Illinois Department of Transportation
2300 South Dirksen Parkway / Springfield, Illinois / 62764

June 5, 2024

SUBJECT FAP Route 345 (US 20)
Project NHPP-ZWEL(759)
Section FAP 345 23 Bridge
Kane and Cook Counties
Contract No. 62U83
Item No. 229, June 14, 2024 Letting
Addendum A

NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

1. Revised the Schedule of Prices
2. Revised the Table of Contents to the Special Provisions
3. Revised pages 11, 12, 38, 39, 221, & 231 of the Special Provisions
4. Added pages 312-348 to the Special Provisions
5. Revised sheets 3-6, 11, 13, 18, 19, 21-24, 32-34, 36-39, 42-67, 77, 78, 104-111, 113, 258-260, 267-270, 279 & 280 of the Plans

Prime contractors must utilize the enclosed material when preparing their bid and must include any changes to the Schedule of Prices in their bid.

Very truly yours,

Jack A. Elston, P.E.
Bureau Chief, Design and Environment

MTS

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Compaction. Soils classification for moisture content control will be determined by the Soils Inspector using visual field examination techniques and the IDH Textural Classification Chart.

When tested for density in place each lift shall have a maximum moisture content as follows.

a) A maximum of 110 percent of the optimum moisture for all forms of clay soils.

b) A maximum of 105 percent of the optimum moisture for all forms of clay loam soils.

Stability. The requirement for embankment stability in Article 205.04 will be measured with a Dynamic Cone Penetrometer (DCP) according to the test method in the IDOT Geotechnical Manual. The penetration rate must be equal or less than 1.5 inches (38 mm) per blow.

Basis of Payment. This work will not be paid separately but will be considered as included in the various items of excavation.

HOT-MIX ASPHALT FOR PATCHING POTHOLES (HOT MIX)

Description. This work shall include all labor, equipment, and material needed for the partial removal of the existing surface pavement and replacement with hot mix asphalt in areas as directed by the Engineer prior to establishing traffic staging.

The contractor shall use applicable portions of Sections 406 and 442 of the Standard Specifications, and other applicable HMA special provisions as contained herein. The HMA mixtures to be used shall be specified in the plans. Area designated for patching shall be scored with a concrete saw no more than three days prior to patching. The depth of the removal/placement will be 2” unless directed otherwise by the contractor.

Articles 406.11 of the Standard Specifications shall not apply.

Method of Measurement. Hot-mix asphalt for patching potholes will be measured in place and the area computed in tons.

Basis of Payment. This work will be paid for at the contract unit price per ton for HOT-MIX ASPHALT FOR PATCHING POTHOLES (HOT MIX).

Revised 6/5/2024

STORM SEWERS TO BE CLEANED

Description: This work shall consist of providing all labor, equipment, material and supplies and performing all operations required to clean storm sewers, pipe culverts, and drainage structures, including 12", 15", 18" and 24" diameter pipes as designated on the plans and as directed by the engineer in preparation for televised inspection. Cleaning storm sewers is defined as the removal of all foreign materials from the pipe system so as to restore the hydraulic capacity to within ninety-five percent of the theoretical carrying capacity. Generally, this performance will be considered to be achieved when all loose debris, deposits, and all vegetation roots exceeding four (4) inches in length have been removed.

Materials: Cleaning of all drainage structures, sewers, culverts, and end sections shall be performed by water jet method, or other methods as approved by the Engineer.

Construction Requirements: Cleaning sewers involves the removal of all sludge, dirt, sand, rocks, grease, light root growth, and other solid and semi-solid materials with such hydraulic or mechanically powered equipment as balls, scooters, brushes, cutters, and water pressure jetting equipment. Sewer cleaning is classified as either standard grade or heavy grade. The use of standard grade cleaning is expected to be applied to all sewer lengths identified under this project. Standard cleaning shall be three (3) passes or less with the cleaning equipment. One pass is considered cleaning from the starting manhole to the finishing manhole and back to the original starting position, including cleaning of drainage structures. However, in those areas where excessive sediment and debris deposits or extensive root growth is found, which cannot be satisfactorily cleaned by standard grade cleaning methods, then heavy grade cleaning will be applied to the extent authorized by the Engineer. The Engineer must be consulted, and work authorized prior to initiating any heavy grade cleaning operations.

If cleaning of an entire section of sewer cannot be successfully performed from one manhole set-up position, then the equipment shall be reset on the next adjacent manhole and the cleaning again attempted. If the sewer section cannot be satisfactorily cleaned, or the equipment again fails to traverse the problem section, it will be assumed that a major blockage exists. In this instance the cleaning shall be suspended for the identified problem section until other measures can be arranged.

If during the televised inspection of the sewer, portions of the pipe section are found not to have been satisfactorily cleaned, then said portions shall be re-cleaned to the satisfaction of the Engineer at no additional cost to the Department.

The Contractor shall, during cleaning operations, take precautions so as to not damage the manhole structures or pipe sections. Damaged portions of the sewer system, if determined by the Engineer to be the result of careless operations, shall be repaired at no additional cost to the Department. All identified unstable or unsound parts of the sewer system shall be documented and brought to the attention of the Engineer.

Revised 6/5/2024

The cleaning equipment to be used in this operation shall be based upon the specific conditions identified. The equipment shall be capable of removing dirt, sand, grease, rocks, bricks, tree roots, and other deleterious materials and obstructions commonly found in sewer pipelines. The equipment shall be capable of cleaning in one section, up to 1,200 lineal feet of sewer from a single access point.

The equipment shall be able to pull brushes, swabs, and other implements and shall also have a distance meter so that the location of the cleaning tools can be always determined.

The Contractor shall remove and dispose of all waste material extracted during the sewer cleaning operation in a proper waste disposal facility according to Article 202.03 of the Standard Specifications. The material developed during the cleaning operation shall be removed at the next downstream manhole. Passing material over extended distances, from manhole section to manhole section, which would cause service line blockages or otherwise deter the operation of the sewer system will not be permitted. The Contractor shall note the approximate volume and type of materials removed from each cleaned section.

The Contractor shall take extraordinary care to avoid discharges of sediments into USACE jurisdictional wetlands or waters. For cleaning of storm sewers or culverts that discharge into a USACE regulated wetland or waters, vacuuming of the sediments within those pipes shall be required in order to avoid discharge of sediments into the regulated body. Discharge of any sediments or debris into the USACE regulated wetland or waters shall not be permitted. Storm sewers requiring vacuuming of sediments have been identified, but is not limited to, locations as labelled on the plans.

Inspection: Television inspection shall be performed for the entire length of the sewer segment between structures to ensure the satisfaction of the Engineer that proper cleaning of the line or structure has been performed. Result of the inspection shall be in the form of a report where video of the inspection and pictures are presented with station references and descriptions. Photographs taken during the video inspection shall be mounted in the post inspection report and referenced to their exact location. Report shall include the CD/DVD of the entire video inspection. If inspection shows the cleaning to be unsatisfactory to the Engineer, the Contractor will be required to re-clean and re-inspect the sewer line section until the cleaning is acceptable at no additional cost to the Department.

Method of Measurement: This work will be measured for payment in feet for STORM SEWERS TO BE CLEANED. Measurement will be made only once for each item cleaned. All recleaning due to the activities of the Contractor shall be done at no additional cost.

Basis of Payment: This work will be paid at the contract unit price per foot for STORM SEWERS TO BE CLEANED of the sizes 12”, 15”, 18”, 24” Diameter pipes, which price shall include all materials, labor and equipment necessary to provide cleaning and inspection of storm sewers at locations shown in the plans, as specified herein, and as directed by the engineer.

The cost of cleaning drainage structures, and disposal of the removed material shall not be paid for separately, but is included in the cost of this work.

Revised 6/5/2024

The door, jambs, head, hinges, door appurtenances, and adjacent ground mounted posts shall be designed to withstand the wind pressure of 30 psf (1.4 kPa) with the door in fully open and fully closed positions and support the weight of the door and a 300 lb (136 kg) vertical load on the non-hinged side of the door. Provide steel bracing as required. Door bottom shall be equipped with drainage holes to avoid accumulation of trapped moisture.

Door jambs and head section shall be hot dip galvanized steel. Door hinges shall be barrel type, edge mount, extra heavy-duty, hot dip galvanized steel or stainless steel. The hinges shall be designed to support the weight of door assembly, wind loads on the open door, and a 300 lb (136 kg) vertical load on the non-hinged side of the door.

Door pulls shall be provided on both sides of access door(s). Door locking hardware shall be hasp-type to be used with a padlock and shall be located according to local fire department or other requirements as applicable. A solid steel emergency access lock box system shall be provided and mounted near the hasp location at the steel post on the locking hardware side of door. The lock box for emergency access doors shall be according to local fire department requirements.

Doors shall be equipped with lifting bolts or beams as required for safe lifting of door units.

Materials. Noise wall materials shall conform to the supplier's standards, AASHTO Specifications for noise walls and the following:

(a) Reinforcement bars shall satisfy ASTM A706 Grade 60 (400). Welded wire fabric shall be according to AASHTO M 336. All reinforcement in the wall panels shall be epoxy coated or galvanized.

(b) Anchor bolts shall conform to ASTM F1554 Grade 55 or 105 and shall be galvanized per AASHTO M232.

(c) The precast elements shall be according to applicable portions of Section 1042 of the Standard Specifications. The precast elements are considered to be Precast Concrete Structural Members. Coarse Aggregate shall meet the requirements of Article 1004.02(f)) of the Standard Specifications. Concrete shall be Class PC with a minimum compressive strength of 4500 psi (31,000 kPa)at 28 days. Dry cast concrete element will not be permitted.

(d) For sound absorptive panels, the manufacturer shall provide test information from an independent lab that the panels meet specified durability requirements.

All sound absorbing concrete and composite concrete components shall be tested for long-term durability **according to a freeze/thaw test according to AASHTO T 161 (ASTM C 666) Procedure A or B, or a salt Scaling test** according to ASTM C672 and the following modifications and/or requirements:

Door pulls shall be provided on both sides of access door(s). Door locking hardware shall be hasp-type to be used with a padlock and shall be located according to local fire department or other requirements as applicable. A solid steel emergency access lock box system shall be provided and mounted near the hasp location at the steel post on the locking hardware side of door. The lock box for emergency access doors shall be according to local fire department requirements.

Doors shall be equipped with lifting bolts or beams as required for safe lifting of door units.

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(n) Anchor bolts shall conform to ASTM F1554 Grade 55 or 105 and shall be galvanized per AASHTO M232.

(o) The precast elements shall be according to applicable portions of Section 1042 of the Standard Specifications. The precast elements are considered to be Precast Concrete Structural Members. Coarse Aggregate shall meet the requirements of Article 1004.02(f)) of the Standard Specifications. Concrete shall be Class PC with a minimum compressive strength of 4500 psi (31,000 kPa)at 28 days. Dry cast concrete element will not be permitted.

(p) For sound absorptive panels, the manufacturer shall provide test information from an independent lab that the panels meet specified durability requirements.

All sound absorbing concrete and composite concrete components shall be tested for long-term durability **according to a freeze/thaw test according to AASHTO T 161 (ASTM C 666) Procedure A or B, or a salt Scaling test** according to ASTM C672 and the following modifications and/or requirements:

Three specimens of a full cross section of the panel at least 144 square inches in face area will be selected at random from the provided panel. Sample specimens shall be representative of the manufacturer’s continuous production operation, as selected and marked by the engineer. Specimens shall be 2D-symmetric and shaped according to the testing laboratory’s accommodations. Surfaces of the sample specimens shall be prepared for testing as follows. Brush the surfaces of the sample to remove any loose particles. Before testing, submerge the test specimens be submerged in water for a period of 24 hours before testing. Immediately following this, cover the specimens with the sodium chloride solution as stated below.

CLEARING AND GRUBBING

Description. This work shall consist of extensive removal and disposal of shrubs, brush, fallen trees and limbs, debris (including rocks, bottles, etc.) and selected trees up to six (6) inches in diameter. Clearing and grubbing shall include removal of typical amounts of litter and debris encountered during tree removal operations. All trees and shrubs to be saved shall be carefully protected as provided by Article 201.05 of the Standard Specifications. Locations for selective clearing and vegetation to be saved shall be designated by the Roadside Development Unit. Contractor shall contact a representative of the Roadside Development Unit at (847) 705-4171 at least 2 weeks prior to work.

Damages to existing vegetation to remain, such as broken limbs, or other plantings or roadside appurtenances caused by the Contractor's tree removal or trimming operations shall be repaired at the Contractor's expense to the satisfaction of the Engineer.

The undesirable trees and brush (i.e. Tree of Heaven, Callery Pear, Siberian Elm, European Buckthorn, Mulberry, Ash, Russian Olive, Eurasian Honeysuckle, etc.) shall be cut flush with the ground. All stumps shall be cut flat with no sharp points, and less than two (2) inches of surrounding grade.

All stumps shall be treated with an approved resprout herbicide mixed with a marking dye within twenty-four (24) hours of the tree being cut to prevent regrowth from those stumps. Resprout herbicide shall be included in the cost of CLEARING AND GRUBBING.

All herbicides shall be applied according to the manufacturer's label specifications. Contractor's personnel applying the resprout herbicide shall have a valid pesticide applicator license issued by the Illinois Department of Agriculture.

Branches on remaining trees shall be pruned off up to 6 feet from the ground.

All cleared areas shall be graded, trimmed, smoothed, finished uniformly, and left ready to be seeded and blanketed to the satisfaction of the Engineer with equipment approved by the Engineer. The ground shall be relatively free of rocks over 1 ½ inch diameter, slash, and sticks or other foreign material which will prevent the close contact of the mulch or blanket. Disposal of material shall be done in accordance with Article 202.03.

Damage to the turf, such as ruts or wheel tracks more than 2 inches (50 MM) in depth, caused by the clearing operation shall be repaired at the Contractor's expense.

Method of Measurement. Selective clearing will be measured in square yards. The unit price shall include the cost of all material, equipment, labor, disposal and incidental items required to complete the work as specified herein and to the satisfaction of the Engineer. If the inspection discloses any work as being unsatisfactory, the Engineer will give the Contractor the necessary instructions for correction of same, and the Contractor shall immediately comply with such instructions and correct the unsatisfactory work. Areas not meeting the satisfaction of the Engineer shall not be measured for payment. Plan quantities are estimates only. Actual quantities will be measured in place. Agreement to plan quantities will not be allowed.

Added 6/5/2024

Basis of Payment. This work will be paid for at the contract unit price per unit for CLEARING AND GRUBBING. Payment for clearing and grubbing shall include the cost of all minor grading, debris removal and disposal, trimming, pruning, smoothing, finishing, labor, materials, tools and equipment required to complete the work as specified herein and to the satisfaction of the Engineer.

TREE REMOVAL AND FORESTRY WORK RESTRICTIONS – ENDANGERED SPECIES ACT

This work shall be according to Section 201 of the Standard Specifications, except shall only be allowed between October 1 and March 31, when the endangered species are not present.

Work includes tree pruning and tree limb removal of live or dead branches, clearcutting, selective clearing, and the removal of live or dead trees measuring 3 inches (3”) in diameter or greater at a point of 4.5 feet (4.5’) above the highest ground level at the base of the tree.

Work that is considered hazardous or a safety concern can be removed any time during the calendar year with written approval by the Engineer.

No additional compensation or extension of time will be allowed to comply with these restrictions.

PROTECTION OF EXISTING TREES

The Contractor shall be responsible for taking measures to minimize damage to the tree limbs, tree trunks, and tree roots at each work site. All such measures shall be included in the contract price for other work except that payment will be made for TEMPORARY FENCE, TREE TRUNK PROTECTION, TREE ROOT PRUNING, and TREE PRUNING.

The Contractor shall coordinate with the village forester or arborist (Roadside Development Unit 847.705.4171) prior to the start of construction to do a walk through and determine which trees or shrubs are to be protected, method of protection, and determine type of work to minimize damage to the tree.

All work, materials and equipment shall conform to Section 201 and 1081 of the Standard Specifications except as modified herein.

A. Earth Saw Cut of Tree Roots (Root Pruning):

1. Whenever proposed excavation falls within a drip-line of a tree, the Contractor shall:

   a. Root prune 6-inches behind and parallel to the proposed edge of trench a neat, clean vertical cut to a minimum depth directed by the Engineer through all affected tree roots.

   b. Root prune to a maximum width of 4-inches using a reciprocating saw blade for cutting tree roots or similar cutting machine. Trenching machines will not be permitted.

   c. Exercise care not to cut any existing utilities.

   d. If during construction it becomes necessary to expose tree roots which have not been precut, the Engineer shall be notified and the Contractor shall provide a clean, vertical cut at the proper root location, nearer the tree trunk, as necessary, by means of hand-digging and trimming with chain saw or hand saw. Ripping, shredding, shearing, chopping, or tearing will not be permitted.

   e. Top Pruning: When thirty percent (30%) or more of the root zone is pruned, an equivalent amount of the top vegetative growth or the plant material shall be pruned off within one (1) week following root pruning.

2. Whenever curb and gutter is removed for replacement, or excavation for removal of or construction of a structure is within the drip line/root zone of a tree, the Contractor shall:

   a. Root prune 6-inches behind the curbing so as to neatly cut the tree roots.

   b. Depth of cut shall be 12 inches for curb removal and replacement and 24 inches for structural work. Any roots encountered at a greater depth shall be neatly saw cut at no additional cost.

   c. Locations where earth saw cutting of tree roots is required will be marked in the field by the Engineer.

3. All root pruning work is to be performed through the services of a licensed arborist to be approved by the Engineer.

Root pruning will be paid for at the contract unit price each for TREE ROOT PRUNING, which price shall be payment for all labor, materials, and equipment.

Tree limb pruning will be paid for at the contract unit price per each for TREE PRUNING (1 TO 10 INCH DIAMETER) and/or TREE PRUNING (OVER 10 INCH DIAMETER), which price shall include labor, materials, and equipment.

B. Temporary Fence:

1. The Contractor shall erect a temporary fence around all trees within the construction area to establish a “tree protection zone” before any work begins or any material is delivered to the jobsite. No work is to be performed (other than root pruning), materials stored, or vehicles driven or parked within the “tree protection zone”.

2. The exact location and establishment of the “tree protection zone” fence shall be approved by the Engineer prior to setting the fence.

3. The fence shall be erected on three sides of the tree at the drip-line of the tree or as determined by the Engineer.

4. All work within the “tree protection zone” shall have the Engineer’s prior approval. All slopes and other areas not regarded should be avoided so that unnecessary damage is not done to the existing turf, tree root system ground cover.

5. The grade within the “tree protection zone” shall not be changed unless approved by the Engineer prior to making said changes or performing the work.

The fence shall be similar to wood lath snow fence (48 inches high), plastic poly-type or and other type of highly visible barrier approved by the Engineer. This fence shall be properly maintained and shall remain up until final restoration unless the Engineer directs removal otherwise. Tree fence shall be supported using T-Post style fence posts. **Utilizing re-bar as a fence post will not be permitted.**

Temporary fence will be paid for at the contract unit price per foot for TEMPORARY FENCE, which price shall include furnishing, installing, maintaining, and removing.

C. Tree Trunk Protection:

1. The Contractor shall erect trunk protection around all trees within the construction area to prevent damage to the trunk of the tree when temporary fence is not an option before any work begins or any material is delivered to the jobsite. No work is to be performed (other than root pruning), materials stored, or vehicles driven or parked within the “tree protection zone”.

2. The 2 inch x 8 inch x 8 foot boards shall be banded continuously around the trunk of each tree to prevent scarring of the trees shown on the plans or designated by the Engineer.

3. Multi-stem trees, saplings, and shrubs to be protected within the area of construction, temporary fence may be used for trunk protection.

Tree trunk protection will be paid for at the contract unit price per each for TREE TRUNK PROTECTION), which price shall include materials, installation, and removal.

D. Tree Limb Pruning:

1. The Contractor shall inspect the work site in advance and arrange with the Roadside Development Unit (847.705.4171) and/or village forester or arborist to have any tree limbs pruned that might be damaged by equipment operations at least one week prior to the start of construction. Any tree limbs that are broken by construction equipment after the initial pruning must be pruned correctly within 72 hours.

2. Top Pruning: When thirty percent (30%) or more of the root zone of a tree is pruned, an equivalent amount of the top vegetative growth or the plant material shall be pruned off within one (1) week following root pruning.

Tree limb pruning will be paid for at the contract unit price per each for TREE PRUNING (1 TO 10 INCH DIAMETER) and/or TREE PRUNING (OVER 10 INCH DIAMETER), which price shall include labor, materials, and equipment.

E. Removal of Driveway Pavement and Sidewalk:

1. In order to minimize the potential damage to the tree root system(s), the Contractor will not be allowed to operate any construction equipment or machinery within the “tree protection zone” located between the curb or edge of pavement and the right-of-way property line.

2. Sidewalk to be removed in the areas adjacent to the “tree protection zones” shall be removed with equipment operated from the street pavement. Removal shall be done by excavation equipment, or by hand, or a combination of these methods. The method of removal shall be approved by the Engineer prior to commencing any work.

3. Any pavement or pavement related work that is removed shall be immediately disposed of from the area and shall not be stockpiled or stored within the parkway area under any circumstances.

F. Backfilling:

1. Prior to placing the topsoil and/or sod, in areas outside the protection zone, the existing ground shall be disked to a depth no greater than one (1”), unless otherwise directed by the Engineer. No grading will be allowed within the drip-line of any tree unless directed by the Engineer.

G. Damages:

1. In the event that a tree not scheduled for removal is injured such that potential irreparable damage may ensure, as determined by the Roadside Development Unit, the Contractor shall be required to remove the damage tree and replace it on a three to one (3:1) basis, at his own expense. The Roadside Development Unit will select replacement trees from the pay items already established in the contract.

2. The Contractor shall place extreme importance upon the protection and care of trees and shrubs which are to remain during all times of this improvement. It is of paramount importance that the trees and shrubs which are to remain are adequately protected by the Contractor and made safe from harm and potential damage from the operations and construction of this improvement. If the Contractor is found to be in violation of storage or operations within the “tree protection zone” or construction activities not approved by the Engineer, a penalty shall be levied against the Contractor with the monies being deducted from the contract. The amount of the penalty shall be two hundred fifty dollars ($250.00) per occurrence per day.

TREE REMOVAL, ACRES (SPECIAL)

Project objectives and general requirements:

- 100% removal via mechanical and/or hand cutting methods of woody plant material (trees and shrubs).
- Disposal of all cut trees, shrubs, and chips should be hauled off-site.
- Preservation of all native shrubs and trees that are marked with green flagging.
- Protection of soils from compaction, erosion and disturbance. Restoration of areas disturbed for access by clearing equipment.
- Tree Removal, Acres (Special) shall include removal of typical amounts of litter and debris encountered during tree removal operations.
- Tree Removal, Acres (Special) shall include the use of a forestry mower to manage minor woody vegetation, grind slash, stumps under 6”, and any remaining woody plant debris down to the surface of the soil to prepare the site for future native seeding.
- Damages to existing vegetation to remain, such as broken limbs, frayed limbs, or other plantings or roadside appurtenances caused by the Contractor’s tree removal or trimming operations shall be repaired at the Contractor’s expense to the satisfaction of the Engineer.
- An International Society of Arboriculture (ISA) Certified Arborist shall be on site during all tree pruning, limb removal, and tree removal by the acre. The services of this person shall be included in the contract. No additional compensation shall be allowed.

Project Preparation
This shall include preparation of a clearing access plan and identification of sensitive natural resources. Mechanical clearing operations shall not begin until the Engineer indicates that ground conditions are appropriate to commence mechanical work.

A site visit prior to work shall be arranged with the Contractor and the Engineer. Extreme care shall be taken when conducting work within the work site to lessen damage to native vegetation to remain.

Submittals
The ISA Certified Arborist shall submit their current license to the Engineer.

Contractor shall provide the Engineer with a list of herbicides, surfactants, water conditioners, dyes, pH balancers, and other chemicals and adjuvants to be used for implementation of this project.

Prior to commencement of any work, submit to the Engineer a written description of all mechanical equipment and its intended use during the execution of the work.

The Contractor shall furnish the necessary wooden lathe, flags of various colors, ribbon of various colors, and spray paint required for the delineation and marking of work through the duration of the contract. The paint and ribbon shall be of the color(s) as specified by the Engineer. The Contractor shall provide the requested items within seven (7) working days after the Engineer's request. These will not be paid as separate items, but the costs shall be considered as included in the contract price of TREE REMOVAL, ACRES (SPECIAL).

Tree Removal and Initial Cut Stump Treatment
All cutting of material shall be completed via mechanical (e.g., tracked skid-loaders, forestry mowers) and/or hand cutting (chain saws, clearing saws) methods. Any mechanized clearing equipment must be approved for use on the work site prior to its implementation.

In general, mechanical cutting equipment with all steel tracks or a ground pressure rating of greater than 9.0 psi will not be allowed unless the Contractor can adequately demonstrate that the use of such equipment will not cause adverse rutting/soil compaction to the work site and will not damage the pavement adjacent to the work site.

The Engineer may specify certain areas as "HAND CLEAR ONLY" to be avoided by mechanical equipment or access paths. In these areas, the Contractor is prohibited from using mechanical clearing equipment due to sensitive site conditions.

All woody trees and shrubs over two (2) feet in height of any diameter, including protruding stumps or fallen trees within the defined area shall be removed. Any woody vegetation under two (2) feet in height shall be treated with a foliar herbicide or re-sprout herbicide.

Branches on remaining trees shall be pruned off up to eight (8) feet from the ground.

All stumps shall be cut flat with no sharp points, and less than two (2) inches of surrounding grade.

All stumps (trees, shrubs, and vines) shall be treated with an approved re-sprout herbicide mixed with a marking dye within twenty-four (24) hours of the tree being cut to prevent regrowth from those stumps.

All herbicides shall be applied according to the manufacturer's label specifications. Contractor personnel applying the re-sprout herbicide shall have a valid pesticide applicator license issued by the Illinois Department of Agriculture.

The re-sprout herbicide shall be approved by the Engineer. Re-sprout herbicide shall be labeled to control tree and shrub species present within clearing area. Re-sprout herbicide shall be included in the cost of TREE REMOVAL, ACRES (SPECIAL).

The Contractor shall maintain copies at the project site of all current pesticide herbicide labels and Material Safety Data Sheets (MSDS) for all chemicals utilized during completion of the work.

The Engineer shall have the ultimate authority to approve the final condition of slash. Slash is acceptable at a maximum depth of two (2) inches. No slash shall be left in drainage ways and be blocking drainage structures. No slash shall be left in piles.

Clean Up
The work area shall be kept free of debris by the Contractor. At no time shall empty herbicide containers, trash, or other material be allowed to accumulate at the project site. Parking areas, roads, sidewalks, paths, drainage ways, and paved areas shall be kept free of woody debris, mud, and dirt.

All tools, empty containers, and all other debris generated by the Contractor shall be removed after work has been completed.

Wood chips shall be removed and not blown back onto the site.

Any damages caused by the Contractor including, but not limited to tire ruts, damage to turf, damage to trails, damage to road pavement, etc. shall be repaired by the Contractor, at the Contractor's own expense.

In the event any vegetation designated to be preserved is damaged, the Contractor shall notify the Engineer within 24 hours. The Contractor shall be liable for remedying damages to plant material.

Tree debris, logs, equipment, etc. should not be stored within clear zone.

All cut trees and shrubs shall be removed off site within 24 hours.

Method of Measurement: TREE REMOVAL, ACRES (SPECIAL) will be measured in units of 1 square acre. Areas not meeting the satisfaction of the Engineer shall not be measured for payment. Plan quantities are estimates only. Actual quantities will be measured in place. Agreement to plan quantities will not be allowed.

If the inspection discloses any work as being unsatisfactory, the Engineer will give the Contractor the necessary instructions for correction of same, and the Contractor shall immediately comply with such instructions and correct the unsatisfactory work within forty-eight (48) hours. No additional compensation will be given. Work that is not acceptable on the inspection date will not be measured for payment. Individual areas will not be measured for payment if any portion of the area has not been completed to the satisfaction of the Engineer.

Basis of Payment: Tree removal shall be paid for at the contract unit price per acre for TREE REMOVAL, ACRES (SPECIAL). Payment for TREE REMOVAL, ACRES (SPECIAL) shall include the cost of all material, equipment, labor, removal, herbicide application, disposal, cleanup, and incidentals required to complete the work as specified herein and to the satisfaction of the Engineer.

SCOPE OF TREE REMOVAL

This work shall be done in accordance with Section 201 of the Standard Specifications for all tree removal pay items (i.e. tree removal, limb removal, tree pruning, stump removal, selective clearing, and modified tree pay items herein). All trees to be removed shall be designated by the Engineer. In most cases, the trees will be previously marked with a painted number.

Any tree to be removed that is trapped within the access control fence shall be cut flush with the fence.

The removal of stumps shall be done with mechanical equipment normally used for this type of operation. The Engineer shall have the authority to determine what is considered acceptable stump removal equipment. Saws, axes and similar items shall not be considered proper equipment for removal of stumps over six (6) inches diameter.

The Engineer shall have the ultimate authority to approve the final condition of slash. Slash is acceptable at a maximum depth of two (2) inches. No slash shall be left in drainage ways and be blocking drainage structures. No slash shall be left in piles.

At all work sites, cleanup shall be done.

Clean up:

- The work area shall be kept free of debris by the Contractor. At no time shall empty herbicide containers, trash, or other material be allowed to accumulate at the project site. Parking areas, roads, sidewalks, paths, drainage ways, and paved areas shall be kept free of woody debris, mud, and dirt.
- All tools, empty containers, and all other debris generated by the Contractor shall be removed after work has been completed.
- Wood chips shall be removed and not blown back onto the site.
- Any damages caused by the Contractor including, but not limited to tire ruts, damage to turf, damage to trails, damage to road pavement, etc. shall be repaired by the Contractor, at the Contractor's own expense.
- In the event any vegetation designated to be preserved is damaged, the Contractor shall notify the Engineer within 24 hours. The Contractor shall be liable for remedying damages to plant material.
- Tree debris, logs, equipment, etc. should not be stored within clear zone.
- All cut trees and shrubs shall be removed off site within 24 hours.

EQUIPMENT

The Contractor shall comply with all OSHA, federal, state, local, and professional tree care industry regulations and safety standards.

The Contractor's personnel shall be required to wear high visibility vests (meeting the requirements of ANSI/ISEA 107-2004 or ANSI/ISEA 107-2010 for Conspicuity Class 2 garments. Other types of garments may be substituted for the vest as long as the garments have a manufacturer's tag identifying them as meeting the ANSI Class 2 requirements), hard hats, ear/eye protection, and all appropriate safety belts and/or harnesses when performing any function relative to this contract. Appropriate safety gear shall be worn at all times.

The Contractor shall have sufficient equipment, in good working condition, to perform work in an expedient manner. All equipment shall display proper safety markings, working lights, and shall have in place all safety guards, shields, and protective covers.

After the contract has been awarded, the Engineer reserves the right to inspect the Contractor's equipment. The Contractor must have in their possession or have available to them by formal agreement at the time the contract has been awarded:

- Handheld Equipment: Chainsaws, handsaws, hand pruners, pole pruners (powered or manual), brush cutter, hedge trimmers, tree loppers, hydraulic tools

- Vehicles: Chipper truck, aerial bucket truck with outrigger pads/mats and vehicle exhaust mats, log truck, mobile crane

- Off Road Equipment: Brush chipper (minimum 12-inch capacity), whole tree chipper, stump grinders (tow behind and self-propelled), skid steer with cutting or mowing attachments and grapple, mini skid steer, loader, forestry mulcher, feller buncher, tree skidder, forestry mower

- Traffic Control Equipment: Category 4 Arrow board, cones, barricades, barrels, signs, flagging equipment, Category 3 crash cushions (impact attenuators), truck mounted attenuators

- Arborist Protection Equipment: All applicable Personal Protective Equipment (PPE), fall protection equipment, helmet, Class 2 safety vest, chain saw boots and/or steel toed boots

LAYOUT MATERIALS

The Contractor shall furnish the necessary wooden lathe, flags of various colors, ribbon of various colors, and spray paint required for the delineation and marking of work through the duration of the contract. The paint and ribbon shall be of the color(s) as specified by the Engineer. The Contractor shall provide the requested items within seven (7) working days after the Engineer's request. These will not be paid as separate items, but the costs shall be considered as included in the contract prices for landscape items. No additional compensation will be allowed.

At the time of the preconstruction meeting, the Contractor shall provide two (2) cases of neon pink spray paint, one (1) box of neon green ribbon, and one (1) box of neon pink ribbon, and (2) bundles of lath to the Engineer.

RESPROUT HERBICIDE (NEAR WATER)

This work shall consist of the application of a non-selective and non-residual resprout herbicide for woody vegetation control. Equal formulation must be approved to use in or near water.

Cut Stump Treatment
To control resprouting of cut stumps of susceptible species apply the herbicide with a backpack or knapsack sprayer using low pressures and a solid cone or flat fan nozzle. Spray the root collar area, sides of the stump, and the outer portion of the cut surface including the cambium until thoroughly wet, but not to the point of runoff. Spray mixture concentration should vary with size and susceptibility of species treated. Apply at any time, including winter months, except when snow or water prevents spraying to the ground line.

Description: This work shall consist of the application of an herbicide mixture to control undesirable brush areas along highway roadsides. The solution shall be applied to cut stump treatment only.

Materials:
The herbicide shall have the following formulation and must be labeled for use in near wetlands and over water:

Active Ingredient:	
*Glyphosate, N-(phosphonomethyl) glycine, in the form of its isopropylamine salt	53.80%
Inert Ingredients	46.20%
TOTAL	100.00%

The Contractor shall submit a certificate, including the following, prior to starting work:

1. The chemical names of the compound and the percentage by weight of the ingredients which must match the above specified formulation.
2. A statement that the material is in a solution which will form a satisfactory emulsion for use when diluted with water for normal spraying conditions.

3. A statement that the herbicide, when mixed with water, will be completely soluble and dispersible and remain in suspension with continuous agitation.

4. A statement describing the products proposed for use when the manufacturer requires that surfactants, drift control agents, or other additives be used with the product. These tank mix additives shall be used as specified by the manufacturer. Required additives will not be paid for separately.

All material shall be brought to the spray area in the original, unopened containers supplied by the manufacturer.

- Application Rate: The Basal Treatment solution shall be applied at the rate specified herein.

Resprout herbicide will be included as part of work for the following pay items:

- (X2010350) Tree Removal, Acres (Special)
- ((Z0064800) Selective Clearing

If the inspection discloses any work as being unsatisfactory after thirty (30) days of active growing, the Engineer will give the Contractor the necessary instructions for correction of same, and the Contractor shall immediately comply with such instructions and correct the unsatisfactory work within fourteen (14) calendar days. No additional compensation will be given. Removal and disposal of resprout growth will not be measured separately but shall be considered included as part of the pay item.

SELECTIVE CLEARING

Description. This work shall consist of extensive removal and disposal of shrubs, brush, fallen trees and limbs, debris (including rocks, bottles, etc.) and selected trees up to six (6) inches in diameter. Selective clearing shall include removal of typical amounts of litter and debris encountered during tree removal operations. All trees and shrubs to be saved shall be carefully protected as provided by Article 201.05 of the Standard Specifications. Locations for selective clearing and vegetation to be saved shall be designated by the Roadside Development Unit. Contractor shall contact a representative of the Roadside Development Unit at (847) 705-4171 at least 2 weeks prior to work.

Damages to existing vegetation to remain, such as broken limbs, or other plantings or roadside appurtenances caused by the Contractor's tree removal or trimming operations shall be repaired at the Contractor's expense to the satisfaction of the Engineer.

The undesirable trees and brush (i.e. Tree of Heaven, Callery Pear, Siberian Elm, European Buckthorn, Mulberry, Ash, Russian Olive, Eurasian Honeysuckle, etc.) shall be cut flush with the ground. All stumps shall be cut flat with no sharp points, and less than two (2) inches of surrounding grade.

All stumps shall be treated with an approved resprout herbicide mixed with a marking dye within twenty-four (24) hours of the tree being cut to prevent regrowth from those stumps. Resprout herbicide shall be included in the cost of SELECTIVE CLEARING.

All herbicides shall be applied according to the manufacturer's label specifications. Contractor's personnel applying the resprout herbicide shall have a valid pesticide applicator license issued by the Illinois Department of Agriculture.

Branches on remaining trees shall be pruned off up to 7 feet from the ground.

All cleared areas shall be graded, trimmed, smoothed, finished uniformly, and left ready to be seeded and blanketed to the satisfaction of the Engineer with equipment approved by the Engineer. The ground shall be relatively free of rocks over 1 ½ inch diameter, slash, and sticks or other foreign material which will prevent the close contact of the mulch or blanket. Disposal of material shall be done in accordance with Article 202.03.

Damage to the turf, such as ruts or wheel tracks more than 2 inches (50 MM) in depth, caused by the selective clearing operation shall be repaired at the Contractor's expense.

Method of Measurement. Selective clearing will be measured in units of 1,000 square feet. The unit price shall include the cost of all material, equipment, labor, disposal and incidental items required to complete the work as specified herein and to the satisfaction of the Engineer.

If the inspection discloses any work as being unsatisfactory, the Engineer will give the Contractor the necessary instructions for correction of same, and the Contractor shall immediately comply with such instructions and correct the unsatisfactory work. Areas not meeting the satisfaction of the Engineer shall not be measured for payment. Plan quantities are estimates only. Actual quantities will be measured in place. Agreement to plan quantities will not be allowed.

Basis of Payment: This work will be paid for at the contract unit price per unit for SELECTIVE CLEARING. Payment for selective clearing shall include the cost of all minor grading, debris removal and disposal, trimming, pruning, smoothing, finishing, labor, materials, tools and equipment required to complete the work as specified herein and to the satisfaction of the Engineer.

SELECTIVE CLEARING (NEAR WATER)

Description. This work shall consist of extensive removal and disposal of shrubs, brush, debris (including rocks, bottles, etc.) and selected trees up to six (6) inches (150 mm) in diameter. All trees and shrubs to be saved shall be carefully protected as provided by Article 201.05 of the Standard Specifications. Locations for Selective Clearing and vegetation to be cleared or saved shall be designated by the Roadside Development Unit. Please contact a representative of the Roadside Development Unit at (847) 705-4171 at least 10 days prior to work.

The undesirable trees and brush (Siberian Elm, Russian Olive, Mulberry, Tree of Heaven, Buckthorn, etc.) shall be cut flush with the ground and all stubs or stumps shall be treated within 2 hours after cutting with a tinted WATER SAFE re-sprout herbicide approved by the Engineer to prevent re-growth from the stumps. Branches on remaining trees shall be pruned off up to 7 feet from the ground.

All cleared areas shall be graded, trimmed, smoothed, and finished uniformly to the satisfaction of the Engineer with equipment approved by the Engineer. Disposal of material shall be done in accordance with Article 202.03.

Method of Measurement. Selective Clearing will be measured in units of 1,000 square feet (90 square meters). The unit price shall include the cost of all material, equipment, labor, disposal, and incidental items required to complete the work as specified herein and to the satisfaction of the Engineer. If the inspection discloses any work as being unsatisfactory, the Engineer will give the Contractor the necessary instructions for correction of same, and the Contractor shall immediately comply with such instructions and correct the unsatisfactory work. Areas not meeting the satisfaction of the Engineer shall not be measured for payment. Plan quantities are estimates only. Actual quantities will be measured in place. Agreement to plan quantities will not be allowed.

Basis of Payment: This work will be paid for at the contract unit price per unit for SELECTIVE CLEARING. Payment for Selective Clearing shall include the cost of all minor grading, debris removal and disposal, water safe herbicide treatment, trimming, pruning, smoothing, finishing, labor, materials, tools and equipment required to complete the work as specified herein and to the satisfaction of the Engineer.

CONTRACTOR'S ARBORIST

An International Society of Arboriculture (ISA) Certified Arborist shall be on site during all tree pruning, limb removal, and tree removal by the acre. The services of this person shall be included in the contract. No additional compensation shall be allowed.

The ISA Certified Arborist shall attend the preconstruction meeting and submit their current license to the Engineer.

SEEDING, CLASS 4A (MODIFIED)

This work shall consist of preparing the seed bed and Seeding of Class 4A (Modified) in areas as shown in the plans or a directed by the Engineer.

All work, materials, and equipment shall conform to Sections 250 and 1081 of the Standard Specifications except as modified herein.

The Class 4A (Modified) seed mixture shall be supplied in separate bags of the two mixture components: Temporary Cover and Permanent Grasses. All native species will be local genotype and verified that original seed collection source will be from a radius of 200 miles from the project. Fertilizers are not required.

Article 250.07 Seeding Mixtures – Add the following to Table 1:

CLASS – TYPE	SEEDS	PURE LIVE SEED LB/ACRE
4A (Modified) Low Profile Native Grass		10.5
	Andropogon scoparius (Little Bluestem)	5.0
	Bouteloua curtipendula (Side Oats Grama)	3.5
	Elymus canadensis (Canada Wild Rye)	2.0
Temporary Cover		12 (lb/acre)
	Fall: Triticum aestivum (Hybrid Wheat)	15.0

Variation in the Class 3, 4, 5, or 6 seed quantities or varieties may be allowed in the event of a crop failure or other unforeseen conditions. Quantities of proposed substitutions shall be determined by seed count. The Contractor shall provide for the approval of the Engineer a written description of the proposed changes to the Class 3, 4, 5, or 6 Mixture(s), the reasons for the change, and the name of the seed suppliers who were contacted in an effort to obtain the specified species. Adjustments will be made at no cost to the contract. Approval of substitutes shall in no way waive any requirements of the contract

Seeding Time:
Seeding shall be completed between October 15 to November 30 but not when raining or when the ground is covered with snow unless prior written approval is received from Engineer. No seed shall be sown when the ground is not in proper condition for seeding. Seeding done outside of this time frame will not be measured for payment unless approved in writing by Engineer in advance.

The Contractor shall schedule work so that final grade is achieved during the specified seeding times.

Bagging, Transporting, and Storing Seed:
Seed mixtures of the specified classes shall be thoroughly mixed, labeled ad bagged by the supplier. Purity and germination tests no older than twelve months old must be submitted for all seed supplied to verify quantities of bulk seed required to achieve LB PLS specified.

Seed shall be thoroughly mixed, labeled and bagged by the supplier. Seed shall be bagged, transported, and stored in such a manner to protect it from damage and to maintain the viability of the seed. All seed mixtures shall be brought to the site in clearly labeled and unopened bags.

Seed shall be adequately protected from rain, temperature extremes, rodents, insects, and other such factors that could adversely affect seed viability during transport or while being stored prior to planting. Bags of seed that are leaking, wet, moldy, or otherwise damaged shall be rejected and promptly removed from the site of work. Prior to application, the Engineer must approve the seed mix in the bags on site.

Layout of Seeding:
The Contractor shall be responsible for filed verifying the acreage of the area(s) to be seeded. The amount of seed ordered shall match the area(s) to be seeded during the pending planting season. A minimum of 30 days shall be allowed for seed acquisition, testing, and inspection.

The Contractor shall demarcate all areas to be seeded and estimate quantities of each area to determine the quantity of seed necessary to achieve the specified seed rate per acre. The Contractor shall delineate the perimeter of the seedbed with wooden lathe placed every 25’. The wooden lathe shall remain in place. The contractor shall provide a minimum of seven calendar days notice to the Engineer to allow for review and approval of seeding layout.

Inspection:
The Engineer must witness the delivery of seed with original labels attached in the field. A bag ticket must be affixed to each bag of seed upon delivery and shall not be removed until the Engineer has reviewed and accepted each bag of seed. The label shall bear the dealer's guarantee of mixture and year grown, purity and germination, and date of test.

Seed Bed Preparation:
All area(s) to be seeded must be properly prepared prior to planting seed.

Bare earth seeding refers to sowing seed upon soils with no existing vegetative cover. In areas with existing vegetation, the vegetation shall be eradicated as specified or as directed by the Engineer. Seed bed preparation shall not be started until all requirements of Section 212 have been completed. The area to be seeded shall be worked to a minimum depth of 3 in. (75 mm) with a disk, tiller, box rake, or other equipment approved by the Engineer. In areas with heavy soils, tilling or power raking will be required to achieve the proper depth. All soil clods shall be reduced to a size not larger than ½ in. (13 mm) in the largest dimension to create a friable, pulverized topsoil surface suitable for seeding. Dragging the soil surface with the blade of a loader or dozer will not be an acceptable method of seed bed preparation. The prepared surface shall be relatively free of weeds, stones, roots, sticks, debris, rills, gullies, crusting, caking, and compaction. No seed shall be sown until the seed bed has been approved by the Engineer.

Seeding Methods:
No seed shall be sown when wind gusts exceed 25 miles per hour or when the ground is not in a proper condition for seeding, nor shall any seed be sown until the purity test has been completed for the seeds to be used, and said tests show that the seed meets the noxious weed seed requirements. All equipment shall be approved by the Engineer prior to being used. Prior to starting work, seeders shall be calibrated and adjusted to sow seeds at the required seeding rate. Equipment shall be operated in a manner to ensure complete coverage of the entire area to be seeded. The Engineer shall be notified 48 hours prior to beginning the seeding operations so that the Engineer may determine by trial runs that a calibration of the seeder will provide uniform distribution at the specified rate per acre.

Seeding Classes 3, 4, 5, and 6 shall be sown with a broadcast seeder or a rangeland type seed drill.

Hand broadcasting and other methods of sowing seed will be allowed in special circumstances as approved by the Engineer. Special circumstances include but are not necessarily limited to steep slopes (over 1:3 (V:H)), inaccessible areas, wet areas, or other unique situations where the use of the specified equipment is not possible.

Method of Measurement:
SEEDING, CLASS 4A (MODIFIED) will be measured for payment in acres of surface area of seeding for the seed mix type specified.

Basis of Payment: SEEDING, CLASS 4A (MODIFIED) shall be paid at the Contract unit price per acre. Payment shall be in full for seed, planting, and furnishing all labor to complete the work as set forth above.

SEEDING, CLASS 4B (MODIFIED)

This work shall consist of Seeding of Class 4B (Modified) in areas as shown in the plans or a directed by the Engineer.

All work, materials and equipment shall conform to Section 250 and 1081 of the Standard Specifications except as modified herein.

The Class 4B (Modified) seed mixture shall be supplied in separate bags of the three mixture components: Temporary Cover, Permanent Grasses, and Forbs. All native species will be local genotype and verified that original seed collection source will be from a radius of 200 miles from the project. Fertilizer is not required.

Article 250.07 Seeding Mixtures – Delete sentence 4. Add the following to Table 1 – Seeding Mixtures:

CLASS – TYPE SEEDS	PURE LIVE SEED LB/ACRE
4B (Modified) Wetland Grass and Sedge Mixture	7.7
Bromus ciliatus (Fringed Brome)	1.5
Carex vulpinoidea (Brown Fox Sedge)	0.3
Elymus riparius (River Bank Wild Rye)	1.5
Elymus virginicus (Virginia Wild Rye)	1.5
Glyceria grandis (Reed Manna Grass)	0.2
Leersia oryzoides (Rice Cut Grass)	0.2
Panicum virgatum (Switch Grass)	2.0
Scirpus atrovirens (Dark Green Bulrush)	0.1
Scirpus cyperinus (Wool Grass)	0.1
Spartina pectinata (Prairie Cord Grass)	0.3

Temporary Cover		20 (lb/acre)
Fall/Winter:	Winter Rye (Secale cereale)	20.0
Spring:	Avena sativa (Annual Oats)	20.0

Variation in the Class 3, 4, 5, or 6 seed quantities or varieties may be allowed in the event of a crop failure or other unforeseen conditions. Quantities of proposed substitutions shall be determined by seed count. The Contractor shall provide for the approval of the Engineer a written description of the proposed changes to the Class 3, 4, 5, or 6 Mixture(s), the reasons for the change, and the name of the seed suppliers who were contacted in an effort to obtain the specified species. Adjustments will be made at no cost to the contract. Approval of substitutes shall in no way waive any requirements of the contract

Added 6/5/2024

Seeding Time:
Seeding shall be completed between October 15 to May 15 but not when raining or when the ground is covered with snow, unless prior written approval is received from Engineer. No seed shall be sown when the ground is not in proper condition for seeding. Seeding done outside of this time frame will not be measured for payment unless approved in writing by Engineer in advance.

The Contractor shall schedule work so that final grade is achieved during the specified seeding times. Any seeding installed on or after March 1 must be incorporated into the soil surface, but no deeper than ¼ inch, such as by rangeland type seed drill, harrow, hand rake, or other method approved by the Engineer.

Bagging, Transporting, and Storing Seed:
Seed mixtures of the specified classes shall be thoroughly mixed, labeled and bagged by the supplier. Purity and germination tests no older than twelve months old must be submitted for all seed supplied to verify quantities of bulk seed required to achieve LB PLS specified. Seed shall be bagged, transported, and stored in such a manner to protect it from damage and to maintain the viability of the seed. All seed mixtures shall be brought to the site in clearly labeled and unopened bags.

Seed shall be adequately protected from rain, temperature extremes, rodents, insects, and other such factors that could adversely affect seed viability during transport or while being stored prior to planting. Bags of seed that are leaking, wet, moldy, or otherwise damaged shall be rejected and promptly removed from the site of work. Prior to application, the Engineer must approve the seed mix in the bags on site.

Layout of Seeding:
The Contractor shall be responsible for filed verifying the acreage of the area(s) to be seeded. The amount of seed ordered shall match the area(s) to be seeded during the pending planting season. A minimum of 30 days shall be allowed for seed acquisition, testing, and inspection.

The Contractor shall demarcate all areas to be seeded and estimate quantities of each area to determine the quantity of seed necessary to achieve the specified seed rate per acre. The Contractor shall delineate the perimeter of the seedbed with wooden lathe. The wooden lathe shall remain in place. The contractor shall provide a minimum of seven calendar days notice to the Engineer to allow for review and approval of seeding layout.

Inspection:
The Engineer must witness the delivery of seed with original labels attached in the field. A bag ticket must be affixed to each bag of seed upon delivery, and shall not be removed until the Engineer has reviewed and accepted each bag of seed. The label shall bear the dealer's guarantee of mixture and year grown, purity and germination, and date of test.

Seed Bed Preparation:
All area(s) to be seeded must be properly prepared prior to planting seed.

Bare earth seeding refers to sowing seed upon soils with no existing vegetative cover. In areas with existing vegetation, the vegetation shall be eradicated as specified or as directed by the Engineer. Seed bed preparation shall not be started until all requirements of Section 212 have been completed. The area to be seeded shall be worked to a minimum depth of 3 in. (75 mm) with a disk, tiller, box rake, or other equipment approved by the Engineer. In areas with heavy soils, tilling or power raking will be required to achieve the proper depth. All soil clods shall be reduced to a size not larger than ½ in. (13 mm) in the largest dimension to create a friable, pulverized topsoil surface suitable for seeding. Dragging the soil surface with the blade of a loader or dozer will not be an acceptable method of seed bed preparation. The prepared surface shall be relatively free of weeds, stones, roots, sticks, debris, rills, gullies, crusting, caking, and compaction. No seed shall be sown until the seed bed has been approved by the Engineer.

Seeding Methods:
No seed shall be sown when wind gusts exceed 25 miles per hour or when the ground is not in a proper condition for seeding, nor shall any seed be sown until the purity test has been completed for the seeds to be used, and said tests show that the seed meets the noxious weed seed requirements. All equipment shall be approved by the Engineer prior to being used. Prior to starting work, seeders shall be calibrated and adjusted to sow seeds at the required seeding rate. Equipment shall be operated in a manner to ensure complete coverage of the entire area to be seeded. The Engineer shall be notified 48 hours prior to beginning the seeding operations so that the Engineer may determine by trial runs that a calibration of the seeder will provide uniform distribution at the specified rate per acre.

Seeding Classes 3, 4, 5, and 6 shall be sown with a broadcast seeder or a rangeland type seed drill.

Hand broadcasting and other methods of sowing seed will be allowed in special circumstances as approved by the Engineer. Special circumstances include but are not necessarily limited to steep slopes (over 1:3 (V:H)), inaccessible areas, wet areas, or other unique situations where the use of the specified equipment is not possible. Broadcast seeding when snowfall is predicted within 24 hours shall be the preferred method.

Method of Measurement:
SEEDING, CLASS 4B (MODIFIED) will be measured for payment in acres of surface area of seeding for the seed mix type specified.

Basis of Payment:
SEEDING, CLASS 4B (MODIFIED) shall be paid at the Contract unit price per acre. Payment shall be in full for seed, planting, and furnishing all labor to complete the work as set forth above.

SEEDING, CLASS 5 (MODIFIED)

This work shall consist of Seeding of Class 5 (Modified) in areas as shown in the plans or a directed by the Engineer.

All work, materials, and equipment shall conform to Sections 250 and 1081 of the Standard Specifications except as modified herein.

The Class 5 (Modified) seed mixture shall be supplied in labeled bags which the Resident Engineer will inspect prior to opening the bag. All native species will be local genotype and will be from a radius of 200 miles from the project area. The Class 5 (Modified) seed mix shall be supplied with the appropriate inoculants. The seed shall be sown as soon as possible after inoculation. Seed that has been stored more than 30 days after inoculation shall be reinoculated before sowing. Fertilizer is not required.

Article 250.07 Seeding Mixtures – Delete sentence 4. Add the following to Table 1 – Seeding Mixtures:

CLASS – TYPE SEEDS	LBS/ACRE
5 (Modified) Short Native Forb Mixture:	9.0
Asclepias syriaca (Common Milkweed)	0.20
Asclepias tuberosa (Butterfly Weed)	0.15
Baptisia australis (False Indigo)	0.20
Chamaecrista fasciculata (Partridge Pea)	1.00
Coreopsis lanceolata (Lance-leaf Coreopsis)	0.50
Dalea candida (White Prairie Clover)	0.80
Dalea purpurea (Purple Prairie Clover)	1.00
Echinacea purpurea (Purple Coneflower)	1.00
Eryngium yuccifolium (Rattlesnake Master)	0.15
Monarda fistulosa (Wild Bergamont)	0.20
Penstemon digitalis (Foxglove Beard Tongue)	0.15
Rudbeckia hirta (Black-Eyed Susan)	3.00
Symphyotrichum oolentangiense (Sky Blue Aster)	0.15
Verbena stricta (Hoary Vervain)	0.50

Added 6/5/2024

Variation in the Class 3, 4, 5, or 6 seed quantities or varieties may be allowed in the event of a crop failure or other unforeseen conditions. Quantities of proposed substitutions shall be determined by seed count. The Contractor shall provide for the approval of the Engineer a written description of the proposed changes to the Class 3, 4, 5, or 6 Mixture(s), the reasons for the change, and the name of the seed suppliers who were contacted in an effort to obtain the specified species. Adjustments will be made at no cost to the contract. Approval of substitutes shall in no way waive any requirements of the contract.

Seeding Time:
Seeding shall be completed between October 15 to March 15 but not when raining or when the ground is covered with snow, unless prior written approval is received from Engineer. No seed shall be sown when the ground is not in proper condition for seeding. Seeding done outside of this time frame will not be measured for payment unless approved in writing by Engineer in advance.

The Contractor shall schedule work so that final grade is achieved during the specified seeding times. Any seeding installed on or after March 1 must be incorporated into the soil surface, but no deeper than ¼ inch, such as by rangeland type seed drill, harrow, hand rake, or other method approved by the Engineer.

Bagging, Transporting, and Storing Seed:
Seed mixtures of the specified classes shall be thoroughly mixed, labeled ad bagged by the supplier. Purity and germination tests no older than twelve months old must be submitted for all seed supplied to verify quantities of bulk seed required to achieve LB PLS specified.

Seed shall be thoroughly mixed, labeled and bagged by the supplier. Seed shall be bagged, transported, and stored in such a manner to protect it from damage and to maintain the viability of the seed. All seed mixtures shall be brought to the site in clearly labeled and unopened bags.

Seed shall be adequately protected from rain, temperature extremes, rodents, insects, and other such factors that could adversely affect seed viability during transport or while being stored prior to planting. Bags of seed that are leaking, wet, moldy, or otherwise damaged shall be rejected and promptly removed from the site of work. Prior to application, the Engineer must approve the seed mix in the bags on site.

Layout of Seeding:
The Contractor shall be responsible for filed verifying the acreage of the area(s) to be seeded. The amount of seed ordered shall match the area(s) to be seeded during the pending planting season. A minimum of 30 days shall be allowed for seed acquisition, testing, and inspection.

The Contractor shall demarcate all areas to be seeded and estimate quantities of each area to determine the quantity of seed necessary to achieve the specified seed rate per acre. The Contractor shall delineate the perimeter of the seedbed with wooden lathe. The wooden lathe shall remain in place. The contractor shall provide a minimum of seven calendar day notice to the Engineer to allow for review and approval of seeding layout.

Inspection:
The Engineer must witness the delivery of seed with original labels attached in the field. A bag ticket must be affixed to each bag of seed upon delivery and shall not be removed until the Engineer has reviewed and accepted each bag of seed. The label shall bear the dealer's guarantee of mixture and year grown, purity and germination, and date of test.

Seed Bed Preparation:
All area(s) to be seeded must be properly prepared prior to planting seed.

Bare earth seeding refers to sowing seed upon soils with no existing vegetative cover. In areas with existing vegetation, the vegetation shall be eradicated as specified or as directed by the Engineer. Seed bed preparation shall not be started until all requirements of Section 212 have been completed. The area to be seeded shall be worked to a minimum depth of 3 in. (75 mm) with a disk, tiller, box rake, or other equipment approved by the Engineer. In areas with heavy soils, tilling or power raking will be required to achieve the proper depth. All soil clods shall be reduced to a size not larger than ½ in. (13 mm) in the largest dimension to create a friable, pulverized topsoil surface suitable for seeding. Dragging the soil surface with the blade of a loader or dozer will not be an acceptable method of seed bed preparation. The prepared surface shall be relatively free of weeds, stones, roots, sticks, debris, rills, gullies, crusting, caking, and compaction. No seed shall be sown until the seed bed has been approved by the Engineer.

Seeding Methods:
No seed shall be sown when wind gusts exceed 25 miles per hour or when the ground is not in a proper condition for seeding, nor shall any seed be sown until the purity test has been completed for the seeds to be used, and said tests show that the seed meets the noxious weed seed requirements. All equipment shall be approved by the Engineer prior to being used. Prior to starting work, seeders shall be calibrated and adjusted to sow seeds at the required seeding rate. Equipment shall be operated in a manner to ensure complete coverage of the entire area to be seeded. The Engineer shall be notified 48 hours prior to beginning the seeding operations so that the Engineer may determine by trial runs that a calibration of the seeder will provide uniform distribution at the specified rate per acre.

All legumes (Canada Milk Vetch, White Prairie Clover, Purple Prairie Clover, White Wild Indigo, and Illinois Bundleflower) shall be inoculated with the proper rhizobial bacteria in the amounts and manner recommended by the seed supplier before sowing or being mixed with other seeds for sowing. The inoculant shall be furnished by the Contractor and shall be approved by the Engineer.

Seeding Classes 3, 4, 5, and 6 shall be sown with a broadcast seeder or a rangeland type seed drill.

Hand broadcasting and other methods of sowing seed will be allowed in special circumstances as approved by the Engineer. Special circumstances include but are not necessarily limited to steep slopes (over 1:3 (V:H)), inaccessible areas, wet areas, or other unique situations where the use of the specified equipment is not possible.

Method of Measurement:
SEEDING, CLASS 5 (MODIFIED) will be measured for payment in acres of surface area of seeding for the seed mix type specified.

Basis of Payment:
SEEDING, CLASS 5 (MODIFIED) shall be paid at the Contract unit price per acre. Payment shall be in full for seed, planting, and furnishing all labor to complete the work as set forth above.

EROSION CONTROL BLANKET, SPECIAL (WILDLIFE SAFE)

This Special Provision revises Section 251 of the Standard Specifications for Road and Bridge Construction to eliminate the use of Excelsior Blanket for Erosion Control Blanket. This work shall consist of furnishing, transporting, and placing 100 % biodegradable erosion control blanket over seeded areas as detailed on the plans, according to Section 251 except as modified herein.

Delete the first and second paragraph of Article 1081.10(a) Excelsior Blanket and substitute the following:

> Excelsior blanket shall consist of a machine produced mat of wood excelsior of 100 percent, 6 in. (150 mm) or longer fiber length. The wood from which the excelsior blanket is cut shall be properly cured to achieve adequately curled and barbed fibers.
>
> The blanket shall be of consistent thickness, with the fiber evenly distributed over the entire area of the blanket. The excelsior blanket shall be covered on the top side with a 90 - day 100 percent biodegradable, plastic-free netting. Netting material shall be made of natural fiber, including coir (coconut husk fibers), jute or sisal, not altered by synthetic materials. Netting shall be “leno-weave” with movable joints (not fixed or welded), allowing each opening between vertical and horizontal twines in the netting stretchable and thus reducing the wildlife entanglement potential. Degradable, photodegradable, UV-degradable, oxo-degradable, or oxo-biodegradable plastic netting (including polypropylene, nylon, polyethylene, and polyester) are **not** acceptable alternatives. The netting shall be substantially adhered to the excelsior blanket by a knitting process using biodegradable thread. The netting shall also be entwined with the excelsior blanket for maximum strength and ease of handling.

Delete the first paragraph of Article 1081.10 (b) Knitted Straw Mat and substitute the following:

> Knitted Straw Mat. Knitted straw mat shall be a machine-produced mat of 100% clean, weed free agricultural straw. The blanket shall be of consistent thickness with the straw evenly distributed over the entire area of the blanket with a functional longevity of up to 12 months. The blanket shall be covered on top and bottom sides with a 100% biodegradable woven natural organic fiber netting. No plastic netting will be allowed. Netting shall be “leno-weave” with movable joints (not fixed or welded). The netting consists of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands to form an approximate 0.50 x 1.0 - inch (1.27 x 2.54 cm) mesh. The blanket shall be sewn together with flexible joints on 1.50 - inch (3.81 cm) centers with biodegradable thread. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2 - 5 inches (5 - 12.5cm) from the edge) as an overlap guide for adjacent mats.

Delete the second paragraph of Article 1081.10(c) (1) Excelsior Blanket and substitute the following:

> Both the top and bottom sides of each blanket shall be covered with 100 percent biodegradable, plastic-free netting. Netting material shall be made of natural fiber, including coir (coconut husk fibers), jute or sisal, not altered by synthetic materials. Netting shall be “leno-weave” with movable joints (not fixed or welded). The netting consists of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands to form an approximate 0.50 x 1.0 – inch (1.27 x 2.54 cm) mesh.

Delete the first paragraph of Article 1081.10 (c) (2) Knitted Straw Mat and substitute the following:

> Knitted Straw Mat. The blanket shall be machine-produced 100% biodegradable blanket, which contains 70% agricultural straw and 30% coconut fiber with a functional longevity of up to 18 months. The blanket shall be of consistent thickness with the straw and coconut evenly distributed over the entire area of the mat. The blanket shall be covered on the top and bottom sides with 100% biodegradable woven natural organic fiber netting. The top netting shall be “leno-weave,” with movable joints (not fixed or welded). The netting consists of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands to form an approximate 0.50 x 1.0 - inch(1.27 x 2.54 cm) mesh. The blanket shall be sewn together on 1.50 - inch (3.81 cm) centers with degradable thread. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2 - 5 inches (5 - 12.5cm) from the edge) as an overlap guide for adjacent mats.

Delete Article 1081.10(d) Wire Staples.

Add the following to Article 1081.10 (e) Wood Stakes:

Biodegradable plastic stakes will be allowed. The biodegradable plastic anchor shall be approximately 6 - inches (15.24 cm) in length. No metal wire stakes will be allowed.

Add the following to Article 251.06(b) Method of Measurement:

(b) Measured Quantities. EROSION CONTROL BLANKET, SPECIAL will be measured for payment in place in square yards of actual surface area covered.

Add the following to Article 251.07 Basis of Payment:

EROSION CONTROL BLANKET, SPECIAL shall be paid at the Contract unit price per square yard.

HEAVY DUTY EROSION CONTROL BLANKETS, SPECIAL (WILDLIFE FRIENDLY)

This Special Provision revises Section 251 of the Standard Specifications for Road and Bridge Construction to eliminate the use of Excelsior Blanket for Erosion Control Blanket. This work shall consist of furnishing, transporting, and placing 100 % biodegradable erosion control blanket over seeded areas as detailed on the plans, according to Section 251 except as modified herein.

Delete the first and second paragraph of Article 1081.10(a) Excelsior Blanket and substitute the following:

Excelsior blanket shall consist of a machine produced mat of wood excelsior of 100 percent, 6 in. (150 mm) or longer fiber length. The wood from which the excelsior blanket is cut shall be properly cured to achieve adequately curled and barbed fibers.

The blanket shall be of consistent thickness, with the fiber evenly distributed over the entire area of the blanket. The excelsior blanket shall be covered on the top side with a 90 day 100 percent biodegradable, plastic-free netting. Netting material shall be made of natural fiber, including coil (coconut husk fibers), jute or sisal, not altered by synthetic materials. Netting shall be “leno-weave” with movable joints (not fixed or welded), allowing each opening between vertical and horizontal twines in the netting stretchable and thus reducing the wildlife entanglement potential. Degradable, photodegradable, UV-degradable, oxo-degradable, or oxo-biodegradable plastic netting (including polypropylene, nylon, polyethylene, and polyester) are **not** acceptable alternatives. The netting shall be substantially adhered to the excelsior blanket by a knitting process using biodegradable thread. The netting shall also be entwined with the excelsior blanket for maximum strength and ease of handling.

Delete the first paragraph of Article 1081.10 (b) Knitted Straw Mat and substitute the following:

> Knitted Straw Mat. Knitted straw mat shall be a machine-produced mat of 100% clean, weed free agricultural straw. The blanket shall be of consistent thickness with the straw evenly distributed over the entire area of the blanket with a functional longevity of up to 12 months. The blanket shall be covered on top side with a 100% biodegradable woven natural organic fiber netting. No plastic netting will be allowed. Netting shall be "leno-weave" with movable joints (not fixed or welded). The netting consists of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands to form an approximate 0.50 x 1.0 (1.27 x 2.54 cm) mesh. The blanket shall be sewn together with flexible joints on 1.50 inch (3.81 cm) centers with biodegradable thread. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches (5-12.5cm) from the edge) as an overlap guide for adjacent mats.

Delete the second paragraph of Article 1081.10(c) (1) Excelsior Blanket and substitute the following:

> Both top and bottom sides of each blanket shall be covered with 100 percent biodegradable, plastic-free netting. Netting material shall be made of natural fiber, including coir (coconut husk fibers), jute or sisal, not altered by synthetic materials. Netting shall be "leno-weave" with movable joints (not fixed or welded). The netting consists of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands to form an approximate 0.50 x 1.0 (1.27 x 2.54 cm) mesh.

Delete the first paragraph of Article 1081.10 (c) (2) Knitted Straw Mat and substitute the following:

> Knitted Straw Mat. The blanket shall be machine-produced 100% biodegradable blanket, which contains 70% agricultural straw and 30% coconut fiber with a functional longevity of up to 18 months. The blanket shall be of consistent thickness with the straw and coconut evenly distributed over the entire area of the mat. The blanket shall be covered on the top and bottom sides with 100% biodegradable woven natural organic fiber netting. The top netting shall be "leno-weave," with movable joints (not fixed or welded). The netting consists of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands to form an approximate 0.50 x 1.0 (1.27 x 2.54 cm) mesh. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with degradable thread. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches (5-12.5cm) from the edge) as an overlap guide for adjacent mats.

Delete Article 1081.10(d) Wire Staples.

Add the following to Article 1081.10 (e) Wood Stakes:

Biodegradable plastic stakes will be allowed. The biodegradable plastic anchor shall be approximately 10 inches in length. No metal wire stakes will be allowed.

Add the following to Article 251.06(b) Method of Measurement:

(b) Measured Quantities. HEAVY DUTY EROSION CONTROL BLANKET, SPECIAL will be measured for payment in place in square yards of actual surface area covered.

Add the following to Article 251.07 Basis of Payment:

HEAVY DUTY EROSION CONTROL BLANKET, SPECIAL shall be paid at the Contract unit price per square yard.

MAINTENANCE MOWING

Description: This work shall consist of mowing turf grass areas to a height not more than 3 inches.

Schedule: As directed by the Engineer.

Equipment: The Contractor shall keep all mowing equipment sharp and properly equipped for operation along an urban arterial route. The equipment used shall be capable of completely severing all growth at the cutting height and distributing it evenly over the mowed area. Special equipment may be required on steep slopes, in narrow areas, and for trimming around posts, poles, fences, trees, shrubs, seedlings, etc.

Method: All mowing and trimming operations are to proceed in the direction of traffic flow. The cut material shall not be windrowed or left in a lumpy or bunched condition. Additional mowing or trimming may be required to obtain the height specified or to disperse mowed material.

Debris encountered during the mowing operations which hampers the operation or is visible from the roadway shall be removed and disposed of according to Article 202.03. All trimmings, windrowed material, and debris removal must be complete to the satisfaction of the Engineer. Damage to the turf, such as ruts or wheel tracks more than 2 inches in depth, or other plantings or highway appurtenances caused by the mowing or trimming operation shall be repaired at the Contractor's expense.

Method of Measurement: Mowing and trimming will be measured in acres of surface area mowed at the completion of each mowing cycle.

Plan quantities are estimates only. Actual quantities will be measured in place. Agreement to plan quantities will not be allowed. Shrub beds or perennial beds within the mowed area that are less than 1000 square feet will not be subtracted from the area mowed.

Basis of Payment: This work will be paid for at the contract unit price per acre for MAINTENANCE MOWING. Any additional mowing or trimming required to obtain the height specified or to disperse mowed material will be considered as included in the cost of the initial mowing. Payment for mowing and trimming shall include the cost of all material, equipment, labor, removal, disposal, and incidentals required to complete the work as specified herein and to the satisfaction of the Engineer.

MOWING (SPECIAL)

Description: This work shall consist of mowing and or hand trimming grass areas to the height of 1 inch to 4 inches dependent on the ground cover type (turf or native) and intent (interseeding or maintenance). It shall take place in difficult to mow areas that may consist of one or more of the following scenarios: narrow spaces less than 2 feet wide, steep slopes greater than 2:1, excessive debris and brush, areas of permanently wet conditions, and/or areas of uneven ground. These areas may not be able to be mowed with typical roadside mowing equipment.

Schedule and Height of Mowing: As directed by the Engineer.

Equipment: The Contractor shall keep all mowing equipment sharp and properly equipped for operation within an urban arterial route. The equipment used shall be capable of completely severing all growth at the cutting height and distributing it evenly over the mowed area. Special equipment may be required to cut weed trees and brush up to 2” diameter on steep slopes, in narrow areas, and for trimming around posts, poles, trees, shrubs, seedlings, along fences and concrete retaining walls, etc.

Method: All mowing and trimming operations are to proceed in the direction of traffic flow. The cut material shall not be windrowed or left in a lumpy or bunched condition. All drain inlets must be kept clean and draining freely. Additional mowing or trimming may be required to obtain the height specified or to disperse mowed material, and to allow penetration of the seed. When amount of grass is heavy, cut grass shall be removed to prevent destruction of underlying turf. If weeds or other undesirable vegetation threatens to smother planted species, or in case of weeds exceeding growth of planted species, at the direction of the Engineer, the weeds shall be uprooted, raked, and removed from the area. No more than 1/3 of the total growth of grass shall be cut off at one time and only when plants are dry, and soil is not wet.

Remove litter, including plastic bags, paper, bottles, etc. prior to mowing. Debris encountered during the mowing operations, including the cut material from *Phragmites* species and *Teasel* species, shall be removed, and disposed of according to Article 202.03. All trimmings, windrowed material, litter, and debris removal must be complete to the satisfaction of the Engineer. Damage to the turf, such as ruts or wheel tracks more than 2 inches in depth, scalping of the mowed areas, or other plantings or highway appurtenances caused by the mowing or trimming operation shall be repaired at the Contractor's expense and to the satisfaction of the Engineer.

Method of Measurement: Mowing and trimming will be measured in acres of surface area mowed at the completion of each mowing cycle.

If the inspection discloses any work as being unsatisfactory, the Engineer will give the Contractor the necessary instructions for correction of same, and the Contractor shall immediately comply with such instructions and correct the unsatisfactory work. Work that is not acceptable on the inspection date will not be measured for payment.

Plan quantities are estimates only. Actual quantities will be measured in place. Agreement to plan quantities will not be allowed.

Basis of Payment: This work will be paid for at the contract unit price per acre for MOWING (SPECIAL). Any additional mowing or trimming required to obtain the height specified or to disperse mowed material will be considered as included in the cost of the initial mowing. Payment for mowing and trimming shall include the cost of all material, equipment, labor, removal, disposal, and incidentals required to complete the work as specified herein and to the satisfaction of the Engineer.

CATCH BASINS TO BE ADJUSTED (SPECIAL)

Description: This work shall consist of adjusting the existing frame of the drainage structures indicated in the plans or as directed by the Engineer. The existing frames must be adjusted vertically and horizontally to align with the lines and dimensions of the reconstructed concrete barrier wall.

Construction Requirements: The work shall be according to applicable portions of Section 603 of the IDOT SSRBC and any other applicable special provisions contained herein.

Method of Measurement: CATCH BASINS TO BE ADJUSTED (SPECIAL) shall be measured per each.

Basis of Payment: This work will be measured for payment at the contract unit price per each for CATCH BASINS TO BE ADJUSTED (SPECIAL).

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (PROJECT SPECIFIC)

Description. This work shall consist of the removal and disposal of regulated substances according to Section 669 of the Standard Specifications as revised below.

Contract Specific Sites. The excavated soil and groundwater within the areas listed below shall be managed as either "uncontaminated soil", hazardous waste, special waste or non-special waste. For stationing, the lateral distance is measured from centerline and the farthest distance is the offset distance or construction limit, whichever is less.

Soil Disposal Analysis. When the waste material requires sampling for landfill disposal acceptance, the Contractor shall secure a written list of the specific analytical parameters and analytical methods required by the landfill The Contractor shall collect and analyze the required number of samples for the parameters required by the landfill using the appropriate analytical procedures. A copy of the required parameters and analytical methods (from landfill email or on landfill letterhead) shall be provided as Attachment 4A of the BDE 2733 (Regulated Substances Final Construction Report). The price shall include all sampling materials and effort necessary for collection and management of the samples, including transportation of samples from the job site to the laboratory. The Contractor shall be responsible for determining the specific disposal facilities to be utilized; and collect and analyze any samples required for disposal facility acceptance using a NELAP certified analytical laboratory registered with the State of Illinois.

Site 2773V2-103 – Residential Buildings, 303-507 Dwight Street, 720-753 Raymond Street, 718-757 Grace Street, 719-763 St. Charles Street, 751-763 Liberty Street and 750-759 Illinois Avenue, Elgin, Kane County

- Station 412+30 to Station 414+85 (CL US 20), 0 to 110 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(2). Contaminant of concern sampling parameter: Manganese.
- Station 414+85 to Station 423+80 (CL US 20), 0 to 110 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Iron, Lead, Manganese and Nickel.
- Station 423+80 to Station 426+00 (CL US 20), 0 to 110 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(2). Contaminants of concern sampling parameters: Iron and Manganese.
- Station 102+00 to Station 102+55 (CL St. Charles Street), 0 to 40 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Benzo(a)pyrene and Manganese.
- Station 102+00 to Station 102+55 (CL St. Charles Street), 0 to 40 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(3). Contaminants of concern sampling parameters: Benzo(a)pyrene, Lead and Manganese.

Site 2773V2-106 – Olde Town Inn, 412 Bluff City Boulevard, Elgin, Kane County

- Station 412+30 to Station 413+50 (CL US 20), 0 to 190 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminant of concern sampling parameters: Arsenic, Lead and Manganese.

Site 2773V2-107 – Residences, 419-429 Russell Street, Elgin, Kane County

- Station 413+50 to Station 416+00 (CL US 20), 0 to 90 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Benzo(a)pyrene, Lead and Manganese.

Site 2773V2-108 – BP Gasoline Station and McDonald's, 816 St. Charles Street, Elgin, Kane County

- Station 416+00 to Station 417+80 (CL US 20), 0 to 90 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Benzo(a)pyrene, Lead and Manganese.
- Station 101+45 to Station 102+00 (CL St. Charles Street), 0 to 40 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(3). Contaminants of concern sampling parameters: Benzo(a)pyrene and Manganese.

Site 2773V2-110 – Ray's Family Restaurant, 801 St. Charles Street, Elgin, Kane County

- Station 417+80 to Station 419+45 (CL US 20), 0 to 90 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(3). Contaminants of concern sampling parameters: Benzo(a)pyrene and Manganese.
- Station 101+45 to Station 102+00 (CL St. Charles Street), 0 to 40 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Iron, Lead and Manganese.

Site 2773V2-114 – Residences, 800-811 Liberty Street, 514-776 Bluff City Boulevard, 800-805 Illinois Avenue, 659-663 Russell Street, 800-810 Lavoie Avenue, and 800-806 Cookane Avenue, Elgin, Kane and Cook Counties

- Station 419+45 to Station 421+10 (CL US 20), 0 to 90 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(3). Contaminants of concern sampling parameters: Benzo(a)pyrene and Manganese.
- Station 421+10 to Station 438+30 (CL US 20), 0 to 90 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Benzo(a)pyrene, Iron, Lead and Manganese.
- Station 438+30 to Station 440+00 (CL US 20), 0 to 85 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(2). Contaminants of concern sampling parameters: Lead and Manganese.

Site 2773V2-115 – Drake Field Park, 701 Hastings Street, Elgin, Kane and Cook Counties

- Station 426+00 to Station 429+55 (CL US 20), 0 to 80 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(2). Contaminants of concern sampling parameters: Iron and Manganese.
- Station 429+55 to Station 432+55 (CL US 20), 0 to 80 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Benzo(a)pyrene, Iron, Lead and Manganese.

Site 2773V2-116 – Huff Elementary School, 801 Hastings Street, Elgin, Cook County

- Station 432+55 to Station 435+60 (CL US 20), 0 to 80 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(5). Contaminants of concern sampling parameters: Arsenic, Lead, and Manganese.
- Station 435+60 to Station 438+30 (CL US 20), 0 to 80 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(b)(1).

Site 2773V2-117 – Residences, 823-885 Hastings Street, Elgin, Cook County

- Station 438+30 to Station 440+00 (CL US 20), 0 to 80 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(2). Contaminant of concern sampling parameter: Manganese.

Site 2773V2-118 – Bridge, 700-800 Blocks of US 20, Elgin, Cook County

- Station 440+00 to Station 440+35 (CL US 20), 0 to 80 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(2). Contaminant of concern sampling parameter: Manganese.
- Station 440+35 to Station 440+75 (CL US 20), 35 to 80 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(2). Contaminant of concern sampling parameter: Manganese.
- Station 440+75 to Station 440+95 (CL US 20), 35 to 80 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Benzo(a)pyrene, Iron, Lead and Manganese.
- Station 440+95 to Station 441+25 (CL US 20), 0 to 80 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Benzo(a)pyrene, Iron, Lead and Manganese.
- Station 441+00 to Station 442+30 (CL US 20), 0 to 80 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Benzo(a)pyrene, Iron, Lead and Manganese.
- Station 439+75 to Station 440+15 (CL US 20), 0 to 85 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(2). Contaminants of concern sampling parameters: Lead and Manganese.
- Station 440+15 to Station 440+80 (CL US 20), 35 to 85 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(2). Contaminants of concern sampling parameters: Iron, Lead and Manganese.
- Station 440+80 to Station 441+00 (CL US 20), 0 to 85 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(2). Contaminants of concern sampling parameters: Iron, Lead and Manganese.

Site 2773V2-119 – Poplar Creek, 700 Block of Bluff City Boulevard, Elgin, Cook County

- Station 440+15 to Station 440+80 (CL US 20), 0 to 35 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(3). Contaminants of concern sampling parameters: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenzo(a,h)anthracene and Indeno(1,2,3- cd)pyrene.
- Station 440+35 to Station 440+95 (CL US 20), 0 to 35 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(3). Contaminants of concern sampling parameters: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenzo(a,h)anthracene and Indeno(1,2,3- cd)pyrene.

Site 2773V2-120 – U-Haul Self Storage, 796 Bluff City Boulevard, Elgin, Cook County

- Station 441+00 to Station 442+50 (CL US 20), 0 to 85 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(2). Contaminants of concern sampling parameters: Iron, Lead and Manganese.
- Station 442+50 to Station 445+00 (CL US 20), 0 to 85 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Benzo(a)pyrene, Lead and Manganese.

Site 2773V2-121 – Izaak Walton Reserve, 700 Block of Kirk Avenue, Elgin, Cook County

- Station 441+25 to Station 442+30 (CL US 20), 0 to 80 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Benzo(a)pyrene, Iron, Lead and Manganese. See soil boring 2773V2-118-B01 (Figure 4). Three of three areas associated with this boring.
- Station 442+30 to Station 446+00 (CL US 20), 0 to 80 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Benzo(a)pyrene, Iron, Lead and Manganese.
- Station 447+80 to Station 449+70 (CL US 20), 0 to 80 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(2). Contaminant of concern sampling parameter: Manganese.
- Station 449+70 to Station 451+05 (CL US 20), 0 to 80 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Benzo(a)pyrene, Iron, Lead and Manganese.

Site 2773V2-125 – Crown Castle Wireless Communication Tower, 800 Block of Wright Avenue, Elgin, Cook County

- Station 451+80 to Station 452+75 (CL US 20), 0 to 85 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Iron and Manganese.

Site 2773V2-126 – Residences, 769-780 Wright Avenue, Elgin, Cook County

- Station 451+05 to Station 453+55 (CL US 20), 0 to 80 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Benzo(a)pyrene, Iron, Lead and Manganese.

Site 2773V2-127 – Wilbert Burial Vaults, 954 Bluff City Boulevard, Elgin, Cook County

- Station 452+75 to Station 454+35 (CL US 20), 0 to 85 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Iron and Manganese.

Site 2773V2-128 – Residence, 956 Bluff City Boulevard, Elgin, Cook County

- Station 454+35 to Station 457+55 (CL US 20), 0 to 85 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Benzo(a)pyrene, Iron, Lead and Manganese.
- Station 457+55 to Station 458+45 (CL US 20), 0 to 85 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(5). Contaminants of concern sampling parameters: Manganese and VOCs.

Site 2773V2-129 – Vacant Land, 760 Dickie Avenue, Elgin, Cook County

- Station 453+55 to Station 458+00 (CL US 20), 0 to 80 feet LT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(1). Contaminants of concern sampling parameters: Arsenic, Iron, Lead and Manganese.

Site 2773V2-130 – Bluff City Metal Recycling, 980 Bluff City Boulevard, Elgin, Cook County

- Station 458+45 to Station 459+70 (CL US 20), 0 to 85 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(5). Contaminants of concern sampling parameters: Manganese and VOCs.

Site 2773V2-131 – Residence, 992 Bluff City Boulevard, Elgin, Cook County

- Station 459+70 to Station 460+50 (CL US 20), 0 to 85 feet RT. The Engineer has determined this material meets the criteria of and shall be managed in accordance with Article 669.05(a)(5). Contaminants of concern sampling parameters: Manganese and VOCs.

Work Zones

Three distinct OSHA HAZWOPER work zones (exclusion, decontamination, and support) shall apply to projects adjacent to or within sites with documented leaking underground storage tank (LUST) incidents, or sites under management in accordance with the requirements of the Site Remediation Program (SRP), Resource Conservation and Recovery Act (RCRA), or Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), or as deemed necessary. For this project, the work zones apply for the following ISGS PESA Sites**:**
None