81

Letting August 1, 2025

Notice to Bidders, Specifications and Proposal

Illinois Department of Transportation

Contract No. 91653
MCLEAN County
Section 24-00360-01-PV (Bloomington)
Route FAU 6371 (Hamilton Road)
Project SSG2-394 ()
District 5 Construction Funds

Prepared by

Checked by

F

(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. August 1, 2025 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. 91653
   MCLEAN County
   Section 24-00360-01-PV (Bloomington)
   Project SSG2-394 ()
   Route FAU 6371 (Hamilton Road)
   District 5 Construction Funds

Reconstruction and re-alignment of Hamilton Road from west of Bunn Street to existing Hamilton Road at Commerce Parkway, and reconstruction of Rhodes Lane from Hamilton Road to Morrissey Drive in Bloomington.

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

Gia Biagi,
Secretary

CONTRACT 91653

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2025

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS, frequently used RECURRING SPECIAL PROVISIONS, and LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS.

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-22) (Revised 1-1-25)

SUPPLEMENTAL SPECIFICATIONS

RECURRING SPECIAL PROVISIONS

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

LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

Table of Contents

TABLE OF CONTENTS

BDE SPECIAL PROVISIONS

The following special provisions indicated by an "X" are applicable to this contract. An * indicates a new or revised special provision for the letting.

	File Name	Pg.		Special Provision Title	Effective	Revised
	80099		☐	Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2022
	80274	185	☒	Aggregate Subgrade Improvement	April 1, 2012	April 1, 2022
	80192	188	☒	Automated Flagger Assistance Device	Jan. 1, 2008	April 1, 2023
	80173	189	☒	Bituminous Materials Cost Adjustments	Nov. 2, 2006	Aug. 1, 2017
	80426		☐	Bituminous Surface Treatment with Fog Seal	Jan. 1, 2020	Jan. 1, 2022
	80241		☐	Bridge Demolition Debris	July 1, 2009	
	5053I		☐	Building Removal	Sept. 1, 1990	Aug. 1, 2022
	5026I		☐	Building Removal with Asbestos Abatement	Sept. 1, 1990	Aug. 1, 2022
	80460	191	☒	Cement, Finely Divided Minerals, Admixtures, Concrete, and Mortar	Jan. 1, 2025	
	80384	202	☒	Compensable Delay Costs	June 2, 2017	April 1, 2019
	80198		☐	Completion Date (via calendar days)	April 1, 2008	
	80199		☐	Completion Date (via calendar days) Plus Working Days	April 1, 2008	
	80461		☐	Concrete Barrier	Jan. 1, 2025	
	80453		☐	Concrete Sealer	Nov. 1, 2023	
	80261		☐	Construction Air Quality – Diesel Retrofit	June 1, 2010	Jan. 1, 2025
	80029	206	☒	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Jan. 2, 2025
*	80467		☐	Erosion Control Blanket	Aug. 1, 2025	
	80229		☐	Fuel Cost Adjustment	April 1, 2009	Aug. 1, 2017
	80452		☐	Full Lane Sealant Waterproofing System	Nov. 1, 2023	
	80447		☐	Grading and Shaping Ditches	Jan 1, 2023	
	80433		☐	Green Preformed Thermoplastic Pavement Markings	Jan. 1, 2021	Jan. 1, 2022
	80456	209	☒	Hot-Mix Asphalt	Jan. 1, 2024	Jan. 1, 2025
	80446	211	☒	Hot-Mix Asphalt – Longitudinal Joint Sealant	Nov. 1, 2022	Aug. 1, 2023
	80438		☐	Illinois Works Apprenticeship Initiative – State Funded Contracts	June 2, 2021	April 2, 2024
*	80450		☐	Mechanically Stabilized Earth Retaining Walls	Aug. 1, 2023	Aug. 1, 2025
	80464	213	☒	Pavement Marking Inspection	April 1, 2025	
*	80468	214	☒	Pavement Patching	Aug. 1, 2025	
	80441	215	☒	Performance Graded Asphalt Binder	Jan 1, 2023	
	80459		☐	Preformed Plastic Pavement Marking	June 2, 2024	
	3426I	220	☒	Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2022
	80455	221	☒	Removal and Disposal of Regulated Substances	Jan. 1, 2024	April 1, 2024
	80445	223	☒	Seeding	Nov. 1, 2022	
	80457	229	☒	Short Term and Temporary Pavement Markings	April 1, 2024	April 2, 2024
	80462	233	☒	Sign Panels and Appurtenances	Jan. 1, 2025	April 1, 2025
*	80469		☐	Slope Wall	Aug. 1, 2025	
	80448	234	☒	Source of Supply and Quality Requirements	Jan. 2, 2023	
	80340		☐	Speed Display Trailer	April 2, 2014	Jan. 1, 2022
	80127	235	☒	Steel Cost Adjustment	April 2, 2004	Jan. 1, 2022
	80397	238	☒	Subcontractor and DBE Payment Reporting	April 2, 2018	
	80391	239	☒	Subcontractor Mobilization Payments	Nov. 2, 2017	April 1, 2019
*	80463	240	☒	Submission of Bidders List Information	Jan. 2, 2025	Mar. 2, 2025
	80437	241	☒	Submission of Payroll Records	April 1, 2021	Nov. 2, 2023
	80435		☐	Surface Testing of Pavements – IRI	Jan. 1, 2021	Jan. 1, 2023
	80465	243	☒	Surveying Services	April 1, 2025	
	80466		☐	Temporary Rumble Strips	April 1, 2025	
*	80470	244	☒	Traffic Signal Backplate	Aug. 1, 2025	
	20338	245	☒	Training Special Provisions	Oct. 15, 1975	Sept. 2, 2021
	80429		☐	Ultra-Thin Bonded Wearing Course	April 1, 2020	Jan. 1, 2022
	80439	248	☒	Vehicle and Equipment Warning Lights	Nov. 1, 2021	Nov. 1, 2022
	80458		☐	Waterproofing Membrane System	Aug. 1, 2024	
	80302	249	☒	Weekly DBE Trucking Reports	June 2, 2012	Jan. 2, 2025
	80454		☐	Wood Sign Support	Nov. 1, 2023	
	80427	250	☒	Work Zone Traffic Control Devices	Mar. 2, 2020	Jan. 1, 2025
	80071	252	☒	Working Days	Jan. 1, 2002	

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", Adopted January 1, 2022, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", and the "Manual of Test Procedures of Materials" in effect on the date of invitation of bids, and the "Supplemental Specifications and Recurring Special Provisions" indicated on the Check Sheet included herein which apply to and govern the construction of Hamilton Road, Project SSG2(394), Section 24-00360-01-PV, in McLean County and in case of conflict with any parts, or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

LOCATION OF PROJECT

This project is located on Hamilton Road, Bunn Street, Rhodes Lane, and US Route 150 (Morrissey Drive) in McLean County:

From approximately 680 feet west of the intersection of Bunn Street and Hamilton Road to the intersection of Hamilton Road and Commerce Parkway.

DESCRIPTION OF PROJECT

The work on this project consists of improvements along Hamilton Road, Bunn Street, and Rhodes Lane in Bloomington. The work in this contract consists of HMA pavement, curb and gutter, storm sewer system, sidewalk, multi-use path, watermain, fencing and all incidental items shown in the plans and as described in these Special Provisions.

INTERIM COMPLETION DATES

Completion Date via Calendar Days (Stage 1C). All Stage 1C work shall be complete within **36 calendar days** once the Contractor starts work on this Stage. The Contractor shall begin work on this Stage without delay once written authorization is provided by the Engineer. Construction operations to be performed during this time period shall include all work necessary to complete all removals; install underground utilities; construct all pavements, curbs, sidewalks, and pavement marking as shown in the plans, and other work necessary to open the road to traffic. **The full amount of liquidated damages as specified herein shall be assessed per calendar day should the Contractor fail to complete the specified work within the specified number of Calendar Days.**

WORKING RESTRICTIONS

The proposed railroad crossing shall be complete and fully operational before any traffic will be allowed to utilize the proposed crossing.

No work shall begin in the subsequent Stage without substantial completion of the previous Stage work except as approved by the Engineer and the following exceptions:

- Stage 1A, 1B, and 1C work may be done concurrently.
- Stage 1C work shall begin without delay after completion of the railroad siding work being completed by others and written authorization by the Engineer is received. This work shall be completed within the allotted calendar days once work has been started. Subsequent stage work shall not be delayed due to the Stage 1C work at the railroad crossing.
- Due to the unknown schedule for completion of the RR siding work by others, Stage 2 and 3 work on Rhodes Lane from approximately Sta. 314+00 to Morrissey Drive may be delayed to subsequent stages to allow traffic to be maintained until the Hamilton Road railroad crossing is complete and operational. Delay on work in this area shall not prevent the Contractor from proceeding with subsequent stage work.
- Stage 2 work may proceed after the substantial completion of Stage 1A.

Stage 1B work adjacent to the proposed Hamilton Road at grade crossing shall remain outside the railroad ROW and maintain the required minimum clearance away from the railroad as to not require any railroad flaggers. The Contractor shall be responsible for any costs incurred due to Stage 1B operations that violate the required clearances and require railroad flaggers.

No stage work shall begin without the Contractor being able to substantially complete that stage prior to the winter shutdown except as approved by the Engineer. This restriction does not apply to the railroad crossing. The winter shutdown shall be staged in accordance with the Stage 3 traffic control plans once Stage 2 is substantially complete. Underground utility operations will be allowed in the Stage 3 work zone during the winter shutdown. Lane closures shall not be allowed over the winter shutdown except a shown on the traffic control plan for Stage 3 which shall be used during the winter shutdown. Any lane closures shall be coordinated at least two weeks in advance with the City.

Except as otherwise provided herein, the Contractor shall provide at least one entrance/exit point to all properties at all times.

Property owners and businesses within the construction limits shall be given two weeks' notice for any changes in traffic patterns or entrance work.

PUBLIC MEETING

The City plans on scheduling a public meeting after project award and before major construction activities commence. The Contractor shall be required to attend and provide information requested by the City to present to the public at the meeting. Contractor shall have a construction schedule available at the time of the meeting to present and discuss.

X7010216 TRAFFIC CONTROL AND PROTECTION (SPECIAL)
40201000 AGGREGATE FOR TEMPORARY ACCESS
Z0007430 TEMPORARY SIDEWALK
Z0016702 DETOUR SIGNING

Description

This work shall consist of providing the necessary traffic control personnel and devices and the installation, maintenance, relocation and removal of these devices during construction of the improvement. The City of Bloomington will be responsible for notifying the public, the United States Postal Service, and the emergency service agencies for road closures and changes in the traffic control and maintenance of traffic plans.

TRAFFIC CONTROL PLAN

Traffic control shall be in accordance with the applicable sections of the "Standard Specifications for Road and Bridge Construction," the applicable guidelines contained in the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways," these Special Provisions, and any special details and Highway Standards contained herein and in the plans.

Special attention is called to Articles 107.09 and 107.14 and Sections 701 through 705 of the SSRBC and the traffic control related Highway Standards shown in the plans; Supplemental Specifications and Recurring Special Provisions; BDE Special Provisions; and Other Special Provisions relating to Traffic Control.

Highway Standards:
701006, 701011, 701101, 701201, 701301, 701311, 701501, 701601, 701602, 701611, 701701, 701801, 701901

Special Provisions

LRS 3	Work Zone Traffic Control Surveillance
LRS 4	Flaggers in Work Zones

Traffic/Access: The contractor is required to:

1. Provide aggregate for temporary access at vehicle entrances.

Maintenance of Traffic

Road closures and the conveyance of thru and local traffic within and around the construction zone shall be provided for in accordance with the Plan Details noted above and the use of the above referenced Highway Standards as directed by the Engineer.

With the approval of the Engineer, the Contractor may modify the suggested construction sequence and associated traffic control procedures as shown. The Contractor shall submit his proposed sequence of operations and any necessary revisions to attendant traffic control to the Engineer for approval before actual construction operations begin.

Driveways

The Contractor shall keep driveways open to traffic by keeping at least half of the width of said driveway open or by providing access at a temporary location, as approved by the Engineer. The Contractor shall provide and maintain access to commercial and private properties abutting the roadway being improved in accordance with Article 107.09 of the Standard Specifications. Access to commercial property shall, at no time, be shut off completely except as expressly authorized in the plans. An estimated quantity of AGGREGATE FOR TEMPORARY ACCESS has been included in the plans for use in the conveyance of local traffic and the provision of temporary access. The Contractor shall coordinate with the Engineer and homeowner/business representatives prior to beginning work on each stage to determine a plan to maintain access and not disrupt any business operations.

Construction of driveway entrances shall be completed as soon as possible after the construction of mainline pavement in front of the driveway. This is necessary in order to accommodate vehicle turning movements in and out of the driveways after completion of construction on, and in front of, their properties thus eliminating the need for closure of these facilities twice; i.e., once for mainline pavement construction and again for the entrance or side road construction.

Removing and Resetting Traffic Signs

This work shall consist of the removal, relocation, and resetting of traffic signs which interfere with construction operations. This work shall also include the removal, relocation, and resetting of existing wood signs, delineators and other miscellaneous signs which interfere with construction operations. This work shall be performed in accordance with the applicable portions of Article 107.25 of the Standard Specifications and as directed by the Engineer. The contractor shall remove, temporarily relocate and/or permanently reset existing signs which interfere with the construction operations. This work will not be paid for separately but shall be included in the contract lump sum price of TRAFFIC CONTROL AND PROTECTION, (SPECIAL). The Engineer will determine which signs will be removed, temporarily relocated and permanently reset.

Traffic Control Surveillance

Traffic control surveillance will be required, but will not be paid for separately on this project. The special provision check sheet LRS 3 “Work Zone Traffic Control Surveillance” will apply for the inspection of traffic control devices on this project along with the following additional requirements. The minimum frequency of worksite inspections by the Contractor shall be defined as daily unless directed otherwise by the Engineer. The person responsible for surveillance shall complete an inspection form, furnished by the Engineer, on a daily basis. The completed form shall be given to the Engineer on the first working day after the inspection.

Quality of Traffic Control Devices

Traffic Control Devices include signs and their supports, signals, pavement markings, barricades with sand bags, channelizing devices, warning lights, arrow boards, flaggers, or any device used for the purpose of regulating, detouring, warning or guiding traffic through or around the construction zone.

Only signs, barricades, vertical panels, drums, and cones that meet the requirements of the Department's "Quality Standard for Work Zone Traffic Control Devices 2010" shall be used on this project. Copies of this publication are available from the IDOT website under "Resources". At the time of the initial setup or at the time of major stage changes, one-hundred percent (100%) of each type of device (cones, drums, barricades, vertical panels or signs) shall be acceptable as defined by the referenced publication. Throughout the duration of the project, the percentage of acceptable devices may decrease to seventy-five percent (75 %) only as a result of damage and/or deterioration during the course of the work. Work shall not begin until a determination has been made that the traffic control devices meet the quality required in this standard. The Contractor is required to conduct routine inspections of the work site at a frequency that will allow for the prompt replacement of any traffic control device that has become displaced or damaged to the extent that it no longer conforms to the shape, dimensions, color and operational requirements of the MUTCD and the Traffic Control Standards, or that it no longer presents a neat appearance to motorists. A sufficient quantity of replacement devices, based on vulnerability to damage, shall be readily available to meet this requirement.

Placement of Traffic Control Signs and Devices

The Contractor shall be responsible for the proper location, installation, and arrangement of all traffic advance warning signs during construction operations in order to keep lane assignment consistent with barricade placement at all times. The Contractor shall immediately remove, cover, or turn from the view of the motorists all traffic control devices which are inconsistent with detour or lane alignment patterns and conflicting conditions during the transition from one construction stage to another. When the Contractor elects to cover conflicting or inappropriate signing materials used, he/she shall totally block out reflectivity of the sign and shall cover the entire sign. The method used for covering the signing shall meet the approval of the Engineer.

When directed by the Engineer, the Contractor shall remove all traffic control devices which were furnished and installed and maintained by him/her 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.

The Contractor shall ensure that all traffic control devices installed by him/her are operational, functional, and effective 24 hours a day, including Sundays and holidays.

Solar Powered Arrow Boards

Arrow boards shall be used as required by the Standards and as directed by the Engineer. All arrow boards to be used on this project shall be solar powered. Any additional cost in meeting this requirement shall be considered as included in the cost of TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

Construction Signs

All signing for traffic control shall meet current IDOT policy for retro-reflectivity requirements.

Construction signs referring to daytime lane closures during working hours shall be removed, covered or turned away from the view of motorists during non-working hours.

Flashing lights shall be used on each approach in advance of the work area, and in accordance with the details shown on the Plans and Standard Drawings.

All provisions of Article 107.25 of the Standard Specifications shall apply except the third paragraph shall be revised to read: "The Contractor shall maintain, furnish, and replace at his/her own expense, any traffic sign or post which has been damaged or lost by the Contractor or a third party."

Wayfinding or Directional Signage

The Contractor shall be responsible for the proper location, installation, and arrangement of any wayfinding or directional signage as directed by the Engineer. The wayfinding or direction signage may consist of post mounted sheet signs or changeable message boards. The cost of providing, installing and maintaining wayfinding or directional signs will not be paid for separately but shall be included in the contract lump sum price of TRAFFIC CONTROL AND PROTECTION (SPECIAL). No additional compensation will be allowed.

Placement and Removal of Signs and Barricades

Placement of all signs and barricades shall proceed in the direction of flow of traffic. Removal of all signs and barricades shall start at the end of the construction areas and proceed toward oncoming traffic unless otherwise directed by the Engineer.

Temporary Sidewalks

The Contractor may restrict pedestrian access to the project site during working hours by utilizing Highway Standard 701801. During non-working hours the Contractor shall allow for pedestrian access through the project site by constructing temporary sidewalks at locations directed by the Engineer. This work shall consist of furnishing, placing, maintaining, and removing temporary sidewalks in accordance with Section 406 of the Standard Specifications and the plan notes. The temporary sidewalk shall consist of Hot-Mix Asphalt (2 inches minimum thickness) at locations shown on the plans and as directed by the Engineer. This work, including furnishing and placing the materials, as well as compaction, removal, and subsequent disposal of the material in accordance with Article 202.03 of the Standard Specifications, will not be paid for separately, but shall be considered included in the contract unit price per square foot for TEMPORARY SIDEWALK.

Public Safety and Convenience

The Contractor shall provide a telephone number where a responsible individual can be contacted on a 24-hour-a-day basis to receive notification of any deficiencies regarding traffic control and protection. The Contractor shall dispatch personnel, materials and equipment to correct any such deficiencies. The Contractor shall respond to any call from the Engineer or government agencies concerning any request for improving or correcting traffic control devices and begin making the requested repair within **two (2) hours** from the time of notification.

When traveling in lanes open to public traffic, the Contractor's vehicles shall always move with and not against or across the flow of traffic. These vehicles shall enter or leave work areas in a manner which will not be hazardous to, or interfere with, traffic and shall not park or stop except within areas designated by the Engineer.

Personal vehicles will not be allowed to park within the right-of-way. The Contractor shall provide for off-site parking of his/her personal vehicles.

The Contractor shall maintain entrances and side roads along the proposed improvement. Interference with traffic movements and inconvenience to owners of abutting property and the public shall be kept to a minimum. Any delays or inconveniences caused to the Contractor by complying with these requirements shall be considered included in the contract lump sum price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

Construction Staging Requirements

Lane Closures and the conveyance of local traffic within and around the construction zone shall be provided for in accordance with the above referenced Highway Standards and as directed by the Engineer. With the approval of the Engineer, the Contractor may make modifications to the proposed traffic control plans. The Contractor shall submit his/her proposed sequence of operations, and any necessary revisions to the attendant traffic control plan, to the Engineer for approval before actual construction operations begin.

All traffic control devices and barricades throughout the project shall remain in place until the entire project is substantially complete, or as otherwise directed by the Engineer.

Brooming of Roadway

All traffic lanes which are closed to through traffic during construction shall be broomed or swept free of all loose gravel or construction debris before the traffic lane is reopened to traffic. All roadway surface conditions shall be approved by the Engineer before they are opened to traffic. This work will not be paid for separately, but shall be considered included in the contract lump sum price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

Brooming of Pedestrian Routes

All pedestrian routes which are closed during construction operations shall be broomed or swept free of all loose gravel or construction debris before the pedestrian routes are reopened. All pedestrian route surface conditions shall be approved by the Engineer before they are opened. This work will not be paid for separately but shall be considered included in the contract lump sum price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

Detour

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 notes in the Maintenance of Traffic plans. This includes any specific destination signs required by the engineer. Signage for the detour route shall be paid for at the contract lump sum price for DETOUR SIGNING.

Construction Access

The Contractor shall present a plan that will be used to provide access by the Contractor or Subcontractor to the Engineer at the time of the Pre-Construction Meeting. The Engineer and Contractor shall both examine the plan noting any areas of concern before construction begins.

Upon completion of the project the Engineer shall examine the streets prior to approving final payment to the Contractor. Any areas that have been damaged, due to construction activity, shall be repaired by the Contractor to the satisfaction of the Engineer. When work is complete, the Contractor shall arrange, within a reasonable time period, to clean up and restore areas where equipment or material has been stored on the right-of-way or easement. This work shall be included in the cost of the contract.

The Engineer may restrict the movement of construction vehicles on the completed surface in order to prevent damage to these surfaces.

CONTRACTOR ACCESS
Eff. 09-11-1990 Rev. 01-01-2014

At road closure locations, where Type III barricades are installed in a manner that will not allow contractor access to the project without relocation of one or more of the barricades, the arrangement of the barricades at the beginning of each work day may be relocated, when approved by the Engineer, in the manner shown on Highway Standard 701901 for Road Closed to Through Traffic. ' Road Closed ' signs (Rll-2), supplemented by 'Except Authorized Vehicles' signs (R3-Il0l), shall be mounted on both the near-right and the far-left barricade(s). At the end of each work day the barricades shall be returned to their in-line positions. This work will be considered to be included in the cost of the various traffic control items and no extra compensation will be allowed.

UNEVEN LANES
Eff.: 12/11/2009 Rev.: 4/25/2015

Where construction operations result in a temporary drop-off between two traffic lanes open to traffic, excluding patching, “UNEVEN LANES” (W8-11(0)48) signs shall be used. The Contractor shall place the signs at the beginning of the drop-off area, major intersections, and at as such other locations within the drop-off area as the Engineer may direct, including as shown below.

- 2 Mile spacing on Interstates
- 1 Mile spacing on rural 2-lane highways
- Spacing per the Traffic Control Plan in Urban sections

The signs shall be placed just prior to the work that will result in the drop-off and shall remain in place until the drop-off is eliminated. This work shall be considered as included in the contract unit prices for the construction items involved and no additional compensation will be allowed.

Basis of Payment: All work prescribed and referenced herein shall be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL). This price shall be considered payment in full for all labor, materials, transportation, handling and incidental work necessary to furnish, install, relocate, maintain and remove all traffic control devices as required by the traffic control plan and as directed and approved by the Engineer, for the duration of the contract. No separate payment will be made for complying with the provisions of Standard 701006, 701011, 701101, 701201, 701301, 701311, 701501, 701601, 701602, 701611, 701701,

701801, and 701901. Article 701.20 of the Standard Specifications is revised in that no additional payment will be made for furnishing, installing, maintaining, and removing additional traffic control devices or signs from those shown on the plans or as directed by the Engineer.

The cost of furnishing, placing, compacting, maintaining, removing, and disposing of coarse aggregate for temporary driveways will be measured and paid for at the contract unit price per ton of material furnished for AGGREGATE FOR TEMPORARY ACCESS.

The cost of furnishing, placing, compacting, maintaining, removing, and disposing of hot-mix asphalt for temporary sidewalks will be measured and paid for at the contract unit price per square foot for TEMPORARY SIDEWALK.

All detour signing will be paid for at the contract lump sum price for DETOUR SIGNING, which work shall include furnishing, installing, maintaining, replacing, relocating and removing all traffic control devices provided to detour traffic on the local streets during the road closure. See plans for detour plan.

STATUS OF UTILITIES/UTILITIES TO BE ADJUSTED

The following utilities are located within the project limits. For relocations, the utility companies have provided the estimated dates.

Utility Name, Contact, Address And Phone Number	Type	Location	Relocation Needed	Est. Date Relo. Compl.
Ameren - Electric Kevin Layden 501 E. LaFayette Street Bloomington, IL 61701 309-825-8279 klayden@ameren.com	Aerial / Underground Electric	Along Bunn Street, Rhodes Lanes, and West side of RR.	Yes	During Construction
Bloomington Metro Fiber System Todd Bowlin 309-735-2194 todd.bowlin.hrm0@statefarm.com	Underground Fiber	West side of Bunn St. / South side of Rhodes Ln. / East side of Morrissey Dr.	None Anticipated	During Construction
BNWRD Duane Lindeman 2015 West Oakland Avenue Bloomington, IL 61701 309-827-4396 dlindeman@bnwrd.org	Sanitary Sewer	Bunn St. / Rhodes Lane	None Anticipated	During Construction
CIRBN, LLC Dennis Leggett 200 W Front Street Bloomington, IL 61701 309-845-0605 dennisl@cirbn.org	Underground Fiber	West side of Morrissey Dr.	None Anticipated	During Construction

Comcast James vonBrethorst 3517 N. Dries Lane Peoria, IL 61604 309-208-6650 James_vonBrethorst@comcast.com	Underground Cable/Fiber	West side of Bunn St. / South side of Rhodes Ln.	Yes	During Construction
Frontier Communications Adam Gangloff 109 E. Market Street Bloomington, IL 61701 309-557-1378 adam.r.gangloff@ftr.com	Aerial / Underground	East side Bunn St. / South Side Hamilton Rd. and Rhodes Ln. / North side Hamilton Rd. (East of Tracks) / East side Morrissey Dr.	Yes	During Construction
MCI/Verizon Joe Chaney Jr. 312-617-2131 Joe.Chaney@verizon.com	Underground Fiber	Along NS RR	None Anticipated	During Construction
Metro Fibernet, LLC Korrie Nellis Korie.Nellis@metronetinc.com	Aerial / Underground Fiber	Bunn St. / Hamilton Rd. / West side of Morrissey Drive	None Anticipated	During Construction
Nicor Gas Chip Parrott 1844 Ferry Rd. Naperville, IL 60563 630-388-2761 cparrot@southernco.com	Gas	Bunn St. / South side Hamilton Rd. and Rhodes Ln. / North side Hamilton Rd. (East of Morrissey) / East side Morrissey Dr.	Yes	During Construction
Sprint Jason Jarvis 7459 W. 79th Street Bridgeview, IL 60455 219-433-4091 Jason.M.Jarvis@sprint.com	Underground Fiber	Along NS RR	None Anticipated	During Construction
Stratus Networks Butch Forkell 4700 N. Prospect Rd. Peoria Heights, IL 61616 309-696-6349 bforkell@stratusnet.com	Underground Fiber	East side of Morrisey Dr. / Hamilton Rd. / Rhodes Ln.	None Anticipated	During Construction

COOPERATION WITH UTILITY COMPANIES

It is understood and agreed that the Contractor has considered, in their bid, all the permanent and temporary utility appurtenances in their present or relocated positions and that no additional

compensation will be allowed for any delays, inconvenience or damage sustained by the contractor due to any interference from the said utility appurtenances or the operations of moving them.

All telephone, cable, fiber, gas, water, and wire lines, within the limits of the proposed construction owned by various utility companies, are to be moved by the owners of the particular utility involved at the owner's expense.

NOTIFICATION OF UTILITIES PRIOR TO CONSTRUCTION

In addition to notifying J.U.L.I.E., all utility companies must be notified by the Contractor, in writing, at least one (1) week in advance prior to starting construction so that they will have adequate time to locate and mark their utility locations in the field and twenty-four (24) hours prior to commencing actual construction work. All utility companies must be notified so that they may have personnel on the job site to assist in locating their utility lines and avoid damage to their utilities, including but not limited to Ameren, Comcast, Nicor Gas, Corn Belt Energy Corporation, Sprint, Frontier, CIRBN LLC, Metro Fibernet, LCC, Stratus Networks, MCI, and Bloomington-Normal Water Reclamation District. A copy of the letter notifying the utility companies of the Contractor's intention to start work must be received by the City of Bloomington Public Works before the Contractor will be permitted to start construction.

UTILITY COORDINATION

The Contractor shall coordinate and host onsite bi-weekly utility coordination meetings beginning at the start of construction and continue until the Engineer is satisfied with the status of the utility adjustments/relocations. The Contractor shall include all utilities impacted by the project, the Engineer, and the City in the coordination meetings.

SALVAGEABLE MATERIALS

All materials deemed salvageable by the Engineer, such as traffic signal components, mast arms, and, castings, shall remain the property of the City of Bloomington and shall be stored on the job site as directed by the Engineer until such time the City collects the materials. The Contractor shall dispose of any materials off site that the Engineer determines should not be salvaged. This work will not be paid for separately but shall be considered as included in the cost of the various removal items.

CONCRETE CURB, COMBINATION CONCRETE CURB AND GUTTER, AND CONCRETE MEDIANS

Concrete curb and gutter shall be sawed or scored at intervals coinciding with the joint intervals of the adjoining pavement. The minimum joint depth for the gutter shall be 2 inches, and 1 inch

for the curb. The curb and gutter may be jointed instead of sawed provided the stated joint depths are obtained. If the curb and gutter is adjacent to bituminous pavement it shall be jointed at 15 foot intervals.

The sawing of the curb and gutter shall commence within four (4) hours of the start of the pour unless otherwise directed by the Engineer. Sawing shall continue until all joints are completed.

Asphaltic type expansion joints 1 inch thick shall be placed at all P.C.'s, P.T.'s and R.P.C.'s and at maximum 500' intervals.

This special provision shall apply to all types of concrete curb, combination concrete curb and gutter, and concrete medians constructed on this project.

This work shall not be paid for separately but shall be included in the cost of the applicable pay items.

21000300 GRANULAR EMBANKMENT, SPECIAL

This work shall be in accordance with Section 210 of the Standard Specifications, IDOT's Subgrade Stability Manual, and the plan details, except as modified herein.

The Granular Embankment, Special shall utilize an oversized aggregate approved by the Engineer and in accordance with the IDOT Subgrade Stability Manual.

35300210 PORTLAND CEMENT CONCRETE BASE COURSE 7 1/2"

This work shall be done in accordance with Section 353 of the Standard Specifications and plan details except as modified below.

The cost of any reinforcement, tie bars or dowel bars, will not be paid for separately but shall be included in the cost of PORTLAND CEMENT CONCRETE BASE COURSE 7 1/2".

This work will be measured for payment at the contract unit price per square yard for PORTLAND CEMENT CONCRETE BASE COURSE 7 1/2", which price shall include all labor, equipment, and material necessary to complete the work as specified.

42300600 PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 10 INCH

This work shall consist of constructing portland cement concrete driveway pavement on six (6) inches of aggregate base course. This work shall be in accordance with Section 423 of the Standard Specifications and the plan details, except as modified herein.

Pavement shall be jointed and reinforced in accordance with IDOT standard 420001-10.

The cost of any reinforcement, tie bars or dowel bars, will not be paid for separately but shall be included in the cost of PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 10 INCH.

This work will be measured for payment at the contract unit price per square yard for PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 10 INCH, which price shall include all labor, equipment, and material necessary to complete the work as specified.

44000100 PAVEMENT REMOVAL

The existing pavement structure within the project limits vary both in type and thickness throughout. The best available information, based on original construction plans, is shown in the existing typical sections. No additional compensation will be allowed for sections of pavement that may deviate from the type and depth information provided on the existing typical sections.

44201353 CLASS C PATCHES, TYPE II, 10 INCH

This work shall consist of the removal of the existing pavement, the necessary excavation and the pavement replacement at locations identified in the field by the Engineer. This work shall be done in accordance with Section 442 of the Standard Specifications and plan details except as modified below.

The patch depth may vary based upon the existing pavement thickness.

The cost of any reinforcement, tie bars or dowel bars, will not be paid for separately but shall be included in the cost of CLASS C PATCHES, of the type and thickness specified.

The cost of saw cutting will not be paid for separately but shall be included in the cost of CLASS C PATCHES, of the type and thickness specified.

This work will be measured for payment at the contract unit price per square yard for CLASS C PATCHES, of the type and thickness specified, which price shall include all labor, equipment, and material necessary to complete the work as specified. No change in contract unit price or the pay item will be allowed due to the actual required patch size determined in the field by the Engineer.

50105220 PIPE CULVERT REMOVAL
55100300 STORM SEWER REMOVAL 8”
55100500 STORM SEWER REMOVAL 12”
55100700 STORM SEWER REMOVAL 15”
55100900 STORM SEWER REMOVAL 18”
55101200 STORM SEWER REMOVAL 24”

This work shall consist of the removal and disposal of existing pipe culverts and storm sewers at the locations shown on the plans in accordance with Section 551 of the Standard Specifications and as directed by the Engineer. Pipe culvert and storm sewer materials determined not to be salvageable by the Engineer shall be disposed of by the Contractor in accordance with Article 202.03 of the Standard Specifications. Excavations resulting from the removal of the pipe culverts and storm sewers that result in holes beneath or within two feet horizontally of proposed pavement and curb shall be backfilled with Controlled Low Strength Material (CLSM). CLSM shall not be paid for separately but shall be included in the contract unit price per foot for PIPE CULVERT REMOVAL and STORM SEWER REMOVAL, of various sizes. Where existing pipe culverts or storm sewer that connect to an existing drainage structure to remain in place are removed any holes left by removing the culvert shall be plugged as directed by the engineer. Removal of any end sections or headwalls attached to the culvert or storm sewer designated for removal shall not be paid for separately, but shall be included in the contract unit price per foot for PIPE CULVERT REMOVAL and STORM SEWER REMOVAL, of various sizes.

Basis of Payment: This work will be measured for payment and paid for at the contract unit price per foot for PIPE CULVERT REMOVAL and measured for payment and paid for at the contract unit price per foot for STORM SEWER REMOVAL, of various sizes, which price shall be considered payment in full for all labor, equipment, and materials required for the satisfactory removal and disposal of the existing pipe culverts and storm sewers.

X5012506 CONCRETE WALL REMOVAL

This work shall include the removal of an existing concrete wall at locations noted on the plans.

The wall shall be removed to at least 24 inches below the proposed finished grade and properly disposed of by the contractor.

Any holes or depressions left after removing the wall shall be backfilled to proposed subgrade to the satisfaction of the Engineer. This work shall include all labor, materials, and equipment to provide excavation, removal and backfill to complete the work in place.

The removal of the wall shall be paid for at the contract unit price per foot for CONCRETE WALL REMOVAL, which price shall include all labor, materials, and equipment specified herein.

X6026050 SANITARY MANHOLES TO BE ADJUSTED

This work shall consist of adjusting sanitary manholes in accordance with Section 602 of the Standard Specifications.

This work will be paid for at the contract unit price per each for SANITARY MANHOLES TO BE ADJUSTED which price shall include all labor, materials and equipment necessary to perform the work as specified herein.

X6026051 SANITARY MANHOLES TO BE RECONSTRUCTED

This work shall consist of reconstructing sanitary manholes in accordance with Section 602 of the Standard Specifications.

This work will be paid for at the contract unit price per each for SANITARY MANHOLES TO BE RECONSTRUCTED which price shall include all labor, materials and equipment necessary to perform the work as specified herein.

X6061815 COMBINATION CONCRETE CURB AND GUTTER, TYPE M (SPECIAL)

This work shall consist of constructing concrete curb and gutter in accordance with Section 606 of the Standard Specifications, details in the plans, and the following additional requirements:

The combination concrete curb and gutter shall be constructed at locations noted in the plans and according to the plan details.

This work will be paid for at the contract unit price per foot for COMBINATION CONCRETE CURB AND GUTTER, TYPE M (SPECIAL), which price shall include all labor, materials, and equipment necessary to perform the work as specified herein.

X6350108 FLEXIBLE DELINEATORS

This work shall consist of furnishing and installing Flexible Delineators in accordance with the plans and Section 1106 of the Standard Specifications, except as modified herein.

Flexible Delineators shall measure at least 28" from the mounting surface to top of the device and the delineator itself shall be a minimum of 3" in width. Flexible Delineators shall have two (2) retroreflective bands 4" tall made of reflective sheeting complying with Article 1091.03 of the

Standard Specification and ASTM D4956. The color of the delineator and retroreflective bands shall match the color of the adjacent striping at these locations. Mounting of the base and installation of the Flexible Delineators shall be per manufacturer’s recommendations. Any delineator damaged or compromised by the Contractor during subsequent operations shall be replaced at no additional cost to the Department.

Basis of Payment: This work as described shall be paid for at the contract unit price per each for FLEXIBLE DELINEATORS.

X6640104 FENCE REMOVAL

This work shall consist of removing chain link and woven wire fence at locations noted on the plans.

The fence shall be removed to a point where it can be appropriately terminated as determined in the field by the engineer. This may require ending the removal at a post or reinstalling sections to appropriately terminate the fence at the desired location to restore the fence to proper working order. Therefore this may require the fence to be removed in such a manner that some pieces will be available for reuse. Any fence or post that is reused shall be installed and stabilized to a condition equal to or greater than the existing condition.

This work will be measured for payment in feet, along the top of the fence from center to center of end posts.

The removal of the existing fence shall be paid for at the contract unit price per foot for FENCE REMOVAL. The price will include all materials, equipment and labor necessary to complete the work.

XX005569 MAILBOX REMOVAL AND REINSTALLATION

This work shall consist of removing and temporarily relocating existing mailboxes and posts along with furnishing and installing existing mailboxes on new posts at the locations specified in the plans, or as directed by the engineer. This work shall be done in accordance with Article 107.20 of the Standard Specifications.

Prior to removing any mailbox, the Contractor shall coordinate temporary and permanent locations with the mailbox owner and local Post Master.

The post shall consist of 4” x 4” treated wood, have nominal height of 76” and be USPS (United States Postal Services) approved.

The mailbox shall consist of galvanized steel, be of standard size, and be USPS approved. Standard size mailboxes shall have the following nominal dimensions: 20” long x 9” height x 7” wide.

The mailbox shall be installed at a nominal height of 45”. The post shall be installed with a minimum of 18” below ground and shall be installed at a maximum of 24” from the face of curb.

Basis of Payment: The cost of all materials, equipment and labor will be paid for at the contract unit price per EACH for MAILBOX REMOVAL AND RELOCATION. This pay item shall include

relocating all mailboxes to temporary locations as well as relocating them from temporary locations to their final locations as directed by the Engineer.

XX006529 CONCRETE CURB AND GUTTER END OUTLET SPECIAL

The concrete curb and gutter end outlet special shall be constructed according to the details shown in the plans and applicable portions of Section 606 of the Standard Specifications.

Basis of Payment: This work as described shall be paid for at the contract unit price per each for CONCRETE CURB AND GUTTER END OUTLET SPECIAL.

SANITARY SEWER SPECIFICATIONS

X6022810 MANHOLES, SANITARY, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID

This work shall consist of excavation, furnishing and installing 4' diameter concrete manholes, steps, castings (frames and lids), connections of proposed and existing sewers to provide a water-tight manhole, and backfill. This work shall be in accordance with City of Bloomington Manual of Practice, Section 32 of the Standard Specifications for Water and Sewer Main Construction in Illinois, and Section 602 and 605 of the Standard Specifications.

Material required for watertight connections of existing sewers to a manhole shall be considered as incidental to the cost of the manhole. All necessary excavation, backfill, surface removal and replacement shall be included in the cost of the new or removed structure.

Submittals:

1. General: Submit the following according to the conditions of the contract.
2. Product Data: In the form of the manufacturer's technical data, specifications, and installations for manhole frame and lid, steps, gaskets, connectors, boots, and any additional manhole accessories or components specified herein.
3. Shop drawings showing proposed manhole components.

Construction:

The Contractor shall confirm in the field the depth of the existing manholes or sewer prior to ordering manholes. The Contractor shall inform the Engineer of any depths that differ from the plans.

Manholes shall be constructed of precast reinforced concrete per Section 1042 of the Standard Specifications.

Joints between precast sections shall be designed for preformed rubber gaskets. No bitumastic material shall be used on the inside of manholes. Inside of all joints shall be finished with non-shrink type grout and rubber gaskets. Rubber gaskets shall conform to the requirements of ASTM C 443.

Adjustment of Manhole and Casting within Pavement:
Per the A Manual of Practice for the Design of Public Improvements in the City of Bloomington, Illinois, final grade for all manhole castings will be determined after the curb and gutter has been poured and the subgrade and/or base has been constructed. Final adjustment of the frame and grate shall be made in the following manner: After the curb and gutter has been poured and the base constructed the final elevation will be determined by the Director of Engineering and Water. The frame and grate will be adjusted to this elevation in accordance with the Standard

Specifications. Any material disturbed while adjusting the frame and grate will be disposed of and all fill made with lean concrete.

A minimum of 4” and a maximum of 16” of the manhole height shall consist of concrete adjustment rings. Mastic is not permitted on adjusting rings.

The new casting shall a sealed lid with a concealed pick hole. The casting shall be sealed to the manhole creating a water-tight seal. Castings placed on concrete or masonry surfaces shall be set in a full mortar bed or on approved solid bituminous gaskets. Castings shall conform to ASTM A-48 for gray iron castings and ASTM A-536 for ductile iron castings. The castings shall be heavy duty and per the Illinois Department of Transportation standards. The top of the manhole casting shall be at grade of the existing or finished grade surface.

Lids shall be Neenah R-1713 with Type “B” Lid and NF-9204 pick hole or approved equal. All lids for sanitary manholes shall be self-sealing.

Manhole steps shall be in accordance with MANHOLE STEPS in the DRAINAGE SPECIFICATIONS.

Pipe connections to manholes shall be compression or boot style meeting ASTM C923. Compression connections shall be non-shrink grouted on the inside and outside of the manhole after pipe installation. Boot connections shall contain only stainless steel hardware and shall be non-shrink grouted on the inside of the manhole after pipe installation. Non-shrink grout shall be flush with the walls, bench and invert of the manhole and shall meet the requirements of Section 1024 of the IDOT Standard Specifications. Bituminous material shall be used on the outside of the manhole only.

Backfill shall be per the SANITARY SEWER 8” AND SANITARY SEWER 12” special provision.

Backfill shall be considered incidental to the construction of the manhole. Except, Trench Backfill and Controlled Low Strength Material will be paid separately.

Testing:

All new manholes will be subject to vacuum testing. Pipe connections may be grouted in advance of vacuum testing. Upon a passing test, internal joints and lift holes shall be neatly filled with a non-shrink gout material.

Per the A Manual of Practice for the Design of Public Improvements in the City of Bloomington, Illinois, the leakage test will be by the low pressure air method. The contractor shall notify the Engineer when the sewer is ready for testing. The ground shall be leveled and all manholes shall be accessible to the air testing equipment.

Testing shall be considered incidental to the construction of the manhole.

Basis of Payment: This work will be paid for at the contract unit price per each for MANHOLES, SANITARY, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID which price shall include all labor, materials and equipment necessary to perform the work as specified herein.

X6026055 SANITARY MANHOLE (SPECIAL)

This work shall consist of excavation, furnishing and installing 4' diameter concrete dog house manholes set over existing mains, steps, castings (frames and lids), connections of proposed sewer, providing a water-tight manhole, and backfill. This work shall be in accordance with City of Bloomington Manual of Practice, Section 32 of the Standard Specifications for Water and Sewer Main Construction in Illinois, and Section 602 and 605 of the Standard Specifications.

Material required for watertight connections of existing sewers to a manhole shall be considered as incidental to the cost of the manhole. All necessary excavation, backfill, surface removal and replacement shall be included in the cost of the new structure.

Submittals:

1. General: Submit the following according to the conditions of the contract.
2. Product Data: In the form of the manufacturer's technical data, specifications, and installations for manhole frame and lid, steps, gaskets, connectors, boots, and any additional manhole accessories or components specified herein.
3. Shop drawings showing proposed manhole components.

Construction:

The Contractor shall confirm in the field the depth of the existing sewer prior to ordering manholes. The Contractor shall inform the Engineer of any depths that differ from the plans.

Manholes shall be constructed of precast reinforced concrete per Section 1042 of the Standard Specifications.

Joints between precast sections shall be designed for preformed rubber gaskets. No bitumastic material shall be used on the inside of manholes. Inside of all joints shall be finished with non-shrink type grout and rubber gaskets. Rubber gaskets shall conform to the requirements of ASTM C 443.

A minimum of 4" and a maximum of 16" of the manhole height shall consist of concrete adjustment rings. Mastic is not permitted on adjusting rings.

The new casting shall a sealed lid with a concealed pick hole. The casting shall be sealed to the manhole creating a water-tight seal. Castings placed on concrete or masonry surfaces shall be set in a full mortar bed or on approved solid bituminous gaskets. Castings shall conform to ASTM A-48 for gray iron castings and ASTM A-536 for ductile iron castings. The castings shall be heavy duty and per the Illinois Department of Transportation standards for Type 1 frame, closed lid. The top of the manhole casting shall be at grade of the existing or finished grade surface.

Lids shall be Neenah R-1713 with Type “B” Lid and NF-9204 pick hole or approved equal. All lids for sanitary manholes shall be self-sealing.

Manhole steps shall be in accordance with MANHOLE STEPS in the DRAINAGE SPECIFICATIONS.

Proposed pipe connections to manholes shall be compression or boot style meeting ASTM C923. Compression connections shall be non-shrink grouted on the inside and outside of the manhole after pipe installation. Boot connections shall contain only stainless steel hardware and shall be non-shrink grouted on the inside of the manhole after pipe installation. Non-shrink grout shall be flush with the walls, bench and invert of the manhole and shall meet the requirements of Section 1024 of the IDOT Standard Specifications. Bituminous material shall be used on the outside of the manhole only.

Backfill shall be per the SANITARY SEWER 8” AND SANITARY SEWER 12” special provision.

Backfill shall be considered incidental to the construction of the manhole. Except, Trench Backfill and Controlled Low Strength Material will be paid separately.

Doghouse (Set Over) Manholes:

A doghouse manhole shall have no base component, shall have a gasketed (ASTM C923) opening for any new sewer connection, and shall be a new manhole placed on an existing main. The area around the existing sewer shall be over excavated. CA-7 rock shall be placed to create a level pad. The doghouse manhole shall be set over the exiting main. Class SI shall be poured in and around the manhole to the springline of the existing sewer and concrete in the doghouse openings to seal up the manhole. The backfill shall be as described herein these special provisions for the remainder of the manhole.

The crown to springline of the existing pipe shall be cut out and removed for access. The portion of the existing pipe cut out shall be large enough for future maintenance and to allow for a CCTV camera to be placed in the main at that location.

Testing:

All new manholes will be subject to vacuum testing. Pipe connections may be grouted in advance of vacuum testing. Upon a passing test, internal joints and lift holes shall be neatly filled with a non-shrink gout material.

Per the A Manual of Practice for the Design of Public Improvements in the City of Bloomington, Illinois, the leakage test will be by the low pressure air method. The contractor shall notify the Engineer when the sewer is ready for testing. The ground shall be leveled and all manholes shall be accessible to the air testing equipment.

Testing shall be considered incidental to the construction of the manhole.

Basis of Payment: This work will be paid for at the contract unit price per each for SANITARY MANHOLE (SPECIAL) which price shall include all labor, materials and equipment necessary to perform the work as specified herein.

X1200310 SANITARY SEWER SERVICE, COMPLETE

This work shall consist of furnishing and installing gravity sewer service laterals of the size and depth identified on the plans and in this document. Additionally, the work shall include granular cradle and backfill (initial and final).

Submittals:

1. General: Submit the following according to the conditions of the contract.
2. Product Data: In the form of manufacturer's technical data, specifications, and installations for pipe, non-shrink grout or mechanical joint cap, core hole, link seal/sealing system, and all other materials or accessories specified herein.

Material:

Pipe for gravity sewer service laterals shall be solid wall SDR-21 polyvinyl chloride pipe (PVC) and shall conform to ASTM D2241 "Standard Specification for Poly(Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series)". The pipe shall be made of PVC having a cell classification as defined in ASTM D1784 for 12454 cell classification. The pipe shall be furnished in 14' laying lengths unless approved by Owner. The pipe shall be made and jointed with integral bell and spigot rubber gasketed joints. Each integral bell joint shall consist of a bell complete with a single rubber gasket. Flexible gaskets shall conform to ASTM F477 and ASTM D3139.

The pipe shall be marked with the manufacturer's name (or trademark); ASTM or AWWA Specification; schedule number, Dimension Ratio (DR) number, or Standard Dimension Ratio (SDR) number and cell class.Installation:

Service piping installation shall comply with the plans, the Standard Specifications for Water and Sewer Main Construction in Illinois, Current Edition, A Manual of Practice for the Design of Public Improvements in the City of Bloomington, Illinois, Current Edition, ASTM D2321, and requirements herein.

The Contractor shall make all provisions for the supply of all water needed for the project, including that water necessary for removal, replacement, and abandonment. All costs associated with the supply of water necessary to complete the work shall be the Contractor's responsibility and shall be considered incidental to the construction of the sewer service.

Installation shall commence downstream end of line or system and proceed in the upstream direction.

All connections made between sewer main and services shall be watertight. Service laterals connecting to a new main shall be a watertight sanitary sewer tee. The tee installation shall be

part of the sanitary sewer main work and paid for as described in Sanitary Sewer 8" and Sanitary Sewer 12" special provision.

When connecting to an existing main, the connection may be made either by a watertight service connection or a watertight tee and shall be incidental to the sewer service.

A watertight service connection shall be an inserta-tee that consist of a PVC hub, rubber sleeve, and stainless steel band. Connections shall be a compression fit into the cored wall of a mainline pipe. The hub shall be made from heavy-duty PVC material. Stainless steel clamping assembly shall be made from minimum 301 grade steel. Rubber gasket and sleeve, when applicable, shall meet the requirements of ASTM F477. Gaskets shall be installed by the manufacturer. The water-based solution shall be used during assembly. The Contractor shall not use pipe lube. The connection product shall include a watertight bell connection meeting the requirements of ASTM D3212. Installation (including equipment) shall be in accordance with the manufacturer's recommended installation guidelines. After service connection installation, a CCTV inspection of the existing sewer main shall be completed showing the installation of the lateral connection. The Contractor shall provide a post televising files to the City upon completion.

A watertight tee shall consist of the Contractor saw cutting the existing sewer, adding a PVC service tee matching the existing main and service diameters with PVC stub outs either side to tie back into the existing sewer with Fernco couplers. Service tees over 12 feet deep shall be encased in Class SI Portland cement concrete as per Standard Detail 7.07C (incidental to the sewer service).

The Contractor shall take extra precautions and shall take care not to damage the main beyond connection limits. Any damage to the main shall be the responsibility of the Contractor and will not be eligible for additional payment.

Install service piping maintaining a minimum 1% slope. The last length of the service pipe at the property line shall be laid at 1%. Changes in slope on services may be made by "breaking joints" provided the joint seal is air tight and the recommendations of the manufacturer are not exceeded. Fittings not greater than a 45° bend may be used where changes in grade dictate. Verify minimum vertical clearances at all utility crossings.

The service laterals shall terminate not less than two feet inside the property or easement line of each proposed lot of record. All services shall terminate at a depth of no less than 8 feet or more than 9 feet below the adjacent top of curb unless otherwise approved by the City of Bloomington's Director of Engineering and Water. Contractor shall coordinate the service lateral termination depth with the City. The sewer service termination point shall be marked in the field.

The sewer services shall be plugged with a watertight cap at the terminus end where identified on the plans. The Contractor shall place wood studs (2x4's) extending from the bottom of the sewer service to 2 feet above ground at the location where the each sewer service terminates. A minimum of the upper one (1) foot of each wood stud (2x4) shall be painted green. These

markers shall be installed at the time a service is constructed. Additionally, at the time the curb and gutter is poured, the Contractor shall mark the top of the curb with a permanent “S” for sewer to mark location of said services. Watertight cap and markers shall be considered incidental to the sewer service.

Detectable warning tape, granular cradle, initial backfill, final backfill, trench backfill, controlled low strength material, and testing required for the service pipe shall all be in accordance with special provision for SANITARY SEWER 8” and SANITARY SEWER 12” and shall be considered incidental to the construction of the sewer service. Except, Trench Backfill and Controlled Low Strength Material will be paid separately.

Basis of Payment: This work will be paid for at the contract unit price per foot for SANITARY SEWER SERVICE, COMPLETE which price shall include all labor, materials and equipment necessary to perform the work as specified herein.

Z0056900 SANITARY SEWER 8”
Z0057100 SANITARY SEWER 12”

This work shall consist of furnishing and installing gravity sewer of the size and depth identified on the plans and in this document. Additionally, the work shall include bypass pumping, diversion piping, removal of existing pipe in conflict with construction, capping and abandoning remainder of existing pipe, granular cradle, and backfill (including initial and final).

Submittals:

1. General: Submit the following according to the conditions of the contract.
2. Product Data: In the form of manufacturer’s technical data, specifications, and installations for pipe, non-shrink grout or mechanical joint cap, core hole, link seal/sealing system, and all other materials or accessories specified herein.
3. Proposed bypass pumping and/or diversion piping procedures during construction.

Material:

Pipe for gravity sewer shall be solid wall SDR-21 polyvinyl chloride pipe (PVC) and shall conform to ASTM D2241 “Standard Specification for Poly(Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series)”. The pipe shall be made of PVC having a cell classification as defined in ASTM D1784 for 12454 cell classification. The pipe shall be furnished in 14’ laying lengths unless approved by Owner. The pipe shall be made and jointed with integral bell and spigot rubber gasketed joints. Each integral bell joint shall consist of a bell complete with a single rubber gasket. Flexible gaskets shall conform to ASTM F477 and ASTM D3139.

The pipe shall be marked with the manufacturer’s name (or trademark); ASTM or AWWA Specification; schedule number, Dimension Ratio (DR) number, or Standard Dimension Ratio (SDR) number and cell class.

Confirmation of Laterals:

Prior to any sewer construction work, the Contractor shall confirm that there are no existing laterals on the portion of the main to be removed or abandoned in place. The Contractor shall perform a CCTV inspection to of the main to be removed or abandoned to verify whether there are any service connections.

The Owner and the Engineer shall be informed immediately of any laterals or service connections along the existing main. The Owner or Owner's Representative shall determine whether any found lateral shall be reinstated. The Contractor shall address any laterals to be reinstated as directed via a change order if they are to be reinstated.

Confirmation of Laterals shall be considered incidental to the construction of the sewer.

Bypass/Diversion Piping:

Sewer service shall be maintained during construction. The Contractor shall not cause sewage to be discharged either onto the ground or into waterways. The Contractor shall not cause sewage to backup into structures.

Sewer shall be diverted by pumping and/or piping around any portion of the sewer system which is taken out of service. The Contractor shall be responsible for the bypassing and piping during the construction period and must have prior approval by the Owner or Engineer.

Bypassing activities shall not cause surcharges or backups that may damage private or public property. Damages that occur as a result of actions by the Contractor are to be the sole responsibility of the Contractor.

- It is the Contractor's responsibility to determine when bypass pumping and/or diversion is necessary.
- Contractor shall bypass upstream sewage flow around the manholes designated for repair and convey the sewage to a downstream manhole or adjacent sewage system.
- Provision shall be made to maintain all existing laterals to prevent sewage backflow into structures.
- The Contractor shall be responsible for maintaining the integrity of the sewage bypass system and shall be wholly responsible for conveying the sewage out of and back into the collection system. At no time shall sewage be allowed to leave the system.
- If sewage should escape the system, the Contractor shall contact the Engineer, Owner, and Bloomington Normal Water Reclamation District immediately.
- The Contractor shall be liable for all damages resulting from any spills.
- The Contractor shall be responsible for any necessary power required for bypass pumping.

Bypass/Diversion Piping shall be considered incidental to the construction of the sewer.

Installation:

Piping installation shall comply with the plans, the Standard Specifications for Water and Sewer Main Construction in Illinois, Current Edition, A Manual of Practice for the Design of Public Improvements in the City of Bloomington, Illinois, Current Edition, ASTM D2321, and requirements herein.

The Contractor shall make all provisions for the supply of all water needed for the project, including that water necessary for removal, replacement, and abandonment of sewer mains. All costs associated with the supply of water necessary to complete the work shall be the Contractor's responsibility and shall be considered incidental to the construction of the sewer.

Installation shall commence downstream end of line or system and proceed in the upstream direction. Manhole installation or reconstruction shall follow the order of the sewer construction.

Timing of connections to the existing sewers shall be coordinated with the Owner.

All connections made between sewer main and manholes shall be watertight. When connecting to an existing structure, the Contractor shall take extra precautions and shall take care not to damage the existing structure. Any damage to the existing structure shall be the responsibility of the Contractor and will not be eligible for additional payment.

Service lateral connections to a proposed main shall be a watertight sanitary tee. The tee shall be encased in Class SI Portland cement concrete when greater than 12 ft. deep and shall be per the City of Bloomington Standard Detail 7.07 C. The watertight fittings and concrete encasement required shall be considered incidental to the construction of the sewer.

Install piping maintaining line and grade of the sewer with a minimum bedding thickness of 6-inches. Bury depth or ultimate cover shall be a minimum of 4 feet. Verify minimum vertical clearances at all utility crossings.

Detectable warning tape shall be installed in the initial backfill above the crown of the sewer pipe. The tape shall run linearly with the length of the pipe from manhole to manhole. The warning tape shall have the printed words "Sanitary Sewer" and shall have metal properties able to be detected from above ground at depth of at least 20 ft.

A bedding and haunching and initial backfill will be required for all sanitary sewers shall be in accordance with Section 20 of the "Standard Specifications for Water and Sewer Main Construction" and with Section 7 of the "Manual of Practice for the Design of Public Improvements in the City of Bloomington". Granular cradle and initial backfill shall be in place prior to placing backfill. Initial backfill shall at a minimum be one-foot (1-ft) above the crown of the pipe. Bedding, haunching, and initial backfill material shall be CA-7.

All trenches under or within two feet (2 ft) of existing or proposed streets, curb, and gutters shall be backfilled with controlled low-strength material in accordance with Section 593 of the "Standard Specifications for Road and Bridge Construction" and with these special provisions.

All trenches under another sewer or water main (outside of pavement), or under or within two feet (2 ft) of existing or proposed sidewalks and driveways shall be backfilled with trench backfill

material in accordance with Section 208 of the “Standard Specifications for Road and Bridge Construction,” with Section 7 of the “Manual of Practice for the Design of Public Improvements in the City of Bloomington, and with these special provisions. The Plans show controlled low-strength material where trench backfill is permissible; However, the contractor may use Trench Backfill where permissible by these Special Provisions.

Material for trench backfill shall comply with Article 1003.04 of the “Standard Specifications for Road and Bridge Construction”, except that the following graduations may be used in addition to FA6: CA6, and CA10, and except that the maximum size shall be 75 mm (3 inches) and that no material over 13 mm (1/2 inch) shall be used below 300 mm (1 foot) over the top of the sewer.

Except where CLSM is used, all sewer trenches under streets, driveways or sidewalks shall be compacted by jetting, mechanical compactor or as directed by the Director of Engineering and Water.

Native soil and/or excavated material shall be per Section 20 of “Standard Specifications for Water and Sewer Construction in Illinois”.

Final backfill shall be placed and compacted per Section 20-4.06B of the “Standard Specifications for Water and Sewer Construction in Illinois”.

The compacted backfill shall be six inches (6”) from the finished surface elevation or adjacent existing grade. Backfill shall be completed as near as possible to active work to minimize the amount of open excavation.

Bedding, haunching, granular cradle, and backfill (including initial and final) required for the pipe shall be considered incidental to the construction of the sewer except Trench Backfill and Controlled Low Strength Material will be paid separately.

Connection to Existing Manhole:

The Contractor shall remove the existing pipe connection that is identified on the plans. The Contractor shall use caution in removing the pipe at the connection to maintain the manhole structure. Any structural damage to the manhole during removal of the connection shall be repaired by the Contractor at no additional cost.

The new cored hole shall be square to the manhole to ensure a good seal between the pipe and the manhole wall. The Contractor shall confirm the required hole dimension based on the product data and Manufacturer’s installation instructions.

The connection to the existing manhole shall be watertight by the use of a link style sealing system. The Contractor shall coordinate the sizing of the cored hole with the link seal supplier. The seal shall be installed around the pipe, pushed into place, and compressed forming a watertight seal with the manhole.

Non-shrink grout may be used as needed to plug the original connection.

Connection to the existing manhole shall be considered incidental to the construction of the sewer.

Testing:

The Contractor shall be responsible for furnishing all equipment, labor, materials, and bypassing pumping necessary for testing of sewers. Testing shall consist of the following:

1. Reach Integrity Testing: Reach integrity testing shall include air testing of sewers. Air testing shall conform to Section 31-1.13 C of the Standard Specifications for Water and Sewer Construction in Illinois.
2. Mandrel Testing: Mandrel tests of flexible sewers shall be performed to verify pipe deflection is within tolerances. Mandrel testing shall conform to Section 31-1.13 D of the Standard Specifications for Water and Sewer Construction in Illinois.
3. CCTV inspection. CCTV inspection required for all gravity sewers post mandrel inspection. Contractor shall provide a post televising files to the City upon completion.

Per the A Manual of Practice for the Design of Public Improvements in the City of Bloomington, Illinois, all sections of the sewer shall be tested per the Standard Specifications for Water and Sewer Construction in Illinois, except for those designated portions of the sewer that are placed into service during the construction process.

Testing shall be considered incidental to the construction of the sewer.

Removal of Existing Pipe:

The existing 12” sanitary sewer will be in conflict with the new gravity sewer and will need to be removed as the new sewer is installed. The Contractor shall remove and dispose of the existing gravity sewer in a lawful manner.

Open end sections of the 12” sewer remaining in place shall be plugged either with a ductile iron mechanical joint cap, or by using non-shrink grout. If non-shrink grout is used, the grout shall extend into the pipe a minimum of 6-inches and flare outside of the pipe engaging the outside of the pipe.

Removal of existing pipe shall be considered incidental to the construction of the sewer.

Abandon Existing Pipe:

The portion of the existing pipe that does not conflict with the new gravity sewer shall remain and be abandoned in place.

Abandoning the existing pipe shall be considered incidental to the construction of the sewer.

Partially Remove and Abandon Existing Manhole:

Existing manholes identified to be partially removed and abandoned on the plans shall have their manhole components removed to the nearest manhole joint where the remaining manhole structure will be a minimum of three feet (3 ft.) below the proposed finished grade.

The Contractor shall securely seal the pipe connections and grout plug the manhole from the base to one and half feet (1.5 ft.) above the highest crown of a pipe connection. The remainder of the structure shall be filled with control low strength material. The remaining trench above the structure shall be backfilled per this specification.

Partially remove and abandon existing manhole shall be considered incidental to the construction of the sewer.

Raising Existing Manhole:

The Contractor shall remove and reuse the casting (frame and lid) and shall remove the chimney, rings, and cone of the manhole identified to be raised to grade on the plans.

The Contractor shall use caution when removing sections of the manhole. If the existing casting or manhole sections are damaged prior to removal, the Contractor shall notify the City and the Engineer immediately prior to any work on the manhole. Damage to the casting or manhole sections during removal, replacement, or reset that occur as a result of actions by the Contractor is to be the sole responsibility of the Contractor.

The Contractor shall confirm the diameter and vertical dimension from the top of remaining structure to the final grade elevation of the casting. The Contractor shall install a new manhole barrel, cone, and ring(s), as needed to match grade, and reuse the casting based on the product data, Manufacturer's installation instructions, and MANHOLES, SANITARY, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID specification.

Backfill for the manhole shall be per this specification.

Raising existing manhole shall be considered incidental to the construction of the sewer.

Basis of Payment: This work will be paid for at the contract unit price per foot for SANITARY SEWER of the diameter specified which price shall include all labor, materials and equipment necessary to perform the work as specified herein.

DRAINAGE SPECIFICATIONS

UTILITY TRENCHES AND EXCAVATIONS

The Contractor shall use care in excavating utility trenches or other excavations and follow all safety requirements. It will be necessary to shore trenches and excavations or use double trench boxes to protect workers and adjacent existing sewers or utilities. Geotechnical information is available for the existing soils and can be obtained from the Engineer upon request. No additional compensation will be allowed for special trench or excavation shoring methods, materials or methods.

CONNECTING INTO EXISTING MANHOLES

At locations indicated in the plans, proposed storm sewers are to be connected into existing manholes. These connections shall be made by core drilling holes in the structures and constructing concrete, brick and masonry around the connections to prevent leakage. This work will not be paid for separately, but shall be considered as included in the contract unit prices for storm sewers of the size and type specified, and no additional compensation will be allowed.

EXISTING SEWERS AND STRUCTURES TO BE PLUGGED

Where existing sewers are to be abandoned or removed as shown in the plans, or as directed by the Engineer, the abandoned sewers and structure openings which remain shall be plugged with concrete, brick masonry, or mechanical plugs in a workmanlike manner and to the satisfaction of the Engineer. This work will not be paid for separately but will be considered as included in the contract unit prices for the various storm or sanitary sewer pay items and no additional compensation will be allowed.

HEAVY EQUIPMENT OPERATION DURING CONSTRUCTION

The Contractor shall use caution whenever operating vibratory machines within the project limits. It is the City of Bloomington's intent to limit the use of vibratory machines so that unnecessary damage to adjacent properties and underground utilities can be avoided. All vibratory machines shall meet the approval of the Engineer before use. The cost of compliance with these requirements will not be paid for separately but shall be considered as included in the contract unit prices for the various pay items of the proposed construction involved, and no additional compensation will be allowed.

MANHOLE STEPS

The manhole steps required for drainage structures and sanitary manholes shall be the plastic type as depicted on Highway Standard Drawing 602701. The cost of complying with this requirement will not be paid for separately but shall be considered as included in the contract unit prices for various drainage structures and sanitary manholes and no additional compensation will be allowed.

20800150 TRENCH BACKFILL
59300100 CONTROLLED LOW-STRENGTH MATERIAL

Description: This work shall consist of furnishing and placing trench backfill and controlled low-strength material (CLSM) for backfilling trenches and excavations as detailed in the plans and as directed by the Engineer. This work shall be in accordance with the applicable articles of Section 208 and 593 of the Standard Specifications.

Construction Requirements: A quantity for CONTROLLED LOW-STRENGTH MATERIAL and TRENCH BACKFILL has been established per the locations shown in the plans. It is hereby understood that the City of Bloomington reserves the right to modify locations as shown in the plans which may result in an addition or reduction of the respective pay item quantities from the contract. Should the City of Bloomington delete any or all of a pay item quantity from the contract, the Contractor will receive no remuneration for the deleted item.

Measurement and Payment: This work will be measured for payment at the contract unit price per cubic yard for CONTROLLED LOW-STRENGTH MATERIAL and TRENCH BACKFILL, which price shall be considered payment in full for all labor, equipment, and materials required for the satisfactory backfilling of trenches and excavations.

54213657 PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"
54213660 PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"
54213663 PRECAST REINFORCED CONCRETE FLARED END SECTIONS 18"
54213669 PRECAST REINFORCED CONCRETE FLARED END SECTIONS 24"
54213681 PRECAST REINFORCED CONCRETE FLARED END SECTIONS 36"
54214713 PRECAST REINFORCED CONCRETE FLARED END SECTIONS - ELLIPTICAL, EQUIVALENT ROUND-SIZE 18"
54214737 PRECAST REINFORCED CONCRETE FLARED END SECTIONS - ELLIPTICAL, EQUIVALENT ROUND-SIZE 42"

Description: This work shall consist of the construction of precast reinforced concrete flared end sections and precast reinforced concrete elliptical flared end sections in accordance with Section 542 of the Standard Specifications and Highway Standard Drawings 542301 and 542306.

Measurement and Payment: This work will be measured for payment at the contract unit price each for PRECAST REINFORCED CONCRETE FLARED END SECTIONS or PRECAST REINFORCED CONCRETE ELLIPTICAL FLARED END SECTIONS, of the specified type and diameter. The price shall include the cost of all excavation and backfill, controlled low-strength materials, and all labor, equipment, and materials required for the installation.

550A0050 STORM SEWERS, CLASS A, TYPE 1 12”
550A0070 STORM SEWERS, CLASS A, TYPE 1 15”
550A0090 STORM SEWERS, CLASS A, TYPE 1 18”
550A0110 STORM SEWERS, CLASS A, TYPE 1 21”
550A0120 STORM SEWERS, CLASS A, TYPE 1 24”
550A0140 STORM SEWERS, CLASS A, TYPE 1 30”
550A0160 STORM SEWERS, CLASS A, TYPE 1 36”
550A0340 STORM SEWERS, CLASS A, TYPE 2 12”
550A0360 STORM SEWERS, CLASS A, TYPE 2 15”
550A0380 STORM SEWERS, CLASS A, TYPE 2 18”
550A0400 STORM SEWERS, CLASS A, TYPE 2 21”
550A0410 STORM SEWERS, CLASS A, TYPE 2 24”
550A0430 STORM SEWERS, CLASS A, TYPE 2 30”
550A4000 STORM SEWERS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 18”
550A4700 STORM SEWERS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 42”

Description: This work shall consist of constructing storm sewers of the class, type, and diameter specified in accordance with Section 550 of the Standard Specifications.

Measurement and Payment: This work will be measured and paid for at the contract unit price per foot for STORM SEWERS, CLASS A, of the type and diameter specified, which price shall include all labor, equipment, and material necessary to complete the work as specified. The pipe types shown on the plans refer to the fill heights over the pipe as indicated in Article 550.03 of the Standard Specifications.

60108300 PIPE UNDERDRAINS 8” (SPECIAL)

Description: This work shall consist of the construction of an underdrain system within the detention basin as shown in the plans and directed by the City. This work shall be in accordance with applicable portions of Section 550 and 611 of the Standard Specifications and as directed by the Engineer. Drain tile as described herein shall be single wall perforated HDPE pipe with a polypropylene drainage sleeve. The cleanout inlet shall be a 6” diameter HDPE pipe with a solid cap that is flush with the surface and easily removable. The riser pipe to the surface shall be a 6” diameter HDPE pipe with a grate that is flush with the surface. The cleanout and riser shall be incidental to the drain tile work. All work shall be done in a good and workmanlike manner in accordance with the latest edition of the Standard Specification for Water and Sewer Construction in Illinois.

Measurement and Payment: This work will be measured and paid for at the contract unit price per foot for PIPE UNDERDRAINS 8” (SPECIAL), which price shall include all labor, equipment, fittings, and materials required, including upstream cleanout, downstream riser and all rock backfill to the surface.

60218300 MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, OPEN LID
60218400 MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID
60221000 MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, OPEN LID
60221100 MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID
60223700 MANHOLES, TYPE A, 6'-DIAMETER, TYPE 1 FRAME, OPEN LID
60223800 MANHOLES, TYPE A, 6'-DIAMETER, TYPE 1 FRAME, CLOSED LID
60224445 MANHOLES, TYPE A, 7'-DIAMETER, TYPE 1 FRAME, OPEN LID
60224457 MANHOLES, TYPE A, 8'-DIAMETER, TYPE 1 FRAME, OPEN LID
60224459 MANHOLES, TYPE A, 8'-DIAMETER, TYPE 1 FRAME, CLOSED LID
60240210 INLETS, TYPE B, TYPE 1 FRAME, OPEN LID

Description: This work shall consist of the construction of manholes and inlets in accordance with Section 602 of the Standard Specifications, Highway Standard Drawings 602301, 602401, 602402, 602411, and 602601, and the plans, except that these structures shall be constructed with precast concrete flat slab tops as detailed on the Standard Drawings. Any necessary lengths of 24-inch diameter adjustment rings or risers required to achieve the top-of-frame elevations as shown in the plans shall also be included. All manholes shall be Type A.

All manholes and inlets shall be backfilled with controlled low-strength materials in accordance with Section 593 and article 602.12 of the IDOT standard specifications. The controlled low-strength material will not be paid for separately but shall be included in the cost of the manhole and inlet Pay Items and no additional compensation will be allowed.

Measurement and Payment: This work will be measured for payment at the contract unit price each for MANHOLES or INLETS, of the specified type and diameter, with frame and grate or lid. The price shall include the cost of all excavation and backfill, controlled low-strength materials, furnishing and installing the manholes, inlets, flat slab tops, and any required adjustment rings or risers, and furnishing and installing the specified frame and grate or lid.

61140000 STORM SEWERS (SPECIAL) 8”

Description: This work shall consist of the construction of low flow storm sewers along the perimeter of the retention basin and miscellaneous storm sewer connections as shown in the plans. This work shall be in accordance with applicable portions of Section 550 and 611 of the Standard Specifications and as directed by the Engineer. Storm sewers as described herein shall be PVC pipe, SDR 26. All storm sewer connections shall be watertight and shall be done in a good and workmanlike manner in accordance with the latest edition of the Standard Specification for Water and Sewer Construction in Illinois.

Measurement and Payment: This work will be measured and paid for at the contract unit price per foot for STORM SEWERS, (SPECIAL), 8”, which price shall include all labor, equipment, fittings, and materials required, except for the concrete collars. The concrete collars will be paid for as specified herein.

X0321313 COCRETE PAD

Description: This work shall consist of constructing concrete pads at each flared end sections within the stormwater basin in accordance with Section 606 of the Standard Specifications, details in the plans, and the following additional requirements:

The concrete pad shall be constructed flush with the finished surface and at locations noted in the plans and according to the plan details. The dimensions of the pad shall have the following dimensions:

- Width: 2D + 10”
- Length: 2.5D
- Thickness: 4”
- D is the pipe diameter upstream of the flared end section

Measurement and Payment: This work will be paid for at the contract unit price per each for CONCRETE PAD, which price shall include all labor, materials, and equipment necessary to perform the work as specified herein, including excavation, pavement, rock subbase, and reinforcement.

X5021508 DEWATERING STRUCTURE NO. 1

Description: This work shall consist of constructing special drainage 4 foot diameter manhole with 24” diameter hole in the bottom of the base slab and a 6’x6’x3’ rock base below the structure at locations shown on the plans and as directed by the City. The dewatering structure shall be constructed in accordance with the applicable Articles of Section 503, 504, and 505 of the Standard Specifications and the details in the plans. Cast-In-Place Neenah Foundry No. R-1883-G1 frame and closed lid or East Jordan Iron Works V-6724 frame and closed lid shall be furnished and installed with the manhole flat slab top.

Measurement and Payment: This work will be measured and paid for at the contract unit price each for DEWATERING STRUCTURE NO. 1, which price shall include the cost of all excavation and backfill, controlled low-strength materials, furnishing and installing the manhole, rock base below the manhole, and closed lid.

X6020076 INLETS, SPECIAL, WITH SPECIAL FRAME AND GRATE

Description: This work shall consist of constructing special drainage inlets at locations shown on the plans. The inlets shall be constructed in accordance with the applicable Articles of Section 602 of the Standard Specifications and the detail in the plans. Neenah Foundry No. R-3067 and R-1879-B7L frames and grates or East Jordan Iron Works 7030 and V-6665 frames and grates shall be furnished and installed with the inlets. The special frames shall be provided with open face curb boxes.

Measurement and Payment: This work will be measured and paid for at the contract unit price each for INLETS, SPECIAL, WITH SPECIAL FRAME AND GRATE, which price shall include the cost of all excavation and backfill, controlled low-strength materials, furnishing and installing the inlets, frames and grates and concrete fillets.

X6020084 MANHOLE (SPECIAL)

Description: This work shall consist of constructing special drainage 6 foot diameter manhole with 8” wide concrete weir wall inside of manhole at locations shown on the plans. The special manhole shall be constructed in accordance with the applicable Articles of Section 503, 504, and 505 of the Standard Specifications and the details in the plans. Cast-In-Place Neenah Foundry No. R-1883-G1 frames and closed lids (2 each) or East Jordan Iron Works V-6724 frames and closed lids (2 each) shall be furnished and installed with the manhole flat slab top.

Measurement and Payment: This work will be measured and paid for at the contract unit price each for MANHOLE, SPECIAL, which price shall include the cost of all excavation and backfill, controlled low-strength materials, furnishing and installing the special manhole, concrete weir wall inside of manhole, and closed lids (2 each), and concrete fillets.

X6022230 MANHOLES, TYPE A, 4'-DIA, WITH SPECIAL FRAME AND GRATE
X6022930 MANHOLES, TYPE A, 5'-DIA, WITH SPECIAL FRAME AND GRATE
X6023508 INLETS, TYPE A, WITH SPECIAL FRAME AND GRATE
X6024090 MANHOLES, TYPE A, 6’-DIA, WITH SPECIAL FRAME AND GRATE
X6020290 MANHOLES, TYPE A, 7'-DIA, WITH SPECIAL FRAME AND GRATE

Description: This work shall consist of the construction of manholes with special frame and grates in accordance with Section 602 of the Standard Specifications, Highway Standard Drawings 602401, 602402, and 602601, and the plans except that these structures shall be constructed with precast concrete flat slab tops as detailed on the Standard Drawings. Any necessary lengths of 24-inch diameter adjustment rings or risers required to achieve the top-of-frame elevations as shown in the plans shall also be included. All manholes shall be Type A. Special frames and grates shall be provided as shown in the storm sewer structure schedules unless directed otherwise by the Engineer.

Measurement and Payment: This work will be measured for payment at the contract unit price each for MANHOLES, of the specified type and diameter, with special frame and grate or lid. The price shall include the cost of all excavation and backfill, controlled low-strength materials, furnishing and installing the manholes, inlets, flat slab tops, and any required adjustment rings or risers, and furnishing and installing the specified frame and grate or lid.

Z0056648 STORM SEWERS, TYPE 1, WATER MAIN QUALITY PIPE, 12”
Z0056650 STORM SEWERS, TYPE 1, WATER MAIN QUALITY PIPE, 15”
Z0056668 STORM SEWERS, TYPE 2, WATER MAIN QUALITY PIPE, 12”

Description: This item is intended to satisfy the EPA requirements for horizontal and vertical separation of sewer and water mains outlined in Section 41 of the Standard Specifications for Water and Sewer Construction in Illinois. This work shall consist of constructing storm sewers of the required inside diameter with the necessary fittings or joints in accordance with Section 550 of the Standard Specifications and the following additions or exceptions.

Materials: The materials allowed for the water main quality storm sewer pipe shall be PVC pipe SDR 21, reinforced concrete pressure pipe, or ductile iron pipe Class 52 (see Ductile Iron pay

items for additional requirements), and of the size and type indicated on the plans. The materials shall be in accordance with Articles 40-2.01A, 40-2.01B, 40-2.01C, 40-2.02, 40-2.05A, and 40-2.05B of the “Standard Specifications for Water and Sewer Construction in Illinois”. Joints between different pipe material types shall be water tight and made with concrete collars as detailed on the plans and as approved by the Engineer. The water main quality pipe joints shall be of the type approved by the Illinois Environmental Protection Agency for storm sewer lines crossing above water mains.

Measurement and Payment: This work will be measured and paid for at the contract unit price per foot for STORM SEWERS, WATER MAIN QUALITY PIPE of the type and size indicated, which price shall include all labor, equipment, and materials required, except for the concrete collars. The concrete collars will be paid for as specified herein. The pipe types shown on the plans refer to the fill heights over the pipe as indicated in Article 550.03 of the Standard Specifications.

XX006281 STORM SEWERS, DUCTILE IRON, TYPE 1 10"
XX008532 STORM SEWER, DUCTILE IRON, 14"
XX008533 STORM SEWER, DUCTILE IRON, 16"

Description: This work shall consist of constructing ductile iron storm sewers of the required inside diameter with the necessary fittings or joints in accordance with Section 550 of the Standard Specifications and the following additions or exceptions.

Materials: The material shall be ductile iron pipe in accordance with Articles 40-2.01B, 40-2.02 and 40-2.05A of the “Standard Specifications for Water and Sewer Construction in Illinois”. Ductile iron pipe shall be encased in polyethylene encasement sleeves which consist of linear low density polyethylene, 8 mil thickness, Class C (black) conformity to the requirements of AWWA C105/ANSI A21.5-99. Polyethylene wrap shall be secured with a polyethylene compatible adhesive tape. The use of duct tape will not be allowed. When lifting polyethylene wrapped pipe with a backhoe, a fabric sling or padded cable shall be used to protect the wrap from damage.

Measurement and Payment: This work will be measured and paid for at the contract unit price per foot for STORM SEWERS, DUCTILE IRON, of the type and diameter specified, which price shall include all labor, equipment, and material necessary to complete the work as specified. The pipe type (if indicated) refers to the fill height over the pipe as indicated in Article 550.03 of the Standard Specifications.

XX008979 CONCRETE COLLAR

Description: This work shall consist of constructing concrete collars around joints of pipes where the pipes being joined are of different diameters or types of materials. The collars shall be as shown on the detail in the plans and shall be constructed with class SI concrete in accordance with Section 1020 of the Standard Specifications. The excavation and backfilling shall be as specified for the associated pipe installation.

Measurement and Payment: This work will be measured and paid for at the contract unit price each for CONCRETE COLLAR, which price shall include all labor, equipment, non-shear coupling, and material necessary to complete the work as specified, including the welded wire fabric.

TRAFFIC SIGNAL SPECIFICATIONS

TRAFFIC SIGNAL POST

This work shall consist of furnishing and installing a traffic signal post of the type and length indicated on the plans in accordance with Section 875 and 1077.01 of the Standard Specifications for Road and Bridge Construction and the following additions or exceptions.

An aluminum collar shall be attached where the post connects to the base. Minimum 1" diameter washers may be used between the post base and the anchor bolts to level the post.

Traffic signal posts shall be black in accordance with the TRAFFIC SIGNAL PAINTING special provision.

Basis of Payment: This work will be paid for at the contract unit price each for TRAFFIC SIGNAL POST of the type and length indicated on the plan for supplying and installing the signal post.

80500100 SERVICE INSTALLATION, TYPE A

Description. This work shall consist of installing the service installation at the traffic signal located at Bunn and Hamilton. The contractor shall work with the utility company to coordinate location and timing of service installation. All aspects of installing the service installation including but not limited to any structures, foundations, posts or poles shall be included in this pay item.

Basis of Payment: This work will be paid for at the contract unit price per each for SERVICE INSTALLATION, TYPE A.

87800100 CONCRETE FOUNDATION, TYPE A

This work shall consist installing a Concrete Foundation, Type A in accordance with Section 878 of the Standard Specifications for Road and Bridge Construction and State Standard 878001 with no exceptions.

The proposed location of the Concrete Foundation, Type A may be moved in the field to avoid conflicts at the approval of the Engineer. If foundation is located in an area not within the removal limits shown on the plans, removal of the existing sidewalk or earth disturbance shall be completed in accordance with Section 895 of the Standard Specifications for Road and Bridge Construction and any applicable notes or Special Provisions provided in these construction documents.

Basis of Payment: This work will be paid for at the contract unit price per foot for CONCRETE FOUNDATION, TYPE A, which price shall be payment in full for all labor, material, and equipment necessary to perform the work described above.

87800150 CONCRETE FOUNDATION, TYPE C

Add the following to the end of Article 878.03:

"Concrete foundations shall be constructed according to the Plans. The foundations shall also be constructed according to Standard 878001 with the following exceptions for Concrete Foundation, Type C:

1) The 4" gap shown between the battery cabinet base and the controller cabinet base shall be deleted. The battery cabinet shall be ground-mounted and bolted directly to the right side of the controller cabinet. The conduit shown between the battery cabinet and the controller cabinet shall be deleted.
2) The ground rod shown for the controller cabinet foundation shall be located in the double handhole rather than in the foundation.
3) The No. 6 bare copper wire that is connected to the ground rod shall be replaced with an insulated No. 6 XLP green copper conductor meeting the requirements of Section 806."

Basis of Payment: This work will be paid for at the contract unit price per foot for CONCRETE FOUNDATION, TYPE C, which price shall be payment in full for all labor, material, and equipment necessary to perform the work described above.

87800415 CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER

This work shall consist of installing a Concrete Foundation, Type E, Specified Diameter in accordance with Section 878 of the Standard Specifications for Road and Bridge Construction and State Standard 878001 with no exceptions.

The proposed location of the Concrete Foundation, Type E may be moved in the field to avoid conflicts at the approval of the Engineer. If foundation is located in an area not within the removal limits shown on the plans, removal of the existing sidewalk or earth disturbance shall be completed in accordance with Section 895 of the Standard Specifications for Road and Bridge Construction and any applicable notes or Special Provisions provided in these construction documents.

Basis of Payment: This work will be paid for at the contract unit price per foot for CONCRETE FOUNDATION, TYPE E, 36-INCH DIAMETER, which price shall be payment in full for all labor, material, and equipment necessary to perform the work described above.

SIGNAL HEAD, LED

This work shall be in accordance with Sections 880 and 1078 of the Standard Specifications except as modified herein.

The traffic signal heads shall consist of 12" polycarbonate sections and shall be equipped with LED assemblies for all red bulb, yellow bulb, green bulb, red arrow, yellow arrow, and green arrow indications.

The LED signal faces shall be equipped with spade connectors and connected to the traffic signal head terminal block.

The LED signal heads shall come with a 15-year manufacturer's warrantee. The Contractor shall complete and submit to the manufacturer any necessary paperwork to activate said warrantee. Copies of all paperwork shall be provided to the City.

Basis of Payment: This work will be paid for at the contract unit prices each for SIGNAL HEAD, LED of the type specified and shall be payment in full for all labor, materials, and equipment required to provide and install the traffic signal heads described above, complete.

88102747 PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNT DOWN TIMER

This work shall be in accordance with Section 881 and 1078 of the Standard Specifications except as modified herein.

The LED signal faces shall be equipped with spade connectors and connected to the traffic signal head terminal block.

The LED signal face shall have international symbols (Upraised Hand - Color: Portland Orange, Walking Person - Color: Lunar White). The walk/hand symbols shall be on the top signal face and the countdown numbers on the bottom face. Only filled indications will be allowed.

The LED assembly shall meet or exceed the following minimum specifications:

Lens: 12” x 12” 2-section lens, Hard Coated for Abrasion Resistance, UV Stabilized Dome

LEDS: Interconnected to minimize the effect of single LED failures, Nominal Wattage White: 8W or less, Nominal Wattage Orange: 11W or less, Nominal Wattage Countdown: 6W

Luminous Intensity (min): Countdown = 1,400 cd/m², Hand = 1,400 cd/m², Person = 2,200 cd/m²

Product Warranty: 5 Year Replacement

Combination hand/person pedestrian signal modules shall incorporate separate power supplies for the hand and the person displays.

The assembly shall be capable of operating from 80 to 135 VAC with less than 10% variation in intensity, shall have an operating temperature range of -40° to 74°C, and shall be sealed and highly resistant to water intrusion.

Basis of Payment: This work will be paid for at the contract unit price per each for PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER and payment will be in full for all labor, equipment, and materials required to provide and install the pedestrian traffic signal heads equipped with LED indications described above, complete.

88200110 TRAFFIC SIGNAL BACKPLATE, LOUVERED

This work shall consist of furnishing and stalling a traffic signal backplate in accordance with Sections 882 and 1078.03 of the Standard Specifications for Road and Bridge Construction and the following exceptions.

The traffic signal backplate shall be of the same material as the traffic signal heads as specified on the plans.

Basis of Payment: This item will be paid for at the contract unit price each for TRAFFIC SIGNAL BACKPLATE for supplying and installing the traffic signal backplate to the satisfaction of the Engineer.

X8800101 PEDESTRIAN PUSH-BUTTON (SPECIAL)

This work shall be in accordance with Sections 888 and 1074 of the Standard Specifications except as modified herein.

The pedestrian push buttons shall be APS, with speech capabilities. The push button shall be Campbell Guardian Wave (9"x12"), Polara iNS with iDS touchless technology. The Contractor shall install the proposed pedestrian pushbuttons and integrated signs on the traffic signal mast arm poles and posts.

The pedestrian pushbutton installation shall include all crossing signs and hardware required to mount the pedestrian pushbutton. All hardware shall be of stainless steel construction. All bolts shall be 1/4" Hex Head and no self-tapping/drilling screws will be allowed.

Basis of Payment: This work shall be paid for at the contract unit price each for PEDESTRIAN PUSH-BUTTON, SPECIAL, and shall be payment in full for all labor, equipment, and materials required to supply and install the pedestrian push buttons described above, complete.

85700300 FULL-ACTUATED CONTROLLER AND TYPE V CABINET

Description. This work shall be in accordance with Sections 801, 857, 1073, and 1074 of the Standard Specifications except as modified herein.

The Contractor shall provide all labor, materials, and equipment required for the work described above. The cost of this work shall be included in the bid price for this pay item. There will be no additional compensation for this work.

Add the following at the end of Article 801.11(b)(4):

> “The Contractor shall provide this information at the Preconstruction Meeting. These individuals must be able to respond throughout the project including the 30-day acceptance period after the controller is turned on.”

Add the following after the second sentence of the second paragraph of Article 801.15(b):

> “A factory representative capable of ensuring that the controller and cabinet are operating to the satisfaction of the Engineer shall be present at the Turn-on of the

controller and shall remain until the intersection is operating to the satisfaction of the Engineer. If a defect is observed in the controller or cabinet operation, the factory representative shall return as often as necessary until all defects have been repaired. The City reserves the right to cancel any Turn-on if the City deems the situation unsafe for reasons such as bad weather, peak hour traffic conditions, or road conditions."

Add the following after the first paragraph of Article 801.16:

"The project phase designation diagram (with north arrow) shall be permanently affixed to the door of the cabinet for easy reference by the maintenance technician. The diagram shall be permanent in nature and weatherproof. The diagram shall be placed so that when the cabinet door is opened it is aligned with the intersection as viewed from the cabinet."

Add the following at the end of Article 801.16:

"The Contractor shall provide five copies of a schematic diagram showing plug and terminal strip wiring for the traffic control installation. The diagram shall be clearly marked, indicating the intersection for which the diagram applies. The City Engineer shall be the sole judge of the acceptability of the diagrams. The wiring diagrams shall not show any circuits or information which is not present in the installed system.

Add the following at the end of Article 857.01:

"The controller shall be an Econolite Cobalt. Other manufactures/models must receive preapproval from the Engineer."

Revise the first sentence of the first paragraph of Article 1073.01 to read:

"A traffic actuated solid state digital controller shall be according to NEMA Standards for Traffic Control Systems, TS 2 and ATC (Advanced Traffic Controller)."

The Controller shall be a fully compliant NTCIP 1201/1202 ATC NEMA TS-2 Type 1 controller

Revise the first sentence of the first paragraph of Article 1073.01 to read:

"(6) Data Key, Ethernet Port, and USB Port. The controller shall have a standard data key, Ethernet port, and USB port. The data key shall be used for controller database backup, transfer and management.

Add the following to the end of Article 1073.01(b):

"(7) The front panel shall be able to be accessed remotely via a web browser.

(8) The front panel display shall be capable of displaying the video feed from a video detection system.

(9) The controller shall be fully compatible with the Centracs Advanced Traffic Management System including daily configuration comparisons between the controller and ATMS and provide a warning in the case of a discrepancy.

Revise the last sentence of Article 1074.03(a)(3)(c) to read:

"The Contractor shall furnish, immediately upon placing the signal in operation, four keys to the controller cabinet to the Engineer.

Add the following to Article 1074.03(a)(3)(c):

"The controller cabinet door shall normally be placed on the side of the controller cabinet furthest from the center of the intersection. The police door compartment shall contain a manual control cord from which the signals may be operated manually."

Add the following to the end of Article 1074.03(b)(1):

"Normal operation of the signals at the intersection shall not be possible with the conflict monitor removed. The conflict monitor shall prevent any display not allowed in the Manual on Uniform Traffic Control Devices."

Add the following to the end of Article 1074.03(b)(2):

"The load switches shall contain two LED indicators per circuit to provide information concerning the circuit input and output states. The back panel must accommodate 16 load switches."

Revise the first sentence of the third paragraph of Article 1074.03(b)(3) to read:

"The back panel for the cabinet Types IV and V shall contain at a minimum: 16 load switch wired sockets and four flash transfer relay wired sockets."

Revise the fourth paragraph of Article 1074.03(b)(3) to read:

"One circuit breaker rated 10 A shall be provided for the control equipment and another circuit breaker rated 30 A shall be provided for the signal load."

Add the following after the third paragraph of Article 1074.03(b)(4):

"The flash transfer relays shall not be energized during flash operation (conflict or manual)."

The controller, conflict monitor, and the uninterruptible power source shall be equipped with ethernet ports for communication. Cat. 5 ethernet jumper cables shall be provided for connecting the devices to the ethernet switch.

It is the intent of the City that the proposed cabinets be connected to a fiber optic network. A distribution enclosure shall be installed in accordance with Section 864 of the Standard

Specifications. The distribution panel shall be connected to an ethernet switch via fiber optic jumpers. The ethernet switch shall be connected to the controller via ethernet jumper cables.

The cabinet shall be equipped with a twenty-four fiber, wall-mountable interconnect center and two six-fiber bulkheads. The cabinet and controller shall also be equipped with any and all other components necessary to provide for a complete and functional fiber optic telemetry.

The new distribution enclosure shall be under shelf mounted in all proposed newly installed cabinets and with ST terminations. The distribution enclosure shall be the Multilink Model # FRM-2RU-4X-SO.

At all locations the distribution enclosure shall be of adequate capacity to accommodate a minimum of 48 fiber terminations.

The ethernet switch shall be a Comtrol ES8509 managed switch.

Existing single mode fiber optic cable will be provided coiled in an existing handhole at the west limit of the project. Contractor will be responsible for drilling into the existing handhole, installing new conduit to the double handhole by the controller, pulling this existing fiber optic cable through the contractor-installed conduit, connecting to the proposed controller cabinet and programming as necessary to establish a fully functioning communication link as part of this work. Furnishing and installing conduit necessary for the connection, as well as drilling the existing handhole, will be measured and paid for under the respective pay items.

The cabinet shall include a malfunction management unit to allow enhanced fault monitoring capabilities. The malfunction management unit shall support flashing yellow arrow operation and be a Reno A&E model MMU-1600G equipped with a graphical display and Ethernet port or an EDI MMU-16LEip with graphical display and Ethernet port. The malfunction management unit shall be equipped with the latest software and firmware revisions.

The cabinet shall be equipped with a plexi-glass shield that covers the power panel which houses the mercury bus relay, line filter, circuit breakers, and other electrical components.

The cabinet shall be equipped with toggle switch guards for all switches located on the door to prevent accidental switching. The cabinet shall include a high quality deluxe pleated filter.

The cabinet shall contain a generator outlet for outside generator connection.

The cabinet shall be equipped with additional surge protection for the controller, malfunction management unit, and detector amplifiers and/or video detection system. The surge protector shall be a Transtector model ACP100BWN3 and shall be included in addition to an EDCO SHA-1250 IRS protector. The EDCO SHA-1250 IRS surge protector is to be provided in accordance with Section 1085.47 A(4a) and shall be wired to provide surge protection for the controller, malfunction management unit, and detector amplifiers and/or video detection system. The Transtector surge suppressor may be wired to the equipment protected power terminals of the EDCO SHA-1250 IRS unit provided that the controller, malfunction management unit, and detector amplifiers and/or video detection system are protected.

The Contractor shall set up each cabinet in his or her shop for inspection by the Engineer. All phases that are utilized shall be hooked up to a light board to provide observation for each signal indication. The Engineer shall be notified when the setup is complete so that all pertinent

timings may be entered into the traffic signal controller. The facility shall be subject to a seven-day burn-in period before installation will be allowed.

The Contractor shall be responsible for programming and installing a fully functional controller with the timings supplied by the City of Bloomington. All programming changes needed during the burn-in period shall be performed by the Contractor as indicated by the Engineer.

Typically the controller shall be completely uploaded or downloaded through telemetry or RS232 or RJ45 ports. The latest computer software shall be provided to the City of Bloomington and the Town of Normal so data, including all timing parameters, can be transferred. The supplying of software will be waived if identical to that already owned by the City of Bloomington.

After installing the cabinet in the field, prior to resuming normal signal operation, the Contractor shall test the cabinet by connecting a jumper to the cabinet field terminals to ensure that all conflicting signals will place the cabinet into conflict flash and to verify that the cabinet, controller, and malfunction management unit are operating correctly. The Contractor shall make arrangements with the local police agency to provide traffic control during the conflict test.

Basis of Payment: This work will be paid for at the contract unit price each for FULL ACTUATED CONTROLLER AND TYPE V CABINET.

X8891202 WIDE AREA VIDEO VEHICLE DETECTION SYSTEM COMPLETE

General. This specification sets forth the minimum requirements for a system that detects vehicles on a roadway using only video images of vehicle traffic.

The system shall include software that detects vehicles in multiple lanes using only the video image. Detection zones shall be defined using only an on board video menu and a pointing device to place the zones on a video image. Up to 144 detection zones shall be available. A separate computer shall not be required to program the detection zones.

Functional Capabilities. The video detection system shall be compatible with the controller and cabinet identified in these specifications. The VDP shall process video from up to six video sources simultaneously. The sources can be video cameras or S-VHS video tape players. The video shall be input to the VDP in RS170 format and shall be digitized and analyzed in real time. A separate microprocessor for each video input shall be used.

Vehicle Detection.

Detection zones shall be capable of being Or'ed or ANDed together to indicate vehicle presence on a single detector output channel.

Placement of detection zones shall be done by using only a pointing device, and a graphical interface built into the VDP and displayed on a video monitor, to draw the detection zones on the video image from each video camera. No separate computer shall be required to program the detection zones.

Up to 3 detection zone patterns shall be saved for each camera within the VDP memory and this memory shall prevent loss during power outages.

The selection of detection zone pattern for current use shall be done through a menu. It shall be possible to activate a detection zone pattern from VDP memory and have that detection zone pattern available within 1 second of activation.

When a vehicle is detected crossing a detection zone, the corners of the detection zone will flash on the video overlay display to confirm the detection of the vehicle.

Detection shall be at least 98% accurate in good weather conditions, with slight degradation possible under adverse weather conditions (e.g. rain, snow, or fog) which reduce visibility. Detection accuracy is dependent upon camera placement, camera quality and detection zone location, and these accuracy levels do not include allowances for occlusion or poor video due to camera location or quality. See Camera section for recommended camera placement.

Detection zones shall be directional to reduce false detections from objects traveling in directions other than the desired direction of travel in the detection area.

Detection zone setup shall not require site specific information such as latitude and longitude to be entered into the system.

Detection zone setup shall not require temporal information such as date and time.

The VDP shall output a constant call for each enabled detector output channel if a loss of video signal occurs. The VDP shall output a constant call during the background of the learning period.

VDP Hardware.

The VDP shall be powered by 120 VAC 60 Hz single-phase power. Surge settings shall be set forth in NEMA specifications. Power consumptions shall not exceed 135 watts.

The VDP shall include ports for communications with a remote computer.

The VDP shall include ports for transmitting TS1 and TS2 detections to the specified traffic controller.

The front of the VDP shall include one video output. Any one of the video inputs shall be switch selectable for output on this connection via the pointing device at the VDP, or through software and a personal computer connected.

A portable monitor shall be provided with the VDP.

Camera. The video cameras used for traffic detection shall be Iteris Vantage Next or Autoscope Vision and be compatible with specified controller.

The camera shall be housed in a weather-tight sealed enclosure. The housing shall be field rotatable to allow proper alignment between the camera and the traveled road surface.

The camera enclosure shall be equipped with a sun shield. The sunshield shall include a provision for water diversion to prevent water from flowing in the cameras field of view.

The camera enclosure shall include a thermostatically controlled heater to assure proper operation of the lens shutter at low temperatures and prevent moisture condensation on the optical faceplate of the enclosure.

When mounted outdoors in the enclosure, the camera shall operate satisfactory in a temperature range from -34° C to +60° C and a humidity range from 0% RH to 100%RH.

Recommended camera placement shall be over the traveled way on which vehicles are to be detected. For optimum detection the camera should be centered above the traveled roadway. Camera placement and field of view (FOV) shall be unobstructed and as noted in the installation documentation provided by the supplier.

The camera enclosure shall be equipped with separate, weather-tight connections for power and video cables at the rear of the enclosure. These connections may also allow diagnostic

testing and viewing of video at the camera while the camera is installed on a mast arm or pole using a lens adjustment module (LAM) supplied by the VDP supplier. Video and power shall not be connected within the same connector.

The video signal shall be fully isolated from the camera enclosure and power cabling.

Installation. The coax cable shall be a continuous unbroken run from the camera to the VDP. This cable shall be suitable for installation in conduit or overhead with appropriate span wire. The coaxial cable, BNC connector, and crimping tool shall be approved by the supplier of the video detection system, and the manufacturer's instructions must be followed to ensure proper connection.

The cameras shall be mounted at least 6' above the mast arm.

The power cabling shall be 16 AWG three conductor cable. The cabling shall comply with the National Electric code, as well as local electric codes.

The video detection system shall be installed by supplier factory certified installers and as recommended by the supplier and documented in installation materials provided by the supplier.

Video cable and AWG cable shall not be paid for separately but shall be included in the cost of WIDE AREA VIDEO VEHICLE DETECTION SYSTEM COMPLETE.

Warranty. The supplier shall provide a limited warranty on the video detection system. See suppliers standard warranty included in the Terms and Conditions of Sale documentation.

During the warranty period, technical support shall be available from the supplier via telephone within 4 hours of the time the call is made by a user, and this support shall be available from factory-certified installers.

During the warranty period, updates to VDP software shall be available from the supplier without charge.

Before the end of the warranty period, an inspection shall be conducted to insure proper function.

Maintenance and Support. The supplier shall maintain an adequate inventory of parts to support maintenance and repair of the video detection system. These parts shall be available for delivery within thirty days of placement of an acceptable order at the supplier's then current pricing and terms of sale for said parts.

The supplier shall maintain an ongoing program of technical support for the video detection system. This technical support shall be available via telephone, or via personnel sent to the installation site upon placement-of an acceptable order at the supplier's then current pricing and terms of sale for onsite technical support services.

Installation or training support shall be provided by a factory authorized representative.

All product documentation shall be written in the English language.

Basis of Payment: This work will be paid for at the contract unit price per each for WIDE AREA VIDEO VEHICLE DETECTION SYSTEM COMPLETE for each intersection which price shall include installation in the controller cabinet complete with necessary connections for proper operation.

TRAFFIC SIGNAL PAINTING

Description

This work shall include surface preparation, powder coated finish application and packaging of new galvanized steel traffic signal mast arm poles and posts assemblies. All work associated with applying the painted finish shall be performed at the vendor's facility for the pole assembly or post or at a painting facility approved by the Engineer. Traffic signal mast arm shrouds and post bases shall also be painted the same color as the pole assemblies and posts. . They are to match existing.

Surface Preparation

All weld flux and other contaminates shall be mechanically removed. The traffic mast arms and post assemblies shall be degreased, cleaned, and air dried to assure all moisture is removed.

Painted Finish

All galvanized exterior surfaces shall be coated with a urethane or triglycidyl isocyanurate (TGIC) polyester powder to a dry film thickness of 2.0 mils. Prior to application, the surface shall be mechanically etched by brush blasting (Ref. SSPC-SP7) and the zinc coated substrate preheated to 450 °F for a minimum one (1) hour. The coating shall be electrostatically applied and cured by elevating the zinc-coated substrate temperature to a minimum of 400 °F.

The finish paint color shall be one of the manufacturer's standard colors and shall be as selected by the local agency responsible for paint costs. The Contractor shall confirm, in writing, the color selection with the local responsible agency and provide a copy of the approval to the Engineer and a copy of the approval shall be included in the material catalog submittal.

Traffic signal heads, pedestrian signal heads and controller cabinets are not included in this pay item.

Any damage to the finish after leaving the manufacturer's facility shall be repaired to the satisfaction of the Engineer using a method recommended by the vendor and approved by the Engineer. If while at the manufacturer's facility the finish is damaged, the finish shall be reapplied at no cost to the contract.

Packaging

Prior to shipping, the poles and posts shall be wrapped in ultraviolet-inhibiting plastic foam or rubberized foam.

Basis of Payment

The cost of this work will not be paid for separately, but shall be considered as included in the unit bid prices of each item being painted, and no additional compensation will be allowed.

X8870300 EMERGENCY VEHICLE PRIORITY SYSTEM

This work shall consist of furnishing and installing an emergency vehicle priority system with redundant cellular and radio communication in accordance with the details in the plans and as specified herein.

Construction Requirements:

The emergency vehicle priority system shall be the Glance System with matched components, manufactured by Applied Information. The system shall include a Model AI-500-085-02 cabinet unit with all required antennas, installation cables, and other associated equipment. The external components shall be mounted in accordance with the manufacturer's installation requirements, or as otherwise directed by the Engineer.

All installations shall be equipped with Confirmation Beacons for all directions. The Confirmation Beacons shall consist of a 6-watt PAR 38 LED flood lamp with a 30-degree light spread, or a 7-watt PAR 30 LED flood lamp with a 15-degree or greater light spread, maximum 7-watt energy consumption at 120V, and a 2,000-hour warranty for each direction of preemption. The lamp shall have an adjustable mount with a weatherproof enclosure for cable splicing. All hardware shall be cast aluminum or stainless steel. Holes drilled into signal poles, mast arms, or posts shall require rubber grommets. In order to maintain uniformity between communities, the confirmation beacons shall indicate when the control equipment receives the preemption signal. The pre-emption movement shall be signalized by a flashing indication. The stopped preempted movements shall be signalized by a continuous indication.

All cables shall be continuous unbroken runs. Splices in the cable are not allowed.

This item shall include any required modifications to an existing traffic signal controller as a result of the addition of the EMERGENCY VEHICLE PRIORITY SYSTEM.

The System shall come with a 10-year Connectivity and Support Plan agreement with the City of Bloomington, Illinois, and shall include at a minimum:

1. Glance Platform Subscription and Configuration
2. Guaranteed cellular connectivity with no cellular overage charges
3. Upgrade of cellular modem should current communication means no longer be supported
4. Telephone and email support during standard business hours.
5. Extended warranty on the hardware for the period of the Connectivity and Support Agreement
6. Over-the-air software and security updates
7. The Connectivity and Support plan shall be extendable prior to the end of the 10-year period at the option of the City. The cost of any extensions shall be born by the City separate from this work.

The contractor shall contact the City of Bloomington Traffic Engineer – Philip Allyn, P.E., P.T.O.E.; 309-434-2225, to coordinate the activation of the Connectivity and Support Plan agreement and the Glance Subscription and Configuration.

The System hardware shall be under warranty for as long as the device has an active connectivity and support license and is connected to the browser-based monitoring platform. Warranty shall be a “no-questions-asked” warranty, where hardware shall be replaced in the event that the device is irreparable.

Basis of Payment:

This work will be paid for at the contract unit price each for EMERGENCY VEHICLE PRIORITY SYSTEM which price shall include all labor, equipment, material and testing necessary to complete the work as specified and ensure proper operation.

All cable required for the installation of the System and confirmation beacons shall be considered included in the cost of EMERGENCY VEHICLE PRIORITY SYSTEM and will not be paid for separately.

LED Confirmation Beacons will be considered as included in the cost of the EMERGENCY VEHICLE PRIORITY SYSTEM and will not be paid for separately.

The providing and activating of the 10-year Connectivity and Support Plan agreement with the City of Bloomington shall be considered included in the cost of EMERGENCY VEHICLE PRIORITY SYSTEM and will not be paid for separately.

WATER MAIN SPECIFICATIONS

GENERAL REQUIREMENTS

A. For approved manufacturers not listed for this project, inquire of the City of Bloomington Water Department Director, (309) 434-2426.

B. Exercise care in transporting and handling pipe and fittings in order to avoid damage to materials or coatings. Lifting shall be by hoist or on skids when hand lifting is not feasible. Dropping shall not be permitted. Store and stack pipe as recommended by the manufacturer. Damaged pipe and fittings shall be replaced.

C. Corporation stops, curb stops, service fittings and couplings, valves, gauges, and all materials that come in contact with potable water, shall comply with Section 611.126 of the Illinois Administrative Code Title 35. Lead concentrations cannot exceed 0.25% weighted average limit for all wetted surfaces.

D. Water main installation, replacements and connections to existing water main on Hamilton Road between Bunn Street and Rhodes Lane, Bunn Street and Rhodes Lane:

Connection shall be coordinated 48 hours in advance with both the City and with customers on Hamilton Rd. Work may only take place during the hours of 12:00 PM Saturday – 11:00 PM Sunday. Service shall be restored as soon as possible. If the existing water supply service is interrupted prior to the service being replaced, Contractor shall immediately contact the City and the local customers.

E. A quantity for controlled low strength material and trench backfill has been established per locations shown in the plans. Refer to technical specifications included herein for additional information.

F. All pipe materials furnished under this section shall have been manufactured in the United States of America and comply with all applicable provisions of referenced AWWA standards.

56105000 WATER VALVES 8”
56105200 WATER VALVES 12”
56108800 TAPPING VALVES AND SLEEVES 6”

Description: This work shall consist of furnishing and installing water valves of various sizes at locations shown on the plans and as directed by the Owner and as specified herein.

Submittal Requirements:

A. Submit shop drawings and product data for all valves, valve boxes, and valve operators showing general dimensions, linings and coatings, construction details and full descriptive literature, which includes materials of construction, material specification and grade for all valve parts. Shop drawings shall indicate valve operator locations.

B. Valve manufacturer shall furnish certification that each valve has been subjected to a hydrostatic water pressure twice the pressure class and that each valve is free of defects. Valves shall be tested in both the open and closed positions.

C. Furnish one set of all special tools necessary for installation, operation, normal

maintenance, and adjustment.

Materials:

General Valve

A. All valves shall be of standard manufacture and of highest quality materials and workmanship.

B. All valves of a particular type shall be the product of one manufacturer regularly engaged in the continuous production of that size and type of valve.

C. Valves shall be suitable for working pressure as required and as specified for the pipeline in which it is installed. Manufacturer's name, service, and pressure class shall be cast into the body.

D. Unless otherwise indicated or specified, valves shall be ductile iron body and disc.

E. All valves shall be constructed for services up to 250 psi.

F. Where required for satisfactory operation of valves, provide valve operators, cast iron valve boxes, tee handle wrench, and other valve appurtenances

G. Buried valves shall be epoxy coated. All bolts shall be stainless steel.

H. Buried valves 6-inch diameter or larger shall be set on foundation of solid concrete or stone not less than 8 inches thick nor less than one cubic foot in volume. Foundations shall be set on firmly compacted ground.

I. The height of the valve and its supporting foundation shall conform to the height of the connecting pipe. Valves shall be set in a vertical position unless otherwise indicated on the Drawings

J. All valves shall be restrained with retainer glands or a manufactured pipe restraint system approved by the Owner.

K. All valves shall be inspected upon delivery in the field to insure proper working order before installation. They shall be set and jointed to the pipe in the manner as set forth in the AWWA Standards for the type of connection ends furnished. Open and close each valve observing full operation prior to installing successive lengths of pipe.

L. All valves shall be provided with a standard valve chamber so arranged that no shock will be transmitted to the valve and the box opening shall be centered over the operation nut, and the cast iron cover shall be set flush with the road surface or finished surface.

M. After installation, all valves shall be subject to the field test for piping as outlined in these specifications. Should any defects in materials or workmanship appear during these tests, the Contractor shall correct such defects with the least possible delay and to the satisfaction of the Owner.

General Gate Valve

A. Gate valves shall be resilient wedge with cast iron body and non-rising stem with upper and lower thrust collars. Waterways shall be smooth. Gate valves shall be furnished with O-ring stem seals. Number, size and design shall conform to the AWWA Standard for R/W Valve O-Ring Stem Seals. All valves shall open by turning counterclockwise. Valves shall meet or exceed AWWA C515.

B. Wrench nuts shall be made of cast iron and shall be one and fifteen-sixteenths (1-15/16) inches square at the top, two (2) inches square at the base and one and three-fourths (1-3/4) inches high.

C. Each gate valve shall be subjected to hydrostatic pressure test per AWWA C515.

D. Acceptable gate valve manufacturers are Clow F6100 or Mueller.

General Valve Box

A. Valve boxes shall be a screw type approximately 5-1/4 inches in diameter with a minimum thickness of 3/16 inch and shall be set to position during backfilling operations so they will be in a vertical alignment to and centered over the valve operating stem. The lower casting of the unit shall be installed first in such manner as to be cushioned and to not rest directly upon the body of the valve or upon the water main. The upper casting of the unit shall then be placed in proper alignment into such an elevation that its top will be at final grade. Extension sections shall be furnished, if necessary, to increase the length of the screw type valve box to ensure the top of the box will be at final grade. Where valve boxes require more than one additional section of box, the top section of the box shall be removed and a section of 6-inch diameter AWWA C900 PVC pipe cut to length, shall be inserted into the bottom section of the box and the upper section installed on top of the PVC pipe extension. CA-6 granular material shall be utilized to backfill around the operating nut and valve box. Valve box shall be two piece, screw type, and covers shall be no-tilt drop cover marked "WATER", per the City's Manual of Practice.

Tapping Valves and Sleeves

A. Taps over one inch are not permitted. When a larger tap is required than is allowed to be tapped into any particular water main or distributing pipe, a side-tap, using a sleeve and valve may be made by the City water personnel.

1. Tapping valves shall be Clow F6114 or Mueller resilient wedge gate valves, per the City's Manual of Practice. Retainer Glands shall be: McWane (Clow) F-1058 or Mueller 110 Mechanical Joint Restraint, per the City's Manual of Practice, and shall be installed at the joint between the valve and the proposed water main.

2. Tapping Sleeves shall be stainless steel with stainless steel bolts, per the City's Manual of Practice as follows:
   - Taps onto existing 4", 6", and 8" mains: Cascade CST-SL or Ford FAST.
   - Taps onto existing 10" or larger mains: Cascade CST-EX or Ford FTSS.

Measurement and Payment: This work will be measured for payment at the contract unit price each for each for WATER VALVES or TAPPING VALVES AND SLEEVES of the size specified. This work shall include all labor, equipment and material including excavation, except rock excavation; locating existing water main; furnishing and installing valves and valve boxes; tapping valves and sleeves; blind flange; transition to existing diameter after the water valve; all necessary fittings for a complete installation as shown on the Drawings; concrete block support; bedding and earth backfill; testing; disinfection; protection, replacement, or repair of utilities, drainage systems, structures, homeowner's property, and miscellaneous property; removal of surplus excavated material; and clean-up.

TRENCH BACKFILL and CONTROLLED LOW-STRENGTH MATERIAL will be paid for separately as specified herein.

56109210 WATER VALVES TO BE ADJUSTED

Description: This work shall consist of adjusting existing water valve boxes to finished grade at the locations shown on the plans and as directed by the Owner. The work shall include excavating around the valve boxes, adjusting the boxes to match the finished grade and backfilling the excavation with select earth material. Excavations that are beneath or within two feet horizontally of proposed pavement and curbs shall be backfilled with Controlled Low-Strength Material. Any broken or damaged valve box materials will be replaced by the Contractor.

Measurement and Payment: This work will be paid for at the contract unit price each for WATER VALVES TO BE ADJUSTED, which price shall include all work as specified herein.

TRENCH BACKFILL and CONTROLLED LOW-STRENGTH MATERIAL will be paid for separately as specified herein.

56400500 FIRE HYDRANTS TO BE REMOVED

Description: This work shall consist of complete removal and disposal of the existing fire hydrants at the locations shown on the plans and as directed by the Owner.

Materials: The Contractor will be responsible for exploring and determining the type, size, and depth of the fire hydrants. After the new water mains have been satisfactorily installed, disinfected and approval given by the Owner, the existing hydrants shall be removed as noted on the plans and described herein. The limits of the water lines to be abandoned are shown on the plans. All fire hydrants and valve boxes within the limits shown shall be removed to a minimum one foot below grade. The fire hydrants that are salvageable as determined by the Owner shall become the property of the City of Bloomington and be delivered by the Contractor to the Water Department at 603 West Division Street, Bloomington, IL. Fire hydrants determined not to be salvageable by the Owner shall be disposed of by the Contractor in accordance with Article 202.03 of the Standard Specifications.

The remaining water mains shall be abandoned in accordance with the special provision for “Abandon Existing Water Main”. The excavated areas that are beneath or within two feet horizontally of proposed pavement and curb shall be backfilled with Controlled Low-Strength Material. All other excavated areas shall be backfilled with Trench Backfill.

Measurement and Payment: This work will be measured for payment at the contract unit price each for FIRE HYDRANTS TO BE REMOVED. This work shall include all labor, equipment and material including excavation, locating existing water main, valves and hydrants; dewatering the abandoned line; cutting and removing sections of pipe, installing restrained plugs and caps, isolation valves and thrust blocks; salvaging and delivering fire hydrants or removing and disposing of valve boxes and fire hydrants to a minimum of 1 foot below grade; protection,

replacement or repair of utilities, drainage systems, structures, homeowner's property and miscellaneous property; removal of surplus excavated material; and clean-up.

The abandonment of existing water mains and TRENCH BACKFILL and CONTROLLED LOW-STRENGTH MATERIAL will be paid for separately as specified herein.

56400600 FIRE HYDRANTS
56400820 FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX

Description: This work shall be performed in accordance with the latest edition of the Standard Specification for Water and Sewer Construction in Illinois, the City of Bloomington Design and Construction Standards for Water Distribution and Supply System, and Section 561 of the Standard Specifications, except as modified herein. The work of this item shall consist of furnishing and installing fire hydrants with and without auxiliary valve and valve box as shown in the plans.

Submittal Requirements: Submit shop drawings and product data showing general dimensions, linings and coatings, construction details and full descriptive literature, which includes materials of construction, material specification and grade for fire hydrants, hydrant parts, hydrant auxiliary valves and valve boxes.

Materials:

General Fire Hydrants

A. These specifications are to be used in conjunction with the AWWA Standard C502 for fire hydrants for ordinary water works service.

B. All materials used in the production of fire hydrants for ordinary service shall conform to the specifications designated for each material listed in AWWA Standard C502.

C. The hydrants shall be Waterous Pacer, Mueller Modern Centurion, Clow F2500, or Kennedy Guardian, of a pattern approved by the Owner and each supplied with all optional features. The name or mark of the manufacturer and size of the valve opening shall be plainly cast in raised letters and so placed on the hydrant barrel as to be visible after the hydrant has been installed. The specific type of hydrant must be approved by the Owner prior to installation. 2-Way hydrants shall be equivalent to the listed hydrants.

D. As a minimum requirement, all hydrants shall be designed for a working pressure of 200 pounds per square inch. Workmanship, design and material, shall conform to the AWWA Standard C502. The hydrant bodies shall be cast iron, fully mounted with approved non-corrodible metals. All wearing surfaces shall be either a copper alloy or some other approved non-corrodible material and there shall be no moving bearing or contact surfaces of iron in contact with iron or steel. All contact surfaces shall be finished or machined in the best workmanlike manner and all wearing surfaces shall be easily renewable. All bolts below ground shall be stainless steel.

E. The design of the hydrant shall be such that all working parts may be removed through the top of the hydrant and shall have the required AWWA specified number of turns of the stem to open the R/W and are equal to the area of the valve opening. Any change in area of the water passage through the valve must have an easy curve, and all

outlets must have round corners of good radius. Hydrant barrel shall be of such design that there is easy installation to top extensions and full rotation (360°) of the upper barrel without shutting off water to the hydrant.

F. Hydrants shall be provided with a sidewalk flange. Breaking devices shall be at the sidewalk flange which will allow the hydrant barrel to separate at this point with a minimum breakage of hydrant parts in case of damage. There shall also be provided at this point, a safety stem coupling on the operating stem that will shear at the time of impact. All hydrants shall be equipped with O-Ring stem seals. The breakaway flange is to be 2.5” to 8.5” above the proposed ground level per manufacturer specifications.

G. Hydrants shall utilize standard nozzle caps. The hydrant nozzle and nozzle caps shall be Harrington Integral Hydrant Storz including Storz Blind Cap with Suction Seal and Aircraft Cable or equal. The nozzle shall have a brass metal face seal and hard anodized aluminum ramps and lugs. The aluminum finish shall be hardcoat anodized to Mil-A-8625f, Type 3, dark gray. The adapter shall be made of forged or extruded 6061-T6 aluminum. The blind cap shall have hard anodized aluminum ramps and lugs and be made of forged or extruded 6061-T6 aluminum. The center cap shall be equipped with a suction seal and be connected to the adapter or hydrant with a 0.125” vinyl coated aircraft cable.

H. Hydrants shall have one – 4” pumper nozzle with Bloomington Standard Threads and two - 2-1/2" hose nozzle NST. 2-Way hydrants shall have two - 2-1/2" hose nozzle NST.

I. The 5-1/4” internal hydrant valve shall be equipped with a 1-1/2" pentagon operating nut and a main operating rod travel stop capable of withstanding 200 foot pounds in the fully open or closed position.

J. Before the hydrant is painted at the factory, it shall be subjected to an internal hydrostatic test of 300 pound per square inch with the hydrant valve in a closed position and again with the hydrant valve in an open position.

K. All iron parts of the hydrant, both inside and outside shall be thoroughly cleaned and thereafter painted with one coat of paint of a durable composition. The hydrants shall be painted with one additional coat of Tnemec-Gloss Safety Yellow per national fire code specifications and as approved by the Water Department Director.

L. Fire hydrants shall have a 6-inch restrained joint opening. Fire hydrants shall open counterclockwise and close with pressure.

M. All fittings and valves in connection with the fire hydrant shall be the anchoring type. No hydrant shall be placed closer than 2 1/2 feet from back of curb or edge of pavement to the centerline of hydrant.

N. See General Gate Valve and General Valve Box for auxiliary valve and valve box requirements.

Installation

A. The Contractor will be responsible for verifying the depth of the water mains and the finished grade elevation and providing any necessary fittings to bring the hydrant supply pipe, valve box and hydrant to the depth shown on the detail. The intent is for the hydrant to be installed as shown with a one piece barrel section. The cost of any additional fittings and complying with these requirements shall be included in the cost of the hydrant assembly and no additional compensation will be allowed.

B. Hydrants shall not be located closer than 10 feet from any light standard, tree, sign post, or other permanent structure that would impeded access to the hydrant or reduce its visibility. No hydrant shall be placed closer than 2-1/2 feet from back of curb or edge of pavement to the centerline of hydrant.

C. Hydrants shall be plumb and shall be set so that the center of the hydrant port is eighteen (18) inches +/- above the surrounding finished grade ensuring the breakaway flange is at proper ground height. Hydrants shall be set in accordance with the City of Bloomington's minimum cover requirement of 4 feet. All hydrants shall be inspected in the field upon delivery to the job to insure proper operation before installation. A minimum of 2/3 cubic yard of washed coarse stone and polyethylene covering shall be placed at and around the base of the hydrant to insure proper drainage of the hydrant after use. The blocking of the hydrant shall consist of masonry blocks extending from the hydrant to undisturbed soil and shall be so placed to form a barrier adjacent to the hydrant base top to counteract the pressure of water exerted thereon. Poured-in-place concrete shall not be used. Care shall be taken to insure that weep holes are not covered. The hydrant shall be set on a concrete block to insure a firm bearing for the hydrant base. The hydrant auxiliary valve shall not be located directly adjacent to the hydrant. A minimum spool piece length of 2 feet (2') is required. Placing the auxiliary valve in the pavement is preferred and the valve shall not be located in the curb without express written directive from the Water Department Director.

D. All fire hydrants shall be installed prior to the hydrostatic testing of the water main so that all items (water main, fire hydrants, valves, etc) are tested as one complete system. This shall occur prior to abandonment of the existing water main.

Measurement and Payment: This work will be measured for payment at the contract unit price each for FIRE HYDRANTS and FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX. This work shall include all labor, equipment and material including excavation, except rock excavation, bedding and earth backfill; furnishing and installing the fire hydrant rated at 200 psi working pressure, all necessary fittings for a complete installation as shown on the Drawings, auxiliary gate valve, valve box, thrust blocks, hydrant extension, drainage system, and appurtenances; testing; disinfection; protection, replacement, or repair of utilities, drainage systems, structures, and miscellaneous property; removal of surplus excavated material; and clean-up.

TRENCH BACKFILL and CONTROLLED LOW-STRENGTH MATERIAL will be paid for separately as specified herein.

60266100 VALVE VAULTS TO BE RECONSTRUCTED

Description: This work shall consist of removal and disposal of the existing valve vault and all of the contents of the vault and furnishing and installing valve vault, access door, and Cla-Val Co. Model 81-02 Series Check Valve at the location shown on the plans and as directed by the Owner and as specified herein. This valve shall open to permit flow when the inlet pressure is greater than the discharge pressure. When the discharge pressure is greater the valve shall close drip tight to prevent return flow.

Submittal Requirements:

A. Submit shop drawings and product data for the valve vault showing all dimensions, construction details, and full descriptive literature, which includes materials of construction and material specification.

B. Submit shop drawings and product data for the valve vault hatch showing all dimensions, construction details, and full descriptive literature, which includes materials of construction and material specification.

C. Submit shop drawings and product data for all valves showing all dimensions, coatings, construction details, and full descriptive literature, which includes materials of construction, material specification and grade for all valve parts.

D. The valve manufacturer shall warrant the valve to be free of defects in material and workmanship for a period of three years from date of shipment, provided the valve is installed and used in accordance with all applicable instructions. Electrical components shall have a one-year warranty

E. The valve manufacturer shall provide a computerized cavitation chart which show flow rate, differential pressure, percentage of valve opening, Cv factor, system velocity, and if there will be cavitation damage.

Materials:

Valve Vault

A. IDOT Standard Specifications Section 602 – Catch Basin, Manhole, Inlet, Drainage Structure, and Vault Construction, Adjustment, and Reconstruction shall apply.

B. The access door shall be of the appropriate size and dimensions for access and maintenance of the check valve.

Main Valve

A. The valve shall be hydraulically operated, single diaphragm-actuated, globe or angle pattern.

B. The valve shall consist of three major components: the body, with seat installed; the cover, with bearings installed; and the diaphragm assembly. The diaphragm assembly shall be the only moving part and shall form a sealed chamber in the upper portion of the valve, separating operating pressure from line pressure.

C. Packing glands and/or stuffing boxes are not permitted and there shall be no pistons operating the main valve or pilot controls.

Main Valve Body

A. No separate chambers shall be allowed between the main valve cover and body.

B. Valve body and cover shall be of cast material; Ductile Iron is standard; other materials shall be available; and no fabrication or welding shall be used in the manufacturing process.

C. The valve shall contain a resilient, synthetic rubber disc, having a rectangular cross-section contained on three and one-half sides by a disc retainer and forming a tight seal against a single removable seat insert. No O-ring type discs, circular, square, or quad type shall be permitted as the seating surface. The disc guide shall be of the contoured type to permit smooth transition of flow and shall hold the disc firmly in place. The disc retainer shall be of a sturdy one-piece design capable of withstanding opening and closing shocks. It must have straight edge sides and a radius at the top edge to prevent excessive diaphragm wear as the diaphragm flexes across this surface. No hour-glass shaped disc retainers shall be permitted and no V-type or slotted type disc guides shall be used.

D. The diaphragm assembly containing a non-magnetic 303 stainless steel stem; of sufficient diameter to withstand high hydraulic pressures, shall be fully guided at both ends by a bearing in the valve cover and an integral bearing in the valve seat.

E. The seat shall be a solid, one-piece design and shall have a minimum of a five-degree taper on the seating surface for a positive, drip-tight shut off. No center guides shall be permitted.

F. The stem shall be drilled and tapped in the cover end to receive and affix such accessories as may be deemed necessary.

G. The diaphragm assembly shall be the only moving part and shall form a sealed chamber in the upper portion of the valve, separating operating pressure from line pressure.

H. The flexible, non-wicking, FDA approved diaphragm shall consist of nylon fabric bonded with synthetic rubber compatible with the operating fluid.

I. The center hole for the main valve stem must be sealed by the vulcanized process or a rubber grommet sealing the center stem hole from the operating pressure.

J. The diaphragm must withstand a Mullins Burst Test of a minimum of 600 psi per layer of nylon fabric and shall be cycle tested 100,000 times to insure longevity.

K. The diaphragm shall not be used as the seating surface. The diaphragm shall be fully supported in the valve body and cover by machined surfaces which support no less than one-half of the total surface area of the diaphragm in either the full opened or full closed position.

L. The main valve seat and the stem bearing in the valve cover shall be removable. The cover bearing and seat in 6” and smaller size valves shall be threaded into the cover and body. Valve seat in 8” and larger size valves shall be retained by flat head machine screws for ease of maintenance. The lower bearing of the valve stem shall be contained concentrically within the seat and shall be exposed to the flow on all sides to avoid deposits.

M. To ensure proper alignment of the valve stem, the valve body and cover shall be machined with a locating lip. No “pinned” covers to the valve body shall be permitted.

N. Cover bearing, disc retainer, and seat shall be made of the same material.

O. All necessary repairs and/or modifications other than replacement of the main valve body shall be possible without removing the valve from the pipeline. Packing glands and/or stuffing boxes shall not be permitted and components including cast material shall be of North American manufacture.

Valve Pilot Control System

A. The pilot system shall contain auxiliary controls which permit independent adjustment of the main valve opening and closing speeds.

B. A direct factory representative shall be made available for start-up service, inspection and necessary adjustments.

Measurement and Payment: This work will be measured and paid for at the contract unit price per each for VALVE VAULTS TO BE RECONSTRUCTED. This work shall include all labor, equipment and material necessary to construct the valve vault with check valve including all excavation, except rock excavation, bedding and earth backfill; locating existing valve vault and water main; removal and proper disposal of existing valve and vault; furnishing and installing vault with access hatch; furnishing and installing the check valve, all necessary pipe and fittings for a complete installation as shown on the Drawings; furnishing and installing transition fittings for dissimilar pipe materials; thrust blocks; testing; disinfection; protection, replacement, or repair of utilities, drainage systems, structures, and miscellaneous property; removal of surplus excavated material; backfill; and clean-up.

X1200078 DUCTILE IRON WATER MAIN 12” RESTRAINED JOINT TYPE
X5610024 DUCTILE IRON WATER MAIN 6” RESTRAINED JOINT TYPE
X5610900 DUCTILE IRON WATER MAIN, 8” DIAMETER, RESTRAINED JOINT PIPE

Description: This work shall consist of furnishing and installing ductile iron water main or ductile iron water main, restrained joint type as shown in the plans. All work shall be performed in accordance with the latest edition of the Standard Specification for Water and Sewer Construction in Illinois, the City of Bloomington Design and Construction Standards for Water Distribution and Supply System, and Section 561 of the Standard Specifications, except as modified herein.

Submittal Requirements:

Submit the following:

A. Product data for gaskets.

B. Product data and details showing general dimensions, construction details and full descriptive literature, which includes materials of construction, material specification and grade for pipe, fittings and joints.

C. Piping specialties, installation details, and jointing details including restrained joints.

D. Manufacturer’s information on installation procedures.

Materials:

General Water Main

A. Ductile Iron Pipe shall be centrifugally cast in metal or sand-lined molds and shall conform to AWWA C151.

B. The minimum wall thickness for pipe having push-on or mechanical joints, restrained joints, plain ends, or cast flange ends shall be Special Class 52 with single gasket joints.

C. Joints: Mechanical and push-on joints for pipe and fittings shall conform to AWWA C111. All fittings shall be restrained. Restrained joints shall be American Ductile Iron Pipe “Lok-Ring Joint”, U.S. Pipe “TR-FLEX”, McWane (Clow) “Field Lok (Tyton)”, Griffin Pipe “Snap-Lok” or “Bolt-Lok Joint”. Restrained retainer glands shall be provided per the City’s Manual of Practice. Restrained retainer gland joints are required when connecting to fittings. Restrained joints using a boltless design shall be used for full length joints where called out on the drawings for restrained joints.

D. Gaskets: Flanged joint gaskets shall be full-face, 1/8-inch thick, cloth inserted, synthetic rubber and conform to AWWA C111, ANSI B16.21, and be certified to ANSI/NSF 61.

E. Fittings: All fittings shall be either flanged or restrained joints as described above. Fittings, including compact fittings, for ductile iron pipe shall be ductile iron of the type shown and shall conform to AWWA/ANSI C153/A21.5310 and AWWA/ANSI C111/A21.11, 1725 Kpa (250 psi) rated pressure. Joints shall be as specified above.

F. Grooved pipe type couplings shall be manufactured by Victaulic Company of America. Coupling shall be flexible system conforming to ASTM A536.

G. Interior Lining: Interior lining for cast iron and ductile iron pipe and fittings shall be as follows:

   1. Cement mortar lining and bituminous seal coat shall conform to AWWA C104. Bituminous lining shall be 1 mil thick.

H. Exterior Coating: Exterior coating for ductile iron pipe and fittings shall be as follows.

   1. Buried pipe and fittings shall have a minimum 1 mil thick asphaltic coating per AWWA C151 and ANSI A21.6 or A21.8.

I. Corrosion Protection

   1. Ductile iron pipe, fittings and valves shall be encased in polyethylene encasement sleeves which consist of linear low density polyethylene, 8 mil thickness, Class C (black) conformity to the requirements of AWWA C105/ANSI A21.5-99. Polyethylene wrap shall be secured with a polyethylene compatible adhesive tape. The use of duct tape will not be allowed. When lifting polyethylene wrapped pipe with a backhoe, a fabric sling or padded cable shall be used to protect the wrap from damage.

   2. Ductile iron pipe and fittings installed by horizontal directional drilling shall be encased by dual wrap polyethylene encasement sleeves, Class C (black) conforming to the requirements of AWWA C105/ANSI A21.5-99. The inner wrap shall be linear low density, polyethylene, 8 mil thickness, and the exterior wrap shall be high density cross laminated, polyethylene, 4 mil thickness.

J. All bolts shall be stainless steel.

K. Tracer wire shall be #12 THWN single strand electrical cable suitable for direct burial. Tracer wire shall be installed with all pipes on this project. The wire shall be taped or attached to the pipe in an approved manner during installation and prior to backfilling. Two feet of slack shall be provided in all valve boxes and fire hydrants. The slack shall be wrapped around the valve box or fire hydrant at ground level.

Installation

A. Pipe, including pipe with mechanical joints, shall be installed in accordance with the manufacturer's specifications and recommendations. Sockets and gaskets shall be clean, and gaskets shall be properly centered before joint is made.

B. All lengths of pipe shall be dimensioned accurately to measurements established at the site and shall be worked into place without springing or forcing.

C. The Contractor shall cut all pipe and drill all holes that may be necessary. Cut sections of pipe shall be reamed or filed to remove all burrs. The pipe interior and joints shall be thoroughly cleaned before being installed and kept clean during construction.

D. All changes in direction shall be made with fittings or approved joint deflection. Bending of pipe is prohibited. The maximum deflection at any joint shall not exceed 3 degrees per joint or 80% of the pipe manufacturers recommended maximum deflection, whichever is less. Contractor shall supply documentation from pipe manufacturer to verify the recommended deflection for any type pipe proposed for use.

E. Any transition from one pipe size to another shall be made with a reducing fitting. Reducing bushings are prohibited except where specifically indicated on the Drawings.

F. Make adequate provision for expansion and contraction of piping.

G. Pipe embedment and backfilling shall closely follow the installation and jointing of pipe in the trench, to prevent floating of the pipe by water which may enter the trench, and to prevent longitudinal movement caused by thermal expansion or contraction of the pipe. Not more than 25 feet of pipe shall be exposed at any time ahead of the backfilling in any section of trench.

H. Plugs

1. Installed piping systems shall be temporarily plugged at the end of each day's work, or other interruption to progress on a given line. Plugging shall be adequate to prevent entry of small animals or persons into the pipe or the entrance or insertion of deleterious materials.

2. Standard plugs shall be inserted into all dead-end pipes, tees, or crosses; spigot ends shall be capped; flanged and mechanical joint ends shall have blind flanges of metal.

3. Plugs installed for pressure testing shall be blind flanges fully secured and blocked to withstand the test pressure.

4. Where plugging is required because of contract division or phasing for later connection, the ends of such lines shall be equipped with a permanent type plug or blind flange. Installation or removal of such plugging shall be considered incidental to the work.

I. Separation of Non-Potable and Potable Water Lines

1. Water main separation requirements shall follow the rules listed in the Great Lakes – Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers “Recommended Standards for Water Works”, 2022 Edition.

2. If water main separation is not possible, both the water main and drain or sewer shall be constructed of slip-on or mechanical joint ductile iron pipe, meeting the requirements of 35 Illinois Administrative Code (IAC) 653.111. Construction shall extend on each side of the crossing until the normal distance from the water main to the sewer or drain line is at least ten feet. The drain or sewer shall be pressure tested to the maximum expected surcharge head before backfilling

J. Joining Gasket Joint Pipe

1. The inside of the bell shall be thoroughly cleaned to remove all foreign matter from the joint. The gasket shall be inserted in the gasket seat provided.

2. A thin film of gasket lubricant shall be applied to inside surface of the gasket. Gasket lubricant shall be a solution of vegetable soap or other solution supplied by the pipe manufacturer and approved by the Owner.

3. The spigot end of the pipe shall be cleaned and entered into the rubber gasket in the bell, using care to keep the joint from contacting the ground. The joint shall then be completed by forcing the plain end to the seat of the bell.

4. Care must be taken not to damage exterior coating or interior lining when joining the pipe.

5. Field cut pipe lengths shall be beveled to avoid damage to the gasket and facilitate making the joint.

6. All pipe shall be furnished with a depth mark to assure that the spigot end is inserted to the full depth of the joint.

K. Pipeline Trenching

1. Provide suitable temporary drainage channels for any water that may flow along or across the work.

2. Provide barriers, warning lights and other protective devices at all excavations in accordance with Stage Construction and Maintenance of Traffic Plans.

3. Roads and pavements shall not be blocked or obstructed by excavated materials, except as authorized by the Owner, in which case adequate temporary provisions must be made for satisfactory temporary passage of Owner's operating personnel, pedestrians, and vehicles.

4. If underground utilities and/or structures not shown on the Drawings are encountered, notify the Owner and do not proceed until instructions are obtained. Notify the Owner if springs or running water are encountered.

5. Excavation in close proximity to existing utilities shall be performed in a manner to prevent damage. Contact the Owner and representatives of site utilities for assistance in locating buried lines.

6. All excavations shall be made by open cut unless otherwise indicated. Sides of trenches shall be kept as nearly vertical as possible from the trench bottom to a level of one foot above the top of the pipe. Trench bottoms shall be excavated true to line and shall be 18 inches wider than the outside diameter of the pipe for trench depths of less than 5 feet, or 36 inches wider than the outside diameter of the pipe for trench depths of 5 feet or larger. Minimum trench width for small diameter pipe shall be 24 inches. Grade of the trench bottom shall be consistent with the method of bedding specified.

L. Shoring and Bracing

1. Engage and assign supervision of shoring and bracing work to a qualified foundation consultant.

2. Comply with local codes and ordinances of governing authorities having jurisdiction.

3. Before starting work, check and verify governing dimensions and elevations. Survey condition of adjoining properties, take photographs, recording existing settlement or cracking of structures, pavements, and other improvements. Prepare list of such damages, verified by dated photographs, and signed by Contractor and others conducting investigation.

4. Protect existing active utility services and structures from damage during shoring and bracing work. Repair or replace damages to satisfaction of utility owner.

5. Provide suitable shoring and bracing materials which will support loads imposed.

M. Shoring

1. Protect site from caving and unacceptable soil movement. Where shoring is required, locate system to clear permanent construction and to permit forming and finishing of concrete surfaces. Provide shoring system adequately anchored and braced to resist earth and hydrostatic pressures.

2. Shoring systems retaining earth on which support or stability of existing structures is dependent must be left in place at completion of work. If wood is part of shoring system near existing structures, use pressure preservative treated materials or remove before placement of backfill.

N. Bracing

1. Locate bracing to clear permanent work. If necessary to move a brace, install new bracing prior to removal of original brace.

2. Install internal bracing, if required, to prevent spreading or distortion to braced frames.

3. Maintain bracing until structural elements are re-braced by other bracing or until permanent construction is able to withstand lateral earth and hydrostatic pressures.

4. Remove sheeting, shoring, and bracing in stages to avoid disturbance to underlying soils and damage to structures, pavements, facilities, and utilities.

5. Repair or replace adjacent work damaged or displaced through installation or removal of shoring and bracing work.

O. The trenches shall be bedded, haunched, and backfilled as shown on the detail in the plans. The excavated areas that are beneath or within two feet horizontally of proposed pavement and curb shall be backfilled with Controlled Low-Strength Material.

P. Provide for testing and cleanup as soon as practicable, so these operations do not lag far behind pipe installation. Perform preliminary cleanup and grading operations immediately after backfilling. All surplus excavated material shall be disposed of off-site by the Contractor.

Identification Tape

A. Identification tape shall be manufactured of polyethylene with a minimum thickness of 4-mils. The tape shall be highly resistant to alkalis, acid and other destructive agents found in soil. Tape width shall be a minimum of 3 inches and a maximum of 6 inches and shall have a blue background color, imprinted with black letters. Imprint shall be “CAUTION CAUTION – WATER LINE BURIED BELOW” and shall repeat itself a minimum of once every 2 feet for entire length of the tape.

B. Install identification tape above all proposed water mains in accordance with the manufacturer’s installation instructions. Install identification tape one foot above the top of the pipe.

C. Acceptable Manufacturers of the identification tape are Reef Industries, Inc – Terra Tape and Proline Safety Products.

System Testing

Piping System Testing

Provide all necessary equipment and instrumentation required for proper completion of testing. Water for the initial testing is available from the Owner at no cost. The Owner reserves the right to meter and charge for additional water used by the Contractor for additional testing, etc.

Test procedures and method of disposal of water shall be approved by the Owner. All tests shall be made in the presence of the Owner. Preliminary tests made by the Contractor without being observed by the Owner will not be accepted. Notify the Owner at least eight hours before any work is to be inspected or tested.

All defects in piping systems shall be repaired and/or replaced and retested until acceptable. Repairs shall be made to the standard of quality specified for the entire system.

Sections of the system may be tested separately, but any defect which may develop in a section previously tested and accepted shall be promptly corrected and retested. Pressure tests shall be made between valves to demonstrate ability of valves to sustain pressure.

All piping shall be tested in accordance with the following test methods, in addition to any test required by local and state codes or building authorities.

Prior to testing, flush all piping system with water at a minimum velocity of 3 fps to remove construction debris.

Pressure Piping Testing

All water piping shall pass a hydrostatic pressure test and a leakage test before any pipe joints are backfilled, and a final test after backfill operations are complete.

The pressure and leakage test shall be made after all jointing operations are completed and any concrete reaction blocks and restraints have cured at least 7 days. Lines tested before backfill is in place shall be retested after compacted backfill is placed.

Sections of piping between valves and other short sections of line may be isolated for testing. If shorter sections are tested, test plugs or bulkheads required at the ends of the test section shall be furnished and installed by the Contractor, together with all anchors, braces, and other devices required to withstand the hydrostatic pressure without imposing any thrust on the pipe line. The Contractor shall be solely responsible for any damage, which may result from the failure of test plugs or supports.

Air shall be expelled from the pipe before applying pressure tests.

Hydrostatic Pressure Test

Hydrostatic pressure test shall be made in accordance with the latest edition of ANSI/AWWA C600.

Piping shall be slowly filled with water and all air expelled. Care shall be taken that all air valves are installed and open in the section being filled and that the rate of filling does not exceed the venting capacity of the air valves.

After the section of line to be tested has been filled with water, the specified test pressure shall be applied and maintained for a minimum period of 2 hours and for such additional period necessary for the Owner to complete the inspection of the line under test. Do not exceed pipe manufacturer's suggested time duration at the test pressure. If defects are noted, repairs shall be made and the test repeated until all parts of the line withstand the test pressure.

Hydrostatic test pressure shall be 50 percent more than the operating pressure at the lowest elevation of the pipe section or 150 psi, whichever is greater, for at least one two-hour duration and not vary more than 5 psi.

Leakage Test

After the specified hydrostatic test has been completed, the line shall be subjected to a leakage test under a hydrostatic pressure of 150 psi or 150% of the normal operating pressure, whichever is greater. The pressure shall be maintained within a maximum variation of 5 psi during the entire leakage test. The duration of the leakage test shall be 2 hour minimum, and for such additional time necessary for the Owner to complete inspection of the section of line under test. Leakage measurements shall not be started until a constant test pressure has been established. The line leakage shall be measured by means of a water meter installed on the supply side of the pressure pump.

No leakage is allowed in exposed piping, buried piping with flanged, threaded, or welded joints or buried non-potable piping in conflict with potable water lines.

Tested sections of buried piping with slip-type or mechanical joints will not be accepted if it has a leakage rate in excess of the rate determined by the formula:

L = (1/133,200)*SDp, in which;

L = Maximum permissible leakage rate, in gallons per hour, throughout the entire length of line being tested.

S = Length of pipe in feet.

D = Nominal internal diameter (in inches) of the pipe.

p = The square root of the average pressure in psig in the tested portion of the line.

Where the leakage rate exceeds the permissible maximum, the Contractor shall locate and repair leaking joints to the extent required to reduce the total leakage to within the prescribed amount.

All apparent leaks discovered within one year from the date of final acceptance of the work by the Owner shall be located and repaired by the Contractor, regardless of the total line leakage rate.

System Startup – Disinfection

Applicable Codes

All disinfection work shall be acceptable to the State Health Authority. If any requirements of this Section are in conflict with requirements of the Authority for disinfection, those of the Authority shall govern methods of disinfection and shall conform to AWWA C651, Standard Procedure for Disinfecting Water Mains, Article 41-2.15 of the Standard Specifications for Water and Sewer Construction in Illinois, and the City of Bloomington's Manual of Practice for Design of Public Improvements.

Qualifications

All work performed for and in connection with disinfection shall be under the direction of an experienced supervisor.

All equipment used in disinfection work shall be in proper working condition and shall be adequate for the specified work.

Submittals

Prior to starting any disinfection work, furnish for the Owner's review, a detailed outline of the proposed sequence of operation, manner of filling and flushing units, source and quality of water to be used, and disposal of wasted water. Admission of contaminated water into previously disinfected units must be prevented.

Chlorine Source

Chlorine shall be applied either as liquid chlorine or as chlorine-bearing compounds in water.

Disinfection of Potable Water Piping Systems

Chlorination shall be performed by the Contractor. The Contractor shall have a representative present during the disinfecting to render assistance and record any defects found during disinfection operations. The Contractor shall notify the Owner 24 hours prior to disinfection operations.

Water for the initial flushing and chlorination of the water main shall be supplied by the City. Should additional flushing(s) or rechlorination(s) be required to obtain satisfactory bacterial test results, the City reserves the right to meter and charge for the additional water used by the Contractor.

Water used for testing, flushing and chlorination shall be discharged to the sanitary sewer. The Contractor shall provide and install any hose necessary to direct the water being flushed away from any area it might damage. The Contractor shall take whatever precautions necessary during flushing to prevent ecological damage to any receiving stream, lake, or other body of water.

At the extreme ends of the proposed new water main, every 1200 feet, and at additional locations directed by the Owner, sampling and chlorinating taps shall be installed by the Contractor in accordance with the details as shown on the Drawings. After the chlorinating, sampling and testing is approved by the Owner, the corporation stop shall be shut off and the piping removed from the corporation stop.

All water used must be potable and contain a chlorine residual of not less than 0.2 parts per million of free chlorine or 0.5 parts per million of combined chlorine.

Cleaning and Swabbing

The interior of the pipe shall be cleaned during installation by swabbing or after installation by inserting a foam pig, prior to testing. A 1% hypochlorite disinfecting solution shall be used during swabbing or use of the foam pig.

All taps required by the Contractor for chlorination or flushing purposes or for temporary or permanent release of air shall be provided by Contractor as part of the construction of water mains. When completed, the copper tubing shall be removed and the corporation stop placed at the "off" position.

Form of Applied Chlorine

Disinfection must be accomplished by either the continuous feed method or slug method. The tablet method is not acceptable and is not to be used except with the expressed written permission of the Owner. A chlorine residual of at least 50 parts per million must be attained initially and 25 parts per million residual present after 24 hours when the preferred continuous feed method is used. If the slug method is used, 300 parts per million must be retained for a minimum of 3 hours, or 500 parts per million retained for 30 minutes. Attainment of initial and

final chlorine residuals must be verified by the Owner. Disinfecting chlorine doses shall not remain in the pipe for more than 24 hours.

In order to provide proper conditions for disinfection following construction, installation option “A” or “B” must be followed.

A. A minimum of three low density foam swabs shall be introduced into the first unit of pipe being installed and shall remain until the job is completed whereupon the swabs shall be propelled a minimum of three times, or until water is clear, in the direction of the extreme ends of the construction project during the initial filling and flushing process. When a dead-end main is involved the Contractor may return the swabs to the point of origin by using another water source with sufficient volume and pressure to propel the swabs, or he may retrieve the swabs at the exit point and reintroduce the swabs at the origin repeating the process until exit water is clear. The process must be performed on every run of pipe from each branch of newly constructed water main. In cases where foam swabs are too large to be retrieved from a fire hydrant, an exit tee or wye and a means of directing the water away from the trench must be provided. All swabs that are used must be accounted for when cleaning is completed.

B. Each unit of pipe, fitting and valve shall be hand swabbed or otherwise mechanically cleaned with a prior approved method before installation, and a cap or plug inserted in the pipe and retained until just prior to joining with the next unit of pipe. Two caps or plugs must be utilized, one inserted in the last unit of pipe laid and one to be used in the unit of pipe being prepared for installation. The plug or cap in the last unit of pipe installed shall not be removed until the next pipe unit is lowered into the trench and is ready to be inserted. At the end of each working day a watertight plug or cap shall reside in the last unit of pipe or fitting installed, until construction resumes. During installation workman’s hands, gloves, rags, tools, or any other foreign object must not be introduced into the open ends of any previously cleaned pipe. If dirt or mud is kicked into or falls into the open ends of the pipe during handling or joining, re-cleaning of the pipe or fitting affected must be performed. Cleaning water must be clear water containing a minimum of 10 ppm chlorine and shall be changed whenever appropriate. Muddy or overly discolored cleaning solutions shall not be used at any time.

In the event a project is constructed where a flushing velocity of 2.5 feet per second cannot be attained the hand cleaning method must be employed. Where the hand cleaning method is employed, chlorine in the form of high test hypochlorite (HTH) may be introduced into each unit of pipe during construction to satisfy the disinfection requirements, providing a minimum of fifty parts per million (50 ppm) of chlorine is present in both ends of the new main following initial filling.

Point and Rate of Application

Point of Application - The preferred point of application of the chlorinating agent is at the beginning of the pipeline extension or any valved section of it, and through a corporation stop inserted in the pipe. The water injector for delivering the chlorine-bearing water into the pipe should be supplied from a tap made on the pressure side of the gate valve controlling the flow into the pipeline extension. Alternate points of application may be used when approved or directed by the Owner.

Rate of Application - Water from the existing distribution system, or other approved source of supply shall be controlled to flow very slowly into the newly laid pipeline during the application of

the chlorine. The rate of chlorine mixture flow shall be in such proportion to the rate of water entering the newly laid pipe such that the dosage applied to the water will be at least fifty (50) parts per million.

Retention Period - Treated water shall be retained in the pipe at least twenty-four (24) hours. After this period, the chlorine residual at pipe extremities and at other representative points shall be at least twenty-five (25) parts per million.

Chlorinating Valves and Hydrants - In the process of chlorinating newly laid pipe, all valves or other appurtenances shall be operated while the pipeline is filled with the chlorinating agent and under normal operating pressure.

Preventing Reverse Flow - Valves shall be manipulated so that the strong chlorine solution in the line being treated will not flow back into the line supplying the water. Check valves may be used on chlorine equipment piping if desired.

Final Flushing and Testing

Following chlorination, all treated water shall be thoroughly flushed from the newly laid pipe at its extremity until the replacement water throughout its length shows a residual not in excess of that carried in the system. Before any flushing of water mains, the Contractor shall notify the Owner of the flushing date and time. Notify the Owner twenty-four (24) hours prior to filling the main.

After flushing, water samples the Contractor shall collect from the treated piping system and arrange for analysis. Bacteriological analysis must be performed by a laboratory approved by the Director of Illinois Department of Public Health and the Owner. The samples shall show satisfactory bacteriological results on two (2) successive days.

Water mains that fail the initial bacterial test shall be flushed again before additional sampling is commenced. If the second sample also fails the bacterial test, then disinfection shall be repeated and flushing prior to additional sampling shall be required. If the third sample fails the bacterial test, then the next step shall be determined by the Owner.

Swabbing

Disinfection for pipe, fittings, or valves that must be placed in service immediately shall be accomplished by thoroughly flushing and swabbing with a strong (5 percent) solution of calcium hypochlorite immediately prior to assembly. Approval must be secured from the Owner before this method of disinfection will be accepted.

Measurement and Payment: This work will be measured for payment at the contract unit price per foot for DUCTILE IRON WATER MAIN RESTRAINED JOINT of the size shown on the plans. Water mains will be measured in lineal feet along the centerline of the pipe. This work shall include all labor, equipment and material necessary to construct the water mains including all excavation, except rock excavation; clearing and grubbing; locating existing water main; furnishing and installing transition fittings for dissimilar pipe materials; furnishing and installing pipe, restrained joint pipe, fittings, reducers, and elbows; polyethylene wrap; watertight plugs; No. 12 THWN single strand tracer wire, bedding and backfill (except Trench Backfill and

Controlled Low-Strength Material, which will be paid for as specified herein); thrust blocks; testing; chlorination taps; disinfection; protection, replacement, or repair of utilities, drainage systems, structures, homeowner's property, and miscellaneous property; removal of surplus excavated material; and clean-up.

TRENCH BACKFILL and CONTROLLED LOW-STRENGTH MATERIAL will be paid for separately as specified herein.

X5610748 WATER MAIN LINE STOP 8"
X5610752 WATER MAIN LINE STOP 12"

Description: This work shall consist of furnishing and installing temporary inflatable plugs in pressurized water mains to stop water flow and allow for the installation of new water mains and valves at locations shown on the plans or as directed by the Owner. Other means of plugging the water mains must be approved by the Owner prior to beginning the work.

Materials: The Contractor shall be responsible for excavating and locating the existing water mains at locations shown on the plans or as directed by the Owner. The Contractor shall install the inflatable plugs and leave them in place until such time that the new water main connections are made and tested and then the plugs can be removed. The excavated areas that are beneath or within two feet horizontally of proposed pavement and curb shall be backfilled with Controlled Low-Strength Material. All other excavated areas shall be backfilled with Trench Backfill.

Measurement and Payment: This work will be measured for payment at the contract unit price each for WATER MAIN LINE STOP of the size shown on the plans. This work shall include all labor, equipment, and material including excavation, except rock excavation; installation and removals; protection, replacement, or repair of utilities and drainage systems; removal of surplus excavated material; backfill with earth, controlled low-strength material or trench material; surface restoration to match existing; and clean-up.

X5620108 WATER SERVICE RELOCATION

Description: This work shall consist of removing fittings and/or sections of pipe, furnishing and installing all pipe, tees, fittings, valves, and pipe restraints required to temporarily connect existing 8" service to the existing water main as shown in the plans, removing all temporary pipes, tees, fittings, valves, and pipe restraints once permanent service is restored, and surface restoration. All work shall be performed in accordance with the latest edition of the Standard Specification for Water and Sewer Construction in Illinois, the City of Bloomington Design and Construction Standards for Water Distribution and Supply System, and the Standard Specifications, except as modified herein.

Materials:

General

A. When connecting to an existing water service, work must be coordinated with the Owner at least 2 business days in advance. If the connection to an existing water main requires a shutdown of the existing main or service, the Contractor shall re-chlorinate that portion of the existing main and service which is shut down before it is put back into service. Shutting down the existing water main and service shall be limited to 24 hours for installation of all connections to the existing water main and service, with additional time allotted for disinfection of the line. All disruption of services shall occur during nonbusiness hours. The Contractor shall provide the necessary restraining of the existing main and service and transitional fittings when making the connection.

B. The Contractor shall be responsible for excavating and locating the existing water mains at locations shown on the plans or as directed by the Owner.

C. Reference the Ductile Iron Water Main Section for joint, gasket, and fitting requirements.

D. Reference the Water Valves Section for water valves and tapping valves and sleeves requirements.

E. Contractor shall not operate existing water valves. All existing valves shall be operated by City of Bloomington staff.

F. Thrust blocking and other associated work for the connections to existing mains shall be in accordance with Section 41 of the Standard Specification for Water and Sewer Construction in Illinois.

Measurement and Payment: This work will be measured for payment at the contract unit price per each for WATER SERVICE RELOCATION. This work shall include all labor, equipment, and material including excavation, except rock excavation; locating existing water main and service; removing fittings and sections of pipe; furnishing and installing transition fittings for dissimilar pipe materials and changes in elevation; furnishing and installing tapping valves and sleeves for connection with the existing main; furnishing and installing tees, reducers, elbows and other fittings as necessary from the existing service to the connection with the existing main; watertight plugs; thrust blocks; testing; disinfection; protection of temporary line; concrete brick support; backfill including granular trench backfill or controlled low strength material (CLSM) where required; furnishing, installation and removal of temporary fittings, valves, sleeves, and pipes once permanent connection is completed, replacement or repair of utilities, drainage systems, structures, homeowner’s property and miscellaneous property; removal of surplus excavated material; seeding; and clean-up.

X5630706 CONNECTION TO EXISTING WATER MAIN 6”
X5630708 CONNECTION TO EXISTING WATER MAIN 8”

X5630712 CONNECTION TO EXISTING WATER MAIN 12”

Description: This work shall consist of removing fittings and/or sections of pipe and furnishing and installing all pipe, tees, fittings and pipe restraints required to connect to existing water main as shown in the plans. All work shall be performed in accordance with the latest edition of the Standard Specification for Water and Sewer Construction in Illinois, the City of Bloomington Design and Construction Standards for Water Distribution and Supply System, and the Standard Specifications, except as modified herein.

Materials:

General

A. When connecting to an existing water main, work must be coordinated with the Owner at least 2 business days in advance. If the connection to an existing water main requires a shutdown of the existing main, the Contractor shall re-chlorinate that portion of the existing main which is shut down before it is put back into service. Shutting down the existing water main shall be limited to 48 hours for installation of all connections to the existing water main, with additional time allotted for disinfection of the line. The Contractor shall provide the necessary restraining of the existing main and transitional fittings when making the new connection.

B. The Contractor shall be responsible for excavating and locating the existing water mains at locations shown on the plans or as directed by the Owner.

C. Reference the Ductile Iron Water Main Section for joint, gasket, and fitting requirements.

D. Contractor shall not operate existing water valves. All existing valves shall be operated by City of Bloomington staff.

E. Thrust blocking and other associated work for the connections to existing mains shall be in accordance with Section 41 of the Standard Specification for Water and Sewer Construction in Illinois.

Measurement and Payment: This work will be measured for payment at the contract unit price each for CONNECTION TO EXISTING WATER MAIN of the size shown on the plans. This work shall include all labor, equipment, and material including excavation, except rock excavation; locating existing water main; removing fittings and sections of pipe; furnishing and installing transition fittings for dissimilar pipe materials and changes in elevation; furnishing and installing gaskets, tees, reducers, elbows and other fittings and hardware as necessary from the outlet at the new main to the connection with the existing main; watertight plugs; thrust blocks; testing; disinfection; protection; earth backfill; replacement or repair of utilities, drainage systems, structures, homeowner’s property and miscellaneous property; removal of surplus excavated material; and clean-up.

TRENCH BACKFILL and CONTROLLED LOW-STRENGTH MATERIAL will be paid for separately as specified herein.

XX005106 PVC CASING PIPE 18”

Description: This work shall consist of constructing PVC casing pipes for the water mains at locations shown on the plans and as directed by the Owner.

Materials:

PVC Casing

PVC Casing pipes shall be water main quality pipe in accordance with Article 40-2.01 C of the Standard Specifications for Water and Sewer Main Construction in Illinois and the following requirements.

Standard C900: Polyvinyl Chloride (PVC) Pressure Pipe Schedule 80 with fabricated fittings, 4 inch through 12-inch diameter, for Water Distribution.

Standard C905: Polyvinyl Chloride (PVC) Pressure Pipe Schedule 80 with fabricated Fittings, 14 inch through 48-inch diameter, for Water Transmission and Distribution.

Joints in the PVC pipe shall be pressure slip jointed with elastomeric gaskets in accordance with ASTM Standard F477 or solvent cement welded in accordance with ASTM Standard D2564.

Rubber end seals shall be wrapped around the end of casing and the carrier pipe after installation to provide a barrier to the backfill material. Casing spacer end seals shall be a pull-over type construction and made from Neoprene rubber with a thickness between 3/32 and 1/8 inch, dependent on size and flexibility needed for proper fitment and functionality. End Seals shall utilize T304 stainless steel bands for securing each end to the casing pipe and carrier pipe.

Construction Requirements

Unless otherwise shown on the drawings, the casing pipe shall be installed using open cut construction. Alternative proposed methods of installation shall be approved by the Owner prior to starting the work.

The water main pipe may be pushed or pulled (depending upon piping material, joint type, and method of pipe spacers and support) into the casing as assembled. The proposed method of installation shall be approved by the Owner prior to starting the work.

Measurement and Payment: This work will be measured and paid for at the contract unit price per foot for PVC CASING PIPE of the diameter specified. The casing pipes will be measured in lineal feet along the centerline of the pipe. This work shall include all labor, equipment and materials necessary to construct the water mains and casing including all excavation, except rock excavation; clearing and grubbing; casing pipe; spacers; locating existing water main and utilities; furnishing and installing transition fittings for dissimilar pipe materials; furnishing and installing pipe, restrained joint pipe, fittings, reducers and elbows; polyethylene wrap; watertight plugs; No. 12 THWN single strand tracer wire, bedding and backfill (except Trench Backfill and Controlled Low-Strength Material, which will be paid as specified herein); thrust blocks; testing; chlorination taps; disinifection; protection, replacement or repair of utilities, drainage systems, structures, homeowner’s propoerty and miscellaneous property; removal of surplus excavated material; and clean-up.

The water main carrier pipe, TRENCH BACKFILL and CONTROLLED LOW-STRENGTH MATERIAL will be paid for separately as specified herein.

XX006243 WATER SERVICE INSTALL, 1" COMPLETE

Description: This work shall consist of furnishing and installing 1" diameter copper service pipe and valves for water services installed by open cut or trenchless installation techniques as shown in the plans and as directed by the Engineer. All work shall be performed in accordance with the latest edition of the Standard Specification for Water and Sewer Construction in Illinois, the City of Bloomington Design and Construction Standards for Water Distribution and Supply System, and Section 561 of the Standard Specifications, except as modified herein.

Submittal Requirements:

A. Submit shop drawings and product data for all valves, valve boxes, and valve operators showing general dimensions, linings and coatings, construction details and full descriptive literature, which includes materials of construction, material specification and grade for all valve parts. Shop drawings shall indicate valve operator locations.

B. Valve manufacturer shall furnish certification that each valve has been subjected to a hydrostatic water pressure twice the pressure class and that each valve is free of defects. Valves shall be tested in both the open and closed positions.

C. Furnish one set of all special tools necessary for installation, operation, normal maintenance, and adjustment.

Materials:

General Copper Pipe

A. Service lines two inches or less in internal diameter shall be Type K copper tubing, soft temper, for underground service, conforming to ASTM B-88 and B-251. The pipe shall be marked with the manufacturer's name or trademark and a mark indicative of the pipe. Outside diameter and weight per foot shall not be less than that listed in ASTM B-251, Table II.

General Valve

A. See General Gate Valve and General Valve Box for auxiliary valve and valve box requirements.

General Valve Box

A. Curb Marking of Water Services: At the time the curb and gutter is poured, the Contractor shall mark the top of the curb with a permanent "W" for water to mark location of the curb box.

Water Service Connections

A. New water service connections shall be installed with a corporation stop; curb stop 1" water valve and curb box as shown in the details of the Drawings. Corporation stops

and curb valve shall meet or exceed AWWA C-800. Multiple taps shall be at least eighteen inches (18") apart and shall not be in the same line along the length of the water main.

B. Acceptable corporation stop, curb stop, and curb box manufacturers:

Service Size	Corporation Stop	Curb Stop/Water Valve	Curb Box
¾"-1"	Mueller H-15000	Mueller H-15200 or AY McDonald 4713	Mueller H-10341 AY McDonald 5601
1 ¼"	Mueller H-15000	Mueller H-15200 or AY McDonald 6100	AY McDonald 5603
1 ½"-2"	Ball Valve: Ford, Mueller or AY McDonald	Ball Valve: Ford, Mueller or AY McDonald	AY McDonald 5603

C. Taps over one inch are not permitted. When a larger tap is required than is allowed to be tapped into any particular water main or distributing pipe, a side-tap, using a sleeve and valve may be made by the City water personnel. For services larger than 1-inch in diameter, a minimum of a 4-inch service outlet from the main shall be installed and then reduced to match the existing service size.

Valve Installation

A. All valves shall be inspected upon delivery in the field to ensure proper working order before installation. They shall be set and jointed to the pipe in the manner as set forth in the AWWA Standards for the type of connection ends furnished.

B. All valves shall be provided with a standard valve chamber so arranged that no shock will be transmitted to the valve and the box opening shall be centered over the operation nut, and the cast iron cover shall be set flush with the road surface or finished surface.

C. Valve boxes shall rest on the valve and shall be adjusted so that the cover may be set flush with paving; in areas without paving set the cover as directed by the Owner. Boxes shall be set to allow equal movement above and below finish grade.

D. The base of the valve box shall be centered over the valve, and the top of the base section shall be approximately online with the nut on top of the valve stem. The entire assembly shall be plumb.

E. After installation, all valves shall be subjected to the field test for piping as outlined in these specifications. Should any defects in materials or workmanship appear during these tests, the Contractor shall correct such defects with the least possible delay and to the satisfaction of the Owner. If adjustments fail to correct the operation of a valve, remove the valve from the project site and replace it with a workable replacement that will meet the Specification requirements.

F. Open and close each valve observing full operation prior to installing successive lengths of pipe.

G. Contractor shall not operate existing water valves. All existing valves shall be operated by City of Bloomington staff.

Pipe Installation

A. Pipe shall be installed in accordance with the manufacturer's specifications and recommendations.

B. All lengths of pipe shall be dimensioned accurately to measurements established at the site and shall be worked into place without springing or forcing.

C. The Contractor shall cut all pipe and drill all holes that may be necessary. Cut sections of pipe shall be reamed or filed to remove all burrs. The pipe interior and joints shall be thoroughly cleaned before being installed and kept clean during construction.

D. The trenches shall be bedded, haunched, and backfilled as shown on the detail in the plans. The excavated areas that are beneath or within 2 feet horizontally of proposed pavements, driveways, and sidewalks shall be backfilled with trench backfill material.

E. Service lines within 18" above sewers shall be encased.

F. General PVC Casing Pipe

1. Pipe: SDR-PR PVC pipe shall be manufactured from PVC 1120 and shall conform to ASTM D2241. Nominal size shall be as indicated on the Drawings and SDR shall be 26. Pipe and fittings shall be NSF approved for the usage to which they will be applied.

2. Joints: Joints in SDR-PR PVC pipe shall be bell and spigot type with rubber gaskets, ASTM D-3139.

3. Rubber end seals shall be wrapped around the end of casing and the carrier pipe after installation to provide a barrier to the backfill material. Casing spacer end seals shall be a pull-over type construction and made from Neoprene rubber with a thickness between 3/32 and 1/8 inch, dependent on size and flexibility needed for proper fitment and functionality. End Seals shall utilize T304 stainless steel bands for securing each end to the casing pipe and carrier pipe.

4. The water main pipe may be pushed or pulled (depending upon pipe material, joint type, and method of pipe support) into the casing as assembled. The method of installation shall be approved by the Engineer prior to starting the installation.

G. General HDPE Casing Pipe

1. High Density Polyethylene (HDPE) Pipe, AWWA C-906 compliant, NSF 61 Standard Listed, and furnished in fifty (50) foot lengths.

2. Polyethylene pipe shall be furnished with an outside diameter conforming to ductile iron pipe sizes. Minimum thickness of HDPE pipe shall be determined by the contractor's calculations, but shall not be considering in-service loading shall not be less than DR 11 when measured in accordance with ASTM D-2122.

3. All polyethylene pipe and fittings shall be made of a high-density polyethylene pipe compound with extra high molecular weight that meets the requirements for Type III, Grade P34 Polyethylene material as defined in ASTM D-1248, latest revision.

4. Pipes shall be jointed to one another and to polyethylene fittings by thermal butt-fusion or by socket fusion in accordance with ASTM D-3261. Joining of pipe sections shall be performed in accordance with the procedures recommended by the pipe manufacturer. Joints between pipe sections shall be smooth on the inside and internal projection beads shall not be greater than 3/16-inch. The tensile strength at yield of the butt-fusion joints shall not be less than the pipe. A specimen of pipe cut across the butt-fusion joint shall be tested in accordance with ASTM D-638.

5. Rubber end seals shall be wrapped around the end of casing and the carrier pipe after installation to provide a barrier to the backfill material. Casing spacer end seals shall be a pull-over type construction and made from Neoprene rubber with a thickness between 3/32 and 1/8 inch, dependent on size and flexibility needed for proper fitment and functionality. End Seals shall utilize T304 stainless steel bands for securing each end to the casing pipe and carrier pipe.

6. The water main pipe may be pushed or pulled (depending upon pipe material, joint type, and method of pipe support) into the casing as assembled. The method of installation shall be approved by the Engineer prior to starting the installation.

H. Trenchless Installation

1. Contractor to provide a pneumatically or hydraulically operated, fluid assisted remote guided boring system capable of installing the pipe by trenchless methods per the Drawings without damage. The equipment shall be designed to provide accurate control of both the line and the grade of the boring head.

2. Contractor to provide pumps, compressors, tools and all equipment certified as suitable by the system manufacturer to install the new pipe without stressing or damaging the pipe.

3. Contractor to provide a circulatory and recovery system that will recover the bentonite or other drilling fluids without releasing the slurry onto the ground or water surfaces. Alternatively, the Contractor shall keep the site clean of drilling fluids and remove excess using a vacuum truck.

4. Contractor to coordinate supply of water for mixing drilling fluid from the City of Bloomington.

5. Provide installation and receiving pits as necessary for complete installation of the pipe. The excavation of the installation and receiving pits shall be incidental to the work.

6. The Contractor shall not start the pullback unless it can be completed without interruptions.

7. The Contractor shall provide sediment and erosion control measures to prevent drilling fluid or borehole cuttings from entering the adjacent property.

8. The pilot hole shall establish the horizontal plane of the pipeline. A plot of length versus elevation versus left/right variance will dictate the actual as-built plan and profile of the pipeline. Data feedback and electronic guidance systems and supplemental surface tracking systems shall be used to provide confirmation of position.

9. Reaming shall consist of using an appropriate tool to open the pilot hole to a slightly larger diameter than the carrier pipeline. The percentage oversize shall depend on soil types, soil stability, depth, drilling fluid hydrostatic pressures, etc. Normal oversizing shall be from 120 to 150 percent of the product pipe diameter. Drilling fluid shall be forced down the hole to stabilize the hole and to remove soil cuttings. The Contractor shall carefully monitor the reaming operations to prevent damage to adjacent utilities.

10. The Contractor shall maintain accurate alignment and grade control and shall determine the pipe elevation (above mean sea level) at intervals not exceeding 15 feet.

11. The pipe shall be installed by continuously pulling the pipe into place through the drilling fluid along the reamed hole pathway from insertion point to exit point without causing damage to the pipe and pipe joints being inserted. The pull-back speed shall be within the pipe manufacturer's recommendations. Drilling fluid/lubricants shall be provided as required by the pipe manufacturer's recommendations and specifications to avoid stressing the pipe and joints past the material's elastic limits. Proper pipe handling, cradling, bending minimization, surface heave readings, consistent insertion velocity, drilling fluid flow circulation/exit rate, and footage length installed shall be recorded.

12. Any bits, drills, reamers, or other tools lost or stuck in the hole shall be removed at the Contractor's expense. If tools cannot readily be removed, Contractor may at Contractor's option abandon the hole. The Contractor will seal the borehole and redrill the crossing. No payment shall be made for any lost equipment, material, or work on abandoned holes.

13. Drilling fluid to be used to facilitate the installation of the pipe shall be adjusted within acceptable limits such that ground heaving and subsurface cavity formation through erosion are prevented.

14. A variation greater than ± 3% from the horizontal and ± 5% from the vertical plan or designated grade may be sufficient reason for the rejection of the pipe, and the pipe shall be re-bored to proper grade if so directed by the Engineer at no cost to the City of Bloomington.

15. The Contractor shall drill and/or excavate relief holes to prevent the pressure of the drilling fluid from heaving or in any other way damaging any surface features. Damage due to ground heaving caused by the drilling fluid shall be repaired at the Contractor's expense. Relief holes shall be incidental to the work.

16. The alignment shown on the Drawings shall be adhered to unless existing physical obstructions prevent otherwise. The number of setups and the length of pipe installation per set up as shown on the Drawings is merely a suggested layout to achieve the alignment shown on the Drawings. The Contractor shall be ultimately responsible for determining the number of set ups required to install the pipe to the alignment shown on the Drawings. The number of setups shall be incidental to the work.

17. The Contractor shall verify that the pipe diameter as installed is within the tolerances shown in the specifications using a mandrel or other approved non-destructive methods. Contractor shall fill deficient segments with approved material and install new parallel segments at no additional cost to the City of Bloomington.

18. The Contractor shall be responsible for cleanup and restoration, due to hydrofactures from excessive pressure in the drilling fluid. Contractor shall prevent drilling fluids from entering streams or other waterbodies and municipal storm or sanitary sewer lines (unless prior approval is obtained from the Engineer). No additional payment shall be made for cleanup costs required by the Engineer, City of Bloomington, or regulatory agencies due to loss of drilling fluid.

19. Pits excavated to permit connection of bored pipe shall be backfilled, and disturbed areas shall be restored to their original state or better. Sections of sidewalks, curbs, and gutters or other permanent improvements damaged during horizontal directional drilling operations shall be repaired or replaced at the Contractor's expense. The backfilling of the boring and receiving pits shall be incidental to the work.

20. Provide mufflers, silencers and other devices to reduce noise from compressors and other equipment to meet the City of Bloomington's local ordinances.

21. The Contractor shall be responsible for restoration of sidewalk or roadways that collapse during horizontal directional drilling operations and shall be repaired or replaced at the Contractor's expense.

Additional Requirements

A. Existing water service lines that are leaking or otherwise damaged during the excavation for the new water mains and water service lines or during the installation and/or reconnection of the new water mains and water service lines shall be repaired by the Contractor to the satisfaction of the Engineer. All repairs shall be performed within 24 hours of the time that the leak or damage is discovered. This work will not be

paid for separately but shall be included in the cost of the new water service line or cased water service line, and no additional compensation will be allowed.

B. Potholing of water services at the water main shall be required as part of the utility locating. This work will not be paid for separately but shall be included in the cost of the new water service line, and no additional compensation will be allowed.

Measurement and Payment: This work will be measured for payment at the contract unit price each for WATER SERVICE INSTALL, 1" COMPLETE, which price shall include all labor, equipment, and material necessary to construct the water service lines including excavation, except rock excavation; trenchless installations; locating existing service connections; furnishing and installing elbows and Type K, minimum 1-inch diameter copper service pipe; casing pipe to satisfy all separation requirements; transition to existing service diameter; all necessary fittings for a complete installation, including connecting to existing service connections, as shown on the Drawings; concrete brick support; bedding, earth backfill, trench backfill, and controlled low-strength material; incidental landscaping, pavement, sidewalk, and curb and gutter removal and replacement; testing; disinfection; protection, replacement or repair of utilities, drainage systems, structures, homeowner's property, and miscellaneous property; removal of surplus excavated material; seeding; and clean-up.

XX008839 WATER MAIN TO BE ABANDONED

Description: This work shall consist of removing, plugging, capping, and properly abandoning of the existing water mains and service lines as shown on the plans and as directed by the Owner. Abandoning of the water mains and service lines shall consist of draining and leaving the existing pipes in place except where they conflict with the new construction in which case the water mains and service lines shall be removed and disposed of.

Materials: The Contractor will be responsible for exploring and determining the type, size, and depth of the water mains and service lines. All abandoned piping remaining in place shall be drained have the ends capped or plugged with concrete as directed by the Owner. Existing valves that are being abandoned and do not conflict with the proposed work shall remain in place, but the top of the valve boxes shall be removed to a minimum of one foot below grade. The remainder of the valve box and void around the box shall be filled with concrete. The removal of fire hydrants shall be in accordance with the special provision for "Fire Hydrants to be Removed". The material that is salvageable as determined by the Owner shall become the property of the City of Bloomington and be delivered by the Contractor to the Water Department at 603 West Division Street, Bloomington, IL. Materials determined by the Owner not to be salvaged shall be disposed of by the Contractor in accordance with Article 202.03 of the Standard Specifications.

The excavated areas that are beneath or within two feet horizontally of proposed pavement and curb shall be backfilled with Controlled Low-Strength Material. All other excavated areas shall be backfilled with Trench Backfill.

Measurement and Payment: This work will be measured for payment at the contract lump sum price for WATER MAIN TO BE ABANDONED. This work shall include all labor, equipment and

material necessary to complete the work, including excavation, locating existing water main, valves, hydrants and service connections; dewatering the abandoned line; cutting and removing sections of pipe, installing restrained plugs and caps, concrete plugs, isolation valves and thrust blocks; removing and disposing of pipes, valve boxes and curb boxes to a minimum of 1 foot below grade; and protection, replacement or repair of utilities, drainage systems, structures, homeowner's property and miscellaneous property; and clean-up.

The removal of fire hydrants and TRENCH BACKFILL and CONTROLLED LOW-STRENGTH MATERIAL will be paid for separately as specified herein.

XX008959 DUCTILE IRON WATER MAIN (SPECIAL)

Description: This work shall consist of furnishing and installing ductile iron water main, restrained joint type as shown in the plans. All work shall be performed in accordance with the latest edition of the Standard Specification for Water and Sewer Construction in Illinois, the City of Bloomington Design and Construction Standards for Water Distribution and Supply System, and Section 561 of the Standard Specifications, except as modified herein.

Submittal Requirements: Reference the Ductile Iron Water Main Section for submittal requirements.

Materials:

General Water Main

A. Reference the Ductile Iron Water Main Section for pipe, joint, gasket, fitting, lining, coating, corrosion protection and other related requirements.

Installation

A. Reference the Ductile Iron Water Main Section for installation and testing requirements.

Measurement and Payment: This work will be measured for payment at the contract unit price per foot for DUCTILE IRON WATER MAIN (SPECIAL). Water mains will be measured in lineal feet along the centerline of the pipe. This work shall include all labor, equipment and material necessary to construct the water mains including all excavation, except rock excavation; clearing and grubbing; locating existing water main; furnishing and installing transition fittings for dissimilar pipe materials; furnishing and installing pipe, restrained joint pipe, fittings, reducers, and elbows; polyethylene wrap; watertight plugs; No. 12 THWN single strand tracer wire, bedding and backfill with controlled low-strength material or trench material; and clean-up; thrust blocks; testing; chlorination taps; disinfection; protection, replacement, or repair of utilities, drainage systems, structures, homeowner's property, and miscellaneous property; removal of surplus excavated material; and clean-up.

IDOT DISTRICT 5 SPECIAL PROVISIONS

ADJUSTING OF FRAMES AND GRATES OF DRAINAGE AND UTILITY STRUCTURES

Eff. 03-09-2001 Rev. 03-28-2007

At the contractor's option the adjustment of the casting may be performed after the surface course has been placed.

If this option is chosen, the existing pavement adjacent to and for a distance not exceeding 12 inches (300 mm) outside the base of the casting to be adjusted shall be broken sufficiently to permit its removal.

After the casting has been adjusted, the pavement and hot-mix asphalt mixture removed shall be replaced with Class SI concrete not less than 9 inches (225 mm) thick. The surface course shall be saw cut to create smooth edges prior to removing the pavement and placing the Class SI concrete. ~~The concrete surface to a depth of 1 inch (25 mm) shall be darkened with a mortar additive to match the adjacent hot-mix asphalt mixture.~~

Payment will be in accordance with Articles 602.16 or 603.09.

EMBANKMENT

Eff. 04-18-2002 Rev. 01-01-2014

The embankment shall be constructed according to Section 205 of the Standard Specifications, except that the embankment shall not be compacted at a moisture content in excess of 110 percent of the optimum moisture content determined according to AASHTO T 99.

All material that is proposed for use in embankment construction must be approved by the Engineer. The proposed material shall have a Standard Dry Density of not less than 90 lb./ft3 (1442 kg/m³) when tested according to AASHTO T 99 and shall not have an organic content greater than 10 percent when tested according to AASHTO T 194. Soils that demonstrate any of the following properties shall be restricted to the interior of the embankment:

a) A grain size distribution with less than 35 percent passing the #200 sieve.
b) A plasticity index (PI) of less than 12.
c) A liquid limit (LL) in excess of 50.

Such soils shall be covered on top of the embankment by a minimum of 2 ft. (600 mm) of soil not characterized by any of the items above. Other materials that may be considered by the Engineer as having the potential for erosion or excess volume change shall not be used in the 2 ft. (600 mm) cover on the sides or the top of the embankment.

The top 4 inches (100 mm) of any embankment that will be seeded shall be capable of sustaining vegetation when fertilized as outlined in the plans.

The District Geotechnical Engineer shall be contacted a minimum of two weeks prior any embankment construction. The contractor will be required to dig at least one test hole at each

proposed borrow location as directed by the Engineer. Soil samples will be taken by the Engineer at each location to assure that the above specifications will be met. The contractor must obtain Environmental Clearance as outlined in Section 107.22 of the Standard Specifications prior to digging any test holes.

This work will not be paid for separately, but shall be considered as included in the cost of the various earthwork items.

HAND GRADING

Eff. 04-01-2020

Grading shall be done by hand around light poles, utility poles, signposts, shrubs, trees, or other natural or man-made objects where shallow fills or cuts are adjacent to the items. The intent is to preserve original state of the construction limits and temporary easements as much as possible. Items to remain in place will be determined by the Engineer

This work shall not be paid for separately but shall be included in the contract unit price per cubic yard for EARTH EXCAVATION.

PAVEMENT MARKING

Eff. 09-11-1990 Rev. 01-01-2014

It is the intention of the Department that the Contractor place lane markings as shown on the plans on the completed pavement prior to opening the road to traffic, in accordance with the applicable portions of the Manual on Uniform Traffic Control Devices for Streets and Highways.

SEEDING AND ESTABLISHMENT OF VEGETATION

Eff.: 08-12-2014

The contractor shall be required to have multiple mobilizations to establish vegetation. This work will not be allowed to be postponed until the end of the project, but shall be completed as work progresses throughout the project limits. Temporary seed and temporary mulch or permanent seed and mulch/erosion control blanket are to be continuously established as the work progresses and at the direction of the Engineer.

When the contract does not include a pay item for supplemental watering, any watering required by the Engineer will be paid for according to Article 109.04.

STRINGLINE

Eff. 11-27-1991

Rev. 08-01-2012

Some or all of the cold-milling, leveling binder, or hot-mix asphalt binder course on this section is intended as the first step toward establishing the proposed profile grade. The cold milling and

leveling binder or hot-mix asphalt binder course will be controlled by stringline(s) erected, maintained, and removed and disposed of by the Contractor.

The cost of providing, erecting, maintaining, removing, disposing of and employing the stringline as the grade control will not be paid for separately but shall be considered as included in the COLD-MILLING, LEVELING BINDER (MACHINE METHOD) or HOT-MIX ASPHALT BINDER COURSE pay item involved.

TEMPORARY DRAINAGE INTO PROPOSED DRAINAGE STRUCTURES

Eff. 09-11-1990 Rev. 01-01-2014

This work shall consist of providing temporary drainage into any proposed drainage structure that is to be constructed in a sag location. These sag locations shall also be interpreted to include side streets. This work shall consist of a 4 inch (100-mm) PVC or polyethylene pipe installed from the surface of the proposed widening material into the proposed drainage structure near the 'resurfacing lip' on the combination concrete curb and gutter. The 4-inch (100-mm) pipe shall be cut flush with the proposed widening material as directed by the Engineer. Prior to the final resurfacing operations, the 4-inch (100-mm) pipe shall be filled with concrete or bituminous material.

This work will not be paid for separately but shall be considered as included in the contract unit price for the various pay items involved and no additional compensation will be allowed.

TREATMENT OF EXISTING FIELD TILE SYSTEMS

Eff. 12-21-1998 Rev. 01-01-2014

This work shall be according to Section 611, as shown in the plans, and as modified herein.

Storm Sewers, Special and Storm Sewers, Protected

For use in replacing existing field tile, pipe diameters of 4 inches (100 mm), 6 inches (150 mm), 8 inches (200 mm), and 10 inches (250 mm) will be allowed. For storm sewers of these sizes used to replace existing field tile, Class B storm sewer pipe may be used where Class A storm sewer pipe would otherwise be required.

Connections between storm sewers smaller than 12 inches (300 mm) in diameter may be made using prefabricated, commercially available couplers, consisting of a casing pipe with flexible tubing bands at each end. The casing pipe shall completely cover the joint area, and the tubing shall be drawn tight around each pipe with corrosion and rust proof bands or hose clamps. Concrete collars, as shown in the plans, may also be used for these connections.

For pipe sizes of 12 inches (300 mm) and larger, concrete collars as shown on the plans will be required.

Field Tile Junction Vaults

If known, the locations and depths of field tile junction vaults are shown on the plans. Other junction vaults provided as plan pay items shall be constructed according to the following:

FIELD TILE JUNCTION VAULTS 2 FEET (600 MM) DIA. shall be constructed according to Highway Standard 602301, “Inlet, Type A”, using a frame and closed lid as shown on Highway Standard 604001, “Frame and Lids, Type 1.” The maximum depth of the junction vault shall be 6 feet (1.8 m) from the flowline to the top of masonry. One or more Storm Sewer or field tiles will enter each of these junction vaults, and there will be at least one outlet pipe.

FIELD TILE JUNCTION VAULTS 3 FEET (900 MM) DIA. shall be constructed according to Highway Standard 602306, “Inlet, Type B”, using a frame and closed lid as shown on Highway Standard 604001, “Frame and Lids, Type 1.” The maximum depth of the junction vault shall be 6 feet (1.8 m) from the flowline to the top of masonry. One or more storm sewer or field tiles will enter each of these junction vaults, and there will be at least one outlet pipe.

Where conditions found in the field require the use of flat slab tops for the junction vaults, this work will be according to Article 109.04.

Where conditions found in the field require depths in excess of 6 feet (1.8 m) for junction vaults, this work shall be according to Article 109.04.

Method of Measurement. Couplers for pipe sizes smaller than 12 inches (300 mm) will not be measured separately for payment.

Concrete collars will be measured in cubic yards (cubic meters), not to exceed the dimensions shown in the plans.

Field tile junction vaults will be measured on an each basis.

Basis of Payment. Concrete collars will be paid for at the contract unit price per cubic yard (cubic meter) for MISCELLANEOUS CONCRETE, which price shall include all excavation and backfill.

The risers, gratings, and pipe tees for inspection wells shall be considered as included in the payment for STORM SEWER of the type and diameter specified.

Pay items not included in the contract and not included in other items of the contract will be paid according to Article 109.04 of the Standard Specifications.

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES

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 Work Areas. 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.

The following areas should be monitored by the Environmental Firm for soil contamination and workers protection.

Site 3311-7 – Commercial Buildings, 1808 Morrissey Drive, Bloomington, McLean County

- Station 499+67, 0' to 60' RT to Station 501+17, 0' to 55' RT (borings 1 and 2) - The material meets the criteria of and shall be managed in accordance with Article 669.05(b)(1). COC sampling parameters include: lead, manganese, and pH.

- Station 501+82, 0' to 55' RT to Station 502+39, 0' to 55' RT (boring 4) - The material meets the criteria of and shall be managed in accordance with Article 669.05(b)(1). COC sampling parameters include: manganese and pH.

- Station 502+99, 0' to 60' RT to Station 503+82, 0' to 60' RT (boring 6) - The material meets the criteria of and shall be managed in accordance with Article 669.05(b)(1). COC sampling parameters include: lead, manganese, and pH.

- Station 504+50, 0' to 60' RT to Station 505+88, 0' to 63' RT (borings 8 and 9) - The material meets the criteria of and shall be managed in accordance with Article 669.05(b)(1). COC sampling parameters include: lead, manganese, and pH.

Site 3311-10 – Railroad (Norfolk and Southern Railroad), 1800 Morrissey Drive, Bloomington, McLean County

- Station 325+14, 0' to 14' LT to Station 326+73, 0' to 55' LT: The material meets the criteria of Article 669.05(a)(5) and shall be managed in accordance with Article 669.05. COC sampling parameters include: mercury, and manganese.

PSI REC Site #3 – 512 E Hamilton Road, Bloomington, McLean County

- Station 22+50, 1' RT to 57' LT to Station 26+50, 15.6' RT to 57' LT: The material meets the criteria of Article 669.05(a)(1) and shall be managed in accordance with Article 669.05. COC sampling parameters include: arsenic.

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.**

Additional information on the above sites collected during the Phase I Engineering process is available through the District's Environmental Studies Unit (DESU).

RAILROAD FLAGGERS

The Norfolk Southern (NS) Railroad will provide railroad flaggers required for transporting material or equipment across the tracks. Contractor will not be required to pay for railroad flaggers as part of the contract, unless specified otherwise herein, but will need to coordinate the construction schedule with the NS Railroad to ensure flaggers are available as work requires. Coordination costs shall be considered as included in the contract unit prices for the various items of work involved.

RAILROAD COORDINATION

Contractor(s) must notify NS's Local Track Supervisor at (616) 260-5575 at least thirty (30) calendar days prior to requesting a NS flagman. Additionally, Agency must require its contractor(s) to notify NS's Manager of Public Projects thirty (30) calendar days prior to commencing work on NS property or near NS tracks.

RAILROAD CONSTRUCTION REQUIREMENTS

Various work activities are located within the right-of-way of railroad operated by the Norfolk Southern Railroad. The CONTRACTOR shall at all times comply with all requirements of the Norfolk Southern Railroad for construction within their right-of-way.

A Right of Entry Permit will be required for all work within the railroad right-of-way or for a temporary crossing.

Authority of Railroad Engineer. Whenever the safety of railroad traffic is concerned, the Railroad Engineer will have jurisdiction over safety measures to be taken and his/her decision as to methods, procedures, and measures used shall be final, and any and all Contractors performing work near or about the railroad shall be governed by such decision. Instructions to the Contractor by the Railroad Engineer will be given through the Engineer. Work ordered by the Railroad Engineer that is beyond normal and customary requirements may be classified as extra work, and in such instance Contractor may submit a request for additional payment in accordance with Article 11 of the General Conditions. Work performed for the Contractor's convenience will not be paid for separately but shall be considered as included in the contract.

Protection of Railroad Traffic and Property. All work to be done by the Contractor on the Railroad's right-of-way shall be performed in a manner satisfactory to the Railroad Engineer. The work shall be performed at such times and in such a manner as not to unnecessarily interfere with the movements or trains or traffic upon the tracks of the Railroad. The Contractor shall use all reasonable care and precaution in order to avoid accidents, damage, delay, or interference with the Railroad's trains or other facilities.

The Contractor shall make provisions satisfactory to the Railroad Engineer against disturbing, in any manner, the Railroad embankment, structures, and tracks during construction. If the work to be performed by the Contractor shall, as determined by the Railroad Engineer, weaken or undermine the Railroad embankment, structures, or tracks, then the said work shall be stopped, upon notice so to do, and the forces of the Railroad will proceed with the performance of the work of strengthening the Railroad embankment, structures, or tracks, and the actual cost thereof shall be borne by the Contractor. Should any damage occur to Railroad property as a result of the Contractor's unauthorized or negligent operations, the Railroad may repair such damages and/or perform any work for protection of its property it may deem necessary and the actual cost thereof shall be borne by the Contractor.

The services of Railroad flaggers will be required when the Contractor's operations will encroach on or over the Railroad's right-of-way: (a) during the excavation, placing and removal of cofferdams or sheeting, driving of foundation piling and placing of concrete footings for piers adjacent to the track; (b) driving of pile bents adjacent to the track; (c) construction of the permanent structure including erection and removal of falsework, bracing, or forms over or adjacent to the track; (d) transporting material or equipment across the track; (e) any operations involving direct interference with and/or coming in the close vicinity of power lines or Railroad signal and communication lines, underground cables, fuel oil facilities, or pipe lines which might result in fire or damage to such facilities to endanger Railroad operations, or to endanger the public in the transacting of business on Railroad right-of-way; (f) fouling of operating clearances or reasonable probability of accidental hazard to Railroad traffic; (g) during removal of portions of existing structures immediately over or adjacent to a track; and (h) at all other times when the Railroad Engineer has determined conditions require such protection and the Engineer has determined conditions warrant such protection and has approved the request.

As soon as possible, the Contractor shall furnish the Railroad with the approximate dates flagging services are needed. The approximate date of initiation of flagging services shall be at least 30 calendar days after notification. The Contractor shall also notify the Railroad at least 48 hours in advance of the actual initiation and termination of flagging services.

NON-ENVIRONMENTAL RIGHT OF ENTRY APPLICATION INSTRUCTIONS

Norfolk Southern Railway Company and its operating subsidiaries (collectively, NS) have secured the services of RailPros to handle non-environmental rights of entry applications. Now there is just one application whether the duration on NS property is over or under 30 days. On NS's behalf, RailPros will receive and process the applications through the application management portal: https://ns.railprospermitting.com. All applications must be submitted through this platform and all correspondence regarding applications (i.e., questions, updates, and messages) will be handled through this system.

Processing your application involves several departments at NS and requires NS management review and approval. No access is allowed prior to the execution of a separate formal agreement with NS and verification that all insurance requirements have been met.

NOTE: IF YOUR ACCESS IS RELATED TO UTILITY WORK DO NOT USE THIS APPLICATION. SUBMIT A PIPE & WIREAPPLICATION.

APPLICATION AND OCCUPANCY FEES

FEE SCHEDULE	
Non-environmental Right of Entry Application Fee	**$1,500.00**
Expedited Application Fee	**$3,000.00**
Occupancy Fee	**TBD**

Please be advised that the application fee is ***nonrefundable*** and does not guarantee approval.
The Occupancy Fee will be determined at the time of application for projects of durations greater than 30 days or if the non-environmental right of entry requires multiple locations.

HANDLING PROCESS

- An application must be submitted, and the appropriate application fees paid before an application will be reviewed. For detailed instructions on how to use the portal, please refer to "Portal Tutorial" on the portal homepage https://ns.railprospermitting.com.
- RailPros will assign an NS Activity Number and communicate it to the applicant via message within the portal and an email within two (2) business days. All communications will reference this Activity Number.
- For documentation and ease of tracking, all communications should be within the portal. The applicant will receive an email alert of a new message in the portal.
- When the application is complete and determined to be satisfactory, RailPros will facilitate the review by NS departments and communicate the results of that review to the applicant.
- If NS approval is granted, RailPros will prepare and transmit the Right of Entry to the applicant via DocuSign.
- NS will execute the right of entry upon the receipt of insurance certificates and the appropriate fees.
- No verbal authorization will be provided.

- No emailed or mailed submissions will be accepted. All applications must be submitted through the application portal.

- Processing of your application requires NS management review and approval and may involve several departments. Please allow 4-6 weeks for processing.

- Expedited applications will be allowed, but there are no guarantees that access will be granted. The expedite fee only moves your application up the queue before hundreds of other requests. It does not impact the availability of flaggers.

REQUIREMENTS FOR A COMPLETE APPLICATION

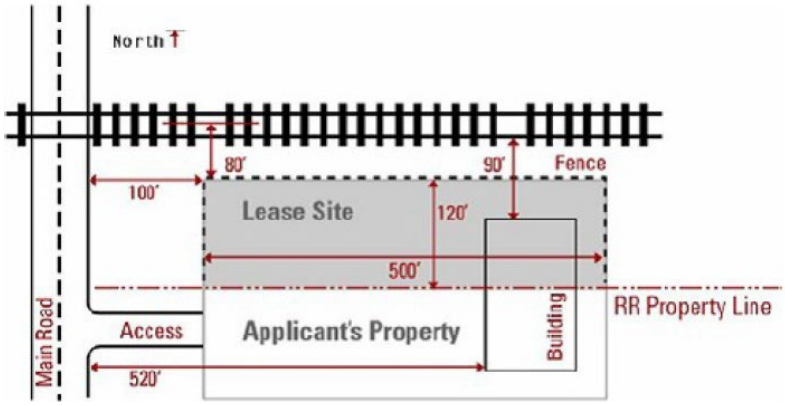
Complete all questions and upload all required documents into the application portal where indicated, including the following:

1. **Licensee/Principal:** Please be sure to provide the Licensee or requesting party's complete legal name (which is not theconsultant working on behalf of the requesting party.)

2. **Application fee**: All application fees must be submitted online at the time of application submittal.

3. **Scope of Work**: All applications must include a detailed description of the requested work to be performed. The scope of work must include descriptions of the anticipated work, activity, or temporary use of the property. The scope of work should clearly state why access to NS property is required, and what alternativeswere considered. It must include the anticipated duration.

4. **Exhibit**: All applications must include an exhibit depicting the approximate location on the NS property where the work is anticipated to be conducted, including dimensions and distances from any existing railroad structures such as railroad track. Any planned structures on the property, with dimensions from the nearest track, should also be depicted.
   The proposed area of access, including ingress and egress should be highlighted. Please indicate which direction is north. If available, include additional information to assist in processing the application, such as the closest property address, railroad milepost, the parcel ID number, GPS coordinates, DOT #, and latitude and longitude. If milepost markers are readily accessible or visible on property, include them.



HAZARDOUS MATERIALS

Prohibition of Certain Potentially Environmentally Damaging Operation son company Property:
Electronics, electrical transformer repair or reconditioning, blast furnaces, steel works, rolling or finishing mills, smelting and/or refining, wood treatment or tie plants, salvage operations, junk yards, scrap dealers, drum or barrel reconditioners, battery recycling, tire storage or recycling, waste disposal operations of any kind including landfills, surface impoundments, and waste piles, incinerators, sewage systems, electroplating operations, fuel blending , waste or used oil recycling or reclamation, explosives disposal, manufacturing or detonation, bulk oil storage or any facility requiring TSD hazardous waste permit or any hazardous waste transloading facility.

The foregoing list of prohibited activities on company property is not exclusive. All proposed leases, licenses, and permits will be carefully evaluated to determine if the proposed activities pose an unreasonable environmental risk.

INSURANCE REQUIREMENTS

The NS insurance requirements will be defined in the right of entry agreement. In general, each agreement will require the applicant to obtain, at its sole cost and expense, several types of insurance coverage with various limits. The insurance coverage must be of form and underwritten by insurance companies that meet NS's approval. The types of insurance typically required include:

- Commercial General Liability Insurance
- Automobile Liability Insurance
- Worker's Compensation Insurance
- Railroad Protective Liability Insurance

In certain instances, the licensee may be required to pay NS a risk-financing fee to add the project to NS's Master Railroad Protective Policy. This will satisfy the railroad protective liability insurance requirement in its entirety for the project.

NS requires a policy of Commercial General Liability Insurance with a combined single limit of not less than $2,000,000 per occurrence for injury to or death of persons and damage to or loss or destruction of property. *Access will not be authorized until all insurance requirements are satisfied.*

a. The certificate must name as Certificate Holders, Norfolk Southern Corporation, Subsidiaries and Affiliates at 650 West Peachtree Street, Box 46, Atlanta, GA 30308 and endorsed to be Additional Insured to all applicable policies as required by written contract. All policies maintained in which Norfolk Southern Corporation, Subsidiaries and Affiliates have been endorsed as Additional Insured shall include a waiver of subrogation and shall be primary and non-contributory. All policies shall be endorsed to provide 30 days' notice of cancellation.
b. The Certificate of Insurance (COI) shall be uploaded into the application portal prior to NS executing the right of entry agreement.

QUESTIONS?

Contact RailPros via Email or Phone:
Email: NS.Permitting@RailPros.com
Phone: (402) 965-0539 Ext. 1

NORFOLK SOUTHERN CORPORATION
REAL ESTATE OCCUPANCY PROGRAM

WORK SITE SAFETY REQUIREMENTS FOR 3rd PARTY PIPE & WIRELINE INSTALLATION CONTRACTORS

EFFECTIVE: May 1, 2020

NORFOLK SOUTHERN
One line, infinite possibilities.

STATEMENT OF SAFETY POLICY FOR CONTRACTORS*

Norfolk Southern Corporation and its corporate affiliates (hereinafter collectively called "Norfolk Southern") are committed to the principle that safety is good business.

Responsibility for safety and environmental stewardship cannot be transferred. Each contractor is held accountable for his/her actions on the job.

We expect all contractors granted access to Norfolk Southern property to abide by these Six Tenets of Safety.

1. **All injuries can be prevented.**
2. **All exposures can be safeguarded.**
3. **Safety is each contractor's responsibility.**
4. **Safety Training is essential.**
5. **Safety is a condition of continued access to Norfolk Southern property.**
6. **Safety is good business.**

Work site safety is <u>NOT</u> negotiable and is required in the performance of your work while on Norfolk Southern property.

- **As used herein, the term "contractor" refers to a contractor engaged by a 3rd party entity for the benefit of the 3rd party entity, and not working directly under contract with Norfolk Southern. The term contractor includes all of his/her employees, agents, subcontractors, and material or equipment suppliers who access Norfolk Southern property.**

INTRODUCTION

This document is intended to help you understand and comply with Norfolk Southern safety and security requirements while performing work on Norfolk Southern property for the benefit of a pipe or wireline owner. These requirements apply to you and your employees, including your subcontractors, and suppliers delivering materials and equipment to the worksite, while on Norfolk Southern property. It is extremely important that you understand and adhere to each of these rules and requirements.

The terms "contractor" or "contractors", as used in the rules which follow, include the employees, agents, and subcontractors of any contractor engaged by a 3rd party entity for the benefit of the 3rd party entity, and not working directly for Norfolk Southern. The term contractor includes all of his/her employees, agents, subcontractors, and material or equipment suppliers who access Norfolk Southern property.

Contractors are responsible for knowing and following the applicable local, county, state and federal laws and regulations, and any special provisions which may be imposed by the Federal Railroad Administration (FRA) or other regulatory agencies, including FRA fall protection and Roadway Worker Protection, applicable OSHA requirements, and Department of Homeland Security requirements. Contractors are encouraged to ask the designated Norfolk Southern site representative for assistance regarding any questions on safety.

These guidelines are not all inclusive. Each contractor must adopt and enforce such rules or practices as may be necessary for the safe performance of their work. These guidelines do not prohibit contractors from adopting more restrictive rules and instructions for their work.

Remember: safety is a condition of being allowed to perform work on Norfolk Southern property. Responsibility for safety cannot be transferred. Each contractor is responsible for the safe performance of the work they have been engaged to perform for the owner of the pipe or wireline. The contractor must take the appropriate steps to assure compliance by their employees, their subcontractors, and their suppliers with applicable safety rules, regulations and laws. A failure to work safely on NS property may result in the removal of the contractor from NS property and the termination of the property access and/or occupancy agreement.

If you have any questions regarding safety or the meaning of these guidelines, please contact the designated Norfolk Southern Pipe & Wireline project coordinator or work site representative, or email the Norfolk Southern Engineering - Design & Construction Utility group at *NSENG.Utility@nscorp*.com .

1 - CONTRATOR SITE ACCESS

1.1 Contractors may NOT access Norfolk Southern property for inspection, to stage material or equipment, or begin any work until a formal agreement (including all necessary Right of Entry) is executed by NS and the pipe or wireline owner and the contractor receives specific permission to proceed with the work from the designated construction coordination and monitoring agency of NS.

[End of section]

2 - GENERAL SAFETY REQUIREMENTS

2.1 Contractors are solely responsible for controlling the means and manner of the work done by their employees, for ensuring the compliance by their employees with the rules and procedures set forth in this manual or otherwise required by applicable laws, rules or regulations, and for the safe performance of their employees during the time they are on or about the property or equipment of Norfolk Southern.

2.2 Contractors are responsible for maintaining a copy of these requirements on-site while work is in progress and must ensure that their employees and suppliers are aware them and in compliance.

2.3 When any person is injured as result of a work site accident, emergency medical assistance must be called if needed.

2.4 Contractors must immediately report all accidents and injuries to the designated Norfolk Southern representative (NOTE: "designated Norfolk Southern representative" or "designated railroad employee" means the project's Construction Monitor, Observer, Roadway Worker in Charge (Flagger), or any other NS designated individual having oversight of the work site and/or responsibility for providing the contractor protection from railway operations.

2.5 The report must include the name and address of each injured person and describe the extent of injury. Names and addresses of all persons at the scene are required, whether or not they admit knowledge of the accident.

2.6 Contractors must be conversant with and obey the rules and any special instructions issued to them by representatives of Norfolk Southern. If in doubt as to their meaning, contractors must stop work and consult with the designated Norfolk Southern representative for an explanation.

2.7 Contractors must expect the movement of trains, engines or cars, or on-track roadway equipment at any time, on any track, at any speed, in either direction.

2.8 **Accidents, defects in track, bridges, signals or highway crossing warning devices, fires on or near the right of way, or any unusual condition that may affect the safe operation of the railroad that becomes known to the contractor must be reported to the designated Norfolk Southern representative or any other railroad employee by the quickest means of communication.**

2.9 **A contractor who reports for duty under the influence of alcohol or a prohibited drug as defined in Norfolk Southern's Policy on Alcohol and Drugs, or who uses any of the foregoing while on duty, will not be allowed to remain on Norfolk Southern property. Possession of any of the foregoing while on duty, or possession, use, or being under the influence of any of the foregoing while on Company property is strictly prohibited.**

2.10 **Firearms are not allowed on Norfolk Southern property unless given special permission in writing by the head of the Norfolk Southern Police Department.**

2.11 **In case of danger to, loss of, or damage to railroad property by fire, theft, or other causes, contractors must immediately notify the designated Norfolk Southern representative. Unauthorized possession, removal, or disposal of any material from railroad property or property served by the railroad is prohibited. All articles of value found on railroad property must be cared for and promptly reported to the designated Norfolk Southern representative.**

2.12 **Contractors must not do any work in a manner that will jeopardize their own safety or the safety of others. They must ensure that appliances, tools, supplies, and facilities used in performing their duties are in proper condition. It is the duty of every contractor to examine them to determine they are in safe working condition.**

2.13 **Photography on Company property without proper authority is prohibited.**

2.14 **Contractors must follow and observe all local, state and federal laws and regulations applicable to their operations, including but not limited to FHWA, OSHA, DOT and FRA Regulations.**

[End of section]

3 - PERSONAL PROTECTIVE EQUIPMENT

3.1 **Contractors must wear suitable clothing, footwear, and personal protective equipment to perform their duties safely and as prescribed by applicable laws and regulations.**

3.2 **Contractors are responsible for ensuring their workers have and utilize proper personal protective equipment. They are responsible to see that it is kept in good order, properly fitted, and available for their use when needed.**

3.3 **Contractors are prohibited from working on Norfolk Southern property:**

- **In shorts;**
- **In oily, greasy, torn, loose, or frayed clothing;**
- **Without shirts or working in shirts that do not cover shoulders, upper arms, back, and abdomen;**
- **EXCEPTION: Underwater divers and other specialized occupations approved by Norfolk Southern may be allowed to deviate from these requirements as necessary for the performance of their duties.**

3.4 **Contractors must wear protective footwear while on Norfolk Southern property. Protective footwear:**

- **Has an upper portion constructed of leather or leather-like material that provides firm ankle support and fits snugly about the foot, ankle, and leg. Footwear must be 6" minimum in height as measured from the bottom of the heel to the top of the uppers. Sole and heels must be sturdy, non-leathery, and in good condition.**
- **Must have a 90 degree defined heel to the walking surface with a minimum height of 3/8" as measured between the bottom of the heel and the bottom of the sole.**

3.5 **Contractors must wear and utilize at minimum the following personal protective equipment while on Norfolk Southern property; Hard hats, impact resistant eye protection with side shields appropriate for ambient lighting level, protective footwear, ANSI Class II certified reflective exterior clothing or safety vest, and task appropriate gloves.**

3.6 **When required by work task or in proximity to machine/equipment operations, appropriate additional personal protective equipment must be utilized. This includes, but are not limited to; hearing protection, face shields for saw cutting and grinding, spats, knee-guards, metatarsal protection, ice creepers, protective clothing and shields for hot-work (welding, torch cutting or burning), belts, lanyards and full body harness for climbing and/or fall protection, and masks or respirators as prescribed by applicable laws and regulations. Norfolk Southern practices and procedures may require hearing protection or other protective equipment to be utilized without regard to the contractor's work task in specified areas of the property. Contractors should contact the designated Norfolk Southern representative to obtain copies of Norfolk Southern practices and procedures if needed.**

3.7 **Contractors must not wear finger rings (including silicon or plastic), earrings, open gauges, facial rings, or other articles of adornment or clothing that may be snagged by material or equipment.**

[End of section]

4 - REQUIREMENTS FOR WORKING ON OR NEAR TRACKS

4.1 Contractors must not occupy, perform any work activity in, or break the vertical plane of the track zone with equipment without the permission of the designated Norfolk Southern representative. As used herein, the vertical plane of the track zone is located 15 feet outward from the centerline of the nearest track.

4.2 Contractors must not walk or stand between the rails of a track, or place themselves in the foul a live track, without the permission of designated Norfolk Southern representative. The vertical plane of the fouling zone is located 4 foot outward from the nearest rail.

4.3 Only when authorized by the designated Norfolk Southern representative may contractors enter the foul zone and cross track(s). If authorized, contractors must cross tracks at a 90 degree angle to the rails, first stopping before entering the fouling zone to look both ways and insure way is clear.

4.4 Contractors must not;

- Walk or stand between the rails of a track.
- Sit, stand, or step on rails, guard rails, switches or frogs.
- Operate any track switch or derail.
- Cross over, under, or between coupled rail cars.
- Step between or immediately in front of standing rail cars, locomotives, or on-track equipment.

4.5 All operating equipment within 25 feet of nearest rail must halt operations when a train is passing. Other equipment operating beyond 25 feet may be required to be halted by the designated Norfolk Southern representative if the operation of that equipment is deemed potentially impactful to train passage.

4.6 Contractors working adjacent to a track upon which movements are being made must maintain vigilant lookout for approaching movements, and as they pass keeping watch for loose lading or binder chains and straps that could cause personal injury.

4.7 Contractors are not expected to inspect passing trains but if a defect is noted or there are other reasons to stop a train in the case of emergency the following methods can be used:

To give an STOP signal, move the hand, flag, lamp or fusee back and forth horizontally, at right angles to the track, until acknowledged by a short blast of the engine whistle or other response from the train crew.

If a dangerous condition is observed in a passing train and its crew cannot be notified to stop by hand signal, notify the nearest Norfolk Southern representative, or contact NS Police at 800-453-2530.

4.8 Contractors must not ride on rail equipment except when authorized and in the performance of duty.

4.9 Contractors must not sit, stand, or step on any parts of railroad equipment except when authorized and in the performance of duty.

[End of section]

5 - GENERAL REQUIREMENTS FOR WORKING ON NS PROPERTY

5.1 All Contractors must perform all duties efficiently and safely while on Norfolk Southern property.

5.2 Contractors must notify the designated Norfolk Southern representative as to their whereabouts while performing work on company property, and must not occupy or use Norfolk Southern property outside the limits of the Right of Entry agreement for any purpose.

5.3 Contractors must keep premises and work areas subject to their control neat and clean. Buildings, facilities and equipment must not be defaced.

5.4 When practicable, equipment or material that would obstruct the view of the track must be left at least 300 feet from highway grade crossings.

5.5 All equipment left unattended on railroad property is to be effectively immobilized so that it cannot be moved by unauthorized persons.

5.6 While clearing and grubbing the work site, care must be taken when removing vegetation and material from the railroad embankment slopes with heavy equipment. Work should take place only in accordance with approved work plans and the permission of the designated Norfolk Southern representative.

5.7 Contractors must exercise care to prevent loss by fires. Frequent inspections must be made of the work area, and fire hazards found must be promptly corrected or reported to the proper railroad officer. No burning, welding, heating or use of open flame is permitted without permission of designated Norfolk Southern representative. Also see Sections 7 and 9 of this document.

5.8 No metallic measuring tape, chain, or rope is to be allowed to cross or touch the rails without permission of designated Norfolk Southern representative.

5.9 Motor vehicle operators must reduce speed and sound alarm when approaching persons, doorways, passageways, corners or places where persons are likely to step out.

5.10 Posted speed restrictions must be observed. If speeds are not posted movements must be made a speed that allows for stopping the vehicle in one-half the driver's range of vision.

5.11 If active railway tracks must be crossed by a motor vehicle or equipment, the driver must stop short of the track, turn-off radios, lower windows, look both ways, and not proceed until the way is known to be clear.

5.12 Contractors must comply with all local, state and federal regulations pertaining to worker safety, such as lock-out/tag-out, when working on electrical circuits, machinery, pressure lines, energy storing devices, etc..

5.13 **Standing near or in line with a cable, rope or chain under tension when a pull is being made, or standing under a load, bucket or magnet handled by hoisting equipment, is prohibited.**

5.14 **Contractors must comply with all local, state and federal regulations pertaining to worker safety in regard to confined spaces. Entry must not be allowed unless appropriate steps have been taken in accordance with the contractor's confined space entry program.**

5.15 **Operating any type of internal combustion engine in an enclosed space without adequate ventilation is prohibited.**

5.16 **Climbing or jumping over obstructions or across openings is prohibited. Use authorized paths or routes where provided.**

5.17 **Scuffling, horseplay, practical jokes, and conduct of a similar nature, while on Norfolk Southern property, are prohibited.**

5.18 **Running is prohibited.**

5.19 **Use of handrails on stairs where provided is required.**

5.20 **Smoking including the use of electronic cigarette devices is not permitted in:**

- **All office facilities, including yard offices, reporting locations, division offices, shop facilities.**
- **Company or company-provided vehicles, roadway machines, or on-track equipment.**
- **Locker rooms, restrooms, lunch rooms, or tool rooms**
- **Shop facilities (including non-office work areas)**

5.21 **Contractors should warn those who handle trash for disposal when glass, sharp metal, or pointed objects are placed in trash receptacles. Contractors whose responsibilities include emptying trash receptacles should wear work gloves and expect the presence of glass, sharp metal or pointed objects.**

5.22 **Norfolk *Southern's Four Rules of Environmental Quality* must be complied with while on property;**

1. **Don't Dump, Bury, or Burn any waste.**
2. **Properly dispose of ALL wastes.**
3. **Minimize waste.**
4. **Report and manage all spills.**

5.23 **All excess material, waste, scrap, and miscellaneous trash project generated by contractor is to be removed from Norfolk Southern property at the completion of work.**

5.24 **When requested, contractors are to supply the Material Safety Data Sheet (MSDS) for any chemicals, materials, or other substances being used at the work site.**

[End of section]

6 - REQUIREMENTS FOR TOOL & MACHINERY USAGE

6.1 **Contractors must not use tools, machinery or appliances that are improperly assembled, detective or improvised, nor use them for other than their intended purposes.**

6.1 **Tools, machinery and appliances not in use must be properly protected. Sharp points or edges must not be left exposed. Laying down a power tool with the motor running is prohibited.**

6.2 **Operating machines or appliances without safety guards in proper position is prohibited.**

6.3 **Reaching between, going between, or touching moving belts, chains and cables, or shifting them by hand is prohibited.**

6.4 **Contractor must have a Lock-out/Tag-out program that complies with applicable laws and regulations. Work on equipment, tools, or machinery must be performed in compliance with this program.**

6.5 **Using pneumatic grinding tools not equipped with a speed governor in working and safe order is prohibited.**

6.6 **Pointing pneumatic hammers or other power-actuated tools at a person is prohibited.**

6.7 **Contractors must take care that tools do not fall from scaffolds or other elevated locations.**

6.8 **Contractors must ensure that ladders are in good condition and of adequate length and meet all applicable laws and regulatory guidelines for their use and design. Contractors must ensure that scaffolds are properly constructed or assembled, are strong enough for the load, and meets all applicable laws and regulatory guidelines. Only ladders, scaffolds, man lifts, etc. that meet applicable laws and regulatory guidelines should be used.**

6.9 **Except when on a scaffold with edge barriers or when using a ladder with safety cage, contractors must use fall-protection equipment in accordance with OSHA and FRA regulations when working on;**

- **Towers and masts,**
- **When working on bridges, abutments, or other elevated structures.**
- **On steep hillsides, cliffs, or embankments.**

6.10 **Moving scaffolds or ladders from point to point while people are on them is prohibited.**

6.11 **Leaning out, or reaching out more than an arm's length from edge of ladder, scaffold, or elevated platform or structure is prohibited.**

6.12 **Contractors must maintain adequate clearance between work equipment and energized power lines.**

[End of section]

7 - REQUIREMENTS FOR ELECTRICAL & LINE WORK, HOT WORK, & CONFINED SPACE ENTRY

7.1 Only trained and qualified contractors shall work on electric wires and apparatus, climb poles or towers, enter power plants or energized substation enclosures, perform welding or torch cutting, or perform work in confined spaces. Qualified contractors performing such work must comply with all federal, state and local regulations applicable to such work.

7.2 Before climbing a pole, tower or other structure, contractors must first examine and test it to ensure it will support the weight of individuals working on the pole, tower, or structure. A defective pole must not be climbed until it has been made safe, either by pike poles or lashing it to a new pole in the event of replacement. A defective tower or other structure must be suitably reinforced before it is climbed. When ascending or descending a wooden pole, observe the pole surface and avoid setting climbing gaffs where they come in contact with cracks, holes, knots, or any other obstacles that might cause gaffs to cut out. Before commencing work on wooden poles, assure that gaffs have been recently gauged and are in safe condition for climbing.

7.3 Contractors must not stand, sit, or lean on a cross arm while working on a pole until they are positive that the arm is strong enough to safely support their weight.

7.4 When working on or handling wire, rope, or cable, on curves or at corners, contractors must not place themselves in the inside angle of the curve or corner unless they are properly protected.

7.5 When cutting wire, contractors must take particular care to secure loose ends. Contractors must use care to prevent injury when removing insulation or metal sheeting from wire and cable.

7.6 Use both hands when ascending or descending ladders, poles, or structures. Body belts, shoulder straps, or pockets must be used to carry small tools or material. Hand lines must be used for heavier items.

7.7 Two or more contractors must not climb up or down the same pole at the same time. A contractor following another must wait until the preceding contractor is either in position on the pole with safety belt fastened around the pole, or in the clear at the bottom.

7.8 Contractors are required to have their own hot work permit program that meets applicable laws and regulations.

7.9 Contractors must comply with all local, state and federal regulations pertaining to worker safety in regard to confined space entry. Entry must not be allowed unless appropriate steps have been taken in accordance with the contractor's confined space entry program which must consider and air quality monitoring and emergency evacuation.

[End of section]

8 - REQUIREMENTS FOR CRANES, HOISTS & PULLING EQUIPMENT

8.1 **Contractors must see that capacity of cranes is not exceeded, that outriggers are properly used when required and that hooks, chains, cables, ropes and slings used for hoisting are of the proper size and in condition to handle the load safely.**

8.2 **Before using cranes, pullers, hoists, derricks, or similar equipment, the operator must ensure that the equipment is in safe condition. The contactor must ensure that all applicable laws and regulations pertaining to cranes, hooks, chains, cables, ropes and slings are complied with.**

8.3 **Cables, chains, pulleys, drums, and hooks must be inspected as required by applicable laws and regulations, and brakes and limit switches must be tested periodically as required by applicable laws and regulations to ensure that they are in proper condition and operate as intended. The operator must know the lifting capacity of the equipment.**

8.4 **Warning must be given to alert anyone in or near the path of a moving load or load handling equipment. Movement must stop unless everyone is clear.**

8.5 **Standing near or in line with a cable, rope or chain under tension when a pull is being made, or standing under a load, bucket or magnet handled by hoisting equipment, is prohibited. All machinery used to pull cables or chains must have safety shields.**

8.6 **No crane or boom equipment is allowed within 25 feet of nearest rail without specific permission of the designated Norfolk Southern representative.**

8.7 **No crane, boom equipment, or any part of a suspended load is allowed to foul the vertical plane of the Track Zone (15 feet from centerline of nearest track), or lift a load over a track without permission of the designated Norfolk Southern representative.**

8.8 **All contractors are to stay with their machines when crane or boom equipment is pointed toward track.**

8.9 **All cranes and boom equipment under load (to include pile driving) and other operating equipment within 25 feet of nearest rail must stop work when a train is passing. Other operating equipment may be required to be halted by the designated Norfolk Southern representative if the operation of that equipment is deemed potentially impactful to train passage.**

8.10 **Swinging loads must be secured to prevent movement while train is passing.**

8.11 **No loads are to be suspended above a moving train.**

8.12 **All contractor cranes and boom equipment is to be turned away from track after each work day or whenever equipment is unattended by the operator.**

[End of section]

9 - REQUIREMENTS FOR EMERGENCY RESPONSE PLANNING & WORK SITE FIRE PROTECTION

9.1 EMERGENCY RESPONSE

- Contractors must:
- Know the street address of work site or other identifiable point of reference for the work site.
- Know the contact procedures for the nearest emergency service department serving the work site.
- Have a working means of making contact with emergency services readily available on-site.
- Establish a clear emergency alarm/signal for workers at the work site, identify a planned evacuation route, and a designated a reassembly point.

9.2 FIRE EXTINGUISHERS

- Contractors must:
- Have the appropriate type of device available on-site for the type work being performed.
- Have an appropriate number of devices available for the volume of work being performed.
- Ensure workers know; where the nearest fire extinguisher is located, how to operate it, and what type of fire on which it should be used.

9.3 COMBUSTIBLES

- Combustible material under or near welding, cutting or grinding operations must be moved a safe distance away, or covered with fire retardant material. Where this is not possible, all sparks and slag must be contained in an approved spark catcher.
- Work areas must be orderly and maintained free of trash and scrap material as necessary to help prevent fires.

9.4 FLAMMABLE LIQUIDS & REFUELING

- Smoking or open flames shall not be allowed within 25 feet of areas where fuel is being dispensed.
- Equipment must not be refueled while running or when hot.
- If necessary to transport gasoline or other flammable liquids, contractors must:
  - Use SAFETY CANS bearing Underwriters Laboratories or Factory Mutual logos.
  - Have a fire extinguisher readily available.
  - Maintain ventilation, and
  - Ensure protection against fire.

9.5 FLAMMABLE GAS USAGE & HANDLING

- The use of matches, cigarette lighters, or other open flames to light torches is prohibited. Operator should light his own torch using only a friction spark lighter or hot metal.
- Gas Cylinder valves and regulators must be closed when moving equipment from one area of the work site to another, or when leaving equipment unattended.
- Throwing, dropping or roughly handling loaded or empty oxygen, acetylene or other gas cylinders, or carboys, is prohibited.
- Hoisting gas cylinders without cradle is prohibited. Gas cylinders must not be handled by a magnet.

[End of section]

CONTACT INFORMATION

Norfolk Southern Railroad Police

Network Communication Center
800-453-2530
(Use this number to make emergency notifications of conditions impacting railroad property, the safe passage of trains, or highway at-grade crossing light/gate failures)

RailPros

Designated Administrator & Field Coordinator for NS Pipe & Wireline Occupancy Program
833-315-0594

Norfolk Southern Real Estate Department

System Manager Property Services
404-962-5653

Norfolk Southern Engineering Department

Chief Engineer - Design & Construction
404-529-1221

System Manager Utility Engineering
404-962-5542

Norfolk Southern Safety & Environmental Department

404-582-5374

Project Specific Contact Information (should be completed by Contractor)

Project Name: _____

Project Owner: _____

Project Location: _____ **R.R. MP:** _____

Designated Norfolk Southern Representative(s)

NAME: _____

CONTACT NUMBER: _____

ENVIRONMENTAL PERMITTING

NATIONWIDE SECTION 404 PERMIT REQUIREMENTS

The storm sewer outfalls to the Illinois River included with this project is authorized under a Section 404 Nationwide Permit, provided all terms and conditions of the Nationwide Permit and any special conditions outlined in the Corps of Engineers' verification letter are met. A copy of the permit should be included within these special provisions. If they are not, a copy of these can be requested from the Department.

The Contractor will not be allowed to complete the work using any in-stream access fill, cofferdams, or causeways unless shown on the plans or unless the proper permits are acquired by the Contractor for these activities. In addition, delineated wetlands in the area of the proposed storm sewer outlet and as shown on the plans should not be disturbed outside of identified construction areas. Wetland areas to remain undisturbed are to be identified in the field by installing temporary fencing or other appropriate markers to notify all workers. Temporarily disturbed wetland areas are to be returned to pre-construction contours and conditions following construction completion and seeded with a native wetland seed mix. The existing permit may be amended to include these activities once the contractor determines the plan for completion of the work and it is submitted to the Department for submission to the Corps of Engineers'. The Department will not be held responsible for any delays incurred due to acquisition of additional permits or amending the existing permit. Determination of allowable methods for completion of this work under the current permit can be obtained from the Corps of Engineers.

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, ROCK ISLAND DISTRICT
PO BOX 2004 CLOCK TOWER BUILDING
ROCK ISLAND, ILLINOIS 61204-2004

REPLY TO
ATTENTION OF

March 29, 2022

Regulatory Division

SUBJECT: CEMVR-RD-2021-0348

Mr. Craig Shonkwiler
City of Bloomington
115 East Washington Street
Bloomington, Illinois 61702

Dear Mr. Shonkwiler:

Our office has reviewed your application received March 1, 2021, concerning the proposed extension of Hamilton Road and associated roadway improvements located in Section 15, Township 23 North, Range 2 East, McLean County, Illinois.

Your project is authorized under Nationwide Permit No. 14, provided you meet the Nationwide Permit terms and conditions which are contained in the enclosed Fact Sheet No. 9(IL) including the Illinois Regional Conditions, the Section 401 Water Quality Certification issued by the Illinois Environmental Protection Agency which is included in the Fact Sheet, and any special conditions that have been included in this nationwide permit verification letter. The IL DOT has made a determination of no effect to threatened and endangered species. The decision regarding this action is based on information found in the administrative record, which documents the District's decision-making process, the basis for the decision, and the final decision.

Please contact our office if the project plans change and there are different impacts caused by dredged or fill material into Corps' regulated waters. This may require modification of your Department of the Army 404 authorization.

This verification is valid until March 14, 2026, unless the nationwide permit is modified, reissued or revoked. It is your responsibility to remain informed of changes to the nationwide permit program. We will issue a public notice announcing any changes if and when they occur. Furthermore, if you commence or are under contract to commence this activity before the date the nationwide permit is modified or revoked, you will have twelve months from this date to complete your activity under the present terms and conditions of this nationwide permit.

This authorization does not eliminate the requirement that you must still obtain other applicable Federal, state, and local permits. If you have not already coordinated your project with the ILDNR, please contact them by telephone 217/782-6302 to determine if a floodplain development permit is required for your project. Also contact the IDNR at 217/785-5500 or https://dnr2.illinois.gov/EcoPublic/ to consult on potential impacts to state listed species or other state protected natural resources. You may contact the IEPA Facility Evaluation Unit at 217/782-3397 to determine whether additional authorizations are required from the IEPA. Please send any electronic correspondence to EPA.401.bow@illinois.gov.

You are required to complete and return the enclosed "Completed Work Certification" form upon completion of your project in accordance with General Condition No. 30 of the nationwide permits.

Should you have any questions, please contact our Regulatory Division by letter, or telephone Wendy Frohlich at 309/794-5674.

Sincerely,

Wendy Frohlich
Project Manager, Eastern Branch
Regulatory Division

When the structure(s) or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s), of the property. To validate the transfer of this nationwide permit and the liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

_____ _____

Transferee Date

Copies Furnished:

w/o enclosures:

Mr. Darin LeCrone, P.E.
Division of Water Pollution Control
Illinois Environmental Protection Agency
1021 North Grand Avenue East
Springfield, Illinois 62794-9276
darin.lecrone@Illinois.gov (email)

Mr. Preston Marucco
Hanson Professional Services Inc.
1525 South Sixth Street
Springfield, Illinois 62703
pmarucco@hanson-inc.com (email)

Mr. William Milner, P.E.
Section Chief - Downstate Regulatory Programs
Illinois Department of Natural Resources
Office of Water Resources
1 Natural Resources Way
Springfield, Illinois 62702
bill.milner@illinois.gov (email)

COMPLETED WORK CERTIFICATION

Permit Number: CEMVR-RD-2021-0348

Name of Permittee: Craig Shonkwiler (City of Bloomington)

County/State: McLean / Illinois

Date of Issuance: March 29, 2022

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

U.S. Army Engineer District, Rock Island
ATTN: Regulatory Division
Clock Tower Building
Post Office Box 2004
Rock Island, Illinois 61204-2004

Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above reference permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

_____ _____

Signature of Permittee Date

WF

FACT SHEET NO. 9(IL)

US Army Corps of Engineers
Rock Island District

NATIONWIDE PERMITS IN ILLINOIS

EFFECTIVE DATE: February 25, 2022

On January 13, 2021, the U.S. Army Corps of Engineers (Corps)published a final rule in the Federal Register (86 FR 2744) for the Nationwide Permits Program under the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and the Marine Protection, Research and Sanctuaries Act. This final rule announced the reissuance of 12 existing nationwide permits (NWPs) and four new NWPs, as well as the reissuance of NWP general conditions and definitions with some modifications. These 16 Nationwide Permits became effective on **March 15, 2021,** and will expire on **March 14, 2026:**

- NWP 12 – Oil or Natural Gas Pipeline Activities
- NWP 21 – Surface Coal Mining Activities
- NWP 29 – Residential Developments
- NWP 39 – Commercial and Institutional Developments
- NWP 40 – Agricultural Activities
- NWP 42 – Recreational Facilities
- NWP 43 – Stormwater Management Facilities
- NWP 44 – Mining Activities
- NWP 48 – Commercial Shellfish Mariculture Activities
- NWP 50 – Underground Coal Mining Activities
- NWP 51 – Land-Based Renewable Energy Generation Facilities
- NWP 52 – Water-Based Renewable Energy Generation Pilot Projects
- NWP 55 – Seaweed Mariculture Activities
- NWP 56 – Finfish Mariculture Activities
- NWP 57 – Electric Utility Line and Telecommunications Activities
- NWP 58 – Utility Line Activities for Water and Other Substances

On December 27, 2021, the U.S. Army Corps of Engineers (Corps) published a final rule in the Federal Register (86 FR 245) for the Nationwide Permits Program under the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act, and the Marine Protection, Research and Sanctuaries Act. In this final rule, the Corps is reissuing the remaining 40 existing NWPs and issuing the remaining one new NWP. The NWP general conditions and definitions published in the January 13, 2021, issue of the Federal Register apply to the 41 NWPs reissued or issued in the December 27, 2021 final rule.

The 41 NWPs in this final rule (listed below) go into effect on **February 25, 2022.** The 41 NWPs in this final rule expire on **March 14, 2026.**

1. Aids to Navigation
2. Structures in Artificial Canals
3. Maintenance
4. Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities
5. Scientific Measurement Devices
6. Survey Activities
7. Outfall Structures and Associated Intake Structures
8. Oil and Gas Structures on the Outer Continental Shelf
9. Structures in Fleeting and Anchorage Areas
10. Mooring Buoys
11. Temporary Recreational Structures
13. Bank Stabilization
14. Linear Transportation Projects
15. U.S. Coast Guard Approved Bridges
16. Return Water from Upland Contained Disposal Areas
17. Hydropower Projects
18. Minor Discharges
19. Minor Dredging
20. Response Operations for Oil or Hazardous Substances
22. Removal of Vessels
23. Approved Categorical Exclusions
24. Indian Tribe or State Administered Section 404 Programs
25. Structural Discharges
27. Aquatic Habitat Restoration, Establishment, and Enhancement Activities
28. Modifications of Existing Marinas
30. Moist Soil Management for Wildlife
31. Maintenance of Existing Flood Control Facilities
32. Completed Enforcement Actions
33. Temporary Construction, Access, and Dewatering
34. Cranberry Production Activities

35. Maintenance Dredging of Existing Basins
36. Boat Ramps
37. Emergency Watershed Protection and Rehabilitation
38. Cleanup of Hazardous and Toxic Waste
41. Reshaping Existing Drainage Ditches
45. Repair of Uplands Damaged by Discrete Events
46. Discharges in Ditches
49. Coal Remining Activities
53. Removal of Low-Head Dams
54. Living Shorelines
59. Water Reclamation and Reuse Facilities

The Nationwide Permit Program is an integral part of the Corps' Regulatory Program. The Nationwide Permits are a form of general permits issued by the Chief of Engineers and are intended to apply throughout the entire United States and its territories. A listing of the 16 nationwide permits and general conditions is included herein. We encourage prospective permit applicants to consider the advantages of nationwide permit authorization during the preliminary design of their projects. Assistance and further information regarding all aspects of the Corps of Engineers Regulatory Program may be obtained by contacting the appropriate Corps of Engineers District at the address and/or telephone number listed on page 2 of this Fact Sheet.

Regional Conditions: To ensure that projects authorized by a Nationwide Permit will result in minimal adverse effects to the aquatic environment, the following **Regional Conditions** were developed for projects proposed within the state of Illinois:

1) For NWP 12, 57, and 58: pre-construction notification is required in accordance with General Condition 32 for the following activities; (a) activities that involve mechanized land clearing in a forested wetland for the utility line right-of-way; (b) utility lines placed within, and parallel to or along a jurisdictional stream bed.

2) For Nationwide Permit 14, all proposed projects that result in the loss of greater than 300 linear feet of streambed located within Waters of the U.S., requires a Pre-Construction Notice in accordance with General Condition No. 32.

3) Any bank stabilization activity involving a method that protrudes from the bank contours, such as jetties, stream barbs, and/or weirs, will require a pre-construction notification in accordance with General Condition 32.

State Water Quality Certification: Permits, issued by the Corps of Engineers, under the authority of Section 404 of the Clean Water Act may not be issued until the state (where the discharge will occur) certifies, under Section 401 of the Clean Water Act, that the discharge will comply with the water quality standards of the State. On October 8, 2021, the Illinois Environmental Protection Agency (IEPA) issued their final Section 401 Water Quality Certification decision for the 2021 Nationwide Permits. Of the original 16 NWPs authorized on March 15, 2021, Water Quality Certification was issued with Special Conditions for NWP 12, 29, 39, 40, 42, 43, 51, 52, 57 and 58. Of the additional 40 NWPS authorized on February 25, 2022, Water Quality Certification was issued with Special Conditions for 3, 4, 5, 6, 7, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 25, 27, 29, 30, 31, 32, 33, 36, 37, 38, 39, 40, 41, 42, 43, 45, 51, 52, 53, 54, 57, and 58.

The full text of the IEPA Water Quality Certification is available on the Rock Island District Regulatory website at:
https://www.mvr.usace.army.mil/Portals/48/docs/regulatory/Permits/NW-IL/IL%20401%20WQC.pdf?ver=u4N4MpokxjrcVeQ4hGzhzw%3d%3d

Nationwide Permits 21, 34, 44, 46, 48, 49, 50, 59 have been denied Section 401 Water Quality Certification and will require Individual certification from IEPA. New Permits 55 and 56 were not denied nor granted and therefore water quality certification in Illinois will be waived (though the Illinois Corps' Districts cannot foresee their utilization).

The following NWPs require notification to the District Engineer 45-days prior to commencing work in Waters of the U.S.:

- 7, 8, 17, 21, 29, 31, 34, 37, 38, 39, 40, 42, 44, 45, 46, 49, 50, 52, 53, 55, 56, 59

The following NWPs, under certain circumstances, require notification to the District Engineer 45-days prior to commencing work in Waters of the U.S.:

- 3, 12, 13, 14, 18, 22, 23, 27, 33, 36, 43, 48, 51, 54, 57, 58

The following NWPs do not require notification to the District Engineer:

- 1, 2, 4, 5, 6, 9, 10, 11, 15, 16, 19, 20, 24, 25, 28, 30, 32, 35, 41

Specific instructions for these notifications are contained in Nationwide Permit General Condition 32.

COMMENTS

The Nationwide permits provide a simplified, expeditious means of project authorization under the various authorities of the Corps of Engineers. We encourage prospective permit applicants to consider the advantages of nationwide permit authorization during the preliminary design of their projects. Assistance and further information regarding all aspects of the Corps of Engineers Regulatory Program may be obtained by contacting the appropriate Corps of Engineers District in Illinois: The Rock Island District, St. Louis Regulatory District, Chicago Regulatory District, Louisville Regulatory District, and Memphis Regulatory District.

US Army Engineer District, Rock Island
Clock Tower Building – Regulatory Division
Post Office Box 2004
Rock Island, Illinois 61204-2004

US Army Corps of Engineers, St. Louis District
ATTN: Regulatory Branch
1222 Spruce St.
St. Louis, MO 63103-2833

U.S. Army Corps of Engineers, Chicago District
ATTN: Regulatory Branch
111 North Canal, Suite 600
Chicago, IL 60606-7206

U.S. Army Corps of Engineers,
Louisville District
ATTN: Regulatory Division
P.O. BOX 59
Louisville, KY 40201-0059

U.S. Army Corps of Engineers, Memphis District
ATTN: Regulatory Branch
167 North Main, B-202
Memphis, TN 38103-1894

Nationwide Permits and Conditions

The following is a list of the nationwide permits, authorized by the Chief of Engineers, and published in the Federal Register (86 FR 2744). Permittees wishing to conduct activities under the nationwide permits must comply with the Nationwide Permit General Conditions found in Section C and contained within this Fact Sheet.The parenthetical references (Section 10, Section 404) following each nationwide permit indicate specific authorities under which that permit is issued.

B. Nationwide Permits

1. Aids to Navigation. The placement of aids to navigation and regulatory markers that are approved by and installed in accordance with the requirements of the U.S. Coast Guard (see 33 CFR, chapter I, subchapter C, part 66). (Authority: Section 10 of the Rivers and Harbors Act of 1899 (Section 10))

2. Structures in Artificial Canals. Structures constructed in artificial canals within principally residential developments where the connection of the canal to a navigable water of the United States has been previously authorized (see 33 CFR 322.5(g)). (Authority: Section 10)

3. Maintenance.

(a) The repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, requirements of other regulatory agencies, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement are authorized. This NWP also authorizes the removal of previously authorized structures or fills. Any stream channel modification is limited to the minimum necessary for the repair, rehabilitation, or replacement of the structure or fill; such modifications, including the removal of material from the stream channel, must be immediately adjacent to the project. This NWP also authorizes the removal of accumulated sediment and debris within, and in the immediate vicinity of, the structure or fill. This NWP also authorizes the repair, rehabilitation, or replacement of those structures or fills destroyed or damaged by storms, floods, fire or other discrete events, provided the repair, rehabilitation, or replacement is commenced, or is under contract to commence, within two years of the date of their destruction or damage. In cases of catastrophic events, such as hurricanes or tornadoes, this two-year limit may be waived by the district engineer, provided the permittee can demonstrate funding, contract, or other similar delays.

(b) This NWP also authorizes the removal of accumulated sediments and debris outside the immediate vicinity of existing structures (e.g., bridges, culverted road crossings, water intake structures, etc.). The removal of sediment is limited to the minimum necessary to restore the waterway in the vicinity of the structure to the approximate dimensions that existed when the structure was built but cannot extend farther than 200 feet in any direction from the structure. This 200-foot limit does not apply to maintenance dredging to remove accumulated sediments blocking or restricting outfall and intake structures or to maintenance dredging to remove accumulated sediments from canals associated with outfall and intake structures. All dredged or excavated materials must be deposited and retained in an area that has no waters of the United States unless otherwise specifically

approved by the district engineer under separate authorization.

(c) This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the maintenance activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After conducting the maintenance activity, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

(d) This NWP does not authorize maintenance dredging for the primary purpose of navigation. This NWP does not authorize beach restoration. This NWP does not authorize new stream channelization or stream relocation projects.

Notification: For activities authorized by paragraph (b) of this NWP, the permittee must submit a pre-construction notification to the district engineer prior to commencing the activity (see general condition 32). The pre-construction notification must include information regarding the original design capacities and configurations of the outfalls, intakes, small impoundments, and canals. (Authorities: Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act (Sections 10 and 404))

Note: This NWP authorizes the repair, rehabilitation, or replacement of any previously authorized structure or fill that does not qualify for the Clean Water Act Section 404(f) exemption for maintenance.

4. Fish and Wildlife Harvesting, Enhancement, and Attraction Devices and Activities. Fish and wildlife harvesting devices and activities such as pound nets, crab traps, crab dredging, eel pots, lobster traps, duck blinds, and clam and oyster digging, fish aggregating devices, and small fish attraction devices such as open water fish concentrators (sea kites, etc.). This NWP does not authorize artificial reefs or impoundments and semi-impoundments of waters of the United States for the culture or holding of motile species such as lobster, or the use of covered oyster trays or clam racks. (Authorities: Sections 10 and 404)

5. Scientific Measurement Devices. Devices, whose purpose is to measure and record scientific data, such as staff gages, tide and current gages, meteorological stations, water recording and biological observation devices, water quality testing and improvement devices, and similar structures. Small weirs and flumes constructed primarily to record water quantity and velocity are also authorized provided the discharge of dredged or fill material is limited to 25 cubic yards. Upon completion of the use of the device to measure and record scientific data, the measuring device and any other structures or fills associated with that device (e.g., foundations, anchors, buoys, lines, etc.) must be removed to the maximum extent practicable and the site restored to pre-construction elevations. (Authorities: Sections 10 and 404)

6. Survey Activities. Survey activities, such as core sampling, seismic exploratory operations, plugging of seismic shot holes and other exploratory type bore holes, exploratory trenching, soil surveys, sampling, sample plots or transects for wetland delineations, and historic resources surveys. For the purposes of this NWP, the term "exploratory trenching" means mechanical land clearing of the upper soil profile to expose bedrock or substrate, for the purpose of mapping or sampling the exposed material. The area in which the exploratory trench is dug must be restored to its pre-construction elevation upon completion of the work and must not drain a water of the United States. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. This NWP authorizes the construction of temporary pads, provided the discharge of dredged or fill material does not exceed 1/10-acre in waters of the U.S. Discharges of dredged or fill material and structures associated with the recovery of historic resources are not authorized by this NWP. Drilling and the discharge of excavated material from test wells for oil and gas exploration are not authorized by this NWP; the plugging of such wells is authorized. Fill placed for roads and other similar activities is not authorized by this NWP. The NWP does not authorize any permanent structures. The discharge of drilling mud and cuttings may require a permit under Section 402 of the Clean Water Act. (Authorities: Sections 10 and 404)

7. Outfall Structures and Associated Intake Structures. Activities related to the construction or modification of outfall structures and associated intake structures, where the effluent from the outfall is authorized, conditionally authorized, or specifically exempted by, or otherwise in compliance with regulations issued under the National Pollutant Discharge Elimination System Program (Section 402 of the Clean Water Act). The construction of intake structures is not authorized by this NWP unless they are directly associated with an authorized outfall structure.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authorities: Sections 10 and 404)

8. Oil and Gas Structures on the Outer Continental Shelf. Structures for the exploration, production, and transportation of oil, gas, and minerals on the outer continental shelf within areas leased for such purposes by the Department of the Interior, Bureau of Ocean Energy Management. Such structures shall not be placed within the limits of any designated shipping

safety fairway or traffic separation scheme, except temporary anchors that comply with the fairway regulations in 33 CFR 322.5(l). The district engineer will review such proposals to ensure compliance with the provisions of the fairway regulations in 33 CFR 322.5(l). Any Corps review under this NWP will be limited to the effects on navigation and national security in accordance with 33 CFR 322.5(f), as well as 33 CFR 322.5(l) and 33 CFR part 334. Such structures will not be placed in established danger zones or restricted areas as designated in 33 CFR part 334, nor will such structures be permitted in EPA or Corps-designated dredged material disposal areas.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authority: Section 10)

9. Structures in Fleeting and Anchorage Areas. Structures, buoys, floats, and other devices placed within anchorage or fleeting areas to facilitate moorage of vessels where such areas have been established for that purpose. (Authority: Section 10)

10. Mooring Buoys. Non-commercial, single boat, mooring buoys. (Authority: Section 10)

11. Temporary Recreational Structures. Temporary buoys, markers, small floating docks, and similar structures placed for recreational use during specific events such as water-skiing competitions and boat races or seasonal use, provided that such structures are removed within 30 days after use has been discontinued. At Corps of Engineers reservoirs, the reservoir managers must approve each buoy or marker individually. (Authority: Section 10)

12. Oil or Natural Gas Pipeline Activities. Activities required for the construction, maintenance, repair, and removal of oil and natural gas pipelines and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2-acre of waters of the United States for each single and complete project.

Oil or natural gas pipelines: This NWP authorizes discharges of dredged or fill material into waters of the United States and structures or work in navigable waters for crossings of those waters associated with the construction, maintenance, or repair of oil and natural gas pipelines. There must be no change in pre-construction contours of waters of the United States. An "oil or natural gas pipeline" is defined as any pipe or pipeline for the transportation of any form of oil or natural gas, including products derived from oil or natural gas, such as gasoline, jet fuel, diesel fuel. heating oil, petrochemical feedstocks, waxes, lubricating oils, and asphalt.

Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.

Oil or natural gas pipeline substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities (e.g., oil or natural gas or gaseous fuel custody transfer stations, boosting stations, compression stations, metering stations, pressure regulating stations) associated with an oil or natural gas pipeline in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2-acre of waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

Foundations for above-ground oil or natural gas pipelines: This NWP authorizes the construction or maintenance of foundations for above-ground oil or natural gas pipelines in all waters of the United States, provided the foundations are the minimum size necessary.

Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of oil or natural gas pipelines, in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize oil or natural gas pipelines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (see 33 CFR part 322). Oil or natural gas pipelines routed in, over, or under section 10 waters without a discharge of dredged or fill material may require a section 10 permit.

This NWP authorizes, to the extent that Department of the Army authorization is required, temporary structures, fills, and work necessary for the remediation of inadvertent returns of drilling fluids to waters of the United States through sub- soil fissures or fractures that might occur during horizontal directional drilling activities conducted for the purpose of installing or replacing oil or natural gas pipelines. These remediation activities must be done as soon as practicable, to restore the affected waterbody. District engineers may add special conditions to this NWP to require a remediation plan for addressing inadvertent returns of drilling fluids to waters of the United States during horizontal directional drilling activities conducted for the purpose of installing or replacing oil or natural gas pipelines.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the oil or natural gas pipeline activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fillmaterial, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After construction, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) a section 10 permit is required; (2) the discharge will result in the loss of greater than 1/10-acre of waters of the United States; or (3) the proposed oil or natural gas pipeline activity is associated with an overall project that is greater than 250 miles in length and the project purpose is to install new pipeline (vs. conduct repair or maintenance activities) along the majority of the distance of the overall project length. If the proposed oil or gas pipeline is greater than 250 miles in length, the pre- construction notification must include the locations and proposed impacts (in acres or other appropriate unit of measure) for all crossings of waters of the United States that require DA authorization, including those crossings authorized by an NWP would not otherwise require pre-construction notification. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: Where the oil or natural gas pipeline is constructed, installed, or maintained in navigable waters of the United States (i.e., section 10 waters) within the coastal United States, the Great Lakes, and United States territories, a copy of the NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the oil or natural gas pipeline to protect navigation.

Note 2: For oil or natural gas pipeline activities crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Oil or natural gas pipeline activities must comply with 33 CFR 330.6(d).

Note 3: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the oil or natural gas pipeline must be removed upon completion of the work, in accordance with the requirements for temporary fills.

Note 4: Pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the United States are considered to be bridges and may require a permit from the U.S. Coast Guard pursuant to the General Bridge Act of 1946. However, any discharges of dredged or fill material into waters of the United States associated with such oil or natural gas pipelines will require a section 404 permit (see NWP 15).

Note 5: This NWP authorizes oil or natural gas pipeline maintenance and repair activities that do not qualify for the Clean Water Act section 404(f) exemption for maintenance of currently serviceable fills or fill structures.

Note 6: For NWP 12 activities that require pre-construction notification, the PCN must include anyother NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b)(4) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

13. Bank Stabilization. Bank stabilization activities necessary for erosion control or prevention, such as vegetative stabilization, bioengineering, sills, rip rap, revetment, gabion baskets, stream barbs, and bulkheads, or combinations of bank stabilization techniques, provided the activity meets all of the following criteria:

(a) No material is placed in excess of the minimum needed for erosion protection.

(b) The activity is no more than 500 feet in length along the bank, unless the district engineer waives this criterion by making a written determination concluding that the

discharge of dredged or fill material will result in no more than minimal adverse environmental effects (an exception is for bulkheads – the district engineer cannot issue a waiver for a bulkhead that is greater than 1,000 feet in length along the bank);

(c) The activity will not exceed an average of one cubic yard per running foot, as measured along the length of the treated bank, below the plane of the ordinary high-water mark or the high tide line, unless the district engineer waives this criterion by making a written determination concluding that the discharge of dredged or fill material will result in no more than minimal adverse environmental effects;

(d) The activity does not involve discharges of dredged or fill material into special aquatic sites, unless the district engineer waives this criterion by making a written determination concluding that the discharge of dredged or fill material will result in no more than minimal adverse environmental effects;

(e) No material is of a type, or is placed in any location, or in any manner, that will impair surface water flow into or out of any waters of the United States;

(f) No material is placed in a manner that will be eroded by normal or expected high flows (properly anchored native trees and treetops may be used in low energy areas);

(g) Native plants appropriate for current site conditions, including salinity, must be used for bioengineering or vegetative bank stabilization;

(h) The activity is not a stream channelization activity; and

(i) The activity must be properly maintained, which may require repairing it after severe storms or erosion events. This NWP authorizes those maintenance and repair activities if they require authorization.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the bank stabilization activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After construction, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if the bank stabilization activity: (1) involves discharges of dredged or fill material into special aquatic sites; or (2) is in excess of 500 feet in length; or (3) will involve the discharge of dredged or fill material of greater than an average of one cubic yard per running foot as measured along the length of the treated bank, below the plane of the ordinary high water mark or the high tide line. (See general condition 32.) (Authorities: Sections 10 and 404)

Note: In coastal waters and the Great Lakes, living shorelines may be an appropriate option for bank stabilization, and may be authorized by NWP 54.

14. Linear Transportation Projects. Activities required for crossings of waters of the United States associated with the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, driveways, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to construct the linear transportation project. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

Notification*:* The permittee must submit a pre-construction notification to the district engineer

prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10-acre; or (2) there is a discharge of dredged or fill material in a special aquatic site, including wetlands. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: For linear transportation projects crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Linear transportation projects must comply with 33 CFR 330.6(d).

Note 2: Some discharges of dredged or fill material for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under Section 404(f) of the Clean Water Act (see 33 CFR 323.4).

Note 3: For NWP 14 activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b)(4) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

15. U.S. Coast Guard Approved Bridges. Discharges of dredged or fill material incidental to the construction of a bridge across navigable waters of the United States, including cofferdams, abutments, foundation seals, piers, and temporary construction and access fills, provided the construction of the bridge structure has been authorized by the U.S. Coast Guard under Section 9 of the Rivers and Harbors Act of 1899 or other applicable laws. Causeways and approach fills are not included in this NWP and will require a separate Clean Water Act Section 404 permit. (Authority: Section 404 of the Clean Water Act (Section 404))

16. Return Water from Upland Contained Disposal Areas. Return water from an upland contained dredged material disposal area. The return water from a contained disposal area is administratively defined as a discharge of dredged material by 33 CFR 323.2(d), even though the disposal itself occurs in an area that has no waters of the United States and does not require a section 404 permit. This NWP satisfies the technical requirement for a section 404 permit for the return water where the quality of the return water is controlled by the state through the Clean Water Act Section 401 certification procedures. The dredging activity may require a section 404 permit (33 CFR 323.2(d)) and will require a section 10 permit if located in navigable waters of the United States. (Authority: Section 404)

17. Hydropower Projects. Discharges of dredged or fill material associated with hydropower projects having: (a) Less than 10,000 kW of total generating capacity at existing reservoirs, where the project, including the fill, is licensed by the Federal Energy Regulatory Commission (FERC) under the Federal Power Act of 1920, as amended; or (b) a licensing exemption granted by the FERC pursuant to Section 408 of the Energy Security Act of 1980 (16 U.S.C. 2705 and 2708) and Section 30 of the Federal Power Act, as amended.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authority: Section 404)

18. Minor Discharges. Minor discharges of dredged or fill material into all waters of the United States, provided the activity meets all of the following criteria:

(a) The quantity of discharged dredged or fill material and the volume of area excavated do not exceed 25 cubic yards below the plane of the ordinary high water mark or the high tide line;

(b) The discharge of dredged or fill material will not cause the loss of more than 1/10-acre of waters of the United States; and

(c) The discharge of dredged or fill material is not placed for the purpose of a stream diversion.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the discharge of dredged or fill material or the volume of area excavated exceeds 10 cubic yards below the plane of the ordinary high water mark or the high tide line, or (2) the discharge of dredged or fill material is in a special aquatic site, including wetlands. (See general condition 32.) (Authorities: Sections 10 and 404)

19. Minor Dredging. Dredging of no more than 25 cubic yards below the plane of the ordinary high water mark or the mean high water mark from navigable waters of the United States (i.e., section 10 waters). This NWP does not authorize the dredging or degradation through siltation of coral reefs, sites that support submerged aquatic vegetation (including sites where submerged aquatic vegetation is documented to exist but may not be present in a given year), anadromous fish spawning areas, or wetlands, or the connection of canals or other artificial waterways to navigable waters of the United States (see 33 CFR 322.5(g)). All dredged material must be deposited and retained in an area

that has no waters of the United States unless otherwise specifically approved by the district engineer under separate authorization. (Authorities: Sections 10 and 404)

20. Response Operations for Oil or Hazardous Substances. Activities conducted in response to a discharge or release of oil or hazardous substances that are subject to the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR part 300) including containment, cleanup, and mitigation efforts, provided that the activities are done under either: (1) the Spill Control and Countermeasure Plan required by 40 CFR 112.3; (2) the direction or oversight of the federal on-scene coordinator designated by 40 CFR part 300; or (3) any approved existing state, regional or local contingency plan provided that the Regional Response Team (if one exists in the area) concurs with the proposed response efforts. This NWP also authorizes activities required for the cleanup of oil releases in waters of the United States from electrical equipment that are governed by EPA's polychlorinated biphenyl spill response regulations at 40 CFR part 761. This NWP also authorizes the use of temporary structures and fills in waters of the U.S. for spill response training exercises. (Authorities: Sections 10 and 404)

21. Surface Coal Mining Activities. Discharges of dredged or fill material into waters of the United States associated with surface coal mining and reclamation operations, provided the following criteria are met:

(a) The activities are already authorized, or are currently being processed by states with approved programs under Title V of the Surface Mining Control and Reclamation Act of 1977 or by the Department of the Interior, Office of Surface Mining Reclamation and Enforcement;

(b) The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges of dredged or fill material into tidal waters or non-tidal wetlands adjacent to tidal waters; and

(c) The discharge is not associated with the construction of valley fills. A "valley fill" is a fill structure that is typically constructed within valleys associated with steep, mountainous terrain, associated with surface coal mining activities.

Notification: The permittee must submit a pre-construction notification to the district engineer. (See general condition 32.) (Authorities: Sections 10 and 404)

22. Removal of Vessels. Temporary structures or minor discharges of dredged or fill material required for the removal of wrecked, abandoned, or disabled vessels, or the removal of man-made obstructions to navigation. This NWP does not authorize maintenance dredging, shoal removal, or riverbank snagging.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the vessel is listed or eligible for listing in the National Register of Historic Places; or (2) the activity is conducted in a special aquatic site, including coral reefs and wetlands. (See general condition 32.) If the vessel is listed or eligible for listing in the National Register of Historic Places, the permittee cannot commence the activity until informed by the district engineer that compliance with the "Historic Properties" general condition is completed. (Authorities: Sections 10 and 404)

Note 1: Intentional Ocean disposal of vessels at sea requires a permit from the U.S. EPA under the Marine Protection, Research and Sanctuaries Act, which specifies that ocean disposal should only be pursued when land-based alternatives are not available. If a Department of the Army permit is required for vessel disposal in waters of the United States, separate authorization will be required.

Note 2: Compliance with general condition 18, Endangered Species, and general condition 20, Historic Properties, is required for all NWPs. The concern with historic properties is emphasized in the notification requirements for this NWP because of the possibility that shipwrecks may be historic properties

23. Approved Categorical Exclusions. Activities undertaken, assisted, authorized, regulated, funded, or financed, in whole or in part, by another Federal agency or department where:

(a) That agency or department has determined, pursuant to the Council on Environmental Quality's implementing regulations for the National Environmental Policy Act (40 CFR part 1500 et seq.), that the activity is categorically excluded from the requirement to prepare an environmental impact statement or environmental assessment analysis, because it is included within a category of actions which neither individually nor cumulatively have a significant effect on the human environment; and

(b) The Office of the Chief of Engineers (Attn: CECW-CO) has concurred with that agency's or department's determination that the activity is categorically excluded and approved the activity for authorization under NWP 23.

The Office of the Chief of Engineers may require additional conditions, including pre-construction notification, for authorization of an agency's categorical exclusions under this

NWP.

Notification: Certain categorical exclusions approved for authorization under this NWP require the permittee to submit a pre-construction notification to the district engineer prior to commencing the activity (see general condition 32). The activities that require pre-construction notification are listed in the appropriate Regulatory Guidance Letter(s). (Authorities: Sections 10 and 404)

Note: The agency or department may submit an application for an activity believed to be categorically excluded to the Office of the Chief of Engineers (Attn: CECW-CO). Prior to approval for authorization under this NWP of any agency's activity, the Office of the Chief of Engineers will solicit public comment. As of the date of issuance of this NWP, agencies with approved categorical exclusions are: the Bureau of Reclamation, Federal Highway Administration, and U.S. Coast Guard. Activities approved for authorization under this NWP as of the date of this notice are found in Corps Regulatory Guidance Letter 05-07. Any future approved categorical exclusions will be announced in Regulatory Guidance Letters and posted on this same web site.

24. Indian Tribe or State Administered Section 404 Programs. Any activity permitted by a state or Indian Tribe administering its own section 404 permit program pursuant to 33 U.S.C. 1344(g)-(l) is permitted pursuant to Section 10 of the Rivers and Harbors Act of 1899. (Authority: Section 10)

Note 1: As of the date of the promulgation of this NWP, only Florida, New Jersey and Michigan administer their own Clean Water Act Section 404 permit programs.

Note 2: Those activities that do not involve an Indian Tribe or State Clean Water Act Section 404 permit are not included in this NWP, but certain structures will be exempted by Section 154 of Pub. L. 94-587, 90 Stat. 2917 (33 U.S.C. 591) (see 33 CFR 322.4(b)).

25. Structural Discharges. Discharges of dredged or fill material such as concrete, sand, rock, etc., into tightly sealed forms or cells where the material will be used as a structural member for standard pile supported structures, such as bridges, transmission line footings, and walkways, or for general navigation, such as mooring cells, including the excavation of bottom material from within the form prior to the discharge of concrete, sand, rock, etc. This NWP does not authorize filled structural members that would support buildings, building pads, homes, house pads, parking areas, storage areas and other such structures. The structure itself may require a separate section 10 permit if located in navigable waters of the United States. (Authority: Section 404)

26. [Reserved]

27. Aquatic Habitat Restoration, Enhancement, and Establishment Activities. Activities in waters of the United States associated with the restoration, enhancement, and establishment of tidal and non-tidal wetlands and riparian areas, the restoration and enhancement of non-tidal streams and other non-tidal open waters, and the rehabilitation or enhancement of tidal streams, tidal wetlands, and tidal open waters, provided those activities result in net increases in aquatic resource functions and services.

To be authorized by this NWP, the aquatic habitat restoration, enhancement, or establishment activity must be planned, designed, and implemented so that it results in aquatic habitat that resembles an ecological reference. An ecological reference may be based on the characteristics of one or more intact aquatic habitats or riparian areas of the same type that exist in the region. An ecological reference may be based on a conceptual model developed from regional ecological knowledge of the target aquatic habitat type or riparian area.

To the extent that a Corps permit is required, activities authorized by this NWP include, but are not limited to the removal of accumulated sediments; releases of sediment from reservoirs to maintain sediment transport continuity to restore downstream habitats; the installation, removal, and maintenance of small water control structures, dikes, and berms, as well as discharges of dredged or fill material to restore appropriate stream channel configurations after small water control structures, dikes, and berms are removed; the installation of current deflectors; the enhancement, rehabilitation, or re-establishment of riffle and pool stream structure; the placement of in-stream habitat structures; modifications of the stream bed and/or banks to enhance, rehabilitate, or re-establish stream meanders; the removal of stream barriers, such as undersized culverts, fords, and grade control structures; the backfilling of artificial channels; the removal of existing drainage structures, such as drain tiles, and the filling, blocking, or reshaping of drainage ditches to restore wetland hydrology; the installation of structures or fills necessary to restore or enhance wetland or stream hydrology; the construction of small nesting islands; the construction of open water areas; the construction of oyster habitat over unvegetated bottom in tidal waters; coral restoration or relocation activities; shellfish seeding; activities needed to reestablish vegetation, including plowing or discing for seed bed preparation and the planting of appropriate wetland species; re-establishment of submerged aquatic vegetation in areas where those plant communities previously existed; re-establishment of tidal wetlands in tidal waters where those wetlands previously existed; mechanized land clearing to remove non-native invasive, exotic, or nuisance vegetation; and other related activities. Only native plant species should be planted at the site.

This NWP authorizes the relocation of non-tidal waters, including non-tidal wetlands and streams,

on the project site provided there are net increases in aquatic resource functions and services.

Except for the relocation of non-tidal waters on the project site, this NWP does not authorize the conversion of a stream or natural wetlands to another aquatic habitat type (e.g., the conversion of a stream to wetland or vice versa) or uplands. Changes in wetland plant communities that occur when wetland hydrology is more fully restored during wetland rehabilitation activities are not considered a conversion to another aquatic habitat type. This NWP does not authorize stream channelization. This NWP does not authorize the relocation of tidal waters or the conversion of tidal waters, including tidal wetlands, to other aquatic uses, such as the conversion of tidal wetlands into open water impoundments.

Compensatory mitigation is not required for activities authorized by this NWP since these activities must result in net increases in aquatic resource functions and services.

Reversion. For enhancement, restoration, and establishment activities conducted: (1) In accordance with the terms and conditions of a binding stream or wetland enhancement or restoration agreement, or a wetland establishment agreement, between the landowner and the U.S. Fish and Wildlife Service (FWS), the Natural Resources Conservation Service (NRCS), the Farm Service Agency (FSA), the National Marine Fisheries Service (NMFS), the National Ocean Service (NOS), U.S. Forest Service (USFS), or their designated state cooperating agencies; (2) as voluntary wetland restoration, enhancement, and establishment actions documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or (3) on reclaimed surface coal mine lands, in accordance with a Surface Mining Control and Reclamation Act permit issued by the Office of Surface Mining Reclamation and Enforcement (OSMRE) or the applicable state agency, this NWP also authorizes any future discharge of dredged or fill material associated with the reversion of the area to its documented prior condition and use (i.e., prior to the restoration, enhancement, or establishment activities). The reversion must occur within five years after expiration of a limited term wetland restoration or establishment agreement or permit and is authorized in these circumstances even if the discharge of dredged or fill material occurs after this NWP expires. The five-year reversion limit does not apply to agreements without time limits reached between the landowner and the FWS, NRCS, FSA, NMFS, NOS, USFS, or an appropriate state cooperating agency. This NWP also authorizes discharges of dredged or fill material in waters of the United States for the reversion of wetlands that were restored, enhanced, or established on prior-converted cropland or on uplands, in accordance with a binding agreement between the landowner and NRCS, FSA, FWS, or their designated state cooperating agencies (even though the restoration, enhancement, or establishment activity did not require a section 404 permit). The prior condition will be documented in the original agreement or permit, and the determination of return to prior conditions will be made by the Federal agency or appropriate state agency executing the agreement or permit. Before conducting any reversion activity, the permittee or the appropriate Federal or state agency must notify the district engineer and include the documentation of the prior condition. Once an area has reverted to its prior physical condition, it will be subject to whatever the Corps Regulatory requirements are applicable to that type of land at the time. The requirement that the activity results in a net increase in aquatic resource functions and services does not apply to reversion activities meeting the above conditions. Except for the activities described above, this NWP does not authorize any future discharge of dredged or fill material associated with the reversion of the area to its prior condition. In such cases a separate permit would be required for any reversion.

Reporting. For those activities that do not require pre-construction notification, the permittee must submit to the district engineer a copy of: (1) the binding stream enhancement or restoration agreement or wetland enhancement, restoration, or establishment agreement, or a project description, including project plans and location map; (2) the NRCS or USDA Technical Service Provider documentation for the voluntary stream enhancement or restoration action or wetland restoration, enhancement, or establishment action; or (3) the SMCRA permit issued by OSMRE or the applicable state agency. The report must also include information on baseline ecological conditions on the project site, such as a delineation of wetlands, streams, and/or other aquatic habitats. These documents must be submitted to the district engineer at least 30 days prior to commencing activities in waters of the United States authorized by this NWP.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing any activity (see general condition 32), except for the following activities:

(1) Activities conducted on non-Federal public lands and private lands, in accordance with the terms and conditions of a binding stream enhancement or restoration agreement or wetland enhancement, restoration, or establishment agreement between the landowner and the FWS, NRCS, FSA, NMFS, NOS, USFS or their designated state cooperating agencies;

(2) Activities conducted in accordance with the terms and conditions of a binding coral restoration or relocation agreement between the project proponent and the NMFS or any of its designated state cooperating agencies;

(3) Voluntary stream or wetland restoration or enhancement action, or wetland establishment action, documented by the NRCS or USDA Technical Service Provider pursuant to NRCS Field Office Technical Guide standards; or

(4) The reclamation of surface coal mine lands, in accordance with an SMCRA permit issued by the OSMRE or the applicable state agency.

However, the permittee must submit a copy of the appropriate documentation to the district engineer to fulfill the reporting requirement. (Authorities: Sections 10 and 404)

Note: This NWP can be used to authorize compensatory mitigation projects, including mitigation banks and in-lieu fee projects. However, this NWP does not authorize the reversion of an area used for a compensatory mitigation project to its prior condition, since compensatory mitigation is generally intended to be permanent.

28. Modifications of Existing Marinas. Reconfiguration of existing docking facilities within an authorized marina area. No dredging, additional slips, dock spaces, or expansion of any kind within waters of the United States is authorized by this NWP. (Authority: Section 10)

29. Residential Developments. Discharges of dredged or fill material into non- tidal waters of the United States for the construction or expansion of a single residence, a multiple unit residential development, or a residential subdivision. This NWP authorizes the construction of building foundations and building pads and attendant features that are necessary for the use of the residence or residential development. Attendant features may include but are not limited to roads, parking lots, garages, yards, utility lines, storm water management facilities, septic fields, and recreation facilities such as playgrounds, playing fields, and golf courses (provided the golf course is an integral part of the residential development).

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters.

Subdivisions: For residential subdivisions, the aggregate total loss of waters of United States authorized by this NWP cannot exceed 1/2-acre. This includes any loss of waters of the United States associated with development of individual subdivision lots.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authorities: Sections 10 and 404)

30. Moist Soil Management for Wildlife. Discharges of dredged or fill material into non-tidal waters of the United States and maintenance activities that are associated with moist soil management for wildlife for the purpose of continuing ongoing, site-specific, wildlife management activities where soil manipulation is used to manage habitat and feeding areas for wildlife. Such activities include, but are not limited to, plowing or discing to impede succession, preparing seed beds, or establishing fire breaks. Sufficient riparian areas must be maintained adjacent to all open water bodies, including streams, to preclude water quality degradation due to erosion and sedimentation. This NWP does not authorize the construction of new dikes, roads, water control structures, or similar features associated with the management areas. The activity must not result in a net loss of aquatic resource functions and services. This NWP does not authorize the conversion of wetlands to uplands, impoundments, or other open water bodies. (Authority: Section 404)

Note: The repair, maintenance, or replacement of existing water control structures or the repair or maintenance of dikes may be authorized by NWP 3. Some such activities may qualify for an exemption under Section 404(f) of the Clean Water Act (see 33 CFR 323.4).

31. Maintenance of Existing Flood Control Facilities. Discharges of dredged or fill material resulting from activities associated with the maintenance of existing flood control facilities, including debris basins, retention/detention basins, levees, and channels that: (i) were previously authorized by the Corps by individual permit, general permit, or 33 CFR 330.3, or did not require a permit at the time they were constructed, or (ii) were constructed by the Corps and transferred to a non-Federal sponsor for operation and maintenance. Activities authorized by this NWP are limited to those resulting from maintenance activities that are conducted within the "maintenance baseline," as described in the definition below. Discharges of dredged or fill materials associated with maintenance activities in flood control facilities in any watercourse that have previously been determined to be within the maintenance baseline are authorized under this NWP. To the extent that a Corps permit is required, this NWP authorizes the removal of vegetation from levees associated with the flood control project. This NWP does not authorize the removal of sediment and associated vegetation from natural water courses except when these activities have been included in the maintenance baseline. All dredged and excavated material must be deposited and retained in an area that has no waters of the United States unless otherwise specifically approved by the district engineer under separate authorization. Proper sediment controls must be used.

Maintenance Baseline: The maintenance baseline is a description of the physical characteristics (e.g., depth, width, length, location, configuration, or design flood capacity, etc.) of a flood control project within which maintenance activities are normally authorized by NWP 31, subject to any case-specific conditions required by the district engineer. The district engineer will approve the maintenance baseline based on the approved or constructed capacity of the flood control facility, whichever is smaller, including any areas where there are no constructed channels but which are part of the facility. The prospective permittee will provide documentation of the physical characteristics of the flood control facility (which will normally consist of as-built or approved drawings) and documentation of the approved and constructed design capacities of the flood control facility. If no evidence of the constructed capacity exists, the approved capacity will be used. The documentation will also include best management practices to ensure that the adverse

environmental impacts caused by the maintenance activities are no more than minimal, especially in maintenance areas where there are no constructed channels. (The Corps may request maintenance records in areas where there has not been recent maintenance.) Revocation or modification of the final determination of the maintenance baseline can only be done in accordance with 33 CFR 330.5. Except in emergencies as described below, this NWP cannot be used until the district engineer approves the maintenance baseline and determines the need for mitigation and any regional or activity-specific conditions. Once determined, the maintenance baseline will remain valid for any subsequent reissuance of this NWP. This NWP does not authorize maintenance of a flood control facility that has been abandoned. A flood control facility will be considered abandoned if it has operated at a significantly reduced capacity without needed maintenance being accomplished in a timely manner. A flood control facility will not be considered abandoned if the prospective permittee is in the process of obtaining other authorizations or approvals required for maintenance activities and is experiencing delays in obtaining those authorizations or approvals.

Mitigation: The district engineer will determine any required mitigation one-time only for impacts associated with maintenance work at the same time that the maintenance baseline is approved. Such one-time mitigation will be required when necessary to ensure that adverse environmental effects are no more than minimal, both individually and cumulatively. Such mitigation will only be required once for any specific reach of a flood control project. However, if one-time mitigation is required for impacts associated with maintenance activities, the district engineer will not delay needed maintenance, provided the district engineer and the permittee establish a schedule for identification, approval, development, construction and completion of any such required mitigation. Once the one-time mitigation described above has been completed, or a determination made that mitigation is not required, no further mitigation will be required for maintenance activities within the maintenance baseline (see Note, below). In determining appropriate mitigation, the district engineer will give special consideration to natural water courses that have been included in the maintenance baseline and require mitigation and/or best management practices as appropriate.

Emergency Situations: In emergency situations, this NWP may be used to authorize maintenance activities in flood control facilities for which no maintenance baseline has been approved. Emergency situations are those which would result in an unacceptable hazard to life, a significant loss of property, or an immediate, unforeseen, and significant economic hardship if action is not taken before a maintenance baseline can be approved. In such situations, the determination of mitigation requirements, if any, may be deferred until the emergency has been resolved. Once the emergency has ended, a maintenance baseline must be established expeditiously, and mitigation, including mitigation for maintenance conducted during the emergency, must be required as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer before any maintenance work is conducted (see general condition 32). The pre-construction notification may be for activity-specific maintenance or for maintenance of the entire flood control facility by submitting a five-year (or less) maintenance plan. The pre-construction notification must include a description of the maintenance baseline and the disposal site for dredged or excavated material. (Authorities: Sections 10 and 404)

Note: If the maintenance baseline was approved by the district engineer under a prior version of NWP 31, and the district engineer imposed the one-time compensatory mitigation requirement on maintenance for a specific reach of a flood control project authorized by that prior version of NWP 31, during the period this version of NWP 31 is in effect, the district engineer will not require additional compensatory mitigation for maintenance activities authorized by this NWP in that specific reach of the flood control project.

32. Completed Enforcement Actions. Any structure, work, or discharge of dredged or fill material remaining in place or undertaken for mitigation, restoration, or environmental benefit in compliance with either:

(i) The terms of a final written Corps non-judicial settlement agreement resolving a violation of Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899; or the terms of an EPA 309(a) order on consent resolving a violation of Section 404 of the Clean Water Act, provided that:

(a) The activities authorized by this NWP cannot adversely affect more than 5 acres of non-tidal waters or 1 acre of tidal waters;

(b) The settlement agreement provides for environmental benefits, to an equal or greater degree, than the environmental detriments caused by the unauthorized activity that is authorized by this NWP; and

(c) The district engineer issues a verification letter authorizing the activity subject to the terms and conditions of this NWP and the settlement agreement, including a specified completion date; or

(ii) The terms of a final Federal court decision, consent decree, or settlement agreement resulting from an enforcement action brought by the United States under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbors Act of 1899; or

(iii) The terms of a final court decision, consent decree, settlement agreement, or non-judicial

settlement agreement resulting from a natural resource damage claim brought by a trustee or trustees for natural resources (as defined by the National Contingency Plan at 40 CFR subpart G) under Section 311 of the Clean Water Act, Section 107 of the Comprehensive Environmental Response, Compensation and Liability Act, Section 312 of the National Marine Sanctuaries Act, Section 1002 of the Oil Pollution Act of 1990, or the Park System Resource Protection Act at 16 U.S.C. 19jj, to the extent that a Corps permit is required.

Compliance is a condition of the NWP itself; non-compliance of the terms and conditions of an NWP 32 authorization may result in an additional enforcement action (e.g., a Class I civil administrative penalty). Any authorization under this NWP is automatically revoked if the permittee does not comply with the terms of this NWP or the terms of the court decision, consent decree, or judicial/non-judicial settlement agreement. This NWP does not apply to any activities occurring after the date of the decision, decree, or agreement that are not for the purpose of mitigation, restoration, or environmental benefit. Before reaching any settlement agreement, the Corps will ensure compliance with the provisions of 33 CFR part 326 and 33 CFR 330.6(d)(2) and (e). (Authorities: Sections 10 and 404)

34. Cranberry Production Activities. Discharges of dredged or fill material for dikes, berms, pumps, water control structures or leveling of cranberry beds associated with expansion, enhancement, or modification activities at existing cranberry production operations. The cumulative total acreage of disturbance per cranberry production operation, including but not limited to, filling, flooding, ditching, or clearing, must not exceed 10 acres of waters of the United States, including wetlands. The activity must not result in a net loss of wetland acreage. This NWP does not authorize any discharge of dredged or fill material related to other cranberry production activities such as warehouses, processing facilities, or parking areas. For the purposes of this NWP, the cumulative total of 10 acres will be measured over the period that this NWP is valid.

Notification: The permittee must submit a pre-construction notification to the district engineer once during the period that this NWP is valid, and the NWP will then authorize discharges of dredge or fill material at an existing operation for the permit term, provided the 10-acre limit is not exceeded. (See general condition 32.) (Authority: Section 404)

35. Maintenance Dredging of Existing Basins. The removal of accumulated sediment for maintenance of existing marina basins, access channels to marinas or boat slips, and boat slips to previously authorized depths or controlling depths for ingress/egress, whichever is less. All dredged material must be deposited and retained in an area that has no waters of the United States unless otherwise specifically approved by the district engineer under separate authorization. Proper sediment controls must be used for the disposal site. (Authority: Section 10)

36. Boat Ramps. Activities required for the construction, repair, or replacement of boat ramps, provided the activity meets all of the following criteria:

(a) The discharge of dredged or fill material into waters of the United States does not exceed 50 cubic yards of concrete, rock, crushed stone or gravel into forms, or in the form of pre-cast concrete planks or slabs, unless the district engineer waives the 50 cubic yard limit by making a written determination concluding that the discharge of dredged or fill material will result in no more than minimal adverse environmental effects;

(b) The boat ramp does not exceed 20 feet in width, unless the district engineer waives this criterion by making a written determination concluding that the discharge of dredged or fill material will result in no more than minimal adverse environmental effects;

(c) The base material is crushed stone, gravel or other suitable material;

(d) The excavation is limited to the area necessary for site preparation and all excavated material is removed to an area that has no waters of the United States; and,

(e) No material is placed in special aquatic sites, including wetlands.

The use of unsuitable material that is structurally unstable is not authorized. If dredging in navigable waters of the United States is necessary to provide access to the boat ramp, the dredging must be authorized by another NWP, a regional general permit, or an individual permit.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) The discharge of dredged or fill material into waters of the United States exceeds 50 cubic yards, or (2) the boat ramp exceeds 20 feet in width. (See general condition 32.) (Authorities: Sections 10 and 404)

37. Emergency Watershed Protection and Rehabilitation. Work done by or funded by:

(a) The Natural Resources Conservation Service for a situation requiring immediate action under its emergency Watershed Protection Program (7 CFR part 624);

(b) The U.S. Forest Service under its Burned-Area Emergency Rehabilitation Handbook (FSH 2509.13);

(c) The Department of the Interior for wildland fire management burned area emergency stabilization and rehabilitation (DOI Manual part 620, Ch. 3);

(d) The Office of Surface Mining, or states with approved programs, for abandoned mine land reclamation activities under Title IV of the Surface Mining Control and Reclamation Act (30 CFR subchapter R), where the activity does not involve coal extraction; or

(e) The Farm Service Agency under its Emergency Conservation Program (7 CFR part 701).

In general, the permittee should wait until the district engineer issues an NWP verification or 45 calendar days have passed before proceeding with the watershed protection and rehabilitation activity. However, in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur, the emergency watershed protection and rehabilitation activity may proceed immediately and the district engineer will consider the information in the pre-construction notification and any comments received as a result of agency coordination to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

Notification: Except in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur, the permittee must submit a pre-construction notification to the district engineer prior to commencing the activity (see general condition 32). (Authorities: Sections 10 and 404)

38. Cleanup of Hazardous and Toxic Waste. Specific activities required to effect the containment, stabilization, or removal of hazardous or toxic waste materials that are performed, ordered, or sponsored by a government agency with established legal or regulatory authority. Court ordered remedial action plans or related settlements are also authorized by this NWP. This NWP does not authorize the establishment of new disposal sites or the expansion of existing sites used for the disposal of hazardous or toxic waste.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authorities: Sections 10 and 404)

Note: Activities undertaken entirely on a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) site by authority of CERCLA as approved or required by EPA, are not required to obtain permits under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act.

39. Commercial and Institutional Developments. Discharges of dredged or fill material into non-tidal waters of the United States for the construction or expansion of commercial and institutional building foundations and building pads and attendant features that are necessary for the use and maintenance of the structures. Attendant features may include, but are not limited to, roads, parking lots, garages, yards, utility lines, storm water management facilities, wastewater treatment facilities, and recreation facilities such as playgrounds and playing fields. Examples of commercial developments include retail stores, industrial facilities, restaurants, business parks, and shopping centers. Examples of institutional developments include schools, fire stations, government office buildings, judicial buildings, public works buildings, libraries, hospitals, and places of worship. The construction of new golf courses and new ski areas is not authorized by this NWP.

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authorities: Sections 10 and 404)

Note: For any activity that involves the construction of a wind energy generating structure, solar tower, or overhead transmission line, a copy of the PCN and NWP verification will be provided by the Corps to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

40. Agricultural Activities. Discharges of dredged or fill material into non-tidal waters of the United States for agricultural activities, including the construction of building pads for farm buildings. Authorized activities include the installation, placement, or construction of drainage tiles, ditches, or levees; mechanized land clearing; land leveling; the relocation of existing serviceable drainage ditches constructed in waters of the United States; and similar activities.

This NWP also authorizes the construction of farm ponds in non-tidal waters of the United States, excluding perennial streams, provided the farm pond is used solely for agricultural purposes. This NWP does not authorize the construction of aquaculture ponds.

This NWP also authorizes discharges of dredged or fill material into non-tidal jurisdictional waters of the United States to relocate existing serviceable drainage ditches constructed in non-tidal streams.

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authority: Section 404)

Note: Some discharges of dredged or fill material into waters of the United States for agricultural activities may qualify for an exemption under Section 404(f) of the Clean Water Act (see 33 CFR 323.4). This NWP authorizes the construction of farm ponds that do not qualify for the Clean Water Act section 404(f)(1)(C) exemption because of the recapture provision at section 404(f)(2).

41. Reshaping Existing Drainage and Irrigation Ditches. Discharges of dredged or fill material into non-tidal waters of the United States, excluding non-tidal wetlands adjacent to tidal waters, to modify the cross-sectional configuration of currently serviceable drainage and irrigation ditches constructed in waters of the United States, for the purpose of improving water quality by regrading the drainage or irrigation ditch with gentler slopes, which can reduce erosion, increase growth of vegetation, and increase uptake of nutrients and other substances by vegetation. The reshaping of the drainage ditch cannot increase drainage capacity beyond the original as-built capacity nor can it expand the area drained by the drainage ditch as originally constructed (i.e., the capacity of the drainage ditch must be the same as originally constructed and it cannot drain additional wetlands or other waters of the United States). Compensatory mitigation is not required because the work is designed to improve water quality.

This NWP does not authorize the relocation of drainage or irrigation ditches constructed in waters of the United States; the location of the centerline of the reshaped drainage or irrigation ditch must be approximately the same as the location of the centerline of the original drainage or irrigation ditch. This NWP does not authorize stream channelization or stream relocation projects. (Authority: Section 404)

42. Recreational Facilities. Discharges of dredged or fill material into non-tidal waters of the United States for the construction or expansion of recreational facilities. Examples of recreational facilities that may be authorized by this NWP include playing fields (e.g., football fields, baseball fields), basketball courts, tennis courts, hiking trails, bike paths, golf courses, ski areas, horse paths, nature centers, and campgrounds (excluding recreational vehicle parks). This NWP also authorizes the construction or expansion of small support facilities, such as maintenance and storage buildings and stables that are directly related to the recreational activity, but it does not authorize the construction of hotels, restaurants, racetracks, stadiums, arenas, or similar facilities.

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authority: Section 404)

43. Stormwater Management Facilities. Discharges of dredged or fill material into non-tidal waters of the United States for the construction of stormwater management facilities, including stormwater detention basins and retention basins and other stormwater management facilities; the construction of water control structures, outfall structures and emergency spillways; the construction of low impact development integrated management features such as bioretention facilities (e.g., rain gardens), vegetated filter strips, grassed swales, and infiltration trenches; and the construction of pollutant reduction green infrastructure features designed to reduce inputs of sediments, nutrients, and other pollutants into waters, such as features needed to meet reduction targets established under Total Maximum Daily Loads set under the Clean Water Act.

This NWP authorizes, to the extent that a section 404 permit is required, discharges of dredged or fill material into non-tidal waters of the United States for the maintenance of stormwater management facilities, low impact development integrated management features, and pollutant reduction green infrastructure features. The maintenance of stormwater management facilities, low impact development integrated management features, and pollutant reduction green infrastructure features that are not waters of the United States does not require a section 404 permit.

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters. This NWP does not authorize discharges of dredged or fill material for the construction of new stormwater management facilities in perennial streams.

Notification: For discharges of dredged or fill material into non-tidal waters of the United States for the construction of new stormwater management facilities or pollutant reduction green infrastructure features, or the expansion of existing stormwater management facilities or pollutant reduction green infrastructure features, the permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) Maintenance activities do not require pre-construction notification if they are limited to

restoring the original design capacities of the stormwater management facility or pollutant reduction green infrastructure feature. (Authority: Section 404)

44. **Mining Activities**. Discharges of dredged or fill material into non-tidal waters of the UnitedStates for mining activities, except for coal mining activities, provided the activity meets all of the following criteria:

(a) For mining activities involving discharges of dredged or fill material into non-tidal jurisdictional wetlands, the discharge must not cause the loss of greater than 1/2-acre of non-tidal jurisdictional wetlands;

(b) For mining activities involving discharges of dredged or fill material in non-tidal jurisdictional open waters (e.g., rivers, streams, lakes, and ponds) or work in non-tidal navigable waters of the United States (i.e., section 10 waters), the mined area, including permanent and temporary impacts due to discharges of dredged or fill material into jurisdictional waters, must not exceed 1/2-acre; and

(c) The acreage loss under paragraph (a) plus the acreage impact under paragraph (b) does not exceed 1/2-acre.

This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) If reclamation is required by other statutes, then a copy of the final reclamation plan must be submitted with the pre-construction notification. (Authorities: Sections 10 and 404)

45. Repair of Uplands Damaged by Discrete Events. This NWP authorizes discharges of dredged or fill material, including dredging or excavation, into all waters of the United States for activities associated with the restoration of upland areas damaged by storms, floods, or other discrete events. This NWP authorizes bank stabilization to protect the restored uplands. The restoration of the damaged areas, including any bank stabilization, must not exceed the contours, or ordinary high water mark, that existed before the damage occurred. The district engineer retains the right to determine the extent of the pre-existing conditions and the extent of any restoration work authorized by this NWP. The work must commence, or be under contract to commence, within two years of the date of damage, unless this condition is waived in writing by the district engineer. This NWP cannot be used to reclaim lands lost to normal erosion processes over an extended period.

This NWP does not authorize beach restoration or nourishment.

Minor dredging is limited to the amount necessary to restore the damaged upland area and should not significantly alter the pre-existing bottom contours of the waterbody.

Notification: The permittee must submit a pre-construction notification to the district engineer (see general condition 32) within 12 months of the date of the damage; for major storms, floods, or other discrete events, the district engineer may waive the 12-month limit for submitting a pre-construction notification if the permittee can demonstrate funding, contract, or other similar delays. The pre-construction notification must include documentation, such as a recent topographic survey or photographs, to justify the extent of the proposed restoration. (Authorities: Sections 10 and 404)

Note: The uplands themselves that are lost as a result of a storm, flood, or other discrete event can be replaced without a Clean Water Act Section 404 permit, if the uplands are restored to the ordinary high water mark (in non-tidal waters) or high tide line (in tidal waters). (See also 33 CFR 328.5.) This NWP authorizes discharges of dredged or fill material into waters of the United States associated with the restoration of uplands.

46. Discharges in Ditches. Discharges of dredged or fill material into non-tidal ditches that are (1) constructed in uplands, (2) receive water from an area determined to be a water of the United States prior to the construction of the ditch, (3) divert water to an area determined to be a water of the United States prior to the construction of the ditch, and (4) determined to be waters of the United States. The discharge of dredged or fill material must not cause the loss of greater than one acre of waters of the United States.

This NWP does not authorize discharges of dredged or fill material into ditches constructed in streams or other waters of the United States, or in streams that have been relocated in uplands. This NWP does not authorize discharges of dredged or fill material that increase the capacity of the ditch and drain those areas determined to be waters of the United States prior to construction of the ditch.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authority: Section 404)

47. [Reserved]

48. Commercial Shellfish Mariculture Activities. Structures or work in navigable waters of the United States and discharges of dredged or fill material into waters of the United States necessary for new and continuing commercial shellfish mariculture operations (i.e., the cultivation of bivalve mollusks such as oysters, mussels, clams, and scallops) in authorized project areas. For the purposes of this NWP, the project area is the area in which the operator is authorized to conduct commercial shellfish mariculture activities, as identified through a lease or permit issued by an appropriate state or local government agency, a treaty, or any easement, lease, deed, contract, or other legally binding agreement that establishes an enforceable property interest for the operator.

This NWP authorizes the installation of buoys, floats, racks, trays, nets, lines, tubes, containers, and other structures into navigable waters of the United States. This NWP also authorizes discharges of dredged or fill material into waters of the United States necessary for shellfish seeding, rearing, cultivating, transplanting, and harvesting activities. Rafts and other floating structures must be securely anchored and clearly marked.

This NWP does not authorize:

(a) The cultivation of a nonindigenous species unless that species has been previously cultivated in the waterbody;

(b) The cultivation of an aquatic nuisance species as defined in the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990; or

(c) Attendant features such as docks, piers, boat ramps, stockpiles, or staging areas, or the deposition of shell material back into waters of the United States as waste.

Notification: The permittee must submit a pre-construction notification to the district engineer if the activity directly affects more than 1/2-acre of submerged aquatic vegetation. If the operator will be conducting commercial shellfish mariculture activities in multiple contiguous project areas, he or she can either submit one PCN for those contiguous project areas or submit a separate PCN for each project area. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: The permittee should notify the applicable U.S. Coast Guard office regarding the project.

Note 2: To prevent introduction of aquatic nuisance species, no material that has been taken from a different waterbody may be reused in the current project area, unless it has been treated in accordance with the applicable regional aquatic nuisance species management plan.

Note 3: The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 defines "aquatic nuisance species" as "a nonindigenous species that threatens the diversity or abundance of native species or the ecological stability of infested waters, or commercial, agricultural, aquacultural, or recreational activities dependent on such waters."

An individual water quality certification from the Iowa Department of Natural Resources will be required for this nationwide permit.

49. Coal Remining Activities. Discharges of dredged or fill material into non-tidal waters of the United States associated with the remining and reclamation of lands that were previously mined for coal. The activities must already be authorized, or they must currently be in process by the Department of the Interior Office of Surface Mining Reclamation and Enforcement, or by states with approved programs under Title IV or Title V of the Surface Mining Control and Reclamation Act of 1977 (SMCRA). Areas previously mined include reclaimed mine sites, abandoned mine land areas, or lands under bond forfeiture contracts.

As part of the project, the permittee may conduct new coal mining activities in conjunction with the remining activities when he or she clearly demonstrates to the district engineer that the overall mining plan will result in a net increase in aquatic resource functions. The Corps will consider the SMCRA agency's decision regarding the amount of currently undisturbed adjacent lands needed to facilitate the remining and reclamation of the previously mined area. The total area disturbed by new mining must not exceed 40 percent of the total acreage covered by both the remined area and the additional area necessary to carry out the reclamation of the previously mined area.

Notification: The permittee must submit a pre-construction notification and a document describing how the overall mining plan will result in a net increase in aquatic resource functions to the district engineer and receive written authorization prior to commencing the activity. (See general condition 32.) (Authorities: Sections 10 and 404)

50. Underground Coal Mining Activities. Discharges of dredged or fill material into non-tidal waters of the United States associated with underground coal mining and reclamation operations provided the activities are authorized, or are currently being processed by the Department of the Interior, Office of Surface Mining Reclamation and Enforcement, or by states with approved programs under Title V of the Surface Mining Control and Reclamation Act of 1977.

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands

adjacent to tidal waters. This NWP does not authorize coal preparation and processing activities outside of the mine site.

Notification: The permittee must submit a pre-construction notification to the district engineer. (See general condition 32.) If reclamation is required by other statutes, then a copy of the reclamation plan must be submitted with the pre- construction notification. (Authorities: Sections10 and 404)

51. Land-Based Renewable Energy Generation Facilities. Discharges of dredged or fill material into non-tidal waters of the United States for the construction, expansion, or modification of land-based renewable energy production facilities, including attendant features. Such facilities include infrastructure to collect solar (concentrating solar power and photovoltaic), wind, biomass, or geothermal energy. Attendant features may include, but are not limited to roads, parking lots, and stormwater management facilities within the land-based renewable energy generation facility.

The discharge must not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if the discharge results in the loss of greater than 1/10-acre of waters of the United States. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: Electric utility lines constructed to transfer the energy from the land- based renewable energy generation facility to a distribution system, regional grid, or other facility are generally considered to be linear projects and each separate and distant crossing of a waterbody is eligible for treatment as a separate single and complete linear project. Those electric utility lines may be authorized by NWP 57 or another Department of the Army authorization.

Note 2: If the only activities associated with the construction, expansion, or modification of a land-based renewable energy generation facility that require Department of the Army authorization are discharges of dredged or fill material into waters of the United States to construct, maintain, repair, and/or remove electric utility lines and/or road crossings, then NWP 57 and/or NWP 14 shall be used if those activities meet the terms and conditions of NWPs 57 and 14, including any applicable regional conditions and any case-specific conditions imposed by the district engineer.

Note 3: For any activity that involves the construction of a wind energy generating structure, solar tower, or overhead transmission line, a copy of the PCN and NWP verification will be provided by the Corps to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

An individual water quality certification from the Iowa Department of Natural Resources will be required for this nationwide permit.

52. Water-Based Renewable Energy Generation Pilot Projects. Structures and work in navigable waters of the United States and discharges of dredged or fill material into waters of the United States for the construction, expansion, modification, or removal of water-based wind, water-based solar, wave energy, or hydrokinetic renewable energy generation pilot projects and their attendant features. Attendant features may include, but are not limited to, land-based collection and distribution facilities, control facilities, roads, parking lots, and stormwater management facilities.

For the purposes of this NWP, the term “pilot project” means an experimental project where the water-based renewable energy generation units will be monitored to collect information on their performance and environmental effects at the project site.

The placement of a transmission line on the bed of a navigable water of the United States from the renewable energy generation unit(s) to a land-based collection and distribution facility is considered a structure under Section 10 of the Rivers and Harbors Act of 1899 (see 33 CFR 322.2(b)), and the placement of the transmission line on the bed of a navigable water of the United States is not a loss of waters of the United States for the purposes of applying the 1/2-acre limit.

For each single and complete project, no more than 10 generation units (e.g., wind turbines, wave energy devices, or hydrokinetic devices) are authorized. For floating solar panels in navigable waters of the United States, each single and complete project cannot exceed 1/2-acre in water surface area covered by the floating solar panels.

This NWP does not authorize activities in coral reefs. Structures in an anchorage area established by the U.S. Coast Guard must comply with the requirements in 33 CFR 322.5(l)(2). Structures may not be placed in established danger zones or restricted areas designated in 33 CFR part 334, Federal navigation channels, shipping safety fairways or traffic separation schemes established by the U.S. Coast Guard (see 33 CFR 322.5(l)(1)), or EPA or Corps designated open water dredged material disposal areas.

Upon completion of the pilot project, the generation units, transmission lines, and other structures or fills associated with the pilot project must be removed to the maximum extent practicable unless they are authorized by a separate Department of the Army authorization, such as another NWP, an individual permit, or a regional general permit. Completion of the pilot project will be identified as the date of expiration of the Federal Energy Regulatory Commission (FERC) license, or the expiration date of the NWP authorization if no FERC license is required.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: Electric utility lines constructed to transfer the energy from the land-based collection facility to a distribution system, regional grid, or other facility are generally considered to be linear projects and each separate and distant crossing of a waterbody is eligible for treatment as a separate single and complete linear project. Those electric utility lines may be authorized by NWP 57 or another Department of the Army authorization.

Note 2: An activity that is located on an existing locally or federally maintained U.S. Army Corps of Engineers project requires separate review and/or approval from the Corps under 33 U.S.C. 408.

Note 3: If the pilot project generation units, including any transmission lines, are placed in navigable waters of the United States (i.e., section 10 waters) within the coastal United States, the Great Lakes, and United States territories, copies of the NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration, National Ocean Service, for charting the generation units and associated transmission line(s) to protect navigation.

Note 4: Hydrokinetic renewable energy generation projects that require authorization by the Federal Energy Regulatory Commission under the Federal Power Act of 1920 do not require separate authorization from the Corps under section 10 of the Rivers and Harbors Act of 1899.

Note 5: For any activity that involves the construction of a wind energy generating structure, solar tower, or overhead transmission line, a copy of the PCN and NWP verification will be provided by the Corps to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

An individual water quality certification from the Iowa Department of Natural Resources will be required for this nationwide permit.

53. Removal of Low-Head Dams. Structures and work in navigable waters of the United States and discharges of dredged or fill material into waters of the United States associated with the removal of low-head dams.

For the purposes of this NWP, the term "low-head dam" is generally defined as a dam or weir built across a stream to pass flows from upstream over all, or nearly all, of the width of the dam crest and does not have a separate spillway or spillway gates, but it may have an uncontrolled spillway. The dam crest is the top of the dam from left abutment to right abutment. A low-head dam may have been built for a range of purposes (e.g., check dam, mill dam, irrigation, water supply, recreation, hydroelectric, or cooling pond), but in all cases, it provides little or no storage function.

The removed low-head dam structure must be deposited and retained in an area that has no waters of the United States unless otherwise specifically approved by the district engineer under separate authorization.

Because the removal of the low-head dam will result in a net increase in ecological functions and services provided by the stream, as a general rule compensatory mitigation is not required for activities authorized by this NWP. However, the district engineer may determine for a particular low-head dam removal activity that compensatory mitigation is necessary to ensure that the authorized activity results in no more than minimal adverse environmental effects.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authorities: Sections 10 and 404)

Note: This NWP does not authorize discharges of dredged or fill material into waters of the United States or structures or work in navigable waters to restore the stream in the vicinity of the low-head dam, including the former impoundment area. Nationwide permit 27 or other Department of the Army permits may authorize such activities. This NWP does not authorize discharges of dredged or fill material into waters of the United States or structures or work in navigable waters to stabilize stream banks. Bank stabilization activities may be authorized by NWP 13 or other Department of the Army permits.

54. Living Shorelines. Structures and work in navigable waters of the United States and discharges of dredged or fill material into waters of the United States for the construction and maintenance of living shorelines to stabilize banks and shores in coastal waters, which includes the Great

Lakes, along shores with small fetch and gentle slopes that are subject to low- to mid-energy waves. A living shoreline has a footprint that is made up mostly of native material. It incorporates vegetation or other living, natural "soft" elements alone or in combination with some type of harder shoreline structure (e.g., oyster or mussel reefs or rock sills) for added protection and stability. Living shorelines should maintain the natural continuity of the land-water interface, and retain or enhance shoreline ecological processes. Living shorelines must have a substantial biological component, either tidal or lacustrine fringe wetlands or oyster or mussel reef structures. The following conditions must be met:

(a) The structures and fill area, including sand fills, sills, breakwaters, or reefs, cannot extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high water mark in the Great Lakes, unless the district engineer waives this criterion by making a written determination concluding that the activity will result in no more than minimal adverse environmental effects;

(b) The activity is no more than 500 feet in length along the bank, unless the district engineer waives this criterion by making a written determination concluding that the activity will result in no more than minimal adverse environmental effects;

(c) Coir logs, coir mats, stone, native oyster shell, native wood debris, and other structural materials must be adequately anchored, of sufficient weight, or installed in a manner that prevents relocation in most wave action or water flow conditions, except for extremely severe storms;

(d) For living shorelines consisting of tidal or lacustrine fringe wetlands, native plants appropriate for current site conditions, including salinity and elevation, must be used if the site is planted by the permittee;

(e) Discharges of dredged or fill material into waters of the United States, and oyster or mussel reef structures in navigable waters, must be the minimum necessary for the establishment and maintenance of the living shoreline;

(f) If sills, breakwaters, or other structures must be constructed to protect fringe wetlands for the living shoreline, those structures must be the minimum size necessary to protect those fringe wetlands;

(g) The activity must be designed, constructed, and maintained so that it has no more than minimal adverse effects on water movement between the waterbody and the shore and the movement of aquatic organisms between the waterbody and the shore; and

(h) The living shoreline must be properly maintained, which may require periodic repair of sills, breakwaters, or reefs, or replacing sand fills after severe storms or erosion events. Vegetation may be replanted to maintain the living shoreline. This NWP authorizes those maintenance and repair activities, including any minor deviations necessary to address changing environmental conditions.

This NWP does not authorize beach nourishment or land reclamation activities.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the construction of the living shoreline. (See general condition 32.) The pre-construction notification must include a delineation of special aquatic sites (see paragraph (b)(4) of general condition 32). Pre-construction notification is not required for maintenance and repair activities for living shorelines unless required by applicable NWP general conditions or regional conditions. (Authorities: Sections 10 and 404)

Note: In waters outside of coastal waters, nature-based bank stabilization techniques, such as bioengineering and vegetative stabilization, may be authorized by NWP 13.

55. Seaweed Mariculture Activities. Structures in marine and estuarine waters, including structures anchored to the seabed in waters overlying the outer continental shelf, for seaweed mariculture activities. This NWP also authorizes structures for bivalve shellfish mariculture if shellfish production is a component of an integrated multi-trophic mariculture system (e.g., the production of seaweed and bivalve shellfish on the same structure or a nearby mariculture structure that is part of the single and complete project).

This NWP authorizes the installation of buoys, long-lines, floats, anchors, rafts, racks, and other similar structures into navigable waters of the United States. Rafts, racks and other floating structures must be securely anchored and clearly marked. To the maximum extent practicable, the permittee must remove these structures from navigable waters of the United States if they will no longer be used for seaweed mariculture activities or multi-trophic mariculture activities.

Structures in an anchorage area established by the U.S. Coast Guard must comply with the requirements in 33 CFR 322.5(l)(2). Structures may not be placed in established danger zones or restricted areas designated in 33 CFR part 334, Federal navigation channels, shipping safety fairways or traffic separation schemes established by the U.S. Coast Guard (see 33 CFR 322.5(l)(1)), or EPA or Corps designated open water dredged material disposal areas.

This NWP does not authorize:

(a) The cultivation of an aquatic nuisance species as defined in the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 or the cultivation of a nonindigenous species unless that species has been previously cultivated in the waterbody; or

(b) Attendant features such as docks, piers, boat ramps, stockpiles, or staging areas.

Notification: The permittee must submit a pre-construction notification to the district engineer. (See general condition 32.)

In addition to the information required by paragraph (b) of general condition 32, the preconstruction notification must also include the following information: (1) a map showing the locations and dimensions of the structure(s); (2) the name(s) of the species that will be cultivated during the period this NWP is in effect; and (3) general water depths in the project area(s) (a detailed survey is not required). No more than one pre-construction notification per structure or group of structures should be submitted for the seaweed mariculture operation during the effective period of this NWP. The pre-construction notification should describe all species and culture activities the operator expects to undertake during the effective period of this NWP. (Authority: Section 10)

Note 1: The permittee should notify the applicable U.S. Coast Guard office regarding the project.

Note 2: To prevent introduction of aquatic nuisance species, no material that has been taken from a different waterbody may be reused in the current project area, unless it has been treated in accordance with the applicable regional aquatic nuisance species management plan.

Note 3: The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 defines "aquatic nuisance species" as "a nonindigenous species that threatens the diversity or abundance of nativespecies or the ecological stability of infested waters, or commercial, agricultural, aquacultural,or recreational activities dependent on such waters."

56. Finfish Mariculture Activities. Structures in marine and estuarine waters, including structures anchored to the seabed in waters overlying the outer continental shelf, for finfish mariculture activities. This NWP also authorizes structures for bivalve shellfish mariculture and/or seaweed mariculture if the structures for bivalve shellfish and/or seaweed production are a component of an integrated multi-trophic mariculture structure (e.g., the production of bivalve shellfish or seaweed on the structure used for finfish mariculture, or a nearby mariculture structure that is part of the single and complete project).

This NWP authorizes the installation of cages, net pens, anchors, floats, buoys, and other similar structures into navigable waters of the United States. Net pens, cages, and other floating structures must be securely anchored and clearly marked. To the maximum extent practicable, the permittee must remove these structures from navigable waters of the United States if they will no longer be used for finfish mariculture activities or multi-trophic mariculture activities.

This NWP does not authorize the construction of land-based fish hatcheries or other attendant features.

Structures in an anchorage area established by the U.S. Coast Guard must comply with the requirements in 33 CFR 322.5(l)(2). Structures may not be placed in established danger zones or restricted areas designated in 33 CFR part 334, Federal navigation channels, shipping safety fairways or traffic separation schemes established by the U.S. Coast Guard (see 33 CFR 322.5(l)(1)), or EPA or Corps designated open water dredged material disposal areas.

This NWP does not authorize:

(a) The cultivation of an aquatic nuisance species as defined in the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 or the cultivation of a nonindigenous species unless that species has been previously cultivated in the waterbody; or

(b) Attendant features such as docks, piers, boat ramps, stockpiles, or staging areas.

Notification: The permittee must submit a pre-construction notification to the district engineer. (See general condition 32.)

In addition to the information required by paragraph (b) of general condition 32, the pre-construction notification must also include the following information: (1) a map showing the locations and dimensions of the structure(s); (2) the name(s) of the species that will be cultivated during the period this NWP is in effect; and (3) general water depths in the project area(s) (a detailed survey is not required). No more than one pre-construction notification per structure or group of structures should be submitted for the finfish mariculture operation during the effective period of this NWP. The pre-construction notification should describe all species and culture activities the operator expects to undertake during the effective period of this NWP. (Authority: Section 10)

Note 1: The permittee should notify the applicable U.S. Coast Guard office regarding the finfish mariculture activity.

Note 2: To prevent introduction of aquatic nuisance species, no material that has been taken from a different waterbody may be reused in the current project area, unless it has been treated in accordance with the applicable regional aquatic nuisance species management plan.

Note 3: The Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 defines "aquatic nuisance species" as "a nonindigenous species that threatens the diversity or abundance of native species or the ecological stability of infested waters, or commercial, agricultural, aquacultural, or recreational activities dependent on such waters."

57. Electric Utility Line and Telecommunications Activities. Activities required for the construction, maintenance, repair, and removal of electric utility lines, telecommunication lines, and associated facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2-acre of waters of the United States for each single and complete project.

Electric utility lines and telecommunication lines: This NWP authorizes discharges of dredged or fill material into waters of the United States and structures or work in navigable waters for crossings of those waters associated with the construction, maintenance, or repair of electric utility lines and telecommunication lines. There must be no change in pre-construction contours of waters of the United States. An "electric utility line and telecommunication line" is defined as any cable, line, fiber optic line, or wire for the transmission for any purpose of electrical energy, telephone, and telegraph messages, and internet, radio, and television communication.

Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that itis dispersed by currents or other forces. The district engineer may extend the period of temporaryside casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12inches of the trench should normally be backfilled with topsoil from the trench. The trench cannotbe constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the electric utility line or telecommunication line crossing of each waterbody.

Electric utility line and telecommunications substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities associated with an electric utility line or telecommunication line in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2- acre of waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

Foundations for overhead electric utility line or telecommunication line towers, poles, and anchors: This NWP authorizes the construction or maintenance of foundations for overhead electric utility line or telecommunication line towers, poles, and anchors in all waters of the United States, provided the foundations are the minimum size necessary and separate footings for each tower leg (rather than a larger single pad) are used where feasible.

Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of electric utility lines or telecommunication lines, including overhead lines and substations, in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre- construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize electric utility lines or telecommunication lines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (see 33 CFR part 322). Electric utility lines or telecommunication lines constructed over section 10 waters and electric utility lines or telecommunication lines that are routed in or under section 10 waters without a discharge of dredged or fill material require a section 10 permit.

This NWP authorizes, to the extent that Department of the Army authorization is required, temporary structures, fills, and work necessary for the remediation of inadvertent returns of drilling fluids to waters of the United States through sub- soil fissures or fractures that might occur during horizontal directional drilling activities conducted for the purpose of installing or replacing electric utility lines or telecommunication lines. These remediation activities must be done as soon as practicable, to restore the affected waterbody. District engineers may add special conditions to this NWP to require a remediation plan for addressing inadvertent returns of

drilling fluids to waters of the United States during horizontal directional drilling activities conducted for the purpose of installing or replacing electric utility lines or telecommunication lines.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the electric utility line activity.
Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After construction, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) a section 10 permit is required; or (2) the discharge will result in the loss of greater than 1/10-acre of waters of the United States. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: Where the electric utility line is constructed, installed, or maintained in navigable waters of the United States (i.e., section 10 waters) within the coastal United States, the Great Lakes, and United States territories, a copy of the NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the electric utility line to protect navigation.

Note 2: For electric utility line or telecommunications activities crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Electric utility line and telecommunications activities must comply with 33 CFR 330.6(d).

Note 3: Electric utility lines or telecommunication lines consisting of aerial electric power transmission lines crossing navigable waters of the United States (which are defined at 33 CFR part 329) must comply with the applicable minimum clearances specified in 33 CFR 322.5(i).

Note 4: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the electric utility line or telecommunication line must be removed upon completion of the work, in accordance with the requirements for temporary fills.

Note 5: This NWP authorizes electric utility line and telecommunication line maintenance and repair activities that do not qualify for the Clean Water Act section 404(f) exemption for maintenance of currently serviceable fills or fill structures.

Note 6: For overhead electric utility lines and telecommunication lines authorized by this NWP, a copy of the PCN and NWP verification will be provided by the Corps to the Department of Defense Siting Clearinghouse, which will evaluate potential effects on military activities.

Note 7: For activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b)(4) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

58. Utility Line Activities for Water and Other Substances. Activities required for the construction, maintenance, repair, and removal of utility lines for water and other substances, excluding oil, natural gas, products derived from oil or natural gas, and electricity. Oil or natural gas pipeline activities or electric utility line and telecommunications activities may be authorized by NWPs 12 or 57, respectively. This NWP also authorizes associated utility line facilities in waters of the United States, provided the activity does not result in the loss of greater than 1/2-acre of waters of the United States for each single and complete project.

Utility lines: This NWP authorizes discharges of dredged or fill material into waters of the United States and structures or work in navigable waters for crossings of those waters associated with the construction, maintenance, or repair of utility lines for water and other substances, including outfall and intake structures. There must be no change in pre-construction contours of waters of the United States. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquescent, or slurry substance, for any purpose that is not oil, natural gas, or petrochemicals. Examples of activities authorized by this NWP include utility lines that convey water, sewage, stormwater, wastewater, brine, irrigation water, and industrial products that are not petrochemicals. The term "utility line" does not include activities that drain a water of the United States, such as drainage tile or french drains, but it does apply to pipes conveying drainage from another area.

Material resulting from trench excavation may be temporarily sidecast into waters of the United States for no more than three months, provided the material is not placed in such a manner that it is dispersed by currents or other forces. The district engineer may extend the period of temporary side casting for no more than a total of 180 days, where appropriate. In wetlands, the top 6 to 12 inches of the trench should normally be backfilled with topsoil from the trench. The trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a french drain effect). Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line crossing of each waterbody.

Utility line substations: This NWP authorizes the construction, maintenance, or expansion of substation facilities associated with a utility line in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not result in the loss of greater than 1/2-acre of waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters of the United States to construct, maintain, or expand substation facilities.

Foundations for above-ground utility lines: This NWP authorizes the construction or maintenance of foundations for above-ground utility lines in all waters of the United States, provided the foundations are the minimum size necessary.

Access roads: This NWP authorizes the construction of access roads for the construction and maintenance of utility lines, including utility line substations, in non-tidal waters of the United States, provided the activity, in combination with all other activities included in one single and complete project, does not cause the loss of greater than 1/2-acre of non-tidal waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters for access roads. Access roads must be the minimum width necessary (see Note 2, below). Access roads must be constructed so that the length of the road minimizes any adverse effects on waters of the United States and must be as near as possible to pre-construction contours and elevations (e.g., at grade corduroy roads or geotextile/gravel roads). Access roads constructed above pre-construction contours and elevations in waters of the United States must be properly bridged or culverted to maintain surface flows.

This NWP may authorize utility lines in or affecting navigable waters of the United States even if there is no associated discharge of dredged or fill material (see 33 CFR part 322). Overhead utility lines constructed over section 10 waters and utility lines that are routed in or under section 10 waters without a discharge of dredged or fill material require a section 10 permit.

This NWP authorizes, to the extent that Department of the Army authorization is required, temporary structures, fills, and work necessary for the remediation of inadvertent returns of drilling fluids to waters of the United States through sub-soil fissures or fractures that might occur during horizontal directional drilling activities conducted for the purpose of installing or replacing utility lines. These remediation activities must be done as soon as practicable, to restore the affected waterbody. District engineers may add special conditions to this NWP to require a remediation plan for addressing inadvertent returns of drilling fluids to waters of the United States during horizontal directional drilling activities conducted for the purpose of installing or replacing utility lines.

This NWP also authorizes temporary structures, fills, and work, including the use of temporary mats, necessary to conduct the utility line activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After construction, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) a section 10 permit is required; or (2) the discharge will result in the loss of greater than 1/10-acre of waters of the United States. (See general condition 32.) (Authorities: Sections 10 and 404)

Note 1: Where the utility line is constructed, installed, or maintained in navigable waters of the United States (i.e., section 10 waters) within the coastal United States, the Great Lakes, and United States territories, a copy of the NWP verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the utility line to protect navigation.

Note 2: For utility line activities crossing a single waterbody more than one time at separate and distant locations, or multiple waterbodies at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. Utility line activities must comply with 33 CFR 330.6(d)

Note 3: Access roads used for both construction and maintenance may be authorized, provided they meet the terms and conditions of this NWP. Access roads used solely for construction of the

utility line must be removed upon completion of the work, in accordance with the requirements for temporary fills.

Note 4: Pipes or pipelines used to transport gaseous, liquid, liquescent, or slurry substances over navigable waters of the United States are considered to be bridges, not utility lines, and may require a permit from the U.S. Coast Guard pursuant to the General Bridge Act of 1946. However, any discharges of dredged or fill material into waters of the United States associated with such pipelines will require a section 404 permit (see NWP 15).

Note 5: This NWP authorizes utility line maintenance and repair activities that do not qualify for the Clean Water Act section 404(f) exemption for maintenance of currently serviceable fills or fill structures.

Note 6: For activities that require pre-construction notification, the PCN must include any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings that require Department of the Army authorization but do not require pre-construction notification (see paragraph (b)(4) of general condition 32). The district engineer will evaluate the PCN in accordance with Section D, "District Engineer's Decision." The district engineer may require mitigation to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see general condition 23).

59. Water reclamation and reuse facilities. Discharges of dredged or fill material into non-tidal waters of the United States for the construction, expansion, and maintenance of water reclamation and reuse facilities, including vegetated areas enhanced to improve water infiltration and constructed wetlands to improve water quality.

The discharge of dredged or fill material must not cause the loss of greater than 1/2-acre of waters of the United States. This NWP does not authorize discharges of dredged or fill material into non-tidal wetlands adjacent to tidal waters.

This NWP also authorizes temporary fills, including the use of temporary mats, necessary to construct the water reuse project and attendant features. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges of dredged or fill material, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. After construction, temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity. (See general condition 32.) (Authorities: Sections 10 and 404)

C. Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as applicable, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP. Every person who may wish to obtain permit authorization under one or more NWPs, or who is currently relying on an existing or prior permit authorization under one or more NWPs, has been and is on notice that all of the provisions of 33 CFR 330.1 through 330.6 apply to every NWP authorization. Note especially 33 CFR 330.5 relating to the modification, suspension, or revocation of any NWP authorization.

1. Navigation.

(a) No activity may cause more than a minimal adverse effect on navigation.

(b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.

(c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his or her authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

2. Aquatic Life Movements. No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species

that normally migrate through the area, unless the activity's primary purpose is to impound water. All permanent and temporary crossings of waterbodies shall be suitably culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the movement of those aquatic species. If a bottomless culvert cannot be used, then the crossing should be designed and constructed to minimize adverse effects to aquatic life movements.

3. Spawning Areas. Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

4. Migratory Bird Breeding Areas. Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 48, or is a shellfish seeding or habitat restoration activity authorized by NWP 27.

6. Suitable Material. No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

7. Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

8. Adverse Effects From Impoundments. If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

9. Management of Water Flows. To the maximum extent practicable, the pre- construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization, storm water management activities, and temporary and permanent road crossings, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

10. Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

11. Equipment. Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

12. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow, or during low tides.

13. Removal of Temporary Structures and Fills. Temporary structures must be removed, to the maximum extent practicable, after their use has been discontinued. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

14. Proper Maintenance. Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety and compliance with applicable NWP general conditions, as well as any activity-specific conditions added by the district engineer to an NWP authorization.

15. Single and Complete Project. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

16. Wild and Scenic Rivers.

(a) No NWP activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status.

(b) If a proposed NWP activity will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, the permittee must submit a pre-construction notification (see general condition 32). The district engineer will coordinate the PCN with the Federal agency with direct management responsibility for that river. Permittees shall not begin the NWP activity until notified by the district engineer that the Federal agency with direct management responsibility for that river has determined in writing that the proposed

NWP activity will not adversely affect the Wild and Scenic River designation or study status.

(c) Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service). Information on these rivers is also available at: http://www.rivers.gov/.

17. Tribal Rights. No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species.

(a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify designated critical habitat or critical habitat proposed for such designation. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless ESA section 7 consultation addressing the consequences of the proposed activity on listed species or critical habitat has been completed. See 50 CFR 402.02 for the definition of "effects of the action" for the purposes of ESA section 7 consultation, as well as 50 CFR 402.17, which provides further explanation under ESA section 7 regarding "activities that are reasonably certain to occur" and "consequences caused by the proposed action."

(b) Federal agencies should follow their own procedures for complying with the requirements of the ESA (see 33 CFR 330.4(f)(1)). If pre-construction notification is required for the proposed activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation has not been submitted, additional ESA section 7 consultation may be necessary for the activity and the respective federal agency would be responsible for fulfilling its obligation under section 7 of the ESA.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed such designation) might be affected or is in the vicinity of the activity, or if the activity is located in designated critical habitat or critical habitat proposed for such designation, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation), the pre-construction notification must include the name(s) of the endangered or threatened species (or species proposed for listing) that might be affected by the proposed activity or that utilize the designated critical habitat (or critical habitat proposed for such designation) that might be affected by the proposed activity. The district engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps' determination within 45 days of receipt of a complete pre-construction notification. For activities where the non-Federal applicant has identified listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) that might be affected or is in the vicinity of the activity, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification that the proposed activity will have "no effect" on listed species (or species proposed for listing or designated critical habitat (or critical habitat proposed for such designation), or until ESA section 7 consultation or conference has been completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(d) As a result of formal or informal consultation or conference with the FWS or NMFS the district engineer may add species-specific permit conditions to the NWPs.

(e) Authorization of an activity by an NWP does not authorize the "take" of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the FWS or the NMFS, the Endangered Species Act prohibits any person subject to the jurisdiction of the United States to take a listed species, where "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The word "harm" in the definition of "take'' means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering.

(f) If the non-federal permittee has a valid ESA section 10(a)(1)(B) incidental take permit with an approved Habitat Conservation Plan for a project or a group of projects that includes the proposed NWP activity, the non-federal applicant should provide a copy of that ESA section 10(a)(1)(B) permit with the PCN required by paragraph (c) of this general condition. The district engineer will coordinate with the agency that issued the ESA section 10(a)(1)(B) permit to determine whether the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation conducted for the ESA section 10(a)(1)(B) permit. If that coordination results in concurrence from the agency that the proposed NWP activity and the associated incidental take were considered in the internal ESA section 7 consultation for the ESA section 10(a)(1)(B) permit, the district engineer does not need to conduct a separate ESA section 7 consultation for the proposed NWP activity. The district

engineer will notify the non-federal applicant within 45 days of receipt of a complete pre-construction notification whether the ESA section 10(a)(1)(B) permit covers the proposed NWP activity or whether additional ESA section 7 consultation is required.

(g) Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the FWS and NMFS or their world wide web pages at http://www.fws.gov/ or http://www.fws.gov/ipac and http://www.nmfs.noaa.gov/pr/species/esa/ respectively.

19. Migratory Birds and Bald and Golden Eagles. The permittee is responsible for ensuring that an action authorized by an NWP complies with the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The permittee is responsible for contacting the appropriate local office of the U.S. Fish and Wildlife Service to determine what measures, if any, are necessary or appropriate to reduce adverse effects to migratory birds or eagles, including whether "incidental take" permits are necessary and available under the Migratory Bird Treaty Act or Bald and Golden Eagle Protection Act for a particular activity.

20. Historic Properties.

(a) No activity is authorized under any NWP which may have the potential to cause effects to properties listed, or eligible for listing, in the National Register of Historic Places until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

(b) Federal permittees should follow their own procedures for complying with the requirements of section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)(1)). If pre-construction notification is required for the proposed NWP activity, the Federal permittee must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements. The district engineer will verify that the appropriate documentation has been submitted. If the appropriate documentation is not submitted, then additional consultation under section 106 may be necessary. The respective federal agency is responsible for fulfilling its obligation to comply with section 106.

(c) Non-federal permittees must submit a pre-construction notification to the district engineer if the NWP activity might have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties might have the potential to be affected by the proposed NWP activity or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of, or potential for, the presence of historic properties can be sought from the State Historic Preservation Officer, Tribal Historic Preservation Officer, or designated tribal representative, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts commensurate with potential impacts, which may include background research, consultation, oral history interviews, sample field investigation, and/or field survey. Based on the information submitted in the PCN and these identification efforts, the district engineer shall determine whether the proposed NWP activity has the potential to cause effects on the historic properties. Section 106 consultation is not required when the district engineer determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR 800.3(a)). Section 106 consultation is required when the district engineer determines that the activity has the potential to cause effects on historic properties. The district engineer will conduct consultation with consulting parties identified under 36 CFR 800.2(c) when he or she makes any of the following effect determinations for the purposes of section 106 of the NHPA: no historic properties affected, no adverse effect, or adverse effect.

(d) Where the non-Federal applicant has identified historic properties on which the proposed NWP activity might have the potential to cause effects and has so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects to historic properties or that NHPA section 106 consultation has been completed. For non-federal permittees, the district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA section 106 consultation is required. If NHPA section 106 consultation is required, the district engineer will notify the non-Federal applicant that he or she cannot begin the activity until section 106 consultation is completed. If the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must still wait for notification from the Corps.

(e) Prospective permittees should be aware that section 110k of the NHPA (54 U.S.C. 306113)

prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

21. Discovery of Previously Unknown Remains and Artifacts. Permittees that discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by an NWP, they must immediately notify the district engineer of what they have found, and to the maximum extent practicable, avoid construction activities that may affect the remains and artifacts until the required coordination has been completed. The district engineer will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

22. Designated Critical Resource Waters. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment.

(a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, 52, 57 and 58 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

(b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, 38, and 54, notification is required in accordance with general condition 32, for any activity proposed by permittees in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after she or he determines that the impacts to the critical resource waters will be no more than minimal.

23. Mitigation. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal:

(a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the individual and cumulative adverse environmental effects are no more than minimal.

(c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. For wetland losses of 1/10-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects.

(d) Compensatory mitigation at a minimum one-for-one ratio will be required for all losses of stream bed that exceed 3/100-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse environmental effects of the proposed activity are no more than minimal, and provides an activity-specific waiver of this requirement. This compensatory mitigation requirement may be satisfied through the restoration or enhancement of riparian areas next to streams in accordance with paragraph (e) of this general condition. For losses of stream bed of 3/100-acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in only minimal adverse environmental effects. Compensatory mitigation for losses of streams should be provided, if practicable, through stream rehabilitation, enhancement, or preservation, since

streams are difficult-to-replace resources (see 33 CFR 332.3(e)(3)).

(e) Compensatory mitigation plans for NWP activities in or near streams or other open waters will normally include a requirement for the restoration or enhancement, maintenance, and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, the restoration or maintenance/protection of riparian areas may be the only compensatory mitigation required. If restoring riparian areas involves planting vegetation, only native species should be planted. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to restore or maintain/protect a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or maintaining/protecting a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of minimization or compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

(f) Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332.

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in no more than minimal adverse environmental effects. For the NWPs, the preferred mechanism for providing compensatory mitigation is mitigation bank credits or in-lieu fee program credits (see 33 CFR 332.3(b)(2) and (3)). However, if an appropriate number and type of mitigation bank or in-lieu credits are not available at the time the PCN is submitted to the district engineer, the district engineer may approve the use of permittee-responsible mitigation.

(2) The amount of compensatory mitigation required by the district engineer must be sufficient to ensure that the authorized activity results in no more than minimal individual and cumulative adverse environmental effects (see 33 CFR 330.1(e)(3)). (See also 33 CFR 332.3(f).)

(3) Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, aquatic resource restoration should be the first compensatory mitigation option considered for permittee-responsible mitigation.

(4) If permittee-responsible mitigation is the proposed option, the prospective permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) through (14) must be approved by the district engineer before the permittee begins work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation (see 33 CFR 332.3(k)(3)). If permittee-responsible mitigation is the proposed option, and the proposed compensatory mitigation site is located on land in which another federal agency holds an easement, the district engineer will coordinate with that federal agency to determine if proposed compensatory mitigation project is compatible with the terms of the easement.

(5) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan needs to address only the baseline conditions at the impact site and the number of credits to be provided (see 33 CFR 332.4(c)(1)(ii)).

(6) Compensatory mitigation requirements (e.g., resource type and amount to be provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan (see 33 CFR 332.4(c)(1)(ii)).

(g) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any NWP activity resulting in the loss of greater than 1/2-acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that an NWP activity already meeting the established acreage limits also satisfies the no more than minimal impact requirement for the NWPs.

(h) Permittees may propose the use of mitigation banks, in-lieu fee programs, or permittee-responsible mitigation. When developing a compensatory mitigation proposal, the permittee must consider appropriate and practicable options consistent with the framework at 33 CFR 332.3(b). For activities resulting in the loss of marine or estuarine resources, permittee-responsible

mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or parties responsible for the implementation and performance of the compensatory mitigation project, and, if required, its long-term management.

(i) Where certain functions and services of waters of the United States are permanently adversely affected by a regulated activity, such as discharges of dredged or fill material into waters of the United States that will convert a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse environmental effects of the activity to the no more than minimal level.

24. Safety of Impoundment Structures. To ensure that all impoundment structures are safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state or federal, dam safety criteria or have been designed by qualified persons. The district engineer may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

25. Water Quality.

(a) Where the certifying authority (state, authorized tribe, or EPA, as appropriate) has not previously certified compliance of an NWP with CWA section 401, a CWA section 401 water quality certification for the proposed discharge must be obtained or waived (see 33 CFR 330.4(c)). If the permittee cannot comply with all of the conditions of a water quality certification previously issued by certifying authority for the issuance of the NWP, then the permittee must obtain a water quality certification or waiver for the proposed discharge in order for the activity to be authorized by an NWP.

(b) If the NWP activity requires pre-construction notification and the certifying authority has not previously certified compliance of an NWP with CWA section 401, the proposed discharge is not authorized by an NWP until water quality certification is obtained or waived. If the certifying authority issues a water quality certification for the proposed discharge, the permittee must submit a copy of the certification to the district engineer. The discharge is not authorized by an NWP until the district engineer has notified the permittee that the water quality certification requirement has been satisfied by the issuance of a water quality certification or a waiver.

(c) The district engineer or certifying authority may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). If the permittee cannot comply with all of the conditions of a coastal zone management consistency concurrence previously issued by the state, then the permittee must obtain an individual coastal zone management consistency concurrence or presumption of concurrence in order for the activity to be authorized by an NWP. The district engineer or a state may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specificconditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its CWA section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is authorized, subject to the following restrictions:

(a) If only one of the NWPs used to authorize the single and complete project has a specified acreage limit, the acreage loss of waters of the United States cannot exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1⁄3-acre.

(b) If one or more of the NWPs used to authorize the single and complete project has specified acreage limits, the acreage loss of waters of the United States authorized by those NWPs cannot exceed their respective specified acreage limits. For example, if a commercial development is constructed under NWP 39, and the single and complete project includes the filling of an upland ditch authorized by NWP 46, the maximum acreage loss of waters of the United States for the commercial development under NWP 39 cannot exceed 1/2-acre, and the total acreage loss of waters of United States due to the NWP 39 and 46 activities cannot exceed 1 acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated

with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

_____

(Transferee)

_____

(Date)

30. Compliance Certification. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and implementation of any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized activity was done in accordance with the NWP authorization, including any general, regional, or activity-specific conditions;

(b) A statement that the implementation of any required compensatory mitigation was completed in accordance with the permit conditions. If credits from a mitigation bank or in-lieu fee program are used to satisfy the compensatory mitigation requirements, the certification must include the documentation required by 33 CFR 332.3(l)(3) to confirm that the permittee secured the appropriate number and resource type of credits; and

(c) The signature of the permittee certifying the completion of the activity and mitigation.

The completed certification document must be submitted to the district engineer within 30 days of completion of the authorized activity or the implementation of any required compensatory mitigation, whichever occurs later.

31. Activities Affecting Structures or Works Built by the United States. If an NWP activity also requires review by, or permission from, the Corps pursuant to 33U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corps of Engineers (USACE) federally authorized Civil Works project (a "USACE project"), the prospective permittee must submit a pre-construction notification. See paragraph (b)(10) of general condition 32. An activity that requires section 408 permission and/or review is not authorized by an NWP until the appropriate Corps office issues the section 408 permission or completes its review to alter, occupy, or use the USACE project, and the district engineer issues a written NWP verification.

32. Pre-Construction Notification.

(a) *Timing*. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective permittee within that 30 day period to request the additional information necessary to make the PCN complete. The request must specify the information needed to make the PCN complete. As a general rule, district engineers will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

(1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; Or

(2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or are in the vicinity of the activity, or to notify the Corps pursuant to general condition 20 that the activity might have thepotential to cause effects to historic properties, the permittee cannot begin the activity until receiving written

notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) has been completed. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days ofreceipt of a complete PCN, the permittee cannot begin the activity until an individual permit hasbeen obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) *Contents of Pre-Construction Notification*: The PCN must be in writing and include the following information:

(1) Name, address and telephone numbers of the prospective permittee;
(2) Location of the proposed activity;
(3) Identify the specific NWP or NWP(s) the prospective permittee wants to use to authorize the proposed activity;
(4) (i) A description of the proposed activity; the activity's purpose; direct and indirect adverse environmental effects the activity would cause, including the anticipated amountof loss of wetlands, other special aquatic sites, and other waters expected to result from the NWPactivity, in acres, linear feet, or other appropriate unit of measure; a description of any proposed mitigation measures intended to reduce the adverse environmental effects caused by the proposed activity; and any other NWP(s), regional general permit(s), or individual permit(s) usedor intended to be used to authorize any part of the proposed project or any related activity, including other separate and distant crossings for linear projects that require Department of theArmy authorization but do not require pre- construction notification. The description of the proposed activity and any proposed mitigation measures should be sufficiently detailed to allow the district engineer to determine that the adverse environmental effects of the activity will beno more than minimal and to determine the need for compensatory mitigation or other mitigation measures.

(ii)F or linear projects where one or more single and complete crossings require pre-construction notification, the PCN must include the quantity of anticipated losses of wetlands, other special aquatic sites, and other waters for each single and complete crossing of those wetlands, other special aquatic sites, and other waters (including those single and complete crossings authorized by an NWP but do not require PCNs). This information will be used by the district engineer to evaluate the cumulative adverse environmental effects of the proposed linear project, and does not change those non-PCN NWP activities into NWP PCNs.

(iii) Sketches should be provided when necessary to show that the activity complieswith the terms of the NWP. (Sketches usually clarify the activity and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative descriptionof the proposed activity (e.g., a conceptual plan), but do not need to be detailed engineering plans);

(5) The PCN must include a delineation of wetlands, other special aquatic sites, and other waters, such as lakes and ponds, and perennial and intermittent streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps.The permittee may ask the Corps to delineate the special aquatic sites and other waters on the project site, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many wetlands, other special aquatic sites, and other waters. Furthermore, the 45-day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate;

(6) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied, or explaining why the adverse environmental effects are no more than minimal and why compensatory mitigation should notbe required. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

(7) For non-federal permittees, if any listed species (or species proposed for listing) or designated critical habitat (or critical habitat proposed for such designation) might be affectedor is in the vicinity of the activity, or if the activity is located in designated critical habitat (or critical habitat proposed for such designation), the PCN must include the name(s) of those endangered or threatened species (or species proposed for listing) that might be affected bythe proposed activity or utilize the designated critical habitat (or critical habitat proposed forsuch designation) that might be affected by the proposed activity. For NWP activities that requirepre-construction notification, Federal permittees must provide documentation demonstrating compliance with the Endangered Species Act;

(8) For non-federal permittees, if the NWP activity might have the potential to cause effects to a historic property listed on, determined to be eligible for listing on, or potentiallyeligible for listing on, the National Register of Historic Places, the PCN must state which historic property might have the potential to be affected by the proposed activity or include a vicinity map indicating the location of the historic property. For NWP activities that require pre-construction notification, Federal permittees must provide documentation demonstratingcompliance with section 106 of the National Historic Preservation Act;

(9) For an activity that will occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusionin the system while the river is in an official study status, the PCN must identify the Wild andScenic River or the "study river" (see general condition 16); and

(10) For an NWP activity that requires permission from, or review by, the Corps pursuant to 33 U.S.C. 408 because it will alter or temporarily or permanently occupy or use a U.S. Army Corpsof Engineers federally authorized civil works project, the pre-construction notification must include a statement confirming that the project proponent has submitted a written request for section 408 permission from, or review by, the Corps office having jurisdiction over that USACE project.

(c) Form of Pre-Construction Notification: The nationwide permit pre-construction notification form (Form ENG 6082) should be used for NWP PCNs. A letter containing the required information mayalso be used. Applicants may provide electronic files of PCNs and supporting materials if the district engineer has established tools and procedures for electronic submittals.

(d) Agency Coordination:

(1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and theneed for mitigation to reduce the activity's adverse environmental effects so that they are no more than minimal.

(2) Agency coordination is required for:
(i) all NWP activities that require pre- construction notification and result in the loss of greater than 1/2-acre of waters of the United States;
(ii) NWP 13 activities in excess of 500 linear feet, fills greater than one cubic yard per running foot, or involve discharges of dredged or fill material into special aquatic sites; and
(iii) NWP 54 activities in excess of 500 linear feet, or that extend into the waterbody more than 30 feet from the mean low water line in tidal waters or the ordinary high-water mark in the GreatLakes.

(3) When agency coordination is required, the district engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (FWS, state natural resource or waterquality agency, EPA, and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is transmitted to notify the district engineer via telephone, facsimile transmission, or e-mail that they intend to provide substantive,site-specific comments. The comments must explain why the agency believes the adverse environmental effects will be more than minimal. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation to ensure that the net adverse environmental effects of the proposed activity are no more than minimal. The district engineer will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer willconsider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

(4) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by section 305(b)(4)(B) of the Magnuson-StevensFishery Conservation and Management Act.

(5) Applicants are encouraged to provide the Corps with either electronic files or multiple copies of pre-construction notifications to expedite agency coordination.

D. District Engineer's Decision

1. In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If a project proponent requests authorization by a specific NWP, the district engineer should issue the NWP verification for that activity if it meets the terms and conditions of that NWP, unless he or she determines, after considering mitigation, that the proposed activity will result in more than minimal individual and cumulative adverse effects on the aquatic environment and other aspects of the public interest and exercises discretionary authority to require an individual permit for the proposed activity. For a linear project, this determination will include an evaluation of the single and complete crossings of waters of the United States that require PCNs to determine whether they individually satisfy the terms and conditions of the NWP(s), as well as the cumulative effects caused by all of the crossings of waters of the United States authorized by an NWP. If an applicant requests a waiver of an applicable limit, as provided for in NWPs 13, 36, or 54, the district engineer will only grant the waiver upon a written determination that the NWP activity will result in only minimal individual and cumulative adverse environmental effects.

2. When making minimal adverse environmental effects determinations the district engineer will consider the direct and indirect effects caused by the NWP activity. He or she will also consider the cumulative adverse environmental effects caused by activities authorized by an NWP and whether those cumulative adverse environmental effects are no more than minimal. The district engineer will also consider site specific factors, such as the environmental setting in the vicinity of the NWP activity, the type of resource that will be affected by the NWP activity, the functions provided by the aquatic resources that will be affected by the NWP activity, the degree or magnitude to which the aquatic resources perform those functions, the extent that aquatic resource functions will be lost as a result of the NWP activity (e.g., partial or complete loss), the duration of the adverse effects (temporary or permanent), the importance of the aquatic resource functions to the region (e.g., watershed or ecoregion), and mitigation required by the district engineer. If an appropriate functional or condition assessment method is available and practicable to use, that assessment method may be used by the district engineer to assist in the minimal adverse environmental effects determination. The district engineer may add case-specific special conditions to the NWP authorization to address site-specific environmental concerns.

3. If the proposed activity requires a PCN and will result in a loss of greater than 1/10-acre of wetlands or 3/100-acre of stream bed, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for NWP activities with smaller impacts, or for impacts to other types of waters. The district engineer will consider any proposed compensatory mitigation or other mitigation measures the applicant has included in the proposal in determining whether the net adverse environmental effects of the proposed activity are no more than minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and conditions of the NWP and that the adverse environmental effects are no more than minimal, after considering mitigation, the district engineer will notify the permittee and include any activity- specific conditions in the NWP verification the district engineer deems necessary. Conditions for compensatory mitigation requirements must comply with the appropriate provisions at 33 CFR 332.3(k). The district engineer must approve the final mitigation plan before the permittee commences work in waters of the United States, unless the district engineer determines that prior approval of the final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the proposed compensatory mitigation plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure that the NWP activity results in no more than minimal adverse environmental effects. If the net adverse environmental effects of the NWP activity (after consideration of the mitigation proposal) are determined by the district engineer to be no more than minimal, the district engineer will provide a timely written response to the applicant. The response will state that the NWP activity can proceed under the terms and conditions of the NWP, including any activity-specific conditions added to the NWP authorization by the district engineer.

4. If the district engineer determines that the adverse environmental effects of the proposed activity are more than minimal, then the district engineer will notify the applicant either: (a) that the activity does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (b) that the activity is authorized under the NWP subject to the applicant’s submission of a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal; or (c) that the activity is authorized under the NWP with specific modifications or conditions. Where the districtengineer determines that mitigation is required to ensure no more than minimal adverse environmental effects, the activity will be authorized within the 45-day PCN period (unless additional time is required to comply with general conditions 18, 20, and/or 31), with activity-specific conditions that state the mitigation requirements. The authorization will include the necessary conceptual or detailed mitigation plan or a requirement that the applicant submit a mitigation plan that would reduce the adverse environmental effects so that they are no more than minimal. When compensatory mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan or has determined that prior approval of a final mitigation plan is not practicable or not necessary to ensure timely completion of the required compensatory mitigation.

E. Further Information

1. District engineers have authority to determine if an activity complies with the terms and conditions of an NWP.

2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.

3. NWPs do not grant any property rights or exclusive privileges.

4. NWPs do not authorize any injury to the property or rights of others.

5. NWPs do not authorize interference with any existing or proposed Federal project (see general condition 31).

F. Definitions

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration (re-establishment or rehabilitation), establishment (creation), enhancement, and/or in certain circumstances preservation of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Direct effects: Effects that are caused by the activity and occur at the same time and place.

Discharge: The term "discharge" means any discharge of dredged or fill material into waters of the United States.

Ecological reference: A model used to plan and design an aquatic habitat and riparian area restoration, enhancement, or establishment activity under NWP 27. An ecological reference may be based on the structure, functions, and dynamics of an aquatic habitat type or a riparian area type that currently exists in the region where the proposed NWP 27 activity is located. Alternatively, an ecological reference may be based on a conceptual model for the aquatic habitat type or riparian area type to be restored, enhanced, or established as a result of the proposed NWP 27 activity. An ecological reference takes into account the range of variation of the aquatic habitat type or riparian area type in the region.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

High Tide Line: The line of intersection of the land with the water's surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete non-linear project in the Corps Regulatory Program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Indirect effects: Effects that are caused by the activity and are later in time or farther removed in distance but are still reasonably foreseeable.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. The loss of stream bed includes the acres of stream bed that are permanently adversely affected by filling or excavation because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters or wetlands for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities that do not require Department of the Army authorization, such as activities eligible for exemptions under section 404(f) of the Clean Water Act, are not considered when calculating the loss of waters of the United States.

Navigable waters: Waters subject to section 10 of the Rivers and Harbors Act of 1899. These waters are defined at 33 CFR part 329.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high-water mark can be determined. Aquatic vegetation within the area of flowing or standing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of “open waters” include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: The term ordinary high water mark means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Perennial stream: A perennial stream has surface water flowing continuously year-round during a typical year.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification (PCN): A request submitted by the project proponent to the Corps for confirmation that a particular activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and functions.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a course substrate in riffles results in a rough flow, a turbulent surface, and high

dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands next to streams, lakes, and estuarine- marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects riverine, lacustrine, estuarine, and marine waters with their adjacent wetlands, non- wetland waters, or uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 23.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete linear project: A linear project is a project constructed for the purpose of getting people, goods, or services from a point of origin to a terminal point, which often involves multiple crossings of one or more waterbodies at separate and distant locations. The term "single and complete project" is defined as that portion of the total linear project proposed or accomplished by one owner/developer or partnership or other association of owners/developers that includes all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single or multiple waterbodies several times at separate and distant locations, each crossing is considered a single and complete project for purposes of NWP authorization. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Single and complete non-linear project: For non-linear projects, the term "single and complete project" is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers. A single and complete non-linear project must have independent utility (see definition of "independent utility"). Single and complete non-linear projects may not be "piecemealed" to avoid the limits in an NWP authorization.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high-water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high-water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream's course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized jurisdictional stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a jurisdictional wetland that is inundated by tidal waters. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channel ward of the high tide line.

Tribal lands: Any lands title to which is either: 1) held in trust by the United States for the benefit of any Indian tribe or individual; or 2) held by any Indian tribe or individual subject to restrictions by the United States against alienation.

Tribal rights: Those rights legally accruing to a tribe or tribes by virtue of inherent sovereign authority, unextinguished aboriginal title, treaty, statute, judicial decisions, executive order or agreement, and that give rise to legally enforceable remedies.

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWPs, a waterbody is a "water of the United States." If a wetland is adjacent to a waterbody determined to be a water of the United States, that waterbody and any adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)).

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 • (217) 782-3397
JB PRITZKER, GOVERNOR JOHN J. KIM, DIRECTOR

217/782-0610

DEC 21 2021

U.S. Army Corps of Engineers, Rock Island
ATTN: Ms. Samantha Chavez, Regulatory Branch
Post Office Box 2004
Clock Tower Building
Rock Island, IL 61204-2004

Re: Correction of Nationwide Permits CWA §401 Certification/Denial
Illinois EPA Log No. C-0210-20

Dear Ms. Chavez:

On October 8, 2021 the Agency granted §401 water quality certification for Nationwide Permits (NWPs) 3, 4, 5, 6, 7; 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 25, 27, 30, 31, 32, 33, 36, 37, 38, 41, 45, 53, and 54 with special conditions and/or general conditions. Please find attached a corrected copy of the October 8, 2021 §401 water quality certification to correct the typographical errors in the first paragraph. Mention of granting §401 water quality certification for NWPs 34, 49, and 59 were removed and references to certification conditions for NWPs 21, 44, 48, 50, 55, and 56 were removed.

Should you have any questions or comments regarding the content of this nationwide certification, please contact Francisco Herrera at 217-782-3362.

Sincerely,

Darin E. LeCrone, P.E.
Manager, Permit Section
Division of Water Pollution Control

DEL:FJH:C-0210-20.docx

Attachment: Corrected Copy of Illinois EPA 401 Water Quality Certifications of Nationwide Permits

cc: Records Unit
CoE, Chicago District
CoE, Louisville District (Indianapolis Office)
CoE, Louisville District (Newburgh Regulatory Office)
CoE, Memphis District
CoE, St. Louis District
IDNR, Bartlett
IDNR, OWR, Chicago
IDNR, OWR, Springfield
USEPA, Region 5
USFWS, Rock Island, Chicago and Marion

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 · (217) 782-3397

JB PRITZKER, GOVERNOR JOHN J. KIM, DIRECTOR

Corrected Copy

October 8, 2021

Corrected Copy Date: DEC 2 1 2021

U.S. Army Corps of Engineers, Rock Island
ATTN: Ms. Samantha Chavez, Regulatory Branch
Post Office Box 2004
Clock Tower Building
Rock Island, IL 61204-2004

Re: Federal Register [Docket Number: COE–2020–0002] Proposal to Reissue and Modify Nationwide Permits, September 15, 2020
CWA §401 Certification/Denial and applicable conditions
Illinois EPA Log no. C-0210-20

Dear Ms. Chavez:

On September 15, 2020 the Corps of Engineers issued the notice of proposed rulemaking concerning their determination to reissue and modify the current Nationwide Permits (NWPs) that are set to expire on March 18, 2022. By letter dated August 19, 2021 your office extended the reasonable period of time to revise the §401 water quality certification to October 13, 2021 for thirty-two (32) NWPs. The Agency has made modifications to the certification conditions issued on December 11, 2020. By this final determination document the Illinois EPA grants §401 water quality certification for NWPs 3, 4, 5, 6, 7, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 25, 27, 30, 31, 32, 33, 36, 37, 38, 41, 45, 53, and 54 with the special and/or general conditions specified below. This document also provides the certification conditions for NWPs 12, 29, 39, 40, 42, 43, 51, 52, 57, and 58 and notice of the Agency determination to deny eight (8) of the proposed nationwide permits which are provided below with reasons in accordance with 40 CFR 121.7(e)(2).

CWA §401 certification is hereby granted, subject to General Conditions 1 through 12 below, for the following nationwide permits:

NWP 3 – Maintenance
NWP 4 – Fish and Wildlife Harvesting, Enhancement, and Attraction Device and Activities
NWP 5 – Scientific Measurement Devices
NWP 7 – Outfall Structures and Associated Intake Structures
NWP 18 – Minor Discharges
NWP 19 – Minor Dredging
NWP 20 – Response Operations for Oil or Hazardous Substances
NWP 22 – Removal of Vessels
NWP 25 – Structural Discharges
NWP 30 – Moist Soil Management for Wildlife
NWP 31 – Maintenance of Existing Flood Control Facilities
NWP 33 – Temporary Construction, Access and Dewatering
NWP 36 – Boat Ramps
NWP 41 – Reshaping Existing Drainage Ditches
NWP 45 – Repair of Uplands Damaged by Discrete Events

CWA §401 certification is hereby granted, subject to General Conditions 1 through 12 below and the Special Conditions which are contained in the referenced attachment for the following identified nationwide permits:

NWP 6 – Survey Activities. Refer to Special Conditions for NWP 6 in Attachment.
NWP 12 – Oil or Natural Gas Pipeline Activities. Refer to Special Conditions for NWP 12 in Attachment.
NWP 13 – Bank Stabilization. Refer to Special Conditions for NWP 13 in Attachment.
NWP 14 – Linear Transportation Projects. Refer to Special Conditions for NWP 14 in Attachment.
NWP 15 – U.S. Coast Guard Approved Bridges. Refer to Special Conditions for NWP 15 in Attachment.
NWP 16 – Return Water from Upland Contained Disposal Areas. Refer to Special Conditions for NWP 16 in Attachment.
NWP 17 – Hydropower Projects. Refer to Special Conditions for NWP 17 in Attachment.
NWP 23 – Approved Categorical Exclusions. Refer to Special Conditions for NWP 23 in Attachment.
NWP 27 – Aquatic Habitat Restoration, Establishment, and Enhancement Activities. Refer to Special Conditions for NWP 27 in Attachment.
NWP 29 – Residential Developments. Refer to Special Conditions for NWP 29 in Attachment.
NWP 32 – Completed Enforcement Actions. Refer to Special Conditions for NWP 32 in Attachment.
NWP 37 – Emergency Watershed Protection and Rehabilitation. Refer to Special Conditions for NWP 37 in Attachment.
NWP 38 – Cleanup of Hazardous and Toxic Waste. Refer to Special Conditions for NWP 38 in Attachment.
NWP 39 – Commercial and Institutional Developments. Refer to Special Conditions for NWP 39 in Attachment.
NWP 40 – Agricultural Activities. Refer to Special Conditions for NWP 40 in Attachment.
NWP 42 – Recreational Facilities. Refer to Special Conditions for NWP 42 in Attachment.
NWP 43 – Stormwater Management Facilities. Refer to Special Conditions for NWP 43 in Attachment.
NWP 51 – Land-Based Renewable Energy Generation Facilities. Refer to Special Conditions for NWP 51 in Attachment.
NWP 52 – Water-Based Renewable Energy Generation Pilot Projects. Refer to Special Conditions for NWP 52 in Attachment.
NWP 53 – Removal of Low-Head Dams. Refer to Special Conditions for NWP 53 in Attachment.
NWP 54 – Living Shorelines. Refer to Special Conditions for NWP 54 in Attachment.
NWP 57 – Electric Utility Line and Telecommunications Activities. Refer to Special Conditions for NWP 12 in Attachment.
NWP 58 – Utility Line Activities for Water and Other Substances. Refer to Special Conditions for NWP 12 in Attachment.

CWA §401 certification is hereby denied with reasons provided in accordance with 401 CFR 121.7 for the following NWPs:

NWP 21 – Surface Coal Mining Activities. The Illinois EPA has determined that a case-specific review is warranted for all surface mining activities including carbon extraction because pursuant to 35 Ill. Admin. Code Section 401.102, mining activities are identified as having, when certain refuse materials are used, the capability to cause or threaten to cause a nuisance or render waters harmful or detrimental to public health and to all legitimate uses including but not limited to livestock and wildlife uses. The likelihood that contaminants related to coal extraction, particularly acid producing minerals in mine refuse, would be found within overburden and soil stockpiles and therefore present within fill materials warrant a facility specific antidegradation assessment pursuant to 35 Ill. Admin. Code Section 302.105. Additionally, Illinois' Section 401 implementation rules at 35 Ill. Admin. Code Part 395 regarding material testing exemptions specifically exclude material with known sources of pollution. Therefore, Section 401 certification is denied for this nationwide permit (NWP21).

NWP 34 – Cranberry Production Activities: The Illinois EPA has determined that the area of impact that is allowed by an authorization under this nationwide permit exceeds 1/2 acre. 1/2 acre is determined to be representative of the maximum threshold for minimal degradation of existing uses of aquatic resources. Consequently, any activity authorized under this nationwide permit must be subject to a case-specific antidegradation assessment pursuant to 35 Ill. Admin. Code Section 302.105. Therefore, the Illinois EPA denies 401 certification for NWP 34.

NWP 44 – Mining Activities: The Illinois EPA has determined that a case-specific review is warranted for all surface mining activities because pursuant to 35 Ill. Admin. Code Section 401.102, mining activities are identified as having, when certain refuse materials are used, the capability to cause or threaten to cause a nuisance or render waters harmful or detrimental to public health and to all legitimate uses including but not limited to livestock and wildlife uses. Furthermore, all mining activities are regulated by the Illinois EPA under federal and state statute because of their potential to cause or threaten to cause water pollution. Therefore, for the above reasons, the Illinois EPA denies 401 certification for NWP 44.

NWP 46 – Discharges into Ditches: The Illinois EPA has determined that a case-specific review is warranted for all discharge activities into ditches because of the nationwide permit exceeds the 1/2 acreage determined to be the maximum threshold for minimal degradation of existing uses of aquatic resources. Consequently, any activity authorized under this nationwide permit must be subject to a case-specific antidegradation assessment pursuant to 35 Ill. Admin. Code Section 302.105. Therefore, the Illinois EPA denies 401 certification for NWP 46.

NWP 48 – Commercial Shellfish Mariculture Activities: As proposed, the Illinois EPA believes this nationwide permit is inapplicable to waters of the U.S. that are found within the State of Illinois. Therefore, the Illinois EPA denies 401 certification for NWP 48.

NWP 49 – Coal Remining Activities: By reference to the certification denial explanation for NWP 21, the Illinois EPA denies 401 certification for NWP 49.

NWP 50 – Underground Coal Mining: By reference to the certification denial explanation for NWP 21, the Illinois EPA denies 401 certification for NWP 50.

NWP 59 – Water Reclamation and Reuse Facilities: As proposed in the Federal Register, this proposed nationwide permit would appear to allow utilization of existing natural waterbodies as treatment devices. According to 35 Ill. Admin. Code 301.440 such utilization is not permissible. Therefore, the Illinois EPA denies 401 certification for NWP 59.

401 Certification General Conditions

General Conditions 1 through 12 shall be applicable to all NWPs that are granted 401 certification.

General Condition 1: Waterbodies that Require Individual Certification

Pursuant to 35 Ill. Adm. Code Section 302.105(d)(6), an individual 401 water quality certification will be required for activities permitted under these Nationwide Permits for discharges to waters designated by the State of Illinois as waters of particular biological significance or Outstanding Resource Waters under 35 Ill. Adm. Code 302.105(b). Biologically Significant Streams (BSS) are cataloged in Illinois DNR's publication

"Integrating Multiple Taxa in a Biological Stream Rating System" and may be identified at: https://www2.illinois.gov/dnr/conservation/BiologicalStreamratings/Pages/default.aspx.

General Condition 2: Water Quality Impairments

Pursuant to 35 Ill. Adm. Code Sections 302.105(a), 302.105(c)(2)(B), and 395.401(a), an individual 401 water quality certification will be required for activities permitted under these Nationwide Permits that may cause a discharge that, whether temporarily or permanently, may cause or contribute to additional loading of any pollutant, or deterioration of any water quality parameter, such as pH or dissolved oxygen, where such pollutant or parameter is also designated by the State of Illinois as a cause of water quality impairment of the particular segment of the receiving water body according to the Illinois Environmental Protection Agency's Section 303(d) list. The most recent Illinois Integrated Water Quality Report and Section 303(d) List can be found at https://www2.illinois.gov/epa/topics/water-quality/watershed-management/tmdls/Pages/303d-list.aspx.

General Condition 3: Threatened and Endangered Species

Pursuant to 35 Ill. Admin. Code Section 302.105(f)(1)(F), prior to proceeding with any work in furtherance of activities permitted under these Nationwide Permits, potential impacts to State threatened or endangered species and Natural Areas shall be determined in accordance with applicable consultation procedures established under 17 Ill. Admin Code Part 1075. The Department of Natural Resources (IDNR) Ecological Compliance Assessment Tool (EcoCAT) is available to complete consultation at http://dnr.illinois.gov/EcoPublic/. If IDNR determines that adverse impacts to protected natural resources are likely, the applicant shall address those identified concerns with IDNR through the consultation process. Please contact IDNR, Impact Assessment Section at 217-785-5500 if you have any questions regarding consultation.

General Condition 4: TMDLs

Pursuant to 35 Ill. Admin. Code Sections 302.105(a), 302.105(c)(2)(B), and 395.401(a), activities permitted under these Nationwide Permits that may cause a discharge that, whether temporarily or permanently, may cause or contribute to additional loading of any pollutant, or deterioration of any water quality parameter, such as pH or dissolved oxygen, where such pollutant or parameter is addressed by a USEPA approved Total Maximum Daily Load (TMDL) report for the receiving water body shall develop and implement additional measures and or procedures which ensure consistency with the load allocations, assumptions and requirements of the TMDL report. TMDL program information and water listings are available at https://www2.illinois.gov/epa/topics/water-quality/watershed-management/tmdls/Pages/reports.aspx.

General Condition 5: Prohibitions

Pursuant to 35 Ill. Admin. Code Section 395.401(a), the applicant shall not cause:

a. violation of applicable provisions of the Illinois Environmental Protection Act;
b. water pollution defined and prohibited by the Illinois Environmental Protection Act;
c. violation of applicable water quality standards of the Illinois Pollution Control Board, Title 35, Subtitle C: Water Pollution Rules and Regulation; or
d. interference with water use practices near public recreation areas or water supply intakes.

General Condition 6: Erosion and Sedimentation Control Measures

Pursuant to the Illinois Environmental Protection Act Section 39(a)[415 ILCS 5/39(a)] and 35 Ill. Admin. Code Sections 302.203 and 395.402(b)(2), the applicant shall implement all necessary sedimentation and erosion control measures consistent with the current edition of

the "Illinois Urban Manual" found at https://illinoisurbanmanual.org/. Interim measures to prevent erosion during construction shall be taken and may include the installation of sedimentation basins, silt fencing and temporary mulching. All construction within the waterway shall be conducted during zero or low flow conditions. All areas affected by construction shall be seeded and stabilized as soon after construction as possible.

General Condition 7: NPDES Stormwater Construction Permit

Pursuant to the Illinois Environmental Protection Act Section 39(a)[415 ILCS 5/39(a)] and 35 Ill. Admin. Code Section 395.402(b)(2), the applicant shall be responsible for obtaining an NPDES Storm Water Permit required by the federal Clean Water Act prior to initiating construction if the construction activity associated with the project will result in the disturbance of 1 (one) or more acres, total land area. An NPDES Storm Water Permit may be applied for at https://www2.illinois.gov/epa/topics/forms/water-permits/storm-water/Pages/construction.aspx.

General Condition 8: Spill Response Plan

Pursuant to 35 Ill. Admin. Code Sections 395.401, 302.203, and 302.208, the applicant shall ensure that a spill avoidance and response plan has been developed and implemented for management of accidental releases of petroleum, oil, and lubricant products to the aquatic environment during construction and for emergency notification of applicable downstream water supply operators. Absorbent pads, containment booms and skimmers shall be available to facilitate the cleanup of petroleum spills. If floating hydrocarbon (oil and gas) products are observed, the applicant or his designated individual will be responsible for directing that work be halted so that appropriate corrective measures are taken in accordance with the plan prior to resuming work.

General Condition 9: Hydraulic Machinery

Pursuant to 35 Ill. Admin. Code Sections 302.203, 302.304, and 302.515, all hydraulic machinery utilized for the permitted activity and used in or immediately adjacent to waters of the State shall utilize biodegradable or bio-based hydraulic fluids to minimize pollution in the case of broken or leaking hydraulic equipment.

General Condition 10: Temporary Structures and Work

Pursuant to 35 Ill. Admin. Code Sections 302.203, 395.204, and 395.401(b), temporary work pads, cofferdams, access roads and other temporary fills are approved provided that such activities are constructed with clean coarse aggregate or non-erodible non-earthen fill material that will not cause siltation. Sandbags, pre-fabricated rigid materials, sheet piling, inflatable bladders and fabric lined basins may be used for temporary facilities. Temporary fills within streams, creeks or rivers shall utilize adequate bypass measures (i.e. dam and pump, flumes, culverts, etc.) to minimize sedimentation and erosion and to maintain normal stream flow during construction.

General Condition 11: Construction Site Dewatering

Pursuant to Illinois Environmental Protection Act Section 39(a)[415 ILCS 5/39(a)] and 35 Ill. Admin. Code Section 395.402(b)(2), dewatering of a construction site is authorized provided the dewatering activity is limited to the immediate work area within a cofferdam or otherwise isolated from waters of the State, and the work site is free from sources of contamination including those of natural origin. Dewatering activities shall incorporate Best Management Practices in accordance with the current edition of the "Illinois Urban Manual"

https://illinoisurbanmanual.org/. Practice Standard for Dewatering (no. 813) or as otherwise appropriate to ensure that return flows from the dewatering activity are free of unnatural turbidity and floating debris and meet applicable water quality standards. Dewatering or discharge of flush water from construction of drilled piers or boreholes is not authorized and must be conducted in accordance with an NPDES permit issued by the Illinois EPA.

General Condition 12: Discharged Material Quality

Pursuant to 35 Ill. Admin. Code Sections 302.203, 302.208, and 395.401(b), any spoil material excavated, dredged or otherwise produced must not be returned to the water body but must be deposited in a self-contained area in compliance with all state statutes. Except as specifically allowed by special condition, any backfilling must be done with clean material that is predominantly sand or larger size material, with no more than 20% passing a #230 U. S. sieve and placed in a manner to prevent violation of applicable water quality standards.

401 Certification Special Conditions

Special Conditions including the conditional exclusions of 401 certification coverage that are listed within the Attachment: "Special Conditions for Illinois EPA 401 Water Quality Certifications of Certain Nationwide Permits" shall be applicable as stated therein.

Should you have any questions or comments regarding the content of this nationwide certification, please contact Darren Gove at 217-782-3362.

Sincerely,

Darin E. LeCrone, P.E.
Manager, Permit Section
Division of Water Pollution Control

DEL:DRG:C-0210-20.docx

Attachment: Special Conditions for Illinois EPA 401 Water Quality Certifications of Certain Nationwide Permits Regarding Federal Register [Docket Number: COE–2020–0002] Proposal to Reissue and Modify Nationwide Permits dated September 15, 2020

cc: Records Unit
CoE, Chicago District
CoE, Louisville District (Indianapolis Office)
CoE, Louisville District (Newburgh Regulatory Office)
CoE, Memphis District
CoE, St. Louis District
IDNR, Bartlett
IDNR, OWR, Chicago
IDNR, OWR, Springfield
USEPA, Region 5
USFWS, Rock Island, Barrington and Marion

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 6

Survey Activities

1. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B)(iii), 302.203, and 395.401(a), the applicant for the applicable nationwide permit shall provide adequate planning and supervision during the project construction period for implementing construction methods, processes and cleanup procedures necessary to prevent water pollution and control erosion.

2. Pursuant to 35 Ill. Admin. Code Section 395.401(a), material resulting from trench excavation within surface waters of the State may be temporarily sidecast adjacent to the trench excavation provided that:
    a. Sidecast material is not placed within a creek, stream, river or other flowing water body such that material dispersion could occur;
    b. Sidecast material is not placed within ponds or other water bodies other than wetlands; and
    c. Sidecast material is not placed within a wetland for a period longer than twenty (20) calendar days. Such sidecast material shall either be removed from the site or used as backfill (refer to Condition 4).

3. Pursuant to 35 Ill. Admin. Code Sections 302.203, 395.205, and 395.401(a), backfill used within trenches passing through surface water of the State, except wetland areas, shall be clean coarse aggregate, gravel or other material which will not cause siltation. Excavated material may be used only if:
    a. Particle size analysis is conducted and demonstrates the material to be at least 80% sand or larger size material, using a #230 U.S. sieve; or
    b. Excavation and backfilling are done under dry conditions.

4. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B)(ii) and 395.401(a), backfill used within trenches passing through wetland areas shall consist of clean material which will not cause siltation. Excavated material shall be used to the extent practicable, with the upper six (6) to twelve (12) inches backfilled with the topsoil obtained during trench excavation.

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMITS 12, 57, and 58.

Utility Line Activities, Electric, Water, and Others.

1. Pursuant to 35 Ill. Adm. Code Sections 302.105(c)(2)(B), 302.208, and 395.401, a case-specific (individual) 401 water quality certification from the Illinois EPA will be required for:
    a. activities in the following waters:
        i. Lake Calumet
        ii. Fox River (including the Fox Chain of Lakes)
        iii. Lake Michigan
        iv. Chicago Sanitary and Ship Canal
        v. Calumet-Sag Channel
        vi. Little Calumet River
        vii. Grand Calumet River
        viii. Calumet River
        ix. Pettibone Creek (in Lake County)

x. South Branch of the Chicago River (including the South Fork)
xi. North Branch of the Chicago River (including the East and West Forks and the Skokie Lagoons)
xii. Chicago River (Main Stem)
xiii. Des Plaines River
xiv. Kankakee River

b. activities in the following waters if material is sidecast into waters of the State or wetlands:
i. Saline River (in Hardin County)
ii. Richland Creek (in St. Clair and Monroe Counties)
iii. Rock River (in Winnebago County)
iv. Illinois River upstream of mile 229.6 (Illinois Route 178 bridge)
v. Illinois River between mile 140.0 and 182.0
vi. DuPage River (including the East and West Branches)
vii. Salt Creek (Des Plaines River Watershed)
viii. Waukegan River (including the South Branch)

c. activities in waters designated as Public and Food Processing Water Supplies with surface intake facilities within 2000 feet of the proposed discharge unless the discharge is reasonably considered downstream of the intake. The Illinois EPA's Division of Public Water Supply at 217/782-1020 may be contacted for information on these water supplies

2. Section 401 water quality certification is hereby issued for all other waters, with the following conditions:

a. Pursuant to 35 Ill. Admin. Code Sections 395.401(b) and 302.105(c)(2)(B)(iii), the applicant for the applicable nationwide permit(s) shall provide adequate planning and supervision during the project construction period for implementing construction methods, processes and cleanup procedures necessary to prevent water pollution and control erosion.

b. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B)(ii), 302.203, 302.208, 395.203, and 395.401, dredged material resulting from trench excavation within surface waters of the State may be temporarily sidecast adjacent to the trench excavation provided that:
i. Sidecast material is not placed within a creek, stream, river or other flowing water body such that material dispersion could occur;
ii. Side cast material is not placed within ponds or other water bodies other than wetlands; and
iii. Sidecast material is not placed within a wetland for a period longer than twenty (20) calendar days. Such sidecast material shall either be removed from the site (refer to Condition 2.e) or used as backfill (refer to Condition 2.d).

c. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B)(ii), 302.203, 302.208, 395.203, and 395.401, backfill used within trenches passing through surface water of the State, except wetland areas, shall be clean course aggregate, gravel or other material which will not cause siltation, pipe damage during placement, or chemical corrosion in place. Excavated material may be used only if:
i. Particle size analysis is conducted and demonstrates the material to be at least 80% sand or larger size material, using a #230 U.S. sieve; or
ii. Excavation and backfilling are done under dry conditions.

d. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B)(ii), 302.203, 302.208, 395.203, and 395.401, backfill used within trenches passing through wetland areas shall consist of clean material which will not cause siltation, pipe damage during placement, or chemical corrosion in place. Excavated material shall be used to the extent practicable, with the upper six (6) to twelve (12) inches backfilled with the topsoil obtained during trench excavation.

e. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B)(ii), 302.203, 302.208, 395.203, and 395.401, all material excavated which is not being used as backfill as stipulated in Condition 2.d and 2.c shall be stored or disposed in self-contained areas with no discharge to waters of the State. Material shall be disposed of appropriately under the regulations at 35 Il. Adm. Code Subtitle G.

f. Pursuant to 35 Ill. Admin. Code Sections 395.401(b), 302.203, and 302.208, the use of directional drilling to install utility pipelines below surface waters of the State is hereby certified provided that:
   i. All pits and other construction necessary for the directional drilling process are located outside of surface waters of the State;
   ii. All drilling fluids shall be adequately contained such that they cannot cause a discharge to surface waters of the State. Such fluids shall be treated as stipulated in Condition 2.F; and
   iii. Erosion and sediment control is provided in accordance with Conditions 2.B, 2.G, and 2.H.

g. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B)(iii), 302.203, and 395.401(b), permanent access roads shall be constructed of clean coarse aggregate or non-erodible nonearthen fill material that will not cause siltation. Material excavated or dredged from the surface water or wetland shall not be used to construct the access road in waters of the state. The applicant for Nationwide Permit 12 that constructs access roads shall maintain flow in creeks, streams and rivers by installing culverts, bridges or other such techniques.

h. Pursuant to 35 Ill. Admin. Code Sections 395.401(b) and 302.203, adjacent banks and slopes disturbed by construction shall be stabilized immediately following construction. The applicant shall undertake necessary measures and procedures to eliminate stormwater channelization via the utility route during and after construction. Interim measures to prevent erosion during construction shall be taken and may include the installation of sedimentation basins, check dams, straw bales and temporary mulching. All construction within the waterway shall be conducted during zero or low flow conditions.

i. Pursuant to 35 Ill. Admin. Code Sections 395.401(b) and 302.203, asphalt, bituminous material and concrete with protruding material such as reinforcing bar or mesh shall not be 1) used for backfill, 2) placed on shorelines/stream banks, or 3) placed in waters of the State.

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 13
Bank Stabilization

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a) and 302.105(c)(2)(B), a case-specific (individual) 401 water quality certification from the Illinois EPA will be required for bank stabilization activities that will exceed 1000 linear feet.

2. Pursuant to 35 Ill. Admin. Code Sections 302.203 and 395.401(b), asphalt, bituminous material and concrete with protruding material such as reinforcing bars or mesh shall not be:
   a. used for backfill;
   b. placed on shorelines/streambanks; or
   c. placed in waters of the State.

3. Pursuant to 35 Ill. Admin. Code Sections 302.203, 302.208, and 395.401(b), the applicant shall consider installing bioengineering practices in lieu of structural practices of bank stabilization to minimize impacts to the lake, pond, river or stream and enhance aquatic habitat. The applicant shall document the selection process for the bank stabilization technique(s) and the basis for the selection of the bank stabilization practices. Bioengineering techniques may include, but are not limited to:
   a. adequately sized riprap or A-Jack structures keyed into the toe of the slope with native plantings on the banks above;
   b. vegetated geogrids;
   c. coconut fiber (coir) logs;
   d. live, woody vegetative cuttings, fascines or stumps;
   e. brush layering; and
   f. soil lifts.

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 14
Linear Transportation Projects

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), a case-specific (individual) 401 water quality certification from the Illinois EPA will be required for linear transportation activities that cause loss of greater than 500 linear feet of stream channel, as measured along the stream corridor.

2. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), a case-specific (individual) 401 water quality certification from the Illinois EPA will be required for linear transportation activities covered by this nationwide permit that include the temporary or permanent placement of steel or other painted structures within the waterbody as result of demolition work of previous structures.

3. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), a case-specific (individual) 401 water quality certification from the Illinois EPA will be required for new or expanded roadways that affect waterways which are designated by the State of Illinois as having water quality impairments caused by chloride. The most recent Illinois Integrated Water Quality Report and Section 303(d) List can be found at https://www2.illinois.gov/epa/topics/water-quality/watershed-management/tmdls/Pages/303d-list.aspx

4. Pursuant to 35 Ill. Admin. Code Sections 302.203 and 395.401(b), any relocated stream channel authorized under this nationwide permit shall be constructed under dry conditions and allowed to fully stabilize prior to the diversion of flow to prevent erosion and sedimentation.

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 15 U.S. Coast Guard Approved Bridges

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), a case-specific (individual) 401 water quality certification from the Illinois EPA shall be required for linear transportation activities covered by this nationwide permit that include the temporary or permanent placement of demolished structural or decking materials within the waterbody as result of demolition work of previous structures.

2. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), a case-specific (individual) 401 water quality certification from the Illinois EPA shall be required for new bridges (not replacing another) that affect waterways which are designated by the State of Illinois as having water quality impairments caused by chloride. The most recent Illinois Integrated Water Quality Report and Section 303(d) List can be found at https://www2.illinois.gov/epa/topics/water-quality/watershed-management/tmdls/Pages/303d-list.aspx.

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 16 Return Water from Upland Contained Disposal Areas

1. Pursuant to 35 Ill. Adm. Code Sections 302.105(c)(2)(B), 302.208, and 395.401, a case-specific (individual) 401 water quality certification from the Illinois EPA will be required for:

    a. return water discharge resulting from dredging activities in the following waters:
        i. Lake Calumet
        ii. Fox River (including the Fox Chain of Lakes)
        iii. Lake Michigan
        iv. Chicago Sanitary and Ship Canal
        v. Calumet-Sag Channel
        vi. Little Calumet River
        vii. Grand Calumet River
        viii. Calumet River
        ix. Pettibone Creek (in Lake County)
        x. South Branch of the Chicago River (including the South Fork)
        xi. North Branch of the Chicago River (including the East and West Forks and the Skokie Lagoons)
        xii. Chicago River (Main Stem)
        xiii. Des Plaines River
        xiv. Kankakee River
        xv. Saline River (in Hardin County)
        xvi. Richland Creek (in St. Clair and Monroe Counties)

xvii. Rock River (in Winnebago County)
xviii. Illinois River upstream of mile 229.6 (Illinois Route 178 bridge)
xix. Illinois River between mile 140.0 and 182.0
xx. DuPage River (including the East and West Branches)
xxi. Salt Creek (Des Plaines River Watershed)
xxii. Waukegan River (including the South Branch)
xxiii. any waters designated as

b. return water discharge, resulting from dredging activities, in waters designated as Public and Food Processing Water Supplies with surface intake facilities within 2000 feet of the proposed discharge unless the discharge is reasonably considered downstream of the intake. The Illinois EPA's Division of Public Water Supply at 217/782-1020 may be contacted for information on these water supplies.

c. disposal areas or return water discharges that are located within a designated Environmental Justice (EJ) area of concern. An EJ mapping tool is available at https://illinois-epa.maps.arcgis.com/apps/webappviewer/index.html?id=f154845da68a4a3f837cd3b880b0233c.

d. dredging activities that would result in upland placement of more than 125,000 cubic yards of material or would produce effluent discharge on a recurring basis for a period lasting more than 5 years, including periods covered under a previous Department of the Army authorization.

e. hydraulic dredging activities if the total quantity of dredged material per dredge event would exceed 500 cubic yards and the receiving water:
   i. is listed on the Agency's 303(d) List, or
   ii. has a USEPA approved Total Maximum Daily Load (TMDL) is in effect, or
   iii. is designated pursuant to Section 302.206(d) Stream Segments for Enhanced Dissolved Oxygen Protection.

   Information on 303(d) List and TMDLs can be found at https://www2.illinois.gov/epa/topics/water-quality/watershed-management/tmdls/Pages/default.aspx and Information on Stream Segments for Enhanced Dissolved Oxygen Protection may be found at https://pcb.illinois.gov/documents/dsweb/Get/Document-33354/. You may also utilize Resource Management Mapping Service to graphically identify impaired waters at https:// www.rmms.illinois.edu/.

2. Section 401 water quality certification is otherwise hereby issued pursuant to the Illinois Environmental Protection Act Section 12(a) [415 ILCS 5/12(a)] and 35 Ill. Admin. Code Section 395.402(b)(2), except that applicants shall apply for and obtain a water pollution control permit for construction and operation of the upland contained disposal area as provided by 35 Ill. Admin. Code Subtitle C Part 309 Subpart B, prior to dredging activities.

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 17 Hydropower Projects

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(b), an individual Section 401 water quality certification will be required for any project that is not previously approved by a Section 401 water quality certification issued by the Illinois EPA for a Federal Energy Regulatory Commission license or permit.

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 23 Approved Categorical Exclusions

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for activities covered by this nationwide permit that will cause the loss of aquatic resources which exceed the lessor of ½ acres or 300 linear feet of stream channel as measured along the stream corridor.

2. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for linear transportation activities covered by this nationwide permit which includes the temporary or permanent placement of painted steel or other painted structures within the waterbody as a result of related demolition work.

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 27 Aquatic Habitat Restoration, Establishment, and Enhancement Activities

1. Pursuant to the Illinois Environmental Protection Act Section 12(a)[415 ILCS 5/12(a)] and 35 Ill. Admin. Code Sections 395.401(a) and 395.401(b)(2), all activities conducted under this nationwide permit shall be in accordance with the provisions of 35 Ill. Adm. Code 405.108. Work in reclaimed surface coal mine areas are required to obtain prior authorization from the Illinois EPA for any activities that result in the use of acid-producing mine refuse.

2. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B), 302.208, and 395.401(a), a case-specific (individual) 401 water quality certification from the Illinois EPA will be required for the relocation of waters of the State.

3. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B), 302.203, and 395.401(a), any backfilled materials used within artificial channels shall be clean coarse aggregate, gravel or other material which will not cause siltation and placed in a manner to prevent violation of applicable water quality standards.

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 29 Residential Developments

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for development activities covered by this nationwide permit that cause loss of greater than 300 linear feet of stream channel, as measured along the stream corridor.

2 Pursuant to 35 Ill. Admin. Code Sections 302.203 and 395.401(b), any relocated stream channel authorized under this nationwide permit shall be constructed under dry conditions and allowed to fully stabilize prior to the diversion of flow to prevent erosion and sedimentation.

3. Pursuant to 35 Ill. Admin. Code Section 395.402(b)(2), the applicant is advised that the following permit(s) must be obtained from the Illinois EPA: The applicant must obtain permits to construct sanitary sewers, water mains, and related facilities prior to construction.

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 32 Completed Enforcement Actions

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a) and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for activities covered by this nationwide permit that involve carbon recovery (coal mining or coal remining) or materials that may be considered "acid-producing material".

2. Pursuant to 35 Ill. Admin. Code Sections 395.401(a) and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for activities covered by this nationwide permit that include proposed (yet to be undertaken) loss of aquatic resources which exceed the lessor of ½ acres or 300 linear feet of stream channel as measured along the stream corridor.

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 37 Emergency Watershed Protection and Rehabilitation

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for activities covered by this nationwide permit that will cause the loss of aquatic resources which exceed the lessor of ½ acres or 300 linear feet of stream channel as measured along the stream corridor.

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 38 Cleanup of Hazardous and Toxic Waste

1. Pursuant to 35 Ill. Admin. Code Section 395.401(b), a case-specific (individual) Section 401 water quality certification will be required for activities covered by this nationwide permit that do not require or will not receive authorization or approval from the Illinois EPA, Bureau of Land (BOL).

2. Pursuant to 35 Ill. Admin. Code Section 395.401(b), the applicant shall notify the Illinois EPA, Bureau of Water, Permit Section, of the specific activity. This notification shall include information concerning the orders and approvals that have been or will be obtained from the BOL, for all cleanup activities under BOL jurisdiction or for which authorization or approval is sought from BOL for no further remedial action.

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 39 Commercial and Institutional Developments

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a), and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for development activities covered by this nationwide permit that cause loss of greater than 300 linear feet of stream channel, as measured along the stream corridor.

2. Pursuant to 35 Ill. Admin. Code Section 395.402(b)(2), the applicant is advised that the following permit(s) must be obtained from the Illinois EPA: The applicant must obtain permits to construct sanitary sewers, water mains, water treatment plants, wastewater treatment plants and related facilities prior to construction.

3. Pursuant to 35 Ill. Admin. Code Sections 302.203 and 395.401(b), any relocated stream channel authorized under this nationwide permit shall be constructed under dry conditions and allowed to fully stabilize prior to the diversion of flow to prevent erosion and sedimentation.

4. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B)(ii), 302.203, and 395.401(b), for construction of oil and gas wells, the impacted waters of the State shall be restored to pre-construction conditions within six months after construction is started. For purposes of this condition, restoration includes stabilization and seeding or planting of vegetation on the disturbed areas that were vegetated prior to construction.

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 40 Agricultural Activities

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a) and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for activities covered by this nationwide permit that cause loss of greater than 300 linear feet of stream channel, as measured along the stream corridor.

2. Pursuant to 35 Ill. Admin. Code Sections 302.203 and 395.401(b), any relocated stream channel authorized under this nationwide permit shall be constructed under dry conditions and allowed to fully stabilize prior to the diversion of flow to prevent erosion and sedimentation.

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 42 Recreational Facilities

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a) and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for development activities covered by this nationwide permit that cause loss of greater than 300 linear feet of stream channel, as measured along the stream corridor.

2 Pursuant to 35 Ill. Admin. Code Sections 302.203 and 395.401(b), any relocated stream channel authorized under this nationwide permit shall be constructed under dry conditions and allowed to fully stabilize prior to the diversion of flow to prevent erosion and sedimentation.

3. Pursuant to 35 Ill. Admin. Code Section 395.402(b)(2), the applicant is advised that the following permit(s) must be obtained from the Illinois EPA: The applicant must obtain permits to construct sanitary sewers, water mains, and related facilities prior to construction.

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 43 Stormwater Management Facilities

1. Pursuant to 35 Ill. Admin. Code Sections 302.203 and 395.401(b), the Agency hereby issues Section 401 water quality certification of Nationwide Permit 43 exclusively for the construction and maintenance of pollutant reduction green infrastructure features designed to reduce inputs of sediments, nutrients, and other pollutants into waters to meet reduction targets established under Total Daily Maximum Loads set under the Clean Water Act. All other activities authorized under this Nationwide Permit are denied Section 401 water quality certification. For purposes of this water quality certification green infrastructure means wet weather management approaches and technologies that utilize, enhance or mimic the natural hydrologic cycle processes of infiltration, evapotranspiration and reuse. Green infrastructure approaches currently in use include green roofs, trees and tree boxes, rain gardens, vegetated swales, pocket wetlands, infiltration planters, porous and permeable pavements, porous piping systems, dry wells, vegetated median strips, reforestation/revegetation, rain barrels and cisterns and protection and enhancement of riparian buffers and floodplains. Material excavated, dredged or produced from the maintenance of green infrastructure features shall not be discharged to waters of the State.

2. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a) and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for development activities covered by this nationwide permit that cause loss of greater than 300 linear feet of stream channel, as measured along the stream corridor.

3 Pursuant to 35 Ill. Admin. Code Sections 302.203 and 395.401(b), any relocated stream channel authorized under this nationwide permit shall be constructed under dry conditions and allowed to fully stabilize prior to the diversion of flow to prevent erosion and sedimentation.

4. Pursuant to 35 Ill. Admin. Code Section 395.402(b)(2), the applicant is advised that the following permit(s) must be obtained from the Illinois EPA: The applicant must obtain permits to construct sanitary sewers, water mains, and related facilities prior to construction.

ILLINOIS EPA WATER QUALITY CERTIFICATION REGIONAL CONDITIONS FOR NATIONWIDE PERMIT 51 Land-Based Renewable Energy Generation Facilities

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a) and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for activities covered by this nationwide permit that cause loss of greater than 300 linear feet of stream channel, as measured along the stream corridor.

2. Pursuant to 35 Ill. Admin. Code Sections 302.203 and 395.401(b), any relocated stream channel authorized under this nationwide permit shall be constructed under dry conditions and allowed to fully stabilize prior to the diversion of flow to prevent erosion and sedimentation.

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 52 Water-Based Renewable Energy Generation Pilot Projects

1. Pursuant to 35 Ill. Admin. Code Sections 395.401(a), 302.105(a) and 302.105(c)(2)(B), case-specific (individual) 401 water quality certification from the Illinois EPA will be required for activities covered by this nationwide permit that cause loss of greater than 300 linear feet of stream channel, as measured along the stream corridor.

2. Pursuant to 35 Ill. Admin. Code Section 395.401(b), an individual Section 401 water quality certification will be required for any hydrokinetic project that is not previously approved by a Section 401 water quality certification issued by the Illinois EPA for a Federal Energy Regulatory Commission license or permit.

ILLINOIS EPA WATER QUALITY CERTIFICATION REGIONAL CONDITIONS FOR NATIONWIDE PERMIT 53 Removal of Low-Head Dams

1. Pursuant to 35 Ill. Admin. Code Sections 302.203, 395.205 and 395.401(b), the applicant shall implement the following Best Management Practices and Material Testing:
    a. Sediments and river bottom material are excavated and removed to upland areas to minimize sediment transport downstream, minimize downcutting and protect water quality; or
    b. measures shall be implemented to minimize sediment transport downstream; or

c. the sediments and river bottom materials that will be transported downstream are determined to have less than 20 percent passing a #230 U.S. Sieve based on representative sampling and analysis of the sediments and river bottom materials; or
d. a combination of the above practices to protect water quality; and
e. sediments and river bottom materials shall not be pollutional if released to downstream waters.

2. Pursuant to 35 Ill. Admin. Code Sections 302.105(c)(2)(B)(ii), 302.203, and 395.401(b), Best Management Practices shall be implemented to minimize sediment transport downstream, minimize downcutting of sediment and river bottom materials and protect water quality.

3. Pursuant to 35 Ill. Admin. Code Section 395.401(a), the applicant shall notify downstream surface water supplies of the proposed dam removal. The applicant shall implement practices to prevent interference with Public and Food Processing Water Supply intakes. The Illinois EPA's Division of Public Water Supply may be contacted at 217/782-1020 for information on the Public and Food Processing Water Supplies.

4. Pursuant to 35 Ill. Admin. Code Sections 302.203, 395.401(b) and 395.402(b)(2), any spoil material excavated, dredged or otherwise produced during dam removal activities must not be returned to the waterway but must be deposited in a self-contained area in compliance with all state statutes, regulations and permit requirements with no discharge to waters of the State unless a permit has been issued by this Agency.

ILLINOIS EPA WATER QUALITY CERTIFICATION SPECIAL CONDITIONS FOR NATIONWIDE PERMIT 54

Living Shorelines

1. Pursuant to 35 Ill. Admin. Code Section 395.401(a), an individual Section 401 water quality certification shall be required for any project that exceeds 1000 feet as measured along the bank or when the District Engineer waives the limitation of 30 feet as measured from the mean high water line.

NPDES PERMIT

The Engineer will apply for and obtain a National Pollutant Discharge Elimination System Construction General Permit (NPDES CGP) prior to beginning construction.

The CGP has four main elements:

- Notice of Intent (NOI)
- Storm Water Pollution Prevention Plan (SWPPP)
- Incident of Non-Compliance (ION)
- Notice of Termination (NOT)

The Notice of Intent (NOI) serves as the application for the CGP. A Notice of Intent must be post-marked at least thirty days prior to the commencement of any construction activity on site. The Erosion Control Plan sheets will convey the information required for a Storm Water Pollution Prevention Plan (i.e. drainage patterns, area of soil disturbance, location of storm water discharges, etc.). The Contractor shall be responsible for having these plan sheets available for viewing during business hours at the project site. An Incident of Non-Compliance must be completed and submitted to the IEPA if, at any time, an erosion or sediment control device fails.

Illinois Department of Transportation

Storm Water Pollution Prevention Plan

Route	Marked Route	Section Number
FAU 6371	Hamilton Road	24-00360-01-PV
Project Number	**County**	**Contract Number**
SSG2(394)	McLean	91653

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

Kevin Kothe Digitally signed by Kevin Kothe
Date: 2024.11.18 12:48:51 -06'00'

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 limits are Hamilton Road from just west of Bunn Street to Commerce Drive, Rhodes Lane between Bunn St & Morrissey Dr and Bunn St; all of these streets are on the southern edge of the city of Bloomington. The project is located in Section 15 and 16 in Township 23 North, Range 2 East of the 3rd Principal Meridian. The approximate midpoint of the project is at the latitude and longitude of: 40°27'15.6"N 88°58'21.2"W

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 is to join the east and west segments of Hamilton, provide widening along Hamilton and Bunn, construct a new intersection for Hamilton and Rhodes and remove the existing intersection of Rhodes and Morrissey Dr. This project also includes an at grade railroad crossing to be built along the proposed section of Hamilton. The areas of disturbed soil along the project will be seeded or sodded at the end of the project. New storm sewer will be installed, and the existing system will be adapted to the widened section where appropriate. A local detention basin will be constructed at the proposed intersection of Hamilton and Rhodes.

C. Provide the estimated duration of this project:

The project is estimated to start May 2025 and be completed in November 2026 for a total construction time of ~20 months.

D. The total area of the construction site is estimated to be 14 acres.

The total area of the site estimated to be disturbed by excavation, grading or other activities is 13 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:

The runoff number for the existing conditions is 0.640
The runoff number for the proposed conditions is 0.780

F. List all soils found within project boundaries; include map unit name, slope information, and erosivity:

43A—Ipava silt loam, 0 to 2 percent slopes
60C2—La Rose silt loam, 5 to 10 percent slopes, eroded
68A—Sable silty clay loam, 0 to 2 percent slopes
171B—Catlin silt loam, 2 to 5 percent slopes
171B2—Catlin silt loam, 2 to 5 percent slopes, eroded
802B—Orthents, loamy, undulating
893B—Catlin-Saybrook silt loams, 2 to 5 percent slopes

G. If wetlands were delineated for this project, provide an extent of wetland acreage at the site; see Phase I report:

0.08 acres of wetland will be impacted by this project, mitigated by wetland bank credits.

H. Provide a description of potentially erosive areas associated with this project:

The project area is relatively flat, but involves the cutting of open ground to create new roadway sections and to widen existing ones. These areas are prone to tracking or eroding sediment into storm drains and streams until proper cover is established.

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.):

Stage 1 will include the sections of Hamilton Road and Rhodes Lane that are not along existing alignments. The limits for Stage 1 are roughly from the proposed intersection with Rhodes Lane to the intersection with Commerce Parkway. During this stage, large amounts of soil disturbing activities will take place as it includes constructing new roadway over open ground.

Stages 2 and 3 will construct the portions of proposed Hamilton Road on existing Rhodes Lane alignment half at a time. At the end of these stages, the new alignment segment and the existing alignment segment will be connected to create proposed Hamilton Road. Stages 2 & 3 have low to moderate soil disturbance as they consist of roadway reconstruction on already built up sections of road.

Stage 4 will construct Bunn Street with full closures on either side of Hamilton Road. Stage 4 has low to moderate soil disturbance as it consists of roadway reconstruction on already built up sections of road.

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:

City of Bloomington

L. The following is a list of General NPDES ILR40 permittees within whose reporting jurisdiction this project is located:

City of Bloomington

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:

Little Kickapoo Creek to Kickapoo Creek to Salt Creek to Sangamon River to the Illinois River

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.

Minimal to no construction activities will take place adjacent to Waters of the US except for the culvert work that is covered by a 404 permit, perimeter erosion barrier will be placed to prevent sediment from entering the water.

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.

N/A

☐ 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) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____

Describe how the stabilization practices listed above will be utilized during construction:

Any areas of disturbed soil will be temporarily seeded if work stops for winter or other similar protracted

shutdown. Wherever possible soil will be left with existing vegetation to prevent erosion. Newly seeded areas will be protected with mulching until the new grass can stabilize the soil.

Describe how the stabilization practices listed above will be utilized after construction activities have been completed:

At the end of soil disturbing activating, disturbed soils will be covered with seeding as designated on the final improvement plans to permanently stabilize the soil as soon as practical.

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:

Perimeter erosion barrier shall be placed where shown on the final improvement plans or in areas where sediment may run off-site. Storm drain protections shall be installed as shown on the final improvement plans or in all structures or pipes that could possibly accumulate sediment. Temporary ditch checks should be installed in locations as shown on the final improvement plans and/or such that they help stop the flow of sediment. These temporary measures must be installed prior to and be maintained during soil disturbing activities and be in place until the soil is permanently stabilized.

Describe how the structural practices listed above will be utilized after construction activities have been completed:

Riprap is to be installed at the curb outlet on the Rhodes Lane cul-de-sac and pipe outlet location as shown on the plans and as needed.

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:

A local dry detention basin is to be constructed southwest of the proposed intersection of Rhodes Lane and Hamilton Road to detain storm water intercepted by the storm sewer west of the railroad crossing on Hamilton Road.

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:

City of Bloomington Manual of Practice

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.

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
FAU 6371	Hamilton Road	24-00360-01-PV

Project Number	County	Contract Number
	McLean	

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

State of Illinois
Department of Transportation
Bureau of Local Roads and Streets

SPECIAL PROVISION FOR INSURANCE

Effective: February 1, 2007
Revised: August 1, 2007

All references to Sections or Articles in this specification shall be construed to mean specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

The Contractor shall name the following entities as additional insured under the Contractor's general liability insurance policy in accordance with Article 107.27:

City of Bloomington

The entities listed above and their officers, employees, and agents shall be indemnified and held harmless in accordance with Article 107.26.

State of Illinois
Department of Transportation
Bureau of Local Roads and Streets

SPECIAL PROVISION FOR CONSTRUCTION AND MAINTENANCE SIGNS

Effective: January 1, 2004
Revised: June 1, 2007

All references to Sections or Articles in this specification shall be construed to mean a specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

701.14. Signs. Add the following paragraph to Article 701.14:

All warning signs shall have minimum dimensions of 1200 mm x 1200 mm (48" x 48") and have a black legend on a fluorescent orange reflectorized background, meeting, as a minimum, Type AP reflectivity requirements of Table 1091-2 in Article 1091.02.

State of Illinois
DEPARTMENT OF TRANSPORTATION
Bureau of Local Roads & Streets
SPECIAL PROVISION
FOR
LOCAL QUALITY ASSURANCE/ QUALITY MANAGEMENT QC/QA
Effective: January 1, 2022

Replace the first five paragraphs of Article 1030.06 of the Standard Specifications with the following:

"**1030.06 Quality Management Program.** The Quality Management Program (QMP) will be Quality Control / Quality Assurance (QC/QA) according to the following."

Delete Article 1030.06(d)(1) of the Standard Specifications.

Revise Article 1030.09(g)(3) of the Standard Specifications to read:

"(3) If core testing is the density verification method, the Contractor shall provide personnel and equipment to collect density verification cores for the Engineer. Core locations will be determined by the Engineer following the document "Hot-Mix Asphalt QC/QA Procedure for Determining Random Density Locations" at density verification intervals defined in Article 1030.09(b). After the Engineer identifies a density verification location and prior to opening to traffic, the Contractor shall cut a 4 in. (100 mm) diameter core. With the approval of the Engineer, the cores may be cut at a later time."

Revise Article 1030.09(h)(2) of the Standard Specifications to read:

"(2) After final rolling and prior to paving subsequent lifts, the Engineer will identify the random density verification test locations. Cores or nuclear density gauge testing will be used for density verification. The method used for density verification will be as selected below.

Density Verification Method	
☐	Cores
☒	Nuclear Density Gauge (Correlated when paving ≥ 3,000 tons per mixture)

Density verification test locations will be determined according to the document "Hot-Mix Asphalt QC/QA Procedure for Determining Random Density Locations". The density testing interval for paving wider than or equal to 3 ft (1 m) will be 0.5 miles (800 m) for lift thicknesses of 3 in. (75 mm) or less and 0.2 miles (320 m) for lift thicknesses greater than 3 in. (75 mm). The density testing interval for paving less than 3 ft (1 m) wide will be 1 mile (1,600 m). If a day's paving will be less than the prescribed density testing interval, the length of the day's paving will be the interval for that day. The density testing interval for mixtures used for patching will be 50 patches with a minimum of one test per mixture per project.

If core testing is the density verification method, the Engineer will witness the Contractor coring, and secure and take possession of all density samples at the

density verification locations. The Engineer will test the cores collected by the Contractor for density according to Illinois Modified AASHTO T 166 or AASHTO T 275.

If nuclear density gauge testing is the density verification method, the Engineer will conduct nuclear density gauge tests. The Engineer will follow the density testing procedure detailed in the document "Illinois Modified ASTM D 2950, Standard Test Method for Density of Bituminous Concrete In-Place by Nuclear Method".

A density verification test will be the result of a single core or the average of the nuclear density tests at one location. The results of each density test must be within acceptable limits. The Engineer will promptly notify the Contractor of observed deficiencies."

Revise the seventh paragraph and all subsequent paragraphs in Section D. of the document "Hot-Mix Asphalt QC/QA Initial Daily Plant and Random Samples" to read:

"Mixtures shall be sampled from the truck at the plant by the Contractor following the same procedure used to collect QC mixture samples (Section A). This process will be witnessed by the Engineer who will take custody of the verification sample. Each sample bag with a verification mixture sample will be secured by the Engineer using a locking ID tag. Sample boxes containing the verification mixture sample will be sealed/taped by the Engineer using a security ID label."

IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION
Effective: August 1, 2012 Revised: February 2, 2017

In addition to the Contractor's equal employment opportunity (EEO) affirmative action efforts undertaken as required by this Contract, the Contractor is encouraged to participate in the incentive program described below to provide additional on-the-job training to certified graduates of the IDOT pre-apprenticeship training program, as outlined in this Special Provision.

IDOT funds, and various Illinois community colleges operate, pre-apprenticeship training programs throughout the State to provide training and skill-improvement opportunities to promote the increased employment of minority groups, disadvantaged persons and women in all aspects of the highway construction industry. The intent of this IDOT Pre-Apprenticeship Training Program Graduate (TPG) special provision (Special Provision) is to place these certified program graduates on the project site for this Contract in order to provide the graduates with meaningful on-the-job training. Pursuant to this Special Provision, the Contractor must make every reasonable effort to recruit and employ certified TPG trainees to the extent such individuals are available within a practicable distance of the project site.

Specifically, participation of the Contractor or its subcontractor in the Program entitles the participant to reimbursement for graduates' hourly wages at $15.00 per hour per utilized TPG trainee, subject to the terms of this Special Provision. Reimbursement payment will be made even though the Contractor or subcontractor may also receive additional training program funds from other non-IDOT sources for other non-TPG trainees on the Contract, provided such other source does not specifically prohibit the Contractor or subcontractor from receiving reimbursement from another entity through another program, such as IDOT through the TPG program. With regard to any IDOT funded construction training program other than TPG, however, additional reimbursement for other IDOT programs will not be made beyond the TPG Program described in this Special Provision when the TPG Program is utilized.

No payment will be made to the Contractor if the Contractor or subcontractor fails to provide the required on-site training to TPG trainees, as solely determined by IDOT. A TPG trainee must begin training on the project as soon as the start of work that utilizes the relevant trade skill and the TPG trainee must remain on the project site through completion of the Contract, so long as training opportunities continue to exist in the relevant work classification. Should a TPG trainee's employment end in advance of the completion of the Contract, the Contractor must promptly notify the IDOT District EEO Officer for the Contract that the TPG's involvement in the Contract has ended. The Contractor must supply a written report for the reason the TPG trainee involvement terminated, the hours completed by the TPG trainee on the Contract, and the number of hours for which the incentive payment provided under this Special Provision will be, or has been claimed for the separated TPG trainee.

Finally, the Contractor must maintain all records it creates as a result of participation in the Program on the Contract, and furnish periodic written reports to the IDOT District EEO Officer that document its contractual performance under and compliance with this Special Provision. Finally, through participation in the Program and reimbursement of wages, the Contractor is not relieved of, and IDOT has not waived, the requirements of any federal or state labor or employment law applicable to TPG workers, including compliance with the Illinois Prevailing Wage Act.

METHOD OF MEASUREMENT: The unit of measurement is in hours.

BASIS OF PAYMENT: This work will be paid for at the contract unit price of $15.00 per hour for each utilized certified TPG Program trainee (TRAINEES TRAINING PROGRAM GRADUATE). The estimated total number of hours, unit price, and total price must be included in the schedule of prices for the Contract submitted by Contractor prior to beginning work. The initial number of TPG trainees for which the incentive is available for this contract is **4**.

The Department has contracted with several educational institutions to provide screening, tutoring and pre-training to individuals interested in working as a TPG trainee in various areas of common construction trade work. Only individuals who have successfully completed a Pre-Apprenticeship Training Program at these IDOT approved institutions are eligible to be TPG trainees. To obtain a list of institutions that can connect the Contractor with eligible TPG trainees, the Contractor may contact: HCCTP TPG Program Coordinator, Office of Business and Workforce Diversity (IDOT OBWD), Room 319, Illinois Department of Transportation, 2300 S. Dirksen Parkway, Springfield, Illinois 62764. Prior to commencing construction with the utilization of a TPG trainee, the Contractor must submit documentation to the IDOT District EEO Officer for the Contract that provides the names and contact information of the TPG trainee(s) to be trained in each selected work classification, proof that that the TPG trainee(s) has successfully completed a Pre-Apprenticeship Training Program, proof that the TPG is in an Apprenticeship Training Program approved by the U.S. Department of Labor Bureau of Apprenticeship Training, and the start date for training in each of the applicable work classifications.

To receive payment, the Contractor must provide training opportunities aimed at developing a full journeyworker in the type of trade or job classification involved. During the course of performance of the Contract, the Contractor may seek approval from the IDOT District EEO Officer to employ additional eligible TPG trainees. In the event the Contractor subcontracts a portion of the contracted work, it must determine how many, if any, of the TPGs will be trained by the subcontractor. Though a subcontractor may conduct training, the Contractor retains the responsibility for meeting all requirements imposed by this Special Provision. The Contractor must also include this Special Provision in any subcontract where payment for contracted work performed by a TPG trainee will be passed on to a subcontractor.

Training through the Program is intended to move TPGs toward journeyman status, which is the primary objective of this Special Provision. Accordingly, the Contractor must make every effort to enroll TPG trainees by recruitment through the Program participant educational institutions to the extent eligible TPGs are available within a reasonable geographic area of the project. The Contractor is responsible for demonstrating, through documentation, the recruitment efforts it has undertaken prior to the determination by IDOT whether the Contractor is in compliance with this Special Provision, and therefore, entitled to the Training Program Graduate reimbursement of $15.00 per hour.

Notwithstanding the on-the-job training requirement of this TPG Special Provision, some minimal off-site training is permissible as long as the offsite training is an integral part of the work of the contract, and does not compromise or conflict with the required on-site training that is central to the purpose of the Program. No individual may be employed as a TPG trainee in any work classification in which he/she has previously successfully completed a training program leading to journeyman status in any trade, or in which he/she has worked at a journeyman level or higher.

AGGREGATE SUBGRADE IMPROVEMENT (BDE)

Effective: April 1, 2012
Revised: April 1, 2022

Add the following Section to the Standard Specifications:

"**SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT**

303.01 Description. This work shall consist of constructing an aggregate subgrade improvement (ASI).

303.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004.07
(b) Reclaimed Asphalt Pavement (RAP)	1031.09

303.03 Equipment. The vibratory roller shall be according to Article 1101.01, or as approved by the Engineer. Vibratory machines, such as tampers, shall be used in areas where rollers do not fit.

303.04 Soil Preparation. The minimum immediate bearing value (IBV) of the soil below the improved subgrade shall be according to the Department's "Subgrade Stability Manual" for the aggregate thickness specified.

303.05 Placing and Compacting. The maximum nominal lift thickness of aggregate gradations CA 2, CA 6, and CA 10 when compacted shall be 9 in. (225 mm). The maximum nominal lift thickness of aggregate gradations CS 1, CS 2, and RR 1 when compacted shall be 24 in. (600 mm).

The top surface of the aggregate subgrade improvement shall consist of a layer of capping aggregate gradations CA 6 or CA 10 that is 3 in. (75 mm) thick after compaction. Capping aggregate will not be required when aggregate subgrade improvement is used as a cubic yard pay item for undercut applications.

Each lift of aggregate shall be compacted to the satisfaction of the Engineer. If the moisture content of the material is such that compaction cannot be obtained, sufficient water shall be added so that satisfactory compaction can be obtained.

303.06 Finishing and Maintenance. The aggregate subgrade improvement shall be finished to the lines, grades, and cross sections shown on the plans, or as directed by the Engineer. The aggregate subgrade improvement shall be maintained in a smooth and compacted condition.

303.07 Method of Measurement. This work will be measured for payment according to Article 311.08.

303.08 Basis of Payment. This work will be paid for at the contract unit price per cubic yard (cubic meter) or ton (metric ton) for AGGREGATE SUBGRADE IMPROVEMENT or at the contract unit price per square yard (square meter) for AGGREGATE SUBGRADE IMPROVEMENT, of the thickness specified."

Add the following to Section 1004 of the Standard Specifications:

"**1004.07 Coarse Aggregate for Aggregate Subgrade Improvement (ASI).** The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate shall be crushed gravel, crushed stone, or crushed concrete. In applications where greater than 24 in. (600 mm) of ASI material is required, gravel may be used below the top 12 in (300 mm) of ASI.

(b) Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials.

(c) Gradation.

(1) The coarse aggregate gradation for total ASI thickness less than or equal to 12 in. (300 mm) shall be CA 2, CA 6, CA 10, or CS 1.

The coarse aggregate gradation for total ASI thickness greater than 12 in. (300 mm) shall be CS 1 or CS 2 as shown below or RR 1 according to Article 1005.01(c).

	COARSE AGGREGATE SUBGRADE GRADATIONS				
Grad No.	Sieve Size and Percent Passing				
	8"	6"	4"	2"	#4
CS 1	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 2		100	80 ± 10	25 ± 15	

	COARSE AGGREGATE SUBGRADE GRADATIONS (Metric)				
Grad No.	Sieve Size and Percent Passing				
	200 mm	150 mm	100 mm	50 mm	4.75 mm
CS 1	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 2		100	80 ± 10	25 ± 15	

(2) Capping aggregate shall be gradation CA 6 or CA 10."

Add the following to Article 1031.09 of the Standard Specifications:

"(b) RAP in Aggregate Subgrade Improvement (ASI). RAP in ASI shall be according to Articles 1031.01(a), 1031.02(a), 1031.06(a)(1), and 1031.06(a)(2), and the following.

(1) The testing requirements of Article 1031.03 shall not apply.

(2) Crushed RAP used for the lower lift may be mechanically blended with aggregate gradations CS 1, CS 2, and RR 1 but it shall be no greater than 40 percent of the total product volume. RAP agglomerations shall be no greater than 4 in. (100 mm).

(3) For capping aggregate, well graded RAP having 100 percent passing the 1 1/2 in. (38 mm) sieve may be used when aggregate gradations CS 1, CS 2, CA 2, or RR 1 are used in the lower lift. FRAP will not be permitted as capping material.

Blending shall be through calibrated interlocked feeders or a calibrated blending plant such that the prescribed blending percentage is maintained throughout the blending process. The calibration shall have an accuracy of ± 2.0 percent of the actual quantity of material delivered."

80274

AUTOMATED FLAGGER ASSISTANCE DEVICES (BDE)

Effective: January 1, 2008
Revised: April 1, 2023

Description. This work shall consist of furnishing and operating automated flagger assistance devices (AFADs) as part of the work zone traffic control and protection for two-lane highways where two-way traffic is maintained over one lane of pavement in segments where no sideroads or entrances require deployment of additional flaggers. Use of these devices shall be at the option of the Contractor.

Equipment. AFADs shall be the STOP/SLOW or Red/Yellow Lens type mounted on a trailer or moveable cart meeting the requirements of the MUTCD and NCHRP 350 or MASH 2016, Category 4.

General. AFADs shall be placed at each end of the traffic control, where a flagger is shown on the plans. The AFAD shall be setup within five degrees of vertical.

Flagger symbol signs as shown on the plans shall be replaced with “BE PREPARED TO STOP” signs when the AFAD is in operation.

Personal communication devices shall not be used to operate the AFAD.

Flagging Requirements. Flaggers and flagging requirements shall be according to Article 701.13 of the Standard Specifications and the following.

Each AFAD shall be operated by a flagger trained to operate the specific AFAD to be deployed. A minimum of two flaggers shall be on site at all times during operation. Each flagger shall be positioned outside the lane of traffic and near each AFAD’s location.

Flagging equipment required for traditional flagging shall be available near each AFAD location in the event of AFAD equipment malfunction/failure.

For nighttime flagging, the AFAD and flagger shall be illuminated according to Article 701.13 of the Standard Specifications.

When not in use, AFADs will be considered non-operating equipment and shall be stored according to Article 701.11 of the Standard Specifications.

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

80192

BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE)

Effective: November 2, 2006
Revised: August 1, 2017

Description. Bituminous material cost adjustments will be made to provide additional compensation to the Contractor, or credit to the Department, for fluctuations in the cost of bituminous materials when optioned by the Contractor. The bidder shall indicate with their bid whether or not this special provision will be part of the contract.

The adjustments shall apply to permanent and temporary hot-mix asphalt (HMA) mixtures, bituminous surface treatments (cover and seal coats), and preventative maintenance type surface treatments that are part of the original proposed construction, or added as extra work and paid for by agreed unit prices. The adjustments shall not apply to bituminous prime coats, tack coats, crack filling/sealing, joint filling/sealing, or extra work paid for at a lump sum price or by force account.

Method of Adjustment. Bituminous materials cost adjustments will be computed as follows.

$CA = (BPI_P - BPI_L) \times (\%AC_V / 100) \times Q$

Where: CA = Cost Adjustment, $.
BPI_P = Bituminous Price Index, as published by the Department for the month the work is performed, $/ton ($/metric ton).
BPI_L = Bituminous 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, $/ton ($/metric ton).
$\%AC_V$ = Percent of virgin Asphalt Cement in the Quantity being adjusted. For HMA mixtures, the % AC_V will be determined from the adjusted job mix formula. For bituminous materials applied, a performance graded or cutback asphalt will be considered to be 100% AC_V and undiluted emulsified asphalt will be considered to be 65% AC_V.
Q = Authorized construction Quantity, tons (metric tons) (see below).

For HMA mixtures measured in square yards: Q, tons = A x D x (G_{mb} x 46.8) / 2000. For HMA mixtures measured in square meters: Q, metric tons = A x D x (G_{mb} x 1) / 1000. When computing adjustments for full-depth HMA pavement, separate calculations will be made for the binder and surface courses to account for their different G_{mb} and % AC_V.

For bituminous materials measured in gallons: Q, tons = V x 8.33 lb/gal x SG / 2000
For bituminous materials measured in liters: Q, metric tons = V x 1.0 kg/L x SG / 1000

Where: A = Area of the HMA mixture, sq yd (sq m).
D = Depth of the HMA mixture, in. (mm).
G_{mb} = Average bulk specific gravity of the mixture, from the approved mix design.

V = Volume of the bituminous material, gal (L).
SG = Specific Gravity of bituminous material as shown on the bill of lading.

Basis of Payment. Bituminous materials cost adjustments may be positive or negative but will only be made when there is a difference between the BPI_L and BPI_P in excess of five percent, as calculated by:

Percent Difference = $\{(BPI_L - BPI_P) \div BPI_L\} \times 100$

Bituminous materials cost adjustments will be calculated for each calendar month in which applicable bituminous material is placed; and will be paid or deducted when all other contract requirements for the work placed during the month are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

80173

CEMENT, FINELY DIVIDED MINERALS, ADMIXTURES; CONCRETE, AND MORTAR (BDE)

Effective: January 1, 2025

Revise the first paragraph of Article 285.05 of the Standard Specifications to read:

"**285.05 Fabric Formed Concrete Revetment Mat.** The grout shall consist of a mixture of cement, fine aggregate, and water so proportioned and mixed as to provide a pumpable slurry. Fly ash or ground granulated blast furnace (GGBF) slag, and concrete admixtures may be used at the option of the Contractor. The grout shall have an air content of not less than 6.0 percent nor more than 9.0 percent of the volume of the grout. The mix shall obtain a compressive strength of 2500 psi (17,000 kPa) at 28 days according to Article 1020.09."

Revise Article 302.02 of the Standard Specifications to read:

"**302.02 Materials.** Materials shall be according to the following.

	Item	Article/Section
(a)	Cement	1001
(b)	Water	1002
(c)	Hydrated Lime	1012.01
(d)	By-Product, Hydrated Lime	1012.02
(e)	By-Product, Non-Hydrated Lime	1012.03
(f)	Lime Slurry	1012.04
(g)	Fly Ash	1010
(h)	Soil for Soil Modification (Note 1)	1009.01
(i)	Bituminous Materials (Note 2)	1032

Note 1. This soil requirement only applies when modifying with lime (slurry or dry).

Note 2. The bituminous materials used for curing shall be emulsified asphalt RS-2, CRS-2, HFE 90, or HFE 150; rapid curing liquid asphalt RC-70; or medium curing liquid asphalt MC-70 or MC-250."

Revise Article 312.07(c) of the Standard Specifications to read:

"(c) Cement ..... 1001"

Add Article 312.07(i) of the Standard Specifications to read:

"(i) Ground Granulated Blast Furnace (GGBF) Slag ..... 1010"

Revise the first paragraph of Article 312.09 of the Standard Specifications to read:

"**312.09 Proportioning and Mix Design.** At least 60 days prior to start of placing CAM II, the Contractor shall submit samples of materials to be used in the work for proportioning and testing.

The mixture shall contain a minimum of 200 lb (120 kg) of cement per cubic yard (cubic meter). Cement may be replaced with fly ash or ground granulated blast furnace (GGBF) slag according to Article 1020.05(c)(1) or 1020.05(c)(2), respectively, however the minimum cement content in the mixture shall be 170 lbs/cu yd (101 kg/cu m). Blends of coarse and fine aggregates will be permitted, provided the volume of fine aggregate does not exceed the volume of coarse aggregate. The Engineer will determine the proportions of materials for the mixture according to the "Portland Cement Concrete Level III Technician Course" manual. However, the Contractor may substitute their own mix design. Article 1020.05(a) shall apply, and a Level III PCC Technician shall develop the mix design."

Revise Article 352.02 of the Standard Specifications to read:

"**352.02 Materials.** Materials shall be according to the following.

Item	Article/Section
(a) Cement (Note 1)	1001
(b) Soil for Soil-Cement Base Course	1009.03
(c) Water	1002
(d) Bituminous Materials (Note 2)	1032

Note 1. Bulk cement may be used for the traveling mixing plant method if the equipment for handling, weighing, and spreading the cement is approved by the Engineer.

Note 2. The bituminous materials used for curing shall be emulsified asphalt RS-2, CRS-2, HFE 90, or HFE 150; rapid curing liquid asphalt RC-70; or medium curing liquid asphalt MC-70 or MC-250."

Revise Article 404.02 of the Standard Specifications to read:

"**404.02 Materials.** Materials shall be according to the following.

Item	Article/Section
(a) Cement	1001
(b) Water	1002
(c) Fine Aggregate	1003.08
(d) Bituminous Material (Tack Coat)	1032.06
(e) Emulsified Asphalts (Note 1) (Note 2)	1032.06
(f) Fiber Modified Joint Sealer	1050.05
(g) Additives (Note 3)	

Note 1. When used for slurry seal, the emulsified asphalt shall be CQS-1h according to Article 1032.06(b).

Note 2. When used for micro-surfacing, the emulsified asphalt shall be CQS-1hP according to Article 1032.06(e).

Note 3. Additives may be added to the emulsion mix or any of the component materials to provide the control of the quick-traffic properties. They shall be included as part of the mix design and be compatible with the other components of the mix.

Revise the last sentence of the fourth paragraph of Article 404.08 of the Standard Specifications to read:

"When approved by the Engineer, the sealant may be dusted with fine sand, cement, or mineral filler to prevent tracking."

Revise Note 2 of Article 516.02 of the Standard Specifications to read:

"Note 2. The sand-cement grout mix shall be according to Section 1020 and shall be a 1:1 blend of sand and cement comprised of a Type I, IL, or II cement at 185 lb/cu yd (110 kg/cu m). The maximum water cement ratio shall be sufficient to provide a flowable mixture with a typical slump of 10 in. (250 mm)."

Revise Note 2 of Article 543.02 of the Standard Specifications to read:

"Note 2. The grout mixture shall be 6.50 hundredweight/cu yd (385 kg/cu m) of cement plus fine aggregate and water. Fly ash or ground granulated blast furnace (GGBF) slag may replace a maximum of 5.25 hundredweight/cu yd (310 kg/cu m) of the cement. The water/cement ratio, according to Article 1020.06, shall not exceed 0.60. An air-entraining admixture shall be used to produce an air content, according to Article 1020.08, of not less than 6.0 percent nor more than 9.0 percent of the volume of the grout. The Contractor shall have the option to use a water-reducing or high range water-reducing admixture."

Revise Article 583.01 of the Standard Specifications to read:

"**583.01 Description.** This work shall consist of placing cement mortar along precast, prestressed concrete bridge deck beams as required for fairing out any unevenness between adjacent deck beams prior to placing of waterproofing membrane and surfacing."

Revise Article 583.02(a) of the Standard Specifications to read:

"(a) Cement .....1001"

Revise the first paragraph of Article 583.03 of the Standard Specifications to read:

"**583.03 General.** This work shall only be performed when the air temperature is 45 °F (7 °C) and rising. The mixture for cement mortar shall consist of three parts sand to one part cement by volume. The amount of water shall be no more than that necessary to produce a workable, plastic mortar."

Revise Note 2/ in Article 1003.01(b) of the Standard Specifications to read:

.

"2/ Applies only to sand. Sand exceeding the colorimetric test standard of 11 (Illinois Modified AASHTO T 21) will be checked for mortar making properties according to Illinois Modified ASTM C 87 and shall develop a compressive strength at the age of 14 days when using Type I, IL, or II cement of not less than 95 percent of the comparable standard.

Revise the second sentence of Article 1003.02(e)(1) of the Standard Specifications to read:

"The test will be performed with Type I, IL, or II portland cement having a total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.90 percent or greater."

Revise the first sentence of the second paragraph of Article 1003.02(e)(3) of the Standard Specifications to read:

"The ASTM C 1293 test shall be performed with Type I, IL, or II portland cement having a total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.80 percent or greater."

Revise the second sentence of Article 1004.02(g)(1) of the Standard Specifications to read:

"The test will be performed with Type I, IL, or II portland cement having a total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.90 percent or greater."

Revise Article 1017.01 of the Standard Specifications to read:

"**1017.01 Requirements.** The mortar shall be high-strength according to ASTM C 387 and shall have a minimum 80.0 percent relative dynamic modulus of elasticity when tested by the Department according to Illinois Modified AASHTO T 161 or AASHTO T 161 when tested by an independent lab. The high-strength mortar shall have a water-soluble chloride ion content of less than 0.40 lb/cu yd (0.24 kg/cu m). The test shall be performed according to ASTM C 1218, and the high-strength mortar shall have an age of 28 to 42 days at the time of test. The ASTM C 1218 test shall be performed by an independent lab a minimum of once every five years, and the test results shall be provided to the Department. Mixing of the high-strength mortar shall be according to the manufacturer's specifications. The Department will maintain a qualified product list."

Revise the fourth sentence of Article 1018.01 of the Standard Specifications to read:

"The ASTM C 1218 test shall be performed by an independent lab a minimum of once every five years, and the test results shall be provided to the Department."

Revise Article 1019.02 of the Standard Specifications to read:

"**1019.02 Materials.** Materials shall be according to the following.

Item	Article/Section
(a) Cement	1001
(b) Water	1002

(c) Fine Aggregate for Controlled Low-Strength Material (CLSM) 1003.06
(d) Fly Ash 1010
(e) Ground Granulated Blast Furnace (GGBF) Slag 1010
(f) Admixtures (Note 1)

Note 1. The air-entraining admixture may be in powder or liquid form. Prior to approval, a CLSM air-entraining admixture will be evaluated by the Department. The admixture shall be able to meet the air content requirements of Mix 2. The Department will maintain a qualified product list."

Revise Article 1019.05 of the Standard Specifications to read:

"**1019.05 Department Mix Design.** The Department mix design shall be Mix 1, 2, or 3 and shall be proportioned to yield approximately one cubic yard (cubic meter).

Mix 1	
Cement	50 lb (30 kg)
Fly Ash – Class C or F, and/or GGBF Slag	125 lb (74 kg)
Fine Aggregate – Saturated Surface Dry	2900 lb (1720 kg)
Water	50-65 gal (248-322 L)
Air Content	No air is entrained

Mix 2	
Cement	125 lb (74 kg)
Fine Aggregate – Saturated Surface Dry	2500 lb (1483 kg)
Water	35-50 gal (173-248 L)
Air Content	15-25 %

Mix 3	
Cement	40 lb (24 kg)
Fly Ash – Class C or F, and/or GGBF Slag	125 lb (74 kg)
Fine Aggregate – Saturated Surface Dry	2500 lb (1483 kg)
Water	35-50 gal (179-248 L)
Air Content	15-25 %"

Revise Article 1020.04, Table 1, Note (8) of the Standard Specifications to read:

"(8) In addition to the Type III portland cement, 100 lb/cu yd of ground granulated blast-furnace slag and 50 lb/cu yd of microsilica (silica fume) shall be used. For an air temperature greater than 85 ºF, the Type III portland cement may be replaced with Type I, IL, or II portland cement."

Revise Article 1020.04, Table 1 (Metric), Note (8) of the Standard Specifications to read:

"(8) In addition to the Type III portland cement, 60 kg/cu m of ground granulated blast-furnace slag and 30 kg/cu m of microsilica (silica fume) shall be used. For an air temperature greater than 30 ºC, the Type III portland cement may be replaced with Type I, IL, or II portland cement."

Revise the second paragraph of Article 1020.05(a) of the Standard Specifications to read:

"For a mix design using a portland-pozzolan cement, portland blast-furnace slag cement, portland-limestone cement, or replacing portland cement with finely divided minerals per Articles 1020.05(c) and 1020.05(d), the Contractor may submit a mix design with a minimum portland cement content less than 400 lbs/cu yd (237 kg/cu m), but not less than 375 lbs/cu yd (222 kg/cu m), if the mix design is shown to have a minimum relative dynamic modulus of elasticity of 80 percent determined according to AASHTO T 161. Testing shall be performed by an independent laboratory accredited by AASHTO re:source for Portland Cement Concrete."

Revise the first sentence of the first paragraph of Article 1020.05(b) of the Standard Specifications to read:

"Corrosion inhibitors and concrete admixtures shall be according to the qualified product lists."

Delete the fourth and fifth sentences of the second paragraph of Article 1020.05(b) of the Standard Specifications.

Revise the third sentence of the second paragraph of Article 1020.05(b)(5) of the Standard Specifications to read:

"The qualified product lists of concrete admixtures shall not apply."

Revise second paragraph of Article 1020.05(b)(10) of the Standard Specifications to read:

"When calcium nitrite is used, it shall be added at the rate of 4 gal/cu yd (20 L/cu m) and shall be added to the mix immediately after all compatible admixtures have been introduced to the batch. Other corrosion inhibitors shall be added per the manufacturer's specifications."

Delete the third paragraph of Article 1020.05(b)(10) of the Standard Specifications.

Revise Article 1020.15(b)(1)c. of the Standard Specifications to read:

"c. The minimum portland cement content in the mixture shall be 375 lbs/cu yd (222 kg/cu m). When the total of organic processing additions, inorganic processing additions, and limestone addition exceed 5.0 percent in the cement, the minimum portland cement content in the mixture shall be 400 lbs/cu yd (237 kg/cu m). For a drilled shaft, foundation, footing, or substructure, the

minimum portland cement may be reduced to as low as 330 lbs/cu yd (196 kg/cu m) if the concrete has adequate freeze/thaw durability. The Contractor shall provide freeze/thaw test results according to AASHTO T 161, and the relative dynamic modulus of elasticity of the mix design shall be a minimum of 80 percent. Testing shall be performed by an independent laboratory accredited by AASHTO re:source for Portland Cement Concrete. Freeze/thaw testing will not be required for concrete that will not be exposed to freezing and thawing conditions as determined by the Engineer."

Revise Article 1021.01 of the Standard Specifications to read:

"**1021.01 General.** Admixtures shall be furnished in liquid or powder form ready for use. The admixtures shall be delivered in the manufacturer's original containers, bulk tank trucks or such containers or tanks as are acceptable to the Engineer. Delivery shall be accompanied by a ticket which clearly identifies the manufacturer, the date of manufacture, and trade name of the material. Containers shall be readily identifiable as to manufacturer, the date of manufacture, and trade name of the material they contain.

Concrete admixtures shall be on one of the Department's qualified product lists. Unless otherwise noted, admixtures shall have successfully completed and remain current with the AASHTO Product Eval and Audit Concrete Admixture (CADD) testing program. For admixture submittals to the Department; the product brand name, manufacturer name, admixture type or types, an electronic link to the product's technical data sheet, and the NTPEP testing number which contains an electronic link to all test data shall be provided. In addition, a letter shall be submitted certifying that no changes have been made in the formulation of the material since the most current round of tests conducted by AASHTO Product Eval and Audit. After 28 days of testing by AASHTO Product Eval and Audit, air-entraining admixtures may be provisionally approved and used on Departmental projects. For all other admixtures, unless otherwise noted, the time period after which provisionally approved status may be earned is 6 months.

The manufacturer shall include the following in the submittal to the AASHTO Product Eval and Audit CADD testing program: the manufacturing range for specific gravity, the midpoint and manufacturing range for residue by oven drying, and manufacturing range of pH. The submittal shall also include an infrared spectrophotometer trace no more than five years old.

For air-entraining admixtures according to Article 1021.02, the specific gravity allowable manufacturing range established by the manufacturer shall be according to AASHTO M 194. For residue by oven drying and pH, the allowable manufacturing range and test methods shall be according to AASHTO M 194.

For admixtures according to Articles 1021.03, 1021.04, 1021.05, 1021.06, 1021.07, and 1021.08, the pH allowable manufacturing range established by the manufacturer shall be according to ASTM E 70. For specific gravity and residue by oven drying, the allowable manufacturing range and test methods shall be according to AASHTO M 194.

All admixtures, except chloride-based accelerators, shall contain a maximum of 0.3 percent chloride by weight (mass) as determined by an appropriate test method. To verify the test result, the Department will use Illinois Modified AASHTO T 260, Procedure A, Method 1.

Prior to final approval of an admixture, the Engineer reserves the right to request a sample for testing. The test and reference concrete mixtures tested by the Engineer will contain a cement content of 5.65 cwt/cu yd (335 kg/cu m). For freeze-thaw testing, the Department will perform the test according to Illinois Modified AASHTO T 161. The flexural strength test will be performed according to AASHTO T 177. If the Engineer decides to test the admixture, the manufacturer shall submit AASHTO T 197 water content and set time test results on the standard cement used by the Department. The manufacturer may select their lab or an independent lab to perform this testing. The laboratory is not required to be accredited by AASHTO.

Random field samples may be taken by the Department to verify an admixture meets specification. A split sample will be provided to the manufacturer if requested. Admixtures that do not meet specification requirements or an allowable manufacturing range established by the manufacturer shall be replaced with new material."

Revise Article 1021.03 of the Standard Specifications to read:

"**1021.03 Retarding and Water-Reducing Admixtures.** The admixture shall be according to the following.

(a) Retarding admixtures shall be according to AASHTO M 194, Type B (retarding) or Type D (water-reducing and retarding).

(b) Water-reducing admixtures shall be according to AASHTO M 194, Type A.

(c) High range water-reducing admixtures shall be according to AASHTO M 194, Type F (high range water-reducing) or Type G (high range water-reducing and retarding)."

Revise Article 1021.05 of the Standard Specifications to read:

"**1021.05 Self-Consolidating Admixtures.** Self-consolidating admixture systems shall consist of either a high range water-reducing admixture only or a high range water-reducing admixture combined with a separate viscosity modifying admixture. The one or two component admixture system shall be capable of producing a concrete that can flow around reinforcement and consolidate under its own weight without additional effort and without segregation.

High range water-reducing admixtures shall be according to AASHTO M 194, Type F.

Viscosity modifying admixtures shall be according to AASHTO M 194, Type S (specific performance)."

Revise Article 1021.06 of the Standard Specifications to read:

"**1021.06 Rheology-Controlling Admixture.** Rheology-controlling admixtures shall be capable of producing a concrete mixture with a lower yield stress that will consolidate easier for slipform applications used by the Contractor. Rheology-controlling admixtures shall be according to AASHTO M 194, Type S (specific performance)."

Revise Article 1021.07 of the Standard Specifications to read:

"**1021.07 Corrosion Inhibitor.** The corrosion inhibitor shall be according to one of the following.

(a) Calcium Nitrite. Corrosion inhibitors shall contain a minimum 30 percent calcium nitrite by weight (mass) of solution and shall comply with either the requirements of AASHTO M 194, Type C (accelerating) or the requirements of ASTM C 1582. The corrosion inhibiting performance requirements of ASTM C 1582 shall not apply.

(b) Other Materials. The corrosion inhibitor shall be according to ASTM C 1582.

For submittals requiring testing according to ASTM M 194, Type C (accelerating), the admixture shall meet the requirements of the AASHTO Product Eval and Audit CADD testing program according to Article 1021.01.

For submittals requiring testing according to ASTM C 1582, a report prepared by an independent laboratory accredited by AASHTO re:source for portland cement concrete shall be provided. The report shall show the results of physical tests conducted no more than five years prior to the time of submittal, according to applicable specifications. However, ASTM G 109 test information specified in ASTM C 1582 is not required to be from an independent accredited lab. All other information in ASTM C 1582 shall be from an independent accredited lab. Test data and other information required to be submitted to AASHTO Product Eval and Audit according to Article 1021.01, shall instead be submitted directly to the Department."

Add Article 1021.08 of the Standard Specifications as follows:

"**1021.08 Other Specific Performance Admixtures.** Other specific performance admixtures shall, at a minimum, be according to AASHTO M 194, Type S (specific performance). The Department also reserves the right to require other testing, as determined by the Engineer, to show evidence of specific performance characteristics.

Initial testing according to AASHTO M 194 may be conducted under the AASHTO Product Eval and Audit CADD testing program according to Article 1021.01, or by an independent laboratory accredited by AASHTO re:source for Portland Cement Concrete. In either case, test data and other information required to be submitted to AASHTO Product Eval and Audit according to Article 1021.01, shall also be submitted directly to the Department. The independent accredited lab report shall show the results of physical tests conducted no more than five years prior to the time of submittal, according to applicable specifications."

Revise Article 1024.01 of the Standard Specifications to read:

"**1024.01 Requirements for Grout.** The grout shall be proportioned by dry volume, thoroughly mixed, and shall have a minimum temperature of 50 °F (10 °C). Water shall not exceed the minimum needed for placement and finishing.

Materials for the grout shall be according to the following.

Item	Article/Section
(a) Cement	1001
(b) Water	1002
(c) Fine Aggregate	1003.02
(d) Fly Ash	1010
(e) Ground Granulated Blast Furnace (GGBF) Slag	1010
(f) Concrete Admixtures	1021"

Revise Note 1 of Article 1024.02 of the Standard Specifications to read:

"Note 1. Nonshrink grout shall be according to Illinois Modified ASTM C 1107.

The nonshrink grout shall have a water-soluble chloride ion content of less than 0.40 lb/cu yd (0.24 kg/cu m). The test shall be performed according to ASTM C 1218, and the grout shall have an age of 28 to 42 days at the time of test. The ASTM C 1218 test shall be performed by an independent lab a minimum of once every five years, and the test results shall be provided to the Department. Mixing of the nonshrink grout shall be according to the manufacturer's specifications. The Department will maintain a qualified product list."

Revise Article 1029.02 of the Standard Specifications to read:

"**1029.02 Materials.** Materials shall be according to the following.

Item	Article/Section
(a) Cement	1001
(b) Fly Ash	1010
(c) Ground Granulated Blast Furnace (GGBF) Slag	1010
(d) Water	1002
(e) Fine Aggregate	1003
(f) Concrete Admixtures	1021
(g) Foaming Agent (Note 1)	

Note 1. The manufacturer shall submit infrared spectrophotometer trace and test results indicating the foaming agent meets the requirements of ASTM C 869 in order to be on the Department's qualified product list. Submitted data/results shall not be more than five years old."

Revise the second paragraph of Article 1103.03(a)(4) the Standard Specifications to read:

"The dispenser system shall provide a visual indication that the liquid admixture is actually entering the batch, such as via a transparent or translucent section of tubing or by independent check with an integrated secondary metering device. If approved by the Engineer, an alternate indicator may be used for admixtures dosed at rates of 25 oz/cwt (1630 mL/100 kg) or greater, such as accelerating admixtures, corrosion inhibitors, and viscosity modifying admixtures."

Revise the first two sections of Check Sheet #11 of the Supplemental Specifications and Recurring Special Provisions to read:

"Description. This work shall consist of filling voids beneath rigid and composite pavements with cement grout.

Materials. Materials shall be according to the following Articles of Division 1000 - Materials of the Standard Specifications:

Item	Article/Section
(a) Cement	1001
(b) Water	1002
(c) Fly Ash	1010
(d) Ground Granulated Blast Furnace (GGBF) Slag	1010
(e) Admixtures	1021
(f) Packaged Rapid Hardening Mortar or Concrete	1018"

Revise the third paragraph of Materials Note 2 of Check Sheet #28 of the Supplemental Specifications and Recurring Special Provisions to read:

"The Department will maintain a qualified product list of synthetic fibers, which will include the minimum required dosage rate. For the minimum required fiber dosage rate based on the Illinois Modified ASTM C 1609 test, a report prepared by an independent laboratory accredited by AASHTO re:source for Portland Cement Concrete shall be provided. The report shall show results of tests conducted no more than five years prior to the time of submittal."

80460

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."

80384

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000
Revised: January 2, 2025

1. OVERVIEW AND GENERAL 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 in accordance with the requirements of 49 CFR Part 26 and listed in the Illinois Unified Certification Program (IL UCP) DBE Directory. Award of the contract is conditioned on meeting the requirements of 49 CFR Part 26, and failure by the Contractor to carry out the requirements of Part 26 is a material breach of the contract and may result in the termination of the contract or such other remedies as the Department deems appropriate.

2. CONTRACTOR ASSURANCE. All assurances set forth in FHWA 1273 are hereby incorporated by reference and will be physically attached to the final contract and all subcontracts.

3. CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. The Department has determined the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies and that, in the absence of unlawful discrimination and in an arena of fair and open competition, DBE companies can be expected to perform **9**% 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 in accordance with the requirements of 49 CFR 26.53 and SBE Memorandum No. 24-02.

4. IDENTIFICATION OF CERTIFIED DBE. Information about certified DBE Contractors can be found in the Illinois UCP Directory. Bidders can obtain additional information and assistance with identifying DBE-certified companies at the Department's website or by contacting the Department's Bureau of Small Business Enterprises at (217) 785-4611.

5. BIDDING PROCEDURES. Compliance with this Special Provision and SBE Policy Memorandum 24-02 is a material bidding requirement. The following shall be included with the bid.

   (a) DBE Utilization Plan (form SBE 2026) documenting enough DBE participation has been obtained to meet the goal, or a good faith effort has been made to meet the goal even though the efforts did not succeed in obtaining enough DBE participation to meet the goal.

(b) Applicable DBE Participation Statement (form SBE 2023, 2024, and/or 2025) for each DBE firm the bidder has committed to perform the work to achieve the contract goal.

The required forms and documentation shall 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 bid if it does not meet the bidding procedures set forth herein and the bid will be declared non-responsive. A bidder declared non-responsive for failure to meet the bidding procedures will not give rise to an administrative reconsideration. In the event the bid is declared non-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.

6. UTILZATION PLAN EVALUATION. 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 the bidder has committed to DBE participation sufficient to meet the goal, or that the bidder has made good faith efforts to do so, in the event the bidder cannot meet the goal, in order for the Department to 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 Department determines, based upon the documentation submitted, that the bidder has made a good faith effort to meet the contract goal pursuant to 49 CFR Part 26, Appendix A and the requirements of SBE 2026.

   If the Department determines that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan of that determination in accordance with SBE Policy Memorandum 24-02.

7. CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work the bidder commits to have performed by the specified DBEs 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 firms. 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 guidelines for counting goal credit are provided in 49 CFR Part 26.55. In evaluating Utilization Plans for award the Department will count goal credit as set forth in Part 26 and in accordance with SBE Policy Memorandum 24-02.

8. CONTRACT COMPLIANCE. The Contractor must utilize the specific DBEs listed to perform the work and supply the materials for which each DBE is listed in the Contractor's approved Utilization Plan, unless the Contractor obtains the Department's written consent to

terminate the DBE or any portion of its work. The DBE Utilization Plan approved by SBE is a condition-of-award, and any deviation to that Utilization Plan, the work set forth therein to be performed by DBE firms, or the DBE firms specified to perform that work, must be approved, in writing, by the Department in accordance with federal regulatory requirements. Deviation from the DBE Utilization Plan condition-of-award without such written approval is a violation of the contract and may result in termination of the contract or such other remedy the Department deems appropriate. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan.

(a) NOTICE OF DBE PERFORMANCE. The Contractor shall provide the Engineer with at least three days advance notice of when all DBE firms are expected to perform the work committed under the Contractor's Utilization Plan.

(b) SUBCONTRACT. If awarded the contract, the Contractor is required to enter into written subcontracts with all DBE firms indicated in the approved Utilization Plan and must provide copies of fully executed 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.

(c) PAYMENT TO DBE FIRMS. 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 goal has been paid to the DBE. The Contractor shall document and report all payments for work performed by DBE certified firms in accordance with Article 109.11 of the Standard Specifications. All records of payment for work performed by DBE certified firms shall be made available to the Department upon request.

(d) FINAL PAYMENT. After the performance of the final item of work or trucking, or delivery of material by a DBE and final payment 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 (form SBE 2115) to the Engineer. 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.

(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.

80029

HOT-MIX ASPHALT (BDE)

Effective: January 1, 2024
Revised: January 1, 2025

Revise the first and second paragraphs of Articles 1030.06(c)(2) of the Standard Specifications to read:

"(2) Personnel. The Contractor shall provide a QC Manager who shall have overall responsibility and authority for quality control. This individual shall maintain active certification as a Hot-Mix Asphalt Level II technician.

In addition to the QC Manager, the Contractor shall provide sufficient personnel to perform the required visual inspections, sampling, testing, and documentation in a timely manner. Mix designs shall be developed by personnel with an active certification as a Hot-Mix Asphalt Level III technician. Technicians performing mix design testing and plant sampling/testing shall maintain active certification as a Hot-Mix Asphalt Level I technician. The Contractor may provide a technician trainee who has successfully completed the Department's "Hot-Mix Asphalt Trainee Course" to assist in the activities completed by a Hot-Mix Asphalt Level I technician for a period of one year after the course completion date. The Contractor may also provide a Gradation Technician who has successfully completed the Department's "Gradation Technician Course" to run gradation tests only under the supervision of a Hot-Mix Asphalt Level II Technician. The Contractor shall provide a Hot-Mix Asphalt Density Tester who has successfully completed the Department's "Nuclear Density Testing" course to run all nuclear density tests on the job site."

Revise the second paragraph of Articles 1030.07(a)(11) and 1030.08(a)(9) of the Standard Specifications to read:

"When establishing the target density, the HMA maximum theoretical specific gravity (G_{mm}) will be based on the running average of four available Department test results for that project. If less than four G_{mm} test results are available, an average of all available Department test results for that project will be used. The initial G_{mm} will be the last available Department test result from a QMP project. If there is no available Department test result from a QMP project, the Department mix design verification test result will be used as the initial G_{mm}."

Revise Article 1030.09(g)(2) of the Standard Specifications to read:

"(2) The Contractor shall complete split verification sample tests listed in the Limits of Precision table in Article 1030.09(h)(1)."

In the Supplemental Specifications, replace the revision for the end of the third paragraph of Article 1030.09(h)(2) with the following:

"When establishing the target density, the HMA maximum theoretical specific gravity (G_{mm}) will be the Department mix design verification test result."

Revise the tenth paragraph of Article 1030.10 of the Standard Specifications to read:

"Production is not required to stop after a test strip has been constructed."

80456

HOT-MIX ASPHALT – LONGITUDINAL JOINT SEALANT (BDE)

Effective: November 1, 2022
Revised: August 1, 2023

Add the following after the second sentence in the eighth paragraph of Article 406.06(h)(2) of the Standard Specifications:

"If rain is forecasted and traffic is to be on the LJS or if pickup/tracking of the LJS material is likely, the LJS shall be covered immediately following its application with FA 20 fine aggregate mechanically spread uniformly at a rate of 1.5 ± 0.5 lb/sq yd (0.75 ± 0.25 kg/sq m). Fine aggregate landing outside of the LJS shall be removed prior to application of tack coat."

Add the following after the first sentence in the ninth paragraph of Article 406.06(h)(2) of the Standard Specifications:

"LJS half-width shall be applied at a width of 9 ± 1 in. (225 ± 25 mm) in the immediate lane to be placed with the outside edge flush with the joint of the next HMA lift. The vertical face of any longitudinal joint remaining in place shall also be coated."

Add the following after the eleventh paragraph of Article 406.06(h)(2) of the Standard Specifications:

"LJS Half-Width Application Rate, lb/ft (kg/m) [1/]			
Lift Thickness, in. (mm)	Coarse Graded Mixture (IL-19.0, IL-19.0L, IL-9.5, IL-9.5L, IL-4.75)	Fine Graded Mixture (IL-9.5FG)	SMA Mixture (SMA-9.5, SMA-12.5)
¾ (19)	0.44 (0.66)		
1 (25)	0.58 (0.86)		
1 ¼ (32)	0.66 (0.98)	0.44 (0.66)	
1 ½ (38)	0.74 (1.10)	0.48 (0.71)	0.63 (0.94)
1 ¾ (44)	0.82 (1.22)	0.52 (0.77)	0.69 (1.03)
2 (50)	0.90 (1.34)	0.56 (0.83)	0.76 (1.13)
≥ 2 ¼ (60)	0.98 (1.46)		

1/ The application rate includes a surface demand for liquid. The thickness of the LJS may taper from the center of the application to a lesser thickness on the edge of the application, provided the correct width and application rate are maintained."

Revise the second paragraph of Article 406.13(b) of the Standard Specifications to read:

"Aggregate for covering tack, LJS, or FLS will not be measured for payment."

Add the following to the end of the second paragraph of Article 406.14 of the Standard Specifications:

"Longitudinal joint sealant (LJS) half-width will be paid for at the contract unit price per foot (meter) for LONGITUDINAL JOINT SEALANT, HALF-WIDTH."

80446

PAVEMENT MARKING INSPECTION (BDE)

Effective: April 1, 2025

Revise the second sentence of the first paragraph of Article 780.13 of the Standard Specifications to read:

"In addition, thermoplastic, preformed plastic, epoxy, preformed thermoplastic, polyurea, and modified urethane pavement markings will be inspected following a winter performance period that extends from November 15 to April 1 of the next year."

80464

PAVEMENT PATCHING (BDE)

Effective: August 1, 2025

Revise the first sentence of the last paragraph of Article 442.06(a)(2) of the Standard Specifications to read:

"Type IV patches shall be reinforced with welded wire reinforcement according to the details shown on the plans."

Revise Article 442.06(a)(3) of the Standard Specifications to read:

"(3) Class C Patching. Patches adjacent to a new lane of pavement, new portland cement concrete shoulder, or new curb and gutter of more than 20 ft (6 m) in length shall be tied with No. 6 (No. 19) tie bars, 24 in. (600 mm) long, embedded 8 in. (200 mm) at 36 in. (900 mm) centers according to Article 420.05(b).

When the patched pavement is not to be resurfaced, transverse contraction joints shall be formed on 15 ft (4.5 m) to 20 ft (6 m) centers by sawing in all patches that are more than 20 ft (6 m) in length. They shall be placed in line with joints or cracks in the existing slab whenever possible."

Revise the eighth paragraph of Article 442.11 of the Standard Specifications to read:

"Pavement tie bars for patches will be paid for at the contract unit price per each for TIE BARS, of the diameter specified."

80468

PERFORMANCE GRADED ASPHALT BINDER (BDE)

Effective: January 1, 2023

Revise Article 1032.05 of the Standard Specifications to read:

"**1032.05 Performance Graded Asphalt Binder.** These materials will be accepted according to the Bureau of Materials Policy Memorandum, "Performance Graded Asphalt Binder Qualification Procedure." The Department will maintain a qualified producer list. These materials shall be free from water and shall not foam when heated to any temperature below the actual flash point. Air blown asphalt, recycle engine oil bottoms (ReOB), and polyphosphoric acid (PPA) modification shall not be used.

When requested, producers shall provide the Engineer with viscosity/temperature relationships for the performance graded asphalt binders delivered and incorporated in the work.

(a) Performance Graded (PG) Asphalt Binder. The asphalt binder shall meet the requirements of AASHTO M 320, Table 1 "Standard Specification for Performance Graded Asphalt Binder" for the grade shown on the plans and the following.

Test	Parameter
Small Strain Parameter (AASHTO PP 113) BBR, ΔTc, 40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs)	-5 °C min.

(b) Modified Performance Graded (PG) Asphalt Binder. The asphalt binder shall meet the requirements of AASHTO M 320, Table 1 "Standard Specification for Performance Graded Asphalt Binder" for the grade shown on the plans.

Asphalt binder modification shall be performed at the source, as defined in the Bureau of Materials Policy Memorandum, "Performance Graded Asphalt Binder Qualification Procedure."

Modified asphalt binder shall be safe to handle at asphalt binder production and storage temperatures or HMA construction temperatures. Safety Data Sheets (SDS) shall be provided for all asphalt modifiers.

(1) Polymer Modification (SB/SBS or SBR). Elastomers shall be added to the base asphalt binder to achieve the specified performance grade and shall be either a styrene-butadiene diblock, triblock copolymer without oil extension, or a styrene-butadiene rubber. The polymer modified asphalt binder shall be smooth, homogeneous, and be according to the requirements shown in Table 1 or 2 for the grade shown on the plans.

Table 1 - Requirements for Styrene-Butadiene Copolymer (SB/SBS) Modified Asphalt Binders		
Test	Asphalt Grade SB/SBS PG 64-28 SB/SBS PG 70-22	Asphalt Grade SB/SBS PG 64-34 SB/SBS PG 70-28 SB/SBS PG 76-22 SB/SBS PG 76-28
Separation of Polymer ITP, "Separation of Polymer from Asphalt Binder" Difference in °F (°C) of the softening point between top and bottom portions	4 (2) max.	4 (2) max.
TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240)		
Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, %	60 min.	70 min.

Table 2 - Requirements for Styrene-Butadiene Rubber (SBR) Modified Asphalt Binders		
Test	Asphalt Grade SBR PG 64-28 SBR PG 70-22	Asphalt Grade SB/SBS PG 64-34 SB/SBS PG 70-28 SBR PG 76-22 SBR PG 76-28
Separation of Polymer ITP, "Separation of Polymer from Asphalt Binder" Difference in °F (°C) of the softening point between top and bottom portions	4 (2) max.	4 (2) max.
Toughness ASTM D 5801, 77 °F (25 °C), 20 in./min. (500 mm/min.), in.-lbs (N-m)	110 (12.5) min.	110 (12.5) min.
Tenacity ASTM D 5801, 77 °F (25 °C), 20 in./min. (500 mm/min.), in.-lbs (N-m)	75 (8.5) min.	75 (8.5) min.
TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240)		
Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, %	40 min.	50 min.

(2) Ground Tire Rubber (GTR) Modification. GTR modification is the addition of recycled ground tire rubber to liquid asphalt binder to achieve the specified performance grade. GTR shall be produced from processing automobile and/or truck tires by the ambient

grinding method or micronizing through a cryogenic process. GTR shall not exceed 1/16 in. (2 mm) in any dimension and shall not contain free metal particles, moisture that would cause foaming of the asphalt, or other foreign materials. A mineral powder (such as talc) meeting the requirements of AASHTO M 17 may be added, up to a maximum of four percent by weight of GTR to reduce sticking and caking of the GTR particles. When tested in accordance with Illinois Modified AASHTO T 27 "Standard Method of Test for Sieve Analysis of Fine and Coarse Aggregates" or AASHTO PP 74 "Standard Practice for Determination of Size and Shape of Glass Beads Used in Traffic Markings by Means of Computerized Optical Method", a 50 g sample of the GTR shall conform to the following gradation requirements.

Sieve Size	Percent Passing
No. 16 (1.18 mm)	100
No. 30 (600 µm)	95 ± 5
No. 50 (300 µm)	> 20

GTR modified asphalt binder shall be tested for rotational viscosity according to AASHTO T 316 using spindle S27. GTR modified asphalt binder shall be tested for original dynamic shear and RTFO dynamic shear according to AASHTO T 315 using a gap of 2 mm.

The GTR modified asphalt binder shall meet the requirements of Table 3.

Table 3 - Requirements for Ground Tire Rubber (GTR) Modified Asphalt Binders		
Test	Asphalt Grade GTR PG 64-28 GTR PG 70-22	Asphalt Grade GTR PG 76-22 GTR PG 76-28 GTR PG 70-28
TESTS ON RESIDUE FROM ROLLING THIN FILM OVEN TEST (AASHTO T 240)		
Elastic Recovery ASTM D 6084, Procedure A, 77 °F (25 °C), 100 mm elongation, %	60 min.	70 min.

(3) Softener Modification (SM). Softener modification is the addition of organic compounds, such as engineered flux, bio-oil blends, modified vegetable oils, glycol amines, and fatty acid derivatives, to the base asphalt binder to achieve the specified performance grade. Softeners shall be dissolved, dispersed, or reacted in the asphalt binder to enhance its performance and shall remain compatible with the asphalt binder with no separation. Softeners shall not be added to modified PG asphalt binder as defined in Articles 1032.05(b)(1) or 1032.05(b)(2).

An Attenuated Total Reflectance-Fourier Transform Infrared spectrum (ATR-FTIR) shall be collected for both the softening compound as well as the softener modified

asphalt binder at the dose intended for qualification. The ATR-FTIR spectra shall be collected on unaged softener modified binder, 20-hour Pressurized Aging Vessel (PAV) aged softener modified binder, and 40-hour PAV aged softener modified binder. The ATR-FTIR shall be collected in accordance with Illinois Test Procedure 601. The electronic files spectral files (in one of the following extensions or equivalent: *.SPA, *.SPG, *.IRD, *.IFG, *.CSV, *.SP, *.IRS, *.GAML, *.[0-9], *.IGM, *.ABS, *.DRT, *.SBM, *.RAS) shall be submitted to the Central Bureau of Materials.

Softener modified asphalt binders shall meet the requirements in Table 4.

Table 4 - Requirements for Softener Modified Asphalt Binders	
Test	Asphalt Grade SM PG 46-28 SM PG 46-34 SM PG 52-28 SM PG 52-34 SM PG 58-22 SM PG 58-28 SM PG 64-22
Small Strain Parameter (AASHTO PP 113) BBR, ΔTc, 40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs)	-5°C min.
Large Strain Parameter (Illinois Modified AASHTO T 391) DSR/LAS Fatigue Property, Δ|G*|peak τ, 40 hrs PAV (40 hrs continuous or 2 PAV at 20 hrs)	≥ 54 %

The following grades may be specified as tack coats.

Asphalt Grade	Use
PG 58-22, PG 58-28, PG 64-22	Tack Coat”

Revise Article 1031.06(c)(1) and 1031.06(c)(2) of the Standard Specifications to read:

“(1) RAP/RAS. When RAP is used alone or RAP is used in conjunction with RAS, the percentage of virgin ABR shall not exceed the amounts listed in the following table.

HMA Mixtures - RAP/RAS Maximum ABR % 1/ 2/			
Ndesign	Binder	Surface	Polymer Modified Binder or Surface 3/
30	30	30	10
50	25	15	10
70	15	10	10
90	10	10	10

1/ For Low ESAL HMA shoulder and stabilized subbase, the RAP/RAS ABR shall not exceed 50 percent of the mixture.

2/ When RAP/RAS ABR exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28).

3/ The maximum ABR percentages for ground tire rubber (GTR) modified mixes shall be equivalent to the percentages specified for SBS/SBR polymer modified mixes.

(2) FRAP/RAS. When FRAP is used alone or FRAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the following table.

HMA Mixtures - FRAP/RAS Maximum ABR % 1/ 2/			
Ndesign	Binder	Surface	Polymer Modified Binder or Surface 3/
30	55	45	15
50	45	40	15
70	45	35	15
90	45	35	15
SMA	- -	- -	25
IL-4.75	- -	- -	35

1/ For Low ESAL HMA shoulder and stabilized subbase, the FRAP/RAS ABR shall not exceed 50 percent of the mixture.

2/ When FRAP/RAS ABR exceeds 20 percent for all mixes, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG 64-22 to be reduced to a PG 58-28).

3/ The maximum ABR percentages for GTR modified mixes shall be equivalent to the percentages specified for SBS/SBR polymer modified mixes."

Add the following to the end of Note 2 of Article 1030.03 of the Standard Specifications.

"A dedicated storage tank for the ground tire rubber (GTR) modified asphalt binder shall be provided. This tank shall be capable of providing continuous mechanical mixing throughout and/or recirculation of the asphalt binder to provide a uniform mixture. The tank shall be heated and capable of maintaining the temperature of the asphalt binder at 300 °F to 350 °F (149 °C to 177 °C). The asphalt binder metering systems of dryer drum plants shall be calibrated with the actual GTR modified asphalt binder material with an accuracy of ±0.40 percent."

80441

RAILROAD PROTECTIVE LIABILITY INSURANCE (BDE)

Effective: December 1, 1986
Revised: January 1, 2022

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
(As named in Project Agreement with Project Sponsor) Three Commercial Place Norfolk, VA 23510-2191 Attn: S. W. Dickerson Risk Management	None	5 - 10 MPH

Class 1 RR (Y or N): Y
DOT/AAR No.: TBD
RR Division: Illinois
RR Mile Post: 373.20
RR Sub-Division: Decatur

For Freight/Passenger Information Contact:
For Insurance Information Contact: Risk Management
NSRICK1@nscorp.com
Phone:
Phone: 757-629-2842

Class 1 RR (Y or N):
DOT/AAR No.:
RR Division:
RR Mile Post:
RR Sub-Division:

For Freight/Passenger Information Contact:
For Insurance Information Contact:
Phone:
Phone:

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.

3426I

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)

Effective: January 1, 2024
Revised: April 1, 2024

Revise the first paragraph of Article 669.04 of the Standard Specifications to read:

"**669.04 Regulated Substances Monitoring.** Regulated substances monitoring includes environmental observation and field screening during regulated substances management activities. The excavated soil and groundwater within the work areas shall be managed as either uncontaminated soil, hazardous waste, special waste, or non-special waste.

As part of the regulated substances monitoring, the monitoring personnel shall perform and document the applicable duties listed on form BDE 2732 "Regulated Substances Monitoring Daily Record (RSMDR)"."

Revise the first two sentences of the nineteenth paragraph of Article 669.05 of the Standard Specifications to read:

"The Contractor shall coordinate waste disposal approvals with the disposal facility and provide the specific analytical testing requirements of that facility. The Contractor shall make all arrangements for collection, transportation, and analysis of landfill acceptance testing."

Revise the last paragraph of Article 669.05 of the Standard Specifications to read:

"The Contractor shall select a permitted landfill facility or CCDD/USFO facility meeting the requirements of 35 Ill. Admin. Code Parts 810-814 or Part 1100, respectively. The Department will review and approve or reject the facility proposed by the Contractor based upon information provided in BDE 2730. The Contractor shall verify whether the selected facility is compliant with those applicable standards as mandated by their permit and whether the facility is presently, has previously been, or has never been, on the United States Environmental Protection Agency (U.S. EPA) National Priorities List or the Resource Conservation and Recovery Act (RCRA) List of Violating Facilities. The use of a Contractor selected facility shall in no manner delay the construction schedule or alter the Contractor's responsibilities as set forth."

Revise the first paragraph of Article 669.07 of the Standard Specifications to read:

"**669.07 Temporary Staging.** Soil classified according to Articles 669.05(a)(2), (b)(1), or (c) may be temporarily staged at the Contractor's option. All other soil classified according to Articles 669.05(a)(1), (a)(3), (a)(4), (a)(5), (a)(6), or (b)(2) shall be managed and disposed of without temporary staging to the greatest extent practicable. If circumstances beyond the Contractor's control require temporary staging of these latter materials, the Contractor shall request approval from the Engineer in writing.

Topsoil for re-use as final cover which has been field screened and found not to exhibit PID readings over daily background readings as documented on the BDE 2732, visual staining or

odors, and is classified according to Articles 669.05(a)(2), (a)(3), (a)(4), (b)(1), or (c) may be temporarily staged at the Contractor's option."

Add the following paragraph after the sixth paragraph of Article 669.11 of the Standard Specifications.

"The sampling and testing of effluent water derived from dewatering discharges for priority pollutants volatile organic compounds (VOCs), priority pollutants semi-volatile organic compounds (SVOCs), or priority pollutants metals, will be paid for at the contract unit price per each for VOCS GROUNDWATER ANALYSIS using EPA Method 8260B, SVOCS GROUNDWATER ANALYSIS using EPA Method 8270C, or RCRA METALS GROUNDWATER ANALYSIS using EPA Methods 6010B and 7471A. This price shall include transporting the sample from the job site to the laboratory."

Revise the first sentence of the eight paragraph of Article 669.11 of the Standard Specifications to read:

"Payment for temporary staging of soil classified according to Articles 669.05(a)(1), (a)(3), (a)(4), (a)(5), (a)(6), or (b)(2) to be managed and disposed of, if required and approved by the Engineer, will be paid according to Article 109.04."

80455

SEEDING (BDE)

Effective: November 1, 2022

Revise Article 250.07 of the Standard Specifications to read:

"**250.07 Seeding Mixtures.** The classes of seeding mixtures and combinations of mixtures will be designated in the plans.

When an area is to be seeded with two or more seeding classes, those mixtures shall be applied separately on the designated area within a seven day period. Seeding shall occur prior to placement of mulch cover. A Class 7 mixture can be applied at any time prior to applying any seeding class or added to them and applied at the same time.

TABLE 1 - SEEDING MIXTURES			
Class - Type		Seeds	lb/acre (kg/hectare)
1	Lawn Mixture 1/	Kentucky Bluegrass	100 (110)
		Perennial Ryegrass	60 (70)
		Festuca rubra ssp. r*ubra* (Creeping Red Fescue)	40 (50)
1A	Salt Tolerant Lawn Mixture 1/	Kentucky Bluegrass	60 (70)
		Perennial Ryegrass	20 (20)
		Festuca rubra ssp. *rubra* (Creeping Red Fescue)	20 (20)
		Festuca brevipilla (Hard Fescue)	20 (20)
		Puccinellia distans (Fults Saltgrass or Salty Alkaligrass)	60 (70)
1B	Low Maintenance Lawn Mixture 1/	Turf-Type Fine Fescue 3/	150 (170)
		Perennial Ryegrass	20 (20)
		Red Top	10 (10)
		Festuca rubra ssp. *rubra* (Creeping Red Fescue)	20 (20)
2	Roadside Mixture 1/	*Lolium arundinaceum* (Tall Fescue)	100 (110)
		Perennial Ryegrass	50 (55)
		Festuca rubra ssp. r*ubra* (Creeping Red Fescue)	40 (50)
		Red Top	10 (10)
2A	Salt Tolerant Roadside Mixture 1/	*Lolium arundinaceum* (Tall Fescue)	60 (70)
		Perennial Ryegrass	20 (20)
		Festuca rubra ssp. *rubra* (Creeping Red Fescue)	30 (20)
		Festuca brevipila (Hard Fescue)	30 (20)
		Puccinellia distans (Fults Saltgrass or Salty Alkaligrass)	60 (70)
3	Northern Illinois Slope Mixture 1/	*Elymus canadensis* (Canada Wild Rye) 5/	5 (5)
		Perennial Ryegrass	20 (20)
		Alsike Clover 4/	5 (5)
		Desmanthus illinoensis (Illinois Bundleflower) 4/ 5/	2 (2)
		Schizachyrium scoparium (Little Bluestem) 5/	12 (12)
		Bouteloua curtipendula (Side-Oats Grama) 5/	10 (10)
		Puccinellia distans (Fults Saltgrass or Salty Alkaligrass)	30 (35)
		Oats, Spring	50 (55)
		Slender Wheat Grass 5/	15 (15)
		Buffalo Grass 5/ 7/	5 (5)
3A	Southern Illinois Slope Mixture 1/	Perennial Ryegrass	20 (20)
		Elymus canadensis (Canada Wild Rye) 5/	20 (20)
		Panicum virgatum (Switchgrass) 5/	10 (10)
		Schizachyrium scoparium (Little Blue Stem) 5/	12 (12)
		Bouteloua curtipendula (Side-Oats Grama) 5/	10 (10)
		Dalea candida (White Prairie Clover) 4/ 5/	5 (5)
		Rudbeckia hirta (Black-Eyed Susan) 5/	5 (5)
		Oats, Spring	50 (55)

Class – Type		Seeds	lb/acre (kg/hectare)
4	Native Grass 2/ 6/	*Andropogon gerardi* (Big Blue Stem) 5/	4 (4)
		Schizachyrium scoparium (Little Blue Stem) 5/	5 (5)
		Bouteloua curtipendula (Side-Oats Grama) 5/	5 (5)
		Elymus canadensis (Canada Wild Rye) 5/	1 (1)
		Panicum virgatum (Switch Grass) 5/	1 (1)
		Sorghastrum nutans (Indian Grass) 5/	2 (2)
		Annual Ryegrass	25 (25)
		Oats, Spring	25 (25)
		Perennial Ryegrass	15 (15)
4A	Low Profile Native Grass 2/ 6/	*Schizachyrium scoparium* (Little Blue Stem) 5/	5 (5)
		Bouteloua curtipendula (Side-Oats Grama) 5/	5 (5)
		Elymus canadensis (Canada Wild Rye) 5/	1 (1)
		Sporobolus heterolepis (Prairie Dropseed) 5/	0.5 (0.5)
		Annual Ryegrass	25 (25)
		Oats, Spring	25 (25)
		Perennial Ryegrass	15 (15)
4B	Wetland Grass and Sedge Mixture 2/ 6/	Annual Ryegrass	25 (25)
		Oats, Spring	25 (25)
		Wetland Grasses (species below) 5/	6 (6)

Species:	% By Weight
Calamagrostis canadensis (Blue Joint Grass)	12
Carex lacustris (Lake-Bank Sedge)	6
Carex slipata (Awl-Fruited Sedge)	6
Carex stricta (Tussock Sedge)	6
Carex vulpinoidea (Fox Sedge)	6
Eleocharis acicularis (Needle Spike Rush)	3
Eleocharis obtusa (Blunt Spike Rush)	3
Glyceria striata (Fowl Manna Grass)	14
Juncus effusus (Common Rush)	6
Juncus tenuis (Slender Rush)	6
Juncus torreyi (Torrey's Rush)	6
Leersia oryzoides (Rice Cut Grass)	10
Scirpus acutus (Hard-Stemmed Bulrush)	3
Scirpus atrovirens (Dark Green Rush)	3
Bolboschoenus fluviatilis (River Bulrush)	3
Schoenoplectus tabernaemontani (Softstem Bulrush)	3
Spartina pectinata (Cord Grass)	4

Class – Type		Seeds	lb/acre (kg/hectare)
5	Forb with Annuals Mixture 2/ 5/ 6/	Annuals Mixture (Below) Forb Mixture (Below)	1 (1) 10 (10)

Annuals Mixture - Mixture not exceeding 25 % by weight of any one species, of the following:

Coreopsis lanceolata (Sand Coreopsis)
Leucanthemum maximum (Shasta Daisy)
Gaillardia pulchella (Blanket Flower)
Ratibida columnifera (Prairie Coneflower)
Rudbeckia hirta (Black-Eyed Susan)

Forb Mixture - Mixture not exceeding 5 % by weight PLS of any one species, of the following:

Amorpha canescens (Lead Plant) 4/
Anemone cylindrica (Thimble Weed)
Asclepias tuberosa (Butterfly Weed)
Aster azureus (Sky Blue Aster)
Symphyotrichum leave (Smooth Aster)
Aster novae-angliae (New England Aster)
Baptisia leucantha (White Wild Indigo) 4/
Coreopsis palmata (Prairie Coreopsis)
Echinacea pallida (Pale Purple Coneflower)
Eryngium yuccifolium (Rattlesnake Master)
Helianthus mollis (Downy Sunflower)
Heliopsis helianthoides (Ox-Eye)
Liatris aspera (Rough Blazing Star)
Liatris pycnostachya (Prairie Blazing Star)
Monarda fistulosa (Prairie Bergamot)
Parthenium integrifolium (Wild Quinine)
Dalea candida (White Prairie Clover) 4/
Dalea purpurea (Purple Prairie Clover) 4/
Physostegia virginiana (False Dragonhead)
Potentilla arguta (Prairie Cinquefoil)
Ratibida pinnata (Yellow Coneflower)
Rudbeckia subtomentosa (Fragrant Coneflower)
Silphium laciniatum (Compass Plant)
Silphium terebinthinaceum (Prairie Dock)
Oligoneuron rigidum (Rigid Goldenrod)
Tradescantia ohiensis (Spiderwort)
Veronicastrum virginicum (Culver's Root)

Class – Type		Seeds	lb/acre (kg/hectare)
5A	Large Flower Native Forb Mixture 2/ 5/ 6/	Forb Mixture (see below)	5 (5)
	Species:		% By Weight
	Aster novae-angliae (New England Aster)		5
	Echinacea pallida (Pale Purple Coneflower)		10
	Helianthus mollis (Downy Sunflower)		10
	Heliopsis helianthoides (Ox-Eye)		10
	Liatris pycnostachya (Prairie Blazing Star)		10
	Ratibida pinnata (Yellow Coneflower)		5
	Rudbeckia hirta (Black-Eyed Susan)		10
	Silphium laciniatum (Compass Plant)		10
	Silphium terebinthinaceum (Prairie Dock)		20
	Oligoneuron rigidum (Rigid Goldenrod)		10
5B	Wetland Forb 2/ 5/ 6/	Forb Mixture (see below)	2 (2)
	Species:		% By Weight
	Acorus calamus (Sweet Flag)		3
	Angelica atropurpurea (Angelica)		6
	Asclepias incarnata (Swamp Milkweed)		2
	Aster puniceus (Purple Stemmed Aster)		10
	Bidens cernua (Beggarticks)		7
	Eutrochium maculatum (Spotted Joe Pye Weed)		7
	Eupatorium perfoliatum (Boneset)		7
	Helenium autumnale (Autumn Sneeze Weed)		2
	Iris virginica shrevei (Blue Flag Iris)		2
	Lobelia cardinalis (Cardinal Flower)		5
	Lobelia siphilitica (Great Blue Lobelia)		5
	Lythrum alatum (Winged Loosestrife)		2
	Physostegia virginiana (False Dragonhead)		5
	Persicaria pensylvanica (Pennsylvania Smartweed)		10
	Persicaria lapathifolia (Curlytop Knotweed)		10
	Pychanthemum virginianum (Mountain Mint)		5
	Rudbeckia laciniata (Cut-leaf Coneflower)		5
	Oligoneuron riddellii (Riddell Goldenrod)		2
	Sparganium eurycarpum (Giant Burreed)		5
6	Conservation Mixture 2/ 6/	*Schizachyrium scoparium* (Little Blue Stem) 5/	5 (5)
		Elymus canadensis (Canada Wild Rye) 5/	2 (2)
		Buffalo Grass 5/ 7/	5 (5)
		Vernal Alfalfa 4/	15 (15)
		Oats, Spring	48 (55)
6A	Salt Tolerant Conservation Mixture 2/ 6/	*Schizachyrium scoparium* (Little Blue Stem) 5/	5 (5)
		Elymus canadensis (Canada Wild Rye) 5/	2 (2)
		Buffalo Grass 5/ 7/	5 (5)
		Vernal Alfalfa 4/	15 (15)
		Oats, Spring	48 (55)
		Puccinellia distans (Fults Saltgrass or Salty Alkaligrass)	20 (20)
7	Temporary Turf Cover Mixture	Perennial Ryegrass	50 (55)
		Oats, Spring	64 (70)

Notes:

1/ Seeding shall be performed when the ambient temperature has been between 45 ºF (7 ºC) and 80 ºF (27 ºC) for a minimum of seven (7) consecutive days and is forecasted to be the same for the next five (5) days according to the National Weather Service.
2/ Seeding shall be performed in late fall through spring beginning when the ambient temperature has been below 45 ºF (7 ºC) for a minimum of seven (7) consecutive days and ending when the ambient temperature exceeds 80 ºF (27 ºC) according to the National Weather Service.
3/ Specific variety as shown in the plans or approved by the Engineer.
4/ Inoculation required.
5/ Pure Live Seed (PLS) shall be used.
6/ Fertilizer shall not be used.
7/ Seed shall be primed with KNO_3 to break dormancy and dyed to indicate such.

Seeding will be inspected after a period of establishment. The period of establishment shall be six (6) months minimum, but not to exceed nine (9) months. After the period of establishment, areas not exhibiting 75 percent uniform growth shall be interseeded or reseeded, as determined by the Engineer, at no additional cost to the Department."

80445

SHORT TERM AND TEMPORARY PAVEMENT MARKINGS (BDE)

Effective: April 1, 2024
Revised: April 2, 2024

Revise Article 701.02(d) of the Standard Specifications to read:

"(d) Pavement Marking Tapes (Note 3) .....1095.06"

Add the following Note to the end of Article 701.02 of the Standard Specifications:

"Note 3. White or yellow pavement marking tape that is to remain in place longer than 14 days shall be Type IV tape."

Revise Article 703.02(c) of the Standard Specifications to read:

"(c) Pavement Marking Tapes (Note 1) .....1095.06"

Add the following Note to the end of Article 703.02 of the Standard Specifications:

"Note 1. White or yellow pavement marking tape that is to remain in place longer than 14 days shall be Type IV tape."

Revise Article 1095.06 of the Standard Specifications to read:

"**1095.06 Pavement Marking Tapes.** Type I white or yellow marking tape shall consist of glass spheres embedded into a binder on a foil backing that is precoated with a pressure sensitive adhesive. The spheres shall be of uniform gradation and distributed evenly over the surface of the tape.

Type IV tape shall consist of white or yellow tape with wet reflective media incorporated to provide immediate and continuing retroreflection in wet and dry conditions. The wet retroreflective media shall be bonded to a durable polyurethane surface. The patterned surface shall have approximately 40 ± 10 percent of the surface area raised and presenting a near vertical face to traffic from any direction. The channels between the raised areas shall be substantially free of exposed reflective elements or particles.

Blackout tape shall consist of a matte black, non-reflective, patterned surface that is precoated with a pressure sensitive adhesive.

(a) Color. The white and yellow markings shall meet the following requirements for daylight reflectance and color, when tested, using a color spectrophotometer with 45 degrees circumferential/zero degree geometry, illuminant D65, and two degree observer angle. The color instrument shall measure the visible spectrum from 380 to 720 nm with a wavelength measurement interval and spectral bandpass of 10 nm.

Color	Daylight Reflectance %Y
White	65 min.
Yellow *	36 - 59

*Shall match Aerospace Material Specification Standard 595 33538 (Orange Yellow) and the chromaticity limits as follows.

x	0.490	0.475	0.485	0.530
y	0.470	0.438	0.425	0.456

(b) Retroreflectivity. The white and yellow markings shall be retroreflective. Reflective values measured in accordance with the photometric testing procedure of ASTM D 4061 shall not be less than those listed in the table below. The coefficient of retroreflected luminance, R_L, shall be expressed as average millicandelas/footcandle/sq ft (millicandelas/lux/sq m), measured on a 3.0 x 0.5 ft (900 mm x 150 mm) panel at 86 degree entrance angle.

Coefficient of Retroreflected Luminance, R_L, Dry					
Type I			Type IV		
Observation Angle	White	Yellow	Observation Angle	White	Yellow
0.2°	2700	2400	0.2°	1300	1200
0.5°	2250	2000	0.5°	1100	1000

Wet retroreflectance shall be measured for Type IV under wet conditions according to ASTM E 2177 and meet the following.

Wet Retroreflectance, Initial R_L	
Color	R_L 1.05/88.76
White	300
Yellow	200

(c) Skid Resistance. The surface of Type IV and blackout markings shall provide a minimum skid resistance of 45 BPN when tested according to ASTM E 303.

(d) Application. The pavement marking tape shall have a precoated pressure sensitive adhesive and shall require no activation procedures. Test pieces of the tape shall be applied according to the manufacturer's instructions and tested according to ASTM D 1000, Method A, except that a stiff, short bristle roller brush and heavy hand pressure will be substituted for the weighted rubber roller in applying the test pieces to the metal test panel. Material tested as directed above shall show a minimum adhesion value of 750 g/in. (30 g/mm) width at the temperatures specified in ASTM D 1000. The adhesive shall be resistant to oils, acids, solvents, and water, and shall not leave objectionable stains or residue after removal. The material shall be flexible and conformable to the texture of the pavement.

(e) Durability. Type IV and blackout tape shall be capable of performing for the duration of a normal construction season and shall then be capable of being removed intact or in large sections at pavement temperatures above 40 °F (4 °C) either manually or with a roll-up device without the use of sandblasting, solvents, or grinding. The Contractor shall provide a manufacturer's certification that the material meets the requirements for being removed after the following minimum traffic exposure based on transverse test decks with rolling traffic.

(1) Time in place - 400 days
(2) ADT per lane - 9,000 (28 percent trucks)
(3) Axle hits - 10,000,000 minimum

Samples of the material applied to standard specimen plates will be measured for thickness and tested for durability in accordance with ASTM D 4060, using a CS-17 wheel and 1000-gram load, and shall meet the following criteria showing no significant change in color after being tested for the number of cycles indicated.

Test	Type I	Type IV	Blackout
Minimum Initial Thickness, mils (mm)	20 (0.51)	65 (1.65) 1/ 20 (0.51) 2/	65 (1.65) 1/ 20 (0.51) 2/
Durability (cycles)	5,000	1,500	1,500

1/ Measured at the thickest point of the patterned surface.

2/ Measured at the thinnest point of the patterned surface.

The pavement marking tape, when applied according to the manufacturer's recommended procedures, shall be weather resistant and shall show no appreciable fading, lifting, or shrinkage during the useful life of the marking. The tape, as applied, shall be of good appearance, free of cracks, and edges shall be true, straight, and unbroken.

(f) Sampling and Inspection.

(1) Sample. Prior to approval and use of Type IV pavement marking tape, the manufacturer shall submit a notarized certification from an independent laboratory, together with the results of all tests, stating that the material meets the requirements as set forth herein. The independent laboratory test report shall state the lot tested, the manufacturer's name, and the date of manufacture.

After initial approval by the Department, samples and certification by the manufacturer shall be submitted for each subsequent batch of Type IV tape used. The manufacturer shall submit a certification stating that the material meets the requirements as set forth herein and is essentially identical to the material sent for qualification. The certification shall state the lot tested, the manufacturer's name, and the date of manufacture.

(2) Inspection. The Contractor shall provide a manufacturer's certification to the Engineer stating the material meets all requirements of this specification. All material samples for acceptance tests shall be taken or witnessed by a representative of the Bureau of Materials and shall be submitted to the Engineer of Materials, 126 East Ash Street, Springfield, Illinois 62704-4766 at least 30 days in advance of the pavement marking operations."

80457

SIGN PANELS AND APPURTENANCES (BDE)

Effective: January 1, 2025
Revised: April 1, 2025

Add Article 720.02(c) of the Standard Specifications to read:

"(c) Aluminum Epoxy Mastic .....1008.03"

Revise the second and third paragraphs of Article 720.02 of the Standard Specifications to read:

"The sign mounting support channel shall be manufactured from steel or aluminum and shall be according to Standard 720001.

Steel support channels shall be according to ASTM A 1011 (A 1011M), ASTM A 635 (A 635M), ASTM A 568 (A 568M), or ASTM A 684 (A 684M), and shall be galvanized. Galvanizing shall be according to ASTM A 653 (A 653M) when galvanized before fabrication, and AASHTO M 111 (M 111M) when galvanized after fabrication. Field or post fabricated drilled holes shall be spot painted with one coat of aluminum epoxy mastic paint prior to installation."

Revise the fifth paragraph of Article 720.02 of the Standard Specifications to read:

"The stainless steel banding for mounting signs or sign support channels to light or signal standards shall be according to ASTM A 240 (A 240M) Type 302 stainless steel."

80462

SOURCE OF SUPPLY AND QUALITY REQUIREMENTS (BDE)

Effective: January 2, 2023

Add the following to Article 106.01 of the Standard Specifications:

"The final manufacturing process for construction materials and the immediately preceding manufacturing stage for construction materials shall occur within the United States. Construction materials shall include an article, material, or supply that is or consists primarily of the following.

(a) Non-ferrous metals;

(b) Plastic and polymer-based products (including polyvinylchloride, composite building materials, and polymers used in fiber optic cables);

(c) Glass (including optic glass);

(d) Lumber;

(e) Drywall.

Items consisting of two or more of the listed construction materials that have been combined through a manufacturing process, and items including at least one of the listed materials combined with a material that is not listed through a manufacturing process shall be exempt."

80448

STEEL COST ADJUSTMENT (BDE)

Effective: April 2, 2004
Revised: January 1, 2022

Description. Steel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in steel 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 item of work will make that item of steel exempt from steel cost adjustment.

Types of Steel Products. An adjustment will be made for fluctuations in the cost of steel used in the manufacture of the following items:

Metal Piling (excluding temporary sheet piling)
Structural Steel
Reinforcing Steel

Other steel materials such as dowel bars, tie bars, welded reinforcement, guardrail, steel traffic signal and light poles, towers and mast arms, metal railings (excluding wire fence), and frames and grates will be subject to a steel cost adjustment when the pay items they are used in have a contract value of $10,000 or greater.

The adjustments shall apply to the above items when they are part of the original proposed construction, or added as extra work and paid for by agreed unit prices. The adjustments shall not apply when the item is added as extra work and paid for at a lump sum price or by force account.

Documentation. Sufficient documentation shall be furnished to the Engineer to verify the following:

(a) The dates and quantity of steel, in lb (kg), shipped from the mill to the fabricator.

(b) The quantity of steel, in lb (kg), incorporated into the various items of work covered by this special provision. The Department reserves the right to verify submitted quantities.

Method of Adjustment. Steel cost adjustments will be computed as follows:

$SCA = Q \times D$

Where: SCA = steel cost adjustment, in dollars
Q = quantity of steel incorporated into the work, in lb (kg)
D = price factor, in dollars per lb (kg)

$D = MPI_M - MPI_L$

Where: MPI_M = The Materials Cost Index for steel as published by the Engineering News-Record for the month the steel is shipped from the mill. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

MPI_L = The Materials Cost Index for steel as published by the Engineering News-Record 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,. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

The unit weights (masses) of steel that will be used to calculate the steel cost adjustment for the various items are shown in the attached table.

No steel cost adjustment will be made for any products manufactured from steel having a mill shipping date prior to the letting date.

If the Contractor fails to provide the required documentation, the method of adjustment will be calculated as described above; however, the MPI_M will be based on the date the steel arrives at the job site. In this case, an adjustment will only be made when there is a decrease in steel costs.

Basis of Payment. Steel cost adjustments may be positive or negative but will only be made when there is a difference between the MPI_L and MPI_M in excess of five percent, as calculated by:

$$\text{Percent Difference} = \{(MPI_L - MPI_M) \div MPI_L\} \times 100$$

Steel cost adjustments will be calculated by the Engineer and will be paid or deducted when all other contract requirements for the items of work are satisfied. Adjustments will only be made for fluctuations in the cost of the steel as described herein. No adjustment will be made for changes in the cost of manufacturing, fabrication, shipping, storage, etc.

The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

Attachment

Item	Unit Mass (Weight)
Metal Piling (excluding temporary sheet piling)	
Furnishing Metal Pile Shells 12 in. (305 mm), 0.179 in. (3.80 mm) wall thickness)	23 lb/ft (34 kg/m)
Furnishing Metal Pile Shells 12 in. (305 mm), 0.250 in. (6.35 mm) wall thickness)	32 lb/ft (48 kg/m)
Furnishing Metal Pile Shells 14 in. (356 mm), 0.250 in. (6.35 mm) wall thickness)	37 lb/ft (55 kg/m)
Other piling	See plans
Structural Steel	See plans for weights (masses)
Reinforcing Steel	See plans for weights (masses)
Dowel Bars and Tie Bars	6 lb (3 kg) each
Welded Reinforcement	63 lb/100 sq ft (310 kg/sq m)
Guardrail	
Steel Plate Beam Guardrail, Type A w/steel posts	20 lb/ft (30 kg/m)
Steel Plate Beam Guardrail, Type B w/steel posts	30 lb/ft (45 kg/m)
Steel Plate Beam Guardrail, Types A and B w/wood posts	8 lb/ft (12 kg/m)
Steel Plate Beam Guardrail, Type 2	305 lb (140 kg) each
Steel Plate Beam Guardrail, Type 6	1260 lb (570 kg) each
Traffic Barrier Terminal, Type 1 Special (Tangent)	730 lb (330 kg) each
Traffic Barrier Terminal, Type 1 Special (Flared)	410 lb (185 kg) each
Steel Traffic Signal and Light Poles, Towers and Mast Arms	
Traffic Signal Post	11 lb/ft (16 kg/m)
Light Pole, Tenon Mount and Twin Mount, 30 - 40 ft (9 – 12 m)	14 lb/ft (21 kg/m)
Light Pole, Tenon Mount and Twin Mount, 45 - 55 ft (13.5 – 16.5 m)	21 lb/ft (31 kg/m)
Light Pole w/Mast Arm, 30 - 50 ft (9 – 15.2 m)	13 lb/ft (19 kg/m)
Light Pole w/Mast Arm, 55 - 60 ft (16.5 – 18 m)	19 lb/ft (28 kg/m)
Light Tower w/Luminaire Mount, 80 - 110 ft (24 – 33.5 m)	31 lb/ft (46 kg/m)
Light Tower w/Luminaire Mount, 120 - 140 ft (36.5 – 42.5 m)	65 lb/ft (97 kg/m)
Light Tower w/Luminaire Mount, 150 - 160 ft (45.5 – 48.5 m)	80 lb/ft (119 kg/m)
Metal Railings (excluding wire fence)	
Steel Railing, Type SM	64 lb/ft (95 kg/m)
Steel Railing, Type S-1	39 lb/ft (58 kg/m)
Steel Railing, Type T-1	53 lb/ft (79 kg/m)
Steel Bridge Rail	52 lb/ft (77 kg/m)
Frames and Grates	
Frame	250 lb (115 kg)
Lids and Grates	150 lb (70 kg)

80127

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."

80397

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%"

80391

SUBMISSION OF BIDDERS LIST INFORMATION (BDE)

Effective: January 2, 2025
Revised: March 2, 2025

In accordance with 49 CFR 26.11(c) all DBE and non-DBEs who bid as prime contractors and subcontractors shall provide bidders list information, including all DBE and non-DBE firms from whom the bidder has received a quote or bid to work as a subcontractor, whether or not the bidder has relied upon that bid in placing its bid as the prime contractor.

The bidders list information shall be submitted with the bid using the link provided within the "Integrated Contractor Exchange (iCX)" application of the Department's "EBids System".

80463

SUBMISSION OF PAYROLL RECORDS (BDE)

Effective: April 1, 2021
Revised: November 2, 2023

FEDERAL AID CONTRACTS. Revise the following section of Check Sheet #1 of the Recurring Special Provisions to read:

"STATEMENTS AND PAYROLLS

The payroll records shall include the worker's name, social security number, last known address, telephone number, email address, classification(s) of work actually performed, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof), daily and weekly number of hours actually worked in total, deductions made, and actual wages paid.

The Contractor and each subcontractor shall submit certified payroll records to the Department each week from the start to the completion of their respective work, except that full social security numbers, last known addresses, telephone numbers, and email addresses shall not be included on weekly submittals. Instead, the payrolls need only include an identification number for each employee (e.g., the last four digits of the employee's social security number). The submittals shall be made using LCPtracker Pro software. The software is web-based and can be accessed at https://lcptracker.com/. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate option ("No Work", "Suspended", or "Complete") selected."

STATE CONTRACTS. Revise Item 3 of Section IV of Check Sheet #5 of the Recurring Special Provisions to read:

"3. Submission of Payroll Records. The Contractor and each subcontractor shall, no later than the 15th day of each calendar month, file a certified payroll for the immediately preceding month to the Illinois Department of Labor (IDOL) through the Illinois Prevailing Wage Portal in compliance with the State Prevailing Wage Act (820 ILCS 130). The portal can be found on the IDOL website at https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/Prevailing-Wage-Portal.aspx. Payrolls shall be submitted in the format prescribed by the IDOL.

In addition to filing certified payroll(s) with the IDOL, the Contractor and each subcontractor shall certify and submit payroll records to the Department each week from the start to the completion of their respective work, except that full social security numbers shall not be included on weekly submittals. Instead, the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). In addition, starting and ending times of work each day may be omitted from the payroll records submitted. The submittals shall be made using LCPtracker Pro software. The software is web-based and can be accessed at https://lcptracker.com/.

When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate option (“No Work”, “Suspended”, or “Complete”) selected.”

80437

SURVEYING SERVICES (BDE)

Effective: April 1, 2025

Delete the fourth paragraph of Article 667.04 of the Standard Specifications.

Delete Section 668 of the Standard Specifications.

80465

TRAFFIC SIGNAL BACKPLATE (BDE)

Effective: August 1, 2025

Revise the second sentence of the third paragraph of Article 1078.03 of the Standard Specifications to read:

"Retroreflective sheeting shall be Type AZ or Type ZZ according to Article 1091.03 and applied in the preferred orientation for the maximum angularity according to the manufacturer's recommendations."

80470

TRAINING SPECIAL PROVISIONS (BDE)

Effective: October 15, 1975
Revised: September 2, 2021

This Training Special Provision supersedes Section 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," and is in implementation of 23 U.S.C. 140(a).

As part of the Contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The Contractor shall provide on-the-job training aimed at developing full journeyman in the type of trade or job classification involved. The number of trainees to be trained under this contract will be **4**. In the event the Contractor subcontracts a portion of the contract work, it shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the Contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The Contractor shall also ensure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the Contractor's needs and the availability of journeymen in the various classifications within the reasonable area of recruitment. Prior to commencing construction, the Contractor shall submit to the Illinois Department of Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the Contractor shall specify the starting time for training in each of the classifications. The Contractor will be credited for each trainee it employs on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the Contractor shall make every effort to enroll minority trainees and women (e.g. by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. The Contractor will be responsible for demonstrating the steps it has taken in pursuance thereof, prior to a determination as to whether the Contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he or she has successfully completed a training course leading to journeyman status or in which he or she has been employed as a journeyman. The Contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the Contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the Contractor and approved by the Illinois Department of Transportation and the Federal Highway Administration. The Illinois Department of Transportation and the Federal Highway Administration shall approve a program, if it is reasonably calculated to meet the equal employment opportunity obligations of the Contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved by not necessarily sponsored by the U.S. Department of Labor Employment Training Administration shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Illinois Department of Transportation and the Federal Highway Administration. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the Contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, reimbursement will be made for training of persons in excess of the number specified herein. This reimbursement will be made even though the Contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the Contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the Contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the Contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the Contractor and evidences a lack of good faith on the part of the Contractor in meeting the requirement of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program.

It is not required that all trainees be on board for the entire length of the contract. A Contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The Contractor shall furnish the trainee a copy of the program he will follow in providing the training. The Contractor shall provide each trainee with a certification showing the type and length of training satisfactorily complete.

The Contractor shall provide for the maintenance of records and furnish periodic reports documenting its performance under this Training Special Provision.

For contracts with an awarded contract value of $500,000 or more, the Contractor is required to comply with the Illinois Works Apprenticeship Initiative (30 ILCS 559/20-20 to 20-25) and all applicable administrative rules to the extent permitted by Section 20-20(g). For federally funded projects, the number of trainees to be trained under this contract, as stated in the Training Special Provisions, will be the established goal for the Illinois Works Apprenticeship Initiative 30 ILCS 559/20-20(g). The Contractor shall make a good faith effort to meet this goal. For federally funded projects, the Illinois Works Apprenticeship Initiative will be implemented using the FHWA approved OJT procedures. The Contractor must comply with the recordkeeping and reporting obligations of the Illinois Works Apprenticeship Initiative for the life of the project, including the certification as to whether the trainee/apprentice labor hour goals were met.

Method of Measurement. The unit of measurement is in hours.

Basis of Payment. This work will be paid for at the contract unit price of 80 cents per hour for TRAINEES. The estimated total number of hours, unit price, and total price have been included in the schedule of prices.

20338

VEHICLE AND EQUIPMENT WARNING LIGHTS (BDE)

Effective: November 1, 2021
Revised: November 1, 2022

Add the following paragraph after the first paragraph of Article 701.08 of the Standard Specifications:

"The Contractor shall equip all vehicles and equipment with high-intensity oscillating, rotating, or flashing, amber or amber-and-white, warning lights which are visible from all directions. In accordance with 625 ILCS 5/12-215, the lights may only be in operation while the vehicle or equipment is engaged in construction operations."

80439

WEEKLY DBE TRUCKING REPORTS (BDE)

Effective: June 2, 2012
Revised: January 2, 2025

The following applies to all Disadvantaged Business Enterprise (DBE) trucks on the project, whether they are utilized for DBE goal credit or not.

The Contractor shall notify the Engineer at least three days prior to DBE trucking activity.

The Contractor shall submit a weekly report of DBE trucks hired by the Contractor or subcontractors (i.e. not owned by the Contractor or subcontractors) 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.

80302

WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

Effective: March 2, 2020
Revised: January 1, 2025

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 shall be MASH compliant.

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 shall be MASH compliant.

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 compliant. Category 3 devices manufactured on or before December 31, 2019, and compliant

with NCHRP 350, 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 sign supports, speed feedback displays, 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 compliant is available, an NCHRP 350 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."

80427

WORKING DAYS (BDE)

Effective: January 1, 2002

The Contractor shall complete the work within **200** working days.

80071

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. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), 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 basic hourly 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. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. 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 must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. 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 classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH–1321) must 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. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must 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 be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate 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 used 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) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) 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 will be sent by the contracting officer by email to *DBAconformance@dol.gov*. 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.

(4) 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 will, by email to *DBAconformance@dol.gov*, 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.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must 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.

d. *Fringe benefits not expressed as an hourly rate.* 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 may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* 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, in accordance with the criteria set forth in § 5.28, 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.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and 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.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements* (1) *Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; 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 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section 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 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must 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.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements* (1) *Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (*e.g.,* the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH–347 or in any other format desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division website at *https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347/.pdf* or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working 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; and

(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(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH–347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* 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. 3729.

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, 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, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform 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 (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must 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, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must 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 this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

c. 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 journeyworkers 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 must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 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. a. By entering into this contract, the contractor certifies that neither it 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 40 U.S.C. 3144(b) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

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 watchpersons 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 and interest from the date of the underpayment. 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 watchpersons 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.

* $31 as of January 15, 2023 (See 88 FR 88 FR 2210) 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

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, 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 that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

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 200.327.

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 200.327.

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.

* * * * *

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) 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;

(2) 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

(3) 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)

b. 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.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B) This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.