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Letting September 23, 2022

Notice to Bidders, Specifications and Proposal

Contract No. 60X98
COOK County
Section 2014-012LS
Route FAI 90/94
Project NHPP-WLYX(088)
District 1 Construction Funds

Prepared by	F
Checked by	

(Printed by authority of the State of Illinois)

Illinois Department of Transportation

NOTICE TO BIDDERS

1. **TIME AND PLACE OF OPENING BIDS.** Electronic bids are to be submitted to the electronic bidding system (iCX-Integrated Contractors Exchange). All bids must be submitted to the iCX system prior to 12:00 p.m. September 23, 2022 at which time the bids will be publicly opened from the iCX SecureVault.

2. **DESCRIPTION OF WORK**. The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

   Contract No. 60X98
   COOK County
   Section 2014-012LS
   Project NHPP-WLYX(088)
   Route FAI 90/94
   District 1 Construction Funds

(1.39-Mile) Planting of various landscaping features within the 1-90 and 1-290 expressway corridors, installation of various aesthetics features as well as creation of green spaces at selected locations to enhance the overall corridor.

3. **INSTRUCTIONS TO BIDDERS**. (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.

   (b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.

4. **AWARD CRITERIA AND REJECTION OF BIDS**. This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to re-advertise the proposed improvement, and to waive technicalities.

By Order of the
Illinois Department of Transportation

Omer Osman,
Secretary

FAI Route90/94 (I-91/94)
Project NHPP-WLYX(088)
Section 2014-012LS
Cook County
Contract No. 60X98

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2022

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS and frequently used RECURRING SPECIAL PROVISIONS.

No ERRATA this year.

SUPPLEMENTAL SPECIFICATIONS

RECURRING SPECIAL PROVISIONS

The following RECURRING SPECIAL PROVISIONS indicated by an "X" are applicable to this contract and are included by reference:

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STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the “Standard Specifications for Road and Bridge Construction" adopted April 1, 2022, the latest edition of the "Manual of Uniform Traffic Control Devices for Streets and Highways, the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheets included herein which apply to and govern the construction of the landscaping in the infield areas at the interchange of FAI Route90/94 (I-91/94), Project NHPP-WLYX(088), Section 2014-012LS, Cook County, Contract No. 90X98, and in case of conflict with any part or parts of said specifications, the said special provisions shall take precedence and shall govern.

FAI Route90/94 (I-91/94)
Project NHPP-WLYX(088)
Section 2014-012LS
Cook County
Contract No. 90X98

LOCATION OF PROJECT

The project is located along FAI Route 90/94 from Roosevelt Road to Lake Street. The gross and net length of the project is 7,340.00 feet (1.390 miles).

DESCRIPTION OF PROJECT

The work consists of landscaping in the infield areas at the interchange of I-90/94, I-290 and Ida B. Wells Drive. The work also consists of landscaping behind retaining walls and between exit ramps and the mainline on the along each side of I-90/94 between Roosevelt Road and Lake Street. The work also consists of landscaping north of Westbound I-290 between Morgan Street and Racine Avenue and south of Eastbound I-290 west of Morgan Street. The work also includes greenspace improvements east of I-90/94 adjacent to Haberdasher Square Lofts, north of westbound I-290 adjacent to Green Street Lofts and at the northwest corner of Harrison Street and Des Plaines Street where the CTA bus turnaround is located.

Work includes landscaping, , erosion control and protection, special waste excavation, earth excavation, traffic control and protection, urban enhancements and all incidental and collateral work necessary to complete the improvements as shown on the Plans and as described herein.

SOILS INFORMATION

The reports below are available for inspection at IDOT District 1, 201 W. Center Court, Schaumburg, Illinois.

Roadway Geotechnical Report
Jane Byrne Interchange Reconstruction
I-90/94 and Connection Ramps
62A76, 62A77 and 60X94
Section 2015-020B and 2014-015R&B-R
Cook County, Illinois
Prepared by Wang Engineering, Inc.
Original: October 28, 2019
Revised: December 16, 2019
Revised: January 28, 2019

PERMITS

In accordance with Article 107.04 – Permits and Licenses, of the Standard Specifications for Road and Bridge Construction dated January 1, 2022, the Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the work. These permits may include, but are not limited to, the Chicago Department of Transportation's Public Right of Way Permit, Chicago Department of Transportation's Office of Underground Coordination (OUC) and others.

CDOT's Public Right of Way Permit Office is responsible for issuing permits for the use or work in the public way. Some of the applications and permits that are attainable through the office are: Athletic Events Applications; Parade Applications; Public Assembly Notifications; Commercial Refuse Containers Permits; Deep Foundation Permits; Driveway Permits; Public Way Opening Permits; and Public Right of Way Use Permits.

The CDOT Office of Underground Coordination (OUC) is responsible for all requests regarding existing utility information and the review/approval of construction work in or adjacent to the Public Way and all excavations and/or penetrations, such as foundations (piles, caisson, etc.), earth retention systems or major piping installations, deeper than 12 feet. The work in this contract shall follow the Office of Underground Coordination (OUC) submittal guidelines and procedures outlined in Section 3.3 of the Chicago Department of Transportation (CDOT) "Rules and Regulation for Construction in the Public Way" manual in effect on the date of invitation of bids.

The Contractor may not start work on any element of work requiring a City of Chicago or any other permit until such permit has been received. All costs related to the permit requirements will be included in the cost of the contract.

CONTRACTOR COOPERATION

The Contractor's attention is directed to the fact that other separate contracts may be under construction during the duration of this Contract. Adjacent contracts may consist of, but are not limited to projects near:

Contract 62A76	Northbound I-90/94 from Roosevelt Rd to Lake St/Madison St
Contract 62A77	Southbound I-90/94 from Roosevelt Rd to Lake St/Madison St
Contract 60X94	Adams Street and Jackson Boulevard over FAI Rte. 90/94
Contract 60Y00	Interchange High Mast Lighting and Interchange Intelligent Transportation Systems
Contract 60Y69	Tree Planting (#5)

University of Illinois at Chicago – Miscellaneous Projects

City of Chicago Department of Transportation Projects

The Contractor will be governed by Article 105.08 of the Standard Specifications.

The Contractor will be required to attend a weekly coordination meeting at a time and location to be determined by the Department.

The Contractor will coordinate proposed project start dates and sequence of construction with the Engineer and other Contractors to present an effective and timely schedule for successful completion of the project.

The cooperation between work under this contract, Contracts 62A76, 62A77 and 60X94 is essential due to the adjacent limits of construction and shared maintenance of traffic responsibilities along I-290 and I-90/94. All traffic staging configurations and changes to staging along I-290, I-90/94 and associated ramps shall be coordinated with the contractor performing work under Contracts 60X94, 62A76 and 62A77.

Contracts 62A77, 62A76, and 60X94 and this contract include a number of adjacent and overlapping work zones and in numerous locations, one contract includes improvements that will allow proposed work to proceed in the other contract or one contract includes active traffic that may prevent work in the other contract from occurring for a period of time. Cooperation between these contracts and contractors is critical.

PROGRESS SCHEDULE

Description. Time is of the essence in this Contract. It may be necessary for the Contractor to work longer hours, use additional crews, and work during weekends in order to complete the work within the required time limit. The Contractor shall submit a Critical Path Method (CPM) Progress Schedule as described below for the Engineer's approval before the work can be started.

The Contractor will not be allowed any compensation for working longer hours or using extra shifts; and working on weekends or during Holidays; working during winter months, etc. to meet the specified Completion Date.

This work shall consist of preparing, revising and updating a detailed progress scheduled based upon the Critical Path Method (CPM). This work shall also consist of performing time impact analysis of the progress schedule based upon the various revisions and updates as they occur.

Requirements. The software shall produce an electronic progress schedule for submission to the department that is 100% compatible with Primavera SureTrak 3.0 Project Manager, published by Primavera Systems, Inc.

Format. The electronic schedule format shall contain the following:

a. Project Name: (Optional).

b. Template: Construction.

c. Type: SureTrak: Native file format for stand-alone contracts.

d. Planning Unit: Days (calendar working).

e. Number/Version: Original or updated number.

f. Start Date: Not later than ten days after execution of the contract.

g. Must Finish Date: Completion date for completion date contracts.

h. Project Title: Contract number.

i. Company Name: Contractor's name.

Calendars.

a. Completion Date Contracts. The base calendar shall show the proposed working days of the week and the proposed number of work hours per day.

Schedule Development. The detailed schedule shall incorporate the entire contract time. The minimum number of activities shown on the schedule shall represent the work incorporating the pay items whose aggregate contract value constitutes 80 percent of the total contract value. These pay items shall be determined by starting with the pay item with the largest individual contract value and adding subsequent pay item contract values in descending order until 80 percent of the contract value has been attained. Any additional activities required to maintain the continuity of the schedule logic shall also be shown.
The following shall be depicted in the schedule for each activity:

a. Activity Identification (ID) Numbers. The Contract shall utilize numerical designations to identify each activity. Numbering of activities shall be in increments of not less than ten digits.

b. A description of the work represented by the activity (maximum forty-five characters). The use of descriptions referring to a percentage of a multi-element item (i.e., construct deck 50%) shall not be used. Separate activities shall be included to represent different elements of multi-element items (i.e., forms, reinforcing, concrete, etc.). Multiple activities with the same work description shall include a location as part of the description.

c. Proposed activity duration shall be shown in whole days. The Contractor shall provide production rates to justify the activity duration. Schedule duration shall be contiguous and not interruptible.

The schedule shall indicate the sequence and interdependence of activities required for the prosecution of the work. The schedule logic shall not be violated.

Activities should be broken down such that each activity encompasses a single operation or tightly-integrated operations in a single, contiguous and continuous area of the project, with no activity exceeding $200,000 without the consent of the Engineer.

Total Float shall be calculated as finish float. The schedule shall be calculated using retained logic. The Contractor shall not sequester float by calendar manipulations or extended duration. Float is not for the exclusive use or benefit of either the Department or the Contractor.

Tabular Reports.

a. The following tabular reports will be required with each schedule submission:

    1. Classic Gantt

    2. Pert with Time Scale

b. The heading of each tabular report shall include, but not be limited to, the project name, contract number, Contractor name, report date, data date, report title and page number.

c. Each of the tabular reports shall also contain the following minimum information for each activity.

1. Activity ID

2. Activity Description

3. Original Duration (calendar day/working day)

4. Remaining Duration (calendar day/working day)

5. Activity Description

6. Early Start Date

7. Late Start Date

8. Early Finish Date

9. Late Finish Date

10. Percent Complete

11. Total Float

12. Calendar ID

13. Work performed by DBE Subcontractors and Trainees shall be shown in the Gantt Report.

d. Reports shall be printed in color on 11 in. x 17 in. (minimum) size sheets. The Classic Gantt shall show all columns, bars, column headings at the top, time scale at the top and shall show relationships.

Submission Requirements. The initial schedule shall be submitted prior to starting work but no later than five calendar days after execution of the contract. Updated schedules shall be submitted according to Article 108.02 except that as a minimum, updated schedules will be required at the 25, 50, and 75 percent completion points of the contract.

Updating.

a. The Contractor shall not make any changes to the original duration, activity relationships, constraints, costs, add or delete activities, or alter the schedule's logic when updating the schedule.

b. The originally approved baseline CPM schedule will be designated as the "Target Schedule" and shall only be changed based on a Change Order that extends the Contract duration. All updates will be plotted against the "Target Schedule." If the Contractor believes any such changes result in an overall increase in the contract time, the Contractor will immediately submit a request for extension of time along with the changed progress schedule and a detailed justification for the time extension request in accordance with Article 108.08.

c. The updated information will include the original schedule detail and the following additional information:

1. Actual start dates

2. Actual finish dates

3. Activity percent completion

4. Remaining duration of activities in progress

5. Identified or highlighted critical activities

d. The Contractor shall submit scheduling documents in the same formats and number as indicated in this section.

e. The Engineer shall withhold progress payments if the Contractor does not submit scheduled updates as required.

f. Upon receipt of the CPM schedule update, the Engineer will review the schedule for conformance with the Contract Documents and degree of detail. The Engineer, within fourteen (14) Days after receipt of the Updated CPM Schedule and supporting documents, will approve or reject it with written comments. If the Updated CPM schedule is rejected, the Contractor must submit a Revised Updated CPM Schedule within seven (7) Days after the date of rejection.

g. The updated progress schedule must accurately represent the Project's current status.

Contractor Changes to the Schedule.

The Contractor shall comply with the following requirements regarding proposed changes to the approved baseline CPM schedule:

a. If the Contractor proposes to make any changes in the approved baseline CPM schedule, the Contractor shall notify the Engineer in writing, stating the reasons for the change, identifying each changed activity (including duration and interrelationships between activities) and providing a diskette of the proposed changed schedule. Every effort must be made by the Contractor to retain the original Activity ID numbers.

b. The Engineer has the authority to approve or disapprove the proposed change in the baseline CPM schedule and shall do so in writing within ten (10) Days after receipt to the Contractor's submission.

c. If the Engineer approves the change in the baseline. All monthly updates will be plotted against the new "Target Schedule".

d. If the Engineer approves a portion of the change to the baseline CPM schedule, the Contractor shall submit a revised CPM schedule incorporating such change(s) within ten (10) Days after approval along with a written description of the change(s) to the schedule.

Recovery Schedule.

a. The Contractor shall maintain an adequate work force and the necessary materials, supplies and equipment to meet the current approved baseline CPM schedule. In the event that the Contractor, in the judgment of the Engineer, is failing to meet the approved CPM schedule including any Contract milestones, the Contractor shall submit a recovery schedule.

b. The recovery schedule shall set forth a plan to eliminate the schedule slippage (negative float). The plan must be specific to show the methods to achieve the recovery of time, i.e. increasing manpower, working overtime, weekend work, employing multiple shifts. All costs associated with implementing the recovery schedule shall be borne by the Contractor.

c. Upon receipt of the CPM recovery schedule, the Engineer will review the schedule for conformance with the Contract Documents and degree of detail. The Engineer will approve the schedule or reject it with written comments within fourteen (14) Days of receipt of the recovery schedule and supporting documents. If the detailed CPM recovery schedule is rejected, the Contractor must submit a revised CPM recovery schedule within seven (7) Days of the date of rejection.

Revised Schedule.

The Engineer may direct the Contractor to revise the approved CPM schedule. Reasons for such direction may include, but are limited to, the following: (1) changes in the Work, (2) rephrasing of the Project or any phase, (3) a change in the duration of the Project or phase, and (4) acceleration of the Project or phase.

a. The Engineer will direct the Contractor to provide a revised CPM schedule in writing.

b. The Contractor will provide the revised CPM schedule within ten (10) Days of receipt of the Engineer's written direction.

c. The Engineer has the authority, in its sole discretion, to approve or reject the revised CPM schedule and will do so in writing within ten (10) Days after receipt of the Contractor's submission. If the Engineer approves the revised schedule, such schedule will be designated the new "Target Schedule".

The schedule shall be submitted in the Sorted by Activity Layout (SORT4). The activities on the schedule shall be plotted using early start, late start, early finish, late finish and total finish.

For every schedule submission, the Contractor shall submit to the Engineer, four Windows XP compatible compact disks of all schedule data. Included on the disks shall be all of the tabular and graphic reports, network diagrams and bar chart data. Two copies shall be submitted on CD/R disks and two copies shall be submitted on CDD/RW disks. In addition, four plots of the CD/R disks will be approved initial or revised progress schedule for the contract. The approval will be documented by the Engineer on a corresponding plot of the schedule and returned to the Contractor.

Four copies of each schedule submission shall be printed in color on 11 in. x 17 in. (minimum) size sheets showing all columns, bars, column headings at the top, time scale at the top and showing relationships.

The schedule shall indicate the critical path to contract completion. Only one controlling item shall be designated at any point in time on the schedule.

Acceptance or approval of any progress schedule by the Engineer shall not be construed to imply approval of any particular method of construction, sequence of construction, any implied or stated rate of production. Acceptance will not act as a waiver of the obligation of the Contractor to complete the work in accordance with the contract proposal, Plans and Specifications, modify any rights or obligations of the Department as set forth in the contract, nor imply any obligation of a third party. Acceptance shall not be construed to modify or amend the contract or the time limit(s) therein. Acceptance shall not relieve the Contractor of the responsibility for the accuracy of any of the information included on the schedule. Failure of the Contractor to include in the schedule any element of work required for the performance of the contract, any sequence of work required by the contract, or any known or anticipated condition

affecting the work shall not excuse the Contractor from completing all work required within the time limit(s) specified in the contract notwithstanding acceptance of the schedule by the Engineer.

Basis of Payment. This work will not be paid for separately, but shall be considered as included in the costs of the various items of work in the contract.

WINTER WORK

No adjustment will be made in the contract unit prices for any concrete if winter work is necessary to meet the required completion dates specified in the contract.

SUBMITTALS

There are elements of construction that may require long lead times between order and delivery to the project site for installation. The Contractor must prioritize timely submittals of shop drawings to minimize any delays in project execution.

The Contractor shall provide notice to the Engineer concerning shop drawing submittal schedules and when shop drawing submittal deadlines may be delayed.

MAINTENANCE OF ROADWAYS

Effective: September 30, 1985
Revised: November 1, 1996

Beginning on the date that work begins on this project, the Contractor shall assume responsibility for normal maintenance of all existing roadways within the limits of the improvement. This normal maintenance shall include all repair work deemed necessary by the Engineer, but shall not include snow removal operations. Traffic control and protection for maintenance of roadways will be provided by the Contractor as required by the Engineer.

If items of work have not been provided in the contract, or otherwise specified for payment, such items, including the accompanying traffic control and protection required by the Engineer, will be paid for in accordance with Article 109.04 of the Standard Specifications.

STATUS OF UTILITIES (D-1)

Effective: June 1, 2016
Revised: January 1, 2020

Utility companies and/or municipal owners located within the construction limits of this project have provided the following information in regard to their facilities and the proposed improvements. The tables below contain a description of specific conflicts to be resolved and/or facilities which will require some action on the part of the Department's contractor to proceed with work. Each table entry includes an identification of the action necessary and, if applicable, the estimated duration required for the resolution.

UTILITIES TO BE ADJUSTED

Conflicts noted below have been identified by following the suggested staging plan included in the contract. The company has been notified of all conflicts and will be required to obtain the necessary permits to complete their work; in some instances resolution will be a function of the construction staging. The responsible agency must relocate or complete new installations as noted in the action column; this work has been deemed necessary to be complete for the Department's contractor to then work in the stage under which the item has been listed.

STAGE / LOCATION	TYPE	DESCRIPTION	RESPONSIBLE AGENCY	DURATION OF TIME
None				

No conflicts to be resolved (or if there are conflicts that are to be listed as noted above).

The following contact information is what was used during the preparation of the plans as provided by the Agency/Company responsible for resolution of the conflict.

Agency/Company Responsible to Resolve Conflict	Name of contact	Address	Phone	E-mail address
None				

UTILITIES TO BE WATCHED AND PROTECTED

The areas of concern noted below have been identified by following the suggested staging plan included for the contract. The information provided is not a comprehensive list of all remaining utilities, but those which during coordination were identified as ones which might require the Department's contractor to take into consideration when making the determination of the means and methods that would be required to construct the proposed improvement. In some instances the contractor will be responsible to notify the owner in advance of the work to take place so necessary staffing on the owners part can be secured.

All Stages

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
NB I-90/94	Gas Main	The 2" gas service for Cermak Pump Station is located south of the Harrison Street Bridge in the abandoned Vernon Park Place ROW.	Peoples Gas
Roosevelt Road over I-90/94	Electric	ComEd maintains active facilities in multiple groups of conduits attached to the bridge structure. Existing ComEd facilities shall not be disturbed.	ComEd
Roosevelt Road over I-90/94	Electric / Roadway Lighting	City of Chicago DOT maintains active facilities in conduits along Roosevelt Road including attached to the bridge structure and embedded in parapet walls. Existing City of Chicago DOT facilities shall not be disturbed.	City of Chicago CDOT
Taylor Street over I-90/94	Electric	ComEd maintains active facilities in conduits attached to the bridge structure. Existing ComEd facilities shall not be disturbed.	ComEd
Taylor Street over I-90/94	Roadway Lighting and Traffic Signals	City of Chicago DOT maintains active facilities in conduits along Taylor Street embedded in parapet walls. Existing City of Chicago CDOT facilities shall not be disturbed.	City of Chicago CDOT
Taylor Street over I-90/94	Communications	City of Chicago OEMC maintains active facilities in conduits along Taylor Street attached to the bridge structure. Existing City of Chicago OEMC facilities shall not be disturbed.	City of Chicago OEMC

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
NB I-90/94 (at Arthington Street Corridor)	Electric	Electric line duct package is located well below the existing pavement to along NB I-90/94. According to data previously provided by ComEd, the existing ductbank is well below the existing areas. See Plans for approximate elevation data.	ComEd
NB I-90/94 (at Cabrini Street Corridor)	Electric	Electric line duct package is located well below the existing pavement along NB I-90/94. Existing ComEd facilities shall not be disturbed.	ComEd
SB I-90/94 - Station 202+43	Electric	Electric line duct package is located well below the existing pavement along SB I-90/94. According to data previously provided by ComEd, the existing ductbank is well below the existing areas. See Plans for approximate elevation data.	ComEd
SB I-90/94 - Station 204+496	Electric	Electric line duct package is located well below the existing pavement along SB I-90/94. According to data previously provided by ComEd, the existing ductbank is well below the existing areas. See Plans for approximate elevation data.	ComEd
NB I-90/94	Water Main	The 48” water main crossing is located south of the Harrison Street Bridge and was rehabilitated as part of Contract 62A74. Existing CDWM water main shall not be disturbed. The contractor shall use extra caution when working near the prestressed concrete cylinder pipe (pccp) feeder mains near cermak pumping station.	CDWM

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
NB I-90/94	Water Main	The 48" water main crossing is located south of the Harrison Street Bridge and was rehabilitated as part of Contract 62A74. Existing CDWM water main shall not be disturbed. The contractor shall use extra caution when working near the prestressed concrete cylinder pipe (pccp) feeder mains near cermak pumping station.	CDWM
NB I-90/94	Water Tunnel	The 10-foot water tunnel is located south of Harrison Street. The tunnel was previously abandoned. Existing CDWM water tunnel shall not be disturbed.	CDWM
NB I-90/94 /SB I-90/94	Water Main	The 54" water main crossing is located south of the Harrison Street Bridge and was previously abandoned and filled or relocated and rehabilitated as part of Contract 62A74. Existing CDWM water main shall not be disturbed.	CDWM
Harrison Street Bridge over I-90/94	Electric	ComEd maintains active facilities in conduits attached to the bridge structure. These conduits on the east bridge were installed as part of Contract 60W71. These conduits on the west bridge were installed as part of Contract 60W26. Existing ComEd facilities shall not be disturbed.	ComEd
Harrison Street Bridge over I-90/94	Communications	OEMC maintains active communication facilities in conduits attached to the bridge structure. These conduits on the east bridge were installed as part of Contract 60W71. These conduits on the west bridge were installed as part of Contract 60W26. Existing OEMC facilities shall not be disturbed.	City of Chicago OEMC

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
Harrison Street Bridge over I-90/94	Telephone/ Fiber Optic	AT&T maintains active facilities in conduits attached to the bridge structure. These conduits on the east bridge were installed as part of Contract 60W71. These conduits on the west bridge were installed as part of Contract 60W26. Existing AT&T facilities shall not be disturbed.	AT&T
NB I-90/94	Water Tunnel	The 13-foot water tunnel is located under Harrison Street. Existing CDWM water tunnel shall not be disturbed.	CDWM
NB I-90/94/ SB I-90/94	Telephone/ Fiber Optic	AT&T maintains a 48 duct package crossing below NB I-90/94 and SB I-90/94 just north of Harrison Street. Existing AT&T facilities shall not be disturbed. The Contractor shall coordinate with AT&T to install steel plates over and adjacent to the ductbank during excavation and pavement reconstruction.	AT&T
NB I-90/94 / SB I-90/94	Electric	ComEd maintains a 24 duct package (top portion inactive) crossing below NB I-90/94 and SB I-90/94 just north of Harrison Street. Existing ComEd facilities shall not be disturbed. The Contractor shall coordinate with ComEd to install steel plates over and adjacent to the ductbank during excavation and pavement reconstruction.	ComEd
NB I-90/94	Water Tunnel	The 7-foot crosstown water tunnel is located below the Harrison Street Bridge.The tunnel was previously abandoned. Existing CDWM water tunnel shall not be disturbed.	CDWM

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
Jackson Boulevard Bridge over I-90/94	Electric / Roadway Lighting	City of Chicago DOT maintains active facilities in conduits along Jackson Boulevard. The conduits across the bridge will be removed as part of Contract 62J31 and reattached as part of Contract 60X94. Existing City of Chicago DOT facilities shall not be disturbed.	City of Chicago CDOT
Jackson Boulevard Bridge over I-90/94	Electric	ComEd previously abandoned their facilities in conduits attached to the north half of the bridge structure. The conduits across the bridge will be removed as part of Contract 62J31 and reattached as part of Contract 60X94. Existing ComEd facilities shall not be disturbed.	ComEd
NB I-90/94 / SB I-90/94	Gas main	Peoples gas previously retired a 24" steel gas main crossing under NB I-90/94 and SB I-90/94 just north of the Jackson Boulevard Bridge. The gas main will be filled with CLSM as part of Contract 62J31. Existing retired gas main shall be cut and capped by the Contractor where encountered.	Peoples Gas
NB I-90/94/ SB - I90/94 Quincy Street to Jackson Boulevard	Freight Tunnel	City of Chicago freight tunnels located below NB I-90/94 and SB I-90/94. The tunnels were previously bulkheaded, and filled in specific locations. These tunnels run within the abandoned Quincy Street existing ROW, which is located between Adams Street and Jackson Boulevard, under the Jackson Boulevard Bridge, and between Quincy Street and Jackson Boulevard. Existing City of Chicago tunnels shall not be disturbed.	City of Chicago CDOT

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
NB I-90/94 /SB I-90/94	Electric	ComEd maintains a 20 duct package crossing below NB I-90/94 and SB I-90/94 within the abandoned Quincy Street existing ROW which is located between Adams Street and Jackson Boulevard. Existing ComEd facilities shall not be disturbed. The proposed storm sewer is to be installed above the ductbank. The Contractor shall coordinate with ComEd to install steel plates over and adjacent to the ductbank during excavation and pavement reconstruction.	ComEd
NB I-90/94 /SB I-90/94	Water Tunnel	The 8-foot water tunnel is located below the Van Buren Street Bridge. The tunnel was previously filled and bulkheaded within the limits of the Van Buren Street Bridge as part of Contract 60W36. Existing CDWM water tunnel shall not be disturbed.	CDWM
SB I-90/94	Water Tunnel	The abandoned 5 foot brick water tunnel is located north of the Van Buren Street Bridge. The tunnel was previously filled and bulkheaded from Van Buren Street to the embankment along the east side of NB I-90/94. Existing water tunnel shall not be disturbed.	N/A
Van Buren Street Bridge over I-90/94	Communications	OEMC maintains active communication facilities in conduits attached to the north half of the bridge structure. These conduits were installed as part of Contract 60X99. Active OEMC and Crown Castle cables will be present throughout construction Existing OEMC facilities shall not be disturbed.	City of Chicago OEMC

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
NB I-90/94 / SB I-90/94	Combined Sewer Siphon Pipe	The existing 60" combined sewer siphon sewer pipe is located just north of the Van Buren Street Bridge. Existing combined sewer siphon pipe shall not be disturbed.	CDWM
NB I-90/94 / SB I-90/94	Cable TV	The conduit is located north of the Van Buren Street Bridge. The conduit was previously abandoned as part of Contract 60X99. The abandoned conduit shall be removed by the Contractor where encountered.	Comcast
NB I-90/94 / SB I-90/94	Water Main	The 16" water main crossing under NB I-90/94 and SB I-90/94 is located south of the Jackson Boulevard Bridge and is encased in a 30" steel pipe. This water main was previously installed as part of Contract 62A75. Existing CDWM water main shall not be disturbed.	CDWM
NB I-90/94 / SB I-90/94	Fiber Optic	The 2-4" HDPE Fiber Optic Conduits w/ 3-1¼" Innerducts per conduit were previously abandoned as part of Contract 62A75. The abandoned conduit shall be removed by the Contractor where encountered.	Lightower Communications (now CrownCastle)
NB I-90/94 / SB I-90/94	Water Main	The 16" water main crossing under NB I-90/94 and SB I-90/94 is located just south of the Jackson Boulevard Bridge and incased in a 30" steel pipe. This water main was previously abandoned and filled with CLSM as part of Contract 62A75. Existing abandoned water main shall be cut and capped by the Contractor where encountered.	CDWM

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
Adams Street Bridge over I-90/94	Communications	OEMC maintains active communication facilities in conduits attached to the north half of the bridge structure. These conduits will be removed and reattached to the bridge as part of Contract 60X94. Existing OEMC facilities shall not be disturbed.	City of Chicago OEMC
Adams Street	Electric	ComEd maintains an active power feed for the Greektown Monument lighting just north of the bridge. This feed may be impacted as part of Contract 60X94. Existing ComEd facilities shall not be disturbed.	ComEd
Monroe Street	Electric	ComEd maintains an active power feed for the Greektown Monument lighting just south of the bridge. Existing ComEd facilities shall not be disturbed.	ComEd
Monroe Street Bridge over I-90/94	Cable TV	Comcast maintains active facilities in conduits shared with MCI that are attached to the bridge structure. These conduits were installed as part of Contract 60X95. Existing Comcast facilities shall not be disturbed.	Comcast
Monroe Street Bridge over I-90/94	Communications	MCI maintains active facilities in conduits shared with Comcast that are attached to the bridge structure. These conduits were installed as part of Contract 60X95. Existing MCI facilities shall not be disturbed.	MCI
Monroe Street Bridge over I-90/94	Communications	OEMC maintains active communication facilities in conduits attached to the north half of the bridge structure. These conduits were installed as part of Contract 60X95. Existing OEMC facilities shall not be disturbed.	City of Chicago OEMC

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
NB I-90/94	Combined Sewer Siphon Pipe	The existing 84", 54", and 108" combined siphon sewer pipe is located just north of the Monroe Street Bridge. Existing CDWM combined sewer siphon pipe shall not be disturbed.	CDWM
NB I-90/94	Combined Sewer Siphon Pipe	The existing 60" combined siphon sewer pipe is located in the embankment between the Monroe Street exit ramp and existing ROW. Existing CDWM combined sewer siphon pipe shall not be disturbed.	CDWM
SB I-90/94	Unknown	The conduit is located in the embankment between Madison Street/SB I-90/94 and Monroe Street/SB I-90/94. It is not known whether this utility conflicts with the construction of the landscaping.	Unknown
Madison Street Bridge over I-90/94	Electric / Roadway Lighting	City of Chicago DOT maintains active facilities in conduits along Madison Street. Existing City of Chicago DOT facilities shall not be disturbed.	City of Chicago DOT
Madison Street Bridge over I-90/94	Electric	ComEd maintains active facilities in conduits attached to the south half of the bridge structure. Existing ComEd facilities shall not be disturbed.	ComEd
Madison Street Bridge over I-90/94	Electric	ComEd maintains active facilities in conduits attached to the south half of the bridge structure. Existing ComEd facilities shall not be disturbed.	ComEd
Madison Street Bridge over I-90/94	Telephone/ Fiber Optic	AT&T maintains active facilities in conduits attached to the north half of the bridge structure. Existing AT&T facilities shall not be disturbed.	AT&T

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
Madison Street Bridge - Tunnel belowI-90/94	Telephone/ Fiber Optic	AT&T maintains active facilities in a ductbank routed below I-90/94 that is routed below the bottom of the existing bridge abutment to be maintained. Existing AT&T facilities (including all AT&T services or leased services in AT&T infrastructure) shall not be disturbed.	AT&T
NB I-90/94	Water Main	The 12" water main is located under NB I-90/94 just south of the Washington Boulevard Bridge. Existing CDWM water main shall not be disturbed.	CDWM
Washington Boulevard Bridge over I-90/94	Communications	OEMC maintains active communication facilities in conduits attached to the south and north half of the bridge structure. Existing OEMC facilities shall not be disturbed.	City of Chicago OEMC
Washington Boulevard Bridge over I-90/94	Electric	ComEd maintains active facilities in conduits attached to the south half of the bridge structure. Existing ComEd facilities shall not be disturbed.	ComEd
NB I-90/94	Telephone/ Fiber Optic	AT&T/Crown Castle/Verizon Business MCI maintain a shared duct package crossing below NB I-90/94 under Washington Boulevard. Existing AT&T/Crown Castle/Verizon Business MCI facilities shall not be disturbed.	AT&T/Crown Castle/Verizon Business MCI
NB I-90/94	Water Main	The water main is located under NB I-90/94 just north of the Randolph Street Bridge. The water main was previously abandoned. Existing CDWM water main shall not be disturbed.	CDWM

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
WB I-290	Electric	ComEd maintains active underground and aerial lines from Peoria Street to Aberdeen Street. Existing ComEd facilities shall not be disturbed.	ComEd
WB I-290	Telephone/ Fiber Optic	AT&T maintains active facilities in a ductbank from Peoria Street to Aberdeen Street. Existing AT&T facilities shall not be disturbed.	AT&T
WB I-290	Electric	City of Chicago maintains active underground and aerial lines from Peoria Street to Aberdeen Street. Existing City of Chicago facilities shall not be disturbed.	City of Chicago
WB I-290	Water Main	City of Chicago maintains active water main from Peoria Street to Aberdeen Street. Existing City of Chicago facilities shall not be disturbed.	City of Chicago
WB I-290	Water Main	Existing City of Chicago 16” Water Main, including services to Halsted and Peoria Street entrances to the UIC-Halsted CTA station shall not be disturbed. Existing CDWM facilities shall not be disturbed.	CDWM – Water Section
WB I-290	Sewer	Existing City of Chicago Sewer Siphon with 42” RCP, 36” RCP and 14” DIP Sewer siphon flows beneath WB I-290. Existing CDWM facilities shall not be disturbed	CDWM – Sewer Section
WB I-290	Water Main	Existing City of Chicago 36” Water Main. Existing CDWM water main shall not be disturbed	CDWM – Water Section

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
WB I-290	Gas	Peoples Gas maintains active gas mains and gas lines from Peoria Street to Aberdeen Street. Existing Peoples Gas facilities shall not be disturbed.	Peoples Gas
EB I-290	Fiber Optic	University of Illinois at Chicago maintains active facilities from Peoria Street to Aberdeen Street. Existing University of Illinois facilities shall not be disturbed.	University of Illinois at Chicago
EB-290	Water	The existing 36" water main is located underneath the proposed EB I-290 improvements, underneath the proposed storm sewer and crosses the existing retaining wall 10 to remain. The contractor shall take caution when working above or adjacent to the water facilities.	Chicago Department of Water Management
EB I-290	Siphon Sewer	The existing siphon sewer is located underneath the proposed EB I-290 improvements. The siphon consists of a 42" RCP, 36" RCP and 14" DIP encased in a concrete box. Siphon pipes shall not be disturbed.	Chicago Department of Water Management
Green Street	Electric	ComEd maintains an existing ductbank in Green Street between Van Buren Street and the northern right-of-way of I-290. ComEd has indicated that the ductbank is empty and has confirmed that there is no requirement to maintain this ductbank. Existing ComEd facilities shall not be disturbed.	ComEd

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
Peoria Street	Electric	ComEd maintains existing service within the east portion of Peoria Street. The services will be permanently relocated to Morgan Street prior to the demolition of the Peoria Street bridge over I-290 and the bridge approaches under Contract 60W29. Infrastructure will be restored to the new bridge structure. Existing ComEd facilities shall not be disturbed.	ComEd
Peoria Street	Telephone/Fiber Optic	AT&T maintains existing service within the east portion of Peoria Street. The services will be permanently relocated to the duct package west of Halsted Street prior to the demolition of the Peoria Street bridge over I-290 and the bridge approaches under Contract 60W29. Infrastructure will be restored to the new bridge structure with service installation to be determined. Existing AT&T facilities shall not be disturbed.	AT&T
Peoria Street	Telephone/Fiber Optic	UIC maintains active communication facilities in conduits attached to the bridge structure. Existing UIC facilities shall not be disturbed.	University of Illinois at Chicago (UIC)
Harrison Street	Telephone/Fiber Optic	AT&T maintains a large package of major communication services that must not be disturbed during construction without AT&T involvement north of Harrison Street bridge at I-290 Existing ComEd facilities shall not be disturbed.	AT&T
Halsted Street over I-290	Electric Service	ComEd maintains active distribution services in conduits attached to the east side of the bridge structure. Existing ComEd facilities shall not be disturbed.	ComEd

STAGE / LOCATION	TYPE	DESCRIPTION	OWNER
Morgan Street over I-290	Electric Service	ComEd maintains active distribution services in conduits attached to the west side of the bridge structure. Existing ComEd facilities shall not be disturbed.	ComEd
Racine Avenue over I-290	Electric Service	ComEd maintains active distribution services in conduits attached to the bridge structure. Existing ComEd facilities shall not be disturbed.	ComEd
Des Plaines Street	Fiber Optic	Lumen maintains active facilities along Des Plaines Street. Existing Lumen facilities shall not be disturbed.	Lumen (CenturyLink/ Level 3)

The following contact information is what was used during the preparation of the plans as provided by the owner of the facility.

Agency/Company Responsible to Resolve Conflict	**Name of contact**	**Address**	**Phone**	**E-mail address**
ComEd	Carla Strunga	Facility Relocation Dept. 7601 S Lawndale Avenue Chicago, IL 60652	708-518-6209; 815-409-8622	Peter.Kratzer@ComEd.com Carla.Waldvogel@ComEd.com
CDWM (Water Section)	Smerald Xhaferllari (CTR Joint Venture) Jason McCubbin (CTR Joint Venture)	CTR Joint Venture Jardine Water Purification Plant 1000 E Ohio St +51 Chicago, IL 60611	312-894-4465	Smerald.Xhaferllari@ ctrwater.net
CDWM (Sewer Section)	Sid Osakada	1000 E Ohio St +51, Room 313 Chicago, IL 60611	312-744-0344	Sid.osakada@cityofchicago.org
AT&T	Kenneth Caudill, Stan Plodzien, Jamie Gwin, Darrel Brown, Urmi Picone, Janet Ahern, Jamel McGinnis, & Todd Andrews	1000 Commerce Drive Flr 1 Oak Brook, IL 60523	(240) 215-7041, (630) 573-5453, (630) 573-5423, or (630) 573-6496	sp3264@att.com, jg8128@att.com, db1324@att.com, sterenberg@cgroupmail.com, ba3817@att.com, Kc1298@att.com, ja1763@att.com, ub2591@att.com, ja1763@att.com, jm548w@att.com, & ta3141@att.com
Verizon (MCI) Business	Jim Todd	400 International Parkway Richardson, TX 75081	708-458-6410	jimtodd@ameritech.net

Agency/Company Responsible to Resolve Conflict	Name of contact	Address	Phone	E-mail address
City of Chicago CDOT	Dan Grigas	30 N. LaSalle St. Room 400 Chicago, IL 60602	312-744-4815	Daniel.Grigas@cityofchicago.org
City of Chicago OEMC	Frank Kelly	1411 W. Madison St. Chicago, IL 60607	312-746-9238	Frank.Kelly@cityofhicago.org
Peoples Gas	Eric Stall, Aaron Meyer, William Charvat, & Leo Diaz	200 E. Randolph St. 21st Fl, Chicago IL 60601	(312) 240-7394, (312) 240-4016, & (773) 382-9276	
Comcast	Bob Schulter or Robert Stoll	688 Industrial Drive Elmhurst, IL 60126	(224) 229-5861 or (224) 229-5849	Bob_Schulter@comcast.com or Robert_Stoll@comcast.com
Lightower Fiber Networks / Crown Castle	John Pyka	350 N Orleans Street Suite 620 Chicago, IL 60654	(312) 415-8184	John.Pyka@crowncastle.com
University of Illinois at Chicago	ACCC Engineering Department: Brian Ng	1940 W. Taylor Street, Chicago IL 60612	(312)413-8254	
Lumen (CenturyLink/ Level 3)	Kimberly Singleton, Ben Pacocha, Ryan Burgeson, & Katherine Waltz	Attn: OSP Construction Department 1305 E. Algonquin Road Arlington Heights, IL 60005	(847) 954-8212	Kimberly.Singleton@centurylink.com, ben.pacocha@lumen.com, ryan.burgeson@centurylink.com, NationalRelo@centurylink.com, relocations@centurylink.com, & kwaltz@hbkengineering.com

The above represents the best information available to the Department and is included for the convenience of the bidder. The days required for conflict resolution should be taken into account in the bid as this information has also been factored into the timeline identified for the project when setting the completion date. The applicable portions of the Standard Specifications for Road and Bridge Construction shall apply.

Estimated duration of time provided in the action column for the first conflicts identified will begin on the date of the executed contract regardless of the status of the utility relocations. The responsible agencies will be working toward resolving subsequent conflicts in conjunction with contractor activities in the number of days noted.

The estimated relocation dates must be part of the progress schedule submitted by the contractor. A utility kickoff meeting will be scheduled between the Department, the Department's contractor and the utility companies. The Department's contractor is responsible for contacting J.U.L.I.E. prior to any and all excavation work.

CTA FLAGGING AND COORDINATION

All work to be done by the Contractor on, over, or in close proximity of the CTA (Chicago Transit Authority) facilities and/or right-of-way shall be performed according to Article 107.12 of the Standard Specifications and this specification. This specification generally conforms to CTA Master Specification Section 01 35 15, "Special Project Procedures for Adjacent Construction." No interruption to CTA service will be allowed unless approved in writing by the CTA.

The CTA's Representative for this project will be:

Mr. Abdin Carrillo
Project Manager, Construction Oversight
(312) 681-3913

1.01 SUMMARY

A. This section includes the requirements for safe construction operations on, above, below and adjacent to operating tracks of the CTA rail system. The Contractor shall be responsible for compliance with the CTA *Safety Manual for Contract Construction On, Above, or Adjacent to the CTA Rail System* (in effect at such time). The Contractor shall also be responsible for compliance with the CTA *Adjacent Construction Manual* (in effect at such time) – this manual may be found at https://www.transitchicago.com/nearbyconstruction/ NOTE: In case of conflict between the manual and this CTA FLAGGING AND COORDINATION Specification, the most stringent shall apply.

B. After the letting of the contract and prior to performing any work, the CTA Representative shall be notified by the Department to attend the preconstruction meeting. In this meeting, the Contractor shall confer with the CTA's Representative regarding the CTA's requirements for the protection of clearances, operations and safety.

C. Prior to the start of any work on or over the CTA's right-of-way, the Contractor shall meet with the CTA Representative to determine his requirements for flagmen and all other necessary items related to the work activities on, over and next to the CTA facilities and to receive CTA's approval for the Contractor's proposed operations. At least twenty-one (21) calendar days prior to the start of work the Contractor must request CTA to prepare a Right-of–Entry document. The Contractor must also conform to all requirements of the "CTA Requirements for Contractors Working along the Right-of-Way (R.O.W.)"

D. The Contractor shall notify the CTA Representative 72-hours in advance of the time he intends to enter upon the CTA right-of-way for the performance of any work.

E. The scope of work under this contract includes construction activities adjacent to and above CTA tunnels. Work activities shall protect the existing CTA infrastructure and allow unimpeded service to CTA customers unless specifically allowed by CTA as identified herein.

F. The CTA will make existing relevant plans and/or reports for the CTA Blue Line retaining walls, track bed and utilities, tunnels and tunnel portal structure from Morgan Street to Jefferson Street available for viewing at CTA offices during the bidding phase of the project. Availability of plans and reports is at the sole discretion of the CTA. The CTA may allow their plans to be transmitted to the Contractor during construction.

1.02 PROJECT CONDITIONS

A. The Chicago Transit Authority (CTA) is an operating transportation agency and must maintain rail operations at all scheduled times for the benefit of the public. The Contractor shall conduct his operations in such a manner as not to cause damage to the CTA equipment, put the public or the CTA personnel in danger, cause inconvenience to the customers, interrupt train service (except as permitted herein) or cause avoidable inconvenience to the public and the surrounding communities.

B. The CTA will be operating trains during the construction of this project. The rail operations are 24 hours per day, seven days per week.

C. Certain portions of the project may be performed on, above or adjacent to sections of track where rail service is suspended in order to facilitate the work. For any work occurring within, above or adjacent to a section of track to be taken out of service, the Contractor shall confirm with the CTA that track within the work limits has been taken out of service and the third rail de-energized, as required, prior to beginning the work.

D. If the CTA deems any of the Contractor's work or operations hazardous to the CTA's operations or to the public, the CTA shall contact the Engineer. The Engineer may elect to order the Contractor to immediately suspend work until reasonable remedial measures are taken satisfactory to the CTA.

E. The CTA may review of any of the Contractor's procedures, methods, temporary structures, tools or equipment that will be utilized within the CTA facilities or Right-of-Way. These reviews do not relieve the Contractor of responsibility for the safety, maintenance, and repairs of any temporary structure or work, or for the safety, construction, and maintenance of the work, or from any liability whatsoever on account of any procedure or method employed, or due to any failure or movement of any temporary structure, tools or equipment furnished as necessary to execute work on CTA facilities or Right-of-Way.

F. At least five (5) weeks prior to the start of any work on, above or adjacent to the CTA facilities or right-of-way, the Contractor will be required to attend weekly coordination meetings with CTA Operations and other CTA departments to review and coordinate proposed work activities of the Contractor(s). The Contractor will be required to provide a five week look-ahead schedule, in a format acceptable to CTA, reflecting proposed work activities within the CTA facilities or Right-of-Way.

G. The Contractor, through the Engineer, shall submit a Rail Service Bulletin Request form to the CTA at least twenty-one (21) calendar days in advance of the Contractor's proposed scheduled time to enter upon the CTA facilities or Right-of-Way for the performance of any work under this Contract. Bulletin requests will be required when performing work which impacts rail operations such as prior to each phase of staged station construction, Track Access Occurrences, track survey, etc.

H. CTA generally permits only one Track Access Occurrence at a time on any given route. Other work on CTA's system, including required operations and/or maintenance by CTA, or work by other contractors elsewhere on the route, may limit the available dates of track access occurrences for this project. The Contractor is strongly encouraged to submit Rail Service Bulletin requests with more than the twenty-one (21) day minimum required advance notice. The CTA has indicated that they typically will not grant Track Access Occurrences on consecutive weekend periods in order to provide scheduled service to customers.

I. The Contractor shall at all times observe all rules, safety regulations and other requirements of the CTA, including, but not limited to, the following Standard Operating Procedures (SOP's).

1. No. 7037, "Flagging on the Right-of-Way".
2. No. 7038, "Train Operation Through Slow Zones".
3. No. 7041, "Slow Zones".
4. No. 8111, "Workers Ahead Warning System".
5. No. 8130, "Safety on Rapid Transit Tracks".
6. No. 8212, "Test Train Procedures"
7. Sketch 2000-SZ-1, Slow Zone Equipment

1.03 REIMBURSEMENT OF COSTS

A. The cost of all flagmen, infrastructure crews, engineering inspection, switchmen, and other workmen furnished by the CTA and authorized by the Engineer shall be paid for directly to the CTA by the Contractor.

B. The costs associated with Track Access Occurrences granted and established by the CTA shall be paid for directly to the CTA by the Contractor.

C. The amount paid to the Contractor shall be the amount charged to the Contractor for all authorized CTA charges including CTA additive rates audited and accepted by the Department, according to Article 107.12 and Article 109.05 of the Standard Specifications.

D. Following approval of the CTA invoices by the Department, the Contractor shall pay all monies to the CTA as invoiced and shall submit to the Department certified and notarized evidence of the amount of payments. No overhead or profit will be allowed on these payments.

E. If there are maximum amounts of flagger shifts identified within this specification and if Contractor operations require flagger shifts that are granted by the CTA beyond these limits, the Contractor shall pay for the services, but will receive no reimbursement.

F. The Department will not be liable for any delays by the CTA in providing flagmen, establishing track closures or other service provided by the CTA and identified within this special provision.

1.04 RAIL SAFETY TRAINING

A. All Contractor and Subcontractor employees assigned to work on, over or near the CTA facilities or Right-of-Way shall be required to attend an all-day Rail Right-of-Way Safety Training Session in accordance with the CTA Safety Manual for Contract Construction On, Above, or Adjacent to the CTA Rail System. The cost of this training is currently $200.00 per employee, paid by the Contractor in advance. The certification is good for one calendar year from the date of issuance. The Contractor shall coordinate rail safety training with the Engineer. The cost of training shall be paid directly to the CTA by the Contractor.

B. Rail Right-of-Way Safety Training for Contractor and subcontractor personnel will be scheduled by CTA as training slots become available. The Contractor is advised that the Contractor's failure to request training sufficiently in advance of when the employee is required on the work site shall not be cause for relaxing the requirement for Rail Right-of-Way Safety Training.

C. The $200.00 fee is non-refundable. If any individual fails to report for training or is rejected for training and must be rescheduled, an additional $200.00 will be required. No additional compensation will be made for the rescheduling of any training.

D. Upon successful completion of CTA Rail Safety Training, each trainee will be issued a non-transferable Rail Safety Tour Identification Card with the trainee's photo and a decal with pressure sensitive adhesive to be affixed on the hard hat. The Rail Safety Tour Identification Card and the decal are valid for one (1) year from the date of issue. The validity of the Card and the decal are in no way related to the length of this Contract.

E. Contractor and Subcontractor personnel must renew their Rail Safety Tour Identification Cards annually by successfully completing Rail Safety Training again. Contractor or Subcontractor personnel who fail to maintain a valid Rail Safety Tour Identification Card are not permitted to work on, above or adjacent to the CTA facilities or Rail Right of Way and CTA reserves the right to remove such personnel from the work site.

F. The costs incurred by the Contractor for CTA Rail Safety Training will not be reimbursed.

1.05 MANDATORY ITEMS FOR EMPLOYEES ON CTA FACILITIES OR RIGHT-OF-WAY

A. Contractor's and Subcontractor's employees assigned to work on the CTA facilities or Right-of-Way:

1. Contractor's and Subcontractor's employees will be given individual property permits. These permits shall be carried by each employee at all times while on CTA property. All permits issued shall be returned to CTA at the completion of the project, if the employee no longer works on this project, or on the date of expiration.

2. Each employee shall carry a valid Rail Safety Tour Identification Card at all times while on CTA facilities or right-of-way in accordance with Article 2-2 of the CTA Safety Manual.

3. All employees shall wear an undamaged hard hat with current rail safety sticker affixed, CTA standard safety vest and eye protection at all times while on CTA facilities or right-of-way. Noise protection shall be used when necessary. The Contractor must also comply with all OSHA requirements as required for the work. The CTA shall provide the rail safety sticker to each Contractor employee upon successful completion of the Rail Right-of-Way Safety Training.

4. Contractor personnel shall wear suitable work shoes with defined heel and non-slip soles. Steel toes or metal cleats on the sole or heel of shoes are prohibited. Shoelaces are to be kept short so they do not pose a tripping hazard. Athletic shoes, sandals, open-toed shoes, moccasins and/or shoes with heels higher than 1" are not permitted.

5. Contractor personnel shall have a non-metallic, working flashlight after dark or when working in the subway.

B. Contractor and Subcontractor employees assigned to work <u>adjacent to or above</u> the CTA facilities or right-of-way shall wear a CTA standard safety vest at all times. Personnel without current Rail Safety Training and a valid property permit shall not enter onto any CTA Right-of-Way.

1.06 WORK AREA AVAILABILITY

A. DEFINITIONS

1. RIGHT-OF-WAY WORK: Any work performed at, above, or below track level within the CTA facilities or Right-of-Way.

2. IN-SERVICE TRACK: All CTA tracks are in service seven days a week, 24 hours a day, unless specifically removed from service for specific times by a Rail Service Bulletin issued by the Vice President, Rail Operations. Copies of the CTA's current train schedule for the lines affected by this project is available on the CTA's website and are subject to changes at any time, before or during, the Contract.

3. OUT-OF-SERVICE TRACK: The CTA tracks within limits defined by CTA that are temporarily removed from service for the purpose of completing specific work. Traction power will remain on at all times unless power removal is requested by the Contractor and approved by the CTA. In such cases, traction power must be removed and restored by CTA personnel. The Contractor may request the CTA to de-energize portions of the CTA right-of-way to perform work on, or near an Out-of-Service Track when no revenue service is scheduled, or as specified under a Rail Service Bulletin. Upon completion of the Out-of-Service Work, the Contractor shall maintain sufficient personnel on-site to correct any deficiencies in the Contractor's Work discovered by the CTA during power and service restoration and testing.

4. TRACK ACCESS OCCURRENCE: A condition(s) which provides a modification to the normal operation of CTA service to facilitate access for a Contractor(s) to perform work on or near the CTA facilities or Right-of-Way as defined and limited herein.

5. RE-ROUTE: Modification to the normal routing of trains in order to remove rail traffic from a section of track to facilitate access for a Contractor(s) to perform work on or near the CTA facilities or Right-of-Way as defined and limited herein.

6. LINE CUT: A temporary cessation of all service on a transit line; meaning total stoppage of transit service on all tracks and at all stations within the closure zone to facilitate access for a contractor(s) to perform work on or near the CTA facilities or Right-of-Way as defined and limited herein.

7. SINGLE-TRACK: A temporary operation established by operating trains bi-directionally on one track while the adjacent track is taken out-of-service as defined in paragraph 1.05.a.4, above. Only one single-track at a time can be set up on a line and only for very limited time periods. If CTA or a separate contractor(s) request single track operations along the same line concurrently with the Contractor for this contract, CTA shall have the exclusive authority to determine which request shall be granted.

8. RUSH HOURS: Monday through Friday, from 0500 to 0900 hours and from 1500 to 1900 hours.

9. FLAGGER SHIFT: A flagger shift is defined as the services of a CTA Flagman up to, but no more than eight (8) hours including travel and required breaks. For example:

    a. A Contractor five hour work shift which requires 3 flaggers will use 3 flagger shifts.
    b. A Contractor eight hour work shift requiring 3 flaggers shall use 6 flagger shifts (because travel & break time will increase the flaggers work hours beyond eight).
    c. A Contractor ten hour work shift requiring 3 flaggers will use 6 flagger shifts.

10. INFRASTRUCTURE SHIFT: An infrastructure shift is defined as up to, but no more than eight (8) hours worked per CTA Infrastructure employee. For example:

    a. A Contractor five hour work shift requiring 2 signal maintainers will use 2 infrastructure shifts.
    b. A Contractor eight hour work shift requiring 2 towermen shall use 2 infrastructure shifts.
    c. A ten hour work shift requiring 2 lineman will use 4 infrastructure shifts.

11. PERSON-IN-CHARGE (PIC): A person or persons, specified in a CTA Rail Service Bulletin, who is solely in charge of a work zone and is the single point contact between CTA and all persons (Contractor's, CTA and others) working in a work zone. The Rail Service Bulletin may identify the PIC by name or by radio call number. The Engineer or the Engineer's designee shall serve as PIC.

12. POWER & WAY SERVICE BULLETIN (PWS Bulletin): A document authorized by the CTA Infrastructure Division intended to supplement a CTA Rail Service Bulletin by defining power/signal removal and restoration procedures and other work zone protection measures required to safely perform construction and/or maintenance work on or adjacent to the CTA Right-of-Way (ROW).

B. No service disruptions will be allowed for the completion of this work, except as noted herein. If the CTA deems it necessary, the CTA will impact operations to avoid a hazardous condition to either the passengers or employees and charge the Contractor for all associated costs and damages incurred. No compensation will be made for CTA charges to the Contractor due to unauthorized Contractor access or other unapproved impacts to CTA operations.

1.07 CTA OPERATING REQUIREMENTS

A. Strictly comply with operating requirements of the Chicago Transit Authority while construction work is in progress, specifically as follows:

1. All work performed on the CTA facilities or Right-of-Way will be allowed during the Construction Period only in accordance with the Article 1.07 “ALLOWABLE HOURS OF CONSTRUCTION”. During most periods of construction, a “slow zone” shall be established at the work site and flagging personnel shall be deployed to facilitate safe and continuous train operations and to protect Contractor, CTA employees, passengers, the general public and property in the vicinity.

2. No one is permitted to enter the CTA facilities or Right-of-Way during Rush Hours. Access to the underside of the existing or proposed bridge structure within the limits of the CTA facilities or Right-of-Way will not be permitted.

A. As much work as possible is to be done under normal CTA operating conditions (under traffic) without disruption of train movements. A maximum interruption of service to the CTA traffic of 15 minutes or as agreed upon with the CTA will be allowed. No interruption to CTA service will be allowed unless approved in writing by the CTA. The CTA has indicated during overnight periods, train headways are between fifteen (15) and thirty (30) minutes.

B. Pedestrian traffic access to CTA station facilities shall be maintained at all times. Barricades and signage for sidewalk closures as well as all details for pedestrian crossings of street intersections at the entrance of the station must be coordinated with the CTA at least twenty-eight (28) days prior to modifications to staging.

C. Bus traffic access to CTA station facilities must be maintained. Any proposed changes to bus routes or normal access by pedestrians will need to be coordinated and approved by CTA (and Pace where applicable).

D. Access control of the CTA facilities or Right-of-Way must be maintained at all times. This includes eliminating openings directly to the CTA facilities or Right-of-Way where existing median barriers are to be removed. All planned removals of existing access control must be coordinated with the CTA, with plans for counter measures provided to the CTA at least three (3) weeks prior to removals. If the CTA grants the removal of a portion of the existing access control, the Contractor shall provide a fence system to enclose the Contractor's work area and provide a visual separation between the Contractor's work area and the CTA operating track(s). The fence shall be designed and installed to meet all CTA requirements, including, but not limited to, horizontal clearance requirements, minimum wind and vertical loading, foundation embedment, screening, fencing connections, installation requirements, maintenance of the fence throughout the installed period, removal of the fence at the completion of the period for the fence need and restoration of the CTA facilities and/or Right-of-Way. The Engineer and CTA shall approve all fence designs, components and installation procedures prior to the start of fence installation. The cost to design, install, maintain and remove the fence shall be considered included in the work required to be performed within the CTA facilities or Right-of-Way and will not be paid for separately.

1.08 ALLOWABLE HOURS OF CONSTRUCTION

A. Construction activities within CTA facilities and/or Right-of-Way are not permitted during Rush Hours. Access to the underside of the existing or proposed bridge structure within the limits of the CTA facilities and/or Right-of-Way will not be permitted during Rush Hours.

B. Construction activities within CTA facilities and/or Right-of-Way may be permitted during non-Rush Hour periods under flagging protection with the advance concurrence of the CTA as follows:

1. Monday thru Friday: From 0900 to 1500 and from 1900 hours to 0500 hours the next day (the power shall remain on for these hours unless allowed via specific Track Access Occurrence).

2. Weekends: 1900 hours Friday to 0500 hours Monday

C. Track Access Occurrences:

The total number of Track Access Occurrences shall be as specified below:

1. Overnight Single Tracks: A maximum of zero (0) Overnight Single-Track Track Access Occurrences will be permitted. Construction activities within the CTA facilities and/or Right-of-Way may be permitted between the hours of 22:00 and 04:00 the following morning, including any time required for test trains stipulated in the Rail Service Bulletin.

2. Weekend Single Tracks: A maximum of zero (0) Weekend Single-Track Track Access Occurrences will be permitted. Construction activities within the CTA facilities and/or Right-of-Way may be permitted between the hours of 22:00 Friday night and 04:00 the following Monday morning, including any time required for test trains stipulated in the Rail Service Bulletin.

3. If proposed work requires that CTA operations be suspended due to any circumstance, the Engineer must be informed immediately to coordinate the service suspension with the CTA. Any reimbursement to the CTA for the granting of a Track Access Occurrence must be approved by the Engineer.

4. The exact dates and hours for all Track Access Occurrences are subject to change by the CTA depending on the nature of the work, access requirements of CTA personnel, work performed under separate contract or operational requirements of the CTA. The approval of specific dates and times for Track Access Occurrences on this Contract may be affected by major events or by a Track Access Occurrence scheduled elsewhere on that route or the CTA System. The CTA has indicated that they typically will not grant Track Access Occurrences on consecutive weekend periods in order to provide scheduled service to customers.

5. Contractors completing other Department projects may also request Track Access Occurrences along the same section of track as described herein. These projects are identified in CONTRACTOR COOPERATION. Provided these Track Access Occurrences are approved, scheduled and initiated by the CTA, the Contractor shall be able to access CTA facilities and/or Right-of-Way with no impact to the total count of Track Access Occurrences attributed to this Contract.

D. The CTA reserves the right to modify the allowable dates or hours of track access occurrences based on service requirements for the subject route and manpower availability for the date and location requested.

E. The CTA reserves the right to deny or to cancel a previously approved request for a Track Access Occurrence based on service requirements for the time period requested. The CTA may notify the Contractor of such denial or cancellation no later than 1 day prior to a Track Access Occurrence. Service requirements may be affected by major events (e.g., festivals, White Sox and Cubs games, concerts), or by a Track Access Occurrence scheduled elsewhere on that route or the CTA System.

F. The Contractor will not be permitted to perform work requiring a Track Access Occurrence or Flagging during the following special events:

1. Taste of Chicago
2. Independence Day
3. Chicago Air and Water Show
4. Chicago Marathon
5. Chicago Jazz Festival
6. Chicago Blues Festival
7. Chicago St. Patrick's Day Parade
8. The Saturday before Thanksgiving Day through the Monday following Thanksgiving
9. New Year’s Eve and New Year’s Day
10. Easter Sunday
11. Gospel Fest
12. Chicago White Sox Home Games
13. Chicago Cubs Home Games
14. Chicago Bears Home Games
15. Lollapalooza
16. Pride Parade

In addition, CTA reserves the right to limit or deny access to the system during other major special events that may develop and that may impact service needs, during emergencies, and during severe weather conditions.

The CTA, at their discretion, may provide a Track Access Occurrence or Flagging during a time period identified above provided the request is made in conformance with this specification and is properly scheduled with the CTA as required.

1.09 CONSTRUCTION PROCESS PLAN

A. CTA will require the Contractor to submit a Construction Process Plan whenever any work, in the opinion of the CTA, affects the safety or causes disruption of service or inconvenience to transit users, CTA Operations or impacts CTA Right-of-Way including, but not limited to: protection of CTA tracks/ CTA Right-of-Way, demolition, temporary shoring installation, drilled shaft installation, pier construction, structural steel erection over CTA tracks/ CTA Right-of-Way, and any other necessary temporary construction related to the above listed items. At a minimum, an individual Construction Process Plan shall be required for each instance the Contractor requests a Track Access Occurrence from CTA and for any work that requires flagging protection from CTA.

B. A draft Construction Process Plan must be submitted to CTA by such method as the CTA may direct, at least twenty-one (21) calendar days in advance of work and at least fourteen (14) calendar days prior to a pre-activity meeting. The plan shall include/address the following:

1. Applicable Contract Documents
2. Options
3. Possible conflicts
4. Compatibility problems
5. Time schedules
6. Weather limitations
7. Temporary facilities & signage
8. Space and access limitations
9. Governing regulations
10. Safe Work Plans (including Hazard Analysis)
11. CTA Operations Impact
12. Proposed Traffic Control & Staging Areas
13. Lift Plan
14. SE calculations for permanent casings (drilled shafts)
15. For construction processes where failure of temporary structures will result in service interruptions and/or damage to CTA infrastructure CTA will require calculations and drawings signed and sealed by an Illinois SE. These processes include but are not limited to temporary Earth Retention Structures, formwork (SEE CTA STANDARD SPECIFICATIONS, SECTION 03 30 00, CAST-IN-PLACE CONCRETE, PARAGRAPH 1.05 SUBMITALS, SUBPARAGRAPH C FOR FORMWORK SHOP DRAWING REQUIREMENTS- INCLUDED AS EXHIBIT “A”), lift plans and demolition. CTA also reserves the right to require a 3rd party SE review of the calculations, drawings and installation.

C. The draft plan must also include reference to all Contractor Requests for Information (RFI's) and submittals that pertain to work identified in the plan.

D. In addition, for any work to be performed during a Track Access Occurrence, the Contractor shall provide the following to the CTA:

1. A track access plan submitted to and approved by the CTA specifically identifying the area(s) of power removal and work zone protection methods being requested by the Contractor.
2. Work zone protection methods to be performed by the Contractor
3. Name, title, contact information, and work hours for Contractor's on-site supervision
4. Work zone protection requested by the Contractor for implementation by the CTA (subject to CTA approval).
5. Pre-approved Safety and Quality Control Checklists, applicable to the work elements being performed during the specific track(s) outage request for completion by the Contractor and submission to the Person-In-Charge during Track Access Occurrence.
6. A general schedule reflecting proposed work to be performed within the requested Track Access Occurrence.

E. After pre-activity meeting minutes have been agreed to, all comments from the meeting must be incorporated into a final Construction Process Plan. This plan must be submitted and approved by the Engineer and CTA prior to the start of related work.

F. Prior to the CTA implementing an authorized Track Access Occurrence, the Contractor must provide, at least 48 hours in advance, an hourly schedule broken into tasks with a defined critical path that clearly establishes milestones that may be monitored. The hourly schedule shall also include, but not be limited to:

1. Name, title, contact information, and work hours for Contractor's on-site supervision.
2. Power removal (min 1 hour)
3. Proposed work activities.
4. Activities for inspection and completion of safety & quality checklists by Contractor.
5. Submission of safety & quality checklists to the CTA's Person-In-Charge (PIC) during Track Access Occurrence. The checklists shall be submitted to the PIC prior to commencing power restoration activities.
6. Power, Signal Restoration (min 1 hour).
7. Test train (min ½ hour).

G. The CTA intends to issue Power & Way Service Bulletins to supplement CTA Rail Service Bulletins. The Power & Way Service Bulletins are intended to provide procedural guidelines for safely removing and restoring the CTA's power & way systems (primarily traction power & signal) within the limits defined by the contract and Contractors specific track outage plan(s).

H. CTA labor shall be required to de-energize and re-energize traction power and perform such other work as may be deemed by the CTA to be required pursuant to the Contractor's work activities and authorized Track Access Occurrences, etc. CTA Signal Maintainer shall also be required to observe and witness the Contractor disconnection and reconnection of temporary signal work at each location where modifications are performed to support construction activities. One Signal Maintainer will be required to witness testing at each location or housing where it is taking place. CTA Signal Maintainer shall also be required to witness the Contractor restoration safety testing, prior to the line being returned to the CTA.

I. Two Linemen will be required at each location where traction power is energized or de-energized. The Contractor's schedule must include travel time for the CTA Electrician's (min ½ hour) if they are to energize or de-energize traction power at more than one location.

J. Failure of the Contractor to provide the CTA the minimum specified time required for the removal and restoration of all Power & Way systems within an authorized Track Access Occurrence will result in specified liquidated damages for failure to return track(s) to service in accordance with the contract requirements. There will be no reimbursement for liquidated damages charged to the Contractor by CTA. The following schedule for liquidated damages has been established by the CTA:

From 1 minute through 29 minutes delay - $5,000.00

From 30 minutes through 59 minutes delay – an additional $5,000.00

For each additional hour or fraction thereof - $30,000.00 per hour

K. The scope of work under this Contract includes construction activities adjacent to the existing CTA tunnels. The construction process plan shall identify the following items to be approved by the CTA prior to all construction near the CTA tunnels:

1. The scope and sequence of work near the CTA tunnel
2. The type of equipment to be used adjacent to the tunnel
3. Equipment to be operated, stored or serviced within the limits of the projected edges of the CTA tunnels up to ground
4. Specialized pads, racks, mats or other supports for any equipment to be operated or stored or materials to be stored over CTA tunnels
5. Excavation limits in the area of the CTA tunnels, braced excavation or temporary earth retention system designs to be used (if applicable), excavation procedures (including hand, vacuum, hydro and other non-mechanical techniques), and other elements related to the excavations near the CTA tunnels
6. Materials and activities to protect the CTA tunnels during excavations and proposed construction near the CTA tunnels
7. Emergency plan and communication protocol in the event there is confirmed damage to the CTA tunnels due to Contractor activities
8. Restoration plan and construction techniques to restore the soil fill around and over the CTA tunnels

L. Placing equipment and materials in the area above the CTA tunnels and/or on top of the existing CTA retaining walls is at the discretion of the CTA, and must be authorized prior to the start of any activities above and around the tunnel and/or the existing CTA retaining walls. In order for the CTA to evaluate the impact due to Contractor activities, a Structural Assessment Report shall be prepared concerning the CTA tunnel structures.

1. The Contractor shall retain the services of an engineering firm, prequalified in the IDOT consultant selection category of Highway Bridge (Advance Typical / Complex), for preparation of the Structural Assessment Report(s). Contractor's pre-approval shall not be applicable for this project. Preparation of the Structural Assessment Report(s) shall be at the Contractor's expense.
2. At its discretion, the CTA will provide available relevant existing plans for the Contractor's use.
3. The Contractor is advised that the existing structures most likely contain elements that are in deteriorated conditions with reduced load carrying capacities. It is the Contractor's responsibility to account for the condition of existing structures when developing construction procedures for using them to support construction loads.

4. The Contractor shall verify that the structural demands of the applied loads due to the Contractor's means and methods will not exceed the available capacity of the structure at the time loads are applied nor will any overstress to the structure occur. The Contractor may need to provide modifications (or other methods of retrofitting) to the existing tunnels and/or existing CTA retaining walls to support construction loads. Locations and design of such modifications system will be the responsibility of the Contractor, will not be paid for separately, and will be subject to the review and approval of the CTA.
5. The modifications may include constructing elements adjacent to the CTA tunnels to reduce the load transfer to the tunnel structures. Any proposed improvements within the area of the tunnel to support Contractor operations will not be paid for separately, but will be included in the cost of other items.

1.10 HAZARDOUS WORKING CONDITIONS

A. The Contractor shall caution all employees of the presence of electric third rail (600 volts DC), live cables and moving trains on CTA tracks. The Contractor shall take all necessary precautions to prevent damage to life or property through contact with the electrical or operations systems. The Contractor shall caution all employees that any contact with live electric third rail or "live" portions of train undercarriage may result in a severe burn or death.

B. The Contractor shall establish third-rail safety precautions in accordance with CTA regulations, such as using insulating hoods or covers for live third rail or cables adjacent to the work. On every day and at every work site where a live third rail hazard exists, the Contractor shall instruct all employees of the emergency procedures. Knowledge of the disconnect switch locations or manner of disconnection shall be available at all times to the personnel on the job. Unless otherwise noted, only CTA Electricians are allowed to disconnect power.

C. The third rail may be de-energized during authorized Track Access Occurrences. The planning and implementation of the de-energizing shall be listed in the Contractor's process plan and include documenting checklist requirements.

1.11 TRACK SAFETY

A. The Contractor shall, at all times, take special care to conduct operations over, on, under, adjacent to, or adjoining, the CTA facilities and/or Right-of-Way in such a manner as not to cause damage, settlement or displacement of any structures, tracks or any portion thereof. Contractor will monitor CTA tracks for vertical and horizontal movements. Monitoring shall consist of pre-construction and post-construction track surveys and daily monitoring of the CTA tracks for vertical or horizontal movements during operations that could potentially impact track stability (construction activities, including, but not limited to: excavation, ERS, pile driving, utility jacking, etc.); **monitoring also applies to any construction operations that CTA determines warrants monitoring**. Monitoring points are to be at least every 10' centers within the construction zone and 50' beyond the identified construction limits. Submit copies of reports daily to CTA for review. Maximum allowable horizontal and vertical movements are ¼ inch. If movements in excess of ¼ inch are detected, the contractor will discontinue construction operations immediately and notify the CTA. CTA will evaluate the track condition and determine what restorative work is required. The contractor will perform this required work at his/her expense prior to continuing remaining contract work. If track repairs are required, the contractor will hire a contractor experienced in CTA track work and approved by the CTA to perform the corrective repairs to the satisfaction of the CTA.

B. Any damages to the CTA tracks, supporting structures or other existing facilities and properties caused by the Contractor's operations shall be replaced or repaired by the Contractor to the satisfaction of the CTA without reimbursement. Contractor shall obtain photo documentation of damaged property to the CTA prior to performing any repair or replacement work.

C. The CTA shall have the right to perform any work it deems to be of an emergency nature and/or necessary to permit normal train operations during construction operations by the Contractor. The work to be completed by the CTA may impact the ongoing Contractor operations. If the emergency work is required due to Contractor actions, the cost of such service or emergency work provided by the CTA shall be borne by the Contractor with no reimbursement by the Department.

D. All work shall comply with the *CTA Safety Manual for Contract Construction On, Above, or Adjacent to the CTA Rail System* and CTA Standard Operating Procedures.

E. The Contractor shall take such precautions as are necessary to ensure the safety and continuity of the CTA operations and passengers. The Contractor shall provide a minimum horizontal clearance of 7'-2" from the centerline of the nearest tangent track to any falsework, bracing and forms or other temporary obstruction during the work under this Contract. The clearance requirements for curved track sections must be calculated by the Contractor to ensure encroachment into the clearance envelope will not occur. Prepare, submit and obtain approval of detailed drawings prepared and sealed by a licensed structural engineer in the state of Illinois for all falsework, sheeting and construction procedures adjacent to and under the tracks before doing any work on same. After obtaining approval of such plans, said falsework, sheeting and construction procedures shall be constructed strictly in accordance with the approved drawings and specifications. All submittals must be submitted to the Engineer to be provided to the CTA In case of any settlement or displacement of structures or tracks, the Contractor shall immediately proceed with all shoring or other work necessary to maintain the CTA property in a safe condition for the operation of train service. If the Contractor fails to undertake this work within 24 hours after notice by the Engineer in writing, the CTA may proceed to repair or shore any such structure or tracks; and the cost thereof shall be billed to the Contractor with no compensation. If the settlement or displacement is severe enough to limit train service, the repairs shall be made immediately. All costs of any disruption to the CTA service due to the Contractor's operations or negligence shall be at the Contractor's expense with no compensation.

F. In limited cases and with advance authorization by the CTA, a minimum horizontal clearance of 6’-1” between the centerline of the nearest tangent track and an obstruction may be allowed. This clearance does not allow CTA or Contractor personnel to safely stand between the obstruction and an operating train. In addition, an obstruction at this clearance is a hazard to motormen with a cab window open. Any required flagging by the CTA will need to be requested as described herein.

G. A minimum vertical clearance of 14′-6″ (4.42 m) above the high running rail the CTA tracks must be provided at all times.

H. Work adjacent and above the CTA tunnels must consider the protection of the existing tunnel structures in addition to items described above related to open track conditions. The protection of the tunnel structure is critical to maintain continuous transit operations. Section 1.09K describes the required items as part of the Construction Process near the tunnel structures. Before the start of construction, the Contractor will complete a pre-construction inspection of the existing CTA tunnel (with CTA in attendance) at locations to be determined by the CTA. Readily visible conditions and distress such as unusual cracks, obvious signs of leakage, settlement, etc. will be photographically recorded and documented by the Contractor. The Contractor will also make a DVD survey to provide a more complete general record of conditions in the CTA Tunnel. At the conclusion of the pre-construction survey, a report shall be prepared by the Contractor presenting the observed existing conditions and shall include written, videotaped and photographic documentation. The record shall then be used by the Contractor as a basis for comparison to distress that may occur after the survey. The CTA, at their discretion, may place inspectors, or other personnel, within adjacent tunnel sections during Contractor operations. The CTA personnel will alert the Engineer if the Contractor actions appear to be damaging the CTA tunnel structure(s). If any damage is noted in the CTA Tunnel during the Contractor's operations then the Contractor shall stop work immediately and the necessary corrective measures shall be initiated as directed by the Engineer and the CTA. No additional compensation will be due the Contractor for repairing damage to the CTA tunnel. A post-construction survey shall be performed, with recordings and documentation the same as required in the pre-construction survey, to document the final condition of the CTA tunnel after all Contractor's operations, in the vicinity of the CTA tunnel, are complete.

1.12 TRACK FLAGGING OPERATIONS

A. Temporary Track Flagging slow zones per CTA SOP 7041 and "CTA Safety Manual for Contract Construction on or Near the CTA Rail System" are restricted in the following manner:

1. Temporary track flagging slow zones can only be mobilized, utilized and demobilized in non-rush hour time periods and no more than one (1) Track Flagging Operation zone will be permitted at any given time. The Contractor will be the responsible party responsible to furnish (Contractor may purchase from CTA if Contractor does not have) and install the required slow zone signage and equipment. A Track Flagging Operation zone is defined as a contiguous work zone, of no more than 600 feet in length, regardless of the number of tracks fouled. The costs for all manpower, signage and equipment for flagging operations will be billed by the CTA to the Contractor with reimbursement as defined herein.

2. Current Standard Operating Procedures require Slow Zone with flagging protection whenever any workers are scheduled to work on, across or near a section of track. Flagging protection shall be ordered and assigned according to the CTA Flagmen Requirements Manual. These standards must be adhered to and the number of flagmen assigned to a work location shall be as required by the CTA Flagmen Requirements Manual that is available for public viewing at CTA Headquarters upon request. If the work will take place in an area of restricted visibility then flagmen must be assigned (for any number of workers/duration of work) and a slow zone must be established.

3. Temporary Track Flagging slow zone signs will be placed, removed or turned by the Contractor so the sign cannot be read from the motor cab or hooded to cover the sign so it may not be read from the motor cab when the work crew clears the Right-of-Way.

4. The Contractor shall provide the Engineer with a written request for flagmen and other personnel at least seventy two (72) hours (two normal working days and before noon) prior to the date, and time the work will be performed and the CTA personnel are requested. The Engineer or the Engineer's designee will coordinate all flagmen requests with the CTA.

5. A maximum of one-hundred (100) flagger shifts will be reimbursed as part of the Contract. The costs for additional flagger shifts required for the Contractor's operations that are requested and granted by the CTA will be reviewed after the flagger shift request has been made to the Engineer.

B. The providing of such personnel and any other safety precautions taken by the CTA shall not relieve the Contractor of any liability for death, injury or damage arising in connection with the construction operations. See CTA SOP No. 7037, "Flagging on the right-of-way", for a description of flagging personnel duties.

C. To minimize flagmen usage, the Contractor shall use approved barricades, barricaded scaffolds and/or safety railings. Barricades and safety railing arrangements shall be in accordance with Section 4-5.3 of the *CTA Safety Manual for Contract Construction On, Above, or Adjacent to the CTA Rail System.*

D. The CTA does not guarantee that flagging or other personnel will always be available when requested. The Contractor shall be advised that requests for flagging manpower must conform to the CTA Flagman Requirements Manual, and certain work locations require multiple flagging personnel when only one track is fouled by the work.

E. The Contractor shall pay for all flagging and other personnel costs incurred and charged by the CTA. The cost for the each flagger shift shall be approximately $900.00 per flagger shift (exact cost will be based on actual wage rates, fringes and overhead). The Contractor shall also be responsible to reimburse the CTA for all costs associated with the use of other personnel for infrastructure shifts throughout the duration of the contract. The cost for any other CTA personnel (signalmen, linemen, towermen, inspectors, etc.) shall be approximately $1,100.00 per infrastructure shift (exact cost will be based on actual wage rates, fringes and overhead). CTA personnel assigned to monitor CTA tunnels during Contractor operations identified within Section 1.11I are considered as infrastructure shifts.

F. By labor contract, CTA flagging personnel are entitled to a 30-minute break after a continuous 5-1/2 hour work period, including report and travel time. The 5-1/2 hour period begins when the person reports to work at his or her home terminal. Additionally, flagging personnel are entitled to occasional personal breaks (to use the washroom facilities) during the normal course of work. When flagging personnel leave the work site, work must cease unless provision is made for a relief flagger. The Contractor shall coordinate the Project work schedule with the flagging personnel break periods.

G. All employees of the Contractor and subcontractors shall report any actions of perceived CTA employee misconduct, or if any CTA employee does not provide a full level of cooperation in support of the contract; immediately and directly to the Engineer. The Engineer will provide written correspondence to the CTA Project Manager, as well as CTA Operations. Only with timely, written documentation will CTA be enabled to resolve work site personnel issues and take appropriate disciplinary action, when necessary.

H. If the Contractor, Engineer, CTA Construction or Safety Inspector believes that the Flagman is unable to perform his/her duties responsibly, work shall be stopped immediately, ensure that the Right-of-Way is safe for train operations, and the Work Crew shall exit, without delay, the Rail System Right-of-Way. The Contractor must contribute incident information to the Engineer to that a written report can be submitted to the CTA prior to the end of the workday.

1. In addition, all employees of the Contractor and subcontractors must report any actions of perceived CTA employee misconduct, or if any CTA employee does not provide a full level of cooperation in support of the contract immediately to the Engineer. The Engineer will then contact the CTA's Control Center and/or CTA Rail Operations Route Manager. Within 24 hours of alleged incident, the Engineer must provide a written report to the CTA including detailed explanation of incident, employee badge numbers, location of incident, etc. The Contractor must contribute incident information to the Engineer.

2. Failure to make the proper notification in writing may adversely affect any claim that the Department may file with respect to CTA employee performance or lack thereof.

I. CTA Flaggers only provide flagging protection for the CTA Right-of-Way, and only CTA Flaggers are permitted to provide flagging protection for the CTA Right-of-Way. Flaggers for streets, highways or other railroads are solely the responsibility of the Contractor, and will not be permitted to provide flagging protection for the CTA Right-of-Way. Any additional flagging required by other agencies or railroads is the responsibility of the Contractor.

1.13 TRACK ACCESS OCCURRENCES

A. The entire system must be fully operational when the tracks are put back into service after a Track Access Occurrence. The track where work was conducted must be returned to the CTA in revenue condition; all stations must be open, fully functional and properly cleaned. The Contractor shall be immediately available with sufficient staff for up to one hour after revenue operation begins to ensure that all systems are functioning properly.

B. The Contractor shall allow enough time prior to putting the tracks back into service to make sure the line can be fully operational. A test train shall be required after any construction activity, determined by the Engineer or CTA, to require a test train. The scheduling of test trains must include travel time to and from the location being tested. Additional time should also be allowed for any possible remedial work required before the system can be made fully operational.

C. All components of the system, including, but not limited to, tracks, signals, stations, entrances, etc. must be fully and properly operational prior to putting the tracks and facilities back into service. Any facilities under demolition or construction and any temporary facilities must be safe and secure so they do not impact revenue service operations.

D. The Contractor shall be subject to fines if any station, facility, yard, structure, track, or component is not fully operational and useable at the prescribed predetermined time; including all planned staging of construction sites. The CTA will identify appropriate fines at the time of the incident. No compensation will be made for fines levied by the CTA due to Contractor actions or delays in providing CTA facilities at prescribed times.

E. The Contractor shall clean all debris and equipment from the work or staging areas after work has been completed after each work day. In the event the Contractor fails to so clean to the CTA’s satisfaction, the CTA may perform any necessary cleaning and fine the Contractor the cost of such cleaning. No compensation will be made for fines levied by the CTA due to delays and cleaning costs.

PUBLIC CONVENIENCE AND SAFETY (D-1)

Effective: May 1, 2012
Revised: July 15, 2012

Add the following to the end of the fourth paragraph of Article 107.09:

> "If the holiday is on a Saturday or Sunday, and is legally observed on a Friday or Monday, the length of Holiday Period for Monday or Friday shall apply."

Add the following sentence after the Holiday Period table in the fourth paragraph of Article 107.09:

> "The length of Holiday Period for Thanksgiving shall be from 5:00 AM the Wednesday prior to 11:59 PM the Sunday after"

Delete the fifth paragraph of Article 107.09 of the Standard Specifications:

> "On weekends, excluding holidays, roadways with Average Daily Traffic of 25,000 or greater, all lanes shall be open to traffic from 3:00 P.M. Friday to midnight Sunday except where structure construction or major rehabilitation makes it impractical."

RESTRICTION ON WORKING DAYS AFTER A COMPLETION DATE

All temporary lane closures *on arterial streets* during the period governed by working days after a completion date will not be permitted during the hours of 6:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m. Monday through Friday.

All lane closure signs shall not be erected any earlier than one-half (1/2) hour before the starting hours listed above. Also, these signs should be taken down within one-half (1/2) hour after the closure is removed.

COMPLETION DATE PLUS WORKING DAYS

Revise Article 108.05 (b) of the Standard Specifications as follows:

> "When a completion date plus working days is specified, the Contractor shall complete all contract items and safely open all roadways to traffic by 11:59 PM on **November 30, 2025.**
>
> The Contractor will be allowed to complete all clean-up work and punch list items within **10** working days after the completion date for opening the roadway to traffic. Under extenuating circumstances the Engineer may direct that certain items of work, not affecting the safe opening of the roadway to traffic, may be completed within the working days allowed for clean-up work and punch list items. Temporary lane closures for this work may be allowed at the discretion of the Engineer.

Article 108.09 or the Special Provision for "Failure to Complete the Work on Time", if included in this contract, shall apply to both the completion date and the number of working days.

LANDSCAPE CONSTRUCTION WORK AND LANDSCAPE ESTABLISHMENT WORK

The Contractor shall complete each Phase of the work in accordance with the CALENDAR OF CONSTRUCTION AND ESTABLISHMENT WORK specified in the plans.

INTERIM COMPLETION DATE FOR PHASE I
The Contractor shall schedule his/her operations in order to complete all Phase I work on or before March 15, 2023.

INTERIM COMPLETION DATE FOR PHASE II
The Contractor shall schedule his/her operations in order to complete all Phase II work on or before May 31, 2023.

INTERIM COMPLETION DATE FOR PHASE III
The Contractor shall schedule his/her operations in order to complete all Phase III work on or before November 30, 2023.

INTERIM COMPLETION DATE FOR PHASE IV
The Contractor shall schedule his/her operations in order to complete all Phase IV work on or before May 15, 2024.

COMPLETION DATE FOR PHASE V
The Contractor shall schedule his/her operations in order to complete all Phase V work on or before November 30, 2024.

COMPLETION DATE FOR PHASE VI
The Contractor shall schedule his/her operations in order to complete all Phase VI work on or before June 30, 2025.

COMPLETION DATE FOR PHASE VII
The Contractor shall schedule his/her operations in order to complete all Phase VII work on or before November 30, 2025.

FAILURE TO COMPLETE LANDSCAPE CONSTRUCTION

Should the Contractor fail to complete the Phase I work on or before the completion date stipulated in the Contract, or within such extended time as may have been allowed, the Contractor shall be liable to the Department in the amount of $1,425, not as a penalty but as liquidated damages, for each calendar day or portion thereof, of overrun in the Phase I time or such extended time as may have been allowed.

Should the Contractor fail to complete the Phase II work on or before the completion date stipulated in the Contract, or within such extended time as may have been allowed, the Contractor shall be liable to the Department in the amount of $1,425, not as a penalty but as liquidated damages, for each calendar day or portion thereof, of overrun in the Phase II time or such extended time as may have been allowed.

Should the Contractor fail to complete the Phase III work on or before the completion date stipulated in the Contract, or within such extended time as may have been allowed, the Contractor shall be liable to the Department in the amount of $1,425 not as a penalty but as liquidated damages, for each calendar day or portion thereof, of overrun in the Phase III time or such extended time as may have been allowed.

Should the Contractor fail to complete the Phase IV work on or before the completion date stipulated in the Contract, or within such extended time as may have been allowed, the Contractor shall be liable to the Department in the amount of $1,425, not as a penalty but as liquidated damages, for each calendar day or portion thereof, of overrun in the Phase IV time or such extended time as may have been allowed.

Should the Contractor fail to complete the Phase V work on or before the completion date stipulated in the Contract, or within such extended time as may have been allowed, the Contractor shall be liable to the Department in the amount of $1,425 not as a penalty but as liquidated damages, for each calendar day or portion thereof, of overrun in the Phase V time or such extended time as may have been allowed.

Should the Contractor fail to complete the Phase VI work on or before the completion date stipulated in the Contract, or within such extended time as may have been allowed, the Contractor shall be liable to the Department in the amount of $1,425, not as a penalty but as liquidated damages, for each calendar day or portion thereof, of overrun in the Phase VI time or such extended time as may have been allowed.

Should the Contractor fail to complete the Phase VII work on or before the completion date stipulated in the Contract, or within such extended time as may have been allowed, the Contractor shall be liable to the Department in the amount of $1,425, not as a penalty but as liquidated damages, for each calendar day or portion thereof, of overrun in the Phase VII time or such extended time as may have been allowed.

A calendar day is every day shown on the calendar and starts at 12:00 midnight and ends at the following 12:00 midnight, twenty-four hours later.

FAILURE TO COMPLETE THE WORK ON TIME

Effective: September 30, 1985
Revised: January 1, 2007

Should the Contractor fail to complete the work on or before the completion date as specified in the Special Provision for "Completion Date Plus Working Days", or within such extended time as may have been allowed by the Department, the Contractor shall be liable to the Department in the amount of **$ 1,425**, not as a penalty but as liquidated damages, for each calendar day or a portion thereof of overrun in the contract time or such extended time as may have been allowed.

In fixing the damages as set out herein, the desire is to establish a certain mode of calculation for the work since the Department's actual loss, in the event of delay, cannot be predetermined, would be difficult of ascertainment, and a matter of argument and unprofitable litigation. This said mode is an equitable rule for measurement of the Department's actual loss and fairly takes into account the loss of use of the roadway if the project is delayed in completion. The Department shall not be required to provide any actual loss in order to recover these liquidated damages provided herein, as said damages are very difficult to ascertain. Furthermore, no provision of this clause shall be construed as a penalty, as such is not the intention of the parties.

A calendar day is every day shown on the calendar and starts at 12:00 midnight and ends at the following 12:00 midnight, twenty-four hours later.

EMBANKMENT I

Effective: March 1, 2011
Revised: November 1, 2013

Description. This work shall be according to Section 205 of the Standard Specifications except for the following.

Material. All material shall be approved by the District Geotechnical Engineer. The proposed material must meet the following requirements.

a) The laboratory Standard Dry Density shall be a minimum of 90 lb/cu ft (1450 kg/cu m) when determined according to AASHTO T 99 (Method C).

b) The organic content shall be less than ten percent determined according to AASHTO T 194 (Wet Combustion).

c) Soils which demonstrate the following properties shall be restricted to the interior of the embankment and shall be covered on both the sides and top of the embankment by a minimum of 3 ft (900 mm) of soil not considered detrimental in terms of erosion potential or excess volume change.

    1) A grain size distribution with less than 35 percent passing the number 75 um (#200) sieve.

2) A plasticity index (PI) of less than 12.

3) A liquid limit (LL) in excess of 50.

d) Reclaimed asphalt shall not be used within the ground water table or as a fill if ground water is present.

e) The RAP used shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications". Gradation deleterious count shall not exceed 10% of total RAP and 5% of other by total weight.

CONSTRUCTION REQUIREMENTS

Samples. Embankment material shall be sampled, tested, and approved before use. The contractor shall identify embankment sources, and provide equipment as the Engineer requires, for the collection of samples from those sources. Samples will be furnished to the Geotechnical Engineer a minimum of three weeks prior to use in order that laboratory tests for approval and compaction can be performed. Embankment material placement cannot begin until tests are completed and approval given.

Placing Material. In addition to Article 202.03, broken concrete, reclaimed asphalt with no expansive aggregate, or uncontaminated dirt and sand generated from construction or demolition activities shall be placed in 6 inches (150 mm) lifts and disked with the underlying lift until a uniform homogenous material is formed. This process also applies to the overlaying lifts. The disk must have a minimum blade diameter of 24 inches (600 mm).
When embankments are to be constructed on hillsides or existing slopes that are steeper than 3H:1V, steps shall be keyed into the existing slope by stepping and benching as shown in the plans or as directed by the engineer.

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.

COARSE AGGREGATE FOR BACKFILL, TRENCH BACKFILL AND BEDDING (D-1)
Effective: November 1, 2011
Revised: November 1, 2013

This work shall be according to Section 1004.05 of the Standard Specifications except for the following:

Reclaimed Asphalt Pavement (RAP) maybe blended with gravel, crushed gravel, crushed stone crushed concrete, crushed slag, chats, crushed sand stone or wet bottom boiler slag. The RAP used shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications". The RAP shall be uniformly graded and shall pass the 1.0 in. (25 mm) screen. When RAP is blended with any of the coarse aggregate listed above, the blending shall be done mechanically with calibrated feeders. The feeders shall have an accuracy of + 2.0 percent of the actual quantity of material delivered. The final blended product shall not contain more than 40 percent by weight RAP.

The coarse aggregate listed above shall meet CA 6 and CA 10 gradations prior to being blended with the processed and uniformly graded RAP. Gradation deleterious count shall not exceed 10% of total RAP and 5% of other by total weight.

FAILURE TO COMPLETE PLANT CARE AND ESTABLISHMENT WORK ON TIME

Should the Contractor fail to complete the plant care and/or supplemental watering work as per the standard specifications or within 36 hours notification from the Engineer, or within such extended times as may have been allowed by the Department, the Contractor shall be liable to the Department in the amount of:

- $50.00 per tree/per day
- $40.00 per large shrub/per day
- $35.00 per small shrub/per day
- $20.00 per vine/per day
- $20.00 per perennial/per day
- $20.00 per sq yd sod/per day

not as penalty but as liquidated damages, for each calendar day or a portion thereof of overrun in the contract time or such extended time as may have been allowed.

In fixing the damages as set out herein, the desire is to establish a mode of calculation for the work since the Department's actual loss, in the event of delay, cannot be predetermined, would be difficult of ascertainment, and a matter of argument and unprofitable litigation. This said mode is an equitable rule for measurement of the Department's actual loss and fairly takes into account the loss of the tree(s) if the watering or plant care is delayed. The Department shall not be required to provide any actual loss in order to recover these liquidated damages provided herein, as said damages are very difficult to ascertain. Furthermore, no provision of this clause shall be construed as a penalty, as such is not the intention of the parties.

A calendar day is every day shown on the calendar and starts at 12:00 midnight and ends at the following 12:00 midnight, twenty-four hours later.

REQUIRED INSPECTION OF WOODY PLANT MATERIAL

Delete the first sentence of Article 1081.01(c)(1) and substitute the following:

Inspection of plant material will be made at the nursery by the Engineer, or a duly authorized representative of the Department; all plant material must be grown in the field of the nursery supplying the material.

The place of growth for all material, and subsequent inspection, must be located within 150 miles of the project.

The Contractor shall provide the Engineer 30 calendar days advance notice of the plant material to be inspected. Written certification by the Nursery will be required certifying that the plants are true to their species and/or cultivar specified in the plans.

TRAFFIC CONTROL AND PROTECTION (ARTERIALS)

Effective: February 1, 1996
Revised: March 1, 2011

Specific traffic control plan details and Special Provisions have been prepared for this contract. This work shall include all labor, materials, transportation, handling and incidental work necessary to furnish, install, maintain and remove all traffic control devices required as indicated in the plans and as approved by the Engineer.

When traffic is to be directed over a detour route, the Contractor shall furnish, erect, maintain and remove all applicable traffic control devices along the detour route according to the details shown in the plans.

Method of Measurement. All traffic control (except “Traffic Control and Protection (Expressways)” and temporary pavement markings) indicated on the traffic control plan details and specified in the Special Provisions will be measured for payment on a lump sum basis.

Basis of Payment. All traffic control and protection will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL).

Temporary pavement markings will be paid for separately unless shown on a Standard.

TRAFFIC CONTROL PLAN

Effective: September 30, 1985
Revised: January 1, 2007

Traffic Control shall be according to the applicable sections of the Standard Specifications, the Supplemental Specifications, the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", any special details and Highway Standards contained in the plans, and the Special Provisions contained herein.

Special attention is called to Article 107.09 of the Standard Specifications and the following Highway Standards, Details, Quality Standard for Work Zone Traffic Control Devices, Recurring Special Provisions and Special Provisions contained herein, relating to traffic control.

The Contractor shall contact the District One Bureau of Traffic at least 72 hours in advance of beginning work.

STANDARDS: 701001, 701006, 701011, 701101, 701106, 701301, 701400, 701401, 701406, 701411, 701426, 701427, 701428, 701456, 701601, 701801 and 701901.

DETAILS: Maintenance of Traffic – General Notes, Narrative and TC-08, TC-09, TC-10, TC-17, TC-18 and TC-22.

SPECIAL PROVISIONS:

Traffic Control Plan
Nighttime Work Zone Lighting (D-1)
Public Convenience and Safety (Dist. 1)
Keeping the Expressway Open to Traffic
Failure to Open Traffic Lanes to Traffic
Traffic Control and Protection (Expressways)
Traffic Control for Work Zone Areas
Speed Display Trailer (D-1)
Maintenance of Roadways
Traffic Control and Protection (Arterials)
Staging and Interchange Restrictions
Traffic Spotters (BDE)
Work Zone Traffic Control Devices (BDE)

NIGHTTIME WORK ZONE LIGHTING (D-1)

Effective: November 1, 2008
Revised: June 15, 2010

Description. This work shall consist of furnishing, installing, maintaining, moving, and removing lighting for nighttime work zones. Nighttime shall be defined as occurring shortly before sunset until after sunrise.

Materials. The lighting shall consist of mobile and/or stationary lighting systems as required herein for the specific type of construction. Mobile lighting systems shall consist of luminaires attached to construction equipment or moveable carts. Stationary lighting systems shall consist of roadway luminaires mounted on temporary poles or trailer mounted light towers at fixed locations. Some lighting systems, such as balloon lights, may be adapted to both mobile and stationary applications.

Equipment. The Contractor shall furnish an illuminance meter for use by the Engineer. The meter shall have a digital display calibrated to NIST standards, shall be cosine and color corrected, and shall have an accuracy of ± five percent. The sensor shall have a level indicator to ensure measurements are taken in a horizontal plane.

CONSTRUCTION REQUIREMENTS

General. At the preconstruction conference, the Contractor shall submit the type(s) of lighting system to be used and the locations of all devices.

Before nighttime construction may begin, the lighting system shall be demonstrated as being operational.

Nighttime Flagging. The requirements for nighttime flagging shall be according to Article 701.13 of the Standard Specifications and the glare control requirements contained herein.

Lighting System Design. The lighting system shall be designed to meet the following.

(a) Lighting Levels. The lighting system shall provide a minimum of 5 foot candles (54 lux) throughout the work area. For mobile operations, the work area shall be defined as 25 ft (9 m) in front of and behind moving equipment. For stationary operations, the work area shall be defined as the entire area where work is being performed.

Lighting levels will be measured with an illuminance meter. Readings will be taken in a horizontal plane 3 ft (1 m) above the pavement or ground surface.

(b) Glare Control. The lighting system shall be designed and operated so as to avoid glare that interferes with traffic, workers, or inspection personnel. Lighting systems with flood, spot, or stadium type luminaires shall be aimed downward at the work and rotated outward no greater than 30 degrees from nadir (straight down). Balloon lights shall be positioned at least 12 ft (3.6 m) above the roadway. As a large component of glare, the headlights of construction vehicles and equipment shall not be operated within the work zone except as allowed for specific construction operations. Headlights shall never be used when facing oncoming traffic.

(c) Light Trespass. The lighting system shall be designed to effectively light the work area without spilling over to adjoining property. When, in the opinion of the Engineer, the lighting is disturbing adjoining property, the Contractor shall modify the lighting arrangement or add hardware to shield the light trespass.

Construction Operations. The lighting design required above shall be provided at any location where construction equipment is operating or workers are present on foot. When multiple operations are being carried on simultaneously, lighting shall be provided at each separate work area.

The lighting requirements for specific construction operations shall be as follows.

(a) Installation or Removal of Work Zone Traffic Control. The required lighting level shall be provided at each truck and piece of equipment used during the installation or removal of work zone traffic control. Headlights may be operated in the work zone.

(b) Guardrail, Fence and High Tension Cable Barrier Median Repair. The required lighting level shall be provided by mounting a minimum of one balloon light to each piece of mobile construction equipment used in the work zone. This would include all machines but not include trucks used to transport materials and personnel or other vehicles that are continuously moving in and out of the work zone. The headlights of construction equipment shall not be operated within the work zone.

(c) Pavement Marking and Raised Reflective Pavement Marker Removal/Installation. The striping truck and the attenuator/arrow board trucks may by operated by headlights alone; however, additional lighting may be necessary for the operator of the striping truck to perform the work.

For raised reflective pavement marker removal and installation and other pavement marking operations where workers are on foot, the required lighting level shall be provided at each truck and piece of equipment.

(d) Sweeping. The required lighting level shall be mounted on the sweeping train vehicles during the sweeping operations. Headlights may be operated in the work zone.

(e) Layout, Testing, and Inspection. The required lighting level shall be provided for each active area of construction layout, material testing, and inspection. The work area shall be defined as 15 ft (7.6 m) in front and back of the individual(s) performing the tasks.

Nighttime Work Zone Lighting will not be paid for as a separate item, but the cost shall be considered as included in the contract unit prices for the construction items involved, and no additional compensation will be allowed.

MULCH PLACEMENT FOR EXISTING WOODY PLANTS

This work shall be done in accordance with the applicable portion of Section 253.02 (c) and Section 1081.06 (b) of the Standard Specifications for Road and Bridge Construction.

Description: This work shall consist of furnishing, transporting, and spreading an approved shredded hardwood bark mulch to the depth specified in areas as shown in the plans or as directed by the Engineer.

Material: Hardwood bark mulch shall be clean, finely shredded mixed-hardwood bark meeting the following requirements:

- Material shall be free of sticks, leaves, stones, dirt clods, and other debris.
- Individual wood chips shall not exceed 2 inches (50 mm) in the largest dimension.

A sample must be supplied to the Roadside Development Unit for approval prior to performing any work. Allow a minimum of seven (7) working days prior to installation for approval.

Method: The grade, depth, and condition of the area must be approved by the Engineer prior to placement.

The Contractor shall remove all ground cover/turf, weeds, litter, and plant debris before mulching. The Contractor shall repair the grade by raking and adding topsoil as needed before mulching.

Mulch shall be applied at a depth of 4-inches around all plants within the entire mulched bed area or around each individual tree to form a mulch ring. Mulch shall be placed five feet beyond the tree's dripline. An excess of 4-inches of mulch is unacceptable and excess shall be removed. Mulch shall not be tapered so that no mulch shall be placed within 6-inches of the shrub base or trunk to allow the root flare to be exposed and shall be free of mulch contact.

The shredded mulch shall be placed according at the required depth as specified in the plans for planting trees, shrubs, and vines. Care shall be taken not to bury leaves, stems, or vines under mulch material. Mulch shall not be in contact with the base of the trunk. Mulch volcanos are unacceptable.

All finished mulch areas shall be left smooth and level to maintain uniform surface and appearance.

After the mulch placement, any debris or piles of material shall be immediately removed from the right of way, including raking excess mulch out of turf areas.

Method of Measurement: Mulch placement will be measured in place to the depth specified in square yards. Areas not meeting the depth specified shall not be measured for payment.

Basis of Payment: This work will be paid for at the contract unit price per square yard for MULCH PLACEMENT, of the thickness specified. Payment shall include all costs for materials, equipment and labor required to complete the work specified herein, including the cost of removing and disposing of any debris. Any mulch placement included as part of the work in other work items will not be measured separately for payment.

KEEPING THE EXPRESSWAY OPEN TO TRAFFIC

Effective: March 22, 1996
Revised: October 9, 2020

Whenever work is in progress on or adjacent to an expressway, the Contractor shall provide the necessary traffic control devices to warn the public and to delineate the work zone as required in these Special Provisions, the Standard Specifications, the State Standards and the District Freeway details. All Contractors' personnel shall be limited to these barricaded work zones and shall not cross the expressway.

The Contractor shall request and gain approval from the Illinois Department of Transportation's Expressway Traffic Operations Engineer at www.idotlcs.com twenty-four (24) hours in advance of all daily lane, ramp and shoulder closures and 7 days in advance of all permanent and weekend closures on all Freeways and/or Expressways in District One. This advance notification is calculated based on workweek of Monday through Friday and shall not include weekends or Holidays.

LOCATION: I-90/94 Kennedy: Ohio to I-290

WEEK NIGHT	TYPE OF CLOSURE	ALLOWABLE LANE CLOSURE HOURS		
Sunday - Thursday	1-Lane	10:00 PM	to	5:00 AM
	2-Lane	11:59 PM	to	5:00 AM
	3-Lane	1:00 AM	to	5:00 AM
Friday	1-Lane	10:00 PM (Fri)	to	8:00 AM (Sat)
	2-Lane	11:59 PM (Fri)	to	6:00 AM (Sat)
	3-Lane	NOT		ALLOWED
Saturday	1-Lane	10:00 PM (Sat)	to	10:00 AM (Sun)
	2-Lane	11:59 PM (Sat)	to	8:00 AM (Sun)
	3-Lane	1:00 AM (Sun)	to	7:00 AM (Sun)

LOCATION: I-90/94 Kennedy REVERSIBLES

WEEK NIGHT	ALLOWABLE LANE CLOSURE HOURS		
Sunday-Friday	9:00 PM	to	5:00 AM
Friday	11:00 PM (Fri)	to	6:00 AM (Sat)
Saturday	11:00 PM (Sat)	to	8:00 AM (Sun)

NOTE: All closures on I-90/94 shall start from left side. Lane closures on EB I-90/94 shall require that the Kennedy Reversible Lanes be closed or outbound, start at Chicago St., and requires the closure of Lake St. and Randolph St. entrance ramps.

LOCATION: I-90/94 Dan Ryan: 31st to I-290

WEEK NIGHT	TYPE OF CLOSURE	ALLOWABLE LANE CLOSURE HOURS		
Sunday-Thursday	1-Lane	10:00 PM	to	5:00 AM
	2-Lane	11:59 PM	to	5:00 AM
	3-Lane	1:00 AM	to	5:00 AM
Friday	1-Lane	11:00 PM (Fri)	to	8:00 AM (Sat)
	2-Lane	11:59 PM (Fri)	to	6:00 AM (Sat)
	3-Lane	NOT		ALLOWED
Saturday	1-Lane	10:00 PM (Sat)	to	9:00 AM (Sun)
	2-Lane	11:59 PM (Sat)	to	9:00 AM (Sun)
	3-Lane	1:00 AM (Sun)	to	7:00 AM (Sun)

LOCATION: I-290: Central to Wells (4-Lane Section)

WEEK NIGHT	TYPE OF CLOSURE	ALLOWABLE LANE CLOSURE HOURS		
Sunday - Thursday	1-Lane	8:00 PM	to	5:00 AM
	2-Lane	11:00 PM	to	5:00 AM
	3-Lane*	1:00 AM	To	5:00 AM
Friday	1-Lane	10:00 PM (Fri)	to	8:00 AM (Sat)
	2-Lane	11:59 PM (Fri)	to	6:00 AM (Sat)
	3-Lane*	NOT		PERMITTED
Saturday	1-Lane	10:00 PM (Sat)	to	10:00 AM (Sun)
	2-Lane	11:59 PM (Sat)	to	8:00 AM (Sun)
	3-Lane*	1:00 AM (Sun)	TO	7:00 AM (Sun)

***3 Lane closures will only be allowed from the left and are approved for specific operations only.

LOCATION: I-290: Central to Wells (3-Lane Section)

WEEK NIGHT	TYPE OF CLOSURE	ALLOWABLE LANE CLOSURE HOURS		
Sunday - Thursday	1-Lane	11:00 PM	to	5:00 AM
	2-Lane	1:00 AM	to	5:00 AM
Friday	1-Lane	11:59 PM (Fri)	to	6:00 AM (Sat)
	2-Lane	NOT	to	ALLOWED
Saturday	1-Lane	11:59 PM (Sat)	to	8:00 AM (Sun)
	2-Lane	1:00 AM (Sun)	to	7:00 AM (Sun)

*A 1-lane closure in the 2 lane section shall follow the 2-lane hours in the table above.

In addition to the hours noted above, temporary shoulder and non-system interchange partial ramp closures are allowed weekdays between 9:00 A.M. and 3:00 P.M. and between 7:00 P.M. and 5:00 A.M or as approved by the Expressway Traffic Operations Engineer.

Narrow Lanes and permanent shoulder closures will not be allowed between Dec. 1st and April 1st without authorization from the Department. Permanent shoulder closures per District Detail TC-17 will only be permitted if called for in the plans or as approved by the Expressway Traffic Operations Engineer.

Full Expressway Closures will only be permitted for a maximum of 15 minutes at a time during the low traffic volume hours of 1:00 A.M. to 5:00 A.M. Monday thru Friday and from 1:00 A.M. to 7:00 A.M. on Sunday. During Full Expressway Closures, the Contractor will be required to close off all lanes except one, using Freeway Standard Closures. Police forces should be notified and requested to close off the remaining lane at which time the work item may be removed or set in place. The District One Expressway Traffic Control Supervisor (847-705-4151) **shall be** notified at least 3 working days (weekends and holidays DO NOT count into this 72 hours notification) in advance of the proposed road closure and will coordinate the closure operations with police forces. Liquidated Damages as specified in the Failure to Open Traffic Lanes to Traffic for One lane or ramp blocked shall be assessed to the Contract for every 15 minutes beyond the initial 15 minutes all lanes are blocked.

All stage changes requiring the stopping and/or the pacing of traffic shall take place during the allowable hours for Full Expressway Closures and shall be approved by the Department. The Contractor shall notify the District One Expressway Traffic Control Supervisor at least 3 working days (weekends and holidays DO NOT count into this 72 hours notification) in advance of any proposed stage change.

A Maintenance of Traffic Plan shall be submitted to the District One Expressway Traffic Control Supervisor 14 days in advance of any stages changes or full expressway closures. The Maintenance of Traffic Plan shall include, but not be limited to: lane and ramp closures, existing geometrics, and equipment and material location.

All daily lane closures shall be removed during adverse weather conditions such as rain, snow, and/or fog and as determined by the Engineer. Also, the contractor shall promptly remove their lane closures when Maintenance forces are out for snow and ice removal.

Additional lane closure hour restrictions may have to be imposed to facilitate the flow of traffic to and from major sporting events and/or other events.

All lane closure signs shall not be erected any earlier than one-half (1/2) hour before the starting hours listed above. Also, these signs should be taken down within one-half (1/2) hour after the closure is removed.

The Contractor will be required to cooperate with all other contractors when erecting lane closures on the expressway. All lane closures (includes the taper lengths) without a three (3) mile gap between each other, in one direction of the expressway, shall be on the same side of the pavement. Lane closures on the same side of the pavement with a one (1) mile or less gap between the end of one work zone and the start of taper of next work zone should be connected. The maximum length of any lane closure on the project and combined with any adjacent projects shall be three (3) miles. Gaps between successive permanent lane closures shall be no less than two (2) miles in length.

Private vehicles shall not be parked in the work zone. Contractor's equipment and/or vehicles shall not be parked on the shoulders or in the median during non-working hours. The parking of equipment and/or vehicles on State right-of-way will only be permitted at the locations approved by the Engineer.

Check barricades shall be placed every 1000’ within a lane closure to prevent vehicles from driving through closed lanes.

Temporary ramp closures for service interchanges will only be permitted at night during the restricted hours listed for temporary one-lane closures within the project limits. However, no two (2) adjacent entrance and exit ramps in one direction of the expressway shall be closed at the same time.

Freeway to freeway (system interchange) full ramp closures for two lane ramps will not be permitted. Partial ramp closures of system ramps may be allowed during the 1-lane closure hours above. System ramp full closures for single lane ramps are only permitted for a maximum of four (4) hours

- between the hours of 1:00 a.m. and 5:00 a.m. on Monday thru Friday
- between the hours of 1:00 a.m. and 6:00 a.m. on Saturday, and
- between the hours of 1:00 a.m. and 7:00 a.m. on Sunday.

The Contractor shall furnish and install large (48" X 48") "DETOUR with arrow" signs as directed by the Engineer for all system ramp closures. In addition, one portable changeable message sign will be required to be placed in advance of the ramp closure. The cost of these signs and PCMS board shall be included in the cost of traffic control and protection (6 static signs maximum per closure).

Should the Contractor fail to completely open, and keep open, the ramps to traffic in accordance with the above limitations, the Contractor shall be liable to the Department for liquidated damages as noted under the Special Provision, "Failure to Open Traffic Lanes to Traffic".

FAILURE TO OPEN TRAFFIC LANES TO TRAFFIC

Effective: March 22, 1996
Revised: February 9, 2005

Should the Contractor fail to completely open and keep open all the traffic lanes to traffic in accordance with the limitations specified under the Special Provision for "Keeping the Expressway Open to Traffic", the Contractor shall be liable to the Department for the amount of:

I-90/94, I-290 and ramps:	All Stages One lane or ramp blocked = $1,700 /15 min. Two lanes blocked = $3,500 /15 min.

Not as a penalty but as liquidated and ascertained damages for each and every 15 minute interval or a portion thereof that a lane is blocked outside the allowable time limitations. Such damages may be deducted by the Department from any monies due the Contractor. These damages shall apply during the contract time and during any extensions of the contract time.

TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)
Effective: March 8, 1996
Revised: April 1, 2019

Description. This work shall include furnishing, installing, maintaining, replacing, relocating, and removing all traffic control devices used for the purpose of regulating, warning, or directing traffic. Traffic control and protection shall be provided as called for in the plans, applicable Highway Standards, District One Expressway details, Standards and Supplemental Specifications, these Special Provisions, or as directed by the Engineer.

General. The governing factor in the execution and staging of work for this project is to provide the motoring public with the safest possible travel conditions on the expressway through the construction zone. The Contractor shall arrange his operations to keep the closing of lanes and/or ramps to a minimum.

The Contractor shall be responsible for the proper location, installation, and arrangement of all traffic control devices. Special attention shall be given to existing warning signs and overhead guide signs during all construction operations. Warning signs and existing guide signs with down arrows shall be kept consistent with the barricade placement at all times. The Contractor shall immediately remove, completely cover, or turn from the motorist's view all signs which are inconsistent with lane assignment patterns.

The Contractor shall coordinate all traffic control work on this project with adjoining or overlapping projects, including barricade placement necessary to provide a uniform traffic detour pattern. When directed by the Engineer, the Contractor shall remove all traffic control devices that were furnished, installed, or maintained by him under this contract, and such devices shall remain the property of the Contractor. All traffic control devices shall remain in place until specific authorization for relocation or removal is received from the Engineer.

Additional requirements for traffic control devices shall be as follows.

(a) Traffic Control Setup and Removal. The setting and removal of barricades for the taper portion of a lane closure shall be done under the protection of a vehicle with a truck/trailer mounted attenuator and arrow board per State Standard 701428 and Section 701 of the Standard Specifications. Failure to meet this requirement will be subject to a Traffic Control Deficiency. The deficiency will be calculated as outlined in Article 105.03 of the Standard Specifications. Truck/trailer mounted attenuators shall comply with Article 1106.02(g) or shall meet the requirements of NCHRP 350 Test Level 3 with vehicles used in accordance with manufacturer’s recommendations and requirements.

(b) Sign Requirements

(1) Sign Maintenance. Prior to the beginning of construction operations, the Contractor will be provided a sign log of all existing signs within the limits of the construction zone. The Contractor is responsible for verifying the accuracy of the sign log. Throughout the duration of this project, all existing traffic signs shall be maintained by the Contractor. All provisions of Article 107.25 of the Standard Specifications shall apply.

(2) Work Zone Speed Limit Signs. Work zone speed limit signs shall be installed as required in Article 701.14(b) and as shown in the plans and Highway Standards. Based upon the exiting posted speed limit, work zone speed limits shall be established and signed as follows.

a. Existing Speed Limit of 55mph or higher. The initial work zone speed limit assembly, located approximately 4200’ before the closure, and shall be 55mph as shown in 701400. Additional work zone 45mph assemblies shall be used as required according to Article 701.14(b) and as shown in the Highway Standards and plans. WORK ZONE SPEED LIMIT 55 PHOTO ENFORCED assemblies may be omitted when this assembly would normally be placed within 1500 feet of the END WORK ZONE SPEED LIMIT sign. If existing speed limit is over 65mph then additional signage should be installed per 701400.

b. Existing Speed Limit of 45mph. The advance 55mph work zone speed limit assembly shown in 701400 shall be replaced with a 45mph assembly. Additional work zone 45mph assemblies shall be used as required according to Article 701.14(b) and as shown in the Highway Standards and plans. WORK ZONE SPEED LIMIT 55 PHOTO ENFORCED assemblies shall be eliminated in all cases. END WORK ZONE SPEED LIMIT signs are required.

(3) Exit Signs. The exit gore signs as shown in Standard 701411 shall be a minimum size of 48 inch by 48 inch with 12 inch capital letters and a 20 inch arrow. EXIT OPEN AHEAD signs shown in Standard 701411 shall be a minimum size of 48 inch by 48 inch with 8 inch capital letters.

(4) Uneven Lanes Signs. The Contractor shall furnish and erect “UNEVEN LANES” signs (W8-11) on both sides of the expressway, at any time when the elevation difference between adjacent lanes open to traffic equals or exceeds one inch. Signs shall be placed 500’ in advance of the drop-off, within 500’ of every entrance, and a minimum of every mile.

(c) Drums/Barricades. Check barricades shall be placed in work areas perpendicular to traffic every 1000', one per lane and per shoulder, to prevent motorists from using work areas as a traveled way. Check barricades shall also be placed in advance of each open patch, or excavation, or any other hazard in the work area, the first at the edge of the open traffic lane and the second centered in the closed lane. Check barricades, either Type I or II, or drums shall be equipped with a flashing light.

To provide sufficient lane widths (10' minimum) for traffic and also working room, the Contractor shall furnish and install vertical barricades, in lieu of Type II or drums, along the cold milling and asphalt paving operations. The vertical barricades shall be placed at the same spacing as the drums.

(d) Vertical Barricades. Vertical barricades shall not be used in lane closure tapers, lane shifts, exit ramp gores, or staged construction projects lasting more than 12 hours. Also, vertical barricades shall not be used as patch barricades or check barricades. Special attention shall be given, and ballast provided per manufacture’s specification, to maintain the vertical barricades in an upright position and in proper alignment.

(e) Temporary Concrete Barrier Wall. Prismatic barrier wall reflectors shall be installed on both the face of the wall next to traffic, and the top of sections of the temporary concrete barrier wall as shown in Standard 704001. The color of these reflectors shall match the color of the edgelines (yellow on the left and crystal or white on the right). If the base of the temporary concrete barrier wall is 12 inches or less from the travel lane, then the lower slope of the wall shall also have a 6 inch wide temporary pavement marking edgeline (yellow on the left and white on the right).

(f) Flaggers. One flagger will be required for each separate activity of an operation that requires frequent construction vehicles to enter or leave a work zone to or from a lane open to traffic. Temporary traffic control and flagger position shall be according to District One Detail TC-18 – Expressway Flagging, or as directed by the Engineer.

(g) Full Expressway Closures. Full Expressway Closures will only be permitted for a maximum of 15 minutes during the allowable hours listed in the Keeping the Expressway Open to Traffic Special Provision. During Full Expressway Closures, the Contractor will be required to close off all lanes except one, using Freeway Standard Closures. The Contractor will be required to provide one changeable message sign to be placed at the direction of the Engineer. The sign shall display a message as directed by the Engineer. A Maintenance of Traffic Plan shall be submitted to the District One Expressway Traffic Control Supervisor 14 days in advance of the planned work; including all stage changes. The Maintenance of Traffic Plan shall include, but not be limited to: lane and ramp closures, existing geometrics, and equipment and material location. The District One Expressway Traffic Control Supervisor (847-705-4151) shall be contacted at least 3 working days in advance of the proposed road closure and will coordinate the closure operation with police forces.

Method of Measurement. This item of work will be measured on a lump sum basis for furnishing, installing, maintaining, replacing, relocating, and removing traffic control devices required in the plans and these Special Provisions. Traffic control and protection required under Standards 701001, 701006, 701011, 701101, 701106, 701400, 701401, 701411, 701426, 701428, 701601, 701606, 701701, 701801, 701901 and 704001 and District Details TC-08, TC-09, TC-10, TC-12, TC-13, TC-16, TC-17, TC-18, TC-22 and TC-24 will be included with this item.

Basis of Payment.

(a) This work will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS). This price shall be payment in full for all labor, materials, transportation, handling, and incidental work necessary to furnish, install, maintain, replace, relocate, and remove all Expressway traffic control devices required in the plans and specifications.

In the event the sum total value of all the work items for which traffic control and protection is required is increased or decreased by more than ten percent (10%), the contract bid price for TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS) will be adjusted as follows:

Adjusted contract price = .25P + .75P [1±(X-0.1)]

Where: "P" is the bid unit price for Traffic Control and Protection

Where: "X" = $\dfrac{\text{Difference between original and final sum total value of all work items for which traffic control and protection is required}}{\text{Original sum total value of all work items for which traffic control and protection is required.}}$

The value of the work items used in calculating the increase and decrease will include only items that have been added to or deducted from the contract under Article 104.02 of the Standard Specifications and only items which require use of Traffic Control and Protection.

Temporary traffic control costs due to delay will be paid for according to the Compensable Delay Costs (BDE) Special Provision.

(b) The Engineer may require additional traffic control be installed in accordance with standards and/or designs other than those included in the plans. In such cases, the standards and/or designs will be made available to the Contractor at least one week in advance of the change in traffic control. Payment for any additional traffic control required will be in accordance with Article 109.04 of the Standard Specifications.

(c) Revisions in the phasing of construction or maintenance operations, requested by the Contractor, may require traffic control to be installed in accordance with standards and/or designs other than those included in the plans. Revisions or modifications to the traffic control shown in the contract shall be submitted by the Contractor for approval by the Engineer. No additional payment will be made for a Contractor requested modification.

(d) Temporary concrete barrier wall will be measured and paid for according to Section 704.

(e) Impact attenuators, temporary bridge rail, and temporary rumble strips will be paid for separately.

(f) Temporary pavement markings shown on the Standard will be measured and paid for according to Section 703 and Section 780.

(g) All pavement marking removal will be measured and paid for according to Section 703 or Section 783.

(h) Temporary pavement marking on the lower slope of the temporary concrete barrier wall will be measured and paid for as TEMPORARY PAVEMENT MARKING, 6".

(i) All barrier wall reflectors will be measured and paid for according to Section 782.

(j) The Changeable Message Sign required for Full Expressway Closures shall not be paid for separately.

TRAFFIC CONTROL FOR WORK ZONE AREAS

Effective: September 14, 1995
Revised: January 1, 2007

Work zone entry and exit openings shall be established daily by the Contractor with the approval of the Engineer. All vehicles including cars and pickup trucks shall exit the work zone at the exit openings. All trucks shall enter the work zone at the entry openings. These openings shall be signed in accordance with the details shown elsewhere in the plans and shall be under flagger control during working hours.

The Contractor shall plan his trucking operations into and out of the work zone as well as on to and off the expressway to maintain adequate merging distance. Merging distances to cross all lanes of traffic shall be no less than 1/2 mile. This distance is the length from where the trucks enter the expressway to where the trucks enter the work zone. It is also the length from where the trucks exit the work zone to where the trucks exit the expressway. The stopping of expressway traffic to allow trucks to change lanes and/or cross the expressway is prohibited.

Failure to comply with the above requirements will result in a Traffic Control Deficiency charge. The deficiency charge will be calculated as outlined in Article 105.03 of the Standard Specifications. The Contractor will be assessed this daily charge for each day a deficiency is documented by the Engineer.

SPEED DISPLAY TRAILER (D1)

Effective: April 1, 2015
Revised: January 1, 2017

Revise the third paragraph of Article 701.11 of the Standard Specifications to read:

"When not being utilized to inform and direct traffic, sign trailers, speed display trailers, arrow boards, and portable changeable message boards shall be treated as nonoperating equipment."

Add the following to Article 701.15 of the Standard Specifications:

"(m) Speed Display Trailer. A speed display trailer is used to enhance safety of the traveling public and workers in work zones by alerting drivers of their speed, thus deterring them from driving above the posted work zone speed limit."

Whenever the speed display trailer is not in use, it shall be considered non-operating equipment and shall be stored according to Article 701.11."

Add the following to Article 701.20 of the Standard Specifications:

"(k) "Speed Display Trailer will NOT be paid for by separate pay item, but its costs shall be included in the contract unit price of the various traffic control pay items.

Add the following to Article 1106.02 of the Standard Specifications:

"(o) Speed Display Trailer. The speed display trailer shall consist of a LED speed indicator display with self-contained, one-direction radar mounted on an orange see-through trailer. The height of the display and radar shall be such that it will function and be visible when located behind concrete barrier.

The speed measurement shall be by radar and provide a minimum detection distance of 1000 ft (300 m). The radar shall have an accuracy of ±1 mile per hour.

The speed indicator display shall face approaching traffic and shall have a sign legend of "YOUR SPEED" immediately above or below the speed display. The digital speed display shall show two digits (00 to 99) in mph. The color of the changeable message legend shall be a yellow legend on a black background. The minimum height of the numerals shall be 18 in. (450 mm), and the nominal legibility distance shall be at least 750 ft (250 m).

The speed indicator display shall be equipped with a violation alert that flashes the displayed detected speed when the posted limit is exceeded. The speed indicator shall have a maximum speed cutoff. On roadway facilities with a normal posted speed limit greater than or equal to 45 mph, the detected speeds of vehicles traveling more than 25mph over the work zone speed limit shall not be displayed. On facilities with normal posted speed limit of less than 45 mph, the detected speeds of vehicles traveling more than 15 mph over the work zone speed limit shall not be displayed. On any roadway facility if detected speeds are less than 25 mph, speed shall not be displayed. The display shall include automatic dimming for nighttime operation.

The speed indicator measurement and display functions shall be equipped with the power supply capable of providing 24 hours of uninterrupted service."

STAGING AND INTERCHANGE RESTRICTIONS

Prior to the actual beginning and completion of construction and traffic control and protection, the Contractor will be required to provide lane closures and barricade systems, for preparation work such as pavement marking removal, temporary lane marking, etc. These lane closures and barricade systems, including barricades, drums, cones, lights, signs, flaggers etc. shall be provided in accordance with details in the Plans and these Special Provisions and as approved by the Engineer.

The cost of this work will not be paid for separately but shall be considered included in the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).

LANE AND RAMP CLOSURES

Prior to and after stage construction, temporary lane closures on I-90/94, I-290 and associated ramps will only be permitted at night during the allowable hours as listed in the Special Provision KEEPING THE EXPRESSWAY OPEN TO TRAFFIC. These hours also apply to temporary closures of the ramps.

For all ramp closures, the Contractor shall furnish and install signage per District Detail TC-08, as directed by the Engineer.

Of the following northbound I-90/94 exit ramps (Madison Street, Washington Boulevard, Randolph Street and Lake Street, the Contractor shall never close more than one (1) northbound exit ramps for longer than a single overnight at the same time. The Contractor may close a second ramp for night time work only as allowed in the Special Provision KEEPING THE EXPRESSWAY OPEN TO TRAFFIC.

The Contractor shall never close the Roosevelt Road I-90/94 Entrance Ramp and Taylor Street I-90/94 Entrance Ramp for longer than a single overnight at the same time. The Contractor may close both entrance ramps for night time work only as allowed in the Special Provision, KEEPING THE EXPRESSWAY OPEN TO TRAFFIC.

The closing of ramps, which are used as the detour route for other roadways or ramps, is prohibited. Should the Contractor fail to completely open, and keep open, the ramps to traffic in accordance with the above limitations, the Contractor shall be liable to the Department for liquidated damages as noted under the Special Provision, FAILURE TO OPEN TRAFFIC LANES TO TRAFFIC.

The Contractor shall submit to the Department two (2) weeks ahead of time, in writing, the starting date for each of the extended ramp and/or lane closures. Approval from the Department is required prior to closing the ramp and/or lanes. Should the Contractor fail to complete the work and reopen the ramp to traffic within the allowable time limit, the Contractor shall be liable to the Department for liquidated damages as noted under FAILURE TO OPEN TRAFFIC LANES TO TRAFFIC

LOCAL ROAD CLOSURES

The use of local streets for construction staging and City Street or sidewalk closures must be approved by the City of Chicago and the Department in advance of the proposed closure or partial closure.

NOISE COMPLIANCE

Description: This work shall be according to Article 107.35 of the Standard Specifications, with the following additions:

All Work requiring lane closures and lane restrictions under KEEPING THE EXPRESSWAY OPEN TO TRAFFIC special provision shall follow the requirements described herein. Unless specifically approved in writing by the Engineer, no work that could be considered a noise nuisance, including but not limited to demolition activities, shall be performed during the period of 10 p.m. to 7 a.m.

When the Contractor requests to modify or deviate from the requirements of Article 107.35, the Contractor shall identify the intended construction activities, utilize noise mitigation techniques and identify the anticipated duration that noise levels will be elevated. Vehicle noise, including horns, back up warning signals and other abrupt noises shall be minimized

The Engineer may elect to shut down any nuisance activity that was not previously approved or does not meet the Contractor obligations identified in the approval request.

Basis of Payment: This work will not be paid for separately. All obligations described herein are included in associated pay items. No extension of the completion date, waiver of penalties or claims shall arise from any Contractor activity shut down enacted due to deficiencies described herein.

TREE REMOVAL (6 TO 15 UNIT DIAMETER)
TREE REMOVAL (OVER 15 UNITS DIAMETER)
TREE REMOVAL (UNDER 6 UNITS DIAMETER)

Description: This work shall be done in accordance with Section 201 of the Standard Specifications for Tree Removal, except that stumps are to be removed to a minimum of six (6) inches below the natural surface of the ground. This work shall consist of tree removal, stump grinding, grading of area to match existing grade, topsoil placement or removal, if necessary, required seeding, and installation of erosion control blanket, and other work items necessary as described herein and as directed by the Engineer.

The trees to be removed shall be designated by the Engineer.

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) inch diameter.

Area where tree(s) have been removed shall be restored to groundcover shown on plans or as directed by the Engineer. All work shall meet the requirements of Section 250 of the Standard Specifications, except herein.

Turf Restoration Requirements:

- Wood chips/grindings must be removed and properly disposed of.
- Wood chips must be raked out of surrounding turf or swept off the surrounding hardscape (sidewalks/streets/curbs/etc.).
- Area shall be left smooth and level to maintain uniform surface and appearance. Grade as necessary, place or remove topsoil if required.
- Seed bare soil with required seeding as shown on the plans and install erosion control blanket.
- Seeding, Class 2A shall be placed within the specified time frames of either April 1 to June 15 or August 1 to November 1.
- Fertilizers will be required for Seeding, Class 2A.
- Mulch Placement, 4" shall be placed at locations where mulch beds are proposed as shown on the plans. Wood chips are not acceptable.
- All debris that results from this operation shall be removed from the right-of-way and disposed of at the end of the day in accordance with Article 202.03.

Method of Measurement: This work will be measured per unit of diameter where one unit is equal to 1 inch and will be paid for at the contract unit price per unit diameter for TREE REMOVAL (UNDER 6 UNITS DIAMETER), TREE REMOVAL (6 TO 15 UNITS DIAMETER), and TREE REMOVAL (OVER 15 UNITS DIAMETER) including restoration of the turf area.

Placement of topsoil, Seeding, Class 2A, and erosion control blanket shall be included in the cost of TREE REMOVAL (UNDER 6 UNITS DIAMETER), TREE REMOVAL (6 TO 15 UNITS DIAMETER) and TREE REMOVAL (OVER 15 UNITS DIAMETER). Topsoil shall be in accordance with the requirements of Section 211. Erosion control blanket shall be applied in accordance with Article 251.04 of the Standard Specifications.

If the inspection discloses any work as being unsatisfactory due to erosion and/or the seed does not fully establish, 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. The limits and magnitude of the repairs are at the discretion of the Engineer. The cost of any repair shall be included in the cost of the Contract and will not be paid for separately. Work that is not acceptable on the inspection date will not be measured for payment.

Basis of Payment: This work will be paid for at the contract unit price each for TREE REMOVAL (UNDER 6 UNITS DIAMETER), TREE REMOVAL (6 TO 15 UNITS DIAMETER) and TREE REMOVAL (OVER 15 UNITS DIAMETER) which unit price shall include the cost of all labor, transportation, materials, hauling, loading, unloading, placing, installing, removing, equipment, disposal of all materials off-site, topsoil, seed, erosion control blanket, materials, clean-up, and incidentals required to complete the work as specified herein to the satisfaction of the Engineer.

SUPPLEMENTAL WATERING

This work will include watering sod, trees, shrubs, vines, and perennials at the rates specified and as directed by the Engineer.

Schedule: Water trees, shrubs, vines, perennials, and sod throughout the growing season (May 1 to November 30) as per the special provisions: Planting Woody Plants, Planting Perennials, and Native Sodding, Special. Calendar of Landscape Construction and Establishment Work is a recommended guideline. The Engineer may direct the Contractor to adjust the watering rate and frequency depending upon weather conditions.

Watering must be completed in a timely manner. When the Engineer directs the Contractor to do supplemental watering, the Contractor must begin the watering operation within 24 hours of notice. **The Contractor shall give an approximate time window of when they will begin at the work location to the Engineer. The Engineer shall be present during the watering operation.** A minimum of 10 units of water per day must be applied until the work is complete.

Should the Contractor fail to complete the work on a timely basis or within such extended times as may have been allowed by the Department, the Contractor shall be liable to the Department liquidated damages as outlined in the **"Failure to Complete Plant Care and Establishment Work on Time" special provision.**

In fixing the damages as set out herein, the desire is to establish a mode of calculation for the work since the Department's actual loss, in the event of delay, cannot be predetermined, would be difficult of ascertainment, and a matter of argument and unprofitable litigation. This said mode is an equitable rule for measurement of the Department's actual loss and fairly takes into account the loss of the trees if the watering is delayed. The Department shall not be required to provide any actual loss in order to recover these liquidated damages provided herein, as said damages are very difficult to ascertain. Furthermore, no provision of this clause shall be construed as a penalty, as such is not the intention of the parties.

A calendar day is every day shown on the calendar and starts at 12:00 midnight and ends at the following 12:00 midnight, twenty-four hours later.

Source of Water: The Contractor shall notify the Engineer of the source of water used and provide written certification that the water does not contain chemicals harmful to plant growth.

Rate of Application: The normal rates of application for each watering are as follows. The Engineer may adjust these rates as needed depending upon weather conditions.

15 gallons per tree
10 gallons per large shrub
5 gallons per small shrub
2 gallons per vine
3 gallons per square foot for perennial plants
27 gallons per square yard for Sodded Areas

Method of Application: A spray nozzle that does not damage small plants must be used when watering all vegetation. Water shall be applied at the base of the plant to keep as much water as possible off plant leaves. An open hose may be used to water trees, shrubs, and seedlings if mulch and soil are not displaced by watering. The water shall be applied to individual plants in such a manner that the plant hole shall be saturated without allowing the water to overflow beyond the earthen saucer. Watering of plants in beds shall be applied in such a manner that all plant holes are uniformly saturated without allowing the water flow beyond the periphery of the bed. Water shall slowly infiltrate into soil and completely soak the root zone. The Contractor must supply metering equipment as needed to assure the specified application rate of water.

Method of Measurement: Supplemental watering will be measured in units of 1000 gallons of water applied as directed.

Basis of Payment: This work will be paid for at the contract unit price per unit of SUPPLEMENTAL WATERING, measured as specified. Payment will include the cost of all water, equipment and labor needed to complete the work specified herein and to the satisfaction of the Engineer.

TOPSOIL EXCAVATION AND PLACEMENT

Description*:* This work shall consist of the excavation, stripping, transporting, and placing topsoil. Existing Topsoil excavated and stripped on-site will supply topsoil needs for construction seeded and sodded landscape beds.

Add the following to Article 211.03 Furnishing and Excavating Topsoil:

STRIPPING OF TOPSOIL

A. All work areas within the limit of work requiring excavation and grading shall be stripped of topsoil to the extent necessary to satisfy project requirements. Topsoil shall be stripped in such a manner as to ensure that subgrade soil is not mixed with the loam. Topsoil that is contaminated with subgrade soil shall not be used as planting media within the project.
B. All topsoil so removed shall be stockpiled on the site where convenient for work operations and as approved by the Engineer/ Landscape Architect. Topsoil shall be free of subgrade soil, stiff clay or hardpan and foreign material such as cinders ashes, asphalt and wood. The suitability of stripped materials for use as topsoil shall be determined by the Engineer/Landscape Architect and his decision shall be final.
C. An adequate quantity of suitable, stripped topsoil shall be maintained on the site for reuse in lawn and landscape areas. Stockpiled loam shall be protected from wind and rain erosion. It is recommended to cover stockpiled topsoil during freezing weather and for precipitation events to minimize delays due to soil moisture content.
D. Scarify and till between subgrade and excavated topsoil layers.

SOIL MOISTURE CONTENT

A. Soil Moisture Content
   1. Contractor shall not move, blend or grade soil when moisture content is so great that pumping occurs or visible water occurs, nor when it is so dry that dust will form in the air or that clods will not break readily, nor when it is frozen. Apply water, if necessary, or allow soil to dry to bring soil moisture between 60% of optimum moisture content and optimum moisture content as determined by ASTM D698 for compaction, grading and plantings.
   2. Field Soil Moisture Test
      a. Form soil in palm of hand, if soil retains shape and crumbles upon touching, the soil may be worked.
      b. If the soil will not retain shape it is too dry and should not be worked.
      c. If the soil retains shape and will not crumble, it is too wet and should not be worked. If the soil glistens or free water is observed when the sample is patted in the palm of hand the soil is too wet and should not be worked.

<u>Topsoil Excavation and Stockpiling:</u>
The Contractor shall strip and stockpile topsoil for areas to be seeded and sodded, in order to meet the intended soil profile as defined on the plans. Where existing trees are to remain, leave existing topsoil in place within drip lines to prevent damage to root system. Construct storage piles to provide free drainage of surface water. Dispose of unsuitable or excess topsoil in accordance with Article 202.03 of the Standard Specifications.

Sides of Excavations: Slope sides of excavations to comply Standard Specifications. Maintain sides and slopes of excavations in safe condition until completion of backfilling.

Storage of Excavated Materials: Stockpile excavated materials suitable for placement in areas not inhibiting the progress of the work and in accordance with the Drawings. Place, grade, and shape stockpiles for proper drainage. Stockpile and retain soil materials away from edge of excavations. Protect the stockpile from erosion in accordance with Standard Specifications.

Add the following to Article 211.04 Placing Topsoil and Compost:
Once topsoil has been excavated, scarify and till subgrade prior to placement of topsoil to eliminate a drainage interface between soils. Protect excavated pits from pedestrian and adjacent activities during period when excavation pit is open. When excavating for Tree Pits, Scarify walls and bottom.

COMPOST FURNISH AND PLACE

This work shall consist of furnishing, transporting, and placing compost to the depth specified in areas as shown in the plans or as directed by the Engineer.

Delete Article 211.02 Materials (b) Compost and substitute the following:

Compost shall be thoroughly, and aerobically decomposed organic waste produced at an IEPA registered composting facility. The compost supplier shall furnish a certification with each shipment stating that the compost complies with the following requirements:

(1) Particle Size: 98 percent of the compost shall pass through a 3/4 in. (20 mm) screen.

(2) Physical Contaminant: Less than one percent combined glass, metal, and plastic.

(3) Organic Matter/Ash Content: At least 40 percent organic matter; less than 60 percent ash content.

(4) Carbon to Nitrogen Ratio: Ranging from 10:1 to 20:1 C:N ratio.

(5) pH: Between 6 and 8.

(6) Soluble Salts: Electrical conductivity below 10 dS m-1 (mmhos cm-1)

(7) Moisture Content: Between 35 percent and 50 percent by weight.

(8) Maturity: The compost shall be resistant to further decomposition and free of compounds, such as ammonia and organic acids, in concentrations toxic to plant growth.

(9) Residual Seeds and Pathogens: Pathogens and noxious weeds shall be minimized.

A copy of the compost test results complying with IEPA standards for General Use Compost and certification of IEPA registration shall be provided to the Engineer with each shipment of compost.

Compost shall be capable of supporting and germinating vegetation.

Delete the first sentence of the first paragraph of Article 211.04 Placing Topsoil and Compost and substitute the following:

Compost shall not be placed until the area to be covered has been shaped, trimmed, and finished according to Section 212. Prior to placing compost, the Contractor shall remove all litter (including plastic bags, bottles, rocks, etc.) and plant debris. Prior to Compost placement, the area shall be disked or raked to a minimum depth of 4 inches and all debris and loose stones removed. The grades and condition of the area must be approved by the Engineer prior to Compost placement.

Delete the second paragraph of Article 211.04 Placing Topsoil and Compost and substitute the following:

> When compost is specified as a soil amendment, it shall be place at the specified depth on top of the topsoil. The Engineer will verify that the proper compost depth has been applied. After verification of proper depth, the Contractor shall completely incorporate the compost by tilling the top 6" of the fairly dry topsoil. Do not till when the topsoil is muddy.

Add the following to Article 211.07 Method of Measurement:

Compost Furnish and Place will be measured in place to the depth specified in square yards at the location shown in the plans and as directed by the Engineer prior to incorporation into the soil.

Add the following to Article 211.08 Basis of Payment:

The work will be paid for at the contract unit price per square yard for COMPOST FURNISH AND PLACE, (SPECIFIED DEPTH). Payment shall include all furnishing, stockpiling, transporting, all labor and equipment necessary, disposal and incidentals required to complete the work as specified herein and to the satisfaction of the Engineer.

MOWING

Description: This work shall consist of mowing grass areas to the height of 1 inch to 8 inches dependent on the ground cover type (turf or native) and intent (interseeding or maintenance). Work shall also consist of hand trimming areas where areas are difficult to mow in 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 area of uneven ground. These areas may not be able to be mowed with typical roadside mowing equipment.

Schedule: See CALENDAR OF CONSTRUCTION AND ESTABLISHMENT WORK in the plans for mowing dates or as directed by the Engineer.

Equipment: The Contractor shall keep all mowing equipment sharp and properly equipped for operation along an urban expressway. 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, stone, etc.

Method: 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.

All mowing and trimming operations are to proceed in the direction of traffic flow. All areas of existing turf to be interseeded shall be mowed one or more times to a height of not more than 3 inches.

The cut material shall not be windrowed or left in a lumpy or bunched condition. Additional mowing or trimming may be required, as directed by the Engineer, to obtain the height specified, to disperse mowed material, and to allow penetration of the seed.

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, 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.

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. 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 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.

EROSION CONTROL BLANKET

This Special Provision revises Section 251 of the Standard Specifications for Road and Bridge Construction to only use knitted straw blanket for Erosion Control Blanket on areas seeded with Seeding, Class 4A (Modified) and Seeding, Class 5 (Modified).

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 2615V2-01: ROW, I-90/I-94 between Grand Avenue and 14th Street, Chicago, Cook County

- Station 6099+00 to Station 6103+35 (CL Northbound I-90/94), 45 to 70 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: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene, and Lead.
- Station 6101+90 to Station 6104+50 (CL Northbound I-90/94), 100 to 145 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, Lead, and Manganese.
- Station 6104+50 to Station 6105+75 (CL Northbound I-90/94), 100 to 145 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.
- Station 6104+65 to Station 6105+70 (CL Northbound I-90/94), 65 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, Benzo(b)fluoranthene, Lead, and Manganese.

- Station 6106+60 to Station 6108+25 (Northbound I-90/94), 120 to 180 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.
- Station 6108+25 to Station 6115+00 (CL Northbound I-90/94), 120 to 190 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: Benzo(b)fluoranthene, Benzo(a)anthracene, Benzo(a)pyrene, Carbazole, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)pyrene, Lead, and Manganese.
- Station 6111+80 to Station 6114+10 (CL Northbound I-90/94), 60 to 110 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: Lead, Benzo(a)pyrene, Benzo(b)fluoranthene, and Manganese.
- Station 6116+75 to Station 6121+40 (CL Northbound I-90/94), 145 to 190 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: VOCs, SVOCs, metals.
- Station 6122+95 to Station 6123+90 (CL Northbound I-90/94), 45 to 95 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 Benzo(b)fluoranthene.
- Station 6127+75 to Station 6128+80 (CL Northbound I-90/94), 40 to 175 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 parameter: Manganese.
- Station 1509+60 to Station 1514+90 (CL Eastbound I-290 Exit Ramp to Southbound I-90/94), 35 to 80 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: VOCs, SVOCs, metals.
- Station 1509+10 to Station 1511+25 (CL Eastbound I-290 Exit Ramp to Southbound I-90/94), 20 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)(3). Contaminants of concern sampling parameters: Benzo(a)pyrene, and Manganese.
- Station 6227+00 to Station 6228+25 (CL Southbound I-90/94), 45 to 135 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 parameter: Benzo(a)pyrene.
- Station 5154+25 to Station 5154+90 (CL Eastbound I-290), 135 to 245 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, Benzo(b)fluoranthene.
- Station 6132+70 to Station 6134+35 (CL Northbound I-90/94), 40 to 155 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 parameter: Benzo(a)pyrene.

- Station 6134+55 to Station 6135+70 (CL Northbound I-90/94), 40 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 parameter: Benzo(a)pyrene.
- Station 5154+55 to Station 5155+50 (CL Eastbound I-290), 25 to 115 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: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenzo(a,h)anthracene, Lead, Indeno(1,2,3-cd)pyrene, and Manganese.
- Station 5153+65 to Station 5154+55 (CL Eastbound I-290), 25 to 115 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 6220+65 to Station 6222+40 (CL Southbound I-90/94), 105 to 185 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: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Carbazole, and Dibenzo(a,h)anthracene.
- Station 6220+65 to Station 6222+40 (CL Southbound I-90/94), 180 to 315 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 parameter: Benzo(a)pyrene.
- Station 6218+60 to Station 6220+65 (CL Southbound I-90/94), 65 to 180 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 parameter: Benzo(a)pyrene.
- Station 6145+95 to Station 6147+70 (CL Northbound I-90/94), 165 to 184 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: VOCs, SVOCs, metals.
- Station 6148+35 to Station 6150+05 (CL Northbound I-90/94), 105 to 195 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: VOCs, SVOCs, metals.
- Station 6151+00 to Station 6153+10 (CL Northbound I-90/94), 115 to 160 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.
- Station 6155+95 to Station 6156+85 (CL Northbound I-90/94), 135 to 155 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 Benzo(b)fluoranthene.

- Station 6155+20 to Station 6159+25 (CL Northbound I-90/94), 135 to 240 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 parameter: Manganese.
- Station 6160+35 to Station 6161+70 (CL Northbound I-90/94), 100 to 120 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: Arsenic, Lead, Benzo(a)pyrene, and Manganese.
- Station 6167+40 to Station 6168+75 (CL Northbound I-90/94), 80 to 150 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 parameter: Manganese.
- Station 6169+55 to Station 6173+25 (CL Northbound I-90/94), 55 to 150 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: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Lead, Dibenzo(a,h)anthracene, and Manganese.
- Station 5153+60 to Station 5154+25 (CL Eastbound I-290), 20 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)(3). Contaminants of concern sampling parameters: Benzo(a)pyrene, and Benzo(b)fluoranthene.
- Station 5152+95 to Station 5153+60 (CL Eastbound I-290), 20 to 140 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, Benzo(b)fluoranthene, Lead, and Manganese.
- Station 6133+95 to Station 6134+90 (CL Northbound I-90/94), 35 to 240 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 parameter: Benzo(a)pyrene.
- Station 6330+00 to Station 6331+80 (CL PR C-D RD), 10 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)(3). Contaminants of concern sampling parameters: , Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenzo(a,h)anthracene, and Manganese.

Site 2615V2-114A: ROW, 400 – 1600 blocks of I-290, Chicago, Cook County

- Station 1505+95 to Station 1509+10 (CL Eastbound I-290/SB I-94 ramp), 10 to 30 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: VOCs, SVOCs, metals
- Station 5151+60 to Station 5152+95 (CL Eastbound I-290), 20 to 95 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, and Manganese.
- Station 5117+85 to Station 5219+85 (CL Westbound I-290), 20 to 145 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 Benzo(b)fluoranthene.
- Station 5220+60 to Station 5221+45 (CL Westbound I-290), 20 to 185 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 parameter: Benzo(a)pyrene.
- Station 5221+45 to Station 5222+35 (CL Westbound I-290), 25 to 155 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 parameter: Benzo(a)pyrene.
- Station 5222+35 to Station 5224+10 (CL Westbound I-290), 20 to 115 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 parameter: Benzo(a)pyrene.
- Station 5224+10 to Station 5227+45 (CL Westbound I-290), 45 to 105 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 parameter: Benzo(a)pyrene.
- Station 6220+65 to Station 6222+40 (CL Southbound I-94), 30 to 105 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, and Benzo(b)fluoranthene.
- Station 5132+90 to Station 5134+70 (CL Eastbound I-290), 30 to 110 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 5126+00 to Station 5128+25 (CL Eastbound I-290), 25 to 45 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: VOCs, SVOCs, metals
- Station 5240+70 to Station 5247+80 (CL Westbound I-290), 55 to 95 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.

ISGS Site 2615V2-283: Arkadia Tower, 765 W. Adams Street, Chicago, Cook County

- Station 6211+60 to Station 6213+25, 85 to 110 feet RT (CL Southbound I-90/94): 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: VOCs, SVOCs, metals.

Site 2615V2-326: CTA Bus Station, 700 W. Harrison Street, Chicago, Cook County

- Station 5160+15 to Station 5160+85, 175 to 265 feet RT (CL Eastbound I-290): The Engineer has determined this material meets the criteria of, and shall be managed in accordance with Article 669.05(a)(4). Contaminants of concern sampling parameters: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Dibenzo(a,h)anthracene, and Manganese.
- Station 6132+40 to Station 6133+95, 25 to 225 feet RT (CL Northbound I-90/94): 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 parameter: Benzo(a)pyrene.

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**.

PLANTING WOODY PLANTS

This work shall consist of planting woody plants as specified in Section 253 of the Standard Specifications with the following revisions:

Delete Article 253.03 Planting Time and substitute the following:

Spring Planting. This work shall be performed between March 15th and May 31st except that evergreen planting shall be performed between March 15th and April 30th in the northern zone.

Add the following to Article 253.03 (a) (2) and (b):

All plants shall be obtained from Illinois Nurserymen's Association or appropriate state chapter nurseries. All trees and shrubs shall be dug prior to leafing out (bud break) in the spring or when plants have gone dormant in the fall, except for the following species which are only to be dug prior to leafing out in the spring:

- Red Maple (Acer rubrum spp.)
- Buckeye (Aesculus spp.)
- Alder (Alnus spp.)
- Serviceberry (Amelanchier spp.)
- Birch (Betulus spp.)
- American Hornbeam (Carpinus caroliana)
- Hickory (Carya spp.)
- Eastern Redbud (Cercis canandensis)
- Hawthorn (Crataegus spp.)
- Walnut (Juglans spp.)
- Sweetgum (Liquidambar styraciflua)
- Tuliptree (Liriodendron tulipifera)
- Dawn Redwood (Metasequoia glyptostroboides)
- Black Tupelo (Nyssa sylvatica)
- American Hophornbeam (Ostrya virginiana)
- Sycamore/Plane Tree (Platanus spp.)
- Poplar (Populus spp.)
- Oak (Quercus spp.)
- Sassafras (Sassafras albidum)
- Baldcypress (Taxodium distichum)
- American Linden (Tilia americana)

Fall Planting. This work shall be performed between October 1 and November 30 except that evergreen planting shall be performed between August 15 and October 15.

Planting dates are dependent on species of plant material and weather. Planting might begin or end prior or after above dates as approved by the Engineer. Do not plant when soil is muddy or during frost.

Add the following to Article 253.05 Transportation:

Cover plants during transport to prevent desiccation. Plant material transported without cover shall be automatically rejected. During loading and unloading, plants shall be handled such that stems are not stressed, scraped or broken and that root balls are kept intact.

Delete the third sentence of Article 253.07 and substitute the following:

Trees must be installed first to establish proper layout and to avoid damage to other plantings such as shrubs and perennials.

The Contractor shall be responsible for all tree, shrub, and vine layout. The layout must be performed by qualified personnel. The planting locations must be laid out as shown in the landscape plan. This will require the use of an engineer's scale to determine dimensions.

Tree and shrub locations within each planting area shall be marked with different color stakes/flags and labeled to denote the different tree and shrub species.

Shrub and vine beds will first be marked out with flags to delineate the perimeter of the planting bed. Once the planting bed has been approved by the Roadside Development Unit, the perimeter shall be painted prior to the removal of the flags and turf. The removal of the existing turf will be by a method approved by the Engineer.

Prior to shrub, vine installation, all plants shall be placed above ground or planting locations clearly marked out.

All utilities shall have been marked prior to contacting the Roadside Development Unit. The Engineer will contact the Roadside Development Unit at (847) 705-4171 to approve the layout prior to installation. Allow a minimum of seven (7) working days prior to installation for approval.

Delete the first paragraph to Article 253.08 Excavation of Plant Holes and substitute with the following:

Protect structures, utilities, sidewalks, bicycle paths, knee walls, fences, pavements, utility boxes, other facilities, lawns and existing plants from damage caused by planting operations. Excavation of the planting hole may be performed by either hand, machine excavator, or auger.

The excavated material shall not be stockpiled on turf, in ditches, or used to create enormous water saucer berms around newly installed trees or shrubs. Remove all excess excavated subsoil from the site and dispose as specified in Article 202.03.

Delete the second sentence of Article 253.08 Excavation of Plant Holes (a) and the third paragraph of Article 253.08(b) and substitute with the following:

Excavation of planting hole width. Planting holes for trees, shrubs, and vines shall be three times the diameter of the root mass and with 45-degree sides sloping down to the base of the root mass to encourage rapid root growth. Roots can become deformed by the edge of the hole if the hole is too small and will hinder root growth.

Planting holes dug with an auger shall have the sides cut down with a shovel to eliminate the glazed, smooth sides and create sloping sides.

Excavation of planting hole depth. The root flare shall be visible at the top of the root mass. If the trunk flare is not visible, carefully remove soil from around the trunk until the root flare is visible without damaging the roots. Remove excess soil until the top of the root mass exposes the root collar.

The root flare shall always be slightly above the surface of the surrounding soil. The depth of the hole shall be equal to the depth of the root mass minus one (1) inch allowing the tree or shrub to sit one (1) inch higher than the surrounding soil surface for trees that have a 1-inch caliper or smaller. The depth of the hole shall be equal to the depth of the root mass minus two (2) inches allowing the tree or shrub to sit two (2) inches higher than the surrounding soil surface for trees that have a 2-inch caliper or larger.

For stability, the root mass shall sit on existing undisturbed soil. If the hole was inadvertently dug too deep, backfill and recompact the soil to the correct depth.

Excavation of planting hole on slopes. Excavate away the slope above the planting hole to create a flattened area uphill of the planting hole to prevent the uphill roots from being buried too deep. Place the excess soil on the downslope of the planting hole to extend the planting shelf to ensure roots on the downhill side of the tree remain buried. The planting hole shall be three times the diameter of the root mass and saucer shaped. The hole may be a bit elongated to fit the contour of the slope as opposed to the typical round hole on flat ground.

Add backfill to create a small berm on the downhill portion of the planting shelf to trap water and encourage movement into the soil to increase water filtration around the tree. Smooth out the slope above the plant where you have cut into the soil so the old slope and the new slope transition together smoothly.

Add the following to Article 253.08 Excavation of Plant Holes (b):

When planting shrubs in shrub beds or vines in vine beds as shown on the plans or as directed by the Engineer, the Contractor will contact the Roadside Development Unit at (847) 705-4171 to approve the layout prior to removing the existing turf. The removal of the existing turf will be by a method approved by the Engineer. Areas damaged outside the delineated planting beds shall be restored at the Contractor's expense.

Spade a planting bed edge at approximately a 45-degree angle and to a depth of approximately 3-inches around the perimeter of the shrub bed prior to placement of the mulch. Remove any debris created in the spade edging process and dispose of as specified in Article 202.03.

Delete Article 253.09 (b) Pruning and substitute with the following:

Deciduous Shrubs. Shrubs shall be pruned to remove dead, conflicting, or broken branches and shall preserve the natural form of the shrub.

Delete the third and fourth paragraphs of Article 253.10 Planting Procedures and Article 253.10 (a) and substitute the following:

Approved watering equipment shall be at the immediate work site area and in operational condition PRIOR TO STARTING the planting operation and DURING all planting operations OR PLANTING WILL NOT BE ALLOWED.

All plants shall be placed in a plumb position and avoid the appearance of leaning. Confirm the tree is straight from two directions prior to backfilling.

Before the plant is placed in the hole, any paper or cardboard trunk wrap shall be removed. Check that the trunk is not damaged. Any soil covering the tree's root flare shall be removed to expose the crown prior to planting.

Check the depth of the root ball in the planting hole. With the root flare exposed, one-inch caliper trees shall be set one inch higher than the surrounding soil and two-inch and larger caliper trees shall be set two inches higher than the surrounding soil. The root flare shall always be slightly above the surface of the surrounding soil. For stability, the root ball shall sit on existing undisturbed soil. If the hole was inadvertently dug too deep, backfill and recompact the soil to the correct depth.

After the plant is place in the hole, all cords and burlap shall be removed from the trunk. Remove the wire basket from the top three quarters (3/4) of the root ball. The remaining burlap shall be loosened and scored to provide the root system quick contact with the soil. All ropes or twine shall be removed from the root ball and tree trunk. All materials shall be disposed of properly.

The plant hole shall be backfilled with the same soil that was removed from the hole. Clay soil clumps shall be broken up as much as possible. Where rocks, gravel, heavy clay or other debris are encountered, clean topsoil shall be used. Do not backfill excavation with subsoil.

The hole shall be 1/3 filled with soil and firmly packed to assure the plant remains in plumb, then saturated with water. After the water has soaked in, complete the remaining backfill in 8" lifts, tamping the topsoil to eliminate voids, and then the hole shall be saturated again. Maintain plumb during backfilling. Backfill to the edge of the root mass and do not place any soil on top of the root mass. Visible root flair shall be left exposed, uncovered by the addition of soil.

Add the following to Article 253.10 (b):

After removal of the container, inspect the root system for circling, matted or crowded roots at the container sides and bottom. Using a sharp knife or hand pruners, prune, cut, and loosen any parts of the root system requiring corrective action.

Delete the first sentence of Article 253.10(e) and substitute with the following:

Water Saucer. All plants placed individually and not specified to be bedded with other plants, shall have a water saucer constructed of soil by mounding up the soil 4-inches high x 8-inches wide outside the edge of the planting hole.

Delete Article 253.11 and substitute the following:

Individual trees, shrubs, shrub beds, and vines shall be mulched within 48 hours after being planted. No weed barrier fabric will be required for tree and shrub plantings.

The mulch shall consist of wood chips or shredded tree bark free not to exceed two (2) inches in its largest dimension, free of foreign matter, sticks, stones, and clods. Mulch shall be aged in stockpiles for a minimum of four (4) months where interior temperatures reach a minimum of 140-degrees. The mulch shall be free from inorganic materials, contaminants, fuels, invasive weed seeds, disease, harmful insects such as emerald ash borer or any other type of material detrimental to plant growth. A sample must be supplied to the Roadside Development Unit for approval prior to performing any work. Allow a minimum of seven (7) working days prior to installation for approval.

Mulch shall be applied at a depth of 4-inches around all plants within the entire mulched bed area or around each individual tree forming a minimum 5-foot diameter mulch ring around each tree. An excess of 4-inches of mulch is unacceptable, and excess shall be removed. Mulch shall not be tapered so that no mulch shall be placed within 6-inches of the shrub base or trunk to allow the root flare to be exposed and shall be free of mulch contact.

Care shall be taken not to bury leaves, stems, or vines under mulch material. All finished mulch areas shall be left smooth and level to maintain uniform surface and appearance. After the mulch placement, any debris or piles of material shall be immediately removed from the right of way, including raking excess mulch out of turf areas in accordance with Article 202.03.

Pre-emergent Herbicide shall be used in the around the plant beds and tree rings after the placement of mulch. See specification for Weed Control, Pre-emergent Herbicide.

Delete Article 253.12 Wrapping and substitute the following:

Within 48 hours after planting, screen mesh shall be wrapped around the trunk of all deciduous trees with a caliper of 1-inch or greater. Multi-stem or clump form trees, with individual stems having a caliper of 1-inch or greater, shall have each stem wrapped separately. The screen mesh shall be secured to itself with staples or single wire strands tied to the mesh. Trees shall be wrapped at time of planting, before the installation of mulch. The lower edge of the screen wire shall be in continuous contact with the ground and shall extend up to a minimum of 36-inches or to the lowest major branch, whichever is less. Replacement plantings shall not be wrapped.

Delete Article 253.13 Bracing and substitute with the following:

Unless otherwise specified by the Engineer, within 48 hours after planting all deciduous and evergreen trees, with the exception of multi-stem or clump form specimens, over 8-feet in height shall require three 6-foot long steel posts so placed that they are equidistant from each other and adjacent to the outside of the ball. The posts shall be driven vertically to a depth of 18-inches below the bottom of the hole. The anchor plate shall be aligned perpendicular to a line between the tree and the post. The tree shall be firmly attached to each post with a double guy of 14-gauge steel wire. The portion of the wire in contact with the tree shall be encased in a hose of a type and length approved by the Engineer.

During the life of the contract, within 72 hours the Contractor shall straighten any tree that deviates from a plumb position. The Contractor shall adjust backfill compaction and install or adjust bracing on the tree as necessary to maintain a plumb position. Replacement trees shall not be braced.

Delete the second sentence of the first paragraph of Article 253.14 Period of Establishment and substitute the following:

This period shall begin in April and end in November of the same year.

Delete the first paragraph of Article 253.15 Plant Care and substitute the following:

During the period of establishment, the Contractor shall properly care for all plants including weeding, watering, adjusting of braces, repair of water saucers, pruning, cultivating, tightening, and repairing supports, repair of wrapping, and furnishing and applying sprays as necessary to keep the plants free of insects and disease, or other work which is necessary to maintain the health and satisfactory appearance of the plantings. The Contractor shall provide plant care a minimum of every two weeks, or within 36 hours following notification by the Engineer. All requirements for plant care shall be considered as included in the cost of the contract unit price per each for TREES, SHRUBS, or VINES, of the species, root type, and plant size specified.

Delete the first paragraph of Article 253.15 Plant Care (a) and substitute with the following:

During the period of establishment, watering (initial) shall be performed at least every 30 days following installation during the months of May through November and is included in the cost of the contract unit price per each for TREES, SHRUBS, or VINES, of the species, root type, and plant size specified. The Contractor shall apply per week a minimum of 15 gallons of water per tree, 10 gallons per large shrub, 5 gallons per small shrub, and 2 gallons per vine.

Additional watering will be done once a week following installation during the months of May through November. Any required additional watering in between the regularly scheduled (initial) watering(s) will be paid for as Supplemental Watering.

Special consideration in determining water needs must be given during extreme weather conditions or if plants exhibit any signs of stress in between the regularly scheduled every thirty-day watering during the period of establishment. Water immediately if plants show signs of wilting or if top (1) inch to two (2) inches of soil is dry. Water to ensure that moisture penetrates throughout the root zone, including the surrounding soil, and only as frequently as necessary to maintain healthy growth. **Do not overwater.**

The Engineer may direct the Contractor to adjust the watering rate and frequency depending upon weather conditions. Should excess moisture prevail, the Engineer may delete any or all the additional watering cycles.

Add the following to Article 253.15 Plant Care (c):

The contractor shall correct any vine growing across the ground plane that should be growing up desired vertical element (noise wall, retaining wall, fence, knee wall, etc.). Work may include but is not limited to carefully weaving vines through fence and/or taping vines to vertical elements.

Add the following to Article 253.15 Plant Care (d):

The Contractor shall inspect all trees, shrubs, and vines for pests and diseases at least every two weeks during the months of initial planting through final acceptance. Contractor must identify and monitor pest and diseases and determine action required to maintain the good appearance, health and, top performance of all plant material. Contractor shall notify the Engineer with their inspection findings and recommendations within twenty-four (24) hours of findings. The recommendations for action by the Contractor must be reviewed and by the Engineer for approval/rejection. All approved corrective activities will be considered as included in the cost of the contract and shall be performed within thirty-six (36) hours following notification by the Engineer.

Add the following to Article 253.16 Method of Measurement:

Pre-emergent Herbicide will be measured for payment as specified in Weed Control, Pre-emergent Granular Herbicide.

Additional Watering will be measured for payment as specified in Supplemental Watering.

Delete Article 253.17 Basis of Payment and substitute the following:

This work will be paid for at the contract unit price per each for TREES, SHRUBS, or VINES, of the species, root type, and plant size specified, and per unit for SEEDLINGS. The unit price shall include the cost of all materials, equipment, labor, plant care, removal, disposal, and incidentals required to complete the work as specified herein and to the satisfaction of the Engineer. Payment will be made according to the following schedule:

(a) Initial Payment. Upon completion of planting, mulching, wrapping, and bracing, 75 percent of the pay item(s) will be paid.
(b) Final Payment. Upon inspection and acceptance of the plant material, or upon execution of a third-party bond, the remaining 25 percent of the pay item(s) will be paid."
(c) The placement of Pre-emergent Herbicide shall be paid for at the contract unit price for WEED CONTROL, PRE-EMERGENT GRANULAR HERBICIDE.
(d) Additional Watering will be paid for as specified in SUPPLEMENTAL WATERING.

PLANTING PERENNIAL PLANTS

Delete Article 254.03(a) Planting Time and replace with the following:

Planting Time. With the exception of bulb type plants, the following shall apply: Plantings shall be installed during Spring. No fall planting will be allowed without written request by the Contractor and written approval by the Engineer.

All bulb type planting located within all Stages shall be installed during Fall.

Planting Times for the various types of perennial plants shall be as follows:

(a) Bulbs shall be planted between October 15 and November 30. Bulbs shall not be installed prior to trees, shrubs, perennials, and ornamental grasses are planted.
(b) Ornamental Type and Prairie Type plant shall be planted between May 1 and June 15.

Delete Article 254.05 Layout of Planting and substitute the following:

When plants are specified to be planted in prepared soil planting beds, the planting bed shall be approved by the Engineer prior to planting. The Contractor shall be responsible for all plant layout. The layout must be performed by qualified personnel. The planting locations must be laid out as shown in the landscape plan. This will require the use of an engineer's scale to determine some dimensions. Bed limits shall be painted or flagged. Landscape Architect shall be present at time of installations to approve layout of plant beds and vegetation prior to planting. The Engineer will contact the Roadside Development Unit at (847) 705-4171 to approve the layout prior to installation. Allow a minimum of seven (7) days prior to installation for coordination.

Add the following to Article 254.06 Planting Procedures:

When planting perennials in bed areas shown on the plans or as directed by the Engineer, the following work shall be performed prior to planting:

- Spade a planting bed edge at approximately a 45 degree angle and to a depth of approximately three (3) inches around the perimeter of the perennial bed. Remove any debris created in the spade edging process and dispose of as specified in Article 202.03.

- Compost shall be added and applied to the planting beds at a depth of 2-inch then tilled into the soil to a depth of 6-inches to amend the existing topsoil.

- Do not plant when soil is saturated with water or muddy.

- Trees and shrubs shall be installed first to establish proper layout and to avoid damage to other plantings. See planting details.

- Perennial plants shall be planted by a hand method approved by the Engineer. Open holes sized to accommodate roots, place plants at proper elevation and backfill with topsoil, working carefully to avoid damage to roots and to leave no voids. Build up a small water basin of soil around each plant.

- Immediately after planting, thoroughly water plant beds. Do not wash soil onto crowns of plants.

Delete the first sentence of Article 254.07 Mulching and substitute the following:

A mulch sample shall be submitted to the Engineer for approval seven (7) days prior to placing.

Within 24 hours, the entire perennial plant bed shall be mulched with three (3) inches of fine grade Shredded Hardwood Bark Mulch. Hardwood bark mulch shall be clean, finely shredded mixed-hardwood bark not to exceed two (2) inches in its largest dimension, free of foreign matter, sticks, stones, and clods. All hardwood mulch shall be processed through a hammer mill. Hardwood bark not processed through a hammer mill shall not be accepted.

The mulch shall be placed to form saucers around each individual plant, mulch shall not touch the stems of the perennial plants. Care shall be taken to place the mulch so as not to smother the plants or bury leaves, stems or vines under mulch material.

Add the following to Article 254.07 Mulching:

Pre-emergent Herbicide shall be used in the perennial beds after the placement of mulch. See specification for Weed Control, Pre-emergent Granular Herbicide.

Delete Article 254.08 (b) Period of Establishment and substitute the following:

Perennial plants must undergo a 30-day period of establishment. Additional watering shall be performed not less than twice a week for four weeks following installation. Any signs of stress exhibited by plant material must be given special consideration in determining water needs. Water shall be applied at the rate of 3 gallons per square foot. Water to insure that moisture penetrates throughout the root zone, including the surrounding soil, and only as frequently as necessary to maintain healthy growth. **Do not over water.**

Should excess moisture prevail, the Engineer may delete any or all of the additional watering cycles. In severe weather, the Engineer may require additional watering.

A spray nozzle that does not damage small plants must be used when watering perennial plants. An open-end hose is unacceptable. Water must trickle slowly into soil and completely soak the root zone. Force of dispersal shall not disrupt the soil, mulch, or plant stability. Water early in the day and apply water as close to the soil as possible without washing out soil or mulch. Water at the base of the plant to keep as much water as possible off plant leaves to minimize fungus problems. Watering of plants in beds shall be applied in such a manner that all plant holes are uniformly saturated without allowing water to flow beyond the periphery of the bed. Thoroughly saturate all areas of the perennial bed, not just individual plants. The plants to be watered and the method of application will be approved by the Engineer. The Contractor will not be relieved in any way from the responsibility for unsatisfactory plants due to the amount of watering.

Add the following Article 254.09 Period of Establishment:

During the period of establishment, weeds and grass growth shall be removed from within the mulched perennial beds. This weeding shall be performed a minimum of once per week or within 48 hours following notification by the Engineer during the 30 - day period of establishment. The Contractor will not be relieved in any way from the responsibility for unsatisfactory plants due to the extent of weeding.

The weeding may be hand pulled or performed in any manner approved by the Engineer in writing provided the weed and grass growth, including their roots and stems, are removed from the area specified. Mulch disturbed by the weeding operation shall be replaced to its original condition. All debris that results from this operation must be removed from the right-of-way and disposed of at the end of each day in accordance with Article 202.03.

Add the following to Article 254.10 Method of Measurement:

a) Disposal of weeds, sod and debris (rock, stones, concrete, bottles, plastic bags, etc.) removed from the perennial planting bed as specified in Article 202.03.
b) Compost will be measured for payment as specified in Compost Furnish and Place

Add the following to Article 254.11 Basis of Payment:

a) Compost will be paid for as specified in Compost Furnish and Place.
b) Pre-emergent Herbicide will be paid for as specified in Weed Control, Pre-emergent Herbicide.
c) Payment for Shredded Mulch shall be included in contract unit price of the perennial plant pay item.
d) The unit price shall include the cost of all materials, equipment, labor, plant care, removal, disposal and incidentals required to complete the work as specified herein and to the satisfaction of the Engineer.

WOODY PLANT CARE

Description: This work shall consist of weeding, replenishing mulch, debris removal and disposal, insect control, pruning, edging, removal of tree stakes and wires from replacement trees, and other plant care work items for each work cycle as described herein and as directed by the Engineer. The work required for each work cycle shall be scheduled to be complete and acceptable at the time of inspection.

Inspection Date: Woody plant care will be inspected on the date specified in the CALENDAR OF CONSTRUCTION AND ESTABLISHMENT WORK in the plans. The work required for each work cycle must be 100 percent complete on the inspection date. Partial inspections will not be made.

Work Cycle Requirements:

- Tree beds, shrub beds, vine beds, and tree saucers must be 100 percent weed-free and clear of debris to be acceptable. Control weeds in planting beds by pulling entire plant and roots. Weed whacking is not acceptable.
- Straighten and guy any trees that have shifted over the winter.
- Plants must be sprayed to eliminate any insect infestation.
- Prune dead branches, sucker growth and broken or objectionable branches on trees and shrubs prior to bud break or when dormant.
- Do not prune shrubs into manicured shapes (cubes or globes).
- Vines that are growing across or onto shrubs and/or trees must be corrected so the vine is encouraged to grow up the desired vertical surface.
- Dead plants must be removed and properly disposed of.
- Finely shredded hardwood bark mulch must be replenished to maintain a four-inch depth around the plants (trees, shrubs and vines). Hardwood mulch shall not exceed two (2) inches in its largest dimension, free of foreign matter, sticks, stones and clods. (Mulch must be approved by the Engineer prior to placement).
- Mulch shall not be in contact with the base of the trees, shrubs, and vines.
- Beds and tree saucers must have a neatly spaded edge between the mulched bed or saucer and the turf.
- All finished mulch areas shall be left smooth and level to maintain uniform surface and appearance.
- Mulch must be raked out of turf surrounding the mulched bed or saucer.
- Remove any debris caught in trees or shrubs without damaging plant. Apply a Pre-emergent Herbicide, approved by the Engineer. The Pre-emergent Herbicide shall be applied after mulching. See specification for WEED CONTROL, PRE-EMERGENT HERBICIDE.
- All debris which results from this operation must be removed from the right-of-way at the end of each day and disposed of in accordance with Article 202.03 at the end of each day.

Method of Measurement: This work will be measured for payment as each tree (shade, intermediate, or evergreen), each shrub, and each vine cared for to the satisfaction of the Engineer on the inspection date specified in the plans. Measurement for payment of this work will be performed on the inspection date specified in the plans.

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 on the inspection date. Work that is not acceptable on the inspection date will not be measured for payment. Individual shrubs/trees within a shrub bed will not be measured for payment if any portion of the shrub/trees bed has not been cared for to the satisfaction of the Engineer. Each tree care and shrub care work cycle specified in the CALENDAR OF CONSTRUCTION AND ESTABLISHMENT WORK in the plans will be measured separately for payment. Pre-emergent herbicide shall be paid for separately.

Basis of Payment: This work will be paid for at the contract unit price each for TREE CARE, SHRUB CARE, and VINE CARE which price shall include all materials, equipment, and labor necessary to complete the work specified herein and to the satisfaction of the Engineer. The placement of Pre-Emergent Herbicide shall be paid for at the contract unit price for WEED CONTROL, PRE-EMERGENT HERBICIDE.

PERENNIAL PLANT CARE

Description: This work shall consist of weeding, replenishing mulch, trimming and other perennial plant care work items for each work cycle as described herein and as directed by the Engineer. The work required for each work cycle shall be scheduled to be complete and acceptable at the time of inspection.

Inspection Date: Perennial plant care will be inspected on the date specified in the plans and calendar. The work required for each work cycle must be 100 percent complete on the inspection date. Partial inspections will not be made.

Work Cycle Requirements:

- Perennial plant beds must be 100 percent weed-free and clear of litter and debris to be acceptable. Control weeds in landscaped areas by pulling the entire plant and roots. (The Contractor may apply a pre-emergent herbicide, approved by the Engineer, during Spring perennial plant care cycles). Disturbed areas shall be raked level and mulch adjusted.
- Dead flowers, stems, and leaves must be trimmed and removed.
- Monitor mulch depths to maintain a two-inch depth around perennial plants (no more, no less). Rake mulch any away from perennial crowns.
- Finely shredded hardwood bark mulch must be replenished to maintain a two-inch depth around perennial plants, if necessary. Hardwood mulch shall not exceed two (2) inches in its largest dimension, free of foreign matter, sticks, stones, and clods. (Mulch must be approved by the Engineer prior to placement).

- Plants must be free of insect infestations and sprayed with herbicides if necessary.
- Beds must be maintained with a neatly spaded edge between the mulched bed and the turf.
- Mulch must be raked out of turf surrounding the mulched bed.
- Trim dead tips of vines and ground covers.
- In the spring (March/April), cut back ornamental grasses to six (6) inches in height. Cut down any perennial left up over the winter to a height of six (6) inches or less and remove any dead leaves around the crowns of the plants. Rake beds free of accumulated debris, dead leaves, and other material, leaving mulch in place and being careful not to damage emerging bulb foliage and flowers. Rake back any mulch that covers plant crowns.
- Remove litter and other debris. All drain inlets must be kept clean and draining freely. All walls, pavement, curb and gutters, and concrete pads are to be left clean and swept free of all debris.
- All debris that results from this operation must be removed from the right-of-way and disposed of in accordance with Article 202.03 at the end of each day.

Method of Measurement: The work will be measured for payment of surface area cared for to the satisfaction of the Engineer on the inspection date specified in the plans. The area will be computed in square yards. Measurement for payment of this work will be performed on the inspection date specified in the plans.

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 on the inspection date. Work that is not acceptable on the inspection date will not be measured for payment. Individual perennial plant areas within a perennial plant bed will not be measured for payment if any portion of the perennial plant bed has not been cared for to the satisfaction of the Engineer. Each perennial plant care work cycle specified in the plans will be measured separately for payment.

Basis of Payment: This work will be paid for at the contract unit price per square yard for PERENNIAL PLANT CARE, which price shall include all materials, equipment, labor, herbicide spraying, removal, disposal and incidentals required to complete the work as specified herein and to the satisfaction of the Engineer.

WEED CONTROL, BROADLEAF IN TURF (POUND)

Description: This work shall consist of the application of a broadleaf herbicide along highway roadsides for control of teasel and other broadleaf weeds.

Materials: The broadleaf herbicide shall have the following formulation:

Active Ingredient:	
Metsulfuron methyl (Methyl 2-[[[[(4-methoxy-6-methyl-1,3,5-triazin-2-yl)amino]-carbonyl]-amino]sulfonyl]benzoate)	60%
Inert Ingredients:	40%
	Total - 100%

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 will form a satisfactory emulsion for use when diluted with water for normal spraying conditions.
3. A statement that the Escort or equal, 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 broadleaf herbicide shall be applied at the rate of one (1) ounce per acre.

One (1) ounce of herbicide formulation shall be diluted with a minimum of forty (40) gallons of water and applied as a mixture. Water for dilution of the mixture will not be paid for separately.

Method of Measurement: WEED CONTROL, BROADLEAF IN TURF will be measured for payment in pounds of undiluted herbicide applied as specified. The pounds for payment will be determined based on the pounds specified on the label attached to the original container supplied by the manufacturer.

Basis of Payment: WEED CONTROL, BROADLEAF IN TURF will be paid for at the contract unit price per pound for WEED CONTROL, BROADLEAF IN TURF. Water for dilution of the mixture and additives required for application will not be paid for as separate items, but the costs shall be considered as included in the contract price, and no additional compensation will be allowed.

WEED CONTROL, NON-SELECTIVE AND NON-RESIDUAL
Effective: February 7, 2007

Description: This work shall consist of the application of a non-selective and non-residual herbicide (Roundup or equal) to kill all existing vegetation at designated areas along highway roadsides.

Materials: The non-selective and non-residual herbicide (Roundup or equal) shall have the following formulation:

A. Active Ingredient	
* Glyphosate, N- (phosphonomethyl) glycine, in the form of its isopropylamine salt	41.00%
B. Inert Ingredients (including surfactant)	59.00%
TOTAL	100.00%

* Contains 480 grams per liter or 4 pounds per U.S. gallon of the active ingredient Glyphosate, in the form of its isopropylamine salt. Equivalent to 356 grams per liter or 3 pounds per U.S. gallon of the acid, glyphosate.

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

1. The chemical names of the compound and the percentage by volume 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 Roundup or equal, 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 of Roundup or equal 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 manufacture. 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.

Schedule: Spraying will not be allowed when temperatures exceed 90º F or under 60º F, when wind velocities exceed fifteen (15) miles per hour, when foliage is wet or rain is eminent, when visibility is poor or during legal holiday periods.

Application Rate: The Roundup or equal non-selective and non-residual herbicide shall be applied at the rate of one (1) gallon per acre.

One (1) gallon of Roundup or equal formulation shall be diluted with a minimum of fifty-five (55) gallons of water and applied as a mixture. Water for dilution of the mixture will not be paid for separately.

Method of Measurement: Weed Control, Non-selective and Non-residual will be measured for payment in gallons of undiluted Roundup or equal applied as specified. The gallons for payment will be determined based on the gallons specified on the label attached to the original container supplied by the manufacturer.

Basis of Payment: Weed Control, Non-Selective and Non-residual will be paid for at the contract unit price per gallon for WEED CONTROL, NON-SELECTIVE AND NON-RESIDUAL. Water for dilution of the mixture and additives required for application will not be paid for as separate items, but the costs shall be considered as included in the contract unit price for Weed Control, Non-selective and Non-residual, and no additional compensation will be allowed.

WEED CONTROL, PRE-EMERGENT GRANULAR HERBICIDE

Description: This work shall consist of spreading a pre-emergent granular herbicide in areas as shown on the plans or as directed by the Engineer. This item will be used in mulched plant beds and mulch rings.

Materials: The pre-emergent granular herbicide shall contain the chemicals Trifluralin 2% active ingredient and Isoxaben with 0.5% active ingredient. The herbicide label shall be submitted to the Engineer for approval at least seventy-two (72) hours prior to application.

Method: The pre-emergent granular herbicide shall be used in accordance with the manufacturer's directions on the package. The granules are to be applied after placing mulch.

Do not place pre-emergent herbicide on the following species: Hydrangea spieces and Sedum species.

Apply the granular herbicide using a drop or rotary-type designed to apply granular herbicide or insecticides. Calibrate application equipment to use according to manufacturer's directions. Check frequently to be sure equipment is working properly and distributing granules uniformly. Do not use spreaders that apply material in narrow concentrated bands. Avoid skips or overlaps as poor weed control or crop injury may occur. More uniform application may be achieved by spreading half of the required amount of product over the area and then applying the remaining half in swaths at right angles to the first. Apply the granular herbicide at the rate of 100 lbs./acre or 2.3 lbs./1000 sq. ft.

Method of Measurement: Pre-emergent granular herbicide will be measured in place in Pounds of Pre-emergent Granular Herbicide applied. Areas treated prior to mulch placement shall not be measured for payment.

Basis of Payment: This work will be paid for at the contract unit price per pound of WEED CONTROL, PRE-EMERGENT GRANULAR HERBICIDE which price shall include all materials, equipment, and labor necessary to complete the work as specified.

WEED BARRIER FABRIC

Description. This work shall consist of placing WEED BARRIER FABRIC as shown on the contract details or as directed by Resident Engineer.

Materials. Geotextile Fabric of polypropylene fibers of nonwoven, needle-punch variety complying with the following characteristics:

Weight of Fabric	3.0-3.5 oz/yd	ASTM D5261
Grab Tensile Strength	90lbs	ASTM D4632
Grab Elongation	50%	ASTM D4632
Trapezoidal Tear	40lbs maximum	ASTM D4533
Apparent Opening Size	50 maximum	ASTM D4751

General Requirements. The fabric shall be delivered to the jobsite in such a manner to facilitate handling and incorporation into the work without damage. In no case shall the fabric be stored and exposed to direct sunlight that might significantly diminish its strength or toughness. Torn or punctured fabric shall not be used. WEED BARRIER FABRIC shall provide water permeability to allow for proper drainage in planting areas.

Construction Requirements. After the base course layer has been approved by the Resident Engineer, the fabric shall be loosely rolled out so that all base course layer is covered. When more than one section of fabric is used, the fabric shall overlap a minimum of two (2) feet.

During backfilling, a minimum 6-inch cushion of material shall be carefully placed over the lined drainage layer for stabilization prior to proceeding with the installation of the material lifts.

Submittals. Contractor shall submit WEED BARRIER FABRIC sample (1 square yard minimum) for approval before acceptance.

Manufacturer's Warranty. The Contractor must provide a Manufacturer's written certification that the materials comply with these specifications.

Method of Measurement WEED BARRIER FABRIC will be measured for payment in place and the area computed in square yards. The additional fabric required for overlaps of individual sheets and overlaps at the top of the french drain will not be measured for payment.

Basis of Payment WEED BARRIER FABRIC will be paid for at the contract unit price per square yard, which price shall include all labor, material and equipment for furnishing, transporting, and installing the material in place.

WEED CONTROL, BASAL TREATMENT

Cut Stump Treatment
To control resprouting of cut stumps of susceptible species, spray mixture must consist of 20 % Herbicide Type A, 3% Herbicide Type B, and 77% basal oil. Apply 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.

Low Volume Basal Bark Treatment
To control susceptible woody plants with stems less than 6 inches in basal diameter, spray mixture must consist of 20 % Herbicide Type A, 3% Herbicide Type B, and 77% bark oil. Apply with a backpack or knapsack sprayer using low pressure and a solid cone or flat fan nozzle. Mixture should be applied from the root collar up to 18 inches. Spray the basal parts of brush and tree trunks in a manner which thoroughly wets the lower stems, including the root collar area, but not to the point of runoff. Herbicide concentration should vary with size and susceptibility of species treated. Apply at any time, including winter months, except when snow or water prevent spraying to the ground line or when stem surfaces are saturated with water.

Bark oil is for low-volume basal bark and stump treatments, to be used only with oil-miscible woody plant herbicides that permit dilution with oil on their labels. Follow all use directions and precautions on the label of the herbicide.

Description: This work shall consist of the application of a herbicide mixture to control undesirable brush areas along highway roadsides. The solution shall apply to areas for low volume basal treatment and cut stump treatment only.

Materials: The mixture shall contain twenty percent (20%) Herbicide Type A, three percent (3%) Herbicide Type B, and seventy-seven percent (77%) bark oil. Substitutions are allowable with herbicides of equal formulation. The mixture shall have the following formulation:

Herbicide Type A

Active Ingredient:	
triclopyr: 3,5,6-trichloro-2-pyridinyloxyacetic acid, butoxyethyl ester	61.6%
Inert Ingredients	38.4%
TOTAL	100.00%

Herbicide Type B

Active Ingredient:	
Isopropylamine salt of Imazapyr (2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl] -3-pyridinecarboxylic acid)*	27.6%
Inert Ingredients	72.4%
TOTAL	100.00%

*Equivalent to 22.6% (2-[4,5-dihydro-4-methyl-4-(1-methylethyl) -5-oxo-1H-imidazol-2-yl]-3-pyridinecarboxylic acid) or 2 pounds acid per gallon

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

1. The chemical names of the compound and the percentage by volume 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 oil for normal spraying conditions.
3. A statement that the herbicide, when mixed with oil, 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 of herbicide 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. Additional information is located in Cut Stump Treatment and Low Volume Basal Bark Treatment within this contract.

Method of Measurement: Weed Control, Basal Treatment will be measured for payment in gallons of diluted solution applied as specified. The gallons for payment will be determined based on the gallons specified on the label attached to the original container supplied by the manufacturer. The Engineer must be present during the preparation of solution.

Basis of Payment: Weed Control, BASAL TREATMENT will be paid for at the contract unit price per gallon for WEED CONTROL, BASAL TREATMENT

Bark oil for dilution of the mixture and additives required for application will not be paid for as separate items, but the costs shall be considered as included in the contract price for Weed Control, BASAL TREATMENT and no additional compensation will be allowed.

WEED CONTROL, NATIVE LANDSCAPE ENHANCEMENT

Description.

This work shall consist of controlling and/or removing weeds (woody and herbaceous) growing within native landscapes (prairies, savannahs, woodlands, wetlands, etc.). Various methods of weed control (hand weeding, hand trimming, spot spraying, wicking, etc.) may be required depending on the location, type of weeds, and size of weed infestation. These selective weed control areas may not be able to be treated with typical large roadside herbicide spraying equipment. Locations for Weed Control, Native Landscape Enhancement shall be designated by the Engineer.

The undesirable weeds (invasive tree saplings (i.e. buckthorn, honeysuckle, tree of heaven, etc.), teasel, thistle, phragmites, etc.) shall be removed and/ or treated with the appropriate weed control method approved by the Engineer prior to the start of work per location. Multiple weed species may be treated during each site visit. All herbicides shall be approved by the Engineer prior to the start of work.

All weed control areas shall be completed to the satisfaction of the Engineer with equipment, method, and/or herbicide approved by the Engineer. Disposal of material shall be done in accordance with Article 202.03.

Schedule.

See CALENDAR OF CONSTRUCTION AND ESTABLISHMENT WORK in the plans for weed control, native landscape remediation dates and as directed by the Engineer. Individual weed species may be targeted and shall be spot sprayed during the appropriate growth stage. Weed control must be completed in a timely manner. When the Engineer directs the Contractor to control the weeds, the Contractor must begin the weed control operation within 7 days of notice.

Equipment and Herbicides.

Special equipment such as backpack sprayers, hand sprayers, and hand pruners may be required to conduct spot herbicide treatments and manual removal of weeds in small areas. All equipment shall be approved by the Engineer. The Contractor shall submit for approval labels for all proposed herbicides, including the following, prior to starting work:

1. The chemical names of the compound and the percentage by weight of the ingredients.
2. A statement that the material 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.

Follow manufacturer's recommendation for the various herbicides.

Method.

All weed control operations are to proceed in the direction of traffic flow.

If weeds or other undesirable vegetation threatens to introduce seed into naturalized areas, smother planted species, or in case of weeds exceeding growth of planted species, at the direction of the Engineer, the weeds shall be: spot sprayed, wicked, hand trimmed or uprooted, raked and removed from the area. Weeds shall be removed in a manner that does not damage the underlying native grasses and forbs.

The cut material from common reed (*Phragmites australis*), teasel species (*Dipsacus* spp.), and thistle species (*Cirsium* spp.) shall be removed and disposed of according to Article 202.03.

Remove litter, including plastic bags, paper, bottles, etc. prior to weed control. All weeds, litter, and debris removal must be complete to the satisfaction of the Engineer and disposed of according to Article 202.03. Damage to the native vegetation, such as ruts or wheel tracks more than two (2) inches in depth, other plantings, or highway appurtenances caused by the weed control enhancement operation shall be repaired at the Contractor's expense and to the satisfaction of the Engineer.

Method of Measurement.

The work will be measured in units of one (1) square acre of surface area cared for 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 within seven (7) calendar days. Removal and disposal of debris will not be measured separately but shall be considered included.

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 ACRE for WEED CONTROL, NATIVE LANDSCAPE ENHANCEMENT. Payment for Weed Control, Native Landscape Enhancement shall include all materials, herbicides, equipment, labor, removal, disposal and incidentals required to complete the work as specified herein and to the satisfaction of the Engineer. Water for dilution of the mixture and additives required for application will not be paid for as separate items, but the costs shall be considered as included in the contract price, and no additional compensation will be allowed.

STUMP REMOVAL ONLY

This work shall be done in accordance with Section 201 of the Standard Specifications except that stumps identified for removal shall be removed to a minimum of six (6) inches below the natural surface of the ground. The stumps to be removed shall be designated by the Engineer.

The removal of stumps shall be done with mechanical equipment normally used for this type of operation. Stump grinding equipment cannot be used for stump removal in medians. 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) inch diameter.

Area where stumps have been removed shall be restored to turf grass or a mulch bed as shown on the plans or as directed by the Engineer. This work shall consist of stump grinding, grading of area to match existing grade, topsoil placement or removal, if necessary, required seeding, and installation of erosion control blanket, and other work items necessary as described herein and as directed by the Engineer. All work shall meet the requirements of Section 250 of the Standard Specifications, except herein.

Turf Restoration Requirements:

- Wood chips/grindings must be removed and properly disposed of.
- Wood chips/grindings must be raked out of surrounding turf or swept off the surrounding hardscape (sidewalks/streets/curbs/etc.).
- Area shall be left smooth and level to maintain uniform surface and appearance. Grade as necessary, place or remove topsoil if required.
- Seed bare soil with required seeding as shown on the plans and install erosion control blanket.
- Seeding, Class 2A shall be placed within the specified time frames of either April 1 to June 15 or August 1 to November 1.
- Fertilizers will be required for Seeding, Class 2A.
- Mulch Placement, 4” shall be placed at locations where mulch beds are proposed as shown on the plans. Wood chips are not acceptable.
- All debris that results from this operation shall be removed from the right-of-way and disposed of at the end of the day in accordance with Article 202.03.

Method of Measurement:

This work will be measured per unit of diameter where one unit is equal to 1 inch and will be paid for at the contract unit price per unit diameter for STUMP REMOVAL ONLY including restoration of the turf area.

Placement of topsoil, Seeding, Class 2A, and erosion control blanket shall be included in the cost of STUMP REMOVAL ONLY. Topsoil shall be in accordance with the requirements of Section 211. Erosion control blanket shall be applied in accordance with Article 251.04 of the Standard Specifications.

If the inspection discloses any work as being unsatisfactory due to erosion and/or the seed does not fully establish, 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. The limits and magnitude of the repairs are at the discretion of the Engineer. The cost of any repair shall be included in the cost of the Contract and will not be paid for separately. Work that is not acceptable on the inspection date will not be measured for payment.

All excess chips and debris from this operation shall be removed from State right-of-way.

Basis of Payment: Stump removal shall be paid for at the contract unit price per unit diameter for STUMP REMOVAL ONLY measured as specified herein across the top of the stump. All references to tree removal in the Standard Specifications shall include the item STUMP REMOVAL ONLY. The unit price shall include the cost of all labor, transportation, materials, hauling, loading, unloading, placing, installing, removing, equipment, disposal of all materials off-site, topsoil, seed, erosion control blanket, fertilizer, material, clean-up, and incidentals required to complete the work as specified herein to the satisfaction of the Engineer.

TOPSOIL FURNISH AND PLACE, SPECIAL

General Requirements: Work under this item shall be performed in accordance with Section 211 of the Standard Specifications for Road and Bridge Construction except as modified herein.

Method of Measurement: This work will be measured for payment as per cubic yard.

Basis of Payment: This work will be paid for at the contract unit price per cubic yard.

SEEDING, CLASS 5 (MODIFIED)

This work shall consist of preparing the seed bed and 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:	15.0
Allium cernuum (Nodding Wild Onion)	0.15
Amorpha canescens (Leadplant)	0.15
Aquilegia canadensis (Wild Columbine)	0.20
Asclepias syriaca (Common Milkweed)	0.15
Asclepias tuberosa (Butterfly Weed)	0.25
Asclepias verticillata (Whorled Milkweed)	0.15
Baptisia australis (Blue Wild Indigo)	0.10
Baptisia leucophaea (Cream Wild Indigo)	0.15
Chamaecrista fasciculata (Partridge Pea)	2.5
Coreopsis lanceolata (Lance-leaf Coreopsis)	2.5
Dalea candida (White Prairie Clover)	0.50
Dalea purpurea (Purple Prairie Clover)	0.75
Dodecatheon meadia (Shooting Star)	0.20
Echinacea purpurea (Purple Coneflower)	0.40
Eryngium yuccifolium (Rattlesnake Master)	0.30
Heuchera richardsonii (Prairie Alumroot)	0.10
Liatris aspera (Rough Blazing Star)	0.25
Monarda fistulosa (Wild Bergamont)	0.30
Penstemon digitalis (Foxglove Beardtongue)	0.45
Penstemon grandiflorus (Large-flowered Beardtongue)	0.45

Rudbeckia hirta (Black-Eyed Susan)	4.0
Ruellia humilis (Wild petunia)	0.15
Symphyotrichum oblongifolium (Aromatic Aster)	0.20
Tradescantia occidentalis (Western Spiderwort)	0.20
Verbena stricta (Hoary Vervain)	0.40
Zizia aptera (Heart-leaved Alexander)	0.10

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:
Interseeding 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 interseeding. 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 as specified in the Calendar of Landscape Construction and Establishment Work. 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 interseeded 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. The proposed equipment shall be in an operational condition and available for inspection by the Engineer at least two (2) weeks prior to the proposed starting time. The Contractor shall demonstrate proper calibration of the equipment. If the site is too wet or muddy to use a no-till drill seeder, the Contractor must submit a written description of alternative installation method(s) and equipment for consideration by the Engineer. No alternative installation method(s) and equipment shall be used prior to receipt of written approval of them from the Engineer.

Hand broadcasting or broadcast seeders will be allowed as approved by the Engineer on steep slopes (1:3 (V:H) or steeper) or in inaccessible areas where use of the equipment specified is physically impossible. Broadcast seeding when snowfall is predicted within 24 hours shall be the preferred method.

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.

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		10.0
	Andropogon scoparius (Little Bluestem)	5.0
	Bouteloua curtipendula (Side Oats Grama)	3.5
	Sporobolus heterolepsis (Prairie Dropseed)	1.5
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. 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.

INTERSEEDING, CLASS 4A (MODIFIED)

This work shall consist of Interseeding 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 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. 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
4A (Modified) Low Profile Native Grass		10.0
	Bouteloua curtipendula (Side Oats Grama)	4.0
	Koeleria cristata (June Grass)	1.0
	Schizachyrium scoparium (Little Bluestem)	5.0

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:
Interseeding shall be completed between November 1 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 interseeding. Seeding done outside of this time frame will not be measured for payment unless approved in writing by Engineer in advance.

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 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 as specified in the Calendar of Landscape Construction and Establishment Work. 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 interseeded must be properly prepared prior to planting seed. Interseeding is the sowing of seed into areas of existing turf or other vegetation. For areas where existing turf or other desirable existing vegetation is to remain and be interseeded to improve cover, prior to interseeding all existing turf or other vegetative cover shall be mowed one or more times to a height of not more than 3 inches. The cut material shall be removed from the site of work to allow penetration of the seed and disposed of according to Article 202.03.

For areas where existing vegetation is specified to be eradicated an application of a non-residual, non-selective herbicide will be required. 10-14 calendar days after the herbicide application, the existing vegetation shall be mowed to a height of not more than 3 inches, removed from the site of work, and disposed of according to Article 202.03.

Debris encountered during the mowing or interseeding operations which hamper the operation or are visible from the roadway shall be removed and disposed of according to Article 202.03. Damage to the right-of-way and turf, such as ruts or wheel tracks more than 2 inches in depth, shall be repaired to the satisfaction of the engineer prior to the time of interseeding.

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, interseeders 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 interseeded. 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 mixture classes to be interseeded shall be sown using a no—till drill such as rangeland type seed drill specifically manufactured for planting native seeds with an interseeding attachment. Interseeding by slit seeder will not be accepted. The proposed equipment shall be in an operational condition and available for inspection by the Engineer at least two (2) weeks prior to the proposed starting time. The Contractor shall demonstrate proper calibration of the equipment. If the site is too wet or muddy to use a no-till drill seeder, the Contractor must submit a written description of alternative installation method(s) and equipment for consideration by the Engineer. No alternative installation method(s) and equipment shall be used prior to receipt of written approval of them from the Engineer.

Hand broadcasting or broadcast seeders will be allowed as approved by the Engineer on steep slopes (1:3 (V:H) or steeper) or in inaccessible areas where use of the equipment specified is physically impossible. Broadcast seeding when snowfall is predicted within 24 hours shall be the preferred method.

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

Basis of Payment:
INTERSEEDING, 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.

Mowing will be paid for at the contract unit price per acre for MOWING. Only the initial mowing will be paid for. Any subsequent mowing required to obtain a height of not more than 3 in. (75 mm) or to disperse mowed material will be considered as included in the cost of the initial mowing.

INTERSEEDING, CLASS 5 (MODIFIED)

This work shall consist of Interseeding 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:	15.0
Allium cernuum (Nodding Wild Onion)	0.15
Amorpha canescens (Leadplant)	0.15
Aquilegia canadensis (Wild Columbine)	0.20
Asclepias syriaca (Common Milkweed)	0.15
Asclepias tuberosa (Butterfly Weed)	0.25
Asclepias verticillata (Whorled Milkweed)	0.15
Baptisia australis (Blue Wild Indigo)	0.10
Baptisia leucophaea (Cream Wild Indigo)	0.15
Chamaecrista fasciculata (Partridge Pea)	2.5
Coreopsis lanceolata (Lance-leaf Coreopsis)	2.5
Dalea candida (White Prairie Clover)	0.50
Dalea purpurea (Purple Prairie Clover)	0.75
Dodecatheon meadia (Shooting Star)	0.20
Echinacea purpurea (Purple Coneflower)	0.40
Eryngium yuccifolium (Rattlesnake Master)	0.30
Heuchera richardsonii (Prairie Alumroot)	0.10
Liatris aspera (Rough Blazing Star)	0.25
Monarda fistulosa (Wild Bergamont)	0.30
Penstemon digitalis (Foxglove Beardtongue)	0.45
Penstemon grandiflorus (Large-flowered Beardtongue)	0.45

Rudbeckia hirta (Black-Eyed Susan)	4.0
Ruellia humilis (Wild petunia)	0.15
Symphyotrichum oblongifolium (Aromatic Aster)	0.20
Tradescantia occidentalis (Western Spiderwort)	0.20
Verbena stricta (Hoary Vervain)	0.40
Zizia aptera (Heart-leaved Alexander)	0.10

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:
Interseeding 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 interseeding. Seeding done outside of this time frame will not be measured for payment unless approved in writing by Engineer in advance.

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 as specified in the Calendar of Landscape Construction and Establishment Work. 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 interseeded must be properly prepared prior to planting seed. Interseeding is the sowing of seed into areas of existing turf or other vegetation. For areas where existing turf or other desirable existing vegetation is to remain and be interseeded to improve cover, prior to interseeding all existing turf or other vegetative cover shall be mowed one or more times to a height of not more than 3 inches. The cut material shall be removed from the site of work to allow penetration of the seed and disposed of according to Article 202.03.

For areas where existing vegetation is specified to be eradicated an application of a non-residual, non-selective herbicide will be required. 10-14 calendar days after the herbicide application, the existing vegetation shall be mowed to a height of not more than 3 inches, removed from the site of work, and disposed of according to Article 202.03.

Debris encountered during the mowing or interseeding operations which hamper the operation or are visible from the roadway shall be removed and disposed of according to Article 202.03. Damage to the right-of-way and turf, such as ruts or wheel tracks more than 2 inches in depth, shall be repaired to the satisfaction of the engineer prior to the time of interseeding.

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, interseeders 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 interseeded. 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.

All mixture classes to be interseeded shall be sown using a no—till drill such as rangeland type seed drill specifically manufactured for planting native seeds with an interseeding attachment. Interseeding by slit seeder will not be accepted. The proposed equipment shall be in an operational condition and available for inspection by the Engineer at least two (2) weeks prior to the proposed starting time. The Contractor shall demonstrate proper calibration of the equipment. If the site is too wet or muddy to use a no-till drill seeder, the Contractor must submit a written description of alternative installation method(s) and equipment for consideration by the Engineer. No alternative installation method(s) and equipment shall be used prior to receipt of written approval of them from the Engineer.

Hand broadcasting or broadcast seeders will be allowed as approved by the Engineer on steep slopes (1:3 (V:H) or steeper) or in inaccessible areas where use of the equipment specified is physically impossible. Broadcast seeding when snowfall is predicted within 24 hours shall be the preferred method.

Within 24 hours of seed placement, Mulch, Method 3 shall be placed on the interseeded areas. On slopes steeper than 1:3 mulch shall be applied the same day as interseeded. Mulch shall be applied uniformly at the rate specified and according to Article 251.03 (c).

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

MOWING will be measured for payment in place in acres of surface area mowed.

MULCH, METHOD 3 will be measured for payment in place in acres of surface area mulched.

Basis of Payment:
INTERSEEDING, 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.

Mowing will be paid for at the contract unit price per acre for MOWING. Only the initial mowing will be paid for. Any subsequent mowing required to obtain a height of not more than 3 in. (75 mm) or to disperse mowed material will be considered as included in the cost of the initial mowing.

Mulch, Method 3 will be paid for at the contract unit price per acre for MULCH, METHOD 3.

NATIVE SODDING (SPECIAL)

Description: Work under this item shall be performed in accordance with Section 252 of the Standard Specifications except as herein modified. This work shall consist of preparing the ground surface and furnishing, transporting, placing, watering, and establishing native prairie sod and other work items required in the sodding operations as described herein and as directed by the Engineer.

General Requirement: The Contractor shall begin locating NATIVE PRAIRIE SOD ("Sod") suppliers immediately upon contract award. Due to the time sensitive nature of the Sod, the Contractor shall make arrangements for custom grown nursery stock and shall coordinate sufficient lead times with the supplier so that optimum vegetative growth has occurred upon installation.

Quality Assurance Requirements:

1. Sod shall be provided by a qualified nursery having a minimum of 5 years' experience in the growing and installation of vegetated sod or mats composed of native prairie species. References shall be submitted to the Engineer.

2. Qualifications of workmen:
    a. Provide at least one person/foreman who shall be present at all times during execution of this portion of the Work and who shall be thoroughly familiar with the type of materials, design methods, details, etc. being installed and the best methods for their installation and who shall direct all work performed under this specification.

    b. This designated person/foreman shall be present at all landscape pertinent pre-construction meetings, progress meetings, and on-site throughout the duration of the sodding portion of the project including establishment. This designated individual shall be the main point of contact between all parties involved as it relates to the native sodding.

    c. This designated person/foreman shall also be the main point of contact for all submittals, samples, and project notifications as outlined herein.

    d. This designated person/foreman shall be familiar with all Drawings and Specifications included in the Contract Documents to ensure continuity for the project and provide clear direction for all involved.

3. Experience Requirement: The person/foreman outlined above must meet the following requirements for approval as the main point of contact for the project:
    a. Minimum of 5 years of successful and continuous experience on projects of this type.

    b. Minimum of 5 successful project types of this size and scope including cost.

    c. Contractor to provide proof of the above requirements including photographic evidence of projects at installation and at different stages of maturity.

d. If applicable, demonstrate previously installed successful projects.

e. Experience in ecological restoration and the ability to identify and differentiate between the targeted weeds and vegetation to remain.

Materials:

1. NATIVE PRAIRIE SOD ("Sod") shall consist of a custom native grass/forb mix seeded into engineered soil with 100% biodegradable coir mat of woven coir fibers evenly machine twisted and spun at 20.5 to 25.5 oz/cu yd. The sod shall be fully rooted with vegetative coverage of no less than 75 percent by the time of installation. Sod dimensions shall be 40" x 11' (four square yards) per roll.

2. Obtain Sod from a single nursery source with resources to grow Sod of specified consistent quality. The nursery shall have the capacity to grow, cut, and deliver the sod on schedule.

3. Sod shall be planted with the following native grass and forb mix that shall be healthy, vigorous and a minimum average height of 6 to 12 inches. Minimum of 450 seeds/square foot with 55/45 grass to forb ratio based on seed count.

CLASS – TYPE SEEDS	PURE LIVE SEED LB/ACRE
Low Profile Native Grass	21.62
Agropyron trachycaulum (Slender Wheatgrass)	6.0
Bouteloua curtipendula (Side Oats Grama)	5.0
Bromus kalmia (Prairie Brome)	2.0
Carex bicknellii (Copper-Shouldered Oval Sedge)	0.5
Carex brevior (Plains Oval Sedge)	1.0
Carex vulpinoidea (Brown Fox Sedge)	0.5
Juncus dudleyi (Dudley's Rush)	0.06
Juncus tenuis (Path Rush)	0.06
Koeleria cristata (June Grass)	0.5
Schizachyrium scoparium (Little Bluestem)	5.0
Sporobolus heterolepsis (Prairie Dropseed)	1.0

CLASS – TYPE SEEDS	LBS/ACRE
Short Native Forb Mixture	12.25
Achillea millefolium (Native Yarrow)	0.25
Allium cernuum (Nodding Wild Onion)	0.20
Amorpha canescens (Leadplant)	0.15
Aquilegia canadensis (Wild Columbine)	0.20
Asclepias syriaca (Common Milkweed)	0.10
Asclepias tuberosa (Butterfly Weed	0.20
Asclepias verticillata (Whorled Milkweed)	0.20
Baptisia australis (Blue Wild Indigo)	0.10
Baptisia leucophaea (Cream Wild Indigo)	0.25
Chamaecrista fasciculata (Partridge Pea)	1.50
Coreopsis lanceolata (Lance-leaf Coreopsis)	1.40
Coreopsis palmata (Prairie Coreopsis)	1.25
Dalea candida (White Prairie Clover)	0.50
Dalea purpurea (Purple Prairie Clover)	0.50
Echinacea purpurea (Purple Coneflower)	0.50
Eryngium yuccifolium (Rattlesnake Master)	0.10
Euthamia graminifolia (Grass-leaved Goldenrod)	0.03
Heuchera richardsonii (Prairie Alumroot)	0.02
Liatris aspera (Rough Blazing Star)	0.15
Monarda fistulosa (Wild Bergamont)	0.20
Penstemon digitalis (Foxglove Beard Tongue)	0.30

Penstemon grandiflorus (Large-flowered Beardtongue)	0.40
Rudbeckia hirta (Black-Eyed Susan)	2.65
Ruellia humilis (Wild petunia)	0.10
Solidago nemoralis (Prairie Goldenrod)	0.10
Symphyotrichum oolentangiense (Sky Blue Aster)	0.30
Verbena stricta (Hoary Vervain)	0.30
Zizia aptera (Heart-leaved Alexander)	0.30

Variation in the 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 grass and forb 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.

3. Sod shall be attached to the finished grade with 12”, eight gauge wire, U shaped sod staples which shall be incidental to sod installation.

4. Sod soilless media shall be approved by the Engineer.

Submittals:

1. Photos and references of previous projects for nursery growing sod and contractor placing sod.

2. Within 60 days of Contract Award, Contractor must submit proof that a supplier has been located and an ordered placed to custom grow the Sod along with schedules for planting, germination, and delivery of mature plantings. Sod shall be subject to periodic inspections and approval at place of growth throughout the growing process.

3. Request for Field Report On Inspection of Plant Material form

4. Schedules as specified herein

5. Sample of biodegradable core of the Sod mat

6. One quart sample of soilless media with mechanical and chemical analysis test results

7. Certification letter from authorized nursery representative stating that the seed mixture used in the Native Sod conforms to the specification.

Construction Requirements

Ground Preparation:

1. Fertilizers are not necessary and shall not be applied.

2. Soil contact for the sod is vital. Do not install Sod on hard, compacted soil.

3. The area to be sodded shall be finished according to Section 212 before sodding operations are begun. Before the sod is place, the soil surface shall be worked until it is free from debris, washes, gullies, clods, stones, sticks, and existing vegetation.

4. Finished ground elevations shall allow for the thickness of sod to match grade of existing turf or structures. Additional topsoil required to bring the area to sub grade elevation will not be paid for separately but considered incidental to the cost of sod. Additional topsoil shall be approved by the Engineer.

5. Immediately prior, but not in excess of 48 hours the surface shall be worked to a depth of not less than 6 inches with a disk, tiller, or other equipment approved by the Engineer, reducing all soil particles to a size not larger than 1 inch in the largest dimension. Prepared surface shall be finished to a fine smooth, uniform finish free of litter, debris, rocks, sticks, and existing vegetation not specified to remain. Prepared soil surfaces that have become crusted shall be reworked to an acceptable condition before sodding. Sod shall not be placed until the soil bed has been approved by the Engineer.

6. Sod shall be placed in rows. To avoid air gaps, as work progresses row by row, the Contractor shall rake smooth the soil in the row to be sodded to eliminate any footprints or minor indentations left behind from placing the previous row.

7. The soil surface shall be moist when the sod is placed to reduce heat injury to root hairs. As work progresses row by row, after the next row to be sodded has been raked smooth, mist the soil to moisten the soil prior to placing the sod. Water shall be applied in a manner that does not disturb the prepared soil bed. Method of watering shall be approved by the Engineer.

Sodding Time:

1. Sod shall be placed in the fall between September 1 and November 15. Sod shall not be installed or brought to the site when the temperature is above 80 degrees Fahrenheit. Installation dates are dependent on weather. Installation might begin or end prior or after above dates as approved by the Engineer. Do not plant when soil is muddy or during frost.

2. Stone outcropping, riprap stone, trees, shrubs, vines, seeding and interseeding must be installed first to establish proper layout and to avoid unnecessary foot traffic once Sod has been placed.

3. The Contractor shall be responsible for Sod layout. Sod bed shall be marked out with flags to delineate the perimeter of each area for sodding as shown in the plans. The Contractor will contact the Roadside Development Unit at (847) 705-4171 to approve the layout prior to installation. Allow a minimum of 7 working days prior to installation for approval.

3. Approved watering equipment shall be at the site of the work and in operational condition PRIOR TO STARTING the installation operation and DURING all installation operations.

Transportation:

1. The Contractor shall transport only the quantity of sod required for one day's installation.

2. All sod shall be properly protected during transportation to maintain it in a live, healthy condition. Care shall be taken to retain the soil on the roots during transport. The Contractor shall use due diligence in keeping the Sod cool and evenly moist during transport from the nursery to the project site to avoid root hair pruning (dry back). Sod shall be tarped during transport, however, refrigerated transportation may be necessary. Consult with Sod supplier regarding transportation based on timing, distance from nursery to project site, and local forecasted condition.

3. Sod shall be subject to inspection and approval at place of growth and/or upon delivery for conformity to specification requirements. Approval at place of growth shall not impair the right of inspection and rejection upon delivery at the site or during the process of the work. Rejected material, any sod that has dried out, has heated to over 100 Degrees Fahrenheit, or is frozen prior to placing will be rejected and shall be immediately removed from the jobsite by the Contractor.

Placing Sod:

1. Sod shall be installed within 48 hours of being loaded onto the truck.

2. The Contractor shall keep Sod moist (near saturation) and cool at all times at the project site. The Contractor shall handle the sod with care to retain soil and minimize root and vegetative damage. Should the roots be dried out, large amount of soil broken or loosen, or areas of the sod damaged, the Engineer may reject the Sod roll or portions of the Sod roll. Contractor shall immediately remove the rejected Sod from the site.

3. The sodding operations shall be done in such manner that workmen will minimize walking on the prepared topsoil surface.

4. Workmen shall have proper tools to trim Sod such as a box knife, scissors, or masonry cutting wheel when installing Sod. Serrated blades shall not be used.

5. Place Sod parallel to slopes. The Sod shall be placed on the prepared surface 'edge to edge' with tight joints between the rolls to prevent edge dry back and to limit exposure of any soil, but with no overlap. Sod shall be placed to create staggered seams between adjoining rows.

6. Secure the Sod with 8 gauge staples using a minimum of one staple per square yard through the center and one staple every 2 feet along the edge of the Sod. Additional staples may be required depending on steepness of slope and to staple any areas that exhibit air gaps to ensure the Sod has direct root contact with the soil. Staples shall be installed so that they hold the Sod firmly in place yet present no danger to pedestrian or mowing crews.

7. Avoid unnecessary foot traffic once Sod has been placed.

8. The completed Sod surface shall be true to finished grade, even and firm over the entire area. Inspection of sodded areas in whole or in part, will be made by the Engineer after placement of Sod. If the inspection discloses any area(s) as being unsatisfactory, the Engineer will give the Contractor the necessary instruction for correction of same, and the Contractor shall immediately comply with such instructions and correct the unsatisfactory work. The limits and magnitude of the repairs are at the discretion of the Engineer. The cost of any repair shall be included in the cost of the pay item and will not be paid for separately. The Contractor shall be responsible for theft or damage to the Sod until final acceptance.

9. All materials shall be removed each day from the site, no on-site storage of materials shall be allowed. All sidewalks, driveways, alleys, high mast light towers bases, and pavements shall be left in a broom - cleaned condition.

10. During the life of the contract, within 24 hours upon notification the Contractor shall reinstall Sod that has deviated from its original position. The Contractor shall adjust and anchor the Sod as necessary to eliminate any open seams. Water Sod immediately once repositioned and secured.

<u>Sod Watering:</u>

1. A watering schedule shall be submitted to the Engineer immediately upon the first day of installation of Sod.

2. Within two (2) hours after the Sod has been placed, water (initial) shall be applied at a rate of 6 gallons per square yard.

3. Additional water (part of initial watering) shall be applied every day for the first 7 days at a rate of 6 gallons per square yard to maintain Sod and soil moisture.

4. Once a week for a four to six week period after installation, supplemental watering shall be applied at a minimum rate of 1" per week (6 gallons per square yard). Depending on the temperature and rainfall, the Engineer may alter the watering schedule by adding or deleting watering cycles. Water shall be applied at the rate specified by the Engineer within 24 hours of notice. Any additional watering required in between the weekly scheduled watering shall be considered as supplemental watering.

5. The Contractor shall have on hand enough equipment to completely water all sodded areas in one day at the watering rates specified above. The Engineer will make periodic checks of the Contractor's watering equipment to determine its adequacy and operation condition.

6. All watering described shall be done with a spray application. An open end hose will not be acceptable. The method of watering shall meet the approval of the Engineer.

7. Water furnished for application shall be free from oil, acid, alkali, salts, or other impurities harmful to the best development of the sod.

Period of Establishment:

1. Prior to being accepted the Sod shall endure a period of establishment. This period shall begin when the Sod has been placed in any one location and end in June of the following year. To qualify for inspection, Sod shall have been in place, in a live healthy condition, on or before November 15 of the previous year of inspection. To be acceptable, sod shall be in a live healthy condition, show a satisfactory growth of the native grasses and forbs specified, it is rooted to the soil, and is free of weeds.

2. At the discretion of the Engineer, final acceptance will be made where sodded areas show a healthy, satisfactory growth of the native grasses and forbs specified, it is rooted to the soil, and is free of weeds. Areas of Sod that do not meet the requirements for acceptance shall be replaced the following fall and prior to November 15. Changes in the above dates will be allowed by the Engineer only if extreme weather conditions or other mitigating circumstances so dictate. All replacement Sod shall meet and be installed according to the original job specifications. Replacement Sod shall undergo a period of establishment according to the original job specifications to be accepted.

3. The Contractor shall remove, immediately from the site of the work, any dead Sod. The Contractor will not be permitted to terminate the operation until all Sod is in a live, healthy condition. All Sod that dies within 15 days after being installed shall be replaced at that time and shall be considered as part of the original installation and have continued establishment care until acceptance.

Sod Care (During Period of Establishment):

1. Establishment care is intended to maintain all plants in a healthy and vigorous condition. During the period of establishment, the Contractor shall monitor, remove litter/debris, and properly care for the Sod at each location a minimum of once per week, or within 24 hours following notification by the Engineer.

2. The Contractor shall monitor the site for emergence of invasive species and simply hand weed by pulling the entire plant and roots. Spraying of herbicides to treat weeds shall not be allowed as the drift can eliminate desirable grasses and forbs. The Contractor shall provide a maintenance schedule for the duration of the project. All requirements for proper care during the period of establishment shall be considered as included in the cost of the contract.

3. Debris must be removed from the right-of-way and disposed of in accordance with Article 202.03 at the end of each day.

3. Additional watering may be required during the period of establishment. The Contractor shall monitor water needs at all Sod locations. Water immediately if Sod shows signs of stress. Water to ensure that moisture penetrates throughout the root zone and only as frequently as necessary to maintain healthy growth. Do not overwater. Any required additional watering will be paid for as Supplemental Watering.

4. All watering described shall be done with a spray application. An open-end hose will not be acceptable. Force of water dispersal shall not disrupt the soil or plant stability. The manner of watering shall meet the approval of the Engineer.

5. The Contractor will not be relieved in any way from the responsibility for unsatisfactory plants due to the extent of weeding or the amount of watering.

Sod Care (After Period of Establishment):

1. Continued establishment care is intended to maintain all plants in a healthy and vigorous condition. After the period of establishment, the Contractor shall continue to monitor the Sod at all locations a minimum of once per week. Notify the Engineer of the presence of any weeds or watering needs.

2. When directed by the Engineer, Weed Control, Native Landscape Enhancement shall be used to remove weeds growing within the Sod at locations designated by the Engineer. See specification for Weed Control, Native Landscape Enhancement.

3. Depending upon weather conditions, additional watering may be required after the period of establishment. When directed by the Engineer, Supplemental Watering shall be used to water the Sod at locations designated by the Engineer. See specification Supplemental Watering.

Disposal of Surplus Materials: Surplus and waste material resulting from sodding operations and establishment care shall be disposed of according to Article 202.03.

Method of Measurement:

a. NATIVE SODDING (SPECIAL) will be measured for payment in place and the area computed in square yards. To be acceptable the sod shall be growing in place in a live, healthy condition, free of weeds, and knitted to the soil as determined by the Engineer. When directed by the Engineer, any defective or unacceptable Sod shall be removed, replaced, and watered.

b. Reworking and moistening the soil surface shall not be measured for payment but included in the cost of Native Sodding (Special).

c. The initial and additional watering before the period of establishment will not be measured for payment but considered included in the cost of Native Sodding (Special).

d. Supplemental watering will be measured in units of 1000 gallons of water applied on the sodded areas. Watering performed during and after the period of establishment will be considered as supplemental watering.

e. Weed Control, Native Landscape Enhancement will be measured in acres as specified in Weed Control, Native Landscape Enhancement.

Basis of Payment: NATIVE SODDING (SPECIAL) will be paid for at the contract unit price per square yard which price shall include all material, transport, loading, unloading, labor, initial watering, tools, and equipment necessary to furnish, install and establish the sod, initial watering and reworking of crusted topsoil as required, disposal, and incidental items required to complete the work as specified herein and to the satisfaction of the Engineer according to the following schedule.

a. Initial payment. Upon placement of Native Sodding (Special), 60 percent of the pay item will be paid.

b. Final Payment. Upon acceptance of sod, the remaining 40 percent of the pay item will be paid.

c. Supplemental watering will be paid for at the contract unit price per unit for SUPPLEMENTAL WATERING.

d. Weed Control, Native Landscape Enhancement will be paid for at the contract unit price per acre for WEED CONTROL, NATIVE LANDSCAPE ENHANCEMENT.

STONE RIPRAP, CLASS A4 (SPECIAL)

Description: This work shall be done in accordance with the applicable portion of Section 281 and Section 1005.01 of the Standard Specifications. This work shall consist of all labor and material necessary to furnish and satisfactorily install the Quartzite Stone Riprap as shown in the plans and as directed by the Engineer.

Qualifications:

A. Contractor must provide evidence that his firm or other entity proposed for the rip rap work has specific experience meeting the following criteria:

1. Experience installing natural stone using aggregate setting beds.

2. Aggregate setting bed work shall not be sublet.

Material: Stone Riprap Class A4 (Special) shall meet the following requirements:

- Material: Quartzite
- Color Range: Gray blue

Samples:
Contractor must submit to the Engineer a minimum 5 pound bag of class A4 gradation stone for approval of color variation prior to performing any work. Submittal shall indicate the full range of colors. Allow a minimum of thirty (30) working days prior to installation for approval.

Obtain quartzite stone from a single quarry (source) with resources to provide material of specified consistent quality. The quarry shall have sufficient capacity to quarry and deliver the stone on schedule.

Contractor shall check the stone upon delivery to assure that the proper material has been received.

Add the following to AArticle 281.03 Preparation:
The Contractor shall be responsible for all layout. The layout must be performed by qualified personnel. The stone riprap, Class A4 (Special) must be laid out as shown in the plans or as directed by the Engineer.

The stone riprap bed shall be marked out with flags to delineate the perimeter of the stone bed. Once the stone bed has been approved by the Roadside Development Unit, the perimeter shall be painted prior to excavation.

Method of Measurement: Final acceptance will not be made until the stone is place and adjusted to the satisfaction of the Engineer. STONE RIPRAP, CLASS A4 (SPECIAL) will be measured in place, and the area computed in square yards. The area for measurement will include the stone bed limits.

Weed Barrier Fabric will be measured for payment as specified in WEED BARRIER FABRIC.

Basis of Payment: STONE RIPRAP, CLASS A4 (SPECIAL) will be paid for at the contract unit price per square yard which unit price shall include the cost of all layout, labor, transportation, materials, hauling, loading, unloading, placing, installing, removing, equipment, disposal of all materials off-site, and incidentals required to complete the work as specified herein to the satisfaction of the Engineer.

The placement of Weed Barrier Fabric will be paid for at the contract unit price for WEED BARRIER FABRIC.

CHAIN LINK FENCE REMOVAL

Description: Work under this item shall be performed according to Section 664 of the Standard Specifications.

Work under this item shall consist of the removal and disposal of sections of chain link or ornamental fence, gates, foundations, end post installation and backfilling to grade at locations as shown on the Plans or as directed by the Engineer.

General Requirements: All fences must be removed to the nearest post.

Construction Requirements: Any excavation or holes resulting from the removal of the foundations shall be backfilled immediately upon removal with approved topsoil.

Debris shall be disposed off-site in accordance with Section 202.03. At locations where removal terminates at a line post, the line post shall be replaced by an end post and the end of fence properly secured to the post.

Method of Measurement: This work will be measured for payment per foot, along the top of the fence from center to center of posts. Existing gates shall be measured as fence.

Basis of Payment: This work will be paid for at the contract unit price per foot for CHAIN LINK FENCE REMOVAL.

ENGINEER'S FIELD OFFICE TYPE A (SPECIAL)

Add the following to paragraph of Article 670.01 to read:

The location of the engineer's field office shall be located at 900 South Des Plaines Street, Chicago for the exclusive use of the Engineer or Authorized Representative. It is intended that Contract 62A76 ,I-90/94 Northbound Roosevelt Road to Lake Street, and Contract 62A77, I-90/94 Southbound Roosevelt Road to Lake Street share the same field office through November 30, 2022. Maintenance of the field office shall be a shared responsibility by each contractor. All furnishings shall be clearly labeled by each contractor and be returned to each contractor at the end of the project.

Revise the first paragraph of Article 670.02 to read:

> 670.02 Engineer's Field Office Type A (Special). Type A (Special) field offices shall have a ceiling height of not less than 7 feet and a floor space of not less than 4000 square feet with a minimum of two separate offices. The office shall also have a separate storage room capable of being locked for the storage of the nuclear measuring devices. The office shall be provided with sufficient heat, natural and artificial light, and air conditioning. Doors and windows shall be equipped with locks approved by the Engineer.

Revise the first sentence of the second paragraph of Article 670.02 to read:

An electronic security system that will respond to any breach of exterior doors and windows with an on-site alarm shall be provided.

Revise the last sentence of the third paragraph of Article 670.02 to read:

Adequate all-weather parking space shall be available to accommodate a minimum of sixteen vehicles. These parking spaces shall be exclusively for Phase III consultant staff use.

Revise the fifth paragraph of Article 670.02 to read:

Sanitary facilities shall include hot and cold potable running water, lavatory and toilet as an integral part of the office where available. Solid waste disposal consisting of seven waste baskets and an outside trash container of sufficient size to accommodate a weekly provided pick-up service. A weekly cleaning service for the office shall be provided.

Revise subparagraph (a) of Article 670.02 to read:

(a) Twenty-four desks with minimum working surface 42 inch x 30 inch each and twelve non-folding chairs with upholstered seats and backs.

Revise the first sentence of subparagraph (c) of Article 670.02 to read:

(c) Two four-post drafting tables with minimum top size of 37-½ inch x 48 inch.

Revise subparagraph (d) of Article 670.02 to read:

(d) Eight free standing four-drawer legal size file cabinets with lock and an underwriters' laboratories insulated file device 350 degrees one hour rating.

Revise subparagraph (e) of Article 670.02 to read:

(e) Twenty folding chairs and two conference tables with minimum top size of 44 inch x 96 inch.

Revise subparagraph (h) of Article 670.02 to read:

(h) Three electric desk type tape printing calculator and two pocket scientific notation calculators with a 1000 hour battery life or with a portable recharger.

Revise subparagraph (i)(2) of Article 670.02 to read:

(i)(2) Telephones lines. Five separate telephone lines including one line for the fax machine, and two lines for the exclusive use of the Engineer. All telephone lines shall include long distance service and all labor and materials necessary to install the phone lines at the locations directed by the Engineer. The TELCOM company shall configure ROLL/HUNT features as specified by the engineer.

Revise subparagraph (j) of Article 670.02 to read:

(j) Two plain paper network multi-function printer/copier/scanner machines capable of reproducing prints up to 11 inch x 17 inch within automatic feed tray capable of sorting 30 sheets of paper. Letter size and 11 inch x 17 inch paper shall be provided. The contractor shall provide the multi-function machines with IT support for setup and maintenance.

Revise subparagraph (k) of Article 670.02 to read:

(k) One plain paper fax machine including maintenance and supplies.

Revise subparagraph (l) of Article 670.02 to read:

(l) Six four-line telephones, with touch tone, where available, and two digital answering machines, for exclusive use by the Engineer.

Revise subparagraph (m) of Article 670.02 to read:

(m) One electric water cooler dispenser including water service.

Add the following subparagraphs to Article 670.02:

(s) One 4 foot x 6 foot chalkboard or dry erase board.

(t) One 4 foot x 6 foot framed cork board.

Add the following to Article 670.07 Basis of Payment.

The building or buildings, fully equipped, will be paid for at the contract unit price per calendar month or fraction thereof for ENGINEER'S FIELD OFFICE, TYPE A (SPECIAL).

CONSTRUCTION AIR QUALITY – DUST CONTROL

Description. This work shall consist of developing and implementing a detailed Dust Control Plan (DCP) in accordance with Article 107.36 of the Standard Specifications. Development of a DCP is required. All construction activities shall be governed by the DCP. The nature and extent of dust generating activities, and specific control techniques appropriate to specific situations shall be discussed at the pre-construction meeting, with subsequent development of the DCP to include but not be limited to the requirements below.

General Requirements. The Contractor is responsible for the control of dust at all times during the duration of the contract, 24 hours per day, 7 days per week, including non-working hours, weekends, and holidays. This work shall be considered complete after the completion of all permanent erosion control measures required for the contract, and after all temporary and permanent seeding is established.

Work on this contract shall be conducted in a manner that will not result in generating excessive total nuisance dust conditions or air borne particulate matter ($PM_{2.5}$). The IEPA will provide the Baseline Air Sampling in areas where there is no construction on the Circle Interchange. Two air quality monitoring locations have been identified; the UIC Student Recreational Building and IDOT Pump Station No. 5.

Following the baseline establishment, air quality will be monitored for total nuisance dust and air borne particulate matter ($PM_{2.5}$) as shown in the table below. Real-time monitoring will be conducted at the two locations adjacent to Circle Interchange. If during real-time monitoring there are exceedances of the screening standards, the Engineer will contact the Contractor and activities will cease and corrective actions will be developed.

Air Sample/Screening Standards			
Parameter	**Concentration**	**Basis**	
Total Nuisance Dust	335 $\mu g/m^3$	IEPA/IDPH	
$PM_{2.5}$	35 $\mu g/m^3$	24 hours	NAAQS

Notes: NAAQS = National Ambient Air Quality Standards
IEPA = Illinois Environmental Protection Agency
IDPH = Illinois Department of Public Health

The DCP shall describe the plan for the implementation of control measures before, during and after conducting any dust generating operation. These controls must be in place on non-working days and after working hours, not just while work is being done on the site. The DCP must contain information specific to the project site, proposed work, and dust control measures to be implemented. A copy of the DCP must be available on the project site at all times.

The DCP must contain, at a minimum, all of the following information:

1. Name, address and phone number of the person(s) responsible for the dust generating operation and for the submittal and implementation of the DCP.
2. A drawing specifying the site boundaries of the project with the areas to be disturbed, the locations of the nearest public roads, and all planned exit and entrance locations to the site from any paved public roadways.
3. Control measures to be applied to all actual and potential fugitive dust sources before, during and after conducting any dust generating operation, including non-work hours and non-work days.
4. A contingency plan consisting of at least one contingency measure for each activity occurring on the site in case the primary control measure proves inadequate.

The Contractor shall submit two copies of the DCP that outlines in detail the measures to be implemented by the Contractor complying with this section, including prevention, cleanup, and other measures at least 14 days before beginning any dust generating activity. The Contractor shall not begin any dust generating activities until the Engineer approves the DCP in writing.

Materials.

1. Dust Suppression Agents: Water shall meet the requirements of Section 1002 of the Standard Specifications.
2. Soil stabilizers shall consist of seed and mulch meeting the requirements of Article 1081.06 (a) (2) and (3).
3. Covers for stockpiles shall be commercially available plastic tarps, or other materials approved by the Engineer.

Construction Methods. Water shall be used to provide temporary control of dust on entrances/exits to the job site, haul roads and other active work areas. Several applications per day may be necessary to control dust depending upon meteorological conditions and work activity. The Contractor shall apply water on a routine basis as necessary or as directed by the Engineer to control dust. Wet suppression consists of the application of water. Wet suppression equipment shall consist of sprinkler pipelines, tanks, tank trucks or other devices approved by the Engineer, capable of providing a regulated flow, uniform spray and positive shut off.

Haul truck cargo areas shall be securely covered during the transport of materials on public roadways that are prone to cause dust.

Public Roadway Dust Control. Trackout, including carryout and spillage of material that adheres to the exterior surfaces of or are spilled from motor vehicles and/or equipment and subsequently fall onto a paved public roadway must be controlled at all times. Clean up of carryout and spillage is required immediately if it extends a cumulative distance of 50 feet or more on a paved public roadway. If the extent of carryout is less than 50 feet, clean up at the end of the day is permissible. Clean up of paved surfaces shall be by wet spray power vacuum street sweeper. Dry power sweeping is prohibited.

Control of Earthwork Dust. During batch drop operations (i.e. earthwork with a front-end loader, clamshell bucket, or backhoe), the free drop height of excavated or aggregate material shall be reduced to minimum heights as necessary to perform the specified task, and to minimize the generation of dust. To prevent spills during transport, a minimum of 2 inches of freeboard space shall be maintained between the material load and the top of the truck cargo bed rail. A maximum drop height of two feet (or minimum height allowed by equipment) will be allowed, or to heights as directed by the Engineer.

Control of Dust on Stockpiles and Inactive Work Areas. The Contractor shall use the following methods to control dust and wind erosion of stockpiles and inactive areas of disturbed soil:

1. Water shall be used during active stockpile load-in, load-out, and maintenance activities.
2. Soil stabilizers (hydraulic or chemical mulch) may be applied to the surface of inactive stockpiles and other inactive areas of disturbed soil. Final grading and seeding of inactive areas shall occur immediately after construction activity is completed in an area and as directed by the Engineer.
3. Plastic tarps may be used on small stockpiles, secured with sandbags or an equivalent method approved by the Engineer, to prevent the cover from being dislodged by the wind. The Contractor shall repair or replace the covers whenever damaged or dislodged at no additional cost.

Method of Measurement. Water used as a dust suppression measure shall be measured for payment in units of 1000 Gallons of water applied. All measuring devices shall be furnished by the Contractor and approved by the Engineer. All other dust control measures will not be measured for payment.

Basis of Payment. The application of water as a dust suppression agent will be paid for at the contract unit price per unit for DUST CONTROL WATERING.

All other dust control measures, along with preparation of the DCP, will not be paid for directly but shall be considered as included in the various items involved and no additional compensation will be allowed.

RAILROAD PROTECTIVE LIABILITY INSURANCE (BDE)

Effective: December 1, 1986
Revised: January 1, 2006

Description. Railroad Protective Liability and Property Damage Liability Insurance shall be carried according to Article 107.11 of the Standard Specifications. A separate policy is required for each railroad unless otherwise noted.

NAMED INSURED & ADDRESS	NUMBER & SPEED OF PASSENGER TRAINS	NUMBER & SPEED OF FREIGHT TRAINS
Chicago Transit Authority (CTA) 567 West Lake Street P.O.Box 7598 Chicago IL 60680-7598	Blue Line 382 trains/day@55mph.	-0-

DOT/AAR No.: N/A
RR Division: CTA
RR Mile Post: N/A
RR Sub-Division: Blue Line

For Freight/Passenger Information Contact: Mr. Abdin Carrillo Phone: 312-681-3913
For Insurance Information Contact: Tamika Press Phone: 312-681-2901

Approval of Insurance. The original and one certified copy of each required policy shall be submitted to the following address for approval:

Illinois Department of Transportation
Bureau of Design and Environment
2300 South Dirksen Parkway, Room 326
Springfield, Illinois 62764

The Contractor will be advised when the Department has received approval of the insurance from the railroad(s). Before any work begins on railroad right-of-way, the Contractor shall submit to the Engineer evidence that the required insurance has been approved by the railroad(s). The Contractor shall also provide the Engineer with the expiration date of each required policy.

Basis of Payment. Providing Railroad Protective Liability and Property Damage Liability Insurance will be paid for at the contract unit price per Lump Sum for RAILROAD PROTECTIVE LIABILITY INSURANCE.

SELECTIVE CLEARING

Description. This work shall consist of extensive removal and disposal of shrubs, brush, fallen trees and limbs, and debris (including rocks, bottles, etc.) . 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 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 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.

MOWING (SELECTIVE)

Description: This work shall consist of mowing, hand trimming, or if necessary, removal of weeds in various ground cover types (native grass, forbs, etc.) to various heights (2" to 8") dependent on type of native area (prairie, wetland, etc). When spot mowing for individual weed species, care shall be taken so the surrounding native or planted vegetation is not damaged. These areas may not be able to be mowed with typical roadside mowing equipment. Locations for Mowing (Selective) shall be designated by the Engineer.

Schedule and Height of Mowing: When vegetation reaches a height of 12" in native grass areas or as directed by the Engineer. When the Engineer directs the Contractor to do selective mowing, the Contractor must begin the selective mowing operation within 72 hours of notice.

Individual weed species such as sweet clover (*Melilotus* spp.) garlic mustard (*Alliaria petiolata*), and others may be targeted and shall be mowed to ground level during the appropriate growth stage.

Equipment: The Contractor shall keep all mowing equipment sharp and properly equipped for operation within an urban expressway. The equipment used shall be capable of completely severing all growth at the cutting height and distributing it evenly over the mowed area. All mowing equipment used MUST BE WASHED prior to entering the site. Washing is required to prevent the accidental introduction and spread of weed species into naturalized areas. If mowing equipment is not clean at time of work, the Resident Engineer will reject use of this machinery until it is proven clean. Special equipment may be required to cut small, designated areas.

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. When amount of cut vegetation is heavy, cut vegetation shall be removed to prevent destruction of underlying turf and/or disrupting water flow. If weeds (teasel, thistle, etc) or other undesirable vegetation threatens to introduce seed into naturalized area, 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.

Remove litter, including plastic bags, paper, bottles, etc. prior to mowing. Debris encountered during the mowing operations 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.

All selective mowed areas shall be trimmed 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: Mowing (Selective) will be measured in units of 1,000 square feet 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. 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 MOWING (SELECTIVE). Any additional mowing or trimming required to obtain the height specified 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.

ANTI-GRAFFITI COATING

Description: This work shall consist of the surface preparation, furnishing and application of an anti-graffiti coating to exposed concrete surfaces designated on the plans according to the manufacturer's recommendations. The Contractor shall furnish all materials, equipment, labor, and other essentials necessary to accomplish this work and all other work described herein or as directed by the Engineer.

General Requirements:
Refer to new construction work phases and landscape establishment work for completion schedule.

Product Features: Anti-graffiti coating shall be a single-component, non-sacrificial siloxane coating intended to cure with atmospheric moisture and is intended for use over properly prepared concrete surfaces. Coating shall dry as a matte, semi-gloss, or satin finish. A high gloss finish is unacceptable. The application of the coating product shall be clear and not result in yellowing or color change to the surface.

The anti-graffiti coating shall be a low volatile organic content (VOC) material, with a VOC less than 250 grams/liter. It shall have a minimum 10-year unlimited warranty for graffiti removals that can be cleaned an unlimited number of times without requiring reapplication of the anti-graffiti coating.

The coating shall have the capability of having all types of paints and graffiti completely removed with power washing with cold water. After graffiti removal there shall be no damage to the anti-graffiti coating or the surface to which it is applied. Additionally, there shall be no evidence of ghosting, shadowing, staining, streaking, cracking, pin holing, discolorations, or other degradations of the protected surface upon removal of graffiti.

Acceptable products include:

Pro-Industrial Anti-Graffiti Coating by Sherwin Williams
Si-COAT 530 by CSL Silicones Inc.
VandlGuard Non-Sacrificial Anti-Graffiti Coating by RainguardPro
Or equal

Submittals: The anti-graffiti coating shall be a product that has been commercially available for a period of at least five (5) years. The Contractor shall submit the following items to the Engineer:

- Written evidence that the installer for the work has completed at least 5 projects of similar complexity within the past five years.
- Product identification including brand name and product number
- Batch number for manufactured date and must be within shell life of material
- Complete manufacturer's recommendation for usage

- Available product data sheets, Material Safety Data Sheets (MSDS), information verifying compliance to VOC limitations as outlined above, test data and reports
- A one-liter (one quart) representative sample
- Provide written application instructions from the manufacturer, which shall include recommended application equipment, application methods and rates, surface preparation requirements and other applicable manufacturer's recommendations.

Approval of the coating shall be based upon the following:

1. A technical representative of the manufacturer shall be present to approve surface preparation and application of the anti-graffiti coating. The Contractor shall apply the anti-graffiti coating to a test panel/area following the manufacturer's recommendation to determine acceptable application rate and method. After the manufacturer's recommended curing period, the Engineer will apply various types of graffiti materials to the coating. After seven (7) days, in the presence of the Engineer, the Contractor shall remove the graffiti with a power washer using cold water.
2. If after graffiti removal, the test sample exhibits no signs of graffiti or graffiti staining upon inspection by the Engineer.
3. If after graffiti removal, the anti-graffiti coating is clean and undamaged upon inspection by the Engineer.
4. If after graffiti removal, the coating must be intact and exhibit no signs of ghosting, shadowing, staining, streaking, cracking, pin holing, discoloring, or other coating degradations upon inspection upon inspection by the Engineer.
5. If all requirements are met, written approval will be provided by the Engineer prior to starting application.

Method:
Surface Preparation: A technical representative of the manufacturer and the Engineer shall be present to approve surface preparation and application of the Anti-Graffiti Coating. Concrete retaining walls shall be cleaned and prepared in accordance with product requirements and all existing graffiti completely removed prior to application of coating.

Prior to application of the anti-graffiti coating, all designated surfaces shall be free of graffiti, dirt, dust, chalking paint, mortar spatter, all loose rust, all loose mill scale, old caulking, grease, oil, release agents, curing compounds, laitance and other foreign matter including frost by a method as recommended by the coating manufacturer and approved by the Engineer. All surfaces shall be thoroughly clean, dry, and free of dust that might prevent penetration of the coating.

Surface preparation for all concrete surfaces shall comply with the manufacturer's recommendations.

Surface preparation may include the use of the manufacturer's pre-treatment products.

Weather Conditions: Coatings shall neither be applied in the rain, snow, fog, mist, nor shall they be applied if these conditions are expected within twelve (12) hours of application. Coatings shall neither be applied when the surface or air temperatures are less than 41º F nor greater than 100º F or is expected to exceed these temperatures within twelve (12) hours of application or as recommended by the manufacturer.

Application: All surfaces should be clean and dry prior to application. The coating should be applied in a manner that prevents runs, sags, drips, spills, etc. and that completely covers surfaces without leaving gaps. The paint temperature should be a temperature of 50°F. The air temperature should be a minimum of 40°F and a maximum of 120°F. The temperature of the surface to be coated should be between 40° and 140°F and environmental & substrate temperature should be at least 5°F (3°C) above the dew point prior to and during application. When working with product in high humidity and/or high temperature environments, it is recommended to use a pail lid adapter fitted with an agitator. This will prevent the product from skinning over and curing in the pail during application. Ideally apply using brush or roller; may also be applied using an airless sprayer, but it is not recommended, as it will leave a milky appearance.

Application shall be by means of brush, roller, or sprayer in accordance with the manufacturer's recommendations. The number of coats applied shall be in accordance with the manufacturer's recommendations. Coating material shall not be diluted in any way. A consistent application method shall be used throughout the project.

All information contained in the data sheets and application guides shall be strictly followed. All coatings shall be applied in the presence of the Engineer.

The Contractor shall monitor the surfaces where the Anti-Graffiti coating was applied and remove any graffiti that appears before the curing period.

After the manufacturer's recommended curing period for the anti-graffiti coating, the Engineer will apply various types of graffiti materials to the coating. After three days the removal agent shall be used to remove the graffiti. If after graffiti removal the anti-graffiti coating is clean and undamaged with no evidence of ghosting, shadowing, or staining then the anti-graffiti coating shall be approved and accepted.

Cleaning Agent: The Contractor shall supply the Engineer with an initial quantity of the removal agent and written instructions for its use, as recommended by the manufacturer for graffiti removal. The amount shall be furnished at the rate of 1 quart per 200 square feet of treated surface area.

Application Rate: Apply at a rate that will achieve a minimum of 6 mils DFT and a maximum of 9 mils DFT. Roller and brush application will require multiple coats to achieve desired DFT. A consistent application method shall be used throughout project.

Work Stoppages & Restarts: Work stoppages and restarts are not recommended along a single length of wall. If necessary, coordinate product protection with manufacturer to ensure proper storage and reuse.

Method of Measurement: Anti-graffiti coating will be measured in place in square feet applied.

Basis of Payment: This work will be paid for at the contract unit price per square foot of ANTI-GRAFFITI COATING which price shall include all materials, equipment, and labor necessary to complete the work as specified.

AIR QUALITY COMPLIANCE

Description. This work includes meeting or exceeding air quality requirements described herein, other Special Provision sections and the Standard Specifications.

General. The Contractor shall meet standards established to minimize air quality impacts due to construction activities. The obligations by the Contractor include the following:

Air Quality Plan – Prior to the start of construction activities, the Contractor will be supplied an Air Quality Plan developed by the Engineer. The Plan will serve as a guidance document for the duration of construction activities. The Air Quality Plan is intended to identify maximum thresholds of dust levels, particulate matter and diesel components in the air in and around the project site and will incorporate requirements identified within the Special Provisions. Baseline sampling in nearby areas without construction activity will be performed by the IEPA. Real-time monitoring will be conducted at the two locations adjacent to Circle Interchange. If during real-time monitoring there are exceedances of the screening standards, the Engineer will contact the Contractor and activities will cease and corrective actions will be developed.

Dust Control Plan – The Contractor shall comply with the requirements of CONSTRUCTION AIR QUALITY – DUST CONTROL in addition to Article 107.36 of the Standard Specifications.

Diesel Emissions – The maximum concentration of Diesel Components (PAHs) in sampled air shall not exceed 1 $\mu g/m^3$, which is above the Chicago background level according to the IEPA. Following receipt of laboratory data that indicate exceedances of screening standards for diesel components as PAHs, IDOT will investigate the activity that was being performed at the time of the exceedance. IDOT will document the exceedance in the monthly report. Observations of consistent patterns in exceedances and potential corresponding work activities will assist in developing measures to manage the activity that caused the exceedance. Factors that will be evaluated include the activity being performed, the equipment being used for the activity, weather conditions, and general air quality at the time of the exceedance.

Construction Requirements. To ensure a prompt response to incidents involving the integrity of work zone Air Quality, the Contractor shall provide a telephone number where a responsible individual can be contacted on a 24 hour a day basis.

When the Engineer is notified, or determines, that an environmental control deficiency exists, he/she will notify the Contractor in writing, and direct the Contractor to correct the deficiency within a specified time frame. The specified time frame, which begins upon Contractor notification, will be from 1/2 hour to 24 hours long, and is based on the urgency of the situation and the nature of the deficiency. The Contractor may appeal the indicated deficiency to the Engineer on the grounds that the deficiency was caused by actions by a separate contractor, agency or public entity. The Engineer shall be the sole judge of these conditions and any appeal by the Contractor.

The deficiency may include lack of repair, maintenance or non-compliance with the related Articles of the Standard Specifications, the CONSTRUCTION AIR QUALITY – DUST CONTROL Special Provision and this Special Provision.

If the Contractor fails to respond within the allotted time frame, the Engineer may take action to correct the deficiency, or may cause the correction of the deficiency to be made by others, the cost thereof being deducted from monies due or which may become due the Contractor. This corrective action will in no way relieve the Contractor of his/her contractual requirements or responsibilities, and shall not be grounds for any claim.

If the Contractor accumulates three (3) environmental deficiency deductions for the same deficiency, all related Contractor activities will be shut down until the deficiency is corrected. Such a shutdown will not be grounds for any extension of the completion date, waiver of penalties, or be grounds for any claim.

Basis of Payment. This work will not be paid for separately. All obligations described herein are included associated pay items. No extension of the completion date, waiver of penalties or claims shall arise from any Contractor activity shut down enacted due to deficiencies described herein.

STONE OUTCROPPING

Description: This work shall consist of all labor and material necessary to furnish and satisfactorily install the limestone outcropping stones at locations as shown in the plans and as directed by the Engineer.

Work shall not be allowed when ground is muddy or during heavy rain.

Qualification: Contractor and crew shall have a least five years of experience installing natural stone on projects of similar nature. References shall be submitted to the Engineer.

Materials

A. Dimensional Characteristics of Stone Outcropping:

1. Stone shall comply with the requirements of ASTM Specification C 568-89 (Standard Specification for Limestone Dimension Stone). In Section 4, Article 4.1.3. for Class III high density limestone requirements shall apply.

2.

	TYPE 1	TYPE 2
Stone Size:	10”H x 48”W x 30”D	14”H x 60”W x 36”D
Façade:	Weathered	Weathered
Color:	Buff	Buff

3. The stone shall be 50% Type 1 stone and 50% Type 2 stone.
4. Obtain limestone from a single quarry source with resources to provide materials of specified consistent quality. The quarry shall have sufficient capacity to quarry, cut, and deliver the stonework on schedule.
5. The Contractor shall only use stone for this work that has been inspected and approved at the quarry by the Engineer.
6. Inspection of stone will be made at the quarry by the Engineer. The Department reserves the right to place identification markings on any or all stone selected.
7. The Contractor shall provide the Engineer thirty (30) calendar days Advance notice of the Limestone Outcropping Stone to be inspected. Call the Roadside Development Unit at 847-705-4171.
8. Approval of material on such an examination shall not be construed as an acceptance of it.

B. Base Material

Base Material shall consist of compacted sand and/or gravel as shown on the construction drawings. A minimum of four inches (4”) of compacted footing is required.

C. Backfill

1. Material shall be native material unless otherwise specified in the drawings.
2. Where additional fill is required, Contractor shall supply and backfill with topsoil.

Delivery, Storage, and Handling

A. The cut limestone shall be carefully packed for transportation with exercise of all customary and reasonable precautions against damage in transit.

B. Contractor shall check the materials upon delivery to assure that proper material has been received.

C. Store and handle stones to prevent their deterioration or damage:
- Do not use pinch or wrecking bars on stone.
- Lift with wide-belt type slings where possible; do not use wire rope or ropes containing tar or other substance which might cause staining.

D. All stone shall be received and unloaded at the site with necessary care in handling to avoid damaging or soiling. Stone shall be stored clear of the ground on non-staining skids or pallets (cypress, white pine, poplar, or yellow pine without an excessive amount of resin). Chemically treated wood should not be used. DO NOT use chestnut, walnut, oak, fir, and other woods containing tannins. Place and stack skids and stone to distribute weight evenly and to prevent breakage or cracking stones.

E. Contractor shall protect stone outcropping from excessive mud, wet cement, epoxy, and like materials which may come into contact and affix themselves to the stone.

F. Contractor shall protect the materials from damage. Some chipping is expected; repair of small chips is not required if it does not distract from the overall appearance of the work. The acceptance of chips will be by the Engineer. Structurally or aesthetically damaged material shall not be incorporated into the stone outcropping.

Equipment: Levels, shovels, tap bars, over-sized crowbars, and other miscellaneous hand equipment must be available to place and adjust the stones to the satisfaction of the Engineer. Special equipment may be required such as a crane, an all-terrain forklift, and/or a tele-handler to complete this work.

Installation

A. Excavation
   1. Contractor shall excavate to the lines and grades shown on the Construction drawings. Over-excavation shall not be paid for and replacement with compacted fill will be required at the Contractor's expense. Contractor shall be careful not to disturb embankment materials beyond lines shown.

B. Base Material

1. Base material shall be placed as shown on the construction drawings with at minimum thickness of 4 inches (4”).
2. Base materials shall be installed upon undisturbed native soils.
3. Material shall be compacted to provide a level hard surface on which to place the stone outcroppings.
4. Base shall be prepared to insure complete contact of stone outcropping.

C. Stone Installation

1. Outcropping stone shall be placed on the prepared base. The stones shall be checked for level and alignment.
2. Ensure that stones are in full contact with base. Unstable stones will not be allowed.
3. Contractor will be required to level or rotate stones to create the desired artistic effect.
4. Stones shall be used to create an artistic arrangement as determined by the Engineer. Work must be done in presence of the Engineer. **Contact the Roadside Development Unit at (847) 705-4171 at least 7 days prior to date of installation.**

D. Cleaning

1. Finished stonework shall be washed clean and free of dirt and other objectionable accumulations.
2. Cleaning required shall include brushing with fiber brushes and mild soap or detergent and rinsing with clear water.
3. Use of sandblasting, wire brushes or acids will only be permitted under special circumstances and when approved by the Engineer.
4. Power cleaning systems which will not harm stone may be used.

Method of Measurement: Stone outcropping will be measured per each stone for payment installed in place. Stone outcropping will be measure as each individual stone outcropping.

If the inspection discloses any work as being unsatisfactory, the Engineer will give the Contractor the necessary instructions for correction, and the Contractor shall immediately comply with such instructions and correct the unsatisfactory work. The limits and magnitude of the repairs are the discretion of the Engineer. The cost of any repair shall be included in the cost Stone Outcropping and will not be paid for separately.

Final acceptance will not be made until the stone is placed and adjusted to the satisfaction of the Engineer.

Basis of Payment: This work will be paid for at the contract unit price per stone for STONE OUTCROPPING which price shall include all labor, transportation, materials, excavation, loading, unloading, furnishing and placing the base, placing and installing stone outcropping, equipment necessary to install the stone outcropping, topsoil backfill, clean-up, and disposal of all materials off-site, and incidentals required to complete the work as specified herein to the satisfaction of the Engineer.

STORM WATER POLLUTION PREVENTION PLAN

Illinois Department of Transportation

Storm Water Pollution Prevention Plan

Route	Marked Route	Section Number
FAI 90/94/290	I-90/94	2014-012LS
Project Number	**County**	**Contract Number**
C-91-278-14	Cook	60X98

This plan has been prepared to comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit No. ILR10 (Permit ILR10), issued by the Illinois Environmental Protection Agency (IEPA) for storm water discharges from construction site activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature	Date
	11/22/21

Print Name	Title	Agency
Jose Rios	Regional Engineer	Illinois Department of Transportation

Note: Guidance on preparing each section of BDE 2342 can be found in Chapter 41 of the IDOT Bureau of Design and Environment (BDE) Manual. Chapter 41 and this form also reference the IDOT Drainage Manual which should be readily available.

I. Site Description:

A. Provide a description of the project location; include latitude and longitude, section, town, and range:

The project is located along FAI Route 90/94/290 beginning near W. Roosevelt Road on the south (41° 51' 55.73" latitude; 87° 38' 39.97" longitude) to Lake Street on the north (41° 53' 09.58" latitude; 87° 38' 45.47" longitude) to the north in Chicago, Cook County, IL. Section 16, Township 39N, Range 14E. The gross and net length of the project is 7,340.00 feet (1.390 miles).

The design, installation, and maintenance of BMPs at these locations are within an area where annual erosivity (R value) is less than or equal to 160. Erosivity is less than 5 in all two-week periods between October 12 and April 15, which would qualify for a construction rainfall erosivity waiver under the US Construction General Permit requirements. At these locations, erosivity is highest in spring to autumn, April 16 - October 11.

B. Provide a description of the construction activity which is the subject of this plan. Include the number of construction stages, drainage improvements, in-stream work, installation, maintenance, removal of erosion measures, and permanent stabilization:

The work consists of landscaping in the infield areas at the interchange of I-90/94, I-290 and Ida B. Wells Drive. The work also consists of landscaping behind retaining walls and between exit ramps and the mainline on the along each side of I-90/94 between Roosevelt Road and Lake Street. The work also consists of landscaping north of Westbound I-290 between Morgan Street and Racine Street and south of Eastbound I-290 west of Morgan Street.

Work includes landscaping, irrigation system replacement, erosion control and protection, special waste excavation, earth excavation and embankment, traffic control and protection, urban enhancements and all incidental and collateral work necessary to complete the improvements as shown on the Plans and as described herein.

C. Provide the estimated duration of this project:

34 months

D. The total area of the construction site is estimated to be 77.7 acres.

The total area of the site estimated to be disturbed by excavation, grading or other activities is 12.0 acres.

E. The following are weighted averages of the runoff coefficient for this project before and after construction activities are completed; see Section 4-102 of the IDOT Drainage Manual:

C=0.79 (Existing); C=0.79 (Proposed)

F. List all soils found within project boundaries; include map unit name, slope information, and erosivity:

NRCS Soil Survey classification classifies the site soil map unit name as urban land and the map unit symbol is 533. NRCS Soil Survey does not list an erosivity factor for urban land.

For I-90/94 Mainline, the general lithologic succession encountered beneath the topsoil/pavement, in descending order, the general lithologic succession encountered beneath the topsoil/pavement, in descending order, includes:
1) man-made ground (fill); 2) medium stiff to hard silty clay; 3) very soft to medium stiff clay;

G. If wetlands were delineated for this project, provide an extent of wetland acreage at the site; see Phase I report:

No wetlands were identified on site.

H. Provide a description of potentially erosive areas associated with this project:

Potentially erosive areas are along the embankments adjacent to the EB/WB I-290 and NB/SB I-90/94.

I. The following is a description of soil disturbing activities by stages, their locations, and their erosive factors (e.g., steepness of slopes, length of slopes, etc.):

All Stages.
Installation of temporary and permanent erosion and sediment control items as listed in the EC plans.
Installation of landscaping items as show in the landscaping plans.

J. See the erosion control plans and/or drainage plans for this contract for information regarding drainage patterns, approximate slopes anticipated before and after major grading activities, locations where vehicles enter or exit the site and controls to prevent offsite sediment tracking (to be added after contractor identifies locations), areas of soil disturbance, the location of major structural and non-structural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters (including wetlands) , and locations where storm water is discharged to surface water including wetlands.

K. Identify who owns the drainage system (municipality or agency) this project will drain into:

IDOT / City of Chicago

L. The following is a list of General NPDES ILR40 permittees within whose reporting jurisdiction this project is located:

City of Chicago / Cook County / IDOT / Metropolitan Water Reclamation District of Greater Chicago (MWRD)

M. The following is a list of receiving water(s) and the ultimate receiving water(s) for this site. In addition, include receiving waters that are listed as Biologically Significant Streams by the Illinois Department of Natural Resources (IDNR). The location of the receiving waters can be found on the erosion and sediment control plans:

The area south of EB I-290 to the north of Taylor Street for SB and NB I-90/94 drains into the proposed storm sewer systems which all drain into the proposed underground detention system underneath the accideent investigation site between Harrison Street and Polk Street. A junction chamber will be install to connect the underground detention system to the existing 4'-6" x 5'-0" main drain sewer which then becomes the 5'-10 1/4" W x 6'6"H south of Cabrini Street. THe areas beween SB and NB I-90/94 sout hof Taylor street to Roosevelt road drains into proposed storm sewer systems that draing into the existing 5' 10 1/4" W x 6'6" H main drain. The

existing main drain outlets to the Pump Station #26. Pump Station #26 outfalls at the South Union Avenue interceptor sewer.

I-90/94 from I-290 to the Monroe St. drains to the existing 7'-2 3/8" x 8'-0" main drain sewer and outlets to Pump Station #5 which discharges into the South Branch Chicago River via a 48" diameter pipe at the southwest corner of Van Buren Street and Des Plaines Street. The pipe outlets into an existing 60" diameter brick sewer near Clinton Street before outletting into the South Branch of the Chicago River. Pump Station #26 will receive portions of overflow from Pump Station #5.

I-90/94 from Monroe St. to Lake St. drains to the existing 6'-4 3/4" x 8'-0" main drain sewer and outlets to Pump Station #22. Pump Station #22 discharges into a 10'-6"W x 11'-8"H MWRD combined sewer system at the southwest corner Fulton Street and N. Union Avenue.

The South Branch Chicago River will be the ultimate receiving water for this site and is not identified by the IDNR as a "biologically significant stream". The South Branch Chicago River (segment IL_HC-01) is listed on the 2014 IEPA 303(d) list as impaired for the designated use of fish consumption due to the PCBs and the indigenous aquatic life use as being impaired by dissolved oxygen, total dissolved solids, and phosphorous (Total). No TMDLs are currently being developed for these impairments.

N. Describe areas of the site that are to be protected or remain undisturbed. These areas may include steep slopes (i.e., 1:3 or steeper), highly erodible soils, streams, stream buffers, specimen trees, natural vegetation, nature preserves, etc. Include any commitments or requirements to protect adjacent wetlands.

For any storm water discharges from construction activities within 50-feet of Waters of the U.S. (except for activities for water-dependent structures authorized by a Section 404 permit, describe: a) How a 50-foot undisturbed natural buffer will be provided between the construction activity and the Waters of the U.S. or b) How additional erosion and sediment controls will be provided within that area.

Existing trees that will not be impacted during construction will need to be protected as shown on the plans.

O. Per the Phase I document, the following sensitive environmental resources are associated with this project and may have the potential to be impacted by the proposed development. Further guidance on these resources is available in Section 41-4 of the BDE Manual.

☐ 303(d) Listed receiving waters for suspended solids, turbidity, or siltation.
The name(s) of the listed water body, and identification of all pollutants causing impairment:

Provide a description of how erosion and sediment control practices will prevent a discharge of sediment resulting from a storm event equal to or greater than a twenty-five (25) year, twenty-four (24) hour rainfall event:

Provide a description of the location(s) of direct discharge from the project site to the 303(d) water body:

Provide a description of the location(s) of any dewatering discharges to the MS4 and/or water body:

☐ Applicable Federal, Tribal, State, or Local Programs

☐ Floodplain

☐ Historic Preservation

☐ Receiving waters with Total Maximum Daily Load (TMDL) for sediment, total suspended solids, turbidity or siltation

TMDL (fill out this section if checked above)

The name(s) of the listed water body:

Provide a description of the erosion and sediment control strategy that will be incorporated into the site design that is consistent with the assumptions and requirements of the TMDL:

If a specific numeric waste load allocation has been established that would apply to the project's discharges, provide a description of the necessary steps to meet that allocation:

☐ Threatened and Endangered Species/Illinois Natural Areas (INAI)/Nature Preserves

☐ Other

☐ Wetland

P. The following pollutants of concern will be associated with this construction project:

- ☒ Antifreeze / Coolants
- ☒ Concrete
- ☒ Concrete Curing Compounds
- ☒ Concrete Truck Waste
- ☒ Fertilizers / Pesticides
- ☒ Paints
- ☒ Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids)
- ☒ Soil Sediment
- ☒ Solid Waste Debris
- ☒ Solvents
- ☒ Waste water from cleaning construction equipments
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____

II. Controls:

This section of the plan addresses the controls that will be implemented for each of the major construction activities described in Section I.C above and for all use areas, borrow sites, and waste sites. For each measure discussed, the Contractor will be responsible for its implementation as indicated. The Contractor shall provide to the Resident Engineer a plan for the implementation of the measures indicated. The Contractor, and subcontractors, will notify the Resident Engineer of any proposed changes, maintenance, or modifications to keep construction activities compliant with the Permit ILR10. Each such Contractor has signed the required certification on forms which are attached to, and are a part of, this plan:

A. **Erosion and Sediment Controls:** At a minimum, controls must be coordinated, installed and maintained to:

1. Minimize the amount of soil exposed during construction activity;
2. Minimize the disturbance of steep slopes;
3. Maintain natural buffers around surface waters, direct storm water to vegetated areas to increase sediment removal and maximize storm water infiltration, unless infeasible;
4. Minimize soil compaction and, unless infeasible, preserve topsoil.

B. **Stabilization Practices:** Provided below is a description of interim and permanent stabilization practices, including site- specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include but are not limited to: temporary seeding, permanent seeding, mulching, geotextiles, sodding, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided below in II.B.1 and II.B.2, stabilization measures shall be initiated **immediately** where construction activities have temporarily or permanently ceased, but in no case more than **one (1) day** after the construction activity in that portion of the site has temporarily or permanently ceases on all disturbed portions of the site where construction will not occur for a period of fourteen (14) or more calendar days.

1. Where the initiation of stabilization measures is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.

2. On areas where construction activity has temporarily ceased and will resume after fourteen (14) days, a temporary stabilization method can be used.

The following stabilization practices will be used for this project:

- ☒ Erosion Control Blanket / Mulching
- ☐ Geotextiles
- ☒ Permanent Seeding
- ☐ Preservation of Mature Seeding
- ☒ Protection of Trees
- ☒ Sodding
- ☒ Temporary Erosion Control Seeding
- ☐ Temporary Turf (Seeding, Class 7)
- ☒ Temporary Mulching
- ☐ Vegetated Buffer Strips
- ☒ Other (Specify) Surface Roughening
- ☒ Other (Specify) Mulch Method 2
- ☒ Other (Specify) Stabilized Flow Line
- ☐ Other (Specify) _____

Describe how the stabilization practices listed above will be utilized during construction:

Refer to the Erosion and Sedimentation Control plan sheets for the contract for the specific stabilization practices called out for temporary conditions during construction. Temporary and permanent stabilization shall be completed during the current stage prior to switching traffic to the next stage. Stabilization controls runoff volume and velocity, peak runoff rates and volumes of discharges to minimize exposed soil, disturbed slopes, sediment discharges from the construction and provide for natural buffers and minimization of soil compaction. Existing vegetated areas where disturbance can be avoided will not require stabilization.

Where possible, stabilization of the initial Stage should be completed before work is moved to subsquent stages.

Protection of Trees: Areas of trees, shrubs and other woody vegetation designated to remain undisturbed during any stage of construction shall be protected. Clearly delineate protected areas prior to clearing/grubbing or other soil disturbing activities.

Temporary Erosion Control Seeding: This item will be applied to all bare areas every seven days to minimize the amount of exposed surface area. Earth stockpiles shall be temporarily seeded if they are to remain unused for more than 14 days. Within the construction limits, areas which may be susceptible to erosion as determined by the Engineer shall remain undisturbed until full scale construction is underway to prevent unnecessary soil erosion. Bare and sparsely vegetated ground in highly erodible areas as determined by the Engineer shall be temporarily seeded at the beginning of construction where no construction activities are expected within seven days, regardless of when permanent stabilization is anticipated.

Temporary Mulching: Mulch is applied to temporary erosion control seeding to allow for the seeding to take hold in the ground and grow. Without the mulching, the seeding will be displaced by wind and rain and therefore would not grow. Mulch will be paid separately from temporary seeding and shall conform to Section 251 of the Standard Specifications. Mulch Method 2 and surface roughening shall be used for temporary stabilization during winter in addition to temporary erosion control seeding when grading will occur after September 30th because temporary seed will not germinate to provide erosion control protection until the following spring.

Surface Roughening: All slopes steeper than 3:1 (horizontal to vertical) shall be surface roughened by either stair-step grading, grooving, or tracking. Areas with slopes flatter than 3:1 shall have the soil surface lightly

roughened and loosed to a depth of 2 to 4 inches prior to seeding. Surface roughening is included in the cost of Mulch, Method 2 or Mulch, Method 4.

Stabilized Flow Line: The Contractor should provide to the RE a plan to ensure that a stabilized flow line will be provided during storm sewer construction. The use of a stabilized flow line between installed storm sewer and open disturbance will reduce the potential for the offsite discharge of sediment bearing waters, particularly when rain is forecasted so that flow will not erode. Lack of an approved plan or failure to comply will result in an ESC Deficiency Deduction.

Describe how the stabilization practices listed above will be utilized after construction activities have been completed:

Refer to the Permanent Erosion and Sedimentation Control plan sheets for the contract for the specific stabilization practices used for permanent conditions after construction activities. All areas disturbed by construction will be stabilized with permanent seeding and erosion control blanket or sodding. Stabilization controls runoff volume and velocity, peak runoff rates and volumes of discharge to minimize exposed soil, disturbed slopes, and provides natural buffers and minimization of soil compaction. Existing vegetated areas where disturbance can be avoided will not require stabilization.

Permanent Seeding: Seeding, Class 2A will be installed per IDOT specifications to areas where there will be no more disturbance. The seeding will keep the soil from eroding due to natural conditions (wind, rain, etc.) Erosion Control Blanket: Erosion Control Blankets will be installed over all areas to be permanently seeded to protect slopes from erosion and allow seeds to germinate and allow the seeding to take hold in the ground and grow. Without protection, the seeding will be displaced by wind and rain. Mulch may not be used in place of erosion control blanket to protect the disturbed areas and prevent further erosion.

Sodding: Sod is a stabilization of fine graded disturbed areas using a continuous cover of grass sod. It shall be applied at disturbed areas where it requires immediate cover for erosion protection or sediment control, residential or commercial areas where quick establishment or aesthetics are factors, locations where surface water concentrates, areas adjacent to drop inlets or in swales, or all other areas where seeding is not appropriate but an immediate vegetative cover is required. Irrigate sod according to Article 252.08.

C. **Structural Practices:** Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include but are not limited to: perimeter erosion barrier, earth dikes, drainage swales, sediment traps, ditch checks, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. The installation of these devices may be subject to Section 404 of the Clean Water Act.

- ☐ Aggregate Ditch
- ☐ Concrete Revetment Mats
- ☒ Dust Suppression
- ☐ Dewatering Filtering
- ☐ Gabions
- ☐ In-Stream or Wetland Work
- ☐ Level Spreaders
- ☐ Paved Ditch
- ☐ Permanent Check Dams
- ☒ Perimeter Erosion Barrier
- ☐ Permanent Sediment Basin
- ☒ Retaining Walls
- ☐ Riprap
- ☐ Rock Outlet Protection
- ☒ Sediment Trap
- ☒ Storm Drain Inlet Protection
- ☒ Stabilized Construction Exits
- ☐ Stabilized Trench Flow
- ☐ Slope Mattress
- ☐ Slope Walls
- ☐ Temporary Ditch Check
- ☐ Temporary Pipe Slope Drain
- ☐ Temporary Sediment Basin
- ☐ Temporary Stream Crossing
- ☐ Turf Reinforcement Mats
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____

Describe how the structural practices listed above will be utilized during construction:

* Refer to the Erosion and Sedimentation Control plan sheets for the contract for the specific stabilization practices called out for temporary and permanent conditions.

* Dust Suppression - Dust suppression per the standard specifications and according to the project special provision for Construction Air Quality - Dust Control shall be followed.

* Perimeter Erosion Barrier: As soon as reasonable access is available to all locations where water drains away from the project, perimeter erosion barrier shall be installed as called out in this plan and directed by the Engineer. Silt fences shall be placed along the contour at the limits in an effort to contain silt and runoff from leaving the site. Silt fence shall not be installed in areas of concentrated flow such as across ditches. The barrier will be constructed at the beginning of construction. Damage to silt fence by traffic or snow plowing should be immediately fixed by the contractor. Silt fence should only be used as Perimeter Erosion Barrier in areas where the work area is higher than the perimeter. The use of silt fence at the top of the slope/elevations higher than the work area should always be avoided. If necessary, temporary fence should be utilized in these locations (where the top of slope/elevation is higher than the work area) in lieu of silt fence.

* Temporary Sediment Trap: The contractor shall design and construct a sediment trap or temporary sump pit to outlet temporary drainage systems. The sediment trap will be determined in the field after the contractor begins work. Prior to draining the runoff from the temporary drainage systems, the sediment trap shall be constructed with stabilized slopes. Maximum embankment height is 5 feet with a maximum excavation depth of 6 feet. Protection required if within clear zone. The design, installation, inspection, maintenance, materials, and removal will not be paid for separately but shall be considered included in the cost of the contract.

* Storm Drain Inlet Protection: Sediment filters will be placed in all open lid inlets, catch basins and manholes during construction and will be cleaned on a regular basis. Avoid using the INLET AND PIPE PROTECTION shown on the Highway Standard 280001. Straw bales and silt fence shall not be used as inlet and pipe protection. Inlet and pipe protection shall be comprised of Inlet Filters, Temporary Ditch Checks, Temporary Seeding and Temporary Erosion Control Blanket, as applicable, at all inlets, catch basins, and manholes for the duration of construction. Inlet filters shall be cleaned on a regular basis.

* Stabilized Construction Exits: Stabilized Construction Exits or Entrances will be provided by the Contractor. The entrance shall be maintained in a condition which shall prevent tracking or flowing of sediment onto Public Right-Of-Way. Periodic inspection and needed maintenance shall be provided after heavy use and each rainfall event. All work associated with installation and maintenance of Stabilized Construction Entrances are incidental to the contract.

* All work associated with installation and maintenance of Concrete Washouts is incidental to the contract.

* All erosion control products furnished shall be specifically recommended by the manufacturer for the use specified in the erosion control plan prior to the approval and use of the product. The Contractor shall submit to the Engineer a notarized certification by the producer stating the intended use of the product and that the physical properties required for this application are met or exceeded. The contractor shall provide manufacturer installation procedures to facilitate the Engineer in construction inspection.

Describe how the structural practices listed above will be utilized after construction activities have been completed:

Once construction is completed and the vegetation has been established, the perimeter erosion barrier will be removed and areas disturbed by the removal will be stabilized with permanent stabilization methods as shown on the plans.

D. **Treatment Chemicals**

Will polymer flocculants or treatment chemicals be utilized on this project: ☐ Yes ☒ No

If *yes* above, identify where and how polymer flocculants or treatment chemicals will be utilized on this project.

E. **Permanent (i.e., Post-Construction) Storm Water Management Controls:** Provided below is a description of measures that will be installed during the construction process to control volume and pollutants in storm water discharges that will occur after construction operations have been completed.The installation of these devices may be subject to Section 404 of the Clean Water Act.

1. Such practices may include but are not limited to: storm water detention structures (including wet ponds), storm water retention structures, flow attenuation by use of open vegetated swales and natural depressions, infiltration of runoff on site, and sequential systems (which combine several practices).

   The practices selected for implementation were determined based on the technical guidance in Chapter 41 (Construction Site Storm Water Pollution Control) of the IDOT BDE Manual. If practices other than those discussed in Chapter 41 are selected for implementation or if practices are applied to situations different from those covered in Chapter 41, the technical basis for such decisions will be explained below.

2. Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g., maintenance of hydrologic conditions such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

Description of permanent storm water management controls:

The Phase I Location Drainage Study indicates no modifications are planned for Pump Station #5 nor Pump Station #26. The tailwater conditions representing the South Branch of the Chicago River (outfall for Pump Station #5) and the South Union Avenue interceptor sewer (outfall for Pump Station #26) will not be modified from existing conditions.

The drainage area for Pump Station #5 is along I-290 from the western extent at Central Avenue to the eastern extent at Des Plaines Street within the Jane Byrne Interchange. For Pump Station #26, the drainage area is along I-90/94 from the northern extent at the Jane Byrne Interchange (Harrison Street) to the southern extend at Roosevelt Road. A proposed underground detention sytem will be constructed south of the Jane Byrne Interchange in a future contract, improving water quality in runoff from the 5-year and greater storms discharged to Pump Station #26.

Phosphorous fertilizer has been eliminated from the project to reduce project impacts on the receiving waters.

F. **Approved State or Local Laws:** The management practices, controls and provisions contained in this plan will be in accordance with IDOT specifications, which are at least as protective as the requirements contained in the IEPA's Illinois Urban Manual. Procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials shall be described or incorporated by reference in the space provided below. Requirements specified in sediment and erosion site plans, site permits, storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI, to be authorized to discharge under the Permit ILR10 incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.
Description of procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials:

All management practices, controls and other provisions provided in this plan are in accordance with "IDOT Standard Specifications for Road and Bridge Construction" and "Illinois Urban Manual".

G. **Contractor Required Submittals:** Prior to conducting any professional services at the site covered by this plan, the Contractor and each subcontractor responsible for compliance with the permit shall submit to the Resident Engineer a Contractor Certification Statement, BDE 2342A.

1. The Contractor shall provide a construction schedule containing an adequate level of detail to show major activities with implementation of pollution prevention BMPs, including the following items:
   - Approximate duration of the project, including each stage of the project
   - Rainy season, dry season, and winter shutdown dates
   - Temporary stabilization measures to be employed by contract phases

- Mobilization time-frame
- Mass clearing and grubbing/roadside clearing dates
- Deployment of Erosion Control Practices
- Deployment of Sediment Control Practices (including stabilized cons

- Deployment of Construction Site Management Practices (including concrete washout facilities, chemical storage, refueling locations, etc.)
- Paving, saw-cutting, and any other pavement related operations
- Major planned stockpiling operation
- Time frame for other significant long-term operations or activities that may plan non-storm water discharges as dewatering, grinding, etc
- Permanent stabilization activities for each area of the project

2. During the pre-construction meeting, the Contractor and each subcontractor shall provide, as an attachment to their signed Contractor Certification Statement, a discussion of how they will comply with the requirements of the permit in regard to the following items and provide a graphical representation showing location and type of BMPs to be used when applicable:
   - Temporary Ditch Checks - Identify what type and the source of Temporary Ditch Checks that will be installed as part of the project. The installation details will then be included with the SWPPP.
   - Vehicle Entrances and Exits - Identify type and location of stabilized construction entrances and exits to be used and how they will be maintained.
   - Material Delivery, Storage and Use - Discuss where and how materials including chemicals, concrete curing compounds, petroleum products, etc. will be stored for this project.
   - Stockpile Management - Identify the location of both on-site and off-site stockpiles. Discuss what BMPs will be used to prevent pollution of storm water from stockpiles.
   - Waste Disposal - Discuss methods of waste disposal that will be used for this project.
   - Spill Prevention and Control - Discuss steps that will be taken in the event of a material spill (chemicals, concrete curing compounds, petroleum, etc.)
   - Concrete Residuals and Washout Wastes - Discuss the location and type of concrete washout facilities to be used on this project and how they will be signed and maintained.
   - Litter Management - Discuss how litter will be maintained for this project (education of employees, number of dumpsters, frequency of dumpster pick-up, etc.).
   - Vehicle and Equipment Fueling - Identify equipment fueling locations for this project and what BMPs will be used to ensure containment and spill prevention.
   - Vehicle and Equipment Cleaning and Maintenance - Identify where equipment cleaning and maintenance locations for this project and what BMPs will be used to ensure containment and spill prevention.
   - Dewatering Activities - Identify the controls which will be used during dewatering operations to ensure sediments will not leave the construction site.
   - Polymer Flocculants and Treatment Chemicals - Identify the use and dosage of treatment chemicals and provide the Resident Engineer with Material Safety Data Sheets. Describe procedures on how the chemicals will be used and identify who will be responsible for the use and application of these chemicals. The selected individual must be trained on the established procedures.
   - Additional measures indicated in the plan.

III. Maintenance:

When requested by the Contractor, the Resident Engineer will provide general maintenance guides (e.g., IDOT Erosion and Sediment Control Field Guide) to the Contractor for the practices associated with this project. Describe how all items will be checked for structural integrity, sediment accumulation and functionality. Any damage or undermining shall be repaired immediately. Provide specifics on how repairs will be made. The following additional procedures will be used to maintain, in good and effective operating conditions, the vegetation, erosion and sediment control measures and other protective measures identified in this plan. It will be the Contractor's responsibility to attain maintenance guidelines for any manufactured BMPs which are to be installed and maintained per manufacture's specifications.

The Contractor will be responsible for the inspection, maintenance, and repair or all sedimentation and erosion control measures. If the Engineer notices or is notified of an erosion or sedimentation deficiency, the Engineer will notify the Contractor to correct it. All maintenance of erosion control systems will be the responsibility of the contractor until construction is complete and accepted by IDOT after final inspection. All Offsite Borrow, Waste, and Use areas are part of the construction site and are to be inspected according to the language in this section and Section IV.

Inspection of all ESC measures shall be made at least once every seven days and within 24 hours of the end of each 0.5 inches or greater rainfall (including snowfall). Additionally during winter months, all measures should be checked after each significant snowmelt. Any necessary repairs or cleanup to maintain the effectiveness of said measures shall be made immediately. The project shall additionally be inspected by the Construction Field

Engineer on a bi-weekly basis to determine that the erosion control efforts are in place and effective and if other erosion control work is necessary.

All ESC measures shall be maintained in accordance with the IDOT Erosion and Sediment Control Field Guide for Construction Inspection and IDOT's Best Management Practices – Maintenance Guide:http://www.idot.illinois.gov/transportation-system/environment/erosion-and-sediment-control

In addition, the following links may also be useful for maintenance:
Illinois Urban Manual (IUM): http://www.aiswcd.org/wpcontent/uploads/2013/11/UM_FM_2013_WEBSITE_hyperlinks.pdf
Best Management Practices (BMP): http://www.idot.illinois.gov/transportation-system/environment/erosion-andsediment-control

Construction equipment shall be stored and fueled only at designated locations. All necessary measures shall be taken to contain any fuel or pollution runoff in compliance with environmental law and EPA Water Quality Regulations. Leaking equipment or supplies shall be immediately repaired or removed from the site. On a weekly basis, the Engineer shall inspect the project to determine whether erosion control efforts are in place and effective and if additional control measures are necessary. Sediment collected during construction by the various temporary erosion control systems shall be disposed on the site on a regular basis as directed by the Engineer and stabilized accordingly.

Protection of trees: Any protective measures which are knocked down shall be repaired immediately. Damaged trees shall be replaced with similar species. Trim any cuts, skins, scrapes or bruises to the bark of the vegetation and utilize local nursery accepted procedures to seal damaged bark. Prune all tree branches broken, severed, or damaged during construction. Smoothly cut, perpendicular to the root, all cut, broken, or severed during construction, roots 1 inch or greater in diameter. Cover roots exposed during excavation with moist earth and/or backfill immediately to prevent roots from drying.

Temporary Erosion Control Seeding: All areas seeded with temporary seeding are to be inspected every 7 calendar days and after a storm even of 0.5 inches or greater (including snowfall). A visual inspection of this item is necessary to determine whether or not is has germinated. If the seed has failed to germinate, another application of seed may be necessary. If seed has been washed away or found to be concentrated in ditch bottoms, temporary mulch may have to be used to hold seed in place. Inspect other BMPs around the location of the temporary seeding to ensure the successful function of temporary erosion control seeding. Rills greater than 4 inches in depth shall be restored as quickly as possible on slopes steeper than 1V:4H to prevent sheet flow from becoming concentrated flow patterns.

Temporary Mulching: This item shall be inspected every 7 calendar days and after a storm event of 0.5 inch or greater (including snowfall). Additional mulch shall be placed if straw is blown or washed away, erosion control blanket curls or slides down a slope, or hydraulic mulch is washed away.

Surface Roughening: The slope shall be inspected after every runoff producing rain and repairs made as needed. Fill any eroded areas to slightly above the original grade, re-roughen the surface, then re-seed and mulch as soon as possible.

Perimeter Erosion Barrier: This item shall be inspected every 7 calendar days and after a storm event of 0.5 inch or greater (including snowfall). Repair when tears, gaps, leaning or undermining occur and restore erosion barrier taut. Repair or replace any missing or broken stakes immediately. Sediment shall be removed if the integrity of the fencing is in jeopardy. Remove once permanent stabilization is established.

Erosion Control Blanket: Repair damage due to water running beneath the blanket and restore and reseed when displacement occurs. Reseeding may be necessary. Replace and re-staple all displaced erosion control blankets immediately.

Storm Drain Inlet Protection: This item shall be inspected every 7 calendar days and after a storm event of 0.5 inch or greater (including snowfall). Remove sediment from inlet filter basket when basket is 25% full or 50% of the fabric pores are covered with silt. Remove ponded water on road surfaces immediately. Clean filter if standing water is present longer than one hour after a rain event. Remove trash accumulated around or on top of filter. When filter is removed for cleaning, replace filter if any tear is present.

Stabilized Construction Exits: This item shall be inspected every 7 calendar days and after a storm event of 0.5 inch or greater (including snowfall). Replenish stone or replace exit if vehicles continue to track sediment onto the roadway from the construction site. Sweep sediment on roadway from construction activities immediately. Use street sweeping in conjunction with this BMP to remove sediment not removed by the stabilized construction exit.

Material Delivery and Storage: Document the various types of materials delivered and their storage locations in the SWPPP. Update the SWPPP when significant changes occur to material storage or handling locations and when they have been removed. Cleanup spills immediately. Remove empty containers.

Sediment Trap: Removed sediment and silt from the trap when it becomes 50% full. Other BMP measures, such as sand filters, shall be implemented to filter pollutants if sediment discharges or other pollutants are identified at the discharge point. Once the sediment has been removed, the trap shall be restored to its original dimensions. The sediment that has been removed must be placed in the designated disposal area. The depth of spillway shall be periodically checked to ensure it is a minimum of 1.5 feet below the low point of the embankment to slightly above design grade. Any aggregate or riprap displaced from the spillway while the sediment is being removed shall be replaced immediately. After all areas around the sediment trap have been permanently stabilized, regrade the area to drain and stabilize the area.

All offsite Borrow, Waste and Use areas are part of the construction site and are to be inspected according to the language in this section.

IV. Inspections:

Qualified personnel shall inspect disturbed areas of the construction site including Borrow, Waste, and Use Areas, which have not yet been finally stabilized, structural control measures, and locations where vehicles and equipment enter and exit the site using IDOT Storm Water Pollution Prevention Plan Erosion Control Inspection Report, BC 2259. Such inspections shall be conducted at least once every seven (7) calendar days and within twenty-four (24) hours of the end of a storm or by the end of the following business or work day that is 0.5 inch or greater or equivalent snowfall.

Inspections may be reduced to once per month when construction activities have ceased due to frozen conditions. Weekly inspections will recommence when construction activities are conducted, or if there is 0.5" or greater rain event, or a discharge due to snowmelt occurs.

If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer shall notify the appropriate IEPA Field Operations Section office by email at: epa.swnoncomp@illinois.gov, telephone or fax within twenty-four (24) hours of the incident. The Resident Engineer shall then complete and submit an "Incidence of Non-Compliance" (ION) report for the identified violation within five (5) days of the incident. The Resident Engineer shall use forms provided by IEPA and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of non-compliance shall be signed by a responsible authority in accordance with Part VI. G of the Permit ILR10.

The Incidence of Non-Compliance shall be mailed to the following address:
Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Compliance Assurance Section
1021 North Grand East
Post Office Box 19276
Springfield, Illinois 62794-9276

V. Failure to Comply:

Failure to comply with any provisions of this Storm Water Pollution Prevention Plan will result in the implementation of a National Pollutant Discharge Elimination System/Erosion and Sediment Control Deficiency Deduction against the Contractor and/or penalties

under the Permit ILR10 which could be passed on to the Contractor.

Illinois Department of Transportation

Contractor Certification Statement

Prior to conducting any professional services at the site covered by this contract, the Contractor and every subcontractor must complete and return to the Resident Engineer the following certification. A separate certification must be submitted by each firm. Attach to this certification all items required by Section II.G of the Storm Water Pollution Prevention Plan (SWPPP) which will be handled by the Contractor/subcontractor completing this form.

Route	Marked Route	Section Number
FAI 90/94/290	I-90/94	2014-012LS

Project Number	County	Contract Number
C-91-278-14	Cook	60X98

This certification statement is a part of SWPPP for the project described above, in accordance with the General NPDES Permit No. ILR10 issued by the Illinois Environmental Protection Agency.

I certify under penalty of law that I understand the terms of the Permit No. ILR 10 that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Additionally, I have read and understand all of the information and requirements stated in SWPPP for the above mentioned project; I have received copies of all appropriate maintenance procedures; and, I have provided all documentation required to be in compliance with the Permit ILR10 and SWPPP and will provide timely updates to these documents as necessary.

☐ Contractor
☐ Sub-Contractor

Signature	Date

Print Name	Title

Name of Firm	Phone

Street Address	City	State	Zip Code

Items which this Contractor/subcontractor will be responsible for as required in Section II.G. of SWPPP

Printed 11/16/21

BDE 2342A (07/19/19)

BLENDED FINELY DIVIDED MINERALS (BDE)

Effective: April 1, 2021

Revise the second paragraph of Article 1010.01 of the Standard Specifications to read:

"Different sources or types of finely divided minerals shall not be mixed or used alternately in the same item of construction, except as a blended finely divided mineral product according to Article 1010.06."

Add the following article to Section 1010 of the Standard Specifications:

"**1010.06 Blended Finely Divided Minerals.** Blended finely divided minerals shall be the product resulting from the blending or intergrinding of two or three finely divided minerals. Blended finely divided minerals shall be according to ASTM C 1697, except as follows.

(a) Blending shall be accomplished by mechanically or pneumatically intermixing the constituent finely divided minerals into a uniform mixture that is then discharged into a silo for storage or tanker for transportation.

(b) The blended finely divided mineral product will be classified according to its predominant constituent or the manufacturer's designation and shall meet the chemical requirements of its classification. The other finely divided mineral constituent(s) will not be required to conform to their individual standards."

COMPENSABLE DELAY COSTS (BDE)

Effective: June 2, 2017 Revised: April 1, 2019

Revise Article 107.40(b) of the Standard Specifications to read:

"(b) Compensation. Compensation will not be allowed for delays, inconveniences, or damages sustained by the Contractor from conflicts with facilities not meeting the above definition; or if a conflict with a utility in an unanticipated location does not cause a shutdown of the work or a documentable reduction in the rate of progress exceeding the limits set herein. The provisions of Article 104.03 notwithstanding, compensation for delays caused by a utility in an unanticipated location will be paid according to the provisions of this Article governing minor and major delays or reduced rate of production which are defined as follows.

(1) Minor Delay. A minor delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two hours, but not to exceed two weeks.

(2) Major Delay. A major delay occurs when the work in conflict with the utility in an unanticipated location is completely stopped for more than two weeks.

(3) Reduced Rate of Production Delay. A reduced rate of production delay occurs when the rate of production on the work in conflict with the utility in an unanticipated location decreases by more than 25 percent and lasts longer than seven calendar days."

Revise Article 107.40(c) of the Standard Specifications to read:

"(c) Payment. Payment for Minor, Major, and Reduced Rate of Production Delays will be made as follows.

(1) Minor Delay. Labor idled which cannot be used on other work will be paid for according to Article 109.04(b)(1) and (2) for the time between start of the delay and the minimum remaining hours in the work shift required by the prevailing practice in the area.

Equipment idled which cannot be used on other work, and which is authorized to standby on the project site by the Engineer, will be paid for according to Article 109.04(b)(4).

(2) Major Delay. Labor will be the same as for a minor delay.

Equipment will be the same as for a minor delay, except Contractor-owned equipment will be limited to two weeks plus the cost of move-out to either the Contractor's yard or another job and the cost to re-mobilize, whichever is less. Rental equipment may be paid for longer than two weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

(3) Reduced Rate of Production Delay. The Contractor will be compensated for the reduced productivity for labor and equipment time in excess of the 25 percent threshold for that portion of the delay in excess of seven calendar days. Determination of compensation will be in accordance with Article 104.02, except labor and material additives will not be permitted.

Payment for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be determined according to Article 109.13."

Revise Article 108.04(b) of the Standard Specifications to read:

"(b) No working day will be charged under the following conditions.

(1) When adverse weather prevents work on the controlling item.

(2) When job conditions due to recent weather prevent work on the controlling item.

(3) When conduct or lack of conduct by the Department or its consultants, representatives, officers, agents, or employees; delay by the Department in making the site available; or delay in furnishing any items required to be furnished to the Contractor by the Department prevents work on the controlling item.

(4) When delays caused by utility or railroad adjustments prevent work on the controlling item.

(5) When strikes, lock-outs, extraordinary delays in transportation, or inability to procure critical materials prevent work on the controlling item, as long as these delays are not due to any fault of the Contractor.

(6) When any condition over which the Contractor has no control prevents work on the controlling item."

Revise Article 109.09(f) of the Standard Specifications to read:

"(f) Basis of Payment. After resolution of a claim in favor of the Contractor, any adjustment in time required for the work will be made according to Section 108. Any adjustment in the costs to be paid will be made for direct labor, direct materials, direct equipment, direct jobsite overhead, direct offsite overhead, and other direct costs allowed by the resolution. Adjustments in costs will not be made for interest charges, loss of anticipated profit, undocumented loss of efficiency, home office overhead and unabsorbed overhead other than as allowed by Article 109.13, lost opportunity, preparation of claim expenses and other consequential indirect costs regardless of method of calculation.

The above Basis of Payment is an essential element of the contract and the claim cost recovery of the Contractor shall be so limited."

Add the following to Section 109 of the Standard Specifications.

"**109.13 Payment for Contract Delay.** Compensation for escalated material costs, escalated labor costs, extended project overhead, and extended traffic control will be allowed when such costs result from a delay meeting the criteria in the following table.

Contract Type	Cause of Delay	Length of Delay
Working Days	Article 108.04(b)(3) or Article 108.04(b)(4)	No working days have been charged for two consecutive weeks.
Completion Date	Article 108.08(b)(1) or Article 108.08(b)(7)	The Contractor has been granted a minimum two week extension of contract time, according to Article 108.08.

Payment for each of the various costs will be according to the following.

(a) Escalated Material and/or Labor Costs. When the delay causes work, which would have otherwise been completed, to be done after material and/or labor costs have increased, such increases will be paid. Payment for escalated material costs will be limited to the increased costs substantiated by documentation furnished by the Contractor. Payment for escalated labor costs will be limited to those items in Article 109.04(b)(1) and (2), except the 35 percent and 10 percent additives will not be permitted.

(b) Extended Project Overhead. For the duration of the delay, payment for extended project overhead will be paid as follows.

(1) Direct Jobsite and Offsite Overhead. Payment for documented direct jobsite overhead and documented direct offsite overhead, including onsite supervisory and administrative personnel, will be allowed according to the following table.

Original Contract Amount	Supervisory and Administrative Personnel
Up to $5,000,000	One Project Superintendent
Over $ 5,000,000 - up to $25,000,000	One Project Manager, One Project Superintendent or Engineer, and One Clerk
Over $25,000,000 - up to $50,000,000	One Project Manager, One Project Superintendent, One Engineer, and One Clerk
Over $50,000,000	One Project Manager, Two Project Superintendents, One Engineer, and One Clerk

(2) Home Office and Unabsorbed Overhead. Payment for home office and unabsorbed overhead will be calculated as 8 percent of the total delay cost.

(c) Extended Traffic Control. Traffic control required for an extended period of time due to the delay will be paid for according to Article 109.04.

When an extended traffic control adjustment is paid under this provision, an adjusted unit price as provided for in Article 701.20(a) for increase or decrease in the value of work by more than ten percent will not be paid.

Upon payment for a contract delay under this provision, the Contractor shall assign subrogation rights to the Department for the Department's efforts of recovery from any other party for monies paid by the Department as a result of any claim under this provision. The Contractor shall fully cooperate with the Department in its efforts to recover from another party any money paid to the Contractor for delay damages under this provision."

CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)
Effective: June 1, 2010 Revised: November 1, 2014

The reduction of emissions of particulate matter (PM) for off-road equipment shall be accomplished by installing retrofit emission control devices. The term "equipment" refers to diesel fuel powered devices rated at 50 hp and above, to be used on the jobsite in excess of seven calendar days over the course of the construction period on the jobsite (including rental equipment).

Contractor and subcontractor diesel powered off-road equipment assigned to the contract shall be retrofitted using the phased in approach shown below. Equipment that is of a model year older than the year given for that equipment's respective horsepower range shall be retrofitted:

Effective Dates	Horsepower Range	Model Year
June 1, 2010 1/	600-749	2002
	750 and up	2006
June 1, 2011 2/	100-299	2003
	300-599	2001
	600-749	2002
	750 and up	2006
June 1, 2012 2/	50-99	2004
	100-299	2003
	300-599	2001
	600-749	2002
	750 and up	2006

1/ Effective dates apply to Contractor diesel powered off-road equipment assigned to the contract.
2/ Effective dates apply to Contractor and subcontractor diesel powered off-road equipment assigned to the contract.

The retrofit emission control devices shall achieve a minimum PM emission reduction of 50 percent and shall be:

a) Included on the U.S. Environmental Protection Agency (USEPA) *Verified Retrofit Technology List* (http://www.epa.gov/cleandiesel/verification/verif-list.htm), or verified by the California Air Resources Board (CARB) (http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm); or

b) Retrofitted with a non-verified diesel retrofit emission control device if verified retrofit emission control devices are not available for equipment proposed to be used on the project, and if the Contractor has obtained a performance certification from the retrofit device manufacturer that the emission control device provides a minimum PM emission reduction of 50 percent.

Note: Large cranes (Crawler mounted cranes) which are responsible for critical lift operations are exempt from installing retrofit emission control devices if such devices adversely affect equipment operation.

Diesel powered off-road equipment with engine ratings of 50 hp and above, which are unable to be retrofitted with verified emission control devices or if performance certifications are not available which will achieve a minimum 50 percent PM reduction, may be granted a waiver by the Department if documentation is provided showing good faith efforts were made by the Contractor to retrofit the equipment.

Construction shall not proceed until the Contractor submits a certified list of the diesel powered off-road equipment that will be used, and as necessary, retrofitted with emission control devices. The list(s) shall include (1) the equipment number, type, make, Contractor/rental company name; and (2) the emission control devices make, model, USEPA or CARB verification number, or performance certification from the retrofit device manufacturer. Equipment reported as fitted with emissions control devices shall be made available to the Engineer for visual inspection of the device installation, prior to being used on the jobsite.

The Contractor shall submit an updated list of retrofitted off-road construction equipment as retrofitted equipment changes or comes on to the jobsite. The addition or deletion of any diesel powered equipment shall be included on the updated list.

If any diesel powered off-road equipment is found to be in non-compliance with any portion of this special provision, the Engineer will issue the Contractor a diesel retrofit deficiency deduction.

Any costs associated with retrofitting any diesel powered off-road equipment with emission control devices shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed. The Contractor's compliance with this notice and any associated regulations shall not be grounds for a claim.

Diesel Retrofit Deficiency Deduction

When the Engineer determines that a diesel retrofit deficiency exists, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end with the Engineer's written acceptance of the correction. The daily monetary deduction will be $1,000.00 for each deficiency identified.

The deficiency will be based on lack of diesel retrofit emissions control.

If a Contractor accumulates three diesel retrofit deficiency deductions for the same piece of equipment in a contract period, the Contractor will be shutdown until the deficiency is corrected. Such a shutdown will not be grounds for any extension of the contract time, waiver of penalties, or be grounds for any claim.

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000 Revised: March 2, 2019

FEDERAL OBLIGATION. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR Part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified by the Department in accordance with the requirements of 49 CFR Part 26 and listed in the Illinois Unified Certification Program (IL UCP) DBE Directory.

STATE OBLIGATION. This Special Provision will also be used by the Department to satisfy the requirements of the Business Enterprise for Minorities, Females, and Persons with Disabilities Act, 30 ILCS 575. When this Special Provision is used to satisfy state law requirements on 100 percent state-funded contracts, the federal government has no involvement in such contracts (not a federal-aid contract) and no responsibility to oversee the implementation of this Special Provision by the Department on those contracts. DBE participation on 100 percent state-funded contracts will not be credited toward fulfilling the Department's annual overall DBE goal required by the US Department of Transportation to comply with the federal DBE program requirements.

CONTRACTOR ASSURANCE. The Contractor makes the following assurance and agrees to include the assurance in each subcontract the Contractor signs with a subcontractor.

> The Contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of contracts funded in whole or in part with federal or state funds. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
>
> (a) Withholding progress payments;
>
> (b) Assessing sanctions;
>
> (c) Liquidated damages; and/or
>
> (d) Disqualifying the Contractor from future bidding as non-responsible.

OVERALL GOAL SET FOR THE DEPARTMENT. As a requirement of compliance with 49 CFR Part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a good faith effort to achieve the overall goal. The dollar amount paid to all approved DBE companies performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. The determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates, in the absence of unlawful discrimination and in an arena of fair and open competition, DBE companies can be expected to perform **0.00%** of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set for in this Special Provision:

(a) The bidder documents enough DBE participation has been obtained to meet the goal or,

(b) The bidder documents a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.

DBE LOCATOR REFERENCES. Bidders shall consult the IL UCP DBE Directory as a reference source for DBE-certified companies. In addition, the Department maintains a letting and item specific DBE locator information system whereby DBE companies can register their interest in providing quotes on particular bid items advertised for letting. Information concerning DBE companies willing to quote work for particular contracts may be obtained by contacting the Department's Bureau of Small Business Enterprises at telephone number (217) 785-4611, or by visiting the Department's website at:
http://www.idot.illinois.gov/doing-business/certifications/disadvantaged-business-enterprise-certification/il-ucp-directory/index.

BIDDING PROCEDURES. Compliance with this Special Provision is a material bidding requirement and failure of the bidder to comply will render the bid not responsive.

The bidder shall submit a DBE Utilization Plan (form SBE 2026), and a DBE Participation Statement (form SBE 2025) for each DBE company proposed for the performance of work to achieve the contract goal, with the bid. If the Utilization Plan indicates the contract goal will not be met, documentation of good faith efforts shall also be submitted. The documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor is selected over a DBE for work on the contract. The required forms and documentation must be submitted as a single .pdf file using the "Integrated Contractor Exchange (iCX)" application within the Department's "EBids System".

The Department will not accept a Utilization Plan if it does not meet the bidding procedures set forth herein and the bid will be declared not responsive. In the event the bid is declared not responsive, the Department may elect to cause the forfeiture of the penal sum of the bidder's proposal guaranty and may deny authorization to bid the project if re-advertised for bids.

GOOD FAITH EFFORT PROCEDURES. The contract will not be awarded until the Utilization Plan is approved. All information submitted by the bidder must be complete, accurate and adequately document enough DBE participation has been obtained or document the good faith efforts of the bidder, in the event enough DBE participation has not been obtained, before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan documents sufficient commercially useful DBE work to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR Part 26, Appendix A. This means the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which, by their scope, intensity and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not successful. The Department will consider the quality, quantity, and intensity of the kinds of efforts the bidder has made. Mere *pro forma* efforts, in other words efforts done as a matter of form, are not good faith efforts; rather, the bidder is expected to have taken genuine efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

(a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases and will be considered by the Department.

(1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.

(2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the Contractor might otherwise prefer to perform these work items with its own forces.

(3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

(4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.

b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable. In accordance with the above Bidding Procedures, the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.

(5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.

(6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.

(7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.

(8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.

(b) If the Department determines the bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided it is otherwise eligible for award. If the Department determines the bidder has failed to meet the requirements of this Special Provision or that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification will also include a statement of reasons for the adverse determination. If the Utilization Plan is not approved because it is deficient as a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no more than a five calendar day period to cure the deficiency.

(c) The bidder may request administrative reconsideration of an adverse determination by emailing the Department at "DOT.DBE.UP@illinois.gov" within the five calendar days after the receipt of the notification of the determination. The determination shall become final if a request is not made on or before the fifth calendar day. A request may provide additional written documentation or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. The request will be reviewed by the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person to consider all issues of documentation and whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE companies. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR Part 26.55(c) on questions of commercially useful functions as it affects the work. Specific counting guidelines are provided in 49 CFR Part 26.55, the provisions of which govern over the summary contained herein.

(a) DBE as the Contractor: 100 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE does not count toward the DBE goals.

(b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.

(c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.

(d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contract. Credit will be given for the following:

(1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.

(2) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission is receives as a result of the lease arrangement.

(e) DBE as a material supplier:

(1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.

(2) 100 percent goal credit for the cost of materials of supplies obtained from a DBE manufacturer.

(3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a DBE regular dealer or DBE manufacturer.

CONTRACT COMPLIANCE. Compliance with this Special Provision is an essential part of the contract. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goals has been paid to the DBE. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan. After approval of the Utilization Plan and award of the contract, the Utilization Plan and individual DBE Participation Statements become part of the contract. If the Contractor did not succeed in obtaining enough DBE participation to achieve the advertised contract goal, and the Utilization Plan was approved and contract awarded based upon a determination of good faith, the total dollar value of DBE work calculated in the approved Utilization Plan as a percentage of the awarded contract value shall become the amended contract goal. All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the DBE Participation Commitment Statement.

(a) NO AMENDMENT. No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be emailed to the Department at DOT.DBE.UP@illinois.gov.

(b) CHANGES TO WORK. Any deviation from the DBE condition-of-award or contract plans, specifications, or special provisions must be approved, in writing, by the Department as provided elsewhere in the Contract. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A or AER 260A, must be signed and submitted. If the commitment of work is in the form of additional tasks assigned to an existing subcontract, a new Request for Approval of Subcontractor will not be required. However, the Contractor must document efforts to assure the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.

(c) SUBCONTRACT. The Contractor must provide copies of DBE subcontracts to the Department upon request. Subcontractors shall ensure that all lower tier subcontracts or agreements with DBEs to supply labor or materials be performed in accordance with this Special Provision.

(d) ALTERNATIVE WORK METHODS. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractor-initiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:

(1) The replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or

(2) The DBE is aware its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or

(3) The DBE is not capable of performing the replacement work or has declined to perform the work at a reasonable competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.

(e) TERMINATION AND REPLACEMENT PROCEDURES. The Contractor shall not terminate or replace a DBE listed on the approved Utilization Plan, or perform with other forces work designated for a listed DBE except as provided in this Special Provision. The Contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the Contractor obtains the Department's written consent as provided in subsection (a) of this part. Unless Department consent is provided for termination of a DBE subcontractor, the Contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the DBE in the Utilization Plan.

As stated above, the Contractor shall not terminate or replace a DBE subcontractor listed in the approved Utilization Plan without prior written consent. This includes, but is not limited to, instances in which the Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm. Written consent will be granted only if the Bureau of Small Business Enterprises agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate or replace the DBE firm. Before transmitting to the Bureau of Small Business Enterprises any request to terminate and/or substitute a DBE subcontractor, the Contractor shall give notice in writing to the DBE subcontractor, with a copy to the Bureau, of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor shall give the DBE five days to respond to the Contractor's notice. The DBE so notified shall advise the Bureau and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Bureau should not approve the Contractor's action. If required in a particular case as a matter of public necessity, the Bureau may provide a response period shorter than five days.

For purposes of this paragraph, good cause includes the following circumstances:

(1) The listed DBE subcontractor fails or refuses to execute a written contract;

(2) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the Contractor;

(3) The listed DBE subcontractor fails or refuses to meet the Contractor's reasonable, nondiscriminatory bond requirements;

(4) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;

(5) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1200 or applicable state law.

(6) The Contractor has determined the listed DBE subcontractor is not a responsible contractor;

(7) The listed DBE subcontractor voluntarily withdraws from the projects and provides written notice to the Contractor of its withdrawal;

(8) The listed DBE is ineligible to receive DBE credit for the type of work required;

(9) A DBE owner dies or becomes disabled with the result that the listed DBE subcontractor is unable to complete its work on the contract;

(10) Other documented good cause that compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the Contractor can self-perform the work for which the DBE contractor was engaged or so that the Contractor can substitute another DBE or non-DBE contractor after contract award.

When a DBE is terminated or fails to complete its work on the Contract for any reason, the Contractor shall make a good faith effort to find another DBE to substitute for the original DBE to perform at least the same amount of work under the contract as the terminated DBE to the extent needed to meet the established Contract goal. The good faith efforts shall be documented by the Contractor. If the Department requests documentation under this provision, the Contractor shall submit the documentation within seven days, which may be extended for an additional seven days if necessary at the request of the Contractor. The Department will provide a written determination to the Contractor stating whether or not good faith efforts have been demonstrated.

(f) FINAL PAYMENT. After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than 30 calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Resident Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.

(g) ENFORCEMENT. The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.

(h) RECONSIDERATION. Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department. The result of the reconsideration process is not administratively appealable to the U.S. Department of Transportation.

FUEL COST ADJUSTMENT (BDE)
Effective: April 1, 2009 Revised: August 1, 2017

Description. Fuel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in fuel prices when optioned by the Contractor. The bidder shall indicate with their bid whether or not this special provision will be part of the contract. Failure to indicate "Yes" for any category of work will make that category of work exempt from fuel cost adjustment.

General. The fuel cost adjustment shall apply to contract pay items as grouped by category. The adjustment shall only apply to those categories of work checked "Yes", and only when the cumulative plan quantities for a category exceed the required threshold. Adjustments to work items in a category, either up or down, and extra work paid for by agreed unit price will be subject to fuel cost adjustment only when the category representing the added work was subject to the fuel cost adjustment. Extra work paid for at a lump sum price or by force account will not be subject to fuel cost adjustment. Category descriptions and thresholds for application and the fuel usage factors which are applicable to each are as follows:

(a) Categories of Work.

(1) Category A: Earthwork. Contract pay items performed under Sections 202, 204, and 206 including any modified standard or nonstandard items where the character of the work to be performed is considered earthwork. The cumulative total of all applicable item plan quantities shall exceed 25,000 cu yd (20,000 cu m). Included in the fuel usage factor is a weighted average 0.10 gal/cu yd (0.50 liters/cu m) factor for trucking.

(2) Category B: Subbases and Aggregate Base Courses. Contract pay items constructed under Sections 311, 312 and 351 including any modified standard or nonstandard items where the character of the work to be performed is considered construction of a subbase or aggregate, stabilized or modified base course. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is a 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.

(3) Category C: Hot-Mix Asphalt (HMA) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 355, 406, 407 and 482 including any modified standard or nonstandard items where the character of the work to be performed is considered HMA bases, pavements and shoulders. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.

(4) Category D: Portland Cement Concrete (PCC) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 353, 420, 421 and 483 including any modified standard or nonstandard items where the character of the work to be performed is considered PCC base, pavement or shoulder. The cumulative total of all applicable item plan quantities shall exceed 7500 sq yd (6000 sq m). Included in the fuel usage factor is 1.20 gal/cu yd (5.94 liters/cu m) factor for trucking.

(5) Category E: Structures. Structure items having a cumulative bid price that exceeds $250,000 for pay items constructed under Sections 502, 503, 504, 505, 512, 516 and 540 including any modified standard or nonstandard items where the character of the work to be performed is considered structure work when similar to that performed under these sections and not included in categories A through D.

(b) Fuel Usage Factors.

English Units

Category	Factor	Units
A - Earthwork	0.34	gal / cu yd
B – Subbase and Aggregate Base courses	0.62	gal / ton
C – HMA Bases, Pavements and Shoulders	1.05	gal / ton
D – PCC Bases, Pavements and Shoulders	2.53	gal / cu yd
E – Structures	8.00	gal / $1000

Metric Units

Category	Factor	Units
A - Earthwork	1.68	liters / cu m
B – Subbase and Aggregate Base courses	2.58	liters / metric ton
C – HMA Bases, Pavements and Shoulders	4.37	liters / metric ton
D – PCC Bases, Pavements and Shoulders	12.52	liters / cu m
E – Structures	30.28	liters / $1000

(c) Quantity Conversion Factors.

Category	Conversion	Factor
B	sq yd to ton	0.057 ton / sq yd / in depth
	sq m to metric ton	0.00243 metric ton / sq m / mm depth
C	sq yd to ton	0.056 ton / sq yd / in depth
	sq m to metric ton	0.00239 m ton / sq m / mm depth
D	sq yd to cu yd	0.028 cu yd / sq yd / in depth
	sq m to cu m	0.001 cu m / sq m / mm depth

Method of Adjustment. Fuel cost adjustments will be computed as follows.

$CA = (FPI_P - FPI_L) \times FUF \times Q$

Where: CA = Cost Adjustment, $
FPI_P = Fuel Price Index, as published by the Department for the month the work is performed, $/gal ($/liter)
FPI_L = Fuel Price Index, as published by the Department for the month prior to the letting for work paid for at the contract price; or for the month the agreed unit price letter is submitted by the Contractor for extra work paid for by agreed unit price, $/gal ($/liter)
FUF = Fuel Usage Factor in the pay item(s) being adjusted
Q = Authorized construction Quantity, tons (metric tons) or cu yd (cu m)

The entire FUF indicated in paragraph (b) will be used regardless of use of trucking to perform the work.

Basis of Payment. Fuel cost adjustments may be positive or negative but will only be made when there is a difference between the FPI_L and FPI_P in excess of five percent, as calculated by:

Percent Difference = $\{(FPI_L - FPI_P) \div FPI_L\} \times 100$

Fuel cost adjustments will be calculated for each calendar month in which applicable work is performed; and will be paid or deducted when all other contract requirements for the items of work are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

PORTLAND CEMENT CONCRETE – HAUL TIME (BDE)

Effective: July 1, 2020

Revise Article 1020.11(a)(7) of the Standard Specifications to read:

"(7) Haul Time. Haul time shall begin when the delivery ticket is stamped. The delivery ticket shall be stamped no later than five minutes after the addition of the mixing water to the cement, or after the addition of the cement to the aggregate when the combined aggregates contain free moisture in excess of two percent by weight (mass). If more than one batch is required for charging a truck using a stationary mixer, the time of haul shall start with mixing of the first batch. Haul time shall end when the truck is emptied for incorporation of the concrete into the work. The maximum haul time shall be as follows.

Concrete Temperature at Point of Discharge, °F (°C)	Maximum Haul Time 1/ (minutes)	
	Truck Mixer or Truck Agitator	Nonagitator Truck
50 - 64 (10 - 17.5)	90	45
> 64 (> 17.5) - without retarder	60	30
> 64 (> 17.5) - with retarder	90	45

1/ To encourage start-up testing for mix adjustments at the plant, the first two trucks will be allowed an additional 15 minutes haul time whenever such testing is performed.

For a mixture which is not mixed on the jobsite, a delivery ticket shall be required for each load. The following information shall be recorded on each delivery ticket: (1) ticket number; (2) name of producer and plant location; (3) contract number; (4) name of Contractor; (5) stamped date and time batched; (6) truck number; (7) quantity batched; (8) amount of admixture(s) in the batch; (9) amount of water in the batch; and (10) Department mix design number.

For concrete mixed in jobsite stationary mixers, the above delivery ticket may be waived, but a method of verifying the haul time shall be established to the satisfaction of the Engineer."

SUBCONTRACTOR AND DBE PAYMENT REPORTING (BDE)
Effective: April 2, 2018

Add the following to Section 109 of the Standard Specifications.

"**109.14 Subcontractor and Disadvantaged Business Enterprise Payment Reporting.** The Contractor shall report all payments made to the following parties:

(a) first tier subcontractors;

(b) lower tier subcontractors affecting disadvantaged business enterprise (DBE) goal credit;

(c) material suppliers or trucking firms that are part of the Contractor's submitted DBE utilization plan.

The report shall be made through the Department's on-line subcontractor payment reporting system within 21 days of making the payment."

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: November 2, 2017
Revised: April 1, 2019

Replace the second paragraph of Article 109.12 of the Standard Specifications with the following:

"This mobilization payment shall be made at least seven days prior to the subcontractor starting work. The amount paid shall be at the following percentage of the amount of the subcontract reported on form BC 260A submitted for the approval of the subcontractor's work.

Value of Subcontract Reported on Form BC 260A	Mobilization Percentage
Less than $10,000	25%
$10,000 to less than $20,000	20%
$20,000 to less than $40,000	18%
$40,000 to less than $60,000	16%
$60,000 to less than $80,000	14%
$80,000 to less than $100,000	12%
$100,000 to less than $250,000	10%
$250,000 to less than $500,000	9%
$500,000 to $750,000	8%
Over $750,000	7%"

TRAFFIC SPOTTERS (BDE)
Effective: January 1, 2019

Revise Article 701.13 of the Standard Specifications to read:

"**701.13 Flaggers and Spotters.** Flaggers shall be certified by an agency approved by the Department. While on the job site, each flagger shall have in his/her possession a current driver's license and a current flagger certification I.D. card. For non-drivers, the Illinois Identification Card issued by the Secretary of State will meet the requirement for a current driver's license. This certification requirement may be waived by the Engineer for emergency situations that arise due to actions beyond the Contractor's control where flagging is needed to maintain safe traffic control on a temporary basis. Spotters are defined as certified flaggers that provide support to workers by monitoring traffic.

Flaggers and spotters shall be stationed to the satisfaction of the Engineer and be equipped with a fluorescent orange, fluorescent yellow/green, or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of ANSI/ISEA 107-2004 or ANSI/ISEA 107-2010 for Conspicuity Class 2 garments. Flaggers shall be equipped with a stop/slow traffic control sign. Spotters shall be equipped with a loud warning device. The warning sound shall be identifiable by workers so they can take evasive action when necessary. 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 requirement. The longitudinal placement of the flagger may be increased up to 100 ft (30 m) from that shown on the plans to improve the visibility of the flagger. Flaggers shall not encroach on the open lane of traffic unless traffic has been stopped. Spotters shall not encroach on the open lane of traffic, nor interact with or control the flow of traffic.

For nighttime flagging, flaggers shall be illuminated by an overhead light source providing a minimum vertical illuminance of 10 fc (108 lux) measured 1 ft (300 mm) out from the flagger's chest. The bottom of any luminaire shall be a minimum of 10 ft (3 m) above the pavement. Luminaire(s) shall be shielded to minimize glare to approaching traffic and trespass light to adjoining properties. Nighttime flaggers shall be equipped with fluorescent orange or fluorescent orange and fluorescent yellow/green apparel meeting the requirements of ANSI/ISEA 107-2004 or ANSI/ISEA 107-2010 for Conspicuity Class 3 garments.

Flaggers and spotters shall be provided per the traffic control plan and as follows.

(a) Two-Lane Highways. Two flaggers will be required for each separate operation where two-way traffic is maintained over one lane of pavement. Work operations controlled by flaggers shall be no more than 1 mile (1600 m) in length. Flaggers shall be in sight of each other or in direct communication at all times. Direct communication shall be obtained by using portable two-way radios or walkie-talkies.

The Engineer will determine when a side road or entrance shall be closed to traffic. A flagger will be required at each side road or entrance remaining open to traffic within the operation where two-way traffic is maintained on one lane of pavement. The flagger shall be positioned as shown on the plans or as directed by the Engineer.

(b) Multi-Lane Highways. At all times where traffic is restricted to less than the normal number of lanes on a multilane pavement with a posted speed limit greater than 40 mph and the workers are present, but not separated from the traffic by physical barriers, a flagger or spotter shall be furnished as shown on the plans. Flaggers shall warn and direct traffic. Spotters shall monitor traffic conditions and warn workers of errant approaching vehicles or other hazardous conditions as they occur. One flagger will be required for each separate activity of an operation that requires frequent encroachment in a lane open to traffic. One spotter will be required for each separate activity with workers near the edge of the open lane or with their backs facing traffic.

Flaggers will not be required when no work is being performed, unless there is a lane closure on two-lane, two-way pavement."

WEEKLY DBE TRUCKING REPORTS (BDE)

Effective: June 2, 2012 Revised: November 1, 2021

The Contractor shall submit a weekly report of Disadvantaged Business Enterprise (DBE) trucks hired by the Contractor or subcontractors (i.e. not owned by the Contractor or subcontractors) that are used for DBE goal credit.

The report shall be submitted to the Engineer on Department form "SBE 723" within ten business days following the reporting period. The reporting period shall be Sunday through Saturday for each week reportable trucking activities occur.

Any costs associated with providing weekly DBE trucking reports shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed.

WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

Effective: March 2, 2020

Add the following to Article 701.03 of the Standard Specifications:

"(q) Temporary Sign Supports .....1106.02"

Revise the third paragraph of Article 701.14 of the Standard Specifications to read:

"For temporary sign supports, the Contractor shall provide a FHWA eligibility letter for each device used on the contract. The letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device. The signs shall be supported within 20 degrees of vertical. Weights used to stabilize signs shall be attached to the sign support per the manufacturer's specifications."

Revise the first paragraph of Article 701.15 of the Standard Specifications to read:

"**701.15 Traffic Control Devices.** For devices that must meet crashworthiness standards, the Contractor shall provide a manufacturer's self-certification or a FHWA eligibility letter for each Category 1 device and a FHWA eligibility letter for each Category 2 and Category 3 device used on the contract. The self-certification or letter shall provide information for the set-up and use of the device as well as a detailed drawing of the device."

Revise the first six paragraphs of Article 1106.02 of the Standard Specifications to read:

"**1106.02 Devices.** Work zone traffic control devices and combinations of devices shall meet crashworthiness standards for their respective categories. The categories are as follows.

Category 1 includes small, lightweight, channelizing and delineating devices that have been in common use for many years and are known to be crashworthy by crash testing of similar devices or years of demonstrable safe performance. These include cones, tubular markers, plastic drums, and delineators, with no attachments (e.g. lights). Category 1 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 1 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2024.

Category 2 includes devices that are not expected to produce significant vehicular velocity change but may otherwise be hazardous. These include vertical panels with lights, barricades, temporary sign supports, and Category 1 devices with attachments (e.g. drums with lights). Category 2 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 2 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2024.

Category 3 includes devices that are expected to cause significant velocity changes or other potentially harmful reactions to impacting vehicles. These include crash cushions (impact attenuators), truck mounted attenuators, and other devices not meeting the definitions of Category 1 or 2. Category 3 devices manufactured after December 31, 2019 shall be MASH-16 compliant. Category 3 devices manufactured on or before December 31, 2019, and compliant with NCHRP 350 or MASH 2009, may be used on contracts let before December 31, 2029. Category 3 devices shall be crash tested for Test Level 3 or the test level specified.

Category 4 includes portable or trailer-mounted devices such as arrow boards, changeable message signs, temporary traffic signals, and area lighting supports. It is preferable for Category 4 devices manufactured after December 31, 2019 to be MASH-16 compliant; however, there are currently no crash tested devices in this category, so it remains exempt from the NCHRP 350 or MASH compliance requirement.

For each type of device, when no more than one MASH-16 compliant is available, an NCHRP 350 or MASH-2009 compliant device may be used, even if manufactured after December 31, 2019."

Revise Articles 1106.02(g), 1106.02(k), and 1106.02(l) to read:

"(g) Truck Mounted/Trailer Mounted Attenuators. The attenuator shall be approved for use at Test Level 3. Test Level 2 may be used for normal posted speeds less than or equal to 45 mph.

(k) Temporary Water Filled Barrier. The water filled barrier shall be a lightweight plastic shell designed to accept water ballast and be on the Department's qualified product list.

Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings.

(l) Movable Traffic Barrier. The movable traffic barrier shall be on the Department's qualified product list.

Shop drawings shall be furnished by the manufacturer and shall indicate the deflection of the barrier as determined by acceptance testing; the configuration of the barrier in that test; and the vehicle weight, velocity, and angle of impact of the deflection test. The Engineer shall be provided one copy of the shop drawings. The barrier shall be capable of being moved on and off the roadway on a daily basis."

PROJECT LABOR AGREEMENT
Effective: May 18, 2007 Revised: August 1, 2019

Description. The Illinois Project Labor Agreements Act, 30 ILCS 571, states that the State of Illinois has a compelling interest in awarding public works contracts so as to ensure the highest standards of quality and efficiency at the lowest responsible cost. A project labor agreement (PLA) is a form of pre-hire collective bargaining agreement covering all terms and conditions of employment on a specific project that is intended to support this compelling interest. It has been determined by the Department that a PLA is appropriate for the project that is the subject of this contract. The PLA document, provided below, only applies to the construction site for this contract. It is the policy of the Department on this contract, and all construction projects, to allow all contractors and subcontractors to compete for contracts and subcontracts without regard to whether they are otherwise parties to collective bargaining agreements.

Execution of Letter of Assent. A copy of the PLA applicable to this project is included as part of this special provision. As a condition of the award of the contract, the successful bidder and each of its subcontractors shall execute a "Contractor Letter of Assent", in the form attached to the PLA as Exhibit A. The successful bidder shall submit a Subcontractor's Contractor Letter of Assent to the Department prior to the subcontractor's performance of work on the project. Upon request, copies of the applicable collective bargaining agreements will be provided by the appropriate signatory labor organization at the pre-job conference.

Quarterly Reporting. Section 37 of the Illinois Project Labor Agreements Act requires the Department to submit quarterly reports regarding the number of minorities and females employed under PLAs. To assist in this reporting effort, the Contractor shall provide a quarterly workforce participation report for all minority and female employees working under the PLA of this contract. The data shall be reported on Construction Form BC 820, Project Labor Agreement (PLA) Workforce Participation Quarterly Reporting Form available on the Department's website http://www.idot.illinois.gov/Assets/uploads/files/IDOT-Forms/BC/BC%20820.docx.

The report shall be submitted no later than the 15th of the month following the end of each quarter (i.e., April 15 for the January – March reporting period). The form shall be emailed to DOT.PLA.Reporting@illinois.gov or faxed to (217) 524-4922.

Any costs associated with complying with this provision shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed.

Illinois Department of Transportation

PROJECT LABOR AGREEMENT

This Project Labor Agreement ("PLA" or "Agreement") is entered into this_____ day of _____, 2022, by and between the Illinois Department of Transportation ("IDOT" or "Department") in its proprietary capacity, and each relevant Illinois AFL-CIO Building Trades signatory hereto as determined by the Illinois AFL-CIO Statewide Project Labor Agreement Committee on behalf of each of its affiliated members (individually and collectively, the "Unions"). This PLA shall apply to Construction Work (as defined herein) to be performed by IDOT's Prime Contractor and each of its subcontractors of whatever tier ("Subcontractor" or "Subcontractors") on Contract No. 60X98(hereinafter, the "Project").

ARTICLE 1 - INTENT AND PURPOSES

1.1 This PLA is entered into in accordance with the Project Labor Agreement Act ("Act", 30 ILCS 571). It is mutually understood and agreed that the terms and conditions of this PLA are intended to promote the public interest in obtaining timely and economical completion of the Project by encouraging productive and efficient construction operations; by establishing a spirit of harmony and cooperation among the parties; and by providing for peaceful and prompt settlement of any and all labor grievances or jurisdictional disputes of any kind without strikes, lockouts, slowdowns, delays, or other disruptions to the prosecution of the work. The parties acknowledge the obligations of the Contractors and Subcontractors to comply with the provisions of the Act. The parties will work with the Contractors and Subcontractors within the parameters of other statutory and regulatory requirements to implement the Act's goals and objectives.

1.2 As a condition of the award of the contract for performance of work on the Project, IDOT's Prime Contractor and each of its Subcontractors shall execute a "Contractor Letter of Assent", in the form attached hereto as Exhibit A, prior to commencing Construction Work on the Project. The Contractor shall submit a Subcontractor's Contractor Letter of Assent to the Department prior to the Subcontractor's performance of Construction Work on the Project. Upon request copies of the applicable collective bargaining agreements will be provided by the appropriate signatory labor organization consistent with this Agreement and at the pre-job conference referenced in Article III, Section 3.1.

1.3 Each Union affiliate and separate local representing workers engaged in Construction Work on the Project in accordance with this PLA are bound to this agreement by the Illinois AFL-CIO Statewide Project Labor Agreement Committee which is the central committee established with full authority to negotiate and sign PLAs with the State on behalf of all respective crafts. Upon their signing the Contractor Letter of Assent, the Prime Contractor, each Subcontractor, and the individual Unions shall thereafter be deemed a party to this PLA. No party signatory to this PLA shall, contract or subcontract, nor permit any other person, firm, company, or entity to contract or subcontract for the performance of Construction Work for the Project to any person, firm, company, or entity that does not agree in writing to become bound for the term of this Project by the terms of this PLA prior to commencing such work and to the applicable area-wide collective bargaining agreement(s) with the Union(s) signatory hereto.

1.4 It is understood that the Prime Contractor(s) and each Subcontractor will be considered and accepted by the Unions as separate employers for the purposes of collective bargaining, and it is further agreed that the employees working under this PLA shall constitute a bargaining unit separate and distinct from all others. The parties hereto also agree that this PLA shall be applicable solely with respect to this Project, and shall have no bearing on the interpretation of any other collective bargaining agreement or as to the recognition of any bargaining unit other than for the specific purposes of this Project.

1.5 In the event of a variance or conflict, whether explicit or implicit, between the terms and conditions of this PLA and the provisions of any other applicable national, area, or local collective bargaining agreement, the terms and conditions of this PLA shall supersede and control. For any work performed under the NTL Articles of Agreement, the National Stack/Chimney Agreement, the National Cooling Tower Agreement, the National Agreement of the International Union of Elevator Constructors, and for any instrument calibration work and loop checking performed under the UA/IBEW Joint National Agreement for Instrument and Control Systems Technicians, the preceding sentence shall apply only with respect to Articles I, II, V, VI, and VII.

1.6 Subject to the provisions of paragraph 1.5 of this Article, it is the parties' intent to respect the provisions of any other collective bargaining agreements that may now or hereafter pertain, whether between the Prime Contractor and one or more of the Unions or between a Subcontractor and one or more of the Unions. Accordingly, except and to the extent of any contrary provision set forth in this PLA, the Prime Contractor and each of its Subcontractors agrees to be bound and abide by the terms of the following in order of precedence: (a) the applicable collective bargaining agreement between the Prime Contractor and one or more of the Unions made signatory hereto; (b) the applicable collective bargaining agreement between a Subcontractor and one or more of the Unions made signatory hereto; or (c) the current applicable area collective bargaining agreement for the relevant Union that is the agreement certified by the Illinois Department of Labor for purposes of establishing the Prevailing Wage applicable to the Project. The Union will provide copies of the applicable collective bargaining agreements pursuant to part (c) of the preceding sentence to the Prime Contractor. Assignments by the Contractors or Subcontractors amongst the trades shall be consistent with area practices; in the event of unresolved disagreements as to the propriety of such assignments, the provisions of Article VI shall apply.

1.7 Subject to the limitations of paragraphs 1.4 to 1.6 of this Article, the terms of each applicable collective bargaining agreement as determined in accordance with paragraph 1.6 are incorporated herein by reference, and the terms of this PLA shall be deemed incorporated into such other applicable collective bargaining agreements only for purposes of their application to the Project.

1.8 To the extent necessary to comply with the requirements of any fringe benefit fund to which the Prime Contractor or Subcontractor is required to contribute under the terms of an applicable collective bargaining agreement pursuant to the preceding paragraph, the Prime Contractor or Subcontractor shall execute all "Participation Agreements" as may be reasonably required by the Union to accomplish such purpose; provided, however, that such Participation Agreements shall, when applicable to the Prime Contractor or Subcontractor solely as a result of this PLA, be amended as reasonably necessary to reflect such fact. Upon written notice in the form of a lien of a Contractor's or Subcontractor's delinquency from any applicable fringe benefit fund, IDOT will withhold from the Contractor's periodic pay request an amount sufficient to extinguish any delinquency obligation of the Contractor or Subcontractor arising out of the Project.

1.9 In the event that the applicable collective bargaining agreement between a Prime Contractor and the Union or between the Subcontractor and the Union expires prior to the completion of this Project, the expired applicable contract's terms will be maintained until a new applicable collective bargaining agreement is ratified. The wages and fringe benefits included in any new applicable collective bargaining agreement will apply on and after the effective date of the newly negotiated collective bargaining agreement, except to the extent wage and fringe benefit retroactivity is specifically agreed upon by the relevant bargaining parties.

ARTICLE II – APPLICABILITY, RECOGNITION, AND COMMITMENTS

2.1 The term Construction Work as used herein shall include all "construction, demolition, rehabilitation, renovation, or repair" work performed by a "laborer or mechanic" at the "site of the work" for the purpose of "building" the specific structures and improvements that constitute the Project. Terms appearing within quotation marks in the preceding sentence shall have the meaning ascribed to them pursuant to 29 CFR Part 5 and Illinois labor laws.

2.2 By executing the Letters of Assent, Prime Contractor and each of its Subcontractors recognizes the Unions signatory to this PLA as the sole and exclusive bargaining representatives for their craft employees employed on the jobsite for this Project. Unions who are signatory to this PLA will have recognition on the Project for their craft.

2.3 The Prime Contractor and each of its Subcontractors retains and shall be permitted to exercise full and exclusive authority and responsibility for the management of its operations, except as expressly limited by the terms of this PLA or by the terms and conditions of the applicable collective bargaining agreement.

2.4 Except to the extent contrary to an express provision of the relevant collective bargaining agreement, equipment or materials used in the Project may be pre-assembled or pre- fabricated, and there shall be no refusal by the Union to handle, transport, install, or connect such equipment or materials. Equipment or materials delivered to the job-site will be unloaded and handled promptly without regard to potential jurisdictional disputes; any such disputes shall be handled in accordance with the provisions of this PLA.

2.5 The parties are mutually committed to promoting a safe working environment for all personnel at the job-site. It shall be the responsibility of each employer to which this PLA applies to provide and maintain safe working conditions for its employees, and to comply with all applicable federal, state, and local health and safety laws and regulations.

2.6 The use or furnishing of alcohol or drugs and the conduct of any other illegal activity at the job-site is strictly prohibited. The parties shall take every practical measure consistent with the terms of applicable collective bargaining agreements to ensure that the job-site is free of alcohol and drugs.

2.7 All parties to this PLA agree that they will not discriminate against any employee based on race, creed, religion, color, national origin, union activity, age, gender or sexual orientation and shall comply with all applicable federal, state, and local laws.

2.8 In accordance with the Act and to promote diversity in employment, IDOT will establish, in cooperation with the other parties, the apprenticeship hours which are to be performed by minorities and females on the Project. IDOT shall consider the total hours to be performed by these underrepresented groups, as a percentage of the workforce, and create aspirational goals for each Project, based on the level of underutilization for the service area of the Project (together "Project Employment Objectives"). IDOT shall provide a quarterly report regarding the racial and gender composition of the workforce on the Project.

Persons currently lacking qualifications to enter apprenticeship programs will have the opportunity to obtain skills through basic training programs as have been established by the Department. The parties will endeavor to support such training programs to allow participants to obtain the requisite qualifications for the Project Employment Objectives.

The parties agree that all Contractors and Subcontractors working on the Project shall be encouraged to utilize the maximum number of apprentices as permitted under the terms of the applicable collective bargaining agreements to realize the Project Employment Objectives.

The Unions shall assist the Contractor and each Subcontractor in efforts to satisfy Project Employment Objectives. A Contractor or Subcontractor may request from a Union specific categories of workers necessary to satisfy Project Employment Objectives. The application of this section shall be consistent with all local Union collective bargaining agreements, and the hiring hall rules and regulations established for the hiring of personnel, as well as the apprenticeship standards set forth by each individual Union.

2.9 The parties hereto agree that engineering consultants and materials testing employees, to the extent subject to the terms of this PLA, shall be fully expected to objectively and responsibly perform their duties and obligations owed to the Department without regard to the potential union affiliation of such employees or of other employees on the Project.

2.10 This Agreement shall not apply to IDOT employees or employees of any other governmental entity.

ARTICLE III - ADMINISTRATION OF AGREEMENT

3.1 In order to assure that all parties have a clear understanding of the PLA, and to promote harmony, at the request of the Unions a post-award pre-job conference will be held among the Prime Contractor, all Subcontractors and Union representatives prior to the start of any Construction Work on the Project. No later than the conclusion of such pre-job conference, the parties shall, among other matters, provide to one another contact information for their respective representatives (including name, address, phone number, facsimile number, e-mail). Nothing herein shall be construed to limit the right of the Department to discuss or explain the purpose and intent of this PLA with prospective bidders or other interested parties prior to or following its award of the job.

3.2 Representatives of the Prime Contractor and the Unions shall meet as often as reasonably necessary following award until completion of the Project to assure the effective implementation of this PLA.

3.3 Any notice contemplated under Article VI and VII of this Agreement to a signatory labor organization shall be made in writing to the Local Union with copies to the local union's International Representative.

ARTICLE IV - HOURS OF WORK AND GENERAL CONDITIONS

4.1 The standard work day and work week for Construction Work on the Project shall be consistent with the respective collective bargaining agreements. In the event Project site or other job conditions dictate a change in the established starting time and/or a staggered lunch period for portions of the Project or for specific crafts, the Prime Contractor, relevant Subcontractors and business managers of the specific crafts involved shall confer and mutually agree to such changes as appropriate. If proposed work schedule changes cannot be mutually agreed upon between the parties, the hours fixed at the time of the pre-job meeting shall prevail.

4.2 Shift work may be established and directed by the Prime Contractor or relevant Subcontractor as reasonably necessary or appropriate to fulfill the terms of its contract with the Department. If used, shift hours, rates and conditions shall be as provided in the applicable collective bargaining agreement.

4.3 The parties agree that chronic and/or unexcused absenteeism is undesirable and must be controlled in accordance with procedures established by the applicable collective bargaining agreement. Any employee disciplined for absenteeism in accordance with such procedures shall be suspended from all work on the Project for not less than the maximum period permitted under the applicable collective bargaining agreement.

4.4 Except as may be otherwise expressly provided by the applicable collective bargaining agreement, employment begins and ends at the Project site; employees shall be at their place of work at the starting time; and employees shall remain at their place of work until quitting time.

4.5 Except as may be otherwise expressly provided by the applicable collective bargaining agreement, there shall be no limit on production by workmen, no restrictions on the full use of tools or equipment, and no restrictions on efficient use of manpower ortechniques of construction other than as may be required by safety regulations.

4.6 The parties recognize that specialized or unusual equipment may be installed on the Project. In such cases, the Union recognizes the right of the Prime Contractor or Subcontractor to involve the equipment supplier or vendor's personnel in supervising the setting up of the equipment, making modifications and final alignment, and performing similar activities that may be reasonably necessary prior to and during the start-up procedure in order to protect factory warranties. The Prime Contractor or Subcontractor shall notify the Union representatives in advance of any work at the job-site by such vendor personnel in order to promote a harmonious relationship between the equipment vendor's personnel and other Project employees.

4.7 For the purpose of promoting full and effective implementation of this PLA, authorized Union representatives shall have access to the Project job-site during scheduled work hours. Such access shall be conditioned upon adherence to all reasonable visitor and security rules of general applicability that may be established for the Project site at the pre-job conference or from time to time thereafter.

ARTICLE V – GRIEVANCE PROCEDURES FOR DISPUTES ARISING UNDER A PARTICULAR COLLECTIVE BARGAINING AGREEMENT

5.1 In the event a dispute arises under a particular collective bargaining agreement specifically not including jurisdictional disputes referenced in Article VI below, said dispute shall be resolved by the Grievance/Arbitration procedure of the applicable collective bargaining agreement. The resulting determination from this process shall be final and binding on all parties bound to its process.

5.2 Employers covered under this Agreement shall have the right to discharge or discipline any employee who violates the provisions of this Agreement. Such discharge or discipline by a contractor or subcontractor shall be subject to Grievance/Arbitration procedure of the applicable collective bargaining agreement only as to the fact of such violation of this agreement. If such fact is established, the penalty imposed shall not be disturbed. Work at the Project site shall continue without disruption or hindrance of any kind as a result of a Grievance/Arbitration procedure under this Article.

5.3 In the event there is a deadlock in the foregoing procedure, the parties agree that the matter shall be submitted to arbitration for the selection and decision of an Arbitrator governed under paragraph 6.8.

ARTICLE VI –DISPUTES: GENERAL PRINCIPLES

6.1 This Agreement is entered into to prevent strikes, lost time, lockouts and to facilitate the peaceful adjustment of jurisdictional disputes in the building and construction industry and to prevent waste and unnecessary avoidable delays and expense, and for the further purpose of at all times securing for the employer sufficient skilled workers.

6.2 A panel of Permanent Arbitrators are attached as addendum (A) to this agreement. By mutual agreement between IDOT and the Unions, the parties can open this section of the agreement as needed to make changes to the list of permanent arbitrators.

The arbitrator is not authorized to award back pay or any other damages for a miss assignment of work. Nor may any party bring an independent action for back pay or any other damages, based upon a decision of an arbitrator.

6.3 The PLA Jurisdictional Dispute Resolution Process ("Process") sets forth the procedures below to resolve jurisdictional disputes between and among Contractors, Subcontractors, and Unions engaged in the building and construction industry. Further, the Process will be followed for any grievance or dispute arising out of the interpretation or application of this PLA by the parties except for the prohibition on attorneys contained in 6.11. All decisions made through the Process are final and binding upon all parties.

DISPUTE PROCESS

6.4 Administrative functions under the Process shall be performed through the offices of the President and/or Secretary-Treasurer of the Illinois State Federation of Labor, or their designated representative, called the Administrator. In no event shall any officer, employee, agent, attorney, or other representative of the Illinois Federation of Labor, AFL- CIO be subject to any subpoena to appear or testify at any jurisdictional dispute hearing.

6.5 There shall be no abandonment of work during any case participating in this Process or in violation of the arbitration decision. All parties to this Process release the Illinois State Federation of Labor ("Federation") from any liability arising from its action or inaction and covenant not to sue the Federation, nor its officers, employees, agents or attorneys.

6.6 In the event of a dispute relating to trade or work jurisdiction, all parties, including the employers, Contractors or Subcontractors, agree that a final and binding resolution of the dispute shall be resolved as follows:

(a) Representatives of the affected trades and the Contractor or Subcontractor shall meet on the job site within two (2) business days after receiving written notice in an effort to resolve the dispute. (In the event there is a dispute between local unions affiliated with the same International Union, the decision of the General President, or his/her designee, as the internal jurisdictional authority of that International Union, shall constitute a final and binding decision and determination as to the jurisdiction of work.)

(b) If no settlement is achieved subsequent to the preceding Paragraph, the matter shall be referred to the local area Building & Construction Trades Council, which shall meet with the affected trades within two (2) business days subsequent to receiving written notice. In the event the parties do not wish to avail themselves of the local Building & Construction Trades Council, the parties may elect to invoke the services of their respective International Representatives with no extension of the time limitations. An agreement reached at this Step shall be final and binding upon all parties.

(c) If no settlement agreement is reached during the proceedings contemplated by Paragraphs “a” or “b” above, the matter shall be immediately referred to the Illinois Jurisdictional Dispute Process for final and binding resolution of said dispute. Said referral submission shall be in writing and served upon the Illinois State Federation of Labor, or the Administrator, pursuant to paragraph 6.4 of this agreement. The Administrator shall, within three (3) days, provide for the selection of an available Arbitrator to hear said dispute within this time period. Upon good cause shown and determined by the Administrator, an additional three (3) day extension for said hearing shall be granted at the sole discretion of the Administrator. Only upon mutual agreement of all parties may the Administrator extend the hearing for a period in excess of the time frames contemplated under this Paragraph. Business days are defined as Monday through Friday, excluding contract holidays.

6.7 The primary concern of the Process shall be the adjustment of jurisdictional disputes arising out of the Project. A sufficient number of Arbitrators shall be selected from list of approved Arbitrators as referenced Sec. 6.2 and shall be assigned per Sec. 6.8. Decisions shall be only for the Project and shall become effective immediately upon issuance and complied with by all parties. The authority of the Arbitrator shall be restricted and limited specifically to the terms and provisions of Article VI and generally to this Agreement as a whole.

6.8 Arbitrator chosen shall be randomly selected based on the list of Arbitrators in Sec. 6.2 and geographical location of the jurisdictional dispute and upon his/her availability, and ability to conduct a Hearing within two (2) business days of said notice. The Arbitrator may issue a "bench" decision immediately following the Hearing or he/she may elect to only issue a written decision, said decision must be issued within two (2) business days subsequent to the completion of the Hearing. Copies of all notices, pleadings, supporting memoranda, decisions, etc. shall be provided to all disputing parties and the Illinois State Federation of Labor.

Any written decision shall be in accordance with this Process and shall be final and binding upon all parties to the dispute and may be a "short form" decision. Fees and costs of the arbitrator shall be divided evenly between the contesting parties except that any party wishing a full opinion and decision beyond the short form decision shall bear the reasonable fees and costs of such full opinion. The decision of the Arbitrator shall be final and binding upon the parties hereto, their members, and affiliates.

In cases of jurisdictional disputes or other disputes between a signatory labor organization and another labor organization, both of which is an affiliate or member of the same International Union, the matter or dispute shall be settled in the manner set forth by their International Constitution and/or as determined by the International Union's General President whose decision shall be final and binding upon all parties. In no event shall there be an abandonment of work.

6.9 In rendering a decision, the Arbitrator shall determine:

(a) First, whether a previous agreement of record or applicable agreement, including a disclaimer agreement, between National or International Unions to the dispute or agreements between local unions involved in the dispute, governs;

(b) Only if the Arbitrator finds that the dispute is not covered by an appropriate or applicable agreement of record or agreement between the crafts to the dispute, he shall then consider the established trade practice in the industry and prevailing practice in the locality. Where there is a previous decision of record governing the case, the Arbitrator shall give equal weight to such decision of record, unless the prevailing practice in the locality in the past ten years favors one craft. In that case, the Arbitrator shall base his decision on the prevailing practice in the locality. Except, that if the Arbitrator finds that a craft has improperly obtained the prevailing practice in the locality through raiding, the undercutting of wages or by the use of vertical agreements, the Arbitrator shall rely on the decision of record and established trade practice in the industry rather than the prevailing practice in the locality; and,

(c) Only if none of the above criteria is found to exist, the Arbitrator shall then consider that because efficiency, cost or continuity and good management are essential to the well being of the industry, the interests of the consumer or the past practices of the employer shall not be ignored.

(d) The arbitrator is not authorized to award back pay or any other damages for a mis-assignment of work. Nor may any party bring an independent action for back pay or any other damages, based upon a decision of an arbitrator.

6.10 The Arbitrator shall set forth the basis for his/her decision and shall explain his/her findings regarding the applicability of the above criteria. If lower ranked criteria are relied upon, the Arbitrator shall explain why the higher-ranked criteria were not deemed applicable. The Arbitrator's decision shall only apply to the Project. Agreements of Record, for other PLA projects, are applicable only to those parties signatory to such agreements. Decisions of Record are those that were either attested to by the former Impartial Jurisdictional Disputes Board or adopted by the National Arbitration Panel.

6.11 All interested parties, as determined by the Arbitrator, shall be entitled to make presentations to the Arbitrator. Any interested labor organization affiliated to the PLA Committee and party present at the Hearing, whether making a presentation or not, by such presence shall be deemed to accept the jurisdiction of the Arbitrator and to agreeto be bound by its decision. In addition to the representative of the local labor organization, a representative of the labor organization's International Union may appear on behalf of the parties. Each party is responsible for arranging for its witnesses. In the event an Arbitrator's subpoena is required, the party requiring said subpoena shall prepare the subpoena for the Arbitrator to execute. Service of the subpoena upon any witness shall be the responsibility of the issuing party.

Attorneys shall not be permitted to attend or participate in any portion of a Hearing.

The parties are encouraged to determine, prior to Hearing, documentary evidence which may be presented to the Arbitrator on a joint basis.

6.12 The Order of Presentation in all Hearings before an Arbitrator shall be

I. Identification and Stipulation of the Parties
II. Unions(s) claiming the disputed work presents its case
III. Union(s) assigned the disputed work presents its case
IV. Employer assigning the disputed work presents its case
V. Evidence from other interested parties (i.e., general contractor, project manager, owner)
VI. Rebuttal by union(s) claiming the disputed work
VII. Additional submissions permitted and requested by Arbitrator
VIII. Closing arguments by the parties

6.13 All parties bound to the provisions of this Process hereby release the Illinois State Federation of Labor and IDOT, their respective officers, agents, employees or designated representatives, specifically including any Arbitrator participating in said Process, from any and all liability or claim, of whatsoever nature, and specifically incorporating the protections provided in the Illinois Arbitration Act, as amended from time to time.

6.14 The Process, as an arbitration panel, nor its Administrator, shall have any authority to undertake any action to enforce its decision(s). Rather, it shall be the responsibility of the prevailing party to seek appropriate enforcement of a decision, including findings, orders or awards of the Arbitrator or Administrator determining non-compliance with a prior award or decision.

6.15 If at any time there is a question as to the jurisdiction of the Illinois Jurisdictional Dispute Resolution Process, the primary responsibility for any determination of the arbitrability of a dispute and the jurisdiction of the Arbitrator shall be borne by the party requesting the Arbitrator to hear the underlying jurisdictional dispute. The affected party or parties may proceed before the Arbitrator even in the absence or one or more stipulated parties with the issue of jurisdiction as an additional item to be decided by the Arbitrator. The Administrator may participate in proceedings seeking a declaration or determination that the underlying dispute is subject to the jurisdiction and process of the Illinois Jurisdictional Dispute Resolution Process. In any such proceedings, the non-prevailing party and/or the party challenging the jurisdiction of the Illinois Jurisdictional Dispute Resolution Process shall bear all the costs, expenses and attorneys' fees incurred by the Illinois Jurisdictional Dispute Resolution Process and/or its Administrator in establishing its jurisdiction.

ARTICLE VII - WORK STOPPAGES AND LOCKOUTS

7.1 During the term of this PLA, no Union or any of its members, officers, stewards, employees, agents or representatives shall instigate, support, sanction, maintain, or participate in any strike, picketing, walkout, work stoppage, slow down or other activity that interferes with the routine and timely prosecution of work at the Project site or at any other contractor's or supplier's facility that is necessary to performance of work at the Project site. Hand billing at the Project site during the designated lunch period and before commencement or following conclusion of the established standard workday shall not, in itself, be deemed an activity that interferes with the routine and timely prosecution of work on the Project.

7.2 Should any activity prohibited by paragraph 7.1 of this Article occur, the Union shall undertake all steps reasonably necessary to promptly end such prohibited activities.

7.2.A No Union complying with its obligations under this Article shall be liable for acts of employees for which it has no responsibility or for the unauthorized acts of employees it represents. Any employee who participates or encourages any activity prohibited by paragraph 7.1 shall be immediately suspended from allwork on the Project for a period equal to the greater of (a) 60 days; or (b) the maximum disciplinary period allowed under the applicable collective bargaining agreement for engaging in comparable unauthorized or prohibited activity.

7.2.B Neither the PLA Committee nor its affiliates shall be liable for acts of employees for which it has no responsibility. The principal officer or officers of the PLA Committee will immediately instruct, order and use the best efforts of his office to cause the affiliated union or unions to cease any violations of this Article. The PLA Committee in its compliance with this obligation shall not liable for acts of its affiliates. The principal officer or officers of any involved affiliate will immediately instruct, order or use the best effort of his office to cause the employees the union represents to cease any violations of this Article. A union complying with this obligation shall not be liable for unauthorized acts of employees it represents. The failure of the Contractor to exercise its rights in any instance shall not be deemed a waiver of its rights in any other instance.

During the term of this PLA, the Prime Contractor and its Subcontractors shall not engage in any lockout at the Project site of employees covered by this Agreement.

7.3 Upon notification of violations of this Article, the principal officer or officers of the local area Building and Construction Trades Council, and the Illinois AFL-CIO Statewide Project Labor Agreement Committee as appropriate, will immediately instruct, order and use their best efforts to cause the affiliated union or unions to cease any violations of this Article. A Trades Council and the Committee otherwise in compliance with the obligations under this paragraph shall not be liable for unauthorized acts of its affiliates.

7.4 In the event that activities in violation of this Article are not immediately halted through the efforts of the parties, any aggrieved party may invoke the special arbitration provisions set forth in paragraph 7.5 of this Article.

7.5 Upon written notice to the other involved parties by the most expeditious means available, any aggrieved party may institute the following special arbitration procedure when a breech of this Article is alleged:

7.5.A The party invoking this procedure shall notify the individual designated as the Permanent Arbitrator pursuant to paragraph 6.8 of the nature of the alleged violation; such notice shall be by the most expeditious means possible. The initiating party may also furnish such additional factual information as may be reasonably necessary for the Permanent Arbitrator to understand the relevant circumstances. Copies of any written materials provided to the arbitrator shall also be contemporaneously provided by the most expeditious means possible to the party alleged to be in violation and to all other involved parties.

7.5.B Upon receipt of said notice the Permanent Arbitrator shall set and hold a hearing within twenty-four (24) hours if it is contended the violation is ongoing, but not before twenty-four (24) hours after the written notice to all parties involved as required above.

7.5.C The Permanent Arbitrator shall notify the parties by facsimile or any other effective written means, of the place and time chosen by the Permanent Arbitrator for this hearing. Said hearing shall be completed in one session. A failure of any party or parties to attend said hearing shall not delay the hearing of evidence or issuance of an Award by the Permanent Arbitrator.

7.5.D The sole issue at the hearing shall be whether a violation of this Article has, in fact, occurred. An Award shall be issued in writing within three (3) hours after the close of the hearing, and may be issued without a written opinion. If any party desires a written opinion, one shall be issued within fifteen (15) days, but its issuance shall not delay compliance with, or enforcement of, the Award. The Permanent Arbitrator may order cessation of the violation of this Article, and such Award shall be served on all parties by hand or registered mail upon issuance.

7.5.E Such Award may be enforced by any court of competent jurisdiction upon the filing of the Award and such other relevant documents as may be required. Facsimile or other hardcopy written notice of the filing of such enforcement proceedings shall be given to the other relevant parties. In a proceeding to obtain a temporary order enforcing the Permanent Arbitrator's Award as issued under this Article, all parties waive the right to a hearing and agree that such proceedings may be ex parte. Such agreement does not waive any party's right to participate in a hearing for a final order of enforcement. The Court's order or orders enforcing the Permanent Arbitrator's Award shall be served on all parties by hand or by delivery to their last known address or by registered mail.

7.6 Individuals found to have violated the provisions of this Article are subject to immediate termination. In addition, IDOT reserves the right to terminate this PLA as to any party found to have violated the provisions of this Article.

7.7 Any rights created by statue or law governing arbitration proceedings inconsistent with the above procedure or which interfere with compliance therewith are hereby waived by parties to whom they accrue.

7.8 The fees and expenses of the Permanent Arbitrator shall be borne by the party or parties found in violation, or in the event no violation is found, such fees and expenses shall be borne by the moving party.

ARTICLE VIII – TERMS OF AGREEMENT

8.1 If any Article or provision of this Agreement shall be declared invalid, inoperative or unenforceable by operation of law or by any of the above mentioned tribunals of competent jurisdiction, the remainder of this Agreement or the application of such Article or provision to persons or circumstances other than those as to which it has been held invalid, inoperative or unenforceable shall not be affected thereby.

8.2 This Agreement shall be in full force as of and from the date of the Notice of Award until the Project contract is closed.

8.3 This PLA may not be changed or modified except by the subsequent written agreement of the parties. All parties represent that they have the full legal authority to enter into this PLA. This PLA may be executed by the parties in one or more counterparts.

8.4 Any liability arising out of this PLA shall be several and not joint. IDOT shall not be liable to any person or other party for any violation of this PLA by any other party, and no Contractor or Union shall be liable for any violation of this PLA by any other Contractor or Union.

8.5 The failure or refusal of a party to exercise its rights hereunder in one or more instances shall not be deemed a waiver of any such rights in respect of a separate instance of the same or similar nature.

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Addendum A

IDOT Slate of Permanent Arbitrators

1. Bruce Feldacker
2. Thomas F. Gibbons
3. Edward J. Harrick
4. Brent L. Motchan
5. Robert Perkovich
6. Byron Yaffee
7. Glenn A. Zipp

Execution Page

Illinois Department of Transportation

Director of Highways Project Implementation

Director of Finance & Administration

Yangsu Kim, Chief Counsel

Omer Osman, Secretary (Date)

Illinois AFL-CIO Statewide Project Labor Agreement Committee, representing the Unions listed below:

(Date)

List Unions:

Exhibit A - Contractor Letter of Assent

(Date)

To All Parties:

In accordance with the terms and conditions of the contract for Construction Work on [Contract No. 60X98], this Letter of Assent hereby confirms that the undersigned Prime Contractor or Subcontractor agrees to be bound by the terms and conditions of the Project Labor Agreement established and entered into by the Illinois Department of Transportation in connection with said Project.

It is the understanding and intent of the undersigned party that this Project Labor Agreement shall pertain only to the identified Project. In the event it is necessary for the undersigned party to become signatory to a collective bargaining agreement to which it is not otherwise a party in order that it may lawfully make certain required contributions to applicable fringe benefit funds, the undersigned party hereby expressly conditions its acceptance of and limits its participation in such collective bargaining agreement to its work on the Project.

(Authorized Company Officer)

(Company)

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (*see* 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:
(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than $10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA- 1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding (29 CFR 5.5)

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally- assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records (29 CFR 5.5)

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or

subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees (29 CFR 5.5)

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the

corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility (29 CFR 5.5)

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1 of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1 of this section. 29 CFR 5.5.

* $27 as of January 23, 2019 (See 84 FR 213-01, 218) as may be adjusted annually by the Department of Labor; pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990).

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 of this section. 29 CFR 5.5.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section. 29 CFR 5.5.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance

with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal- aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.326.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.326.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. **Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant

who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is

submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(b) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(c) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier

subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

Contract Provision - Cargo Preference Requirements

In accordance with Title 46 CFR § 381.7 (b), the contractor agrees—

"(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract."

Provisions (1) and (2) apply to materials or equipment that are acquired solely for the project. The two provisions do not apply to goods or materials that come into inventories independent of the project, such as shipments of Portland cement, asphalt cement, or aggregates, when industry suppliers and contractors use these materials to replenish existing inventories.