



THE CITY OF
TALLMADGE
HISTORY MOVING FORWARD

SPECIFICATIONS & PROPOSAL:

Howe Road Park Entry

EROSION CONTROL, GRADING, ASPHALT PAVING, PAVEMENT MARKING

Bids due by: *July 27, 2022 @ 10 a.m.*

Submitted By:

Company Name

Street Address

City

State

Zip

Contact Person

Phone No.

Email Address

David G. Kline, Mayor
Michael Rorar, Director of Public Service

46 North Avenue, Tallmadge, Ohio 44278

Phone 330-633-0854 ■ Fax 330-633-1359

**City of Tallmadge Department of Public Service
Invitation to Bid**

Sealed proposals will be accepted in the Public Service Department, City of Tallmadge, 46 North Avenue, Tallmadge, Ohio, 44278 until 10:00 a.m. July 27, 2022. (City Hall is open for public access Monday thru Friday from 9:00 a.m. to 3:00 p.m.) Bids being opened immediately thereafter in the Council Chambers of the Municipal Building for:

New Park Entry

Detailed information, proposal forms and complete specifications may be obtained from the City of Tallmadge website at <https://www.tallmadge-ohio.org>.

Bidders must use the forms available on the website as no other will be accepted. Proposals must include a price for each item in the Bid Proposal form. Incomplete proposals will be considered informal and will not be considered. Each bid must contain the full name of every person or company participating in the bid.

A bid bond equal to 100% of the bid or a certified check, cashier's check, or a letter of credit in the amount of 10% of the bid to be held as guarantee that in the event a contract is awarded to the bidder, such contract will be duly executed, and its performance properly secured. Should any bid not be awarded or be rejected, such check or bond will be returned to the bidder or bidders after the execution of the contract.

The award of this contract shall be to the lowest and best bidder. The City of Tallmadge reserves the right to reject any or all bids and to accept the bid(s) deemed most beneficial to the City of Tallmadge.

The bidder is responsible for monitoring the above-named website for any official addenda.

Please contact Tina Fiocca in the Public Service Department at tfiocca@tallmadge-ohio.org if you have any questions regarding this bid.

Project Estimate(s):

Base Bid - \$307,000

Michael Rorar
Director of Public Service
Ordinance 2022- 57

Published in the Akron Beacon Journal:

July 10, 2022
July 17, 2022

Table of Contents and Bidder's Checklist

A complete bid packet will consist of the items listed below.

Complete this checklist to confirm the items required in your bid. Place a checkmark or "X" next to each item that you are submitting to the City of Tallmadge. Failure to submit the listed documents may be cause for rejection of your bid. This checklist should be returned with your bid.

- _____ Cover sheet (Page 1)
- _____ Invitation to Bid (Page 2)
- _____ Table of Contents and Bidder's Checklist (Page 3)
- _____ Section I: Instruction to Bidders (Pages 4 - 5)
- _____ Section II: Bid Forms (Pages 6 - 21)
 - _____ Bid Form List
 - _____ Bid Form 1: Note
 - _____ Bid Form 2: Bid Guaranty and Contract Bond
 - _____ Bid Form 3: Non-Collusion Affidavit
 - _____ Bid Form 4: Statement of Non – Liability for Delinquent Personal Property Taxes
 - _____ Bid Form 5: Statement of Liability for Delinquent Personal Property Taxes
 - _____ Bid Form 6: Certification of Drug Free Workplace
 - _____ Bid Form 7: Certification for Local Preference Certification
 - _____ Bid Form 8: Affidavit in Compliance with Section 3517.13
 - _____ Bid Form 9: Independent Contractor Anti-Bias Disclosure
 - _____ Bid Form 10: Certification of No Personal Interest
 - _____ Bid Form 11: OPERS Independent Worker/ Contractor Acknowledgment Form
 - _____ Bid Form 12: OPERS Form
- _____ Section III: Bid Specifications (Pages 22-27)
- _____ Section IV: Proposal and Signature Pages (Pages 28)
- _____ Section V: Alternate Bid Items (Not Used)
- _____ Section VI: Tallmadge Codified Ordinance (Pages 29)
- _____ Section VII: Equipment List (to be submitted with bid) (Page 30)
- _____ Section VIII: Bidder References (to be submitted with bid) (Page 31)
- _____ Section IX: Experience of Management/Supervisory Personnel (Page 32)
- _____ Section X: Prevailing Wage Requirements and Affidavit of Compliance (Pages 33-34)
- _____ Section XI: Technical Specifications (Pages 311000 -329200-5)

SECTION I: INSTRUCTIONS TO BIDDERS

All pages of the Bid Proposal, Specifications and Contract Documents must be intact and included in the bid submittal. Bidders must use the forms provided on the City of Tallmadge website as none other will be accepted.

The City of Tallmadge does encourage bidders to submit all bid forms with their bids.

Submit all bids to the City of Tallmadge Public Service Department, 46 North Avenue, Public Service Department, Tallmadge, Ohio 44278 according to the instructions in the Invitation to Bid posted on the City of Tallmadge's website at <https://www.tallmadge-ohio.org/bids>

Bids should be in a sealed envelope marked with project title and the name and address of bidder and reach the Public Service Department, no later than 10:00 a.m. on Wednesday, July 27, 2022. The Public Service date/time stamp is the official date/time used for the deadline of the submission of bids. The City will disqualify any bid not received on or before 10:00 AM local time on Wednesday, July 27, 2022.

The City reserves the right to waive any informality in any proposal, and to reject any or all bids. The City also reserves the right not to enter into any contract as a result of this invitation for bid.

All addendums will be posted on the City website through Vendor Registry. It is the bidder's responsibility to check this site on a regular basis. The City will not be responsible for any information not viewed by bidders. All bidders should register with www.vendorregistry.com so that the City has all the necessary vendor information.

In reviewing bids to determine who is the lowest and best, the City will take into consideration the extent to which the bid conforms to the bid specifications and the qualifications of the bidder to satisfactorily implement the requirements of the Contract. The City specifically reserves the right to reject any bids for which the bidder fails to demonstrate the ability to provide the service required in a responsible manner.

Any bidder may withdraw his bid, by written request, at any time prior to the deadline set for the bid opening. Please be advised, the City of Tallmadge may impose a \$500.00 penalty to any bidder that withdraws his bid after the bid opening and prior to a contract award(s).

Bid will be awarded to the lowest and best bidder. The City will be the judge of the factors and will make the award accordingly. Should the successful bidder not be able to provide the required services, the City reserves the right to request service from other sources.

Prospective bidders will take notice that the City of Tallmadge, in determining the lowest and best bidder in the award of this contract, may award a local bidder preference to any qualified bidder pursuant to Section 143.06 of the Codified Ordinances of the City of Tallmadge. The determination of whether a bidder qualifies for the local preference shall be made by Board of Control. The Board's decision shall be final.

After award of the bid, by the City of Tallmadge, the successful bidder will receive an official award notification from the City. The signed contract will represent agreement between the City and the successful bidder (all terms of the bid specifications and any applicable addenda will apply).

The Contractor shall be required to furnish to the City of Tallmadge, evidence showing insurance coverage to be in force throughout the term of the contract. The Contractor shall carry Comprehensive General Liability and Auto Liability Insurance to cover damages for which the contractor may be legally responsible due to bodily injury or property damage. The contractor shall provide to the City of Tallmadge a certificate of insurance showing \$1,000,000.00 Combined Single Limit and \$2,000,000.00 Aggregate Coverage and Workers Compensation Insurance. The City of Tallmadge must be included as an additional insured.

The Contractor covenants to save, defend, hold harmless, and indemnify the City, and all of its officers, departments, agencies, agents, and employees (collectively the "City") from and against any and all claims, losses, damages, injuries, fines, penalties, costs (including court costs and attorney's fees), charges, liability, or exposure, however caused, resulting from, arising out of, or in any way connected with the Contractor's intentional, negligent, or grossly negligent acts or omissions in performance or nonperformance of its work called for by the Contract Documents.

After satisfactory completion of services, the Contractor shall forward invoice(s) to the following address: The City of Tallmadge, Public Service Department, 46 North Ave., Tallmadge, Ohio 44278. **This is a prevailing wage contract.**

SECTION II: BID FORMS

- _____ Bid Form 1: Note
- _____ Bid Form 2: Bid Guaranty and Contract Bond
- _____ Bid Form 3: Non-Collusion Affidavit
- _____ Bid Form 4: Statement of Non – Liability for Delinquent Personal Property Taxes
- _____ Bid Form 5: Statement of Liability for Delinquent Personal Property Taxes
- _____ Bid Form 6: Certification of Drug Free Workplace
- _____ Bid Form 7: Certification for Local Preference
- _____ Bid Form 8: Affidavit in Compliance with Section 3517.13
- _____ Bid Form 9: Independent Contractor Anti-Bias Disclosure
- _____ Bid Form 10: Certification of No Personal Interest
- _____ Bid Form 11: OPERS Independent Worker/ Contractor Acknowledgment Form
- _____ Bid Form 12: OPERS Form

NOTE

The bidder hereby agrees that the Public Service Director has the right to reject any or all bids and to waive informality in any bid and that the bidder shall not dispute the correctness of the quantities used in computing the lowest and best bidder.

(Signature of Officer, Partner or Owner)

(Date)

(Business Address of Bidder)

(Business Phone Number of Bidder)

CERTIFIED CHECK OR BID BOND

Certified check or bid bond in the amount of: _____
_____ on
(State Amount)

(Name of Band or Bonding Company)

deposited herewith.

(Bidder)

(Date)

ALL BIDS NOT IN CONFORMITY WITH THESE PROVISIONS WILL BE REJECTED.

BID GUARANTY/ CONTRACT BOND/ MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we the undersigned _____
_____ as Principal, and
_____ as Sureties, are hereby held and firmly bound unto the

CITY OF TALLMADGE, OHIO

as Obligee in the penal sum of the dollar amount of the Bid submitted by the Principal to the Obligee on the _____ day of _____, 20 _____ to undertake the Project known as:
Howe Road Park Entry

The penal sum referred to herein shall be the dollar amount of the Principal's Bid to the Obligee, incorporating any additive or deductive alternate proposals made by the Principal on the date referred to above to the Obligee, which are accepted by the Obligee. In no case shall the penal sum exceed the amount of _____ dollars (\$_____).(If the foregoing blank is not filled in, the penal sum will be the amount of the Principal's Bid, including alternates. Alternatively, if the blank is filled in, the amount stated must not be less than the full amount of the Bid including alternates, in dollars and cents. A percentage is not acceptable.) For the payment of the penal sum well and truly to be made, we hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors, and assigns.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that whereas the above name Principal has submitted a Bid for _____
_____ for the City of Tallmadge, Ohio;

NOW THEREFORE, if the Obligee accepts the Bid of the Principal and the Principal fails to enter into a proper Contract in accordance with the Bid and the other contract documents; and in the event the Principal pays to the Obligee the difference not to exceed ten percent of the penalty hereof between the amount specified in the Bid and such larger amount for which the Obligee may in good faith Contract with the next lowest bidder to perform the work covered by the Bid; or in the event the Obligee does not award the Contract to the next lowest bidder and resubmits the Project for bidding, the Principal pays to the Obligee the difference not to exceed ten percent of the penalty hereof between the amount specified in the Bid, or the costs, in connection with the resubmission of printing new contract documents, required advertising, and printing and mailing notices to prospective bidders, whichever is less, then this obligation shall be null and void, otherwise to remain in full force and effect; if the Obligee accepts the Bid of the Principal and the Principal within ten days after the awarding of the Contract enters into a proper Contract in accordance with the Bid and the other contract documents, which said Contract is made a part of this Bond the same as though set forth herein;

NOW ALSO, if the said Principal shall well and faithfully do and perform the things agreed by said Principal to be done and performed according to the terms of said Contract;

and shall pay all lawful claims of Subcontractors, materialmen, and laborers, for labor performed and materials furnished in the carrying forward, performing, or completing of said Contract; we agreeing and assenting that this undertaking shall be for the benefit of any materialman or laborer having a just claim, as well as for the Obligee herein; then this obligation shall be void; otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that a maintenance guarantee, with good and sufficient surety, in the amount of ten percent (10%) of the amount of the performance guarantee for a period of two (2) years from and after the date of completion and acceptance by the Owner, replace any and all defects arising in the Work, whether resulting from defective materials or defective workmanship, after such period this obligation shall be null and void; otherwise it will remain in full force and effect.

The said Surety hereby stipulates and agrees that no modifications, omissions, or additions, in or to the terms of the said Contract or in or to the Drawings or Specifications therefor shall in any wise affect the obligations of said Surety on its Bond.

IN WITNESS WHEREOF, we have hereunto set our hands and seal this _____ day of _____, 20 _____.

_____Principal

By _____

_____ Surety

By _____

Address _____

Phone No. _____

(SEAL)

IMPORTANT - Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the Project is located.

NON-COLLUSION AFFIDAVIT

STATE OF _____)
) SS.
COUNTY OF _____)

Being duly sworn, do depose and say:

that _____
(Insert names of all persons, firms or corporations interested in the
bid.)

its agent, officers or employees have not directly or indirectly entered into any
agreement, participated in any collusion, or otherwise taken any action in restraint of
free competitive bidding in connection with this proposal; and also that no member of
the Council, head of any Department or bureau, or employee therein, or any officer of
the City of Tallmadge is directly or indirectly interested therein.

(Signature)

(Title)

Sworn to and subscribed before me this _____ day of _____, 20 _____

Notary Public in and for the

COUNTY OF _____, STATE OF _____

My commission expires _____, 20 _____

THIS AFFIDAVIT MUST BE EXECUTED FOR THE APPLICATION TO BE CONSIDERED.

**STATEMENT OF LIABILITY
FOR DELINQUENT PERSONAL PROPERTY TAXES***

STATE OF OHIO _____)
)SS:
COUNTY OF _____)

_____, being first fully sworn, says that
(See note below)

he may be awarded a contract by _____
(Name of Subdivision)

after competitive bidding, and that at the time of the submission said affiant
was charged with delinquent personal property taxes on the general tax list of
personal property of _____ and _____
(County) (State)

and that the amount of the due and unpaid delinquent tax is \$ _____

and that the amount of the due and unpaid penalties and interest is \$ _____

Sworn to and subscribed before me this _____ day of _____, 20 _____

Notary Public in and for the

COUNTY OF _____ STATE _____

My Commission expires: _____

Note:

Where an individual has submitted a bid, the name of the individual should appear here. Where an individual signs for a partnership, the name of the partner signing for the partnership should appear together with the name of the partnership. Where a corporation has submitted a bid, the name of the officer, his position, and the name of the corporation should appear.

*Complete either Statement of Non-Liability or Statement of Liability, but not both.

CERTIFICATION OF
DRUG FREE WORKPLACE

BIDDER'S NAME: _____

ADDRESS:

CITY, STATE:

Project:

CERTIFICATION

The undersigned, being a duly authorized agent of the Bidder does certify that the following facts are true:

1. Bidder has published and provided to employees notice that the manufacture, use, possession, or distribution of drugs in the workplace is prohibited, as well as a specification of the disciplinary action that may be taken against employees who violate that prohibition.
2. It is the policy of the Bidder that any employee convicted of violating a criminal drug statute occurring in the workplace is required to notify the employer of said conviction within five (5) days after such conviction.
3. Bidder has published notice specifying the sanctions for or requiring satisfactory participation in a drug abuse assistance or rehabilitation program by an employee convicted of violating a criminal drug statute occurring in the workplace.
4. Bidder has implemented a program for the distribution of information on drug abuse awareness and the availability of counseling and referral services.

I further certify and understand that the City of Tallmadge, pursuant to Ordinance 142-1994, can enter into a contract resulting from the competitive bidding process only with those Bidders who provide a drug free workplace by meeting the above requirements.

DATE: _____

Signature: _____

Title:

**CERTIFICATION FOR
LOCAL PREFERENCE**

The undersigned bidder does hereby certify that his principal place of business is within the corporate limits of the City of Tallmadge, Ohio or within the Brimfield / Tallmadge JEDD Area and that he qualifies as a **"local business"** by complying with the following policy as established by Ord. 126-97 Section 143.06:

Local Preference Policy

A. DEFINITIONS:

1. "Business" means a domestic corporation, sole proprietorship, partnership, or joint venture whose principal place of business is located in Tallmadge, Ohio or is located within the area designated as a Joint Economic Development District as established by the City of Tallmadge and the Township of Brimfield. If one party to joint venture has its principal place of business in Tallmadge, Ohio, or is located within the Joint Economic Development District, the joint venture shall be considered as having its principal place of business in Tallmadge. No business as defined herein shall benefit from the local preference policy unless it is participating in the JEDD by withholding and paying City income tax.

2. "Bidder" means the respondent to invitations to bid and/or to requests for proposals.

B. Bidders having established their principal place of business in Tallmadge, Ohio for two successive calendar years immediately preceding the bid opening date or proposal date, may be preferred as lowest if their bid does not exceed the lowest bid by more than 3%, not to exceed ten thousand dollars (\$10,000) of the apparent low bid.

C. To qualify for local preference bidders shall include the following on their bid or proposal documents:

1. Certification that "The bidder of offer hereby certifies that its principal place of business is in Tallmadge, Ohio and has been for at least two successive years immediately preceding the opening date herein".

2. Location of principal place of business.

3. Date of business establishment

4. If the bid is for a City vehicle or motor vehicle or accessory, the bidder's price shall be the same as or lower than the State Purchasing Program price.

D. Each bidder shall have only one principal place of business.

E. Local preference may be applied as provided herein where prohibited by state or federal law.

F. Local preference may be applied in considering the lowest bid and shall not waive or nullify evaluation of bidders which are responsive and responsible or lowest and best.

G. In determining the qualifications of bidders for supplies, commodities, materials, equipment, furnishings or general services as lowest responsive and responsible or lowest and best bidder, the Board of Control shall exercise a preference of local bidders as provided for herein. The local preference shall apply to contracts for the building, repair or renovation of public buildings or improvements

BIDDER'S NAME _____ DATE BUSINESS ESTABLISHED _____

Location of principal place of business _____

Successive years at this location immediately prior to bid opening date: _____

DATED _____ Signed _____

AFFIDAVIT IN COMPLIANCE WITH SECTION 3517.13

STATE OF OHIO
COUNTY OF _____ ss:

Personally, appeared before me the undersigned, a bidder, a representative of a bidder, a contractor or vendor on behalf of

_____ for a contract for _____
(Name of Business) (Type of Product or Service)

to be let by the City of Tallmadge, who, being duly cautioned and sworn, makes the following statement with respect to prohibited activities constituting a conflict of interest or other violations under R.C. Section 3517.13, and further states that the undersigned has the authority to make the following representation on behalf of the entity if the undersigned as an individual is not the bidder himself or herself:

1. On behalf of the corporation, business trust, estate, individual business owner, partner or owner of partnership or other unincorporated business, shareholder of an association, that all of the following persons, where applicable, are in compliance with R.C. 3517.13.
 - a. each owner of more than twenty percent of a corporation;
 - b. each individual, partnership or other unincorporated business, association, including without limitation, professional associations;
 - c. each shareholder of an association, administrator or executor of any estate and trustee of any trust, or political action committee associated with any of the foregoing;
 - d. each spouse of the above;
 - e. each child seven years of age to seventeen years of age of any of the above;
 - f. any combination of the above.

2. The undersigned further certifies that if awarded a contract as a result of competitive bidding, or request for proposals, he, she or it shall not once the contract is awarded and extending until one year following the conclusion of the contract, make as an individual, one or more campaign contributions totaling in excess of \$1,000 or collectively, contributions totaling in excess of \$2,000 (over a two year period), to the holder of the public office having ultimate responsibility for the award of the contract or to the public officer's campaign committee, including individuals or groups of individuals specified in paragraph 1, above.

Signature _____

Title _____

Sworn to before me, a notary public, and subscribed in my presence this ____ day of _____ 20__.

Notary Public _____

My Commission Expires _____

CITY OF TALLMADGE
INDEPENDENT CONTRACTOR ANTI-BIAS DISCLOSURE

1. To the best of your knowledge, do you have any prior relationship(s) with any employee, elected official, or non-elected official of the City of Tallmadge?

<input type="checkbox"/>	Yes
<input type="checkbox"/>	No

2. If you answered yes to question number 1, Please check the appropriate box(es) that describe that relationship(s)

<input type="checkbox"/>	Spouse
<input type="checkbox"/>	Child whether dependent or independent
<input type="checkbox"/>	Parent
<input type="checkbox"/>	Grandparent
<input type="checkbox"/>	Sibling
<input type="checkbox"/>	Aunt/Uncle
<input type="checkbox"/>	In-law
<input type="checkbox"/>	Step-child
<input type="checkbox"/>	Step-parent
<input type="checkbox"/>	Step-grandparent
<input type="checkbox"/>	Step-sibling
<input type="checkbox"/>	Step-aunt/Step-Uncle
<input type="checkbox"/>	Any other person related by blood or marriage and residing in the same household
<input type="checkbox"/>	Prior business relationship or business associate
<input type="checkbox"/>	Friend
<input type="checkbox"/>	Other significant relationship

1. If you answered Other significant relationship in question number 2, please explain below:

2. Please provide below the name(s) of any and all employees of the City of Tallmadge with whom you have any of the above relationships:

I declare (or certify, verify, or state) under penalty of perjury that the foregoing is true and correct.

Print Name

Signature

Date

CITY OF TALLMADGE
CERTIFICATION OF NO PERSONAL INTEREST

Under penalty of perjury, I hereby certify that:

1. I am not a family member of any public official or public servant of the City of Tallmadge, unless otherwise disclosed in writing to all officers and elected officials of the city.

2. I am not a business associate of any public official or public servant of the City of Tallmadge unless otherwise disclosed in writing to all officers and elected officials of the city.

3. No officer, employee or assignee of the undersigned contractor is a family member or a business associate of the City of Tallmadge and has an ownership interest greater than 5% in the contractor's organization.

4. No owner, officer, employee, or agent of contractor's organization gave, offered or promised anything of value, including future benefits, to a public servant or public official of the City of Tallmadge, other than the consideration expressly provided for in the contract.

DATE: _____

CONTRACTOR:

Name of Organization

Signature

Title

OPERS Independent Worker/Contractor Acknowledgment Form Questionnaire

Please answer the questions below to determine if you will be required to complete the attached OPERS Independent Worker/Contractor Acknowledgment Form.

Question 1:

Are you a sole proprietor/independent contractor?

Yes. You are required to complete the attached OPERS Independent Worker/Contractor Acknowledgment Form. If you have less than 5 employees, each employee is also required to complete the form.

No. Please go to Question 2.

Question 2:

Are you a business entity with less than 5 employees?

Yes. You and each of your employees are required to complete the attached OPERS Independent Worker/Contractor Acknowledgment Form.

No. Please sign the statement below.

I have answered the above questions accurately and truthfully. Based on those answers, I will not be completing the OPERS Independent Worker/Contractor Acknowledgment Form .

Signature

Title

Printed Name



INDEPENDENT CONTRACTOR/WORKER ACKNOWLEDGMENT

Ohio Public Employees Retirement System
277 East Town Street, Columbus, Ohio 43215-4642

Employer Outreach: 1-888-400-0965
www.opers.org

This form is to be completed if you are an individual who begins providing personal services to a public employer on or after Jan. 7, 2013 but are not considered by the public employer to be a public employee and will not have contributions made to OPERS. This form must be completed not later than 30 days after you begin providing personal services to the public employer.

STEP 1: Personal Information

Social Security Number

First Name

MI

Last Name

STEP 2: Public Employment Information

Name of Public Employer

Employer Contact

First Name

MI

Last Name

Employer Code

Employer Contact Phone Number

Service Provided to Public Employer

Start Date of Service

Month Day Year

End Date of Service

Month Day Year

STEP 3: Acknowledgment

The public employer identified in Step 2 has identified you as an independent contractor or another classification other than a public employee. Ohio law requires that you acknowledge in writing that you have been informed that the public employer identified in Step 2 has classified you as an independent contractor or another classification other than a public employee for the services described in Step 2 and that you have been advised that contributions to OPERS will not be made on your behalf for these services.

If you disagree with the public employer's classification, you may contact OPERS to request a determination as to whether you are a public employee eligible for OPERS contributions for these services. Ohio law provides that a request for a determination must be made within five years after you begin providing personal services to the public employer, unless you are able to demonstrate through medical records to the Board's satisfaction that at the time the five-year period ended, you were physically or mentally incapacitated and unable to request a determination.

By signing this form, you are acknowledging that the public employer for whom you are providing personal services has informed you that you have been classified as an independent contractor or another classification other than a public employee and that no contributions will be remitted to OPERS for the personal services you provide to the public employer. This acknowledgment will remain valid as long as you continue to provide the same services to the same employer with no break in service regardless of whether the initial contract period is extended by any additional agreement of the parties. You also acknowledge that you understand you have the right to request a determination of your eligibility for OPERS membership if you disagree with the public employer's classification.

This form must be retained by the public employer and a copy sent to OPERS. The public employer's failure to retain this acknowledgment may extend your right to request a determination beyond the five years referenced above.

Signature _____ Today's Date ____/____/____
Do not print or type name

SECTION III: BID SPECIFICATIONS

A. SCOPE OF WORK

1. The city is seeking a qualified contractor to perform earthwork, asphalt paving services, and related work. The scope of work is to provide all supervision, labor, tools, equipment, and services required to perform earthwork and asphalt pavement work as specified herein. Contractor shall furnish all necessary supervision, labor, equipment, tools, and transportation, and other resources for excavation, installation and hauling for all asphalt pavement services.
2. All construction of any project shall be in conformance with City of Tallmadge's Codified Ordinances, City Development Standards and the Ohio Revised Code.
3. The following list of items shall be included in the respective bid item cost with no additional payment to be made:

mobilization	pavement protection	asphalt paving
traffic control	disposal	pavement removal
saw cutting	compaction	resetting castings to grade
excavation	tree planting	lawn restoration

4. The following work shall consist of furnishing all materials, equipment and labor necessary to complete the required items in accordance with the latest edition of the State of Ohio, Department of Transportation, Construction and Material Specifications (ODOT CMS) and the City of Tallmadge Specifications stated herein. The various subsections of the ODOT CMS referenced items shall apply and are hereby considered part of these specifications by reference. All traffic control and maintenance of traffic shall be the responsibility of the contractor. The following sections highlight the general requirements, and are also in addition to, the ODOT CMS.
5. The project shall be fully complete within **60** consecutive days after Notice to Proceed. **The contractor shall notify the Tallmadge inspector at least one hour in advance of any cancellation of work or schedule change.**
6. Inspection - All work performed by the contractor will be subject to inspection by the City of Tallmadge Street and or Service Department and payment will be withheld for any work not complying with the above referenced specs until the deficiencies are corrected. Deficiencies shall be corrected at the sole expense of the contractor.
7. Testing – A minimum of two concrete asphalt samples must be taken for the roadway. One sample must include the intermediate course, and another sample must be on top course. Any road location that exceeds 700 tons must receive additional test(s). On new construction projects, an additional sample of the base course must also be completed. The test must be completed by a certified testing company. Each sample must have the address, date, temperature, and weather conditions of the time of when the

sample was completed. Testing must include a copy of the mix design. The asphalt must meet the requirements of the submitted and approved JMF. Additionally, not less than sixty percent (60%) by weight of crushed gravel shall consist of pieces having two or more faces being freshly fractured.

8. Contractor shall remove all grindings as well as all spoils and debris from the job site unless directed otherwise by the Street Superintendent. Contractor shall handle such material in a manner consistent with all applicable laws and regulations, and shall take care to avoid obstructing roads, sidewalks, and lawns. Contractor shall be responsible for all parts of the work area and the removal of all debris and surplus material, to leave the area in as good a condition as when the work commenced.
9. Lawn and yard restoration shall occur after construction is complete of all disturbed lawn areas, including adjacent cut and fill areas. The contractor shall seed, mulch and fertilize all disturbed areas, using four (4) inches of topsoil. All landscaping shall be repaired according to ODOT CMS. Restored areas shall be repaired and reseeded as often as necessary to produce a close stand of weed free grass.
10. Surface restoration - all areas disturbed by construction operations shall be restored to their original condition as determined by the city or its agent. All streets, walks and other improved surfaces disturbed by construction operations shall be replaced to uniform lines and grades established by the city. Restoration shall follow the construction in a timely fashion to minimize inconvenience to the property owners and the general public.
11. The Contractor shall protect the work until it is accepted by the city. Any part of the completed work that is damaged prior to acceptance by the city shall be replaced at the contractor's expense.

B. EQUIPMENT AND PERSONNEL SPECIFICATION

Equipment, tools, and personnel to be supplied by the contractor include:

1. The contractor will supply the necessary equipment to fulfill the job such as planer, pavers, trucks, dozers etc.
2. It shall be the sole responsibility of the Contractor(s) performing services for this contract to safeguard their own materials, tools and equipment. The City of Tallmadge shall not assume any responsibility for any damaged materials, tools or equipment.
3. Adequate barricades shall be erected and maintained around all areas where equipment and materials are stored and used.

C. SAFETY AND LIABILITY

1. Contractor must contact Ohio Utilities Protection Services to have utilities marked before the start of the project. Call 811
2. Contractor, its agents, successors and assigns shall comply with all rules of the Summit County Health Department and City and all applicable Ohio Department of Health orders and CDC Guidelines.
3. Contractor is responsible to provide a safe workplace and to comply with OSHA and other federal, state or local health and safety regulations.
4. Contractor must follow the Ohio Manual of Uniform Traffic Control Devices (OMUTCD).

http://www.dot.state.oh.us/Divisions/Engineering/Roadway/DesignStandards/traffic/OhioMUTCD/Pages/OMUTCD2012_current_default.aspx

5. Contractor shall attest in writing with the submission of the bid that all equipment utilized during this contract is in good and serviceable condition.
6. Contractor shall assume the entire responsibility and liability for all damages or injuries of any kind or nature whatsoever to all persons, whether its employees or otherwise, and to all property growing out of or resulting from the execution of the work provided for in this contract or occurring in connection therewith. Contractor agrees to defend, indemnify, and hold harmless the City of Tallmadge, its agents, employees, and insurers from and against any and all losses and expenses, including court costs and attorney's fees, damages or injuries growing out of or resulting from or occurring in connection with the execution of the work herein provided for; provide, however, that Contractor will not be held liable for loss of life or injury or damage to person or property due to the sole negligence of the City, its agents, or its employees.
7. If any damage is done to the property of others by Contractor, its employees, or agents during the term of this contract, Contractor will repair and restore at its sole cost any such property and correct any damages inflicted thereto, returning it to as good a condition as the property was in before being damaged, in a manner satisfactory to the owner(s) of the property for the damage suffered.

D. OTHER REQUIREMENTS

1. Contractor shall comply with all federal, state, and local laws and regulations applicable to the performance of its work under this contract including business license requirements of the City of Tallmadge.
2. Contractor shall not pull the crew off-line for work in another locale without first receiving permission from the City Service Director.

E. AWARD PROCESS

1. Contracts will be awarded based on the sum of lowest and best bidder for site construction services.
2. The Board of Control reserves the right to reject any or all bids and to accept the bid(s) deemed most beneficial to the City of Tallmadge. The Board of Control, in determining the lowest and best bidder in the award of contracts to which this section is applicable, is authorized to award contracts to local bidders as hereinafter defined, whose bid is not more than three percent (3%) higher, subject to a maximum amount of ten thousand dollars (\$10,000.00), then the lowest dollar bid submitted by non-local bidders. The Board of Control's decision in making such an award shall be final.
3. Bidders shall use complete sets of Contract Documents in preparing bids. Neither the Owner nor the Design Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Contract Documents.

F. QUESTIONS AND ADDENDA

1. All questions should be submitted in writing at least five (5) business days prior to the bid opening. Answers to questions will be issued in writing as official addenda no later than seventy-two (72) business hours prior to the time of the bid opening. Said addenda will become a component of the invitation to bid and should be acknowledged as received on the proposal page. Failure to acknowledge all official addenda in this manner may result in your bid being disqualified.
2. All questions should be directed to:
Tina Fiocca
City of Tallmadge Service Department
Email: tfiocca@tallmadge-ohio.org
3. Bidders are expected to and responsible for monitoring the Vendor Registry for all official addenda.
4. Oral instructions or decisions, unless confirmed by addenda, will not be considered valid, legal or binding.
12. Please be advised that when you submit a bid to the City of Tallmadge, the City will assume that an authorized representative of your company reviewed said bid to assure that the bid is correct and/or accurate.
6. Any bidder may withdraw a bid, by written request, at any time prior to the time set for the bid opening. This request must be made to Michael Rorar, Director of Public Service at mrorar@tallmadge-ohio.org If there is no withdrawal of the bid, in accordance with this procedure, the City reserves the right to enforce said bid prices(s) and/or contract(s).
7. If a bidder attempts to alter any of the terms and/or conditions of these bid specifications the City of Tallmadge may reject said bid.
8. The party submitting a bid is solely responsible for the delivery of the bid to the specified location prior to the deadline for the receipt of bids. The Receptionist Desk copy machine time stamp is the official time used for the deadline of the submission of bids.

G. Prevailing Wage

1. The successful bidder must comply with all State of Ohio Prevailing Wage Rates.
2. Please describe any allegations of violations of the prevailing wage law and any other state or federal labor law, including, but not limited to, child labor violations, failure to pay wages, or unemployment insurance tax delinquencies or unfair practices within the past five years.
3. This contract is subject to Ohio Prevailing Wage Laws, Chapter 4115 of the Ohio Revised Code and the Contractor and all subcontractors shall comply with all provisions contained therein or as otherwise provided by this note. The Contractor guarantees that the prevailing wage scale to be paid to all laborers and mechanics employed on this contract shall be in accordance with the schedule of the prevailing hourly wage and fringe benefits as determined by the Ohio Department of Commerce for the county in which the work is being performed. The failure to pay prevailing

wages to all laborers and mechanics employed on this project shall be considered a breach of contract. Such a failure may result in the revocation of the contractor's and/or subcontractor's certificate of qualification and debarment. A schedule of the most current prevailing wage rates may be accessed by logging in/registering with the Ohio Department of Commerce, Labor and Worker Safety Division, Wage and Hour Bureau at the following web address:

<http://198.234.41.198/w3/webwh.nsf/wrlogin/?openform>

The Contractor and all subcontractors shall compensate the employees on this contract at a pay rate not less than the hourly wage and fringe rate listed on the website noted above, for the applicable job classification or as may be modified by the Ohio Department of Commerce, Division of Labor and Worker Safety Wage and Hour Bureau, when new prevailing rates are established.

Overtime shall be paid at one and one-half times the basic hourly rate for any hours worked beyond forty hours during a pay week. The Contractor and all subcontractors shall pay all compensation by company check to the worker and fringe benefit program.

4. The wage and fringe rates determined for this project or as may be later modified, shall be posted by the Contractor in a prominent and accessible place on the project, field office, or equipment yard where they can be easily read by the workers or otherwise made available to the workers. On the first pay date of contract work the Contractor and all subcontractors shall furnish each employee covered by prevailing wage a completed form (WHPW-1512) in accordance with section 4115.05 of the Ohio Revised Code, showing the classification, hourly pay rate, and fringes, and identifying the public authority's Prevailing Wage Coordinator, if such employees are not covered by a collective bargaining agreement or understanding between employers and bona fide organizations of labor. These forms shall be signed by the Contractor or subcontractor and the employee and kept in the Contractor's or subcontractor's payroll files.
5. The Contractor and all subcontractors shall submit to the Service Department, certified payrolls on form WHPW-1512 or equivalent, in accordance with sections 4115.07 and 4115.071 (C) of the Ohio Revised Code, three weeks after the start of work and every subsequent week until the completion of the contract. Additionally, a copy of the "Apprentice Certification" obtained from the Ohio State Apprenticeship Council, must accompany all certified payrolls submitted, for all apprentices working on this project. Upon completion of the contract and before the final payment, the Contractor shall submit to the Service Department a final wage affidavit in accordance with section 4115.07 of the Ohio Revised Code stating that wages have been paid in conformance with the minimum rates set forth in the contract. Please be aware that it is ultimately the responsibility of the Contractor to ensure that all laws relating to prevailing wages in Chapter 4115 of the Ohio Revised Code are strictly adhered to by all subcontractors.
13. The Contractor and all subcontractors shall make all of its payroll records available for inspection, copying or transcription by any authorized

representative of the contracting agency. Additionally, the Contractor and all subcontractors shall permit such representatives to interview any employees during working hours while the employee is on the job. Department, and payment will be withheld for any work not complying with the above referenced specs until the deficiencies are corrected. Deficiencies shall be corrected at the sole expense of the contractor.

H. Time of Completion and Liquidated Damages

1. The bidder shall commence work on the project and various elements thereof on or before August 8, 2022, or as modified in a written "Notice to Proceed" from the owner and to fully complete the surface wearing course, including joint sealing and pavement marking portions of the project within **60** consecutive calendar days thereafter. Refer to **SPECIAL NOTES** portion of the bid documents for all items that have specific contract time constraints. The bidder shall also pay as liquidated damages the sum of \$500 for each consecutive calendar day thereafter as hereinafter provided. The contractor shall continue to pay liquidated damages in the amount indicated until such time that all work is substantially complete.

SECTION IV: PROPOSAL AND SIGNATURE PAGE
City of Tallmadge Howe Road Park Entry Bid Proposal 2022

Base Bid Prices are for Informational Purposes Only. Total Unit Prices will govern.

Spec. Item	ITEM No.	DESCRIPTION	ESTIMATED QUANTITY		UNIT PRICE		TOTAL AMOUNT
					(IN FIGURES)	(IN WORDS)	
		LAYOUT AND STAKING	1	L.S.			
		DEMOLITION AND DISPOSAL	2,480	S.Y.			
		EROSION CONTROL	1	L.S.			
		CLEARING AND GRUBBING	1	L.S.			
		EARTHWORK	1	L.S.			
		ASPHALT ENTRY ROAD ASPHALT & AGGREGATE BASE	1,064	S.Y.			
		2" ASPHALT OVERLAY WITH TACK COAT	2,612	SY			
		PAVEMENT MARKINGS	1	L.S.			
		ADA SIGNS AND STOP SIGN	5	EA.			
		LANDSCAPE TREES	8	EA			
		SEEDING	46,500	S.Y.			
		MANHOLE ADJUSTMENT TO NEW SURFACE GRADE	1	EA			
		PARK IDENTIFICATION SIGN	1	EA.			
		MANHOLE RAISING (MR. MANHOLE SYSTEM)	1	EA.			
		MOBILIZATION & GENERAL CONDITIONS	1	L.S.			

TOTAL BID PROPOSAL: \$ _____

Contractor _____

Authorized Signature _____

Section VI: TALLMADGE CODIFIED ORDINANCE

Ordinance 2022-57

Presented by:
Mayor David G. Kline

AUTHORIZING THE DIRECTOR OF PUBLIC SERVICE TO ADVERTISE FOR BIDS AND THE MAYOR TO ENTER INTO A CONTRACT FOR THE HOWE ROAD PARK DRIVE ENTRANCE, GRADING, PARK SIGN, PAVING, AND PAVEMENT MARKINGS AND PROVIDING FOR IMMEDIATE ENACTMENT

WHEREAS, Council deems it in the best interest of the City to keep local parks safe for public use; and

WHEREAS, appropriations for these items have been included in the 2022 Annual Appropriations.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF TALLMADGE, COUNTIES OF SUMMIT AND PORTAGE, STATE OF OHIO:

SECTION 1. That the Mayor, acting through the Director of Public Service, is hereby authorized to advertise for bids and to contract with the lowest and best bidder upon proper approval by the Board of Control; for the Howe Road Park drive entrance, grading, park sign, paving, and pavement markings.

SECTION 2. That such written contract shall be awarded under the provisions of Tallmadge Codified Ordinance Chapter 143, and shall be approved as to form and correctness by the Director of Law and proper certification of funds by the Director of Finance.

SECTION 3. That it is found and determined that all formal actions of this Council concerning and relating to the adoption of this ordinance were adopted in an open meeting of this Council, and that all deliberations of this Council and of any of its committees on or after November 28, 1975 that resulted in such formal action, were in meetings open to the public, in compliance with all legal requirements including Section 121.22 of the Ohio Revised Code.

SECTION 4. That this ordinance is necessary to provide for and to accomplish the purposes herein set forth, which are conducive to the health, safety, and welfare of the citizens of Tallmadge. For that reason, provided this ordinance shall receive the affirmative vote of three-fourths of the members of Council and approval by the Mayor, it shall be enacted immediately and shall be of immediate effect.

Passed: 10-23-22


Susan E. Burton, Clerk of Council

MER/jt
6/17/22

Filed with the Mayor 10-24-22


Dennis K. Loughry, President of Council

Approved:


David G. Kline, Mayor

This 24th day of June, 2022

Committee Assignment: Finance

Readings: 1st 10-23 2d _____ 3d _____

For: 7 Against: 0 Abstain: 0

Note: _____

Section VII: EQUIPMENT LIST

A listing of all the equipment to be used to fulfill the requirements of this contract must be submitted.

Equipment	Quantity	Year/ Age of:

Bidder attests that all equipment utilized during this contract is in good and serviceable condition. A City of Tallmadge Representative will inspect the equipment prior to the signing of the contract.

Authorized Signature

Title

Date

Section VIII: BIDDER REFERENCES

Complete the following information about Municipalities, which have been serviced by the contractor for similar work, within a 30 miles radius of the City of Tallmadge.

Municipality	Address	Contact:	Phone Number

Section IX: EXPERIENCE of MANAGEMENT/ SUPERVISORY PERSONNEL

Employees Name	Years with Company	Years Managed	Number of Employees Managed

Section X: PREVAILING WAGE REQUIREMENTS

OVERVIEW

This project will utilize Ohio Prevailing Wage Rates. All contractors and subcontractors are required to comply with all Prevailing Wage Requirements in the Ohio Revised Code. The documents outlined below are contained in the following pages and will be utilized to comply with these requirements.

DOCUMENTATION REQUIREMENTS

The successful bidder will be required to submit all required documentation and certified payrolls per the requirements stipulated in Ohio Revised Code Chapter 4115 as work progresses to the City of Tallmadge Service Department.

PREVAILING WAGE AFFIDAVIT OF COMPLIANCE

This affidavit must be submitted to the City of Tallmadge Service Department before the surety is released or final payment is made.

PREVAILING WAGE RATES

Attached are the State of Ohio Prevailing Wage Rates as of the posting date of this bid. Actual rates due to workers will be those in affect at the time of work.

Payrolls

The Contractor must submit to the City of Tallmadge Service Department **original, certified, signed payrolls** containing the following information:

- A) Name of each employee
- B) Employees' social security numbers
- C) Specific classification of employees (same as shown on wage determination or provisional approval).
- D) Rate of pay not less than that shown on the wage determination.
- E) Allowable fringe benefits paid to the employee.
- F) Hours worked each day and total hours worked for each week for each employee.
- G) Gross amount paid to each employee.
- H) Itemized deductions for each employee.
- I) Net amount paid to each employee.
- J) The following certification:
"I certify that the payroll is correct and complete, that the wage rates contained therein are not less than the applicable rates contained in the Wage Determination decision of the Department of Industrial Relations, Prevailing Wage Rate Division, State of Ohio, and that the classifications set forth for each laborer or mechanic conform with the work he performs."

Prevailing Wage Affidavit of Compliance

I _____, _____,
(Name of person signing affidavit) (Title)

Do hereby certify that the wages paid to all employees of _____
(Company Name)

for all hours worked on the _____
(Project and Location)

project, during the period from _____ to _____
(Project Dates)

are in compliance with State prevailing wage requirements.

I further certify that no rebates or deductions have been or will be made, directly or indirectly, from any wages paid in connection with this project, other than those provided by law.

(Signature of Officer or Agent)

Sworn to and subscribed in my presence this _____ day of _____, 20____.

(Notary Public)

The above affidavit must be executed and sworn to by the officer or agent of the Contractor or Subcontractor who supervises the payment of employees. This affidavit must be submitted to the owner (public authority) before the surety is released or final payment due under the terms of the contract is made.

TECHNICAL SPECIFICATIONS
TABLE OF CONTENTS

DIVISION 31 - EARTHWORK

311000	SITE CLEARING
312000	EARTH MOVING
312319	DEWATERING
312500	EROSION AND SEDIMENT CONTROL

DIVISION 32 - EXTERIOR IMPROVEMENTS

321216	ASPHALT PAVING
321723	PAVEMENT MARKINGS
329200	TURF AND GRASSES

SECTION 311000 - SITE CLEARING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Protecting existing vegetation to remain.
2. Grubbing.
3. Stripping and stockpiling topsoil.
4. Removing above- and below-grade site improvements.
5. Disconnecting, capping or sealing site utilities.
6. Temporary erosion- and sedimentation-control measures.

1.2 MATERIAL OWNERSHIP

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

1.3 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. Utility Locator Service: Notify utility locator service for area where Project is located before site clearing.
- C. Do not commence site clearing operations until temporary erosion- and sedimentation-control and plant-protection measures are in place.
- D. The following practices are prohibited within protection zones:
1. Storage of construction materials, debris, or excavated material.
 2. Parking vehicles or equipment.
 3. Foot traffic.
 4. Erection of sheds or structures.
 5. Impoundment of water.
 6. Excavation or other digging unless otherwise indicated.
 7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Satisfactory Soil Material: Requirements for satisfactory soil material are specified in Section 312000 "Earth Moving."
 - 1. Obtain approved borrow soil material from off-site sources.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect and maintain benchmarks and survey control points from disturbance during construction.
- B. Locate and clearly identify trees, shrubs, and other 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 erosion- and sedimentation-control Drawings and requirements of authorities having jurisdiction.
- B. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.
- C. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent vegetation has been established.
- D. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.3 TREE AND PLANT PROTECTION

- A. General: Protect trees and plants remaining on-site.
- B. Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations, in a manner approved by Architect.

3.4 EXISTING UTILITIES

- A. Locate, identify, disconnect, and seal or cap utilities indicated to be removed or abandoned in place.
 - 1. Arrange with utility companies to shut off indicated utilities.

3.5 CLEARING AND GRUBBING

- A. Remove obstructions and other vegetation to permit installation of new construction.
 - 1. Grind down stumps and remove roots, obstructions, and debris to a depth of 18 inches below exposed subgrade.
 - 2. Use only hand methods for grubbing within protection zones.
- 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.
- C. Remove all cleared and grubbed materials from the site and dispose of legally.

3.6 TOPSOIL STRIPPING

- A. Remove sod and grass before stripping topsoil.
- B. Strip topsoil to the underlying subsoil in a manner to prevent intermingling
- C. Stockpile topsoil away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water.

3.7 SITE IMPROVEMENTS

- A. Remove existing above- and below-grade improvements as indicated and necessary to facilitate new construction.

3.8 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.

END OF SECTION 311000

SECTION 312000 - EARTH MOVING

PART 1 - GENERAL

1.1 GEOTECHNICAL REPORT.

- A. A geotechnical report is not provided for this project.

1.2 SUMMARY

- A. Section Includes:

1. Preparing subgrades for pavements, turf and grasses and plants.
2. Excavating and backfilling for buildings and structures.
3. Drainage course for concrete slabs-on-grade.
4. Subbase course for concrete pavements.
5. Subbase course and base course for asphalt paving.
6. Excavating and backfilling for utility trenches.

1.3 DEFINITIONS

- A. Backfill: Soil material used to fill an excavation.

1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
2. Final Backfill: Backfill placed over initial backfill to fill a trench.

- B. Base Course: Aggregate layer placed between the subbase course and hot-mix asphalt paving.

- C. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.

- D. Borrow Soil: Satisfactory soil borrowed from on and off--site locations for use as fill or backfill. Contractor to coordinate operations with Owners representative.

- E. Drainage Course: Aggregate layer supporting the slab-on-grade that also minimizes upward capillary flow of pore water.

- F. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.

1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Architect. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.

2. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Architect. Unauthorized excavation, as well as remedial work directed by Architect, shall be without additional compensation.
- G. Fill: Soil materials used to raise existing grades.
- H. 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.
- I. Subbase Course: Aggregate layer placed between the subgrade and base course for hot-mix asphalt pavement, or aggregate layer placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.
- J. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.
- K. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.4 PROJECT CONDITIONS

- A. Utility Locator Service: Notify utility locator service for area where Project is located before beginning earth moving operations.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.
- B. Satisfactory Soils: Soil Classification Groups GW, GP, GM, SW, SP, and SM according to ASTM D 2487, or a combination of these groups; free of rock or gravel larger than 2" in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
- C. Unsatisfactory Soils: Soil Classification Groups GC, SC, ML, OL, CH, MH, OH, and PT according to ASTM D 2487, or a combination of these groups.
 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.
- D. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.
- E. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 95 percent passing a 1-1/2-inch sieve and not more than 8 percent passing a No. 200 sieve.

- F. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.
- G. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; except with 100 percent passing a 1-inch sieve and not more than 8 percent passing a No. 200 sieve.
- H. Drainage Course: Narrowly graded mixture of crushed stone, or crushed or uncrushed gravel; ASTM D 448; coarse-aggregate grading Size 57; with 100 percent passing a 1-1/2-inch sieve and 0 to 5 percent passing a No. 8 sieve.

2.2 ACCESSORIES

- A. Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility; colored to comply with local practice or requirements of authorities having jurisdiction.
- B. Detectable Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches deep; colored to comply with local practice or requirements of authorities having jurisdiction.

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 earth moving operations.
- B. Protect and maintain erosion and sedimentation controls during earth moving operations.
- C. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.

3.2 EXCAVATION, GENERAL

- A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.
 - 1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.

3.3 EXCAVATION FOR STRUCTURES

- A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch. If applicable, 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.
- B. Excavations at Edges of Tree- and Plant-Protection Zones:
 - 1. Excavate by hand to indicated lines, cross sections, elevations, and subgrades. Use narrow-tine spading forks to comb soil and expose roots. Do not break, tear, or chop exposed roots. Do not use mechanical equipment that rips, tears, or pulls roots.
 - 2. Cut and protect roots according to requirements in Division 01 Section "Temporary Tree and Plant Protection."

3.4 EXCAVATION FOR WALKS AND PAVEMENTS

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

3.5 EXCAVATION FOR UTILITY TRENCHES

- A. Excavate trenches to indicated gradients, lines, depths, and elevations.
- B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit unless otherwise indicated.
 - 1. Clearance: As indicated in drawings.
- C. Trench Bottoms: Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.
 - 1. Excavate trenches 6 inches deeper than elevation required in rock or other unyielding bearing material, 4 inches deeper elsewhere, to allow for bedding course.
- D. Trenches in Tree- and Plant-Protection Zones:
 - 1. Hand-excavate to indicated lines, cross sections, elevations, and subgrades. Use narrow-tine spading forks to comb soil and expose roots. Do not break, tear, or chop exposed roots. Do not use mechanical equipment that rips, tears, or pulls roots.
 - 2. Do not cut main lateral roots or taproots; cut only smaller roots that interfere with installation of utilities.

3.6 SUBGRADE INSPECTION

- A. Proof-roll subgrade below the building slabs and pavements with a pneumatic-tired dump truck to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
- B. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Architect, without additional compensation.

3.7 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, with 28-day compressive strength of 2500 psi, may be used when approved by Architect.
 - 1. Fill unauthorized excavations under other construction, pipe, or conduit as directed by Architect.

3.8 STORAGE OF SOIL MATERIALS

- A. Stockpile borrow soil materials and excavated satisfactory 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.

3.9 UTILITY TRENCH BACKFILL

- A. Place backfill on subgrades free of mud, frost, snow, or ice.
- B. 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.
- C. Trenches under Footings: Backfill trenches excavated under footings and within 18 inches of bottom of footings with satisfactory soil; fill with concrete to elevation of bottom of footings.
- D. Trenches under Roadways: Provide 4-inch- thick, concrete-base slab support for piping or conduit less than 30 inches below surface of roadways. After installing and testing, completely encase piping or conduit in a minimum of 4 inches of concrete before backfilling or placing roadway subbase course.
- E. Place and compact initial backfill free of particles larger than 1 inch in any dimension, to a height of 12 inches over the pipe or conduit.
 - 1. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.

- F. Place and compact final backfill of satisfactory soil to final subgrade elevation.
- G. Install warning tape directly above utilities, 12 inches below finished grade, except 6 inches below subgrade under pavements and slabs.

3.10 SOIL FILL

- A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.
- B. 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 satisfactory soil material.
 - 3. Under steps and ramps, use engineered fill.
 - 4. Under building slabs, use engineered fill.
 - 5. Under footings and foundations, use engineered fill.

3.11 SOIL MOISTURE CONTROL

- A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.
 - 1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
 - 2. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.12 COMPACTION OF SOIL BACKFILLS AND FILLS

- A. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill soil materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.
- C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 698 or ASTM D 1557:
 - 1. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill soil material at 100 percent.
 - 2. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 98 percent.
 - 3. Under turf or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 95 percent.
 - 4. For utility trenches, compact each layer of initial and final backfill soil material at 90 percent.

3.13 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
- B. Site Rough Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
 - 1. Turf or Unpaved Areas: Plus or minus 1 inch.
 - 2. Walks: Plus or minus 1 inch.
 - 3. Pavements: Plus or minus 1/2 inch.
- C. Grading inside Building Lines: Finish subgrade to a tolerance of 1/2 inch when tested with a 10-foot straightedge.

3.14 SUBBASE AND BASE COURSES UNDER PAVEMENTS AND WALKS

- A. Place subbase course and base course on subgrades free of mud, frost, snow, or ice.
- B. On prepared subgrade, place subbase course and base course under pavements and walks as follows:
 - 1. Shape subbase course and base course to required crown elevations and cross-slope grades.
 - 2. Place subbase course and base course that exceeds 4 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 4 inches thick or less than 3 inches thick.
 - 3. Compact subbase course and base course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 98 percent of maximum dry unit weight according to ASTM D 698 or ASTM D 1557.

3.15 DRAINAGE COURSE UNDER CONCRETE SLABS-ON-GRADE

- A. Place drainage course on subgrades free of mud, frost, snow, or ice.
- B. On prepared subgrade, place and compact drainage course under cast-in-place concrete slabs-on-grade as follows:
 - 1. Place drainage course that exceeds 6 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches thick or less than 3 inches thick.
 - 2. Compact each layer of drainage course to required cross sections and thicknesses to not less than 98 percent of maximum dry unit weight according to ASTM D 698.

3.16 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified geotechnical engineering testing agency to perform tests and inspections.

- B. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earth moving only after test results for previously completed work comply with requirements.
- C. Footing Subgrade: At footing subgrades, at least one test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by Architect.
- D. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil materials to depth required; recompact and retest until specified compaction is obtained.

3.17 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 become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.18 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property.

END OF SECTION 312000

SECTION 312319 - DEWATERING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes construction dewatering.

1.2 PERFORMANCE REQUIREMENTS

- A. Dewatering Performance: Design, furnish, install, test, operate, monitor, and maintain dewatering system of sufficient scope, size, and capacity to control hydrostatic pressures and to lower, control, remove, and dispose of ground water and permit excavation and construction to proceed on dry, stable subgrades.

1.3 ACTION SUBMITTALS

- A. Shop Drawings: For dewatering system. Show arrangement, locations, and details of wells and well points; locations of risers, headers, filters, pumps, power units, discharge lines, piezometers, and flow-measuring devices; and means of discharge, control of sediment, and disposal of water.
- B. Delegated-Design Submittal: For dewatering system indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.4 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning dewatering. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Preinstallation Conference: Conduct conference at Project site.

1.5 PROJECT CONDITIONS

- A. Survey Work: Engage a qualified land surveyor or professional engineer to survey adjacent existing buildings, structures, and site improvements, establishing exact elevations at fixed points to act as benchmarks. Clearly identify benchmarks and record existing elevations.
 - 1. During dewatering, regularly resurvey benchmarks, maintaining an accurate log of surveyed elevations for comparison with original elevations. Promptly notify Architect if changes in elevations occur or if cracks, sags, or other damage is evident in adjacent construction.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Provide temporary grading to facilitate dewatering and control of surface water.
- B. Monitor dewatering systems continuously.
- C. Protect and maintain temporary erosion and sedimentation controls, which are specified during dewatering operations.
- D. Install dewatering system utilizing wells, well points, or similar methods complete with pump equipment, standby power and pumps, filter material gradation, valves, appurtenances, water disposal, and surface-water controls.
 - 1. Space well points or wells at intervals required to provide sufficient dewatering.
 - 2. Use filters or other means to prevent pumping of fine sands or silts from the subsurface.
- E. Before excavating below ground-water level, place system into operation to lower water to specified levels. Operate system continuously until drains, sewers, and structures have been constructed and fill materials have been placed or until dewatering is no longer required.
- F. Provide an adequate system to lower and control ground water to permit excavation, construction of structures, and placement of fill materials on dry subgrades. Install sufficient dewatering equipment to drain water-bearing strata above and below bottom of foundations, drains, sewers, and other excavations.
 - 1. Do not permit open-sump pumping that leads to loss of fines, soil piping, subgrade softening, and slope instability.
- G. Reduce hydrostatic head in water-bearing strata below subgrade elevations of foundations, drains, sewers, and other excavations.
 - 1. Maintain piezometric water level a minimum of 24 inches below surface of excavation.
- H. Provide standby equipment on site, installed and available for immediate operation, to maintain dewatering on continuous basis if any part of system becomes inadequate or fails. If dewatering requirements are not satisfied due to inadequacy or failure of dewatering system, restore damaged structures and foundation soils at no additional expense to Owner.
 - 1. Remove dewatering system from Project site on completion of dewatering. Plug or fill well holes with sand or cut off and cap wells a minimum of 36 inches below overlying construction.

END OF SECTION 312319

SECTION 312500 – EROSION AND SEDIMENTATION CONTROL (INCLUDES SWPPP)

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. Temporary erosion and sedimentation control measures.
 - 2. Storm Water Pollution Prevention Plan (SWPPP or SWP3)

1.2 QUALITY ASSURANCE

- A. Preinstallation Conference: Conduct conference at Project site as specified by the SWPPP with applicable subcontractors, the civil engineer of record, the Owner's Representative, and any applicable governing officials.

1.3 PROJECT CONDITIONS

- A. Review and certify the SWPPP prior to beginning onsite work.
- B. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied facilities when installing erosion controls. Coordinate all measures with applicable government authorities having jurisdiction over the connecting, adjacent, or surrounding roadways.
- C. Utility Locator Service: Notify utility locator service for area where Project is located before installing erosion or sediment control measures.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Seed, sod, and or ground covers as indicated on the Drawings.
- B. Erosion/Sediment control devices or Best Management Practices as indicated on the Drawings and in the SWPPP.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Review the Storm Water Pollution Prevention Plan attached to this section and all applicable Drawings, checklist, logs, etc.

3.2 IMPLEMENTATION AND DOCUMENTATION

- A. Inspect, repair, and maintain erosion and sedimentation control measures, per the SWPPP, during construction until permanent vegetation has been established.

- B. Execute required site inspection checklists, documents, and site logs in the SWPPP.
- C. Update, maintain, alter, or add temporary erosion and sediment controls in conjunction with the SWPPP and ongoing earthwork activities as required for the Project.
- D. Maintain an up-to-date Site Plan in the field office. Continually update the Site Plan with notations that coordinate with the site checklists and logs per the SWPPP.
- E. The Owner's Representative has the right and authority to limit earth-moving activities and to direct the Contractor to immediately provide permanent or temporary pollution control measures.
- F. Install permanent erosion measures such as pavement and lawn areas as soon as practically possible to minimize temporary pollution control measures.
- G. Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal.

3.3 CLOSEOUT DOCUMENTS

- A. Before retainage can be released, the Contractor must provide the Owner with a final copy of all documents making up the SWPPP including plans, checklists, and logs.
 - 1. Retain a copy of the above documentation for a minimum of three years from final acceptance.

END OF SECTION 312500

SECTION 321216 - ASPHALT PAVING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Cold milling of existing hot-mix asphalt pavement.
2. Hot-mix asphalt patching.
3. Hot-mix asphalt paving.
4. Hot-mix asphalt paving overlay.

B. Related Sections:

1. Division 31 Section "Earth Moving" for aggregate subbase and base courses and for aggregate pavement shoulders.
2. Division 32 Section "Concrete Paving Joint Sealants" for joint sealants and fillers at paving terminations.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product indicated. Include technical data and tested physical and performance properties.

1. Job-Mix Designs: Certification, by authorities having jurisdiction, of approval of each job mix proposed for the Work.
2. Job-Mix Designs: For each job mix proposed for the Work.

1.3 INFORMATIONAL SUBMITTALS

A. Material Certificates: For each paving material, from manufacturer.

1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications: A paving-mix manufacturer registered with and approved by authorities having jurisdiction or the DOT of state in which Project is located.

1.5 PROJECT CONDITIONS

A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:

1. Tack Coat: Minimum surface temperature of 60 deg F.

2. Asphalt Base Course: Minimum surface temperature of 40 deg F and rising at time of placement.
3. Asphalt Surface Course: Minimum surface temperature of 60 deg F at time of placement.

PART 2 - PRODUCTS

2.1 AGGREGATES

- A. Coarse Aggregate: ASTM D 692, sound; angular crushed stone, crushed gravel, or cured, crushed blast-furnace slag.
- B. Fine Aggregate: ASTM D 1073, sharp-edged natural sand or sand prepared from stone, gravel, cured blast-furnace slag, or combinations thereof.
- C. Mineral Filler: ASTM D 242, rock or slag dust, hydraulic cement, or other inert material.

2.2 ASPHALT MATERIALS

- A. Asphalt Binder: AASHTO M 320 or AASHTO MP 1a, PG 64-22.
- B. Tack Coat: ASTM D 977 emulsified asphalt, or ASTM D 2397 cationic emulsified asphalt, slow setting, diluted in water, of suitable grade and consistency for application.

2.3 AUXILIARY MATERIALS

- A. Herbicide: Commercial chemical for weed control, registered by the EPA. Provide in granular, liquid, or wettable powder form.

2.4 MIXES

- A. Hot-Mix Asphalt: Dense, hot-laid, hot-mix asphalt plant mixes approved by authorities having jurisdiction; designed according to procedures in AI MS-2, "Mix Design Methods for Asphalt Concrete and Other Hot-Mix Types"; and complying with the following requirements:
 1. Provide mixes with a history of satisfactory performance in geographical area where Project is located.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Proof-roll subgrade below pavements with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.
- B. Proceed with paving only after unsatisfactory conditions have been corrected.

3.2 PATCHING

- A. Hot-Mix Asphalt Pavement: Saw cut perimeter of patch and excavate existing pavement section to sound base. Excavate rectangular or trapezoidal patches, extending 12 inches into adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Remove excavated material. Recompact existing unbound-aggregate base course to form new subgrade.
- B. Portland Cement Concrete Pavement: Break cracked slabs and roll as required to reseal concrete pieces firmly.
 - 1. Remove disintegrated or badly cracked pavement. Excavate rectangular or trapezoidal patches, extending into adjacent sound pavement, unless otherwise indicated. Cut excavation faces vertically. Recompact existing unbound-aggregate base course to form new subgrade.
- C. Tack Coat: Apply uniformly to vertical surfaces abutting or projecting into new, hot-mix asphalt paving at a rate of 0.05 to 0.15 gal./sq. yd..
 - 1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
 - 2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.
- D. Patching: Fill excavated pavements with hot-mix asphalt base mix for full thickness of patch and, while still hot, compact flush with adjacent surface.

3.3 SURFACE PREPARATION

- A. General: Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive paving.
- B. Herbicide Treatment: Apply herbicide according to manufacturer's recommended rates and written application instructions. Apply to dry, prepared subgrade or surface of compacted-aggregate base before applying paving materials.
- C. Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15 gal./sq. yd..
 - 1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
 - 2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

3.4 HOT-MIX ASPHALT 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. Spread mix at minimum temperature of 290 deg F.
 - 2. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.

- 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. Use suitable hand tools to remove excess material forming high spots. 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. Offset longitudinal joints, in successive courses, a minimum of 6 inches.
 - 3. Offset transverse joints, in successive courses, a minimum of 24 inches.
 - 4. Construct transverse joints at each point where paver ends a day's work and resumes work at a subsequent time. Construct these joints using either "bulkhead" or "papered" method according to AI MS-22, for both "Ending a Lane" and "Resumption of Paving Operations."

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 with 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. Correct laydown and rolling operations to comply with requirements.
- 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: 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. Pavement 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.
- B. Pavement 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.

3.8 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- B. Replace and compact hot-mix asphalt where core tests were taken.
- C. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

3.9 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.

END OF SECTION 321216

SECTION 321723 - PAVEMENT MARKINGS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes painted markings applied to asphalt pavement.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
- B. Basis-of-Design Product: Subject to compliance with requirements, provide one of the following:
 1. Aexcel Inc.
 2. Benjamin Moore & Co.
 3. Color Wheel Paints & Coatings.
 4. Columbia Paint & Coatings.
 5. Conco Paints.
 6. Coronado Paint; Division of INSL-X Products Corporation.
 7. Diamond Vogel Paints.
 8. Dunn-Edwards Corporation.
 9. Ennis Traffic Safety Solutions, Inc.
 10. Frazee Paint.
 11. General Paint.
 12. Kwal Paint.
 13. M.A.B. Paints.
 14. McCormick Paints.
 15. Miller Paint.
 16. Parker Paint Mfg. Co. Inc.
 17. PPG Industries.
 18. Pratt & Lambert.
 19. Rodda Paint Co.
 20. Rohm and Haas Company; a subsidiary of The Dow Chemical Company.
 21. Scott Paint Company.
 22. Sherwin-Williams Company (The).

2.2 PAVEMENT-MARKING PAINT

- A. Pavement-Marking Paint: MPI #32, alkyd traffic-marking paint.
 - 1. Color: White.
- B. Pavement-Marking Paint: MPI #97, latex traffic-marking paint.
 - 1. Color: White.

PART 3 - EXECUTION

3.1 PAVEMENT MARKING

- A. Do not apply pavement-marking paint until layout, colors, and placement have been verified with Architect.
- B. Allow paving to age for a minimum of 30 days 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. Apply graphic symbols and lettering with paint-resistant, die-cut stencils. Apply paint so that it cannot run beneath the stencil.
 - 2. Broadcast glass beads uniformly into wet markings at a rate of 6 lb/gal.

END OF SECTION 321723

SECTION 329200 - SEEDING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Seeding.

1.2 DEFINITIONS

- A. Duff Layer: The surface layer of native topsoil that is composed of mostly decayed leaves, twigs, and detritus.
- B. Finish Grade: Elevation of finished surface of planting soil.
- C. Manufactured Topsoil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- D. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. This includes insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. It also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
- E. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. These include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
- F. Planting Soil: Standardized topsoil; existing, native surface topsoil; existing, in-place surface soil; imported topsoil; or manufactured topsoil that is modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.
- G. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or top surface of a fill or backfill before planting soil is placed.
- H. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.
- I. Surface Soil: Whatever soil is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil, but in disturbed areas such as urban environments, the surface soil can be subsoil.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.

1.4 INFORMATIONAL SUBMITTALS

- A. Certification of grass seed.
 - 1. Certification of seed mixture.
- B. Product certificates.

1.5 QUALITY ASSURANCE

- A. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
 - 1. Pesticide Applicator: State licensed, commercial.
- B. Soil Analysis: For each unamended soil type, furnish soil analysis and a written report by a qualified soil-testing laboratory.
 - 1. The soil-testing laboratory shall oversee soil sampling.
 - 2. Report suitability of tested soil for turf growth.
 - a. State recommendations for nitrogen, phosphorus, and potash nutrients and soil amendments to be added to produce satisfactory planting soil suitable for healthy, viable plants.
 - b. Report presence of problem salts, minerals, or heavy metals; if present, provide additional recommendations for corrective action.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Seed and Other Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws, as applicable.
- B. Sod: Harvest, deliver, store, and handle sod according to requirements in "Specifications for Turfgrass Sod Materials" and "Specifications for Turfgrass Sod Transplanting and Installation" in TPI's "Guideline Specifications to Turfgrass Sodding." Deliver sod in time for planting within 24 hours of harvesting. Protect sod from breakage and drying.

1.7 MAINTENANCE SERVICE

- A. Initial Turf Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in Part 3. Begin maintenance immediately after each area is planted and continue until acceptable turf is established but for not less than the following periods:
 - 1. Seeded Turf: 60 days from date of planting completion.
 - a. When initial maintenance period has not elapsed before end of planting season, or if turf is not fully established, continue maintenance during next planting season.

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. Grass Seed Mix: Proprietary seed mix as follows:
 - 1. All disturbed areas shall be seeded with the following 80-10-1-0 blend.: :
 - a. 40% Grande II Turf Type Tall Fescue
 - b. 20% Falcon IV Turf Type Fescue
 - c. 20% Cochise III Turf Type Tall Fescue
 - d. 10% Award Kentucky Bluegrass
 - e. 10% Pizzazz Perennial Ryegrass
 - 2. Sow seed at the rate of 10 pounds per 1,000 square feet.
 - 3. Contractor shall verify in written communication to the Owner the exact amount of seed sowed.

2.2 FERTILIZERS

- A. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:
 - 1. Composition: Triple 19 - 5 lb/1000 sq. ft. of 19 percent nitrogen, 19 percent phosphorous, and 19 percent potassium, by weight.

2.3 PLANTING SOILS

- A. Planting Soil: ASTM D 5268 topsoil with a minimum of 2 percent organic material content. Existing, native surface topsoil formed under natural conditions with the duff layer retained during excavation process. Existing, in-place surface soil. Verify suitability of soil to produce viable planting soil. Clean soil of roots, plants, sod, stones, clods, clay lumps, pockets of coarse sand, concrete slurry, concrete layers or chunks, cement, plaster, building debris, and other extraneous materials harmful to plant growth.

2.4 MULCHES

- A. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshed straw of wheat, rye, oats, or barley.
- B. Sphagnum Peat Mulch: Partially decomposed sphagnum peat moss, finely divided or of granular texture, and with a pH range of 3.4 to 4.8.

- C. Compost Mulch: 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-inch sieve; soluble salt content of 2 to 5 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings.

2.5 PESTICIDES

- A. General: Pesticide, registered and approved by EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.

PART 3 - EXECUTION

3.1 TURF AREA PREPARATION

- A. 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. Reduce elevation of planting soil to allow for soil thickness of sod.
 - 2. Apply fertilizer directly to subgrade before loosening.
 - 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.
- B. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Grade to within plus or minus 1/2 inch of finish elevation. Roll and rake, remove ridges, and fill depressions to meet finish grades. Limit finish grading to areas that can be planted in the immediate future.
- C. Moisten prepared area before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.
- D. Before planting, obtain Architect's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

3.2 SEEDING

- A. 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. Do not seed against existing trees. Limit extent of seed to outside edge of planting saucer.
- B. Sow seed at a total rate of 7 lb/1000 sq. ft..
- C. Rake seed lightly into top 1/8 inch of soil, roll lightly, and water with fine spray.

- D. 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 thickness over seeded areas. Spread by hand, blower, or other suitable equipment.
 - 1. Anchor straw mulch by crimping into soil with suitable mechanical equipment.
- E. Protect seeded areas from hot, dry weather or drying winds by applying compost mulch within 24 hours after completing seeding operations. Soak areas, scatter mulch uniformly to a thickness of 3/16 inch, and roll surface smooth.

3.3 TURF MAINTENANCE

- A. Maintain and establish turf by watering, fertilizing, weeding, mowing, trimming, replanting, and performing other operations as required to establish healthy, viable turf. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth turf. Provide materials and installation the same as those used in the original installation.
- B. Mow turf as soon as top growth is tall enough to cut. Repeat mowing to maintain height appropriate for species without cutting more than 1/3 of grass height. Remove no more than 1/3 of grass-leaf growth in initial or subsequent mowings.
- C. Apply pesticides and other chemical products and biological control agents in accordance with authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.

3.4 SATISFACTORY TURF

- A. Turf installations shall meet the following criteria as determined by Architect:
 - 1. Satisfactory Seeded Turf: 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. and bare spots not exceeding 5 by 5 inches.
 - 2. Satisfactory Sodded Turf: At end of maintenance period, a healthy, well-rooted, even-colored, viable turf has been established, free of weeds, open joints, bare areas, and surface irregularities.
- B. Use specified materials to reestablish turf that does not comply with requirements and continue maintenance until turf is satisfactory.

END OF SECTION 329200