.3 DITCH AND RIVERS

- A. When reasonably possible, banks of ditches and rivers disturbed under this Work shall be protected within 24 hours of disturbance, but in no case shall banks be left unprotected more than 7 calendar days.

### 3.4 STEEP SLOPES

#### A. Emulsion

1. On slopes greater than 10%, use erosion control blankets or turf reinforcement matting to hold seed in place. Refer to plan notes.

B. Other methods: Chemical self-adhering mulch and other mulch anchoring methods may be used as approved by the Engineer.

3.5 SITE IMPROVEMENTS CONSTRUCTION

- A. During construction of the site improvements conform to the following general rules:
1. Minimize the amount of earth disturbed at any one time.
  2. Establish a construction sequence which includes adequate erosion control.
  3. Provide ground cover, even if only temporary, so as to stabilize an area and minimize erosion.
  4. As much as practicable, direct storm water away from the construction area. Direct diverted storm water to any stable area.
  5. Collect runoff from the site in sediment basins, traps or through filters.
  6. Establish an inspection and maintenance schedule, paying special attention to the beginning of the various stages of construction. Employ a certified storm water operator and keep a log of the soil erosion and sedimentation control measures in accordance with the NPDES requirements.
  7. Keep in mind that the primary objective is to keep the soil on the site.
  8. Once final stabilization of the site is complete, and the governing agency has granted its approval, remove all temporary erosion control structures.
  9. Control site runoff during all periods of site construction to ensure that excess surface runoff does not reach adjacent properties. This is especially critical during stages when the land has been stripped but not yet graded.

3.6 CLEANING

- A. Perform cleaning of all areas affected by work under this section and leave the site in a neat and tidy state. Contractor shall keep Adjacent Roads clean and free of debris.

END OF SECTION 31 1018

SECTION 31 2000 – EARTH MOVING

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.
- B. All earthwork operations shall conform to the current Michigan Department of Transportation standards and specifications.
- C. CAD files will be made available for use in construction staking. Contact the engineer regarding applicable fee and requirements for signing of the CAD File Transfer Agreement.

1.2 SUMMARY

- A. This Section includes the following:
  - 1. Preparing subgrades for slabs-on-grade, walks, pavements, lawns, and plantings.
  - 2. Subbase course for concrete walks and pavements.
  - 3. Base course for asphalt paving.
  - 4. Excavation and backfill for utility trenches.

1.3 DEFINITIONS

- A. Backfill: Soil materials used to fill an excavation.
- B. Base Course: Layer placed between the subbase course and asphalt paving.
- C. Bedding Course: Layer placed over the excavated subgrade in a trench before laying pipe.
- D. Borrow: Satisfactory soil imported from off-site for use as fill or backfill.
- E. Drainage Course: Layer supporting slab-on-grade used to minimize capillary flow of pore water.
- F. Engineered Fill: Fill placed and compacted to densities specified herein, in a controlled manner using lift thickness limited herein, monitored and tested by the Testing Agency or independent Geotechnical Inspector.
- G. Excavation: Removal of material encountered above subgrade elevations.
- H. Fill: Soil materials used to raise existing grades.

- I. Rock: Rock material in beds, ledges, unstratified masses, and conglomerate deposits and boulders of rock material 3/4 cu. yd. (0.57 cu. m) or more in volume.
- J. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- K. Subbase Course: Layer placed between the subgrade and base course for asphalt paving, or layer placed between the subgrade and a concrete pavement or walk.
- L. Subgrade: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.
- M. Undercutting: Necessary excavation of poor quality soils which occur below the existing Topsoil and any uncontrolled fill soils as described in the Geotechnical Investigation.
- N. Utilities include on-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

#### 1.4 SUBMITTALS

- A. Product Data: For the following:
  - 1. Drainage fabric if required for the project .
  - 2. Separation fabric if required for the project.
- B. Test Reports: Testing Agency shall submit the following reports directly to the Engineer and shall copy the contractor:
  - 1. Analysis of soil materials, whether procured on or off site, and including fill, backfill, and borrow materials.
  - 2. In-place density test reports.
  - 3. Moisture-density relationship test reports.
  - 4. Compressive strength or bearing test reports.
- C. Material Test Reports: Interpreting test results for compliance of the following with requirements indicated:
  - 1. Classification according to ASTM D 2487 of each on-site or borrow soil material proposed for fill and backfill.

#### 1.5 QUALITY ASSURANCE

- A. Testing Agency Services

1. The Owner will secure and pay for the services of a qualified, independent geotechnical engineer to classify existing soil materials, to recommend and to classify proposed borrow materials when necessary, to verify compliance of materials with specified requirements, and to perform required field and laboratory testing. Geotechnical engineer shall be acceptable to the Engineer and the owner and shall be licensed to practice in the state in which the project is located.

B. Pre-excavation Conference: Conduct conference at Project site.

## 1.6 PROJECT CONDITIONS

A. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted in writing by Engineer or Owner and then only after arranging to provide temporary utility services according to requirements indicated:

1. Notify Engineer and Owner not less than three (3) calendar days in advance of proposed utility interruptions.
2. Do not proceed with utility interruptions without Engineer's or Owner's written permission.
3. Contact utility-locator service for area where Project is located before excavating.

B. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies to shut off services if lines are active.

## PART 2 – PRODUCTS

### 2.1 SOIL MATERIALS

A. General: Provide borrow soil materials without additional cost to Owner when sufficient satisfactory soil materials are not available from excavations. Contractor is responsible for doing an independent earthwork calculation and including any import of appropriate fill material required to bring the site to the proposed grades.

B. Satisfactory Soil Material (ASTM D 2487): Free of stones larger than 2 inches in any dimension, trash, debris, organic material, other objectionable material and classified as follows:

1. GP (poorly graded gravel).
2. GM (silty gravel).
3. GC (clayey gravel).
4. SW (well-graded sand).
5. SP (poorly graded sand).
6. SM (silty sand).

C. Unsatisfactory Soil Material (ASTM D 2487):

1. SC (clayey sand).
2. CL (lean clay).

3. ML (silt).
  4. OL (organic clay).
  5. OL (organic silt).
  6. CH (fat clay).
  7. MH (elastic silt).
  8. OH (organic clay).
  9. OH (organic silt).
  10. PR (peat).
- D. Backfill and Fill: Satisfactory soil materials.
- E. Subbase: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; Generally either an MDOT Class II sand or 21AA gravel will meet this requirement.
- F. Base: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; Generally either an MDOT Class II sand or 21AA gravel will meet this requirement.
- G. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; Generally either an MDOT Class II sand or 21AA gravel will meet this requirement.
1. Clean granular fill meeting MDOT Class II grading requirements.
  2. On-site granular deposits within the excavation can be used as engineered fill if approved by the geotechnical engineer and if selective excavation procedures are employed to manage existing clay deposits.
  3. Import fill as required to make-up volumes necessary to raise the building site.
- H. Bedding: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; Generally either an MDOT 3G, 5G, 6A, or 34R will meet this requirement. Bedding requirements of the agencies having jurisdiction over the utility installation take precedence over these specifications.
- I. Drainage Fill: Washed, narrowly graded mixture of crushed stone, or crushed or uncrushed gravel; ASTM D 448; Generally either an MDOT 6A or 34R will meet this requirement. Refer to the plans for specific requirements.
- J. Impervious Fill: Clayey gravel and sand mixture capable of compacting to a dense state.

## 2.2 ACCESSORIES

- A. Drainage Fabric: Nonwoven geotextile, specifically manufactured as a drainage geotextile; made from polyolefins, polyesters, or polyamides; with minimum properties determined according to ASTM D 4759 and referenced standard test methods.
- B. Separation Fabric: Woven geotextile, specifically manufactured for use as a separation geotextile; made from polyolefins, polyesters, or polyamides; with minimum properties determined according to ASTM D 4759 and referenced standard test methods.

### PART 3 – EXECUTION

#### 3.1 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- B. Protect subgrades and foundation soils against freezing temperatures or frost. Provide protective insulating materials as necessary.
- C. Provide erosion-control measures approved by agency having jurisdiction to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

#### 3.3 EXPLOSIVES

- A. Explosives: Explosives are prohibited for use on the Project site.

#### 3.4 EXCAVATION, GENERAL

- A. General: Excavation includes the removal of any materials necessary to achieve the required subgrade elevations and includes reuse or disposal of such materials.
- B. Unnecessary Excavation: The expense of excavation of materials outside of limits indicated or ordered in writing by the Engineer and the correction thereof to the satisfaction of the Engineer shall be borne by the contractor.
  - 1. Unnecessary excavation under footings: Either deepen footings to bear on actual subgrade elevation without changing top elevations or place concrete fill up to required elevation, as required by the Engineer.
  - 2. Unnecessary excavation other than under footings: Either place compacted fill or otherwise correct conditions, as required by the Engineer.
- C. Approval of Subgrade: Notify the Testing Agency when required elevations have been reached.
  - 1. When required by the Engineer due to the unforeseen presence of unsatisfactory materials or other factors, perform additional excavation and replace with approved compacted fill material in accordance with the Engineer's or geotechnical engineer's instructions.

2. Payment for unforeseen additional work will be made in accordance with established unit prices or, if none, in accordance with provisions for changes in the work. No payment will be made for correction of subgrades improperly protected against damage from freeze-thaw or accumulation of water, or for correction of otherwise defective subgrades.
- D. Excavation Stabilization: Slope faces of excavations to maintain stability in compliance with requirements of governing authorities. Do not use shoring and bracing where faces can be sloped.

### 3.5 EXCAVATION FOR STRUCTURES

- A. Do not proceed with excavations for building structures until Subgrade Preparation operations are complete and tested.
- B. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch (25 mm). Extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
1. Excavations for Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.
  2. Pile Foundations: Stop excavations from 6 to 12 inches (150 to 300 mm) above bottom of pile cap before piles are placed. After piles have been driven, remove loose and displaced material. Excavate to final grade, leaving solid base to receive concrete pile caps.
  3. Excavation for Underground Tanks, Basins, and Mechanical or Electrical Utility Structures: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 1 inch (25 mm). Do not disturb bottom of excavations intended for bearing surface.
- C. Coordinate excavations with Dewatering operations as required to allow construction of foundations to dry.

### 3.6 EXCAVATION FOR WALKS AND PAVEMENTS

- A. Excavate surfaces under walks and pavements to indicated cross sections, elevations, and grades.

### 3.7 EXCAVATION FOR UTILITY TRENCHES

- A. Excavate trenches to indicated gradients, lines, depths, and elevations.
- B. Excavate trenches to uniform widths to provide a working clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches (300 mm) higher than top of pipe or conduit, unless otherwise indicated.
- C. Trench Bottoms: Excavate and shape trench bottoms in accordance with the plans and standard details. Excavate trenches a minimum 4 inches (100 mm) deeper than bottom of pipe elevation to allow for bedding course (excavate deeper as required by the regulating

agency). Hand excavate for bell of pipe. Remove projecting stones and sharp objects along trench subgrade.

1. Excavate trenches a minimum 4 inches (100 mm) deeper than bottom of pipe elevation to allow for bedding course (excavate deeper as required by the regulating agency). Hand excavate for bell of pipe. Remove projecting stones and sharp objects along trench subgrade. Provide bedding course per the plan notes and/or details.

### 3.8 SUBGRADE PREPARATION AND INSPECTIONS

- A. Perform mass earthwork operations to remove all existing topsoil and other organic materials in their entirety within the footprint of the proposed building and pavement areas. Buried objects should be removed in their entirety.
- B. Notify Testing Agency when excavations have reached required subgrade elevations.
- C. Proof-roll subgrade in the presence of the Testing Agency to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
  1. Completely proof-roll subgrade in one direction repeating proof-rolling in direction perpendicular to the first direction. Limit vehicle speed to 3 mph.
  2. Proof-roll subgrade with heavy pneumatic-tired equipment or loaded 10-wheel, tandem-axle truck weighing not less than 15 tons.
  3. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by the Testing Agency, and replace with engineered fill as directed.
- D. If Testing Agency determines that unsatisfactory soil is present, continue excavations and replace with compacted backfill or fill materials as directed.
  1. Additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
- E. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities.

### 3.9 UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill may be used at no additional cost to the Owner.

### 3.10 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow materials and satisfactory excavated soil materials. Stockpile soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
  1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.11 BACKFILL

- A. Place and compact backfill in excavations promptly, but not before completing the following:
  - 1. Construction below finish grade including, where applicable, dampproofing, waterproofing, and perimeter insulation.
  - 2. Surveying locations of underground utilities for record documents.
  - 3. Inspecting and testing underground utilities.
  - 4. Removing concrete formwork.
  - 5. Removing trash and debris.
  - 6. Removing temporary shoring and bracing, and sheeting.
  - 7. Installing permanent or temporary horizontal bracing on horizontally supported walls.

3.12 UTILITY TRENCH BACKFILL

- A. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.
- B. Place and compact initial backfill of subbase material, free of particles larger than 1 inch (25 mm), to a height of 12 inches (300 mm) over the utility pipe or conduit. All pipe backfill to be done according to the details shown on the plans or the requirements of the regulating agency.
- C. Fill voids with approved backfill materials while shoring and bracing, and as sheeting is removed.

3.13 FILL

- A. Preparation: Remove vegetation, topsoil, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface before placing fills.
- B. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
- C. Place and compact fill material in layers to required elevations as follows:
  - 1. Under grass and planted areas, use satisfactory soil material.
  - 2. Under walks and pavements, use engineered fill.
  - 3. Under steps and ramps, use engineered fill.
  - 4. Under building slabs, use engineered fill.

5. Behind walls, use engineered drainage fill.
6. Under footings and foundations, use engineered fill.
7. Over excavated areas, use engineered fill or lean concrete.

3.14 MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill layer before compaction to within two (2) percent of optimum moisture content.
  1. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.

3.15 COMPACTION OF BACKFILLS AND FILLS

- A. Place backfill and fill materials in layers not more than 8 inches (200 mm) in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches (100 mm) in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.
- C. Compact soil to not less than the following percentages of maximum dry unit weight according to ASTM D 698 and ASTM D 1557:
  1. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches (300 mm) of existing subgrade and each layer of backfill or fill material at 95 percent.
  2. Under walkways, scarify and recompact top 6 inches (150 mm) below subgrade and compact each layer of backfill or fill material at 95 percent.
  3. Under lawn or unpaved areas, scarify and recompact top 6 inches (150 mm) below subgrade and compact each layer of backfill or fill material at 88 percent.

3.16 GRADING

- A. General: Uniformly grade areas to a smooth surface, free from irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
  1. Provide a smooth transition between adjacent existing grades and new grades.
  2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
- B. Site Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish Subgrades to required elevations within plus or minus 1 inch.

- C. Grading Inside Grading Lines: Finish subgrade to a tolerance of ½ inch, when tested with a 10 foot straight-edge.
- D. Contractor shall confirm that the proposed grades shown on the plans will not create a ponding water condition (i.e. an unintended low spot or pavement grades of less than 1%).

3.17 SUBSURFACE DRAINAGE

- A. Drainage Piping: Drainage pipe is specified in Division 33 Section 4100.
- B. Subsurface Drain: Place a layer of drainage fabric around perimeter of drainage trench. Place a 6 inch course of filter material on drainage fabric to support drainage pipe. Encase drainage in a minimum of 12 inches of filter material and wrap in a drainage fabric, overlapping sides and ends at least 6 inches.
  - 1. Compact each course of filter material to 95 percent of maximum dry unit weight according to ASTM D 698.
- C. Drainage Backfill: Place and compact filter material over subsurface drain, in width indicated, to within 12 inches of final subgrade. Overlay drainage backfill with one layer of drainage fabric, overlapping sides and ends at least 6 inches.
  - 1. Compact each course of filter material to 95 percent of maximum dry density according to ASTM D 698.

3.18 SUBBASE AND BASE COURSES

- A. If indicated on the plans or deemed necessary by the geotechnical engineer, install separation fabric on prepared subgrade according to manufacturer's written instructions, overlapping sides and ends.
- B. Under pavements and walks, place subbase course on separation fabric according to fabric manufacturer's written instructions if fabric is called for on the plan or deemed necessary by the geotechnical engineer.
- C. Under pavements and walks, place base on prepared subbase or subgrade as follows:
  - 1. Place base course material over subbase (or subgrade if subbase is not indicated).
  - 2. Compact subbase and base courses at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 1557.
  - 3. When thickness of compacted subbase or base course exceeds 6 inches, place materials in equal layers, with no layer more than 6 inches thick or less than 3 inches thick when compacted.
- D. Pavement Shoulders: Place shoulders along edges of subbase and base course to prevent lateral movement. Construct shoulders, at least 12 inches wide, of satisfactory soil materials and compact simultaneously with each subbase and base layers to not less than 95 percent of maximum dry unit weight according to ASTM D 1557.

3.19 DRAINAGE COURSE

- A. Under slabs-on-grade, if indicated on the plans, place drainage fabric on prepared subgrade according to manufacturer's written instructions, overlapping sides and ends.
- B. Under slabs-on-grade, place drainage course on prepared subgrade and as follows:
  - 1. Compact drainage course to required cross sections and thickness to no less than 95 percent of maximum dry unit weight according to ASTM D 698.
  - 2. When compacted thickness of drainage course exceeds 6 inches, place materials in equal layers, with no more than 6 inches thick or less than 3 inches thick when compacted.

3.20 FIELD QUALITY CONTROL

- A. Testing Agency: Construction Manager/Owner will engage a qualified independent Geotechnical engineering testing agency to perform field quality-control testing.
- B. Allow testing agency to inspect and to test any subgrades and each fill or backfill layer. Proceed with subsequent earthwork only after test results for previously completed work. Comply with requirements.
- C. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable.
- D. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate and remove and replace soil to depth required, recompact and retest until specified compaction is obtained.

3.21 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces becomes eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
- C. Protect all existing trees, bushes, plants, etc. indicated to remain during construction activities.

3.22 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Disposal: Unless otherwise indicated on the drawings, remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of it off the Owner's property.
  - 1. Do not burn materials on the Owner's property.

END OF SECTION 31 2000

SECTION 32 1216 – HOT-MIX ASPHALT CONCRETE PAVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.
- B. All paving materials and construction methods shall conform to the current standards and specifications of the Michigan Department of Transportation. Where these specifications are less stringent than the requirements of MDOT, the MDOT standards shall govern.

1.2 SUMMARY

- A. This Section includes installation of the following:
  - 1. Hot-mix asphalt concrete paving.

1.3 DEFINITIONS

- A. Hot-Mix Asphalt Paving Terminology: Refer to ASTM D 8 for definitions of terms.
- B. MDOT: Michigan Department of Transportation.

1.4 REQUIREMENTS

- A. Provide hot-mix asphalt paving according to materials, workmanship, and other applicable requirements of MDOT'S most current Standard Specifications for Construction. Where notes in this specification section differ from the MDOT standards, the MDOT standards shall govern.
- B. Do not place asphalt when ambient air or base surface temperature is less than 40 degrees F (4 degrees C), or surface is wet or frozen.
- C. Place bitumen mixture when temperature is not more than 15 F degrees (8 C degrees) below bitumen supplier's bill of lading and not more than maximum specified temperature.

1.5 SUBMITTALS

- A. Submit aggregate and bituminous mix designs for review. Contractor shall confirm that the materials provided meet the required specifications, and provide material certification to the engineer. Material certification shall state that the products meet or exceed the requirements indicated on the plans and the requirements of the regulating authority.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A qualified manufacturer.

1. Manufacturer shall be a paving-mix manufacturer registered with and approved by authorities having jurisdiction or the DOT of the state in which Project is located.
  - B. Testing Agency Qualifications: Qualified according to ASTM D 3666 for testing indicated, as documented according to ASTM E 548.
  - C. Regulatory Requirements: Comply with (MDOT) Michigan Department of Transportation's current Standard Specification for Construction for asphalt paving work.
- 1.7 PROJECT CONDITIONS
- A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp or if the following conditions are not met:
    1. Prime and Tack Coats: Minimum surface temperature of 60 deg F.
    2. Slurry Coat: Comply with weather limitations of ASTM D 3910.
    3. Asphalt Base Course: Minimum surface temperature of 40 deg F and rising at time of placement.
    4. Asphalt Surface Course: Minimum surface temperature of 60 deg F at time of placement.
  - B. Pavement-Marking Paint: Apply pavement marking only on clean, dry surfaces and at a minimum ambient or surface temperature of 40 deg F for oil-based materials, 50 deg F (10 deg C) for water-based materials, and not exceeding 95 deg F.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Asphalt Cement: ASTM D 946.
- B. Aggregate for Base Course: Conform with requirements of agency having jurisdiction. If paving is not subject to local review, conform with DOT standards.
- C. Aggregate for Leveling Course: Conform with requirements of agency having jurisdiction. If paving is not subject to local review, conform with DOT standards.
- D. Aggregate for Wearing Course: Conform with requirements of agency having jurisdiction. If paving is not subject to local review, conform with DOT standards.
- E. Fine Aggregate: Conform with requirements of agency having jurisdiction. If paving is not subject to local review, conform with DOT standards.
- F. Mineral Filler: Conform with requirements of agency having jurisdiction. If paving is not subject to local review, conform with DOT standards.
- G. Tack Coat: Conform with requirements of agency having jurisdiction. If paving is not subject to local review, conform with DOT standards.

## 2.2 ASPHALT MATERIALS

- A. Asphalt Binder: Conform with requirements of agency having jurisdiction. If paving is not subject to local review, conform with DOT standards.
- B. Asphalt Cement: Conform with requirements of agency having jurisdiction. If paving is not subject to local review, conform with DOT standards.
- C. Prime Coat: Conform with requirements of agency having jurisdiction. If paving is not subject to local review, conform with DOT standards.
- D. Prime Coat: Conform with requirements of agency having jurisdiction. If paving is not subject to local review, conform with DOT standards.
- E. Tack Coat: Conform with requirements of agency having jurisdiction. If paving is not subject to local review, conform with DOT standards.

## 2.3 AUXILIARY MATERIALS

- A. Paving Geotextile: AASHTO M 288, nonwoven polypropylene; resistant to chemical attack, rot, and mildew; and specifically designed for paving applications.
- B. Joint Sealant: ASTM D 3405 or AASHTO M 301, hot-applied, single-component, polymer-modified bituminous sealant.
- C. Pavement-Marking Paint: Refer to pavement marking specifications.
  - 1. Color: As indicated on Drawings or in accordance with MDOT.
- D. Wheel Stops (if indicated): Precast, air-entrained concrete, 2500-psi minimum compressive strength, 6 inches high by 9 inches wide by 84 inches long. Provide chamfered corners and drainage slots on underside and holes for anchoring to substrate.
  - 1. Dowels: Galvanized steel, 3/4-inch diameter, 10-inch minimum length.

## 2.4 ASPHALT MIX DESIGNS

- A. Hot-Mix Asphalt: Conform with requirements of agency having jurisdiction. If paving is not subject to local review, conform with DOT standards.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Verify that compacted subgrade is dry and in suitable condition to support paving and imposed loads.
- B. Proof-roll subbase using heavy, pneumatic-tired rollers to locate areas that are unstable or that require further compaction. Proof-roll as indicated in "Earth Moving" section 31 2000.

- C. Verify that gradients and elevation of base are correct. Retain first subparagraph below, if applicable.

### 3.2 REPAIRS

- A. Leveling Course: Install and compact leveling course consisting of hot-mix asphalt surface course to level sags and fill depressions deeper than 1 inch in existing pavements.
  - 1. Install leveling wedges in compacted lifts not exceeding 3 inches thick.
- B. Crack and Joint Filling: Remove existing joint filler material from cracks or joints to a depth of 1/4 inch minimum or as indicated.
  - 1. Use hot-applied joint sealant to seal cracks and joints more than 1/4 inch wide. Fill flush with surface of existing pavement and remove excess.

### 3.3 SURFACE PREPARATION

- A. General: Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared compacted subgrade is ready to receive paving.
- B. Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15 gal./sq. yd.

### 3.4 HOT-MIX ASPHALT CONCRETE PLACING

- A. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand to areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.
  - 1. Place hot-mix asphalt base course in number of lifts and thicknesses indicated.
  - 2. Place hot-mix asphalt surface course in single lift.
  - 3. Spread mix at minimum temperature of 250 deg F.
  - 4. Install work in accordance with Michigan Department of Transportation (MDOT)..
  - 5. Compact pavement by rolling to density specified. Re-roll as necessary to achieve even and smooth finish without roller marks.
- B. Place paving in consecutive strips not less than 10 feet wide unless infill edge strips of a lesser width are required.
- C. Promptly correct surface irregularities in paving course behind paver. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

### 3.5 JOINTS

- A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions with same texture and smoothness as other sections of hot-mix asphalt course.
  - 1. Clean contact surfaces and apply tack coat to joints.
  - 2. Construct transverse joints as described in AI MS-22, "Construction of Hot Mix Asphalt Pavements."

### 3.6 COMPACTION

- A. General: Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or vibratory-plate compactors in areas inaccessible to rollers.
  - 1. Complete compaction before mix temperature cools to 185 deg F.
- B. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness.
- C. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:
  - 1. Average Density: 96 percent of reference laboratory density according to AASHTO T 245, but not less than 94 percent nor greater than 100 percent.
  - 2. Average Density: 92 percent of reference maximum theoretical density according to ASTM D 2041, but not less than 90 percent nor greater than 96 percent.
- D. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.
- E. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.
- F. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.
- G. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

### 3.7 INSTALLATION TOLERANCES

- A. Thickness: Compact each course to produce the thickness indicated within the following tolerances:
  - 1. Base Course: Plus or minus 1/2 inch.
  - 2. Surface Course: Plus 1/4 inch, no minus.

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- B. Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a 10-foot straightedge applied transversely or longitudinally to paved areas:
  - 1. Base Course: 1/4 inch.
  - 2. Surface Course: 1/8 inch.
  - 3. Crowned Surfaces: Test with crowned template centered and at right angle to crown. Maximum allowable variance from template is 1/4 inch.
- C. Confirm minimum 1% slopes on asphalt pavement surfaces. Notify engineer prior to asphalt placement if minimum 1% slope is not met in any areas.

3.8 PAVEMENT MARKING

- A. Refer to pavement marking specifications.

3.9 FIELD QUALITY CONTROL

- A. Testing and inspecting: Owner may secure a testing firm to perform and determine compliance with specified requirements and AI MS-2.

3.10 DISPOSAL

- A. Except for material indicated to be recycled, remove excavated materials from Project site and legally dispose of them in an EPA-approved landfill.
  - 1. Do not allow excavated materials to accumulate on-site.

END OF SECTION 32 1216

SECTION 32 1313 – CEMENT CONCRETE PAVEMENTS, CURBS AND GUTTERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.
- B. All paving materials and construction methods shall conform to the current standards and specifications of the Michigan Department of Transportation. Where these specifications are less stringent than the requirements of MDOT, the MDOT standards shall govern.

1.2 SUMMARY

- A. This Section includes exterior cement concrete pavement for the following:
  - 1. Driveways and roadways.
  - 2. Parking lots.
  - 3. Curbs and gutters.
  - 4. Sidewalks and platforms.
  - 5. Wheel stops.

1.3 PERFORMANCE REQUIREMENTS

- A. Refer to MDOT's current Standard Specifications for Construction.

1.4 SUBMITTALS

- A. Submit aggregate and concrete mix designs for review. Contractor shall confirm that the materials provided meet the required specifications, and provide material certification to the engineer. Material certification shall state that the products meet or exceed the requirements indicated on the plans and the requirements of the regulating authority.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer with at least three (3) years in business who has completed pavement work similar in material, design, and extent to that indicated for this Project.
- B. Manufacturer Qualifications: Manufacturer of ready-mixed concrete products complying with ASTM C 94 requirements for production facilities and equipment and approved by authorities having jurisdiction or the DOT of the state in which Project is located.

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1. Manufacturer must be certified according to the National Ready Mix Concrete Association's Plant Certification Program.
  - C. Testing Agency Qualifications: An independent testing agency, acceptable to authorities having jurisdiction, qualified according to ASTM C 1077 and ASTM E 329 to conduct the testing indicated, as documented according to ASTM E 548.
  - D. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant and each aggregate from one source.
- 1.6 PROJECT CONDITIONS
- A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities.
  - B. Do not place concrete when base is wet or frozen. Protect concrete pavement from damage by rain or inclement weather.
  - C. Protect the concrete from freezing until it attains a compressive strength of at least 1,000 PSI. Do not place concrete pavement until the ambient air temperature away from artificial heat is at least 25 degrees Fahrenheit and rising. At the time of concrete placement, ensure a concrete temperature from 45 degrees Fahrenheit to 90 degrees Fahrenheit.

PART 2 - PRODUCTS

2.1 FORMS

- A. Form Materials: Plywood, metal, metal-framed plywood, or other approved panel-type materials to provide full-depth, continuous, straight, smooth exposed surfaces.
  1. Use flexible or curved forms for curved conditions.
- B. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces.

2.2 STEEL REINFORCEMENT

- A. Plain-Steel Welded Wire Fabric: ASTM A 185, fabricated flat sheets, unfinished.
- B. Reinforcement Bars: ASTM A 615/A 615M, Grade 60, deformed billet steel, unfinished.
- C. Epoxy-Coated Reinforcement Bars: ASTM A 775/A 775M; with ASTM A 615/A 615M, Grade 60, deformed bars.
- D. Steel Bar Mats: ASTM A 184/A 184M; with ASTM A 615/A 615M, Grade 60, deformed bars; assembled with clips.
- E. Joint Dowel Bars: Plain steel bars, ASTM A 615/A 615M, Grade 60. Cut bars true to length with ends square and free of burrs.

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- F. Epoxy-Coated Joint Dowel Bars: ASTM A 775/A 775M; with ASTM A 615/A 615M, Grade 60, plain steel bars.
- G. Tie Bars: ASTM A 615/A 615M, Grade 60, deformed.
- H. Hook Bolts: ASTM A 307, Grade A, internally and externally threaded. Design hook-bolt joint assembly to hold coupling against pavement form and in position during concreting operations, and to permit removal without damage to concrete or hook bolt.
- I. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcement bars, welded wire fabric, and dowels in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice" from steel wire, plastic, or precast concrete or fiber-reinforced concrete of greater compressive strength than concrete.
- J. Epoxy Repair Coating: Liquid two-part epoxy repair coating, compatible with epoxy coating on reinforcement.

2.3 CONCRETE MATERIALS

- A. General: Use the same brand and type of cementitious material from the same manufacturer throughout the Project. All material to meet current MDOT specifications.

2.4 CURING MATERIALS

- A. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. dry where indicated on Contract Documents.
- B. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
- C. White Membrane Curing Compound: ASTM C 309, Type 2.

2.5 RELATED MATERIALS

- A. Expansion- and Isolation-Joint-Filler Strips: ASTM D 1751, asphalt-saturated cellulosic fiber.
  - 1. Thickness: ½ inch minimum and thicker where indicated.
- B. Coloring Agent: Where indicated, ASTM C 979, synthetic mineral-oxide pigments or colored water-reducing admixtures; color stable, nonfading, and resistant to lime and other alkalis.
  - 1. Color: n/a
- C. Wheel Stops (use only if indicated on the plans): Precast, air-entrained concrete; 2500-psi minimum compressive strength; approximately 6 inches high, 9 inches wide, and 84 inches long. Provide chamfered corners and drainage slots on underside, and provide holes for dowel-anchoring to substrate.
  - 1. Dowels: Galvanized steel, diameter of 3/4 inch, minimum length 18 inches.

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- D. Slip-Resistive Aggregate Finish: Factory-graded, packaged, rustproof, nonglazing, abrasive aggregate of fused aluminum-oxide granules or crushed emery with emery aggregate containing not less than 50 percent aluminum oxide and not less than 25 percent ferric oxide; unaffected by freezing, moisture, and cleaning materials.
- E. Bonding Agent: ASTM C 1059, Type II, non-redispersible, acrylic emulsion or styrene butadiene.
- F. Epoxy Bonding Adhesive: ASTM C 881, two-component epoxy resin, capable of humid curing and bonding to damp surfaces, of class and grade to suit requirements.

2.6 CONCRETE MIXES

- A. Prepare design mixes, proportioned according to ACI 211.1 and ACI 301, for each type and strength of normal-weight concrete determined by either laboratory trial mixes.
- B. Use a qualified independent testing agency for preparing and reporting proposed mix designs for the trial batch method.
- C. Concrete mix design shall meet the requirements of MDOT, with compressive strength, maximum water-cementitious materials ratio, slump limit, and air content per MDOT specifications. Maximum aggregate size in coarse aggregate gradation shall be 1.5 inches.
- D. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement according to ACI 301 requirements for concrete exposed to deicing chemicals.
- E. Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having an air content of 5.0 to 8.5 percent.
- F. Use appropriate treatment per MDOT specifications where concrete will be placed under freezing conditions. Obtain approval of Engineer prior to placing concrete in freezing conditions. Concrete accelerators may be used in cold temperatures as noted below:
  - 1. In concrete with steel reinforcement, a non-chloride accelerating admixture may be used. Admixture product shall be approved by MDOT per their current Qualified Products List (QPL) and the dosage shall be per manufacturer's instructions. Admixtures containing calcium chloride shall not be used in concrete containing steel reinforcement.
  - 2. In concrete without steel reinforcement, calcium chloride concrete accelerators may be used and shall meet the requirements of MDOT Specification Section 903.04.
- G. Coloring Agent: Where indicated, add coloring agent to mix according to manufacturer's written instructions.

2.7 CONCRETE MIXING

- A. Ready-Mixed Concrete: Comply with requirements and with ASTM C 94 and ASTM C 1116.
  - 1. When air temperature is between 85 deg F and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

- B. Project-Site Mixing: Comply with requirements and measure, batch, and mix concrete materials and concrete according to ASTM C 94. Mix concrete materials in appropriate drum-type batch machine mixer.

### PART 3 - EXECUTION

#### 3.1 PREPARATION

- A. Proof-roll prepared subbase surface to check for unstable areas and verify need for additional compaction and repair as required.
- B. Verify that grades are correct.

#### 3.2 EDGE FORMS AND SCREED CONSTRUCTION

- A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides for pavement to required lines, grades, and elevations.
- B. Clean forms after each use and coat with form release agent to ensure separation from concrete without damage.

#### 3.3 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating reinforcement and with recommendations in CRSI's "Placing Reinforcing Bars" for placing and supporting reinforcement.
- B. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. Maintain minimum cover to reinforcement.
- C. Install welded wire fabric in lengths as long as practicable. Lap adjoining pieces at least one full mesh, and lace splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction.
- D. Install fabricated bar mats in lengths as long as practicable. Handle units to keep them flat and free of distortions. Straighten bends, kinks, and other irregularities, or replace units as required before placement. Set mats for a minimum 2-inch overlap to adjacent mats.

#### 3.4 JOINTS

- A. General: Construct construction, isolation, and contraction joints and tool edgings true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline, unless otherwise indicated.
- B. At all locations where new concrete abuts existing concrete, building wall, or supported slabs, place expansion joint and joint sealant.
- C. Construction Joints: Set construction joints at side and end terminations of pavement and at locations where pavement operations are stopped for more than one-half hour, unless pavement terminates at isolation joints.

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1. Provide preformed galvanized steel or plastic keyway-section forms or bulkhead forms with keys, unless otherwise indicated. Embed keys at least 1-1/2 inches into concrete.
  - D. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, walks, other fixed objects, and where required.
    1. Terminate joint filler 1 inch below finished surface to allow placement of joint sealant.
    2. Joint sealant is required for all projects even if not indicated on the plans.
  - E. Expansion Joints: Place 1 inch (25 mm) wide expansion joints at maximum 40 foot intervals, if not indicated on drawings. Joints to be full depth of pavement. Place joint sealant at all expansion joints.
  - F. Install dowel bars and support assemblies at joints if indicated on the plans. Lubricate or asphalt-coat one-half of dowel length to prevent concrete bonding to one side of joint.
  - G. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas. Construct ¼ inch wide contraction joints for a depth equal to at least one-third of the concrete thickness. Maximum spacing of contractions joints shall be 8'.
    1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint with grooving tool to a 3/8-inch (10-mm) radius. Repeat grooving of contraction joints after applying surface finishes. Eliminate groover marks on concrete surfaces.
    2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch- wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before developing random contraction cracks.
    3. Doweled Contraction Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or asphalt coat one-half of dowel length to prevent concrete bonding to one side of joint.
  - H. Edging: Tool edges of pavement, gutters, curbs, and joints in concrete after initial floating with an edging tool to the following radius.
    1. Radius: 3/8 inch (10 mm).
- 3.5 CONCRETE PLACEMENT
- A. Inspection: Before placing concrete, inspect and complete formwork installation, reinforcement steel, and items to be embedded or cast in. Notify other trades to permit installation of their work.
  - B. Remove snow, ice, or frost from subbase surface and reinforcement before placing concrete. Do not place concrete on frozen surfaces.
  - C. Do not add water to concrete during delivery, at Project site, or during placement.

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- D. Consolidate concrete by mechanical vibrating equipment supplemented by hand-spading, rodding, or tamping. Use equipment and procedures to consolidate concrete according to recommendations in ACI 309R.
- E. Cold-Weather Placement: Comply with ACI 306.1. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
- F. Hot-Weather Placement: Place concrete according to recommendations in ACI 305R when hot-weather conditions exist.

3.6 CONCRETE FINISHING

- A. General: Wetting of concrete surfaces during screeding, initial floating, or finishing operations is prohibited.
- B. Float Finish: Float surface with power-driven floats, or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots, and fill low spots.
  - 1. Area Paving: Light broom, texture perpendicular to pavement direction.
  - 2. Curbs and Gutters: Light broom, texture parallel to pavement direction.
  - 3. Direction of Texturing: Parallel to pavement direction.
  - 4. Inclined Vehicular Ramps: Heavy broomed perpendicular to slope.
  - 5. Place sealer on exposed concrete surfaces immediately after finishing. Apply in accordance with manufacturer's instructions.
- C. Provide detectable warning surface at all handicap ramps to meet ADA requirements in accordance with ANSI sections 406.13 and 705.

3.7 CONCRETE PROTECTION AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and follow recommendations in ACI 305R for hot-weather protection during curing.
- B. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h (1 kg/sq. m x h) before and during finishing operations. Apply according to manufacturer's written instructions.
- C. Curing Methods: Cure concrete by moisture curing, moisture-retaining-cover curing, curing compound, or a combination of these as follows:
  - 1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:
    - a. Water.

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- b. Continuous water-fog spray.
  - c. Absorptive cover, water saturated, and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers.
2. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions.

3.8 PAVEMENT TOLERANCES

- A. Comply with tolerances of ACI 117 and as follows:
- 1. Elevation Variation: 1/4 inch.
  - 2. Thickness: Plus 3/8 inch, minus 1/4 inch.
  - 3. Surface Variation: Gap below 10-foot- long, unlevelled straightedge not to exceed 1/4 inch.
  - 4. Maximum cross slope for walks, ramps, platforms: 2%
  - 5. Maximum longitudinal walk slopes not requiring landings and handrails: 5%
  - 6. Maximum longitudinal ramp slopes: 8.33% (1 on 12 slope)

3.9 PAVEMENT MARKING

- A. Do not apply pavement-marking paint until layout, colors, and placement have been verified with Engineer.
- B. Allow concrete pavement to cure for 28 days and be dry before starting pavement marking.
- C. Sweep and clean surface to eliminate loose material and dust.
- D. Apply paint with mechanical equipment to produce pavement markings of dimensions indicated with uniform, straight edges. Apply at manufacturer's recommended rates to provide a minimum wet film thickness of 15 mils.
  - 1. If indicated on the plans, spread glass beads uniformly into wet pavement markings at a rate of 6 lb/gal.

3.10 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified independent testing and inspection agency to sample materials, perform tests, and submit test reports during concrete placement according to requirements specified.
- B. Testing Services: Testing shall be performed according to the following requirements:

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1. Compression Test Specimens: ASTM C 31/C 31M; one set of four standard cylinders for each compressive-strength test. Cylinders shall be molded and stored for laboratory-cured test specimens unless field-cured test specimens are required.
  2. Compressive-Strength Tests: ASTM C 39; one set for each day's pour of each concrete class exceeding 5 cu. yd., but less than 25 cu. yd., plus one set for each additional 50 cu. yd. One specimen shall be tested at 7 days and two specimens at 28 days; one specimen shall be retained in reserve for later testing if required.
- C. Test results shall be reported in writing to Engineer, concrete manufacturer, and Contractor within 24 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing agency, concrete type and class, location of concrete batch in pavement, design compressive strength at 28 days, concrete mix proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.
- D. Additional Tests: Testing agency shall make additional tests of the concrete when test results indicate slump, air entrainment, concrete strengths, or other requirements have not been met. Testing agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42, or by other methods as directed.

3.11 REPAIRS AND PROTECTION

- A. Remove and replace concrete pavement that is broken, damaged, or defective, or does not meet requirements as directed by the Engineer.
- B. Remove and replace concrete sidewalks and/or ramps that do not comply with maximum slopes indicated in Section 3.8A above.
- C. Protect concrete from damage. Exclude traffic from pavement for at least fourteen (14) calendar days after placement.

END OF SECTION 32 1313

SECTION 32 1373 – CONCRETE PAVING JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.
- B. All paving materials and construction methods shall conform to the current standards and specifications of the Michigan Department of Transportation. Where these specifications are less stringent than the requirements of MDOT, the MDOT standards shall govern

1.2 SUMMARY

- A. General – all expansion joints are to receive joint sealant. Contraction and other joints receive sealant only if indicated on the plan.
- B. This Section includes the following:
  - 1. Expansion and contraction joints within cement concrete pavement.
  - 2. Joints between cement concrete and asphalt pavement.

1.3 SUBMITTALS

- A. Product Data, shop drawing submittals are not required. Contractor shall confirm that the materials provided meet the required specifications, and provide material certification to the engineer. Material certification shall state that the products meet or exceed the requirements indicated on the plans and the requirements of the regulating authority.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain each type of joint sealant through one source from a single manufacturer.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in original unopened containers or bundles with labels indicating manufacturer, product name and designation, color, expiration date, pot life, curing time, and mixing instructions for multicomponent materials.
- B. Store and handle materials to comply with manufacturer's written instructions to prevent their deterioration or damage due to moisture, high or low temperatures, contaminants, or other causes.

1.6 PROJECT CONDITIONS

- A. Do not proceed with installation of joint sealants under the following conditions:
  - 1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer.
  - 2. When joint substrates are wet or covered with frost.
  - 3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
  - 4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Products: Use products meeting MDOT's current specifications.

2.2 MATERIALS, GENERAL

- A. Compatibility: Provide joint sealants, backing materials, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer based on testing and field experience.
- B. Colors of Exposed Joint Sealants: Gray.

2.3 COLD-APPLIED JOINT SEALANTS

- A. Type NS Silicone Sealant for Concrete: Single-component, low-modulus, neutral-curing, nonsag silicone sealant complying with ASTM D 5893 for Type NS.
  - 1. Products:
    - a. Crafcro Inc.; RoadSaver Silicone.
    - b. Dow Corning Corporation; 888.
    - c. Approved equal.
- B. Type SL Silicone Sealant for Concrete and Asphalt: Single-component, low-modulus, neutral-curing, self-leveling silicone sealant complying with ASTM D 5893 for Type SL.
  - 1. Products:
    - a. Crafcro Inc.; RoadSaver Silicone SL.

- b. Dow Corning Corporation; 890-SL.
- c. Approved equal.

#### 2.4 HOT-APPLIED JOINT SEALANTS

A. Elastomeric Sealant for Concrete: Single-component formulation complying with ASTM D 3406.

1. Products:

- a. Crafcro Inc.; Superseal 444/777.
- b. Meadows, W. R., Inc.; Poly-Jet 3406.
- c. Approved equal.

B. Sealant for Concrete and Asphalt: Single-component formulation complying with ASTM D 3405.

1. Products:

- a. Koch Materials Company; Product No. 9005.
- b. Koch Materials Company; Product No. 9030.
- c. Meadows, W. R., Inc.; Sealtight Hi-Spec.
- d. Approved equal.

#### 2.5 JOINT-SEALANT BACKER MATERIALS

A. General: Provide joint-sealant backer materials that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by joint-sealant manufacturer based on field experience and laboratory testing.

B. Round Backer Rods for Cold- and Hot-Applied Sealants: ASTM D 5249, Type 1, of diameter and density required to control sealant depth and prevent bottom-side adhesion of sealant.

C. Backer Strips for Cold- and Hot-Applied Sealants: ASTM D 5249; Type 2; of thickness and width required to control sealant depth, prevent bottom-side adhesion of sealant, and fill remainder of joint opening under sealant.

D. Round Backer Rods for Cold-Applied Sealants: ASTM D 5249, Type 3, of diameter and density required to control sealant depth and prevent bottom-side adhesion of sealant.

#### 2.6 PRIMERS

A. Primers: Product recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.
  - 1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions.
- B. Joint Priming: Prime joint substrates where indicated or where recommended in writing by joint-sealant manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.

3.3 INSTALLATION OF JOINT SEALANTS

- A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
- B. Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.
- C. Install backer materials of type indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.
  - 1. Do not leave gaps between ends of backer materials.
  - 2. Do not stretch, twist, puncture, or tear backer materials.
  - 3. Remove absorbent backer materials that have become wet before sealant application and replace them with dry materials.
- D. Install sealants using proven techniques that comply with the following and at the same time backings are installed:
  - 1. Place sealants so they directly contact and fully wet joint substrates.
  - 2. Completely fill recesses provided for each joint configuration.
  - 3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

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- E. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.
  - 1. Remove excess sealants from surfaces adjacent to joint.
  - 2. Use tooling agents that are approved in writing by joint-sealant manufacturer and that do not discolor sealants or adjacent surfaces.
- F. Provide joint configuration to comply with joint-sealant manufacturer's written instructions, unless otherwise indicated.
- G. Provide recessed joint configuration for silicone sealants of recess depth and at locations indicated.

3.4 CLEANING

- A. Clean off excess sealants or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved by manufacturers of joint sealants and of products in which joints occur.

3.5 PROTECTION

- A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately and replace with joint sealant so installations with repaired areas are indistinguishable from the original work.

END OF SECTION 32 1373

SECTION 32 1415 – PAVEMENT MARKING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to work of this section.
- B. These specifications apply to private, on-site pavement marking. All pavement markings within public rights-of-way must comply with the standards of the regulating agency.

1.2 SUMMARY

- A. The work under this section includes, but is not necessarily limited to the furnishing and installation of all materials necessary for placing pavement markings as indicated on drawings and specifications.
  - 1. Markings on concrete pavement areas.
  - 2. Markings on asphalt pavement areas.
  - 3. Markings on existing concrete or asphalt areas.
  - 4. Markings on resurfaced existing pavements.

1.3 QUALITY ASSURANCE

- A. MDOT Specifications: Unless otherwise indicated on drawings or herein specification, all work under this section shall be performed in accordance with the current MDOT Standard Specifications for Highway Construction.
- B. Physically Handicapped: All marking shall be done in accordance with ADA Requirements.
- C. Paint Containers: Each paint container shall be plainly marked, with a durable, weather-resistant marking, showing the name and address of manufacturer or vendor, description of material, batch number, date of packaging and volume and weight of contents.
- D. Use only personnel completely trained and experienced in installation of materials and equipment.

1.4 SUBMITTALS

- A. Product Data, shop drawing submittals are not required. Contractor shall confirm that the materials provided meet the required specifications, and provide material certification to the engineer. Material certification shall state that the products meet or exceed the requirements indicated on the plans and the requirements of the regulating authority.

1.5 PRODUCT HANDLING

- A. Protection: Use all means necessary to protect materials before, during and after installation and to protect the installed work and materials of all other trades.
- B. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the approval of the Engineer at no additional cost to owner.

PART 2 - PRODUCTS

2.1 GENERAL

- A. All materials and products for work under this section shall conform to current MDOT Standard Specifications for Highway Construction.

2.2 PAVEMENT MARKING PAINT

- A. Pavement marking paint shall be fast dry and comply with MDOT's current Standard Specifications for Highway Construction.
- B. Provide required colors for all physically handicapped markings, complying with governing agencies having jurisdiction.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Inspection: Prior to all work of this section, carefully inspect installed work of all trades and verify all such work is complete to the point where installation may properly commence. Verify all pavement markings may be installed in accordance with all pertinent codes and regulations, authorities having jurisdiction and referenced standards.
- B. Discrepancies: In the event of discrepancy, immediately notify the Engineer. Do not proceed with installation in areas of discrepancies until all have been fully resolved.

3.2 SURFACE PREPARATION

- A. Cleaning: Prior to application of pavement marking, it shall be marking contractor's responsibility that pavement surfaces are clear, dry and free of all foreign materials.
- B. New pavement curing: new bituminous wearing surface shall be in place for period of not less than fourteen days prior to application of Fast Dry pavement markings.

3.3 CONSTRUCTION METHODS

- A. Application: Pavement markings shall be solid 4" wide yellow lines and laid out as indicated on drawings. Paint shall be applied uniformly at a minimum rate of sixteen gallons per mile for single 4" solid line. Markings shall be applied so that they adhere adequately to surface.

- B. Protection of wet paint shall be responsibility of contractor. Markings obliterated by traffic shall be retraced at contractor's expense.

3.4 DEFECTIVE WORK

- A. Improper location: Improperly located markings shall be removed at contractor's expense in a manner acceptable to Engineer and reapplied in correct locations at contractor's expense.
- B. Material shortage: Markings which are applied with material shortages shall be properly reapplied at contractor's expense.

3.5 CLEAN UP

- A. Upon completion of the work of this section, remove all rubbish, trash and debris resulting from work of this section. Leave site in neat and orderly condition.

END OF SECTION 32 1415

SECTION 32 9200 – TURFS AND GRASSES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

1.2 SUMMARY

- A. Section Includes:

- 1. Seeding.
- 2. Turf Renovation.
- 3. Sodding.

1.3 DEFINITIONS

- A. Finish Grade: Elevation of finished surface of planting soil.
- B. Manufactured Soil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- C. Planting Soil: Native or imported topsoil, manufactured topsoil, or surface soil modified to become topsoil; mixed with soil amendments.
- D. Subgrade: Surface or elevation of subsoil remaining after completing excavation, or top surface of a fill or backfill immediately beneath planting soil.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture stating the botanical and common name and percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.
- C. Certification of Bio-Retention Area Seed: From seed vendor for each bio-retention-seed monostand or mixture stating the botanical and common name and percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.
- D. Product Certificates: For fertilizers, signed by product manufacturer.

- E. Qualification Data: For landscape Installer.
- F. Material Test Reports: For imported topsoil.
- G. Planting Schedule: Indicating anticipated planting dates for each type of planting.
- H. Maintenance Instructions: Recommended procedures to be established by Contractor for the Owner for maintenance of lawns during a calendar year. Submit before expiration of required maintenance periods.

#### 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful lawn establishment.
  - 1. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when planting is in progress.
- B. Soil-Testing Laboratory Qualifications: An independent laboratory, recognized by the State Department of Agriculture, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.
- C. Topsoil Analysis: Furnish soil analysis by a qualified soil-testing laboratory stating percentages of organic matter; gradation of sand, silt, and clay content; location exchange capacity; sodium absorption ratio; deleterious material; pH; and mineral and plant-nutrient content of topsoil.
  - 1. Report suitability of topsoil for lawn growth. State recommended quantities of nitrogen, phosphorus, and potash nutrients and soil amendments to be added to produce a satisfactory topsoil.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Seed: Deliver seed in original sealed, labeled, and undamaged containers.
- B. Sod: Harvest, deliver, store, and handle sod according to requirements in TPI's "Specifications for Turfgrass Sod Materials" and "Specifications for Turfgrass Sod Transplanting and Installation" in its "Guideline Specifications to Turfgrass Sodding."

#### 1.7 SCHEDULING

- A. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with maintenance periods to provide required maintenance from date of Substantial Completion.
  - 1. Spring Planting: April 1<sup>st</sup> and June 1<sup>st</sup>.
  - 2. Fall Planting: September 15<sup>th</sup> and October 15<sup>th</sup>.
- B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit.

#### 1.8 LAWN MAINTENANCE

- A. Begin maintenance immediately after each area is planted and continue until acceptable lawn is established, but for not less than the following periods:
1. Seeded Lawns: 60 days from date of Substantial Completion.
    - a. When full maintenance period has not elapsed before end of planting season, or if lawn is not fully established, continue maintenance during next planting season.
    - b. A minimum of two (2) lawn cuttings (MANICURED LAWN ZONES ONLY) will be completed before the owner takes over maintenance.
- B. Maintain and establish lawn by watering, fertilizing, weeding, mowing, trimming, replanting, and other operations. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth lawn.
1. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch. Anchor as required to prevent displacement.
- C. Watering: Provide and maintain temporary piping, hoses, and lawn-watering equipment to convey water from sources and to keep lawn uniformly moist to a depth of 4 inches.
1. Schedule watering to prevent wilting, puddling, erosion, and displacement of seed or mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
  2. Water lawn at a minimum rate of 1 inch per week.
- D. Mow lawn as soon as top growth is tall enough to cut. Repeat mowing to maintain specified height without cutting more than 40 percent of grass height. Remove no more than 40 percent of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain the following grass height:
1. Mow grass to 2 inches height.
- E. Lawn Postfertilization: Apply fertilizer after initial mowing and when grass is dry.
1. Apply Type B fertilizer to lawns approximately 30 days after seeding  
at a rate equal to 1.0 lb. of actual nitrogen per 1,000 sq. ft.  
  
(140 lbs./acre). Apply with a mechanical rotary or drop type distributor.  
  
Thoroughly water into soil. (Provide 3 applications)
- F. Weed Control: If an infestation of weeds or crab grass develops prior to acceptance of the lawn, the Contractor shall treat the infestation by hand weeding or chemical control. The chemical control shall be furnished and installed by the contractor as recommended by the manufacturer and approved by the Landscape Architect. At least two weeks shall elapse after chemical control is applied before a request or inspection for acceptance is made to the Landscape Architect.

- G. Apply fungicides and insecticides as required to control diseases and insects.

## PART 2 - PRODUCTS

### 2.1 SEED

- A. Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Journal of Seed Technology; Rules for Testing Seeds" for purity and germination tolerances.
- B. Seed shall be provided from one of the following suppliers
1. Lesco (248) 689-5005
  2. Rhino Seed & Supply (800) 482-3130
  3. Michigan State Seed Solutions (800) 647-8873
- C. Seed Species: Seed of grass species as follows, with not less than 95 percent germination, not less than 85 percent pure seed, and not more than 0.5 percent weed seed:
1. General Seeded Lawn Areas (for lawn restoration areas only):
    - a. 50 percent Kentucky Bluegrass, a minimum of (3) three cultivars
    - b. 50 percent Perennial Ryegrass, a minimum of (2 or 3) two or three cultivars.

### 2.2 TURFGRASS SOD

- A. Turfgrass Sod: Certified Number 1 Quality/Premium, including limitations on thatch, weeds, diseases, nematodes, and insects, complying with TPI's "Specifications for Turfgrass Sod Materials" in its "Guideline Specifications to Turfgrass Sodding." Furnish viable sod of uniform density, color, and texture, strongly rooted, and capable of vigorous growth and development when planted.
- B. Turfgrass Species: Sod of grass species as follows, with not less than 95 percent germination, not less than 85 percent pure seed, and not more than 0.5 percent weed seed:
1. Full Sun: Kentucky bluegrass (*Poa pratensis*), a minimum of three cultivars

### 2.3 TOPSOIL

- A. Topsoil: ASTM D 5268, pH range of 5.5 to 7, a minimum of 4 percent organic material content; free of stones 1 inch or larger in any dimension and other extraneous materials harmful to plant growth.
1. Topsoil Source: Import topsoil or manufactured topsoil from off-site sources. Obtain topsoil displaced from naturally well-drained construction or mining sites where topsoil occurs at least 4 inches deep; do not obtain from agricultural land, bogs or marshes.

### 2.4 INORGANIC SOIL AMENDMENTS

- A. Lime: ASTM C 602, agricultural limestone containing a minimum 80 percent calcium carbonate equivalent and as follows:
  - 1. Class: Class T, with a minimum 99 percent passing through No. 8 sieve and a minimum 75 percent passing through No. 60 sieve.
- B. Sulfur: Granular, biodegradable, containing a minimum of 90 percent sulfur, with a minimum 99 percent passing through No. 6 sieve and a maximum 10 percent passing through No. 40 sieve.
- C. Iron Sulfate: Granulated ferrous sulfate containing a minimum of 20 percent iron and 10 percent sulfur.
- D. Aluminum Sulfate: Commercial grade, unadulterated.
- E. Perlite: Horticultural perlite, soil amendment grade.
- F. Agricultural Gypsum: Finely ground, containing a minimum of 90 percent calcium sulfate.
- G. Sand: Clean, washed, natural or manufactured, free of toxic materials.

## 2.5 ORGANIC SOIL AMENDMENTS

- A. Compost: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 1/2-inch sieve; soluble salt content of 5 to 10 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:
  - 1. Organic Matter Content: 60 percent of dry weight.
  - 2. Feedstock: Agricultural, food, or industrial residuals; biosolids; yard trimmings; or source-separated or compostable mixed solid waste.
- B. Peat: Finely divided or granular texture, with a pH range of 6 to 7.5, containing partially decomposed moss peat, native peat, or reed-sedge peat and having a water-absorbing capacity of 1100 to 2000 percent.
- C. Manure: Well-rotted, unleached, stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials; free of toxic substances, stones, sticks, soil, weed seed, and material harmful to plant growth.

## 2.6 PLANTING ACCESSORIES

- A. Selective Herbicides: EPA registered and approved, of type recommended by manufacturer for application.

## 2.7 FERTILIZER

- A. Granular, non-burning product composed of not less than 50% organic slow acting, guaranteed analysis professional fertilizer.

1. Type A: Starter fertilizer containing 11% nitrogen, 23% phosphoric acid, and 10% potash by weight or similar approved composition.
2. Type B: Top dressing fertilizer containing 31% nitrogen, 3% phosphoric acid, and 10% potash by weight or similar approved composition.
  - a. Apply Type A fertilizer at initial sowing of seed and a Type B fertilizer application 4 weeks after initial germination.
  - b. (Provide a min. one (1) Type A fertilizer application and three (3) Type B fertilizer applications)

## 2.8 MULCHES

- A. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshed straw of wheat, rye, oats, or barley.
- B. Fiber Mulch: Biodegradable, dyed-wood, cellulose-fiber mulch; nontoxic; free of plant-growth or germination inhibitors; with maximum moisture content of 15 percent and a pH range of 4.5 to 6.5.
- C. Nonasphaltic Tackifier: Colloidal tackifier recommended by fiber-mulch manufacturer for slurry application; nontoxic and free of plant-growth or germination inhibitors.
- D. Asphalt Emulsion: ASTM D 977, Grade SS-1; nontoxic and free of plant-growth or germination inhibitors.

## 2.9 EROSION-CONTROL MATERIALS

- A. Erosion-Control Blankets: Biodegradable wood excelsior, straw, or coconut-fiber mat enclosed in a photodegradable plastic mesh. Include manufacturer's recommended steel wire staples, 6 inches long.
- B. Erosion-Control Fiber Mesh: Biodegradable twisted jute or spun-coir mesh, a minimum of 0.92 lb/sq. yd., with 50 to 65 percent open area. Include manufacturer's recommended steel wire staples, 6 inches long.

## 2.10 PLANTING SOIL MIX

- A. Planting Soil Mix: Mix topsoil with the following soil amendments in the following quantities:

PLANTING BEDS:

1. Three parts well-drained screened organic imported topsoil to one part clean imported sand to one part Canadian sphagnum peat moss, to one part natural compost (weed-free).

LAWNS:

2. Manicured Lawns shall use screened stock-piled topsoil from specified on-site location.

2.11 SEEDING

- A. General: Provide grasses for seeding.

2.12 MATERIALS

- A. Topsoil for Seeding Lawn Areas.
- B. Seed: Fresh, clean and new crop seed mixture. Mixed by approved methods.
- C. Composed of the following varieties, mixed to the specified proportions by weight and tested to minimum percentages of purity and germination.
- D. Seed Mixture: Proportioned by weight as indicated below:

1. Lawns

MDOT Mix THM	Proportion	Minimum Purity	Minimum Germination
Kentucky Bluegrass	30%	98%	85%
Creeping Red Fescue	50%	97%	85%
Perennial Ryegrass	20%	96%	85%

- a. Spread at a rate of 220 lbs./acre
- b. No noxious weed seeds permitted.
- E. Fertilizer: 13-25-12. Granular, non-burning product composed of not less than 50% organic slow acting, guaranteed analysis, professional fertilizer.
- F. Ground Limestone: Used if required by soil test report. Containing not less than 85% of total carbonates and ground to such fineness that 50% will pass through a 100 mesh sieve and 90% will pass through a 20% mesh sieve.
- G. Granulated sulfur 0-0-0-90 to lower pH. Use if determined by soil tests to be necessary. Apply per soil test recommendations at specified rate.
- H. Straw Mulch: Used in crimping process only. Clean oat or wheat straw well seasoned before bailing, free from mature seed-bearing stalks or roots of prohibited or noxious weeds.

- I. Water: Free of substance harmful to seed growth. Hoses or other methods of transportation furnished by Contractor. Test for excess Alkalinity, if necessary.
- J. Wood Cellulose Fiber Mulch: Degradable green dyed wood cellulose fiber or 100% recycled long fiber pulp, free from weeds or other foreign matter toxic to seed germination and suitable to hydra-mulching.
  - 1. AVAILABLE MANUFACTURER AND TYPE:
  - 2. CONWED HYDROMULCH: CONWED CORP., ST. PAUL, MN
  - 3. CELLIN HYDROMULCH: CELLIN MFG. INC., LORTON, VA
- K. Paper Mulch: Degradable paper mulch, free of foreign debris. Do not use on slopes over 30%. Available manufacturer and type NU Wool Hydro Mulch, Jennison, MI.
- L. Tackifier: Liquid concentrate diluted with water forming a transparent 3-dimensional film like crust permeable to water and air and containing no agents toxic to seed germination.
  - 1. AVAILABLE MANUFACTURER AND TYPE:
  - 2. FINN HYDROSTIK, FAIRFIELD, OH
  - 3. POLYING DLR: CELITE INC., CLEVELAND, OH

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine areas to receive lawns and grass for compliance with requirements and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
  - 1. Protect adjacent and adjoining areas from hydro-seeding overspray.
- B. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

#### 3.3 LAWN PREPARATION

- A. Limit lawn subgrade preparation to areas to be planted.
- B. Newly Graded Subgrades: Loosen subgrade to a minimum depth of 4 inches Remove stones larger than 1 inch in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.

1. Thoroughly blend planting soil mix off-site before spreading or spread topsoil, apply soil amendments and fertilizer on surface, and thoroughly blend planting soil mix.
    - a. Delay mixing fertilizer with planting soil if planting will not proceed within a few days.
    - b. Mix lime with dry soil before mixing fertilizer.
  2. Spread lawn planting soil mix to a depth of 3 inches but not less than required to meet finish grades after light rolling and natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.
- C. Unchanged Subgrades: If lawns are to be planted in areas unaltered or undisturbed by excavating, grading, or surface soil stripping operations, prepare surface soil as follows:
1. Remove existing grass, vegetation, and turf. Do not mix into surface soil.
  2. Loosen surface soil to a depth of at least of 6 inches.
  3. Remove stones larger than 1 inch in any dimension and sticks, roots, trash, and other extraneous matter.
  4. Legally dispose of waste material, including grass, vegetation, and turf, off Owner's property.
- D. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Grade to within plus or minus 1/4 inch of finish elevation. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit fine grading to areas that can be planted in the immediate future.
- E. Moisten prepared lawn areas before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- F. Restore areas if eroded or otherwise disturbed after finish grading and before planting.

### 3.4 SODDING

- A. Lay sod within 24 hours of harvesting. Do not lay sod if dormant or if ground is frozen or muddy.
- B. Lay sod to form a solid mass with tightly fitted joints. Butt ends and sides of sod; do not stretch or overlap. Stagger sod strips or pads to offset joints in adjacent courses. Avoid damage to subgrade or sod during installation. Tamp and roll lightly to ensure contact with subgrade, eliminate air pockets, and form a smooth surface. Work sifted soil or fine sand into minor cracks between pieces of sod; remove excess to avoid smothering sod and adjacent grass.
  1. Lay sod across angle of slopes exceeding 1:3.
  2. Anchor sod on slopes exceeding 1:6 with wood pegs or steel staples spaced as recommended by sod manufacturer but not less than 2 anchors per sod strip to prevent slippage.

- C. Saturate sod with fine water spray within two hours of planting. During first week, water daily or more frequently as necessary to maintain moist soil to a minimum depth of 1-1/2 inches below sod.

### 3.5 SEEDING

- A. Sow seed with spreader or seeding machine. Do not broadcast or drop seed when wind velocity exceeds 5 mph. Evenly distribute seed by sowing equal quantities in two directions at right angles to each other.
  - 1. Do not use wet seed or seed that is moldy or otherwise damaged.
- B. Sow seed at the rate of 220 lb/acre as indicated per specified seed mix.
- C. Rake seed lightly into top 1/8 inch of topsoil, roll lightly, and water with fine spray.
- D. Protect seeded areas with slopes exceeding 1:6 with erosion-control fiber mesh and 1:4 with erosion-control blankets installed and stapled according to manufacturer's written instructions.
- E. Protect seeded areas with slopes not exceeding 1:6 by spreading straw mulch. Spread uniformly at a minimum rate of 2 tons/acre to form a continuous blanket 1-1/2 inches in loose depth over seeded areas. Spread by hand, blower, or other suitable equipment.
  - 1. Anchor straw mulch by crimping into topsoil with suitable mechanical equipment.

### 3.6 TURF RENOVATION

- A. Renovate existing lawn.
- B. Renovate existing lawn damaged by Contractor's operations, such as storage of materials or equipment and movement of vehicles.
  - 1. Reestablish lawn where settlement or washouts occur or where minor regrading is required.
- C. Remove sod and vegetation from diseased or unsatisfactory lawn areas; do not bury in soil.
- D. Remove topsoil containing foreign materials resulting from Contractor's operations, including oil drippings, fuel spills, stone, gravel, and other construction materials, and replace with new topsoil.
- E. Mow, dethatch, core aerate, and rake existing lawn.
- F. Remove weeds before seeding. Where weeds are extensive, apply selective herbicides as required. Do not use pre-emergence herbicides.
- G. Remove waste and foreign materials, including weeds, soil cores, grass, vegetation, and turf, and legally dispose of them off Owner's property.
- H. Till stripped, bare, and compacted areas thoroughly to a soil depth of 6 inches.

- I. Apply soil amendments and initial fertilizers required for establishing new lawns and mix thoroughly into top 4 inches of existing soil. Provide new planting soil to fill low spots and meet finish grades.
- J. Apply seed and protect with straw mulch as required for new lawns.
- K. Water newly planted areas and keep moist until new lawn is established.

3.7 MULCHING

- A. Place straw mulch on seeded areas within twenty-four (24) hours after seeding.
- B. Place straw mulch uniformly in a continuous blanket at a rate of 2-1/2 tons per acre or two (2) 50 lb. bales per 1,000 sq. ft. of area. A mechanical blower may be used for straw mulch application when acceptable to the Engineer.
- C. Crimp straw into soil by use of a "crimper." Two (2) passes in opposite direction required.

3.8 SLIT SEEDING (OPTIONAL METHOD)

- A. Lawn to be professionally slit seeded by using equipment designed for this purpose. Recommended brands: Brilliant, Jacobsen or Olathe.

3.9 HYDROSEEDING (OPTIONAL METHOD)

- A. Use a hydromulcher (sprayer) and apply mixture(s) at the following rate. Mix in accordance with manufacturer's recommendations.
- B. Apply hydroseed slurry to indicated areas. Use tackifier only on erosion prone areas. Apply fertilizer with hydro mix.

Seed:	At specified seeding rates (300 pounds per acre)
Fertilizer:	400 pounds per acre
Tackifier:	60 gallons per acre
Wood Cellulose Fiber Mulch:	2000 pounds per acre

- C. Care must be taken not to get hydroseed materials on buildings, walks, roadways, plant beds, etc.

3.9 SATISFACTORY LAWNS

- A. Satisfactory Seeded Lawn: At end of maintenance period, a healthy, uniform, close stand of grass has been established, free of weeds and surface irregularities, with coverage exceeding 90 percent over any 10 sq. ft. (0.92 sq. m) and bare spots not exceeding 4 by 4 inches.

3.10 CLEANUP AND PROTECTION

SECTION 32 9200  
TURFS AND GRASSES

- A. Promptly remove soil and debris created by lawn work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.
- B. Erect barricades and warning signs as required to protect newly planted areas from traffic. Maintain barricades throughout maintenance period and remove after lawn is established.
- C. Remove erosion-control measures after grass establishment period.

END OF SECTION 32 9200

SECTION 33 4100 – STORM SEWERS, UNDERDRAINS AND DRAINAGE STRUCTURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions, apply to work of this section. Where these specifications differ from the local or City's standard detail sheets, the detail sheets shall govern.

1.2 SUMMARY

- A. The work under this Section includes, but is not necessarily limited to, the furnishing and installation of all storm sewers, underdrains and drainage structures and leads and connections as indicated on the Drawings, herein specified and as necessary for the proper and complete performance of this Work for foundations and underslab areas. Contractor shall note that new manholes and catch basins are not intended to be part of the project, but these specifications are provided in the event that any structures need replacement.

1. Storm Sewer Pipe
2. Perforated Underdrain Pipe
3. Castings
4. Manhole Sections and Steps
5. Catch Basin
6. Brick and Concrete Block Masonry

1.3 QUALITY ASSURANCE

- A. Use only personnel completely trained and experienced in installation of the materials.
- B. Compliance to City/Township Codes and all other agencies having jurisdiction shall govern material and installation procedures.

1.4 SUBMITTALS

- A. Shop Drawings: Shop drawing submittals are not required for storm sewer materials. Contractor is expected to conform to the plans, specifications, and details for this work. Submit material certificates in lieu of shop drawings. Material certificates shall be signed by manufacturer and contractor certifying that each material item complies with or exceeds requirements.

1.5 PRODUCT HANDLING

SECTION 33 4100  
STORM SEWERS, UNDERDRAINS AND  
DRAINAGE STRUCTURES

- A. Protection: Use all means necessary to protect the materials before, during and after installation.
- B. Replacements: In the event of damage, immediately make all necessary repairs and replacements acceptable to the Engineer and at no additional cost to the Owner.

PART 2 - PRODUCTS

2.1 STORM SEWER PIPE

- A. General: Storm sewer pipe material shall be as indicated on the plans. If indicated on the plans, pipe materials shall conform to the following requirements.
- B. Reinforced Concrete Pipe
  - 1. Reinforced concrete pipe shall conform to ASTM C-76.72A, Type III & Type IV.
  - 2. Joints shall be premium rubber joint as acceptable to the Engineer unless otherwise specified on the drawings.
- C. Corrugated Polyethelene Tubing (CPT)
  - 1. Corrugated Polyethelene Tubing (CPT) shall conform to ASTM F405 and shall be perforated with sock where indicated on the plans.
  - 2. Joints shall be secured with a factory made snap-on or screen-on coupler for 4" and 6" diameter. Joints for 8" diameter and larger shall be a factory made coupler ties, bolts or screws on.
- D. Smooth Lined Corrugated Polyethylene Pipe (SLCPP)
  - 1. Corrugated polyethylene pipe shall have a smooth interior wall, Manning's "n" of 0.012 or better and shall conform to AASHTO M294.
  - 2. Joints shall be secured with a tied or bolted polyethylene coupler or shall be a factory made coupler which can be screw turned on to the end corrugations.
  - 3. Corrugated polyethylene pipe shall be Advanced Drainage Systems N-12, Hancor HiQ or accepted equal.

2.2 PERFORATED UNDERDRAIN PIPE (PE or CPP)

- A. General
  - 1. Perforated underdrain pipe shall be perforated, corrugated polyethelene pipe.
  - 2. The pipe shall have a factory installed geotextile pipe wrap.
  - 3. Perforation shall meet the requirements of AASHTO M 278.

SECTION 33 4100  
STORM SEWERS, UNDERDRAINS AND  
DRAINAGE STRUCTURES

- B. Polyethylene Pipe (PE): Polyethylene pipe and fittings shall be standard strength and conform to ASTM F 405 and AASHTO M 252.
- C. Polyvinyl Chloride Pipe (PVC): Polyvinyl Chloride pipe and fitting shall be standard strength and conform to ASTM F 800.
- D. Geotextile Pipe Wrap: Geotextile pipe wrap shall weigh at least 3.5 ounces per square yard and shall conform to AASHTO M 288. It shall not be ripped or torn. The minimum tensile strength shall be 100 pounds.

2.3 CASTINGS

- A. General: All castings shall be of cast iron, conforming to ASTM A 48 unless otherwise indicated. Conform to details and notes indicated on the plans. Where details or notes are not indicated, conform with the following requirements.
- B. Manhole frames and covers: Material shall be MDOT Type A with perforated covers.
- C. Catch basins and inlet castings: Catch basin and inlet castings shall be MDOT Type K when located in curbs and gutter, MDOT Type E in non-paved locations, and MDOT Type A when located in paved areas.

2.4 MANHOLE SECTIONS

- A. Manhole walls
  - 1. Standard manhole walls shall be Precast concrete units conforming to ASTM C 478, or be concrete block masonry.
- B. Manhole bases: Manhole bases shall be precast concrete units of the dimensions indicated on the Drawings.

2.5 MANHOLE STEPS

- A. Manhole steps shall be of cast iron conforming to ASTM A 48 or equal, and shall meet pertinent safety rules and regulations.

2.6 CATCH BASINS

- A. Construct catch basins of brick, block, masonry, or Precast units. Precast concrete catch basin units, if used, shall have reinforcing steel conforming to ASTM C 76 II, Wall B.

2.7 INLETS

- A. Construct inlets of brick, block, masonry, or Precast units. Precast inlet units, if used, shall have reinforcing steel conforming to ASTM C 76 II, Wall B.

2.8 CLEANOUTS

- A. PVC Cleanouts: PVC body with PVC threaded plug. Include PVC sewer pipe fitting and riser to cleanout of same material as sewer piping.

2.9 MORTAR

- A. Mortar for brick masonry or plastering manholes shall be made of one part Portland cement to two parts sand.

2.10 BRICK

- A. Brick Work shall meet the requirements of Medium Brick of ASTM C 13.

2.11 CONCRETE BLOCK MASONRY

- A. Concrete block masonry shall conform to ASTM C 139.

2.12 OTHER MATERIALS

- A. All other materials not specifically described but required for a complete and proper installation of the work of this Section, shall be new, first quality of their respective kinds, and as selected by the Contractor subject to review by the Engineer.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

- A. Inspection
  - 1. Verify that all work under this Section may be installed in accordance with all pertinent codes and regulations, the original design and the reference standards.
  - 2. All materials shall be inspected immediately before installation, and if found defective, immediately removed from the site.
- B. Discrepancies
  - 1. In the event of discrepancy, immediately notify the Engineer.
  - 2. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.

3.2 EARTHWORK

- A. All earthwork required for the performance of the work of this Section shall be installed in accordance with earthwork specifications.

### 3.3 INSTALLATION

- A. General: Install all pipe and fittings in strict accordance with the manufacturer's recommendations as acceptable to the Engineer and other authorities having jurisdiction.
- B. Handling
  - 1. Distribute pipe and materials at the site as required, care to prevent damage to the pipe and materials.
  - 2. Use proper tools and implements for safely handling and installing the pipe and other materials.
  - 3. Protect the pipe and other materials from falling to the ground or into the trench.
  - 4. Protect distributed pipe and materials from the public and passing vehicles.
- C. Laying pipe
  - 1. Lay all pipe true to line and grade with pipe ends abutting each other and the bell end facing the direction of laying.
  - 2. Use laser alignment equipment to establish and maintain proper line and grade, unless otherwise directed.
  - 3. Correct any deviation from line and grade at no additional cost to the Owner.
  - 4. Protect workers at all times from cave-in and other hazardous conditions.
- D. Joints: Inspect each joint immediately after being completed and, if defective, shall be corrected before any more pipe is laid.
- E. Concrete encasement
  - 1. Place concrete encasements in locations and to the form and dimensions indicated.
  - 2. Concrete for encasements shall be Class SE with that below the pipe dry mixed.
  - 3. Take particular care to place the concrete under the pipe, and lay pipe in fresh concrete so that a complete support of the pipe will be made. Encasement at the sides and top may be placed after the concrete under this pipe has been set.
- F. Manholes
  - 1. Construct manholes as indicated on the Drawings and Specifications.
  - 2. Take special care in forming the channels in the concrete bottom and use wooden templates or half sewer pipe for this work.
  - 3. Plaster masonry work and castings as indicated on the Drawings.

SECTION 33 4100  
STORM SEWERS, UNDERDRAINS AND  
DRAINAGE STRUCTURES

4. In precast concrete manholes, the bottom section shall have cast openings of sufficient size to receive the sewer pipe. If such openings are not provided, the bottom portion may be constructed of masonry work from the concrete base to at least 6" above the top of the largest pipe entering the manhole and Precast sections placed from the masonry to the desired top elevation.
5. All the annular space between the sewer pipe and the opening in the manhole section shall be filled with brick and/or masonry to provide a waterproof seal.
6. Place the manhole casting on a minimum of 3 courses of masonry brick and a maximum of 5 courses of manhole brick. Install bricks radially. Precast concrete adjusting rings may be used in place of brick.
7. Mortar joints have to be smooth tooled joints.

G. Catch basins and inlets

1. Construct catch basins and inlets as indicated on the Drawings and Specifications.
2. Place catch basin and inlet castings on a minimum of 3 courses of manhole brick and a maximum of 5 courses of manhole brick. Install brick radially. Precast concrete adjusting rings may be used in place of brick.

H. Trench bracing: Install trench bracing in accordance with safety and other pertinent rules and regulations, and earthwork specifications.

I. Erosion control and sedimentation: Contractor to provide erosion control to minimize introduction of sedimentation into the system.

3.4 CLEANING

A. Prior to acceptance of storm sewers, underdrains, manholes and drainage structures, thoroughly clean those structures and remove all dirt and debris of whatever nature from inside sewer pipes, manholes and the like, and leave the site in a neat and clean condition.

END OF SECTION 33 4100

**ATTACHMENT B2:  
Standard Form of Agreement AIA A105-2017, as modified**

# DRAFT AIA® Document A105® - 2017

## Standard Short Form of Agreement Between Owner and Contractor

AGREEMENT made as of the    day of    in the year «Two Thousand Twenty FiveSix.»  
(In words, indicate day, month and year.)

BETWEEN the Owner:  
(Name, legal status, address and other information)

«Madison District Public Schools  
26550 John R. Road  
Madison Heights, Michigan 48071 »

and the Contractor:  
(Name, legal status, address and other information)

«  »«  »  
«  »  
«  »  
«  »

for the following Project:  
(Name, location and detailed description)

«Madison District Public Schools »«  »  
2024 Sinking Fund Program – Paving Projects »  
«Paving Contractor Services for Madison High School and Wilkerson Middle School.

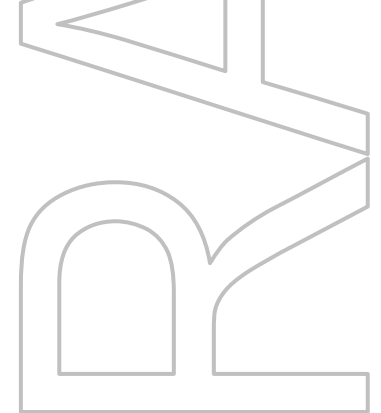
The Architect:  
(Name, legal status, address and other information)

«Spalding, DeDecker & Associates, Inc. »«  »  
«905 South Blvd East »  
«Rochester Hills, Michigan 48307  
248 844-5400 »

The Owner and Contractor agree as follows.

**ADDITIONS AND DELETIONS:** The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.



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### ARTICLE 1 THE CONTRACT DOCUMENTS

~~The Contractor shall complete the Work described in the Contract Documents for the Project. The Contract Documents consist of~~ §1.1 The Contractor shall faithfully and competently complete the Work described in this Agreement, including all Exhibits or documents incorporated herein by reference (hereinafter collectively referred to as the "Agreement" or "Contract"), the Conditions of the Contract (General, Supplementary and other Conditions), the Request for Proposal dated April 28, 2026 including any Addenda, as well as the Advertisement or Invitation to Bid, Instructions to Bidders, Drawings and Specifications and the Contract Documents for the Project, or as reasonably inferable as necessary or incidental, to produce the results intended by the Contract Documents collectively "the RFP"), as well as in the Contractor's Proposal in response to the RFP dated 20 including the Post-Bid interview documents dated , 20 (collectively the "Proposal"), which Proposal is incorporated herein by reference (except to the extent any exceptions contained in the Contractor's Proposal are not expressly accepted by the Owner in writing or incorporated into this Agreement). In the event of any inconsistency or ambiguity between this Agreement and the Contractor's Proposal, the terms that are more favorable to the Owner shall govern. The Contract Documents consist of:

- ~~.1~~ .1 this Agreement signed by the Owner and Contractor;
- ~~.2~~ .2 ~~the drawings and specifications prepared by the Architect, dated , and enumerated as follows:~~  
all the Drawings and Specifications prepared by the Architect for construction for the Project, attached hereto by this reference, and including (but not necessarily limited to) the following:  
Drawings:

Number	Title	Date

Specifications:

Section	Title	Pages

.3 ~~addenda~~ addenda, if any, prepared by the Architect as follows:

Number	Date	Pages

.4 written orders for changes in the Work, pursuant to Article 10, issued after execution of this Agreement; and

~~.5 other documents, if any, identified as follows:~~ .5 other Contract Documents, if any, identified as follows:

Exhibit A – Schedule of Values

Exhibit B – Unit Prices

Exhibit C – Allowances included in the Contract Sum

Exhibit D - List of Subcontractors and Suppliers

Exhibit E – Project Preliminary Major Milestone Schedule

Exhibit F – Contractor’s Certificate(s) of Insurance and Bonds

§1.2 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all. Work called for on the Drawings and not mentioned in the Specifications, or vice versa, shall be performed as though fully set forth in both. Nothing in this Section 1.2, however, shall relieve the Contractor of any of its obligations under the Contract Documents. Other conflicts between or among the Contract Documents shall be resolved under the following rules of construction:

.1 the specific shall govern over the general;

.2 specified dimensions shown on the Drawings shall govern, even though they may differ from dimensions scaled on the Drawings, if any;

.3 Drawings of larger scale shall govern over those of smaller scale; any special Drawing details shall govern over standard detail;

.4 Specifications shall govern over Drawings in matters of material or equipment specified; Drawings shall govern over Specifications in matters of construction or installation detail;

.5 documents of later date shall always govern; except that the Agreement shall govern over all other documents, regardless of their dates; and

.6 in the event of any inconsistency or ambiguity between this Agreement and the Contract Documents, the terms that requires a higher standard of performance by the Contractor shall prevail.

§1.3 Work not particularly detailed, marked or specified shall be the same as similar parts that are detailed, marked or specified. On certain Contract Documents, only a portion of the detail may be fully shown and the remainder indicated in outline, in which case the general detail shall be understood as also applying to other like portions of the Work.

§1.4 The organization of the Specifications into divisions, sections, and/or articles, and the arrangement of the Drawings, shall not dictate to the Contractor in any way how the Work is to be divided among Subcontractors, or establish the extent of Work to be performed by any trade. Similarly, the organization of the Contractor’s duties into different phases or categories in the Agreement is for convenience only and shall not limit the generality of the Contractor’s obligation to provide all of the services whenever necessary.

§1.5 All references in the Contract Documents to standards (such as commercial standards, federal specifications, trade association standards or similar standards), whether for materials, processes, assemblies, workmanship, performance or any other purpose, shall mean, unless otherwise noted, the most recent available published version of such standard as of the date of that part of the Contract Documents bearing the reference. All standards referred to, except as modified in the Contract Documents, shall have the same force and effect as though printed therein. These standards will not be furnished to the Contractor, as the Contractor and all members of the construction team are required to be familiar with their requirements.

§1.6 Whenever a provision of the Contract Documents conflicts with agreements or regulations in force among members of trade associations, unions or councils, which regulate or distinguish the portions of the Work which shall or shall not be performed by a particular trade, the Contractor shall make necessary arrangements to reconcile the conflict without delay, damage, cost or recourse to the Owner. Delays in the Work resulting from the failure of the Contractor to use its best efforts to reconcile any such conflicts shall not result in an extension of the Project Schedule and shall not result in the increase of the Contract Sum.

§1.7 The Contractor acknowledges that there may be items of the Work, which the Contractor is responsible to provide under the Agreement that are not drawn or specified in the Design but are necessary for the proper execution and completion of the Work and are consistent with and reasonably inferable from the Drawings and Specifications. All such items shall be provided as part of the Work without delay in its progress and without any increase in the Contract Sum.

**ARTICLE 2 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION**

**§ 2.1** The Contract Time is the number of calendar days available to the Contractor to substantially complete the Work.

**§ 2.2 Date of Commencement:**

Unless otherwise set forth below, the date of the commencement of the Work shall be the date of this Agreement. *(Insert the date of commencement if other than the date of this Agreement.)*

«Date of Commencement of the Work is \_\_\_\_\_ . Notwithstanding the foregoing, Contractor may not commence the Work on the Project until after insurance certificates and bonds, if applicable, are delivered to the Owner.»

**§ 2.3 Substantial Completion:**

Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion, as defined in Section 12.5, of the entire Work: *(Check the appropriate box and complete the necessary information.)*

« » Not later than « » (« ») calendar days from the date of commencement.

« X » By the following date: «100% Completion for the Project described in this Agreement is to be no later than \_\_\_\_\_ . »

**§ 2.4 Liquidated Damages:**

§ 2.4.1 NOT USED

§ 2.4.2 NOT USED

§ 2.4.3 NOT USED

§ 2.4.4 NOT USED

**ARTICLE 3 CONTRACT SUM**

**§ 3.1** The Contract Sum shall include all items and services necessary for the proper execution and completion of the Work. Subject to additions and deductions in accordance with Article 10, the Contract Sum is:

«The total Lump Sum amount is \_\_\_\_\_ and No/100 Dollars (\$ \_\_\_\_\_ .00). The total Lump Sum amount includes all Work and costs associated with such Work per this Agreement and as detailed in the RFP, and is broken down as follows:

Bid Work at \_\_\_\_\_ School for the Lump Sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_ .00).

Bid Work at \_\_\_\_\_ School for the Lump Sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_ .00).

(~~\$~~) Bid Work at \_\_\_\_\_ School for the Lump Sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_ .00).

**§ 3.2** For purposes of payment, the Contract Sum includes the Schedule of Values provided in **Exhibit A**, which is attached hereto and made a part of this Agreement, related to portions of the Work.

**§ 3.3** The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and hereby accepted by the Owner.

**§ 3.3.1** The following alternates are included in the Contract Sum:

Item

Price

§ 3.3.2 The Contract Sum does not include the following alternates, which are described in the Contract Documents and may be accepted by the Owner in writing; provided, however, that the Contractor shall furnish the Owner with not less than fourteen (14) days' prior written notice of the date upon which any of the alternates set forth below in this Section 3.3.2 must be accepted by the Owner in order for the Contractor to perform the Work covered by such alternates for the price set forth below in this Section 3.3.2 and without any adjustment to a milestone date or in the Contract Time.

<u>Item</u>	<u>Price</u>
[REDACTED]	[REDACTED]

§ 3.2 For purposes of payment, the Contract Sum includes the following values related to portions of the Work: *(Itemize the Contract Sum among the major portions of the Work.)*

<u>Portion of the Work</u>	<u>Value</u>
[REDACTED]	[REDACTED]

§ 3.3 The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and hereby accepted by the Owner: *(Identify the accepted alternates. If the bidding or proposal documents permit the Owner to accept other alternates subsequent to the execution of this Agreement, attach a schedule of such other alternates showing the amount for each and the date when that amount expires.)*

§ 3.4 Allowances, if any, included in the Contract Sum are as follows: *(Identify each allowance.)*

<u>Item</u>	<u>Price</u>
[REDACTED]	[REDACTED]

§ 3.4.1 Use of any Allowance shall be at the sole direction and written approval of the Owner. Costs allocated against an Allowance shall exclude overhead and profit; any overage on an Allowance, shall be calculated by adding the Contractor's Actual Cost for labor and material plus the Contractor's overhead and profit as defined in Section 10.1.

§ 3.5 Unit prices, if any, are as follows: *(Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)* set forth in the "Schedule of Unit Prices" attached hereto and made part of this Agreement as **Exhibit B**. Such Unit prices are considered complete and include: (i) all materials, equipment, labor, delivery, installation, overhead, and profit; and (ii) any and all other costs or expenses in connection with, or incidental to, the performance of that portion of the Work to which such unit prices apply.

<u>Item</u>	<u>Units and Limitations</u>	<u>Price per Unit (\$0.00)</u>
[REDACTED]	[REDACTED]	[REDACTED]

**ARTICLE 4 PAYMENTS**

§ 4.1 Based on Contractor's Applications for Payment certified by the Architect, the Owner shall pay the Contractor, in accordance with Article 12, as follows:

*(Insert below timing for payments and provisions for withholding retainage, if any.)*

§ 4.1.1 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month.

§ 4.1.2 Provided that a complete Application for Payment is received by the Architect not later than the **«last»** day of a month, the Owner shall make payment of undisputed portions of the certified amount to the Contractor not later than the **«last»** day of the **«following»** month. If an Application for Payment is received by the Architect after the application date fixed above, payment shall be made by the Owner not later than **«forty-five»** (45) days after the Architect certifies the Application for Payment.

§ 4.1.2.1 NOT USED

**§ 4.1.3 Retainage.** Subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

- .1 Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values, less retainage of ~~«ten»~~ percent (~~«10»~~%). Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included;
- .2 Add that portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction (or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing), less retainage of ~~«ten»~~ percent (~~«10»~~%);
- .3 Subtract the aggregate of previous payments made by the Owner; and
- .4 Subtract amounts, if any, for which the Architect has withheld or nullified a Certificate for Payment.

**§ 4.1.4** The progress payment amount determined in accordance with Section 4.1.3 shall be further modified under the following circumstances:

- .1 Add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to the full amount of the Contract Sum, less such amounts as the Architect shall determine for incomplete Work, retainage applicable to such work and unsettled claims; and
- .2 Add, if final completion of the Work is thereafter materially delayed through no fault of the Contractor, any additional amounts payable.

**§ 4.2** Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate below, or in the absence thereof, at the legal rate prevailing at the place of the Project.  
(Insert rate of interest agreed upon, if any.)

~~%~~ Zero percent (0%)

## ARTICLE 5 INSURANCE AND BONDS

**§ 5.1** The Contractor shall maintain the following types and limits of insurance until the expiration of the period for correction of Work as set forth in Section 14.2, subject to the terms and conditions set forth in this Section 5.1:

**§ 5.1.1** Commercial General Liability insurance for the Project, written on an occurrence form, with policy limits of not less than ~~(\$ )~~ each occurrence, ~~(\$ )~~ general aggregate, and ~~(\$ )~~ aggregate for products-completed operations hazard, the minimum coverages indicated in Section 5.1.7 below.

**§ 5.1.2** Automobile Liability covering vehicles owned, and non-owned vehicles used, by the Contractor, with policy limits of not less than ~~(\$ )~~ per accident, for bodily injury, death of any person, and property damage arising out of the ownership, maintenance, and use of those motor vehicles the minimum coverages indicated in Section 5.1.7 below along with any other statutorily required automobile coverage.

**§ 5.1.3** The Contractor may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided that such primary and excess or umbrella insurance policies result in the same or greater coverage as those required under Section 5.1.1 and 5.1.2, 5.1.7, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require exhaustion of the underlying limits only through the actual payment by the underlying insurers.

**§ 5.1.4** Workers' Compensation at statutory limits.

**§ 5.1.5** Employers' Liability with policy limits not less than ~~(\$ )~~ each accident, ~~(\$ )~~ each employee, and ~~(\$ )~~ policy limit, the minimum coverages indicated in Section 5.1.7 below.

**§ 5.1.6** ~~The Contractor shall provide builder's risk insurance to cover the total value of the entire Project on a replacement cost basis. Owner shall purchase and maintain a property insurance written on a builder's risk "all-risk" or equivalent form in the amount and with deductibles determined by the Owner. Except as otherwise provided in the~~

Contract Documents, if the property insurance requires deductibles, the Contractor shall be responsible to pay costs resulting from the acts or omissions of the Contractor and its subcontractors, not covered because of such deductibles.

**§ 5.1.7 Other Insurance Provided by the Contractor**

*(List below any other insurance coverage to be provided by the Contractor and any applicable limits.)*

Coverage	Limits
<u>Workers' Compensation</u>	<u>Statutory</u>
<u>Employer's Liability:</u>	
<u>Bodily Injury by Accident:</u>	<u>\$1,000,000.</u>
<u>Bodily Injury by Disease, Policy Limit</u>	<u>\$1,000,000.</u>
<u>Bodily Injury by Disease, Each Employee</u>	<u>\$1,000,000.</u>
<u>General Liability:</u>	
<u>Each Occurrence (Bodily Injury and Property Damage)</u>	<u>\$1,000,000.</u>
<u>Personal &amp; Advertising Injury</u>	<u>\$1,000,000.</u>
<u>Medical Payments Coverage</u>	<u>\$5,000.</u>
<u>Fire Damage Liability</u>	<u>\$100,000.</u>
<u>General Aggregate</u>	<u>\$2,000,000.</u>
<u>Products &amp; Completed Operations Aggregate</u>	<u>\$2,000,000.</u>
<u>Excess Umbrella Liability:</u>	
<u>Each Occurrence</u>	<u>\$1,000,000.</u>
<u>General Aggregate</u>	<u>\$1,000,000.</u>
<u>Automobile Liability:</u>	
a. <u>Bodily Injury - Each Person</u>	<u>\$1,000,000.</u>
<u>Each Accident</u>	<u>\$1,000,000.</u>
b. <u>Property Damage – Each Accident</u>	<u>\$1,000,000.</u>
<u>or</u>	
<u>Combined Single Limit – Each Accident</u>	<u>\$2,000,000.</u>
<u>(Bodily Injury and Property Damage)</u>	

§ 5.1.7.1 If the Contractor is required to furnish professional services as part of the Work, the Contractor shall procure Professional Liability insurance covering performance of the professional services, with policy limits of not less than Two Million Dollars (\$ 2,000,000) per wrongful act and Two Million Dollars (\$ 2,000,000) in the aggregate.

§ 5.1.7.2 If the Work involves the transport, dissemination, use, or release of pollutants, the Contractor shall procure Pollution Liability insurance, with policy limits of not less than One Million Dollars (\$ 1,000,000) per event and Two Million Dollars (\$ 2,000,000) policy aggregate.

§ 5.1.8 Contractor shall name Owner, Architect, Plante & Moran Cresa, L.L.C. and their respective directors, officers, and employees as additional insureds on General Liability, Umbrella / Excess Liability, and Automobile Liability policies.

§ 5.1.8.1 Contractor shall require all Subcontractors and/or their agents to name Owner, Architect, Plante & Moran Cresa, L.L.C. and their respective directors, officers, and employees as additional insureds on General Liability, Umbrella / Excess Liability, and Automobile Liability policies.

§ 5.1.9 Insurance coverage and surety bond required under this Agreement shall be written with insurance and surety carriers authorized to do business in the State of Michigan. Insurance coverage and surety bonds shall be in a form and provided by an insurer acceptable to the Owner with an A.M. Best rating of A, XII or better.

§ 5.1.10 The Contractor shall furnish payment and performance bonds covering faithful performance of the Contract and payment of obligations arising thereunder. Bonds may be obtained through the Contractor's usual source, and the cost thereof shall be included in the Cost of the Work. The amount of each bond shall be equal to one hundred percent

(100%) of the Contract Sum. The Contractor shall deliver the required bonds to the Owner at least three (3) days before the commencement of any Work at the Project site. The Contractor shall only subcontract with Subcontractors that are trustworthy, financially able, and have a track record in successfully completing trade works of similar size and complexity.

§ 5.1.11 Except for any applicable Professional Liability Insurance coverages, Insurance coverages, shall be written on an occurrence basis, and shall be maintained without interruption from the date of commencement of the Work until the date of final payment and termination of any coverage required to be maintained after final payment, and, with respect to the Contractor's completed operations coverage, until the expiration of the period for correction of Work or for such other period for maintenance of completed operations coverage as specified in the Contract Documents. If Professional Liability Insurance coverage is required under this Agreement, Contractor shall maintain its Professional Liability Coverage without interruption for a period of not less than the Statute of Limitation and Statute of Repose periods in the state where the Project is located after the Project's relevant Date of Substantial Completion or the last day service is rendered by the Contractor on the Project, whichever shall be the later. The Contractor shall notify the Owner any disruption in coverage occurs and shall provide "tail coverage" at no cost to the Owner.

§ 5.2 The Owner shall be responsible for purchasing and maintaining the Owner's usual liability insurance and shall provide property insurance to cover the value of the Owner's property. The Contractor is entitled to receive an increase in the Contract Sum equal to the insurance proceeds related to a loss for damage to the Work covered by the Owner's property insurance, however, the Contractor shall be responsible to pay costs resulting from the acts or omissions of the Contractor and its subcontractors not covered because of any deductibles.

§ 5.3 The Contractor shall obtain an endorsement to its Commercial General Liability insurance policy to provide coverage for the Contractor's obligations under Section 8.12.

§ 5.4 Prior to commencement of the Work, ~~each party~~ the Contractor shall provide certificates of insurance showing ~~their respective coverages~~ its coverages. The Owner may require additional proof of coverage in the form of a true and accurate copy of the policies of insurance, themselves. The maintenance of the insurance in strict compliance with the requirements of this Agreement shall be condition precedent to Owner's obligation to make any payment under this Agreement.

§ 5.5 Unless specifically precluded by the Owner's property insurance policy, the Owner and Contractor waive all rights against (1) each other and any of their subcontractors, suppliers, agents, and employees, each of the other; and (2) the Architect, Architect's consultants, and any of their agents and employees, for damages caused by fire or other causes of loss to the extent those losses are covered by property insurance or other insurance applicable to the Project, except such rights as they have to the proceeds of such insurance. **NOT USED**

§ 5.6 The Contractor and each member of the construction team shall be solely responsible for insuring against any loss or damage to all owned, borrowed or rented property, including but not limited to tools, materials, supplies, equipment, forms, scaffolding, towers, staging, bunkhouses and other temporary structures including their contents, which do not form a permanent part of the Project. The Owner shall in no event be liable for any loss or damage to any of the aforementioned items, or the Work connected with the Contractor, or employees, agents or servants of same, which is not to be included in and remain a permanent part of the Project.

## **ARTICLE 6 GENERAL PROVISIONS**

### **§ 6.1 The Contract**

The Contract represents the entire and integrated agreement between the parties and supersedes prior negotiations, representations or agreements, either written or oral. The Contract may be amended or modified only by a written modification in accordance with Article 10.

### **§ 6.2 The Work**

The term "Work" ~~means the construction and services required by the Contract Documents, and includes all other labor, materials, equipment, and services provided, or to be provided, by the Contractor to fulfill the Contractor's obligations~~ consists of all goods and services, such as labor, transportation, materials, tools, and equipment (i) to be incorporated into the Project (or the Contractor's portion of the Project if the Contractor is not responsible for the entire Project), (ii) required of the Contractor under the Contract Documents, or (iii) necessary or appropriate to fully construct, fixture, operate and maintain the Project (or the Contractor's portion of the Project if the Contractor is not

responsible for the entire Project). The Work shall be performed in accordance with the Contract Documents. The Work may constitute the whole or a part of the Project. The term "Work" also shall include labor, materials, equipment and services provided or to be provided by Subcontractors, Sub-Subcontractors, material suppliers or any other entity for whom the Contractor is responsible under or pursuant to the Contract Documents.

### **§ 6.3 Intent**

The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all.

### **§ 6.4 ~~Ownership and Use of Architect's Drawings, Specifications and Other Documents~~ Consent, Approve, Satisfactory, Proper, and As Directed**

~~Documents prepared by the Architect are instruments of the Architect's service for use solely with respect to this Project. The Architect shall retain all common law, statutory, and other reserved rights, including the copyright. The Contractor, subcontractors, sub-subcontractors, and suppliers are authorized to use and reproduce the instruments of service solely and exclusively for execution of the Work. The instruments of service may not be used for other Projects or for additions to this Project outside the scope of the Work without the specific written consent of the Architect.~~ The words "consent," "approved," "satisfactory," "proper," "as directed," any derivatives of them, or similar terms, mean written approval by the Owner, and may include approval of the Architect if the Owner so directs. Except where a different standard is specifically established, the Owner has the right to grant or withhold such approval in its sole discretion.

### **§ 6.5 ~~Electronic Notice~~ Provide**

Written notice under this Agreement may be given by one party to the other by email as set forth below. (Insert requirements for delivering written notice by email such as name, title, and email address of the recipient, and whether and how the system will be required to generate a read receipt for the transmission.) The word "provide" and any derivatives thereof, and similar terms, mean to properly fabricate, complete, transport, deliver, install, erect, construct, test and furnish all labor, materials, equipment, apparatus, appurtenances, and all items and expenses necessary to properly complete in place, ready for operation or use under the terms of the Contract Documents.

### **§ 6.6 Knowledge**

The terms "known," "knowledge," "recognize," "believe," and "discover," and any derivatives thereof and similar terms, when used in reference to the Contractor, shall mean that which the Contractor knows or should reasonably know, recognizes or should reasonably recognize, and discovers or should reasonably discover in exercising the care, skill, and diligence required of the Contractor by the Agreement. The expression "reasonably inferable" and similar terms mean reasonably inferable by a Contractor familiar with the Work and exercising the care, skill and diligence required of the Contractor by the Agreement.

### **§ 6.7 Including**

The word "including" shall not be a word of limitation, but instead shall be construed as introducing one or more nonexclusive examples.

### **§ 6.8 Abbreviations**

Words or abbreviations that are not defined but have well-known technical, trade or construction industry meanings, shall have those meanings ascribed to them. The singular shall include the plural and vice versa. Pronouns are interchangeable. The word "person" includes human beings and recognized legal entities. Unless the context clearly requires otherwise, reference to a Section shall include all subsections beneath it bearing identical introductory numbers.

### **§ 6.9 Ownership and Use of Architect's Drawings, Specifications and Other Documents**

Documents prepared by the Architect are instruments of the Architect's service for use solely with respect to this Project. All plans, Drawings, Specifications, computations, sketches, data, surveys, models, photographs, renderings, and other like materials relating to the services ("Documents") shall become the property of the Owner at the conclusion of the Project, or termination of the services of the Contractor, whichever is earlier, and shall be delivered to the Owner clearly marked and identified in good order. The Owner may use the Documents in connection with the Project, including maintenance, repair, or expansion of the Project or as a reference for other projects, but the Contractor and the Contractor's Architect shall incur no liability for the Owner's use of the Documents other than in connection with the Project, and the Owner hereby releases the Contractor from any loss or damage, including attorneys' fees, incurred solely as a result of Owner's use of the Documents other than in connection with the Project, or as a reference for other projects, if and only if the Contractor and/or its Architect is not involved in such use.

### **§ 6.10 Access and Cooperation**

**§6.10.1** The Owner shall cooperate with the Contractor and shall provide the Contractor reasonable access to the Owner's site(s) for the performance of the Contractor's Work and duties under this Agreement. Owner shall not intentionally interfere with the Work of the Contractor or any of its subcontractors.

**§6.10.2** Contractor shall provide the Owner in writing critical dates when Owner supplied materials and equipment are to be on the job site when Contractor is to install such materials and equipment. The Owner shall provide such materials on the job site by such dates. The Owner is responsible for the condition, performance, and warranty of Owner supplied materials. The Contractor shall be responsible for properly installing such materials and equipment in accordance with the manufacturer's specifications. The Contractor shall be responsible for the condition, performance and warranty of the materials and equipment if the Contractor damages or improperly installs such materials and equipment.

**§6.10.3** If the Contractor will require use of the Owners' utilities during construction. The Owner shall bear the cost of utilities. The Contractor shall exercise reasonable care to protect and use of such utility services; and shall bear full responsibilities to damages caused due to Contractor's acts or omissions.

**§6.10.4** The Contractor will place construction Project and safety signs at the Project to provide identification for resident and occupant safety, deliveries and subcontractors. The signs will meet OSHA and MIOSHA requirements and be removed upon completion and Owner taking occupancy of the Project.

**§6.11 Deliveries.** Contractor shall protect and secure materials and equipment delivered to and stored at the Project site and Work that are completed from theft, vandalism, fire etc. Contractor shall carry insurance for loss due to Contractor's failure to protect and secure materials and equipment on the job site or due to Contractor's acts or omissions.

**§6.12 Subcontractors.** At times Contractor may employ trade specialists, laborers, vendors, and other forces (Subcontractors) to perform various aspects of the Work. The Contractor shall, at all times, be fully responsible for the Work and conduct and acts and omissions of its Subcontractors.

**§6.12.1** By written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities which the Contractor, by these Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound. Subcontracts shall include the following sentence: "Owner is an intended third-party beneficiary of this Subcontract." Sub-Subcontracts and Supply Contracts shall be subject to identical conditions, except: (i) suppliers that are not performing any Work on the Project Site are not subject to the insurance requirements described in Article 11; and (ii) Subcontractors and Sub-Subcontractors may satisfy the insurance requirements described in Article 5 by being named as an additional insured under the Contractor's insurance policies or, in the case of a Sub-Subcontractor, by being named as an additional insured under a Subcontractors' insurance policies.

**§ 6.12.2** Upon request, the Contractor shall deliver a copy of any Subcontract, Sub-Subcontract or Supply Contract to

[the Owner.](#)

## ARTICLE 7 OWNER

### § 7.1 Information and Services Required of the Owner

§ 7.1.1 If requested by the Contractor, the Owner shall furnish ~~all necessary required~~ surveys and a legal description of the site.

§ 7.1.2 Except for permits and fees under Section 8.7.1 that are the responsibility of the ~~Contractor, Contractor under the Contract Documents,~~ the Owner shall obtain and pay for other necessary approvals, easements, assessments, and charges.

§ 7.1.3 ~~Prior to commencement of the Work, at the written request of the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such evidence.~~ **NOT USED**

### § 7.2 Owner's Right to Stop the Work

If the Contractor fails to correct Work which is not in accordance with the Contract Documents, ~~the Owner may direct the Contractor in writing to stop the Work until the correction is made or fails to carry out the Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order is corrected, or correct the deficiencies with the Owner's own forces; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity. This right shall be in addition to and not in restriction or derogation of any other rights of the Owner under this Agreement. The Owner's right to stop the Work shall not relieve the Contractor of any of the Contractor's responsibilities or obligations under or pursuant to the Contract Documents.~~

### § 7.3 Owner's Right to Carry Out the Work

If the Contractor ~~defaults fails, defaults,~~ or neglects to carry out the Work in accordance with the Contract Documents and fails within a ~~seven three (3)~~ day period after receipt of written notice from the Owner to commence and continue correction of such ~~default failure, default,~~ or neglect with diligence and promptness, the Owner may, without prejudice to other remedies, ~~including any claim against the Contractor's Performance Bond,~~ correct such deficiencies. In such case, the ~~Architect may withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the cost of correction, provided the actions of the Owner and amounts charged to the Contractor were approved by the Architect. Contract Sum shall be adjusted to deduct the cost of correction from payments due the Contractor.~~

### § 7.4 Owner's Right to Perform Construction and to Award Separate Contracts

§ 7.4.1 The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and to award separate contracts in connection with other portions of the Project.

§ 7.4.2 The Contractor shall coordinate and cooperate with the Owner's own forces and separate contractors employed by the Owner.

### § 7.5 Owner's Approval

~~Notwithstanding anything to the contrary contained in this Agreement, Owner's review and/or approval of any documents or other matters required herein shall be for the purpose of providing the Contractor or Architect with information as to Owner's objectives and goals with respect to the Project and not for the purpose of determining the accuracy and completeness of the Work. In no way should any review and/or approval Owner alter the Contractor's responsibilities under this Agreement.~~

## ARTICLE 8 CONTRACTOR

### § 8.1 Review of Contract Documents and Field Conditions by Contractor

§ 8.1.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become familiar with local conditions under which the Work is to be performed, and correlated ~~personal-its~~ observations with requirements of the Contract Documents.

**§ 8.1.2** The Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by the Owner. Before commencing activities, the Contractor shall (1) take field measurements and verify field conditions; (2) carefully compare this and other information known to the Contractor with the Contract Documents; and (3) promptly report errors, inconsistencies, or omissions discovered to the ~~Architect~~. Architect and the Owner.

### **§ 8.2 Contractor's Construction Schedule**

The Contractor, ~~promptly after being awarded the Contract, promptly, but not more than thirty (30) days, after being awarded the Contract~~ shall prepare and submit for the Owner's and Architect's information a ~~Contractor's construction schedule for the Work and acceptance Contractor's construction schedule or Project Schedule for the Work. The Project Schedule is the Critical Path Method ("CPM") schedule for construction of the Work submitted as part of the Contractor's Contract Sum Proposal, prepared by the Contractor and accepted by the Owner. The Project Schedule can be modified only by Change Order. Following any such modification, the term "Project Schedule" shall mean the most recent Owner-approved version. The Preliminary Project Milestone Schedule is attached hereto as Exhibit E and made a part of this Agreement.~~

### **§ 8.3 Supervision and Construction Procedures**

**§ 8.3.1** The Contractor shall employ and assign to the Project a competent and experienced superintendent to be on-site at all times to supervise and direct the Work using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work. The Contractor shall inspect the Work of the trade contractors on the Project as it is being performed until final completion and acceptance of the Project by the Owner to ensure that the Work performed and the materials furnished are in accordance with the Contract Documents and that Work on the Project is progressing on schedule. In the event that the quality control testing should indicate that the Work, as installed, does not meet the requirements of this Project, including the Contract Documents, the Owner shall determine the extent of the Work that does not meet the requirements and the Contractor shall direct the trade contractor(s) to take appropriate corrective action, and advise the Owner of the corrective action.

**§ 8.3.2** The Contractor, as soon as practicable after award of the Contract, shall furnish in writing to the Owner, through the Architect, the names of ~~subcontractors~~ Subcontractors or suppliers for each portion of the Work. The Contractor shall not contract with any ~~subcontractor~~ Subcontractor or supplier to whom the Owner or Architect have made a timely and reasonable objection.

### **§ 8.4 Labor and Materials**

**§ 8.4.1** Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work.

**§ 8.4.2** The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Contract Work. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

### **§ 8.5 Warranty**

~~The Contractor warrants to the Owner and Architect that: (1) materials and equipment furnished under the Contract will be new and of good quality unless otherwise required or permitted by the Contract Documents; (2) the Work will be free from defects not inherent in the quality required or permitted; and (3) the Work will conform to the requirements of the Contract Documents. Any material or equipment warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 12.5.~~  
**§ 8.5.1** The Contractor warrants to the Owner and Architect that: (1) materials and equipment furnished under the Contract will be new and of good quality unless otherwise required or permitted by the Contract Documents; (2) the Work will be free from defects not inherent in the quality required or permitted; and (3) the Work will conform to the requirements of the Contract Documents. Any material or equipment warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 12.5.

**§ 8.5.2** The Contractor shall provide a two (2) year limited warranty for all materials, equipment and work performed by the Contractor and/or its Subcontractors. Within the terms of the limited warranty, the Contractor shall remedy any

defects due to faulty materials, workmanship, or negligence of the Contractor which are made known to the Contractor in writing, within two (2) years of the completion of the job. All materials are guaranteed for a minimum of two (2) years, or longer as specified, and all materials are warranted by the manufacturer and will be replaced according to the terms of their warranty by the Contractor without charge.

§ 8.5.3 Money being withheld for a warranty or disputed item shall not exceed twice the value of the warranty item (material and labor).

§ 8.5.4 Upon completion of any remedial work, the two (2) year warranty period in this Article 8 shall begin anew with respect to the materials, equipment and/or work requiring remedy.

### **§ 8.6 Taxes**

The Contractor shall ~~pay sales, consumer, use, pay, and include in the Contract Sum, all sales, consumer, use, franchise, commercial activities,~~ and similar taxes that are legally required when the Contract is executed. The Contractor shall pay all state and federal taxes levied on its business, income or property and shall make all contributions for social security and other wage or payroll taxes. The Contractor shall be solely responsible for such payments and shall indemnify the Owner and hold it harmless from any assessment and payment of the same.

### **§ 8.7 Permits, Fees and Notices**Permits, Fees, Licenses, and Notices

**§ 8.7.1** The Contractor shall obtain and pay for the building permit and other permits and governmental fees, licenses, and inspections necessary for proper execution and completion of the Work or as required by the Contract Documents. The Contractor, and all its Subcontractors of any tier, shall maintain at all time the required licenses and registrations required to perform the Work.

**§ 8.7.2** The Contractor shall strictly comply with and give notices required by agencies having jurisdiction over the Work. If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume full responsibility for such Work and shall bear the attributable costs. The Contractor shall promptly notify the Architect and the Owner in writing of any known inconsistencies in the Contract Documents with such governmental laws, rules, and regulations.

### **§ 8.8 Submittals**

The Contractor shall promptly review, approve in writing, and submit to the Architect shop drawings, product data, samples, and similar submittals required by the Contract Documents. Shop drawings, product data, samples, and similar submittals are not Contract Documents.

### **§ 8.9 Use of Site**

The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits, the Contract Documents, and the Owner.

### **§ 8.10 Cutting and Patching**

~~The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly.~~**§ 8.10.1** The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly.

**§ 8.10.2** Only tradespersons skilled and experienced in cutting, fitting, and patching shall perform such Work. An appropriate member of the construction team shall do all cutting, fitting, or patching on the Work that may be required to make its several parts come together properly and fit the Work to receive or be received by work of other contractors shown by, or reasonably implied by, the Contract Documents for the completed Project. An appropriate member of the construction team shall repair or otherwise make good all such cutting, fitting, or patching after the required Work has been completed as the Architect may direct.

**§ 8.10.3** The Contractor shall not cut or otherwise alter any portion of any structure of which the Work is a part or to which the Work is attached without in each instance having first submitted to the Owner Shop Drawings accurately locating each such cut or alteration. The Architect's approval of such Shop Drawings must be obtained prior to making any such cut or alteration.

### § 8.11 Cleaning Up

~~The Contractor shall keep the premises and surrounding area free from accumulation of debris and trash related to the Work. At the completion of the Work, the Contractor shall remove its tools, construction equipment, machinery, and surplus material; and shall properly dispose of waste materials.~~ § 8.11.1 General Clean Up. The Contractor shall keep the premises and surrounding area free from accumulation of debris and trash related to the Work. At the completion of the Work, the Contractor shall remove its tools, construction equipment, machinery, and surplus material; and shall properly dispose of waste materials.

#### § 8.11.2 Final Clean Up.

§ 8.11.2.1 Unless the Contract Documents require a higher standard, the Contractor shall leave all Work installed or modified under the Agreement and all existing materials and surfaces affected by the Work and each area of the Project Site clean to the satisfaction of the Owner. This shall include at a minimum: complete dusting, sweeping, vacuuming, mopping, polishing, and other activities as necessary to remove all dust, dirt and other construction residues, and removal of all tools and equipment, construction debris, rubbish, and surplus materials.

§ 8.11.2.2 Immediately before turning any portion of the Project over to the Owner, the Contractor shall have all glass cleaned by professional window washers. Care shall be taken not to scratch any glass. Acid or other cleaning material which will injure or mar the surface or adjacent Work will not be allowed. Any damage resulting from glass cleaning shall be corrected by the Contractor, including the furnishing of new glass of same character and quality or the replacement of other Work damaged or disturbed.

### § 8.12 Indemnification

To the fullest extent permitted by law, the Contractor shall ~~indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them, from and against claims, damages, losses and~~ indemnify, defend and hold harmless the Owner, its Board of Education, its Board Members, in their official and individual capacities, its administrators, employees, agents, contractors, successors and assigns, from and against any and all claims, suits, debts, demands, actions, judgments, liens, costs, expenses, damages, losses, injuries and liabilities, expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder. actual attorneys' fees and actual expert witness fees, arising out of or in connection with Contractor's resulting from performance of the Work pursuant to this Agreement and/or from Contractor's violation of any of the terms of this Agreement, including, but not limited to: (i) the negligent acts or willful misconduct of the Contractor, its officers, directors, employees, successors, assigns, subcontractors, consultants and agents; (ii) any breach of the terms of this Agreement by the Contractor, its officers, directors, employees, successors, assigns, subcontractors, consultants and agents; (iii) any violation or breach of any applicable Federal, State or local law, rule, regulation, ordinance, policy and/or licensing and permitting requirements applicable to providing the services; or (iv) any breach of any representation or warranty by the Contractor, its officers, directors, employees, successors, assigns, subcontractors, consultants and agents under this Agreement. The Contractor shall notify the Owner by certified mail, return receipt requested, immediately upon actual knowledge of any claim, suit, action, or proceeding for which the Owner may be entitled to indemnification under this Agreement. This Section shall survive the expiration or earlier termination of this Agreement and shall not be limited by the Contractor's Insurance obligations contained in this Agreement.

In addition, to the fullest extent permitted by law, the Contractor shall indemnify, defend and hold harmless the Owner its Board of Education, its Board Members, in their official and individual capacities, its administrators, employees, agents, contractors, successors and assigns, from any claim, damage, loss, injury or expense, including but not limited to actual attorney fees, incurred by the Owner related to any Hazardous Material or potentially Hazardous Material, waste, toxic substance, pollution or contamination brought into the Project Site or caused by the Contractor or used, handled, transported, stored, removed, remediated, disturbed or dispersed of by Contractor.

## ARTICLE 9 ARCHITECT

**§ 9.1** The Architect will provide administration of the Contract as described in the Contract Documents. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 9.2 The Architect will visit the site at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of the Work.

§ 9.3 The Architect will not have control over or charge of, and will not be responsible for, construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's responsibility. The Architect will not be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents.

§ 9.4 Based on the Architect's observations and evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor.

§ 9.5 The Architect ~~has authority to reject~~ shall make timely recommendations to the Owner regarding the rejection of Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect may require inspection or testing of the Work in accordance with the provisions of the Contract Document, whether or not such Work is fabricated, installed, or completed.

§ 9.6 The Architect will promptly review and approve or take appropriate action upon Contractor's submittals, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 9.7 On written request from either the Owner or Contractor, the Architect will promptly interpret and decide matters concerning performance under, and requirements of, the Contract Documents.

§ 9.8 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from the Contract Documents, and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by ~~both Owner and Contractor, will not show partiality to either the Contractor~~ and will not be liable for results of interpretations or decisions rendered in good faith.

§ 9.9 The Architect's duties, responsibilities, and limits of authority as described in the Contract Documents shall not be changed without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

## ARTICLE 10 CHANGES IN THE WORK

§ 10.1 The Owner, without invalidating the Contract, may order changes in the Work within the general scope of the Contract, consisting of additions, deletions or other revisions, and the Contract Sum and Contract Time shall be adjusted by Change Order accordingly, in writing. If the Owner ~~and Contractor cannot agree to a change in changes~~ the Contract Sum, the Owner shall pay the Contractor its actual cost plus reasonable overhead and ~~profit~~ profit as mutually agreed to by both parties in writing. Changes in the Work shall not be performed by Contractor without the Owner's authorization to proceed.

§ 10.2 ~~The Architect may authorize or~~ Subject to the Owner's prior written approval, the Architect will have authority to order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. Such authorization or order not involving changes in the Contract Sum or the Contract Time and not inconsistent with the intent of the Contract Documents. Such orders shall be in writing and shall be binding on the Owner and Contractor. The Contractor shall proceed with such minor changes carry out such orders promptly.

§ 10.3 ~~If concealed or unknown physical conditions are encountered at the site that differ materially from those indicated in the Contract Documents or from those conditions ordinarily found to exist, the Contract Sum and Contract Time shall be subject to equitable adjustment.~~ **Materially Different Conditions**

§ 10.3.1 ~~If concealed or unknown physical conditions are encountered at the site that differ materially from those indicated in the Contract Documents or from those conditions ordinarily found to exist, the Contract Sum and Contract Time shall be subject to reasonable adjustment as mutually agreed to by both parties in writing.~~

§ 10.3.2 As a professional familiar and accustomed to Project complexity of the type of Work, the Contractor has inspected the Owner's premises and the Contract Documents prior to submitting its proposal and agreeing to the terms of this Agreement (including, but not limited to, terms regarding time and compensation). Upon discovery of

conditions the Contractor believes materially differ from those in the Contract Documents, Contractor shall immediately notify the Architect and the Owner, in accordance with Article 10, if additional cost or time is required to remedy such conditions. Owner shall have the right to inspect the discovered hidden conditions, to determine if the Contractor should have reasonably anticipated such conditions before agreeing to a change order for additional work. Contractor will not be entitled to compensation for differing conditions that are removed which the Contractor failed to notify the Owner and offered the Owner opportunities to inspect/verify the condition.

§ 10.4 The Contractor shall not be entitled to any extension of time change to the Contract Sum unless it is included in an authorized change order signed by the Owner and Architect. The Contractor shall submit a written change order request within lesser of twenty-one (21) days after the Contractor discovers or the time the Contractor should have discovered, with the exercise of appropriate diligence, the cause giving rise to the potential change. The Contractor's failure to strictly comply with this Section 10.4 shall constitute a waiver of and shall forever bar any recover for additional time or compensation for the circumstances giving rise to the potential change.

§ 10.5 In no event shall the Contractor be entitled to receive, and the Contractor hereby waives the right to receive any payment or any extension of time for additional or changed work, whether partially or fully completed or simply proposed, unless such additional work is authorized by a written Change Order or Construction Change Directive signed by the Owner, nor shall the Contractor be obligated to proceed with any such Work. Only the Owner shall have the right to issue a written Change Order or Constructive Change Directive to the Contractor authorizing an addition, deletion or other revision in the scope of the Work and/or an adjustment in the Contract Sum or Contract Time.

## **ARTICLE 11 TIME**

**§ 11.1** Time limits stated in the Contract Documents are of the essence of the Contract.

**§ 11.2** If the Contractor is delayed at any time in progress of the Work by changes ordered in the Work, or by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, or other causes beyond the Contractor's control, the Contract Time shall be subject to equitable ~~adjustment~~ adjustment as mutually agreed to by both parties in writing.

**§ 11.3** Costs caused by delays or by improperly timed activities or defective construction shall be borne by the responsible party.

§ 11.4 The Contractor shall provide notice in writing to the Owner of a potential claim for a delay related adjustment to the Contract Sum or Contract Time within five (5) days of start of any delay and shall request in writing all changes to the Contract Time and Contract Sum within twenty-one (21) days after cessation of the delay. Changes to the Contract Sum shall be limited to Owner caused delays that impact the Project's Critical Path and limited to the to the costs set forth in Sections 11.5 and 11.6 resulting from the delay. The Contractor's failure to strictly comply with this Section 11.4 shall constitute a waiver of and shall forever bar any recover for additional time or compensation for the delay.

§ 11.5 No Damage for Delay. Except only as provided in Section 11.4, in no event shall the Contractor be entitled to any compensation or recovery of any damages in connection with any delay. In no event shall the Contractor be entitled to recover special, incidental, or consequential damages including without limitation, loss of anticipated profits, revenue, or use of capital.

§ 11.6 In the event of Owner Delay, the Contractor may be entitled to an equitable adjustment in the Contract Sum. This adjustment shall be based solely upon and limited to additional direct out-of-pocket expenses to the extent they are incurred directly as a result of the Owner Delay and shall be mutually agreed to by the Parties. Without limiting the generality of the foregoing, such out-of-pocket expenses shall be calculated on an "actual cost" basis, and shall exclude home office expense and other overhead, profit and the value of lost opportunities. However, the Contractor shall use its best efforts to avoid or reduce delay damages caused by Owner Delay.

§ 11.7 All float time in the Construction Schedule shall be shared by the Owner and Contractor or otherwise used for the benefit of the Project.

## **ARTICLE 12 PAYMENTS AND COMPLETION**

### **§ 12.1 Contract Sum**

The Contract Sum stated in this Agreement, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

## § 12.2 Applications for Payment

§ 12.2.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment for Work completed in accordance with the values stated in this Agreement. The Application shall be supported by data substantiating the Contractor's right to payment as the Owner or Architect may reasonably require, such as evidence of payments made to, and waivers of liens from, ~~subcontractors~~ Subcontractors and suppliers. Payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment stored, and protected from damage, off the site at a location agreed upon in writing. Payment to Contractor for materials stored off site is discouraged. Contractor shall prepare the Application for Payment using AIA Standard Form G-702 and G-703 accompanied by required conditional and unconditional lien releases from the Contractor, Subcontractors, suppliers, and delivered to the Architect for review and approval.

§ 12.2.2 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment, all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or other encumbrances adverse to the Owner's interests.

§ 12.2.3 Contractor's first Application of Payment is considered incomplete unless in addition to the requirements described in Sections 12.2.1 through 12.2.2, all of the following completed items are also included with the Application of Payment: (1) Performance and Payment Bonds, if required; (2) Certificate of Insurance, as required; (3) Affidavits that the surety and insurance company or companies meets the requirements in Article 5; (4) Construction schedule for the Project; (5) Completed Schedule of Value for the Project.

§ 12.2.4 In addition to the requirements described in Section 12.2.1 through 12.2.2, all Applications for Payment shall also include:

- .1 a Schedule of Values that updated all approved Change Order amounts added and deducted, if applicable, since the last Application for Payment;
- .2 an updated Project construction schedule that shows actual progress of the Work through the period covered by the current Application for Payment, and clearly identifying any portion of the Work that is behind schedule (if any portion of Work that is behind schedule, the Contractor shall also include with the Application for Payment a schedule recovery plan to bring the Work back on schedule in the next thirty (30) days);
- .3 a duly executed and acknowledged sworn statement in statutory form and acceptable to the Owner with all information provided, together with properly notarized sworn statements, current through the previous draw, from the Contractor and all of the Subcontractor; and
- .4 except as otherwise provided, duly executed unconditional releases in the form required by the Owner establishing payment or satisfaction of all obligations as reflected on the sworn statements, provided, however, that the Contractor may furnish with each Application for Payment applicable waivers of lien or releases and properly notarized sworn statements covering the immediately preceding Application for Payment, as opposed to the current Application for Payment, (i.e., thirty (30) day lag), provided Final Payment shall not be forthcoming until final construction lien waivers or releases from all members of the Construction Team have been delivered.

§ 12.2.5 The Owner shall have the right to withhold sufficient amount from the Application for Payment for unacceptable, defective, deficient, or non-conforming Work ("Disputed Work") after notifying the Contractor. The Contractor shall promptly remedy the Disputed Work. Owner shall promptly render payment for such Disputed Work after the Contractor has cured and the Owner has accepted the remedied Disputed Work.

## § 12.3 Certificates for Payment

The Architect will, within seven (7) days after receipt of the Contractor's Application for Payment, either ~~(1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor;~~ (2) issue to the Owner a Certificate for Payment for with a copy to the Contractor for such amount as the Architect determines is properly due, ~~and or~~ notify the Contractor and Owner in writing of the Architect's reasons for withholding certification in part; or (3) withhold certification of the entire Application for Payment, and notify the

~~Contractor and Owner of the Architect's reason for withholding certification in whole. If certification or notification is not made within such seven day period, the Contractor may, upon seven additional days' written notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time and the Contract Sum shall be equitably adjusted due to the delay whole or in part.~~

## § 12.4 Progress Payments

§ 12.4.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment for undisputed sums in the manner provided in the Contract Documents.

§ 12.4.2 The Contractor shall promptly pay each ~~subcontractor~~ Subcontractor and supplier, upon receipt of payment from the Owner, an amount determined in accordance with the terms of the applicable subcontracts and purchase orders.

§ 12.4.3 Neither the Owner nor the Architect shall have responsibility for payments to a ~~subcontractor~~ Subcontractor or supplier.

§ 12.4.4 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the requirements of the Contract Documents.

§ 12.4.5 Except with the Owner's prior approval the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 12.4.6 Whenever the Owner reasonably determines, after notice to the Contractor, that there is a basis for concern that payments properly owing to any Subcontractor of any tier, supplier or laborer are not being made on a timely basis, the Owner may elect, but shall not be obligated, to make payments to the joint order of the Contractor and such Subcontractor, supplier or laborer with any such payments satisfying any payment obligation otherwise owing by the Owner to the Contractor. The Owner may also elect at any time to require that payments be made through a construction escrow, in which event the Contractor shall supply all customary forms and indemnities as may be required to satisfy the conditions to disbursement established by the applicable escrowee. All requirements relating to payments and retainages, and applicable submittals to be made by the Contractor, shall be subject to reasonable modification and approval of any lender of the Owner supplying funds to the Project.

## § 12.5 Substantial Completion

§ 12.5.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so the Owner can occupy or utilize the Work for its intended use.

§ 12.5.2 When the Contractor believes that the Work or designated portion thereof is substantially complete, it will notify the Architect and the Architect will make an inspection to determine whether the Work is substantially complete. When the Architect determines that the Work is substantially complete, the Architect shall prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion, establish the responsibilities of the Owner and Contractor, and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

## § 12.6 Final Completion and Final Payment

§ 12.6.1 Upon receipt of a final Application for Payment, the Architect will inspect the Work. When the Architect finds the Work acceptable and the Contract fully performed, the Architect will promptly issue a final Certificate for ~~Payment.~~ Payment in accordance with the terms outlined in the Project Manual.

§ 12.6.2 Final payment shall not become due until the Contractor submits to the Architect releases and waivers of liens, and data establishing payment or satisfaction of obligations, such as receipts, claims, security interests, or encumbrances arising out of the Contract.

**§ 12.6.3** Acceptance of final payment by the Contractor, a ~~subcontractor~~ Subcontractor or supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

**§ 12.6.4** Amounts withheld from the final payment to cover any incomplete work are not considered retainage and shall not be paid to the Contractor until the Work is actually completed and accepted by the Owner. Such withholdings shall not be less than 150% of the estimated cost to the complete the Work.

**§ 12.6.5** The Owner shall have the right to deduct from the Final Payment due the Contractor all costs, including additional fees paid to Owner's consultants, which the Owner incurred as result of and attributed to Contractor's failure to fully complete and/or closeout the Project within sixty (60) days following Substantial Completion.

**§ 12.6.6** Unless otherwise agreed to by the Owner, in writing, the Owner shall not be responsible for costs incurred by the Contractor beyond sixty (60) days following Substantial Completion for the Contract Sum that is based on the Cost of the Work plus Contractor's Fee.

### **ARTICLE 13 PROTECTION OF PERSONS AND PROPERTY**

~~The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs, including all those required by law in connection with performance of the Contract. The Contractor shall take reasonable precautions to prevent damage, injury, or loss to employees on the Work and other persons who may be affected thereby, the Work and materials and equipment to be incorporated therein, and other property at the site or adjacent thereto. The Contractor shall promptly remedy damage and loss to property caused in whole or in part by the Contractor, or by anyone for whose acts the Contractor may be liable.~~  
**§13.1** The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs, including all those required by law in connection with performance of the Contract. The Contractor shall take reasonable precautions to prevent damage, injury, or loss to employees on the Work and other persons who may be affected thereby, the Work and materials and equipment to be incorporated therein, and other property at the site or adjacent thereto. The Contractor shall promptly remedy damage and loss to property caused in whole or in part by the Contractor, or by anyone for whose acts the Contractor may be liable.

**§13.2** The Contractor shall take all necessary precautions to guard against and eliminate all possible fire hazards and to prevent fire damage to any construction work, building materials, equipment, temporary field offices, storage sheds, and all other property. The Contractor shall provide necessary personnel and fire-fighting equipment to effectively control fires resulting from welding, flame cutting, or other operations involving the use of flame, sparks, or sparking devices. During such operations, all highly combustible or flammable materials shall be removed from the immediate working area. If removal is impossible the same shall be protected with fire blankets or suitable non-combustible shields. The Contractor shall maintain free access to the building areas for fire-fighting equipment and shall at no time block off main roadways or fire aisles without providing adequate auxiliary roadways and means of entrance for fire-fighting equipment, including heavy fire department trucks, where applicable. The Contractor shall at all times cooperate with the Owner and keep the municipal fire department informed of the means of entrance and changes to roadways or fire aisles as needed to provide fire department access to or around to Project site. The Contractor shall maintain during construction an appropriate number of fire extinguishers to meet Factory Mutual (FM) requirements. Fire extinguishers shall be in good working order, conveniently located, clearly visible, and readily accessible for proper protection of the Work.

### **ARTICLE 14 CORRECTION OF WORK**

**§ 14.1** The Contractor shall promptly correct Work rejected by the Architect as failing to conform to the requirements of the Contract Documents. The Contractor shall bear the cost of correcting such rejected Work, including the costs of uncovering, replacement, and additional testing.

**§ 14.2** In addition to the Contractor's other obligations including warranties under the Contract, the Contractor shall, for a period of ~~one year~~ two (2) years after Substantial Completion, correct work not conforming to the requirements of the Contract Documents.

**§ 14.3** If the Contractor fails to correct nonconforming Work within a reasonable time, the Owner may correct it in accordance with Section 7.3.

## ARTICLE 15 MISCELLANEOUS PROVISIONS

### § 15.1 Assignment of Contract

~~Neither party to the Contract shall assign the Contract as a whole without written consent of the other.~~ §15.1.1 Neither party to the Contract shall assign the Contract as a whole without written consent of the other.

§ 15.1.2 The Contractor shall not assign the whole or any part of the Agreement, or any monies due or to become due, without the express written consent of the Owner. If the Contractor, with the Owner's consent, assigns all or any part of the Agreement or any monies due or to become due, the instrument of assignment shall contain a clause satisfactory to the Owner and stating that it is agreed that the right of the assignee in and to any monies due or to become due to the Contractor shall be subject to the prior claims of all persons, firms and corporations for services rendered or materials supplied for the performance of the Work called for in the Agreement.

### § 15.2 Tests and Inspections

§ 15.2.1 At the appropriate times, the Contractor shall arrange and bear cost of tests, inspections, and approvals of portions of the Work required by the Contract Documents or by laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities.

§ 15.2.2 If the Architect requires additional testing, the Contractor shall perform those tests.

§ 15.2.3 The Owner shall bear cost of tests, inspections, or approvals that do not become requirements until after the Contract is executed. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

### § 15.3 Governing Law

The Contract shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules.

§ 15.4 Program Management Software. The Owner plans to utilize a web-based collaborative program management project software to assist in the efficient communication of all Project information to pertinent team members. The selected e-Builder platform will be utilized for storage of all pertinent Project correspondence (Meeting Minutes, RFIs, Submittals, Drawing set issuances, Bulletins, etc.), as well as for payment application and invoice processing, and change management approvals. The Contractor will be required to participate in e-Builder platform training and subsequent utilization of the software for their role and information transfer throughout the Project. The Owner will pay for up to two (2) collaborative licenses for the Contractor.

## ARTICLE 16 TERMINATION OF THE CONTRACT

### § 16.1 Suspension by the Owner and Termination by the Contractor

~~If the Work is stopped under~~ The Owner may suspend the Work at anytime for any reason. If the Work is suspended for more than twenty one (21) consecutive days, the Contractor shall be entitled to an equitable adjustment in the Contract Sum, subject to mutual agreement of the parties. If the Architect fails to certify payment as provided in Section 12.3 for a period of ~~14 days~~ thirty (30) days through no fault of the Contractor, or if the Owner fails to make payment as provided in Section 12.4.1 for a period of thirty (30) days, the Contractor may, upon seven ~~thirty (30)~~ additional days' written notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed including reasonable overhead and ~~profit, and costs incurred by reason of such profit on the portion of the Work completed to the date of~~ termination.

### § 16.2 Termination by the Owner for Cause

§ 16.2.1 The Owner may terminate the Contract if the Contractor

- .1 ~~repeatedly~~ refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to ~~subcontractors~~ Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the ~~subcontractors~~ Subcontractors;
- .3 ~~repeatedly~~ disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 is otherwise guilty of substantial breach of a provision of the Contract Documents.

§ 16.2.2 When any of the above reasons exist, the Owner, ~~after consultation with the Architect,~~ may without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' written notice, terminate employment of the Contractor and may

- .1 take possession of the site and of all materials thereon owned by the Contractor, and
- .2 finish the Work by whatever reasonable method the Owner may deem expedient.

§ 16.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 16.2.1, the Contractor shall not be entitled to receive further payment until the Work is ~~finished,~~ finished and determination of the sum due pursuant to Section 16.2.4.

§ 16.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, such excess shall be paid to the Contractor. If such costs exceed the unpaid balance, the Contractor shall pay the difference to the Owner. This obligation for payment shall survive termination of ~~the Contract.~~ this Agreement.

#### § 16.3 Termination by the Owner for Convenience

~~The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause. The Contractor shall be entitled to receive payment for Work executed, and costs incurred by reason of such termination, along with reasonable overhead and profit on the Work not executed.~~

§ 16.2.5 If the Owner erroneously or improperly terminates the Contractor for cause, then the Owner's action shall be deemed to be a termination for convenience, subject to the provisions of Section 16.3.

#### § 16.3 Termination by the Owner for Convenience

The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause. The Contractor shall be entitled to receive payment for Work properly executed prior to termination.

§16.4 In the event of any termination, the Contractor's and Subcontractor's obligations related to insurance, indemnity, and confidentiality shall survive.

### **ARTICLE 17 OTHER TERMS AND CONDITIONS**

*(Insert any other terms or conditions below.)*

§ 17.1 The Contractor shall inspect the Work as it is being performed until final completion and acceptance of the Project by the Owner to assure that the Work performed and the materials furnished are in accordance with the Contract Documents and that Work on the Project is progressing on schedule. In the event that the quality control testing should indicate that the Work, as installed, does not meet the requirements of this Project, the Architect shall determine the extent of the Work that does not meet the requirements and the Contractor shall direct the trade contractors(s) to take appropriate corrective action, and advise the Owner of the corrective action.

§ 17.2 The Contractor shall provide daily full-time, on-site field supervision during the entire construction phase. The Contractor agrees to assign the following listed Project team members, as listed in their respective capacities to the Project:

Staff Name      Assignment      Contact Information – Mobile Phone & e-Mail

Contractor shall promptly notify the Owner if services of any one of the listed team members become unavailable due to circumstances beyond the Contractor's control – e.g., extended illness or disability, death, or termination of employment, etc. No substitution of any of the above listed project team members shall be made without the prior written consent of the Owner; and before any such substitution the Contractor shall submit to the owner a detailed justification supported by the qualification of any proposed replacement. Owner shall have the right to interview and select alternate team member(s) employed by the Contractor to replace the unavailable team member. Contractor shall agree to provide the services of the alternate team member(s) selected by Owner. Contractor is not entitled to additional compensation for any such substitution(s) of the project team members. The Owner reserves the right to require the replacement of any or all of the above listed team members for cause; and the Contractor shall provide suitable replacement or replacements upon two (2) weeks' notice, subject to interview and acceptance by the Owner.

§ 17.3 As part of Contract Sum, the Contractor shall conduct a post-occupancy audit eleven (11) months following the Date of Substantial Completion and thereafter provide call-back services for a period of twenty three (23) months.

§ 17.4 Notwithstanding anything regarding hazardous materials, the Contractor acknowledges and fully understands that the scope of this Work includes the proper removal and proper disposal of all hazardous materials, including but not limited to any construction debris containing asbestos, PCBs, etc., as required by applicable federal, state, and local laws, rules, regulations and directives by governmental agencies having jurisdiction over the Project and Project site.

§ 17.5 If any provision of this Agreement shall be held to be illegal, invalid or otherwise unenforceable by law, the remainder of this Agreement shall not be affected thereby and each provision, term, covenant or condition of this Agreement shall be enforced to the fullest extent permitted.

§ 17.6 The Contractor shall comply with the Owner's Policies and Procedures, which will be made available to the Contractor upon request, while on the Project site.

### § 17.7 Dispute Resolution

#### § 17.7.1 Alternative Dispute Resolution

Within ten (10) business days of receipt of a written notice of Claim, the parties to a Claim shall attempt in good faith to resolve it promptly by escalating the Claim to persons who have authority to settle the controversy and who are at a higher level of management than the persons with direct responsibility for administration of this Agreement (Negotiation). If the parties agree on the method of resolving such claim, such method shall be embodied in a written agreement signed by the Owner and the Contractor. Any Claim, dispute, or other matter in question arising out of or related to this Agreement and not resolved by Negotiation shall be subject to Alternative Dispute Resolution (ADR) as a condition precedent to binding dispute resolution, pursuant to Section 17.7.1.3.

§ 17.7.1.2 On those occasions when Negotiation does not resolve the Claim, the parties to this Agreement shall be compelled to seek an alternative means of resolving the dispute as a condition precedent to litigation. Therefore, the parties agree to the following terms and conditions:

- .1 The parties shall designate, by mutual agreement, an independent mediator who shall convene a meeting of the parties within a period of fourteen (14) days of the later of the initial meeting between the parties or the date notice was given pursuant to Section 17.7.1.1. The mediator shall render his/her decision within fourteen (14) days of said meeting;
- .2 The purpose of the mediation is to attempt to resolve the dispute between the parties. The mediator shall not be empowered with the authority to render a binding opinion or award; the confidentiality of mediation shall be governed by the Michigan Court Rules and the Michigan Rules of Evidence;
- .3 In the event the independent mediator's attempt to resolve the dispute between the parties fails, then each party will be free to pursue recovery of claims at law;
- .4 During the pendency of this alternative dispute resolution process, the parties agree that the statute(s) of limitations applicable to all Claims that are the subject of this process shall be tolled.
- .5 Should a party's claim also concern claims against or by the architect then Owner may include the Architect in the alternative dispute resolution process.
- .6 The Contractor shall continue providing all services during any dispute, including during the alternative dispute resolution process.

§ 17.7.1.3 The parties shall share the mediator's fee. The Alternative Dispute Resolution shall be held in the place where the Owner is located, as indicated on page one of this Agreement, unless another location is mutually agreed upon.

If the parties do not resolve a dispute through Negotiation or Alternative Dispute Resolution pursuant to this Article 17, the method of binding dispute resolution shall be as follows:  
(Check the appropriate box.)

Arbitration pursuant to Section 21.6 of this Agreement

Litigation in a court in accordance with Sections 5.2 and 5.3, unless otherwise mutually agreed to by the parties.

[ « » ] Other (Specify)

If the Owner and Contractor do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, claims will be resolved in a court of competent jurisdiction.

**§ 17.7.2 NOT USED**

**§ 17.7.3 NOT USED**

**§ 17.7.4** In the event the parties resort to a court, and to the extent permitted by law, the parties hereby:

- 1 Irrevocably consent and submit to the jurisdiction of any Federal, state, county or municipal court sitting in the State of Michigan, County of Oakland, in respect to any action or proceeding brought therein concerning any matters arising out of or in any way relating to this Agreement;
- 2 Expressly waive any rights pursuant to the laws of any other jurisdiction by virtue of which exclusive jurisdiction of the courts of any other jurisdiction might be claimed;
- 3 Irrevocably waive all objections as to venue and any and all rights it may have to seek a change of venue with respect to any such action or proceeding;
- 4 Agree that any final judgment rendered in any such action or proceeding shall be conclusive and may be entered in any other jurisdiction by suit on the judgment or in any other manner provided by law and expressly consent to the affirmation of the validity of any such judgment by the courts of any other jurisdiction so as to permit execution thereon.

**§ 17.8 Notice**

**§ 17.8.1** All notices or other communications hereunder to either party shall be (1) in writing, and, if mailed, shall be deemed to have been given on the earlier of actual receipt by the intended recipient or on the third business day after the date when deposited in the United States mail by registered or certified mail, postage pre-paid, or by personal delivery, Federal Express or other recognized and reputable overnight courier, addressed as hereinafter provided, and (2) addressed as follows:

**§ 17.8.2** If to the Owner:

The Owner identifies the following individual as its Owner's Designated Representative(s). The Owner may change a designated representative upon written notice to the Contractor; and the Owner may modify the scope of authority of the designated representative in like manner.

*(Name, address, email address, and other information)*

«Patricia Perry, Superintendent  
Madison District Public Schools  
26550 John R. Road  
Madison Heights, Michigan 48071

AND

Ebony Thompson, Director of Business & Finance  
Madison District Public Schools  
26550 John R. Road  
Madison Heights, MI 48071 »

With a copy to the Owner's Representative Consultant:

The Owner has engaged Plante Moran Realpoint, LLC (PMR) as an Owner's Representative Consultant on the Project. The Contractor shall keep the Owner and PMR informed in matters regarding the Project. Unless otherwise provided in this Agreement specifically authorized by the Owner, the Owner's Representative Consultant is not authorized to commit the Owner in matters regarding changes in the Work, Construction Schedule, or grant approval on behalf of the Owner. The Owner and/or the Owner's Designated Representative have the sole right to make decisions in matters regarding the Project. The following individual, subject to change upon written notification from the Owner to the Contractor, shall be primary contact for the Owner's Representative Consultant:

«Amy Michalek »

[«Plante Moran Realpoint, LLC](#)  
[3000 Northwestern Hwy; Suite 100](#)  
[Southfield, MI 48075 »](#)  
[«amy.michalek@plantemoran.com; \(248\) 223-3237 »](#)

**§ 17.8.3** If to the Contractor:  
The Contractor's representative:  
(Name, address, email address, and other information)

[« »](#)  
[« »](#)  
[« »](#)  
[« »](#)

**§ 17.8.4** Neither the Owner's nor the Contractor's representative shall be changed without ten (10) days' prior notice to the other party.

**§ 17.9** The Contractor shall notify the Owner in the event of a potential or actual: (a) material change in ownership of the Contractor; (b) intent to dissolve; or (c) intent to otherwise cease active participation in the Project's local marketplace (collectively a "Material Change in Circumstances"). A Material Change in Circumstances shall include any other change that could reasonably give rise to concern on behalf of the Owner regarding the Contractor's ability or willingness to fulfill any of its obligations under this Agreement. In the event of a Material Change in Circumstances, the Contractor shall provide any reasonable assurance or guarantee requested by Owner. Owner shall have the right to terminate this agreement for cause in the event of a Material Change in Circumstances.

**§ 17.10 NOT USED**

**§ 17.11** The Owner, being a public body, shall render required decisions within a reasonable time after being requested to do so by the Contractor. The Contractor, assisted by the Architect, shall prepare and submit all recommendations for which approval is required by Owner as soon as reasonably possible unless another schedule is agreed to by the Owner, in writing. The Contractor shall not cause unreasonable delays in the orderly progress of Work.

**§ 17.12** The Contractor shall develop a plan and to administer an effective labor relations program for the Project in order to ensure labor harmony and to avoid labor disputes during construction. The Owner does not and cannot require the Contractor to employ union labor on the Project. Therefore, if it is necessary that the Contractor enters into a project labor agreement to ensure labor harmony and avoid labor dispute during construction, the Contractor shall have the discretion to do so.

**§ 17.13 NOT USED**

**§ 17.14 NOT USED**

**§ 17.15 GOVERNMENT AGENCY'S IMMUNITY FROM TORT LIABILITY.** Notwithstanding any provisions within the Contract Documents, no provisions shall be deemed a waiver of any immunity granted the Owner, being a governmental unit, by statute, including, without limitation. (MCL 691.1407 / ORC 2743.02)

This Agreement entered into as of the day and year first written above.  
*(If required by law, insert cancellation period, disclosures or other warning statements above the signatures.)*

**MADISON DISTRICT PUBLIC SCHOOLS,**

OWNER (Signature)

«Patricia Perry, Superintendent»

(Printed name and title)

(date)

CONTRACTOR (Signature)

« »»»

(Printed name and title)

LICENSE NO.:

JURISDICTION: (date)



# Attachment C1: Proposal Form

## CONTRACTOR RFP PROPOSAL FORM

BIDDER: \_\_\_\_\_

BIDDER'S ADDRESS: \_\_\_\_\_

BIDDER'S MAIN CONTACT FOR PROPOSAL: \_\_\_\_\_

MAIN CONTACT'S PHONE NUMBER: \_\_\_\_\_

MAIN CONTACT'S EMAIL ADDRESS: \_\_\_\_\_

All proposals submitted may not be withdrawn and shall be irrevocable for a minimum period as defined in this RFP.

### A. DEFINED WORK SCOPE PROPOSAL

- a. Lump sum base bid cost for the work in Attachment B1 including Wilkinson Middle School, Madison High School and the Project Manual

\$

- b. Alternate No. 1 bid cost change for the alternate scope at Wilkinson Middle School as noted in Attachment B1 on Wilkinson Middle School Sheet C4.1

\$

### B. IDIQ WORK SCOPE PROPOSAL

- a. A Lump Sum Bid for 2026 for 10,000sf of Remove and Replace 4" sidewalk \$
- b. A Lump Sum Bid for 2027 for 10,000sf of Remove and Replace 4" sidewalk \$
- c. A Lump Sum Bid for 2028 for 10,000sf of Remove and Replace 4" sidewalk \$
- d. A Lump Sum Bid for 2029 for 10,000sf of Remove and Replace 4" sidewalk \$
- e. A Lump Sum Bid for 2030 for 10,000sf of Remove and Replace 4" sidewalk \$

f. Unit Prices:

- a. Unit Prices shall be all inclusive of any and all cost including labor, materials, equipment, OH&P, and any costs pertaining to the project. Unit pricing for years 2026-2029 should be inclusive of any annual escalation on labor and materials. Current and future material costs shall be provided by contractor as basis of any significant cost increases that may be negotiated further in future project years.

<b>UNIT PRICES</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>
\$/CYD to excavate and dispose of existing subsurface material	/ total	/ total	/ total	/ total
\$/CYD to place and compact 21AA limestone	/ total	/ total	/ total	/ total
\$/CYD to place and compact 21AA crushed concrete	/ total	/ total	/ total	/ total
\$/CYD to place and compact 1x3 crushed concrete	/ total	/ total	/ total	/ total
\$/SYD to place geotextile fabric for subgrade stabilization	/ total	/ total	/ total	/ total
\$/SYD to place geogrid (Tensar TriAx or approved equal) for subgrade stabilization	/ total	/ total	/ total	/ total
\$/LFT to install 6" perforated underdrain wrapped in filter fabric sock	/ total	/ total	/ total	/ total
\$/EA to repair existing structure per plan Drainage Structure Repair note	/ total	/ total	/ total	/ total
\$/SFT to sawcut, remove and replace 4" concrete sidewalk per plan detail CP-4	/ total	/ total	/ total	/ total
\$/SFT to sawcut, remove and replace 6" concrete sidewalk per plan detail CP-6	/ total	/ total	/ total	/ total
\$/SFT to sawcut, remove and replace 6" concrete sidewalk with thickened edge per plan detail X-1	/ total	/ total	/ total	/ total
\$/LFT to sawcut, remove and replace concrete curb and gutter per plan detail C6-S	/ total	/ total	/ total	/ total
\$/SFT to sawcut, remove and replace heavy-duty asphalt pavement section per plan detail AP-H	/ total	/ total	/ total	/ total

### C. ADDENDA

- a. This proposal includes information for the following addenda:

ADDENDA NO.	_____	DATED	_____
ADDENDA NO.	_____	DATED	_____
ADDENDA NO.	_____	DATED	_____
ADDENDA NO.	_____	DATED	_____

### D. ACKNOWLEDGEMENTS

- a. Concrete Contractor has reviewed and understands the information and data provided in the request for proposal?  Yes  No
- b. Concrete Contractor confirms that compensation requests noted within the proposal will be adequate for the execution of all phases of services required by this request for proposal?  Yes  No

### E. CONTRACTUAL TERMS

- a. If selected as contractor, I agree to the contractual terms as provided in the RFP as noted below:
- AIA A105-2017, as modified
  - Exceptions to amended AIA A105-2017\*

\*Attach SPECIFIC proposed alternate contract language in Section 2

I have read and I understand the responsibilities required of the Contractor under the *Agreement between the Owner and Contractor*, which are provided with the RFP. If selected, our firm will be able to fulfill the requirements.

## SIGNATURE

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

FIRM NAME: \_\_\_\_\_

BY: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Position/Title

\_\_\_\_\_, being duly sworn, deposes and says that the information provided herein is complete so as not to be misleading.

Subscribed and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

NOTARY PUBLIC: \_\_\_\_\_

MY COMMISSION EXPIRES: \_\_\_\_\_

### Proposal Checklist

- Bid Proposal Form (this document)
- Familial Disclosure Statements
- Iran Disclosure Statement
- Non-Collusive Affidavit
- Criminal Background Disclosure Affidavit

## Attachment C2: Familial Disclosure Affidavit

The undersigned, the owner or authorized officer of the below named firm (the “Firm”), pursuant to the familial disclosure requirement provided in the Madison District Public Schools (the “School District”) request for proposals for Concrete Replacement Contracting service, hereby represents and warrants that, except as provided below, no familial relationships exist between the owner or any employee of the Firm, and any member of the Board of Education of the School District or the Superintendent of the School District. A list of the School District’s Board of Education Members and its Superintendent may be found at <https://www.madisondistrict.org/>.

### LIST OF ANY FAMILIAL RELATIONSHIPS

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### SIGNATURE

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

FIRM NAME: \_\_\_\_\_

BY: \_\_\_\_\_  
Signature

\_\_\_\_\_  
Position/Title

\_\_\_\_\_, being duly sworn, deposes and says that the information provided herein is complete so as not to be misleading.

Subscribed and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, in the county of \_\_\_\_\_ and the state of \_\_\_\_\_.

NOTARY PUBLIC: \_\_\_\_\_

MY COMMISSION EXPIRES: \_\_\_\_\_

# Attachment C3: Iran Disclosure Affidavit

## AFFIDAVIT OF COMPLIANCE – IRAN ECONOMIC SANCTIONS ACT

MICHIGAN PUBLIC ACT NO. 517 OF 2012

The undersigned, the owner or authorized officer of the below named firm (the “Firm”), pursuant to the compliance certification requirement provided in the Madison District Public Schools (the “School District”) request for proposals for Concrete Replacement Contracting services (the “RFP”), hereby certifies, represents, and warrants that the Firm (including its officers, directors, and employees) is not an “Iran linked business” within the meaning of the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012 (the “Act”), and that in the event Firm is awarded a contract as a result of the aforementioned RFP, the Firm will not become an “Iran linked business” at any time during the course of performing the scope of work or any services under the contract.

The Firm further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than two hundred fifty thousand dollars (\$250,000.00) or two (2) times the amount of the contract or proposed contract for which the false certification was made, whichever is greater, the cost of the School District’s investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on a request for proposal for three (3) years from the date it is determined that the person has submitted the false certification.

### SIGNATURE

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

**FIRM NAME:** \_\_\_\_\_

**BY:** \_\_\_\_\_  
Signature

\_\_\_\_\_  
Position/Title

\_\_\_\_\_, being duly sworn, deposes and says that the information provided herein is complete so as not to be misleading.

Subscribed and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, in the county of \_\_\_\_\_ and the state of \_\_\_\_\_

**NOTARY PUBLIC:** \_\_\_\_\_

**MY COMMISSION EXPIRES:** \_\_\_\_\_

# Attachment C4: Non-Collusive Affidavit

\_\_\_\_\_, being duly sworn, deposes and says that:

1. The proposal has been arrived at by the firm independently and has been submitted without collusion with, and without any agreement, understanding, or planned common course of action with, any other vendor of materials, supplies, equipment, or services described in the request for proposals, designed to limit independent bidding or competition; and,
2. The contents of the proposal have not been communicated by the firm or its employees or agents to any person not an employee or agent of the firm or its surety on any bond furnished with the proposal and will not be communicated to any such person prior to the official opening of the proposal.

\_\_\_\_\_  
Signature of Firm

STATE OF \_\_\_\_\_)

)ss.

COUNTY OF \_\_\_\_\_)

This instrument was acknowledged before me on the \_\_\_\_\_ day of \_\_\_\_\_, 2025, by

\_\_\_\_\_.

\_\_\_\_\_  
\_\_\_\_\_, Notary Public

\_\_\_\_\_ County, \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

Acting in the County of: \_\_\_\_\_

# Attachment C5: Criminal Background Affidavit

The undersigned, the owner or authorized officer of the below-named firm (the “Firm”), pursuant to the criminal background compliance certification requirements of Madison District Public Schools (the “School District”) hereby represents and warrants that the Firm has performed and/or will perform sufficient criminal background checks, including at a minimum, an Internet Criminal History Tool (“ICHAT”) (or equivalent for non-Michigan residents) for all of its owners, employees, agents, representatives, contractors, and/or other personnel who will be on any School District premises to carry out the services contemplated by the contract documents. The Firm further hereby certifies that no owner, employee, agent, representative, contractor, and/or other personnel of the Firm will be on any School District premises if they are a registered criminal sexual offender under the Sex Offenders Registration Act, Public Act 295 of 1994, or have been convicted of “Listed Offense” as defined under Section 722 of the Sex Offenders Registration Act, MCL 28.722.

The Firm further acknowledges that if it is found to have submitted a false certification or otherwise fails to comply with the requirements of this certification, the School District may immediately terminate the contract.

## SIGNATURE

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

**FIRM NAME:** \_\_\_\_\_

**BY:** \_\_\_\_\_  
Signature

\_\_\_\_\_  
Position/Title

\_\_\_\_\_, being duly sworn, deposes and says that the information provided herein is complete so as not to be misleading.

Subscribed and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, in the county of \_\_\_\_\_ and the state of \_\_\_\_\_.

**NOTARY PUBLIC:** \_\_\_\_\_

**MY COMMISSION EXPIRES:** \_\_\_\_\_