(No. 1)

STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", adopted January 1, 2012, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways" and the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids, and the "Supplemental Specifications and Recurring Special Provisions" indicated on the Check Sheet included herein which apply to and govern the construction of           Route          , Project           , Section          , in           County, and in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

LOCATION OF PROJECT

(INSERT FOR EACH JOB)

DESCRIPTION OF PROJECT

(INSERT FOR EACH JOB)

(No. 2) (Code #20101000)

# **TEMPORARY FENCE**

Effective: July 1, 1994

The Contractor shall perform this work according to Section 665 of the Standard Specifications with the type of fence and location as approved by the Engineer. The temporary fence shall replace any existing fence which is removed from an area containing livestock and shall be erected in such manner to contain the livestock and to permit the Contractor to proceed with his operations.

This work will be paid for at the contract unit price per Foot for TEMPORARY FENCE.

04-10-14

(No. 3)

# **TRAFFIC CONTROL PLAN**

Effective: January 14, 1999 Revised: April 10, 2014

Traffic Control shall be according to the applicable sections of the Standard Specifications for Road and Bridge Construction, the applicable guidelines contained in the National Manual on Uniform Traffic Control Devices for Streets and Highways, Illinois Supplement to the National Manual on Uniform Traffic Control Devices, 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 of the Standard Specifications for Road and Bridge Construction and the following Highway Standards relating to traffic control.

**Insert Standard Numbers (Six-digit number only)**

Standards:

\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_

\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_

**Insert any details in the plans or District Standards**

Details:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

General:

Where construction activities involve sidewalks on both sides of the street, the work shall be staged so that both sidewalks are not out of service at the same time.

Signs:

No bracing shall be allowed on post-mounted signs.

Post-mounted signs shall be installed using standard 720011, 728001, 729001, on 4”x4” wood posts, or on any other “break away” connection if accepted by the FHWA and corresponding letter is provided to the resident.

All signs are required on both sides of the road when the median is greater than 10 feet and on one way roadways.

The “WORKERS” (W21-1a(O)-48) signs shall be replaced with symbol “Right or Left Lane Closed Ahead” (W4-2R or L(O)-48) signs on multilane roadways.

“BUMP” (W8-1(O)48) signs shall be installed as directed by the Engineer.

“UNEVEN LANES” W8-11(O)48 signs shall be installed at 1 mile intervals or as directed by the Engineer.

“LOW SHOULDER” W8-9(O)48 signs shall be installed at 1 mile intervals or as directed by the Engineer.

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When covering existing Department signs, no tape shall be used on the reflective portion of the sign. Contact the District sign shop for covering techniques.

Install a "TO ACTIVATE SIGNAL" sign below the “STOP HERE ON RED” sign. The detail of this sign is included in the plans.

All regulatory signs shall be maintained at a 5 foot minimum bottom (rural), 7 foot minimum (urban).

Plate altering signs shall have the same sheeting as the base sign.

No more than one plate shall be used to alter a sign.

Any post stubs without a sign in place and visible shall have a reflector placed on each post.

**Designer Note: Add this note on Cape Seal & Microsurfacing projects.**

The LOOSE GRAVEL (W8-7(O)48) signs with an advisory speed of 35 mph (W13-1L(O)2424) shall be erected when the aggregate has been placed and the road is open to traffic. The signs shall remain in place until the excess aggregate is swept and the condition no longer exists. These signs shall be erected a minimum of 500 feet preceding the start of the condition and shall have an amber flashing light attached if up during hours of darkness.

Devices:

Cones or reflectorized cones shall not be used during hours of darkness.

A minimum of 3 drums spaced at 4 feet shall be placed at each return when the sideroad is open.

On all standards, and the devices listed in Section 701 of the Standard Specifications, the device spacing shall be revised to the following dimensions:

Where the spacing shown on the standard is 25 feet, the devices shall be placed at 20 feet.

Where the spacing shown on the standard is 50 feet, the devices shall be placed at 40 feet.

Where the spacing shown on the standard is 100 feet, the devices shall be placed at 80 feet.

**Designers Note: Include next paragraph if you want Direction Indicator Barricades on high volume divided highways other than Interstates.**

Direction Indicator Barricades shall exclusively be used in lane closure tapers. They shall be used only when traffic is being merged with an adjacent through lane or shifted onto a median crossover.

Vertical barricades shall not be used in weaves, and in the gore areas on Highway Standard 701411.

Vertical barricades shall not be used as a device where the existing speed limit is 65 mph or greater.

Lights:

Steady burn mono-directional lights are required on devices delineating a widening trench.

Flaggers:

**Designer Note: (Include in contracts using Highway Standard 701201, 701306, 701336, or contracts with traffic control plans requiring flaggers at sideroads and commercial entrances remaining open to traffic.)**

Flagger at Sideroads and Commercial Entrances:

Effective: August 1, 2011

Flaggers shall comply with all requirements contained in the Department’s “Flagger Handbook” dated September 2011. The flagger equipment listed for flaggers employed by the Illinois Department of Transportation shall apply to all flaggers.

All workers and flaggers shall wear ANSI Class E pants and an ANSI Class 2 vest that in combination meet the requirements of ANSI/ISEA 107‑2004 for Conspicuity Class 3 garments during hours of darkness.

In addition to the flaggers shown on applicable standards, on major sideroads flaggers shall be required on all legs of the intersection. Major sideroads for this project shall be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

In addition to the flaggers shown on applicable standards, a flagger shall be required on high volume commercial entrances listed below. High volume commercial entrances for this project shall be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

When the mainline flagger is within 200 feet of an intersection, the sideroad flagger shall be required.

When the road is closed to through traffic and it is necessary to provide access for local traffic, all flaggers as shown on the applicable standards will be required. No reduction in the number of flaggers shall be allowed.

Revise the first and second paragraph of Article 701.20(i) of the Standard Specifications to read:

“ Signs, barricades, or other traffic control devices required by the Engineer, over and above those shown on the standard or detailed in the plans and provisions, will be paid for according to Article 109.04. All flaggers required at sideroads and commercial entrances remaining open to traffic not shown on the Highway Standards, required by article 701.13(a) or listed above, shall be paid for according to Article 109.04.”

Pavement Marking:

All temporary pavement markings that will be operational during the winter months (December through March) shall be paint.

Short term pavement markings on a milled surface shall be paint.

**To be used on all standards except standard 701401, 701411, 701422, and 701446.**

Temporary pavement markings shall not be included in the cost of the standard rather it shall be paid for separately at the contract unit prices of specified temporary pavement marking items.

Highway Standards Application:

Treatment of “T” Crossing Near Standard 701316 or 701321: The signal indications and detection of the intersecting street or driveway near the standard 701316 or 701321 traffic control installation shall be as followed:

Two signal heads shall be provided for each mainline approach and for each sideroad within the designated work area. Each signal shall consist of one red section, one yellow section, one green left arrow section, and one green right arrow section with back plates.

Detection for sideroads shall consist of one microwave detector or 5 foot x 5 foot loop detector. The microwave detector shall be mounted 14 feet to 18 feet high on the near right post for the sideroad. The detector loop shall be installed at the stop bar. The side road shall be a phase separate from the cross traffic.

All signing and pavement marking on the sideroad shall be as shown on standard 701316 or 701321.

“NO TURN ON RED” (R10-11B24) signs shall be installed on sideroads in which a right turn would turn traffic into the one lane section.

All cost involved in conforming with this provision shall be considered a part of TRAFFIC CONTROL AND PROTECTION STANDARD \_\_\_\_\_\_\_\_\_\_\_\_\_, except the traffic signals will be paid for as one Each for TEMPORARY BRIDGE TRAFFIC SIGNALS, which shall include all signals within the designated work area.

Traffic Control and Protection Standard 701701: This work shall be done according to Section 701 of the Standard Specifications and the Typical Application of Traffic Control Devices for Highway Construction, Standard 701701, and as specified herein.

The “left” leg of the intersection shown on this standard also applies when the right turn lane is closed. When the right turn lane is closed, “RIGHT TURN LANE CLOSED AHEAD” shall be substituted for the LEFT TURN LANE CLOSED AHEAD” and the set up would be a mirror image to what is shown.

This work shall be included in the contract unit price per Lump Sum for TRAFFIC CONTROL AND PROTECTION STANDARD 701701.

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Traffic Control and Protection Standards 701401 and 701422: This work shall be done according to Standard 701401 and Section 701 of the Standard Specifications. The Contractor shall be required to install the 701401 two (2) calendar days in advance of the areas to be patched for the protection of the State personnel laying out the locations for pavement patching.

The barricades as shown in Standard 701401 and 701422 shall not encroach on the lane open to traffic at any time. The only exception to this will be in the immediate work area when workers are present, then the barricades may be moved out to permit the construction operation.

This work shall be included in the contract unit price per Lump Sum for TRAFFIC CONTROL AND PROTECTION STANDARD \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

(Code 70100500)

Traffic Control and Protection, Standard 701326: This work shall be done according to Section 701 of the Standard Specifications and the Typical Applications of Traffic Control Devices for Highway Construction, Standard 701326, and as specified herein.

Additional barricades, flagger signs, Yield or Stop signs and flaggers shall be required at the intersections. Barricade spacing shall be at 15 foot centers within these intersections and Yield or Stop signs shall be used to control traffic.

When work is within 200 feet of an intersection, flagger signs and flaggers shall be required on the sideroad at the discretion of the Engineer.

These additional devices shall be paid for as part of Traffic Control and Protection 701326 and not as an addition to the contract.

Traffic Control and Protection Standard 701411:

Method of Measurement. Each ramp will be measured as a separate location and will be considered as a separate location for payment, regardless of the number of installations at that ramp.

**NOTE: To be used on interstate contracts.**

Interstates and multi-lane divided highways where the existing speed is greater than 45 mph: The Contractor shall equip all machinery and vehicles with flashing amber lights, installed so the illumination is visible from all directions.

The median crossover will generally not be available for Contractor use. It may be used only when both lanes adjacent to the median are closed. Under no condition shall left turn lanes be made to cross the median from lanes open to traffic. Where interchanges are not available, the Contractor shall only be allowed to turn around where left turn lanes are present.

Parking of personal vehicles within the right-of-way will be strictly prohibited. Parking of construction equipment within the right-of-way will be permitted only at locations approved by the Engineer.

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District Standards Application:

**(Designer Note: When using this special provision include District Standard 40.1. Delete all references to a detour when on an unmarked state route, but keep the 3 week notification in for wide load restrictions.) X7010216 LSum**

Traffic Control for Road Closure: This work shall be done according to the Road Closure Standard and Section 701 of the Standard Specifications.

“ROAD CLOSED AHEAD” (W20-3(O)-48) with “\_\_\_\_\_ MILES” (W16-3A(O)-3612) plate mounted below the sign shall be required at the following locations with the distance noted. The contractor shall erect these signs at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_ MILES), \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_ MILES), \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_ MILES), and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_\_ MILES).

“ROAD CLOSED AHEAD” (W20-3(O)-48) with flasher and the appropriate arrow plate (W1-6(O)-36x18 or W1-7(O)-36x18) shall be required on all side roads within the limits of the mainline “ROAD CLOSED AHEAD” signs.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ shall be considered Condition I Major sideroad closures for signing as shown on the District Standard Traffic Control for Road Closure Detail.

The Contractor shall notify the Traffic Operations Section of the Bureau of Operations by fax (815/284-5489) and the Bureau of Project Implementation (815/284-5348) in writing by means of fax (to the numbers provided), and also by letter through US Mail to the District Office. The Contractor shall also notify the following individuals via email: Kristie Nyderek at [kristie.nyderek@illinois.gov](mailto:kristie.nyderek@illinois.gov) in order to contact the State Permit Office regarding oversize loads and the road closure, and Kurt Glazier at [kurt.glazier@illinois.gov](mailto:kurt.glazier@illinois.gov) regarding the detour notice and the road closure. **This request shall be submitted a minimum of three weeks (21 days) and no earlier than four weeks (28 days) prior to the anticipated closure date to allow the State adequate time to set the detour route.**

Signing and devices required to close the road, according to the Traffic Control for Road Closure detail and contained herein, shall be the responsibility of the Contractor. Detour signing required to detour traffic to alternate routes shall be the responsibility of the Department. The day the detour signing begins, the detour will be in effect at 2:00 p.m., or when the Traffic Operations Section has notified the Resident Engineer or personnel on the project. No detour shall be erected on Friday, Saturday or Sunday. The road shall not be closed until the detour signing is completely installed, verified, and ready to accept traffic.

The “ROAD CLOSED” sign on the Type III barricades shall be unobstructed and visible to traffic at all times. No equipment, debris, or other materials shall be stored within 20 feet of the first set of Type III barricades, unless approved by the Engineer.

The Contractor shall not drive around the outside of the Type III barricades, but shall relocate the barricades temporarily for access. When it is necessary for the barricades to be moved for access, the Contractor shall move the devices into the left lane and/or left shoulder area behind barricades that are to remain in place. At no time shall the barricades be turned parallel to traffic flow for access purposes.

If a path becomes evident around the outside of the barricades, the Contractor shall be required to place additional Type III barricades to prevent driving around the existing barricades. Additional barricades shall be included in the cost of applicable Traffic Control Standards. Any damage caused by vehicles driving around the outside of barricades shall be repaired by the Contractor to the satisfaction of the Engineer at no additional expense to the Department.

This work shall be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

Road Closure – Culvert Replacements, Closures within Closures: The road closure shall be completed using Type III barricades in compliance with Standards 701901, and signing according to Traffic Control for Road Closure detail. Two flashers shall be installed above each Type III barricade. The "ROAD CLOSED" (R11-2) or “ROAD CLOSED TO THRU TRAFFIC” (R11-4) signs shall be placed as shown in Standard 701901. Flashers shall be installed above all warning signs involving a night time road closure. If a portion of the road is completely closed between a sideroad and any entrances, the roadway will be kept open to local access in the other direction between that closure and the next road.

The Contractor shall be required to notify the Bureau of Project Implementation and affected residents prior to a complete closure.

All cost involved in conforming with this provision shall be considered a part of TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

\* \* \* \* \*

Other Devices:

Temporary Rumble Strips: When temporary rumble strips are specified and rumble strips such as self-adhesive rumble strips manufactured by Advance Traffic Markings are used that do not meet the thickness requirement shown on standard 701901, multiple layers of the product shall be used to meet standard 701901.

This work shall be included in the contract unit price per each for TEMPORARY RUMBLE STRIPS.

**NOTE: Include on projects with temporary traffic signals.**

(Example Standard 701316 & 701321)

TEMPORARY SIGNALS: The Contractor will be required to have someone available at all times to receive phone calls during non-work hours and who is able to reach the job site within one hour of being called. This person will be able to repair the temporary signals or will be able to have flaggers on site within another hour to flag traffic until the signals are again in operation. Failure to have a person on site within an hour after the initial call out will result in the Contractor being charged liquidated damages by the Department of One Thousand Dollars ($1,000). Failure to have traffic restored either with repaired signals or with flaggers within two hours after the initial call out will result in the Contractor being charged liquidated damages by the Department of One Thousand Dollars ($1,000) per hour until traffic is restored. The Contractor may use a traffic control subcontractor for the first call, however this does not relieve the prime Contractor from having a person on call.

Traffic Signal Work: No traffic signal work shall begin until all of the traffic signal hardware is on the job site. The existing traffic signal system shall remain in operation during the modernization work. The work shall be scheduled so that a minimum of two signal indications for each phase remains in operation. No signal indication shall be absent for more than seven calendar days.

The Contractor will be allowed to shut down the existing signal system not to exceed 8 hours to replace the existing controller and cabinet. During this shutdown, the intersection will operate as a 4-way "Stop".

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**NOTE: Use TRAFFIC CONTROL FOR NARROW TRAVEL LANES on 1‑lane stage construction job when lane is less than 17'-6". Operations will fill in the blanks. Designer must provide the narrowest width measured from toe of barrier wall to the guard rail or bridge wall.**

Traffic Control for Narrow Travel Lanes: The Contractor shall provide informational warning signs regarding narrow travel lanes in construction areas. MAX WIDTH XX’-XX” X MILES AHEAD (W12-I103-48) signs with a width restriction of \_\_\_’-\_\_\_” shall be installed at the following locations and the distance from the crossroads as noted; \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_ MILES AHEAD) and at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_\_ MILES AHEAD).

The material of these signs shall be 0.125 inch thick aluminum, Type AP White and fluorescent orange reflective sheeting, and 6 inch D Series font Black vinyl lettering meeting the requirements of Sections 1090 and 1091 of the Standard Specifications for Road and Bridge Construction.

Additional Narrow Width (W12-I102(O)-48) signs with a width restriction of \_\_\_’-\_\_\_” and a “\_\_\_\_ MILES” (W16-3A(O)-3612) plate mounted below the signs shall be installed near the intersections of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_ MILES), \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_MILES), \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_ (\_\_\_ MILES), and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (\_\_\_ MILES) and after the ROAD CONSTRUCTION AHEAD sign in the sign series.

The material of these signs shall be 0.125 inch thick aluminum, Type AA Fluorescent orange reflective sheeting, and 12 inch D Series font black vinyl lettering meeting the requirements of Sections 1090 and 1091 of the Standard Specifications for Road and Bridge Construction.

Two signs at each location shall be required where the median is greater than 10 feet.

The Contractor shall notify the Traffic Operations Section of the Bureau of Operations by fax (815/284-5489) and the Bureau of Project Implementation (815/284-5348) in writing by means of fax (to the numbers provided) and also by letter to the District Office. **This request shall be submitted between three and four weeks (21 to 28 days) prior to the anticipated lane restriction to allow the State adequate time to permit wide loads.**

The contractor shall be responsible for providing, erecting, maintaining, and removing these signs. All cost involved in conforming with this provision shall be considered a part of TRAFFIC CONTROL AND PROTECTION STANDARD \_\_\_\_\_\_\_\_\_\_\_\_\_.

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**NOTE: Use PILOT CAR on all resurfacing projects on rural 2-lane State marked and on unmarked routes. Use if ADT is greater than 1000 & project is over 2 miles long (Code Z0040315).**

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Pilot Car: During the bituminous priming operation, the Contractor shall be required to provide a pilot car to lead the traffic through the areas primed.

The pilot car shall be a pickup truck, carrying the Contractor's company insignia, equipped with “PILOT CAR - FOLLOW ME” (G-20-4(0)) signs. Two signs shall be mounted on the vehicle so as to be clearly visible from both directions. The bottom of the sign shall be mounted at least 1 foot above the top of the cab. The pilot car shall be equipped with a two-way radio so normal communication with the flagger at each end of the work area can be maintained.

The pilot car shall be paid for by the day. If the pilot car is used less than four hours, the operation will be counted as a half day.

This work will be paid for at the contract unit price per Day for PILOT CAR for each car required by the Engineer.

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(Code Z0024476)

Flexible Delineator Maintenance: This item shall consist of all materials and labor necessary to maintain the flexible delineator required as part of Traffic Control and Protection, Standards 701606 or 701431.

The re-attachment of the flexible delineator to the base shall be considered incidental to the Traffic Control and Protection used.

Any unit which needs repair because the attachment of the base to the pavement fails at any time after installation shall be re-attached by the Contractor at his/her expense. Any flexible delineator which needs to be replaced within seven (7) calendar days after installation shall be replaced by the Contractor at his/her expense.

The quantity listed in the contract is only an estimate of the anticipated number of units requiring repair.

Any flexible delineator which needs to be replaced after seven (7) calendar days shall be paid for at the contract unit price per Each for FLEXIBLE DELINEATOR MAINTENANCE to maintain the flexible delineator required as part of Standards 701431 or 701606.

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**NOTE: This is an example.  Modify according to project requirements.**

Maintenance of Traffic: The traffic shall be maintained using run-arounds as shown on the plans using Traffic Control and Protection Standard \_\_\_\_\_\_\_\_\_.

When the roadway is not closed and/or Standard 701316 or 701321 are not in effect, the mainline shall be kept open to one-way traffic at all times during working hours and two-way traffic during non-working hours.

The mainline shall be kept open to one-way traffic at all times during working hours and two-way traffic during non-working hours.

The Contractor shall be required to notify the \_\_\_\_\_\_\_\_\_\_\_\_ County Highway Department, the corresponding Township Commissioner, emergency response agencies (i.e.: fire, ambulance, police), school bus companies and the Department of Transportation (Bureau of Project Implementation) regarding any changes in traffic control.

The Contractor shall be required to notify the \_\_\_\_\_\_\_\_\_\_ County Highway Department and/or corresponding Township Commissioner for any sideroad closure or opening.

The Contractor shall submit a maintenance of local traffic plan to the Engineer at the preconstruction meeting telling how local access will be maintained at each access location. It will show which locations will be completely closed, and which locations will be constructed utilizing Traffic Control Standard 701206 and/or barricades. This traffic plan will need to be approved by the Engineer before the roadway is closed to traffic.

The Contractor shall be responsible for providing a weekly article and map to the news media (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) describing work being performed and stages closed to traffic.

Guardrail work shall be completed using Traffic Control and Protection Standard 701006 and Article 701.17(f).

The Contractor shall have all lanes open from \_\_\_\_\_\_\_ Friday until \_\_\_\_\_\_\_ Monday, unless prior approval is obtained from the Resident Engineer.

The mainline shall be closed for reconstruction using the detour from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

The proposed across road culverts shall be installed closing one lane using Traffic Control and Protection Standard 701201.

The pavement patch removal and replacement shall be completed using Traffic Control and Protection Standard 701201.

Traffic shall be maintained using Traffic Control and Protection Standard 701401.

The sawing of patches, resurfacing and placing of shoulder aggregate shall be completed using Traffic Control and Protection Standard 701306.

The resurfacing and placing of shoulder aggregate shall be completed using Traffic Control and Protection Standard 701306.

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Placing and removing pavement marking shall be completed using Traffic Control and Protection Standard 701306, 701311 or 701701.

The cross-over construction shall be completed using Traffic Control and Protection Standard 701401.

The beam removal and setting on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ shall be completed using Traffic Control and Protection Standard 701401, and as specified in Traffic Control and Protection (Special).

The bridge patching shall be completed using Traffic Control and Protection Standard 701402.

The bridge painting at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ shall be completed using Traffic Control and Protection Standard 701402.

The bridge construction shall be completed using Traffic Control and Protection Standard 701402.

The milling and resurfacing shall be completed using Traffic Control and Protection Standard 701406.

The resurfacing shall be completed using Traffic Control and Protection Standard 701406.

The traffic shall be maintained using cross-overs as shown on the plans using Traffic Control and Protection Standard 701416.

The striping shall be completed using Traffic Control and Protection Standard 701426.

The ramp closure shall be completed using Traffic Control and Protection Standard 701451 and as shown on the plans.

The bridge painting at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ shall be completed using Traffic Control and Protection Standard 701601.

The beam removal and setting shall be completed using Traffic Control and Protection Standard 701601 and as specified in Traffic Control and Protection (Special).

The township road shall be closed during construction using Traffic Control and Protection Standard BLR-21.

**Designer Note: To be used on urban jobs.**

Milled pavement shall be resurfaced before opening the road to traffic.

**Designer Note: To be used on rural milling sections when the core report requires milled pavement to be resurfaced within less than 10 days.**

Milled pavement shall be resurfaced within \_\_\_\_\_ calendar days.

(No. 4)

DELETED 8/1/11

(No. 4A)

**NOTE: Check the drop off policy and with Kristie to see if this should be used or modified for your situation**

# **MILLING RESTRICTIONS**

Milling operations shall be performed such that a vertical milled face no greater than 1½ inches exists between adjacent open lanes of traffic at any time. This may be accomplished by the following treatment methods: Make multiple passes with the mill, each one less the 1½ inches; place a temporary wedge or have milled sloped edge with a minimum 1:3 slope; or mill all lanes in a given area so that no difference in elevation exists when all adjacent lanes are opened to traffic. Other methods may be used if approved by the Engineer prior to implementing the procedure.

This work shall be included in the cost of HMA Surface Removal, at the thickness specified.

(No. 5) (Code # 20400800)

**NOTE: This provision is for small jobs with 500 cubic yards or less of furnished excavation.**

# **FURNISHED EXCAVATION**

Effective: July 1, 1994 Revised: October 28, 2010

The Furnished Excavation shall be measured by the truck load method. Prior to the start of work the Contractor and the Engineer shall agree to standard volume for the trucks utilized by the Contractor.

Suitable excavated materials from the project shall not be wasted without permission of the Engineer. Embankment and mechanical compaction will not be measured for payment.

This work shall be paid for at the contract unit price per Cubic Yard for FURNISHED EXCAVATION.

(No. 6) (Code # Gen 542)

**NOTE: Use when working on dikes or flood control walls**

# **PIPE CULVERTS**

Effective: July 1, 1994

This work shall be done according to Section 542 of the Standard Specifications. The contractor shall do this work in such a manner that there will be no backwater passing thru the opening in the dike and flooding the adjacent properties. The contractor will also be required to backfill the outer 3 feet of the dike slopes with an impervious material. The contractor shall not start the culvert during unstable weather conditions or when unstable weather conditions are forecasted for the river basin.

The contractor shall assume all liability claims or damages due to flooding caused by his actions or failure to close the dike opening during flooding conditions.

This work will be paid for at the contract unit price per Foot for PIPE CULVERT of the type and size specified.

(No. 7)

# **RIPRAP FOR STILLING BASIN**

Effective: July 1, 1994

This work shall consist of breaker run crushed stone and an aggregate filter. The breaker run crushed stone shall be produced from a quarry ledge meeting Standard Specifications, Section 1005.01 (a) Description, and capable of producing aggregate meeting the Class D Quality sodium sulfate soundness requirement of Article 1004.01 of the Standard Specifications. It shall be uniformly graded from coarse to fine with the following gradation:

9" Size Stone 6" Size Stone

100% passing 18" sieve, 100% passing 12" sieve,

not more than 50% not more than 50%

passing 9" sieve, passing 6" sieve,

not more than 10% 0-10% passing 3" sieve

passing 4" sieve

Before placing the aggregate filter, or geotechnical fabric the basin shall be excavated as shown on the plans or as directed by the Engineer. The filter and stone each shall be dumped into place and the surface shaped to the plan cross section. No hand placing or compaction is required.

Geotechnical fabric is required for the bedding material under the 6 inch and 9 inch stone.

This work will be paid for at the contract unit price per Square Yard for RIPRAP of the size specified as measured in place. No additional compensation will be allowed if the contractor chooses to use the fabric-formed concrete revetment mat option.

(No. 8) (Code # Gen 202)

**NOTE: Use if rock cut is greater than 10' from ditch to top of rock and as specified in soils report.**

# **PRE-SPLITTING OF ROCK EXCAVATION**

Effective: July 1, 1994

This special provision covers the requirements of the drilling and blasting of any formation conducive to pre-splitting. Unless otherwise directed by the Engineer, all rock excavation which requires blasting operations shall be pre-split according to the provisions contained herein.

Pre-splitting is defined as the establishment of a free surface of shear plane by the controlled usage of explosives and blasting accessories in appropriately aligned and spaced drill holes. Drilling and blasting for pre-splitting shall be done well in advance of normal blasting operations.

Drill holes for pre-splitting shall be made along the slope stake lines established by the Engineer, and the Contractor shall exercise sufficient care to insure that the holes conform to the slope as established. The holes may be from 2½ inches to 4 inches in diameter and shall be drilled to the full depth of the cut or to the bench elevation, provided that the depth to the ditch or bench does not exceed a safe depth for accurate drilling. Unless otherwise permitted by the Engineer, the maximum depth of the drill holes shall be limited to 30 feet to 35 feet. If the depth of the cut to be pre-split is greater than the maximum permissible depth of the holes, the blasting shall be done in two or more lifts. When such conditions exist, the first line of drill holes shall be set at a sufficient distance outside the ditch line to allow a 1 foot offset for each succeeding line of drill holes.

Unless otherwise directed, the intervals between the drill holes shall be from 2 feet to 3 feet, depending on the character of the formation being pre-split. When it is deemed necessary by the Engineer to produce a relatively smooth face tolerably free of loose materials, the Contractor shall vary the spacing and size of the holes to suit the formation encountered. The Engineer may order short lines of test holes to determine the optimum size and spacing of drill holes and charges. No additional compensation will be allowed for test holes, drilling extra holes, or for using extra charges of dynamite.

The explosive shall be a 40% extra strength dynamite or other approved explosives that will produce equally satisfactory results. The charges shall be prepared by taping fractional portions of standard explosive cartridges to a length of detonating fuse equal to the depth of the drill holes. Unless otherwise directed, the charges shall be spaced at intervals of approximately 12 inches center-to-center of charges. The size and spacing of the individual charges may be varied, with the approval of the Engineer, to suit subsurface conditions encountered during construction.

After a charge is prepared, it shall be lowered into the hole and stemmed completely with lime dust, passing a 3/8 inch standard sieve. Stemming shall be worked around the taped charges by holding the end of the detonating fuse in the center of the hole and working it up and down. The Contractor, with the Engineer's approval, may place the charges with the aid of a measured loading pole by alternately placing the charges and the stemming material at the required intervals. All loaded holes shall be detonated simultaneously by the use of a trunk line.

The pre-split face shall not deviate more than 6 inches either side of the line of drill holes, except where the character of the formation being pre-split (badly broken rock, vertical seams, etc.) will unavoidably result in irregularities.

The Engineer may order the discontinuance of the pre-splitting operations when the formation is of such character that no apparent advantage is gained.

All primary blasting holes shall be drilled not less than three 3 feet from the pre-split face or at a wider interval, if necessary, to avoid overbreakage.

The cost of pre-splitting will be considered included in the contract unit price bid for ROCK EXCAVATION.

04-10-14

(No. 9) (Code # 20200500)

**NOTE: Use for widening on 9 foot lanes.**

# **EARTH TRENCH FOR WIDENING**

Effective: July 1, 1994

No more than 500 feet of trench for widening shall remain open during non-working hours.

No additional compensation will be allowed the Contractor for compliance with the requirements of this Special Provision.

(No. 10) (Code #X54206\_ \_ \_ or Z0005305 Box Culverts to be Cleaned)

**NOTE: Use on AR culverts that have silted in.  
Be sure to add appropriate quantities of Grading and Shaping Ditch if no Earthwork is being done on the ditches.**

# **CULVERT TO BE CLEANED**

Effective: April 22, 1991 Revised: April 18, 1994

This work shall consist of cleaning out culverts specified to their original flowline, using a method approved by the Engineer. The material removed shall be disposed of according to Article 202.03 of the Standard Specifications or it may be used on the job to flatten foreslopes if approved by the Engineer.

This work will be paid for at the contract unit price per Foot for PIPE CULVERTS TO BE CLEANED, of the size specified, or BOX CULVERTS TO BE CLEANED. For multi-cell culverts, each barrel will be measured for payment.

(No. 11) (Code #X7200105)

**NOTE: Use where the bridge is less than 2 feet wider than the roadway surface. See District Standard 32.2**

# **SIGN PANEL TYPE i (special)**

Effective: July 1, 1994 Revised: April 10, 2014

This work shall consist of installing chevron alignment signs (W1-8-1824), and posts as detailed in the plans.

The panel and post shall be mounted in a true vertical position and be flush with the post throughout the contact area.

The posts will be driven or set to the 3½ foot embedment. The top of the post will be protected by a suitable driving cap and, if required by the Engineer, the earth around the support will be compacted after driving.

06-23-14

This work will be paid for at the contract unit price per Square Foot for SIGN PANEL TYPE I (SPECIAL). The Contractor will receive the same payment for either the chevron sign with post or sign for narrow bridges with post.

(No. 12)

**NOTE: Include on projects use polymerized Hot-Mix Asphalt.**

# **COMPACTION OF POLYMERIZED hot-mix asphalt**

Effective: January 16, 2002

This work shall consist of furnishing a pneumatic tired roller as specified in Article 406, in addition to all other rollers specified in the Standard Specifications. The spray system shall be in good working order. The tires shall be in good condition and be constructed heavy enough to withstand 90 to 110 psi inflation pressures on a continual basis. An approved water based release agent shall be utilized on the tires similar to, but not limited to Tech Shield that effectively prevents mix adhesion. The dilution rate shall be as per manufacturer’s recommendations. The mixture compaction temperature will be the maximum possible without experiencing surface damage to the mix caused by adhesion to the tires. The recommended range is from 200º to 260º Fahrenheit. This work shall be included in the cost of the Polymerized Hot-Mix Asphalt of the type and size specified.

(No. 13) (Z0065703)

**NOTE: Use when deck drains are located in the first or last spans of viaduct structure and where extensive seepage is anticipated or the existing slope wall is to be replaced.**

# **AGGREGATE SLOPE WALL, 9 INCHES**

Effective: July 1, 1994

This work shall consist of paving embankment slopes with crushed aggregate for control and prevention of erosion of slopes.

Material: The aggregate used for slope wall paving shall be crushed stone meeting the following gradation requirements.

Stone Size Percent Passing

6" 100%

2" 20% - 50%

#4 0% - 5%

The crushed stone shall conform to the requirements of Article 1005.01(a) of the Standard Specifications. The crushed stone shall be produced from a quarry ledge capable of producing Class "D" quality aggregate as specified in Article 1004.01 of the Standard Specifications.

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Construction Requirements: The surface upon which the slope wall is to be constructed shall conform to the elevation lines, grades, and cross section indicated on the plans and as directed by the Engineer. The subgrade shall be shaped to +0.1' of plan grade.

The slope, prior to placing aggregate, shall be compacted to a uniform density as directed by the Engineer. Excess excavated material shall be disposed of by the Contractor as provided in Section 502 of the Standard Specifications.

The crushed aggregate shall be placed on the prepared slope, shaped and compacted to the satisfaction of the Engineer. The aggregate shall be at least 9 inches thick. Geotechnical fabric shall be placed on the earth prior to placement of stone 5 feet either side of the deck drain spillage area and extend from top to bottom of the slope wall. When deck drains are not proposed in either the first or last span, the geotechnical fabric need not be placed.

Basis of Payment: This work will be measured and paid for at the contract unit price per Square Yard for AGGREGATE SLOPE WALL, 9 INCHES.

(No. 14) (Code #Z0065704)

# **BITUMINOUS COATED AGGREGATE SLOPE WALL**

Effective: March 21, 1997 Revised: April 10, 2014

This work shall consist of paving embankment slopes with crushed aggregate for control and prevention of erosion of slopes.

Material: The aggregate used for slope wall paving shall be crushed stone conforming to Article 1004.01 of the Standard Specifications for Class D quality except that one of the following options shall apply.

**COARSE AGGREGATE QUALITY**

|  |  |  |
| --- | --- | --- |
| QUALITY TEST | Option 1 | Option 2 |
| Na2SO4 Soundness 2/ 5 Cycle,  AASHTO T 104 1/2/ Max. % Loss | 35 | 25 |
| Los Angeles Abrasion AASHTO T 96  Max. % Loss | 45 | 65 |

The aggregate shall be uniformly graded to meet the following:

**Percent Passing Sieve Size**

100% 4 inch

53 ± 23% 2 inch

8 ± 8% No. 4

The bituminous material used for slope wall paving shall be RS‑2 or RC-70 meeting the requirements of Section 1032 of the Standard Specifications.

Construction Requirements: The surface upon which the slope wall is to be constructed shall conform to the elevation, lines, grades, and cross section indicated on the plans and as directed by the Engineer. The subgrade shall be shaped to ±1 inch of plan grade.

Prior to placing aggregate, the slope shall be compacted to a uniform density as directed by the Engineer. Excess excavated material shall be disposed of by the Contractor as provided in Section 502 of the Standard Specifications.

The crushed aggregate shall be placed on the prepared slope, shaped and compacted to the satisfaction of the Engineer. Bituminous material shall not be placed until the aggregate has dried to the satisfaction of the Engineer.

Bituminous material shall be applied at a rate sufficient to assure penetration into and the binding together of particles in the upper 2 inches of the crushed aggregate slope wall. The adjacent structure shall be protected from bituminous material to prevent spattering or discoloration.

Basis of Payment: This work will be measured and paid for at the contract unit price per Square Yard for BITUMINOUS COATED AGGREGATE SLOPE WALL, of the thickness specified, which price shall include payment for fine grading of the earth bed, backfilling, disposal of surplus material, and the furnishing and placing of all materials.

(No. 15) (Code # Z0025505)

**NOTE: These are needed when there is a temporary easement behind existing or proposed right‑of-way. Add an estimated quantity to the plans.**

# **property MARKERS**

Effective: July 1, 1994 Revised: January 30, 2008

This work shall consist of locating, protecting, preserving and relocating property markers, monuments or pins which are discovered and which will be disturbed in the normal course of construction. An Illinois Registered Land Surveyor will relocate the markers, monuments or pins to the new or relocated right-of-way line in such a location as to legally define the location of the new or reestablished property corner(s). The Contractor shall be required to furnish one copy of the final plat or plats to the State upon completion of the work.

The Surveyor shall place as a minimum a 36" x 3/4" round iron pin for the property marker. This work will be paid for at the contract unit price Each for PROPERTY MARKERS.

04-10-14

(No. 16) (Code #X8860400)

**NOTE: Detector Loop, Special paid for by the foot shall be included on 3P or Smart projects that have milling and existing detector loops.**

# **DETECTOR LOOP, SPECIAL**

Effective: December 15, 2009 Revised: March 11, 2010

This item shall consist of replacing detector loops, furnishing, installing, and testing in accordance with Section 886 of the current “Standards Specifications for Road Bridge Construction”.

This item shall include replacing any conduit stubs damaged during the surface grinding process. This shall also include any wire in conduit required to connect the loops.

Any 6’x20’ Detector Loops shall have a minimum of three turns of wire, any 6’x6’ Detector Loops shall have a minimum of four turns of wire. Detector Loops will be measured for payment along the sawed slot in the pavement only. The cables, from the end of the saw cut to the splice in the handhole, shall not be measured for payment since it is considered to be included in the cost of the Detector Loop.

Seven (7) days prior to any work that may affect the operation of the Detector Loops, and for signal timing adjustments to be made for the construction period and appropriate layout of Detector Loops for reinstallation. Notice shall be given to Scott Kullerstrand at the Illinois Department of Transportation, District 2 (815/284-5468).

This work will be paid for at the contract unit price per Foot for DETECTOR LOOP, SPECIAL, which price shall include furnishing, installing all required components, and testing inductance to assure satisfactory operation.

(No. 17)

**NOTE: Use this when you want to specify the number of calendar days to be used between two dates. For example, 30 consecutive calendar days to construct a box culvert between June 9, 2008 and August 15, 2008.**

# **completion DAte (via calendar days) plus working days**

Effective: December 29, 2006 Revised: January 29, 2008

The Contractor shall perform his work in such a manner that the project is complete within      (number)      consecutive calendar days between      (include a date)      and      (include a date)     . The PROJECT shall have everything except the landscaping items, punch list and      (describe what doesn’t need to be completed)      finished before it is considered complete.

The Completion Date will be determined by adding the specified number of calendar days to the date the Contractor begins work. The Contractor will pick the date he begins work within the range specified, unless a delayed start is granted by the Engineer.

The Contractor will be allowed \_\_\_\_\_ working days after the Completion Date to complete the landscaping items, punch list and      (describe what needs to be completed)     .

(No. 18) (Code #Z0049300 & Z0020900)

**NOTE: Ask Chip which pay item is to be used on your job.**

# **ESTABLISHING AND REFERENCING LAND SECTION MARKERS**

Effective: November 8, 1996 Revised: April 14, 2010

The Contractor shall monument or re‑monument all Section Corners, Quarter Corners with their Reference Monuments, (and any lesser Corners which are in place including those which have been monumented by others and do not conform with the Department's procedures), that will be destroyed. The Section Corners will be monumented according to District Reference Marker Detail No. 63.4. It is required that an Illinois Professional Land Surveyor prepare a Department Monument Record Form which is in compliance with the Land Surveying Monuments Acts (765 ILCS 220/0.01 et seq.) for any designated Section Corner Monument or any Reference Monument that is disturbed. The Contractor shall secure the I.D.O.T. Monument Record Form (with I.D.O.T. logo) from the Department and furnish said form to the Illinois Professional Land Surveyor. Each Monument Record Plat shall note how the Section Corner Monument and all Reference Monuments were set, either flush with the ground, buried 28 inches, (if monuments are buried, four 3.5 foot by 5/8 inch rebars shall be placed around said monuments to make recovery an easier task), or in other cases what was done. A graphic illustration of physical landmarks and their relationship to the Monument Reference Markers shall be shown upon said Monument Record Plat. These Monument Record Plats shall be recorded by the Surveyor. Recorded copies will then be furnished to the Department by the Contractor.

The determination of those Section Corners which are to be re-monumented for this project will be made by said Department.

If any of the before described Section Corners have been previously monumented by Department standards and all Reference Monuments are in place, a signed and sealed letter from the Illinois Professional Land Surveyor shall be sent to this office affirming this fact. In case a Reference Monument has been destroyed, it will be reset and a new Monument Record Plat shall be recorded.

Any questions or deviations from these procedures shall be referred to the Plats and Plans Unit at 815/284‑5370.

This work will be paid for at the contract unit price per Each for ESTABLISHING AND REFERENCING LAND SECTION MARKERS, or for REFERENCING LAND SECTION MARKERS when the land section marker has been previously located. All work shall be done under the direction of a registered land surveyor of the State of Illinois.

Each item shall include the placement of four reference markers and a land section marker where applicable.

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(No. 19)

# **COMPLETION DATE plus working days**

Effective: December 29, 2006 Revised: April 10, 2014

Revise Article 108.05(b) of the Standard Specifications to read:

“(b) Completion Date Plus Working Days. When a completion date plus working days is specified, the Contractor shall complete the project by 11:59 p.m. on or prior to      (DATE)     . The PROJECT shall have all work completed, except the landscape items, punch list items, and      (describe anything else you will allow to be completed after the date)      for the PROJECT to be considered complete.

The Contractor will be allowed \_\_\_\_ working days after the completion date to complete landscaping items, punch list items, and      (describe anything else you will allow to be completed after the date)     .”

(No. 19A)

**NOTE: Use this on all bridge projects let in September or November, specify a start date of mid‑March of the following year. This can also be used for other projects let in the fall and other projects, see the Project Engineer.**

# **START DATE**

No work shall be started on this project until \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

(No. 20) (Code # 20200200)

# **ROCK EMBANKMENT**

Effective: October 1, 1997

This work shall be done according to Section 205 of the Standard Specifications and as follows. Rock excavation used to construct embankments shall be placed in layers that extend full width to the foreslopes. Layering rock and soil will be allowed; however, compaction of the rock and/or broken pavement fill will be required. When a soil layer has been placed on top of rock fill and/or broken pavement, the layer shall not exceed 8 inches and will conform to embankment placement where passing density and moisture content will be required prior to any further embankment lifts being placed. Mixing wet soil and rock will not be allowed.

The cohesive soil which is to be placed on the foreslope to support vegetation should be a minimum of 2 feet, but not to exceed 3 feet in thickness. If the cohesive soil layer exceeds 3 feet in thickness, French Drains constructed and installed as shown on the District Standard for Subbase Drains will be required at the locations designated by the Resident Engineer.

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

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(No. 21) (Code #63200310)

**NOTE: When using this provision, check with Operations to see if they want any of the guardrail. Could be Contractor, State, or both. If both, modify accordingly.**

# **GUARDRAIL REMOVAL**

Effective: August 20, 1990 Revised: April 10, 2014

This work shall be done according to Section 632 of the Standard Specifications except that all removed guardrail will become the property of the Contractor.

This work will be paid for at the contract unit price per Foot for GUARDRAIL REMOVAL, measured from center-to-center of end posts.

(No. 22)

**NOTE: Use on Rockford projects only, but check with the City Engineer there are several other areas in the Quad Cities with old water main. This is used to eliminate the vibrations that can crack joints of watermain & sanitary sewers. Also consider using Polymerized Hot-Mix Asphalt Surface Course, IL-4.75, N50 because compaction can be achieved without a vibratory roller. In fact, pneumatic tired and vibratory rollers are not permitted on that mix.**

# **hot-mix asphalt PATCHING AND hot-mix asphalt BINDER AND SURFACE COURSE**

Effective: August 18, 1993

Article 406.07 - Compaction. This is to modify the first paragraph of the subject Article. Immediately after the Binder or Surface Course Mixtures are placed, each shall be given an initial or breakdown rolling with a three wheeled or tandem roller. After the initial rolling, the Binder or Surface course shall be given an intermediate rolling with a pneumatic-tired roller. The final or finish rolling shall be done with a tandem roller or vibratory roller in the static mode only. If density can not be obtained with one three wheeled or tandem roller additional static rollers shall be added until density can be achieved.

(No. 23) (Code 25000750)

**NOTE: Use this on all 3R Projects, rural HES projects, and other projects that will be seeded. This is not to be used in urban areas. The purpose is to clear debris and mow grass so Operations doesn’t have to do it. If Operations mow they damage mowers because the contract doesn’t remove the debris.**

# **MOWING**

This work consists of mowing all Seeding Class 1 and Class 2A at the completion of the project or before winter shut down. The vegetation must be at least 6” long before mowing. The vegetation shall be mowed to obtain a height of not more than 3 inches. All debris must be cleared from the right-of-way immediately after the mowing.

This work will be paid for at the contract unit price per Acre for MOWING.

(No. 24) (Code #X4400196)

# **hot-mix asphalt SURFACE REMOVAL, SPECIAL**

Effective: July 1, 2004 Revised: October 5, 2006

This work shall consist of removing random bumps from the pavement surface in accordance with applicable portions of Section 440 of the Standard Specifications for Road and Bridge Construction and the following.

The random bumps shall be removed from the pavement surface throughout the project limits, by rotomilling, prior to placing the slurry seal or resurfacing. Care shall be exercised in the bump removal to not gouge or damage the underlying pavement or cause a dip in the pavement.

The Contractor has the option of using the millings from the bump grinding operations to build up the existing shoulders, as shown in the typical sections or as directed by the Engineer. If millings are not used to build up the shoulders, they shall become the property of the Contractor. When bump grinding is required in a curb and gutter section, the grindings are to be removed from the curb and gutter section and may be used on a shoulder area of the project. The shoulders shall be compacted as directed by the Engineer. Excess grindings or any large chunks that are not suitable for use or used on the shoulders shall be properly disposed of by the Contractor outside of the right‑of‑way. No grindings will be allowed on the foreslopes.

This work will be paid for at the contract unit price per Square Yard for HOT-MIX ASPHALT SURFACE REMOVAL, SPECIAL.

(No. 25) (Code #X4060310)

**NOTE: Use this material at locations that consist of 4” or less of Hot-Mix Asphalt placed on an aggregate base. Examples are runarounds, frontage roads, reconstructed City Streets and County or Township Roads that are a few hundred feet long, City Streets and County or Township Roads used as a detour route, and Good Neighbor policy roads. If just the returns of City Streets and County or Township Roads are being resurfaced or if the roads are short, use Incidental Hot-Mix Asphalt Resurfacing like entrances.**

# **Hot-Mix Asphalt Surface Course, MIX C, N50, Special**

Effective: October 17, 2007

Description: This work shall consist of designing, producing and constructing a HMA Surface Course on a prepared base, according to Sections 406, 1030 and 1102 of the 2012 Standard Specifications, except as follows.

Materials: Surface Mixture 9.5 or 12.5, Mix C, N50 shall be placed on frontage roads, detours, Good Neighbor Policy roads, city streets, and county or township roads. All others shall match the Mixture and N number of the adjacent mainline.

Required Field Tests: Density Acceptance at 95% - 102% of growth curve at the frequency indicated in Article 1030.05(d)(3).

This work will be paid for at the contract unit price per Ton for HOT-MIX ASPHALT SURFACE COURSE, MIX C, N50, SPECIAL.

(No. 26) (Z0062456) Temporary Pavement (X4400110) Temporary Pavement Removal

**NOTE: This can be used for runarounds or temporary widening. Remember to add the Hot-Mix Asphalt thickness to the 2nd paragraph, and the N number to the 4th paragraph. The N number must match the proposed N number of the adjacent mainline. Do not use this option if the widening is less than 3’ wide.**

# **TEMPORARY PAVEMENT**

Effective: October 17, 2007

This work shall consist of placing a Hot-Mix Asphalt Surface Course or Portland Cement Concrete Base Course and aggregate base to serve as a temporary widening or a runaround at the locations shown on the plans. The choice of material to be used for this item is left to the Contractor to choose from the following options:

HOT-MIX ASPHALT OPTION

This work shall consist of placing and compacting 12 inches of Sub-base Granular Material, Type A and constructing       inches of HOT-MIX ASPHALT SURFACE COURSE to serve as a temporary runaround at the location shown on the plans. If the thickness is 3 inches or more, it should be placed in 2 lifts.

Description: This work shall consist of designing, producing and constructing a HMA Surface Course on a prepared base, according to Sections 311, 406, 1030 and 1102 of the 2012 Standard Specifications, except as follows.

Materials: Surface Mixture 9.5 or 12.5, Mix C, N\_\_\_ shall be used.

Required Field Tests: Density Acceptance at 95% - 102% of growth curve at the frequency indicated in Article 1030.05(d)(3).

All work and materials required to complete the work listed above shall be included in the contract unit cost per Square Yard for TEMPORARY PAVEMENT.

The hot-mix asphalt and sub-base shall be removed after the final stage is completed. Removal shall be paid for separately at the contract unit price per Square Yard for TEMPORARY PAVEMENT REMOVAL.

PORTLAND CEMENT CONCRETE OPTION

This work shall consist of placing and compacting 4 inches of Sub-base Granular Material, Type A and constructing an 8 inch thick Portland Cement Concrete Base Course to serve as a temporary runaround at the location shown on the plans. The minimum width shall be 3 feet. This work shall be completed according to Sections 311 and 353 of the Standard Specifications.

Pavement fabric shall not be utilized in the base course.

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The Contractor shall saw longitudinal joints in base courses wider than 16 feet, according to the Standard 420001, except that uncoated steel tie bars may be used instead of epoxy coated tie bars. These joints shall not be sealed.

The Contractor shall saw transverse joints in the base course at 20’ centers according to the detail for Sawed Construction Joints in Standard 420001, except that dowel bars are not required. These joints shall not be sealed.

All work as listed above, including tie bars, sawed joints and all other required materials shall be included in the contract unit price per Square Yard for TEMPORARY PAVEMENT.

The base course and sub-base shall be removed after the final stage is completed. Removal shall be paid for separately at the contract unit price per Square Yard for TEMPORARY PAVEMENT REMOVAL.

(No. 27) (Code #X5015225)

**NOTE: Use when entrance pipes are concrete, clay or metal pipes with concrete headwalls.**

# **PIPE CULVERT REMOVAL (SPECIAL)**

Effective: January 5, 2011

This work shall consist of the removal and satisfactory disposal of existing culverts at locations shown in the plans. These culverts may be concrete or clay, with or without concrete headwalls, or metal pipes with concrete headwalls. Removal of metal pipes without headwalls will not be paid for, but shall be removed as specified in the General Notes.

If materials resulting from the removal of the concrete culverts and headwalls are to be used in the embankment, they shall conform to, and be placed and compacted according to Section 205 of the Standard Specifications.

All corrugated metal pipe culverts in condition for re-use shall be cleaned and stored along the right-of-way. Any re-usable pipe damaged by the Contractor shall be replaced by him at his expense.

All unusable material shall be disposed of at no additional cost to the Department.

All costs incurred in conforming with this special provision shall be included in the contract unit price per Foot for PIPE CULVERT REMOVAL (SPECIAL).

(No. 28) (Code #X8410102)

# **TEMPORARY LIGHTING SYSTEM**

Effective: July 30, 2001 Revised: April 10, 2014

Description: This work shall consist of providing, installing, maintaining, and removing temporary roadway lighting at the location shown on the plans. The system shall consist of all items necessary to illuminate the median cross-over utilized for maintenance of traffic during construction.

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General: The Contractor shall provide, identify and secure electrical service, install power poles, and connect required services for operation of the lights as shown on the plans. The Contractor is responsible for any service connection fees and electrical usage costs. The system shall be operational prior to the diversion of traffic on to Stage I construction. After completion of work, the Contractor shall remove the system in accordance with Article 841 of the Standard Specifications for Road and Bridge Construction, except the last sentence of the first paragraph, Section 841.02, shall be replaced with:

All equipment and materials, including luminaires, shall become the property of the Contractor and shall be removed from the site.

Paragraphs two and three of Section 841.02 shall not apply.

Equipment: All equipment and installation requirements shall comply with applicable sections of Section 800 of the Standard Specifications for electrical work. Luminaries shall have a minimum mounting height of 35 foot, be a multi-mount type, and utilize a 400 watt high pressure sodium vapor lamp.

Basis of Measurement: This work will be measured for payment as lump sum.

Basis of Payment: This work shall be paid for at the contract unit price per Lump Sum for TEMPORARY LIGHTING SYSTEM.

(No. 29)

**NOTE: Include this in projects with multi cell precast box culverts.**

# **SPACERS FOR MULTI CELL PRECAST BOX CULVERTS**

Effective: October 17, 2008

The Contractor shall install 3” spacers near each joint and at the ends of multi cell box culverts. The spacers shall be placed in the 3” space between the box culvert sections prior to filling the void with concrete. The spacers shall run the full height of the culvert and be a solid material, but shall not be wood. The purpose of the spacers is to maintain the space between the culverts during backfilling before the concrete is set.

This work shall be included in the contract unit price per Foot for PRECAST CONCRETE BOX CULVERT of the size specified.

(No. 30) (Z0004542)

**NOTE: Use when cold milling the pavement, but not the HMA shoulders, so there is the possibility to trap water on the pavement. Schedule these at low points and at approximately 500’ intervals.**

# **HOT-MIX ASPHALT REMOVAL (SPECIAL)**

Effective: August 24, 2009 Revised: April 10, 2014

This work shall consist of cold milling a drainage channel through the existing shoulder and replacing the mix after the mainline has been resurfaced. The work shall be done according to Section 408 & 440 of the specification book.

04-10-14

To prevent pooling of water in the milled traffic lane, a drainage channel shall be cut in the shoulder at low points and other locations where pooling of water may occur, as specified by the Engineer. The drainage channel shall be the same depth as the traffic lane and a width of 18” to 24”.

After the surface has been placed on the adjacent through lane, the drainage channel shall be primed and filled with incidental hot-mix asphalt surfacing and compacted to the satisfaction of the Engineer.

This work will be paid for at the contract unit price per Square Yard for HOT-MIX ASPHALT REMOVAL (SPECIAL).

(No. 31) (Z0028415)

**NOTE: Include when using District Standard 97.4 Subgrade Replacement or when recommended by Materials under granular subbase. CHECK WITH BUREAU OF MATERIALS for use**.

# **GEOTECHNICAL REINFORCEMENT**

Effective: November 30, 2010 Revised: April 10, 2014

This work consists of furnishing and installing an integrally-formed polypropylene geotechnical grid reinforcement material. The geogrid shall have an aperture, rib and junction cross section sufficient to permit significant mechanical interlock with the material being reinforced. There shall be a high continuity of tensile strength through all ribs and junctions of the grid material to reinforce the subbase or subgrade as shown on the plans and specifications.

|  |  |  |
| --- | --- | --- |
| MATERIAL CHARACTERISTICS | TEST METHOD | DATA |
| polymer type |  | polypropylene |
| carbon black content | ASTM D 4218 | 0.50% (min.) |

|  |  |  |  |
| --- | --- | --- | --- |
| DIMENSIONAL CHARACTERISTICS | TEST METHOD | UNIT | DATA |
| open area | CW 02215 | % | 75 (max.) |
| unit weight | ASTM D 5261 | oz/yd2 | 5.0 (min.) |
|  |  |  |  |
|  |  |  |  |
| TECHNICAL CHARACTERISTICS | TEST METHOD | UNIT | DATA |
| junction efficiency | GRI-GG2 | % | 90 (min.) |

The supplier should provide a certification that their product meets the above requirements.

The geotechnical reinforcement shall be placed as described herein or as shown on the cross sections.

Geogrid shall be delivered to the jobsite in such a manner as to facilitate handling and incorporation into the work without damage. Material shall be stored in such a manner as to prevent exposure to direct sunlight and damage by other construction activities.

Prior to the installation of the geogrid, the application surface shall be cleared of debris, sharp objects and trees. Tree stumps shall be cut to the level of the ground surface. If the stumps cannot be cut to the ground level, they shall be completely removed. In the case of subgrades, all wheel tracks or ruts in excess of 3 inches in depth shall be graded smooth or otherwise filled with soil to provide a reasonably smooth surface.

The geotechnical reinforcement shall be placed with the “roll length” parallel to the pavement. Fabric of insufficient width or length to fully cover the specified area shall be lapped a minimum of 24 inches. The geogrid should be secured in place.

Installation:

The granular blanket shall be constructed to the width and depth required on the plans. Unless otherwise specified, the material shall be back-dumped on the Geogrid in a sequence of operations beginning at the outer edges of the treatment area with subsequent placement towards the middle.

Placement of material on the Geogrid shall be accomplished by spreading dumped material off of previously placed material with a bulldozer blade or endloader, in such a manner as to prevent tearing or shoving of the Geogrid. Dumping of material directly on the Geogrid will only be permitted to establish an initial working platform. No construction equipment shall be allowed on the Geogrid prior to placement of the granular blanket. If the geogrid develops wrinkles or moves significantly, an alternative method of securing it shall be used.

Unless otherwise specified in the plans or Special Provisions, the granular material, shall be placed to the full required thickness and compacted to the satisfaction of the Engineer.

Geogrid which is damaged during installation or subsequent placement of granular material, due to failure of the Contractor to comply with these provisions, shall be repaired or replaced at his expense, including costs of removal and replacement of the granular material.

Torn Geogrid may be patched in-place by cutting and placing a piece of the same Geogrid over the tear. The dimensions of the patch shall be at least 2 feet larger than the largest dimension of the tear and it shall be weighted or otherwise secured to prevent the granular material from causing lap separation.

Method of Measurement: Geotechnical Reinforcement will be measured in square yards for the surface area placed. The excavation, replacement and compaction of the granular layer shall be paid for separately.

Basis of Payment: This work will be measured in place and the area computed in square yards. The work will be paid for at the contract unit price per Square Yard for GEOTECHNICAL REINFORCEMENT.

06-23-14

(No. 32)

**NOTE: Include on all HMA contracts.**

# **HOT-MIX ASPHALT surface course, LEVEL BINDER, AND BINDER**

Effective: June 15, 2010 Revised: June 23, 2014

The maximum allowed average bulk specific gravity for the approved mix design (Gmb) will be:

2.460 for Mixture C

2.470 for Mixture D

2.610 for Mixture E

2.710 for Mixture F

The maximum allowed average bulk specific gravity for the approved mix design (Gmb) for all other uses will be 2.470.

(No. 33) (Code #X2020410)

# **EARTH EXCAVATION (SPECIAL)**

Effective: January 29, 2001

This work shall be done according to applicable portions of Section 202 of the Standard Specifications.

This work shall include the careful removal of soil around GPS monuments. The removal work shall be done by hand at all locations as shown on the plans. No machinery will be allowed within 9 feet of the indicated monuments.

The Contractor will be required to backfill the area by hand to ensure no disturbance. The Contractor shall do all work in a manner that there will be no disturbance to any GPS monuments.

If the Contractor disturbs/damages the GPS monument, the Contractor shall be required to replace the monument at his/her expense.

This work shall be paid for at the contract unit price per Cubic Yards for EARTH EXCAVATION (SPECIAL). The cost of embankment in these areas will be included in the price of EARTH EXCAVATION (SPECIAL).

04-10-14

(No. 34) (Code #Z0004638)

**NOTE: Use when the existing pavement and the proposed subgrade is between 3" and 3'. See Article 205.03(b)(1). For questions, see the Geotechnical Engineer.**

# **PAVEMENT BREAKING**

Effective: June 1, 1994 Revised: January 6, 1997

This work shall consist of breaking the existing pavement according to Article 205.03(b)(1) of the Standard Specifications, except that all pavement that is not removed, but has greater than or equal to 3" fall from the bottom of the subbase to the existing pavement shall be broken.

All costs incurred in complying with the provisions shall be considered included in the contract unit price per Square Yard for PAVEMENT BREAKING.

(No. 35) (Code #X4421000)

# **partial depth PATCHING**

Effective: May 14, 2003 Revised: March 14, 2012

This work shall consist of placing material at the locations shown in the plans or as directed by the Engineer to temporarily patch the pavement where culverts or storm sewer were installed. This work shall also include removing and disposing of the Partial Depth Patching before the permanent pavement is installed. All work shall conform to Section 442 of the Standard Specifications.

The patches shall consist of 12” of Aggregate Base Course Type A and 3” of Incidental Hot-Mix Asphalt Surfacing. If hot-mix asphalt (HMA) is not available due to winter plant shutdown, cold patch bituminous material shall be installed and maintained until such time that HMA becomes available. As soon as HMA is available, the cold patch material shall be removed and HMA shall be installed. This work shall not be paid separately but shall be considered included in the unit price per Ton for PARTIAL DEPTH PATCHING.

Patches shall be measured in place for payment in Tons.

This work shall be paid for at the contract unit price per Ton for PARTIAL DEPTH PATCHING.

(No. 36) (Code Z0007430)

# **TEMPORARY SIDEWALK**

Effective: March 14, 2012

This work shall consist of placing Temporary Sidewalk at the locations shown in the plans or as directed by the Engineer to temporarily patch the sidewalk where culverts or storm sewer were installed. This work shall also include removing, disposing, and maintaining the Temporary Sidewalk before the permanent sidewalk is installed. All work shall conform to Section 424 of the Standard Specifications.

The Temporary Sidewalk shall consist of 5” of Aggregate Base Course Type B. This work shall not be paid separately but shall be considered included in the unit price per Square Foot for TEMPORARY SIDEWALK.

Temporary Sidewalk shall be measured in place for payment in Square Feet.

This work shall be paid for at the contract unit price per Square Foot for TEMPORARY SIDEWALK.

04-10-14

(No. 37) (Code #X2070302)

**NOTE: This material to be used to fill undercut under precast or cast-in-place box culverts. Check with the geotechnical engineer to see if this should be used.**

# **POROUS GRANULAR EMBANKMENT, SPECIAL**

Effective: June 8, 1994 Revised: April 30, 1998

This work shall consist of furnishing, transporting, and placing porous granular material according to Section 207 of the Standard Specifications, except as follows: The material shall be CA 7. The coarse aggregate shall be according to Section 1004 of the Standard Specifications.

The top 6" of porous granular material placed under precast concrete box culverts shall be done according to Article 540.06 of the Standard Specifications, except CA7 will be allowed. The cost of the top 6" of porous granular material under precast concrete box culverts will be included in the cost of the box culvert.

The porous granular material placed under precast concrete box culverts below the top 6" will be paid for as POROUS GRANULAR EMBANKMENT, SPECIAL.

This work will be paid for at the contract unit price per Ton for POROUS GRANULAR EMBANKMENT, SPECIAL.

(No. 38)

**NOTE: This should be used on long 3R projects. Do not use on bridge projects with only a few hundred feet of roadway.**

# **MAINTENANCE OF ROADWAYS**

Effective: June 26, 2003

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

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

(No. 39)

Deleted 8/1/11

(No. 40)

Deleted 8/1/11

(No. 41)

**NOTE: Include this when using #33 Earth Excavation (Special)**

# **GPS MONUMENTS**

Effective: March 14, 2001

Work around GPS monuments will be done in conjunction with the Special Provision for Earth Excavation (Special).

The Contractor shall be aware that the cost to replace a GPS or vertical monument will be very costly and time consuming. These monuments shall be protected at all costs.

At the end of the project, a detailed report shall be submitted to assure there has been no movement of the suspect monument. If a disturbance/damage is detected, the Contractor will coordinate with the State of Illinois Survey Department for proper recourse. If the Contractor disturbs/damages a GPS monument, the Contractor shall be required to replace the monument at no additional cost to the Department. Monument shall be replaced in or near the original location. If the Monument was a horizontal only monument, then it shall be replaced and submitted to NGS for inclusion into the NSRS at the same or better Order and Class. If the Monument was a vertical monument, it will have to be re-elevated according to NGS standards for vertical control, including the use of approved certified Invar Rods, Thermesters, Electronic Level and approved notes (the method and procedure shall be reviewed and approved before this work will proceed). Each of these monument types will require new NGS approved descriptions. Each monument reset shall be set as a Top Security Sleeve Rod Monument and set with installation instructions provided by the District Chief of Surveys.

7-28-14

(No. 42) (Code #X4401198)

**NOTE: This is intended for profile grinding.**

# **hot-mix asphalt SURFACE REMOVAL (VARIABLE DEPTH)**

Effective: February 10, 1995

This work shall consist of removing, by rotomilling, with a machine and automatic grade control, according to Article 440.03 of the Standard Specifications, the necessary existing hot-mix asphalt material from the existing surface at locations indicated in the plans. The purpose of grinding is to remove the rutting in the existing hot-mix asphalt surface. The Contractor shall mill ½ inch at the centerline, except when the milling at the outer edge of the surface exceeds 1½ inches; then the Contractor shall reduce the cut at the centerline to provide a maximum cut at the outer edge of the pavement of 1½ inches. If the outer edge cut still exceeds 1½ inches, the 1.5% (3/16 inch per foot crown) slope may be reduced 1% to (1/8 of an inch per foot) so as to maintain a maximum cut at the outer edge of 1½ inches. Care shall be exercised in the removal not to gouge or damage the underlying concrete pavement.

This work will be paid for at the contract unit price per Square Yard for HOT‑MIX ASPHALT SURFACE REMOVAL (VARIABLE DEPTH).

(No. 43 - Code No. 542-----)

**NOTE: Use this on very large complicated projects or complicated projects with a completion date.**

# **CRITICAL PATH SCHEDULE**

Effective: February 10, 1995

The construction of this project will be planned and recorded with a conventional Critical Path Method (CPM) as specified in Article 108.02 of the Standard Specifications and the following:

The Contractor is responsible for preparing the initial schedule in the form of an activity on arrow diagram which shall include activity description and duration, two copies shall be submitted to the Engineer at the preconstruction meeting. The construction time, as determined by the schedule shall not exceed the specified contract time. The schedule shall be updated the first of each month, when there is a delay in completion of any critical activity, or when the contract is modified causing additions, deletion or revision of activities required.

As determined by CPM analysis, only delays in activities which affect milestone dates or contract completion dates will be considered for a time extension.

If the Contractor does seek a time extension of any milestone or contract completion date, he/she shall furnish documentation as required by the Engineer to enable him to determine whether a time extension is appropriate under the terms of the contract.

(No. 44) – (Code No. Z0054500)

**NOTE: This provision used to be Breaker-Run Crushed Stone. Use under box culvert or pipe culvert when specified by Springfield or Materials.**

# **ROCK FILL**

Effective: May 1, 1995 Revised: August 29, 2013

This work shall consist of placing CS02 at locations shown in the plans, except for the bedding material provided (in Article 540.06) for box culverts or (in Article 542.04(c)) pipe culverts. The granular bedding layer is included in the unit price for Precast Concrete Box Culverts and Pipe Culverts. The 6 inch bedding layer under Cast-in-Place Culverts shall be gradation CA07, and shall be paid for as ROCK FILL.

The CS02 shall consist of crushed gravel, crushed stone, or crushed concrete of sound durable particles, reasonably free of deleterious materials meeting the following gradation:

|  |  |  |  |
| --- | --- | --- | --- |
| Grad No. | Sieve Size and Percent Passing | | |
| 6” | 4” | 2” |
| CS02 | 100 | 80±10 | 25±15 |

This work shall be paid for at the contract unit price per Ton for ROCK FILL.

(No. 45)

**NOTE: Include when using District Standard 34.1, Box Culvert End Sections.**

# **box culvert end sections**

Effective: June 1, 2014

Description. This work shall consist of constructing cast-in-place concrete and precast concrete end sections for box culverts. These end sections are shown on the details in the plans. This work shall be according to Section 540 of the Standard Specifications except as modified herein.

Materials. Materials shall be according to the following Articles of Division 1000 – Materials of the Standard Specifications.

Item Article/Section

(a) Portland Cement Concrete (Note 1) 1020

(b) Precast Concrete End Sections (Note 2)

(c) Coarse Aggregate (Note 3) 1004.05

(d) Structural Steel (Note 4) 1006.04

(e) Anchor Bolts and Rods (Note 5) 1006.09

(f) Reinforcement Bars 1006.10(a)

(g) Nonshrink Grout 1024.02

(h) Chemical Adhesive Resin System 1027

(i) Mastic Joint Sealer for Pipe 1055

(j) Hand Hole Plugs 1042.16

Note 1. Cast-in-place concrete end sections shall be Class SI, except the 14 day mix design shall have a compressive strength of 5000 psi (34,500 kPa) or a flexural strength of (800 psi) 5500 kPa and a minimum cement factor of 6.65 cwt/cu yd (395 kg/cu m).

Note 2. Precast concrete end sections shall be according to Articles 1042.02 and 1042.03(b)(c)(d)(e) of the Standard Specifications. The concrete shall be Class PC according to Section 1020, and shall have a minimum compressive strength of 5000 psi (34,000 kPa) at 28 days.

Joints between precast sections shall be produced with reinforced tongue and groove ends according to the requirements of ASTM C 1577.

Note 3. The granular bedding placed below a precast concrete end section shall be gradation CA 7, CA 11 or CA 18.

Note 4. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable.

Note 5. The anchor rods for the culvert ties shall be according to the requirements of ASTM F 1554, Grade 105 (Grade 725).

**CONSTRUCTION REQUIREMENTS**

The concrete end sections may be precast or cast-in-place construction. Toe walls shall be either precast or cast-in-place, and shall be in proper position and backfilled according to the applicable paragraphs of Article 502.10 of the Standard Specifications prior to the installation of the concrete end sections. If soil conditions permit, cast-in-place toe walls may be poured directly against the soil. When poured directly against the soil, the clear cover of the sides and bottom of the toe wall shall be increased to 3 in. (75 mm) by increasing the thickness of the toe wall.

(a) Cast-In-Place Concrete End Sections. Cast-in-place concrete end sections shall be constructed according to the requirements of Section 503 of the Standard Specifications and as shown on the plans.

(b) Precast Concrete End Sections. When the concrete end sections will be precast, shop drawings detailing the slab thickness and reinforcement layout shall be submitted to the Engineer for review and approval.

The excavation and backfilling for precast concrete end sections shall be according to the requirements of Section 502 of the Standard Specifications, except a layer of granular bedding at least 6 in. (150 mm) in thickness shall be placed below the elevation of the bottom of the end section. The granular bedding shall extend a minimum of 2 ft (600 mm) beyond each side of the end section.

Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 2/3 turn on one of the nuts. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut.

Method of Measurement. This work will be measured for payment as each, with each end of each culvert being one each.

Basis of Payment. This work will be paid for at the contract unit price per each for BOX CULVERT END SECTIONS of the culvert number specified.

(No. 46) (Code #Z00566\_\_\_)

**NOTE: See District Std. 32.1 for usage**

# **STORM SEWER WATER MAIN REQUIREMENT**

Effective: June 12, 1997

Description: This work shall consist of furnishing and installing water main quality pipe at the locations shown on the plans.

Materials:

a) Ductile iron water main Class 52

Joints for Ductile Iron pipe shall be:

1. Mechanical Joints - AWWA C111 and C600

2. Push‑On‑Joints - AWWA C111 and C600

b) Polyvinyl Chloride (PVC) Class 12454B (PVC 1120) or

Class 12454C (PVC 1220).

Schedule 40 is required for 8" diameter and schedule 80 for larger sizes.

CONSTRUCTION REQUIREMENTS

The storm sewer water main shall be installed according to the applicable portions of Section 550 and 561 of the Standard Specifications and the Standard Specifications for Water and Sewer Main Construction. In case of conflict between the Standard Specifications, the Standard Specifications for Water and Sewer Main Construction in Illinois shall take precedence and shall govern.

No testing or disinfections of the newly laid storm sewer water main will be required. A water‑tight connection is required between the storm sewer water main and the storm sewer.

Method of Measurement: Storm sewer water main of the various diameters will be measured for payment in feet, measured in place.

Basis of Payment: This work will be paid for at the contract unit price per Foot for STORM SEWER WATER MAIN REQUIREMENT, of the diameter specified.

(No. 46A) (Code #550A\_\_\_\_\_\_ or 550B\_\_\_\_\_\_ of the type and size needed)

**NOTE: This is to be used where storm sewer and water main cross. When water main and storm sewer are parallel and within 10’ of each other use Storm Sewer Water Main Requirement.**

# **STORM SEWER, RUBBER GASKET**

Effective: April 5, 2005

This item is included to satisfy the EPA requirements for horizontal and vertical separation of storm sewer and water mains or water service lines outlined in Section 41 of the Standard Specifications for Water and Sewer Main Construction in Illinois.

Storm Sewer, Rubber Gasket is to be used at locations where the water main or water service line crosses below the storm sewer, regardless of vertical separation, or where the bottom of the water main or water service line is less than 18” above the top of the storm sewer.

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

At locations shown on the plans, the contractor shall furnish and install a reinforced concrete pipe of the size, class and type indicated with rubber gasket joints which conforms to ASTM Specification C-361.

The joint shall be approved by the Illinois Environmental Protection Agency for storm sewer lines crossing above water mains.

This work will be measured and paid for at the contract unit price per Foot for STORM SEWER, RUBBER GASKET of the type and size indicated.

(No. 47) (Code #67201100)

# **sealing abandoned MONITORING WELl**

Effective: October 23, 2000

The Contractor shall hire a licensed water well driller pursuant to the Water Well and Pump Installation Contractor’s License Act. All monitoring wells removed shall be abandoned in accordance with the Illinois Water Well Construction Code 77 Illinois Administrative Code Part 920.

Method of Measurement: Monitoring well abandonment will be measured for payment assuming each monitoring well is a 2-4 inch diameter well installed at a maximum depth of 25 feet.

Basis of Payment: Monitoring well abandonment will be paid for at the contract unit price per Each for SEALING ABANDONED MONITORING WELL.

(No. 48) (Seeding Mobilization Code X0322352)

**NOTE: Use on project with more than 10 acres disturbed**

# **SEEDING MOBILIZATION**

Effective: May 9, 2000 Revised: August 23, 2013

The Contractor shall coordinate his work so no more than 10 acres are disturbed at a time. All work in this area shall be completed and the area seeded before additional areas are disturbed. Under no conditions shall the Contractor prolong final grading and shaping so the entire project can be permanently seeded at one time.

Wherever possible, permanent seeding and the permanent erosion control shall be installed. The ditch bottoms and backslopes shall not be disturbed again unless the seeding hasn't become established. If the foreslopes need to be regraded to the new shoulder, all work shall be confined to the foreslope and any damage to the ditch bottom, backslope, or permanent erosion control shall be repaired at the Contractor's expense.

All permanent seeding, mulch, and the required fertilizer nutrients shall be completed and paid for in accordance with Sections 250 and 251 of the Standard Specifications, except that SEEDING MOBILIZATION will be paid for at the contract unit price per each and shall include the cost of mobilizing all of the equipment needed to fertilize, permanently seed, and mulch to the jobsite. This will be paid each time the Engineer requires the Contractor to bring the equipment to the jobsite. If the equipment is already on the site, this will not be paid for again.

(No. 49) (Code Gen 406)

**NOTE: Not to be used on projects that will be completed before the October 15 date. Examples are completion date contracts and small working day contracts let early in the construction season.**

# **HOT-MIX ASPHALT SURFACE COURSE, CUT OFF DATE**

Effective: December 8, 1998 Revised: October 17, 2007

Placement of Hot-Mix Asphalt Surface Course will not be permitted after October 15 unless approved, in writing, by the Resident Engineer.

(No. 50) (Code Z0023600)

**NOTE: Give a station, description, and size of culvert length. If a portion of the structure needs to be removed for ditching, add provision and pay item for Removal of Existing Structures.**

# **FILLING EXISTING CULVERT**

Effective: April 7, 1999

This work shall be done in accordance with the applicable portions of Section 605 of the Standard Specifications and as shown in the plans and shall include all labor, materials, and equipment required to completely fill the culvert.

|  |  |
| --- | --- |
| Station | Description |
|  |  |
|  |  |
|  |  |

The cavity should be filled with as much sand as practical with the remaining voids to be filled with a grout capable of being pumped under pressure.

The grout shall consist of a minimum of one part of cement to eight parts of sand with a slump suitable for pumping. The cement factor may be increased to improve pumping characteristics.

The Contractor will not be allowed to cut through the pavement to provide an opening for filling operations.

This work will be paid for at the contract unit price per Each for FILLING EXISTING CULVERT.

# (No. 51)

# **IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE)**

Effective: June 1, 2006 Revised: February 3, 2010

This work shall consist of installing Temporary Impact Attenuators according to the Special Provision. Temporary sand module systems that are not located on pavement or a hot‑mix asphalt shoulder shall be placed on a 6” base. The base can be either hot-mix asphalt or concrete.

The hot-mix asphalt base shall be constructed with incidental hot-mix asphalt surfacing according to Section 408 of the specifications book. The concrete base shall be constructed using class SI concrete.

The temporary impact attenuator and base shall be removed after the completion of work. The area under the base shall be restored to the original condition.

The cost of the base will be included in the contract unit price per Each for IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE) of the test level specified.

# (No. 52) (Code #X4402805)

# **ISLAND REMOVAL**

Effective: October 10, 2006

This work shall consist of the removal and disposal of the islands as shown on the plans. This work shall be done in accordance with applicable portions of Section 440 of the Standard Specifications and shall include the removal of the concrete island surface, concrete curb & gutter, and excavation below the concrete to a depth of the bottom of the adjacent concrete pavement.

This work will be paid for at the contract unit price per Square Foot for ISLAND REMOVAL.

(No. 53)

**NOTE: Use this Special Provision for all Engineer’s Field Offices**

# **ENGINEER’S FIELD OFFICE TYPE A**

Effective: January 1, 2012

Engineer’s Field Office Type A shall be in accordance with Article 670.02 of the Standard Specifications:

Add (s) to the end of 670.02

(s) Cellular phone with a minimum of 500 anytime minutes per month for use by the site resident engineer/technician.

(No. 54)

**NOTE: Use this with highway standards 701316, 701321, 701331, 701402, 701416, 701423, 701431, 701502, 701601, 701602, 701606 & 701701. All temporary pavement marking on the final wearing surface shall be paint. Use pay items 70300220 Temporary Pavement Marking Line 4” & 70300280 Temporary Pavement Marking Line 24”. We no longer use Pavement Marking Tape, Type III. We will still use tape for short term pavement marking unless it is on a milled surface, then it has to be paint. The tape does not have to be removed by a water blaster.**

# **WORK ZONE PAVEMENT MARKING AND REMOVAL**

Effective: December 29, 2008

This work shall consist of installing and removing temporary pavement marking according to Section 703 of the Standard Specifications and the following:

Paint pavement marking shall be used on the final wearing surface when the temporary pavement marking will conflict with the permanent pavement marking such as on tapers, crossovers and lane shifts.

All temporary paint on the final wearing surface shall be removed according to Article 1101.12 Water Blaster with Vacuum Recovery and the applicable portions of Section 703 of the Standard Specifications and as described herein.

Add the following paragraph to Article 1101.12 of the Standard Specifications.

For the high pressure water spray, the pressure at the nozzle shall be approximately 25,000 psi with maximum flow rate of 15 gal/min. The nozzle shall be in close proximity to the pavement surface.

(No. 55) (Code X5510100)

# **STORM SEWER REMOVAL**

Effective: September 6, 2002

Description. The existing storm sewer marked for removal shall be removed according to Section 551 of the Standard Specifications for Road and Bridge Construction adopted January 1, 2012. All storm sewer marked for removal is 24” in diameter or less.

Method of Measurement. Storm sewer removal of the various diameter will be measured for payment in feet, measured as removed.

Basis of Payment. Storm sewer removal will be paid for at the contract unit price per Foot for STORM SEWER REMOVAL, which includes the trench backfill.

(No. 56) (Code #X7010805)

**NOTE: This provision should be used for removing or setting bridge beams on bridges over Interstates or 4-lane highways. Add the Interstate or 4-lane highway route in the provision. The nighttime hours specified can be changed for your exact location and ADT. Also, add the name and phone number of the Maintenance Field Engineer if it applies.**

# **TRAFFIC CONTROL AND PROTECTION, STANDARD 701401 (SPECIAL)**

Effective: December 18, 2007 Revised: March 13, 2012

This work consists of setting up traffic control in accordance with Section 701 of the Standard Specification for the purpose of removing or setting bridge beams.

Two lanes in each direction of travel on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ may be closed up to twenty (20) minutes to remove or set bridge beams. This shall be done by closing one lane in each direction according to Standards 701400 and 701401. The second lane shall be closed by flaggers for up to a twenty (20) minute period. At the end of the twenty minute period, the second lane shall be opened to traffic and all queued traffic shall be cleared prior to closing the second lane again.

This work shall be completed during nighttime hours, 9:00 PM Monday to 6:00 AM Friday (9:00 PM to 6:00 AM daily). Traffic control set up shall not begin prior to 9 p.m. on any day and shall be completely removed by 6:00 AM the following morning. No lane closures shall be allowed on Friday, Saturday, and Sunday evenings. During legal holidays, section 107 of the Standard Specifications shall apply.

Traffic control devices shall be removed from the traffic lane and all lanes shall be opened to traffic thirty (30) minutes after bridge beam removal and/or setting operations cease, or defined by work restriction hours, which ever comes first.

The Contractor shall contact the Maintenance Field Engineer, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at Ph. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ one week before any closure on \_\_\_\_\_\_\_\_\_\_\_\_\_ so that messages can be put on the permanent message overhead message boards.

One additional portable changeable message board will be required for each direction of travel affected during all nightly closures.

The barricades shown in Standard 701401 shall not encroach on the lane open to live traffic at any time.

The Contractor shall be liable if they fail to completely open and keep open all traffic lanes on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in accordance with the limitations specified. The Contractor shall be liable to the Department in the amount of $500 for each lane blocked as liquidated and ascertained damages for each and every fifteen (15) minute interval, or portion thereof, that a lane is blocked outside the allowable time limitations. Such damages may be deducted by the Department from any monies due to the Contractor. These damages shall apply during the contract time and during any extensions of the contract time.

This work shall be paid for at the contract unit price per Lump Sum for TRAFFIC CONTROL AND PROTECTION, STANDARD 701401 (SPECIAL).

(No. 57) (Code X0324380)

**NOTE: Use this for replacement of Winnebago lids where the front edge is deteriorated and the reinforcement is exposed. Also note this provision specifies an Inlet Special No. 5. You could have an Inlet Special No. 3, 4, or 6 on your project.**

# **REMOVE AND REPLACE LID**

Effective: January 22, 2009

This work will consist of removing the existing concrete inlet lid and replacing it with a new one at the locations shown on the plans. The lids shall conform to the details for Inlet Special No. 5, Nose Type for Inlet Top Slab, and Inlet Special Reinforcement Detail. It will be the Contractor’s responsibility to verify the dimensions before constructing the lid. This work shall also include replacement of any disturbed sod, hot-mix asphalt, or concrete adjacent to the lid.

This work shall be paid for at the contract unit price per Each for REMOVE AND REPLACE LID.

(No. 58)

**NOTE: Check with the Project Engineer. This could be used on spring lettings with multiple resurfacing projects in one area, in District 2.**

# **DELAYED START OF MULTIPLE CONTRACTS**

Effective: February 2, 2010

Add the following after the first paragraph of Article 108.03 of the Standard Specifications:

“Contractors who are the apparent low bidders on multiple District 2 contracts in one letting may submit a written request for waiver, within 10 days after bid opening, to the Regional Engineer. The request shall include specific reasons for the delay in a contract prosecution coordination plan and a proposed progress schedule for each contract. The Regional Engineer will schedule a meeting with the Contractor within 5 working days after receipt of the request for waiver. Schedules for the prosecution of each contract and exact starting dates, as well as dates for preconstruction conferences, for each contract shall be established. Consideration of waivers will not affect award decisions or the procedures followed to execute awarded contracts.

By submission of a delayed start plan, the Contractor understands and agrees that the granting of a delayed start shall not be reason for an extension of time to complete the contract, and that the decision to approve a waiver for any or all contracts will reside with the Department, whose decision will be final.

All delayed working day contracts shall be scheduled for completion, except for non-pavement and/or cleanup work, by \_\_\_\_\_\_\_\_\_\_\_\_. However, upon starting a working day contract, working days will be charged according to Article 108.04 of the Standard Specifications until the contract is complete.

Completion date contracts will not be extended beyond the date included in the plans due to the granting of a request for delayed start.

(No. 59) (Code #X0327064 for 24” diameter & X0325537 for 30” diameter)

**NOTE: This is another option for an automatic flap gate instead of using Dist. Std. 73.2**

# **ELASTOMERIC CHECK VALVE**

Effective: October 26, 2010

Description: This work shall consist of selecting, furnishing and installing elastomeric “duck-bill” check valves for connection to the outlet ends of the storm sewer pipes or pipe culverts.

General: The selection and coordination of the connection of the elastomeric check valve to the reinforced concrete pipe shall include the allowance for proper clearance in the end section. The elastomer for the check valve shall provide effective service within a temperature range of ‑40 degrees F to +130 degrees F. The elastomer material shall resist stretching and tearing. The preferred connection is a slip-on connection directly to the pipe. Flanged connections to the end section will be allowed, provided a means to prevent leakage between the pipe and the end section is incorporated into the assembly. The materials to connect the check valve to the pipe assembly, including any of the aforementioned materials to prevent leakage between the end section and the pipe, shall be considered included in the cost of this pay item. The elastomeric check valve shall open with a minimum hydraulic head of 2 inches. The check valve shall seal tight around debris that may become trapped in the valve opening. The check valve shall resist permanent deformation of the valve due to back pressures up to 10 pounds per square inch.

Acceptable manufacturers are General Rubber Corporation and Red Valve Company (i.e. Tideflex). Other manufacturers will be accepted upon condition the selected valve conforms to these specifications. Manufacturer’s data for the proposed check valve shall be submitted to the Department for review and approval prior to installation.

Method of Measurement: Elastomeric check valves will be measured in place per each of the size specified.

Basis of Payment: This work shall be paid for at the contract unit price per Each for ELASTOMERIC CHECK VALVE of the diameter specified.

(No. 60) (DELETED 2/2/12)

7-28-14

(No. 61)

**NOTE: Fill in provision and modify if needed for your job.**

# **removal of existing structures**

This work shall be done in accordance with Section 501 of the Standard Specifications. The work shall consist of removing and disposing of existing box culverts or portions of existing box culverts and other items as specified. Removal of existing drop boxes shall be included in the cost of Removal of Existing Structure for that location.

|  |  |  |
| --- | --- | --- |
| No. | Station | Description |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

This work shall be paid for at the contract unit price per Each for REMOVAL OF EXISTING STRUCTURES of the number specified.

(No. 62)

**NOTE: Include this provision when you have Level Binder, N50 of 2,000 or more tons. Add the pay item and only list FG in General Notes table. If under 2,000 tons, still add provision and put in General Notes, but do not add a pay item for it. Use this pay item for a multi-use path as well.**

# **HOT-MIX ASPHALT MIXTURE IL-9.5FG (BMPR)**

Effective: July 1, 2005 Revised: December 28, 2010

Description. This work shall consist of constructing fine graded hot-mix asphalt (HMA) surface courseor leveling binder with an IL-9.5FG mixture. Work shall be according to Sections 406, 407 and 1030 of the Standard Specifications, except as modified herein.

Materials. Revise Article 1003.03(c) of the Standard Specifications to read:

“(c) Gradation. The fine aggregate gradation for all HMA shall be FA 1, FA 2, FA 20, or FA 21. For mixture IL-9.5FG, the fine aggregate fraction shall consist of at least 67 percent manufactured sand meeting FA 20 gradation. The manufactured sand shall be stone sand, slag sand, steel slag sand, or combinations thereof.”

Mixture Design. Add the following to the table in Article 1030.04(a)(1):

|  |  |  |
| --- | --- | --- |
| “High ESAL, MIXTURE COMPOSITION (% PASSING) 1/ | | |
| Sieve  Size | IL-9.5FG | |
| min | max |
| 1 1/2 in (37.5 mm) |  |  |
| 1 in. (25 mm) |  |  |
| 3/4 in. (19 mm) |  |  |
| 1/2 in. (12.5 mm) |  | 100 |
| 3/8 in. (9.5 mm) | 90 | 100 |
| #4 (4.75 mm) | 604/ | 754/ |
| #8 (2.36 mm) | 454/ | 604/ |
| #16 (1.18 mm) | 25 | 40 |
| #30 (600 μm) | 15 | 30 |
| #50 (300 μm) | 8 | 15 |
| #100 (150 μm) | 6 | 10 |
| #200 (75 μm) | 4 | 6.5 |
| Ratio  Dust/Asphalt Binder |  | 1.0 |

4/ When used as level binder placed less than 1 in. (25 mm) thick, the min and max percent passing shall each be increased 5%.

Revise the table in Article 1030.04(b)(1) of the Standard Specifications to read:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| “VOLUMETRIC REQUIREMENTS High ESAL | | | | | |
|  | Voids in the Mineral Aggregate  (VMA),  % minimum | | | | Voids Filled with Asphalt Binder (VFA),  % |
| Ndesign | IL-25.0 | IL-19.0 | IL-12.5 | IL-9.5 |
| 50 | 12.0 | 13.0 | 14.0 | 15 1/ | 65 - 78 |
| 70 | 65 - 75 2/ |
| 90 |
| 105 |

1/ The VMA for IL-9.5FG shall be a minimum of 15.0 percent.

2/ The VFA range for IL-9.5FG shall be 65 - 78 percent.”

Quality Control/Quality Assurance (QC/QA). Revise the second table in Article 1030.05(d)(4) to read:

|  |  |  |  |
| --- | --- | --- | --- |
| DENSITY CONTROL LIMITS | | | |
| Mixture Composition | | Parameter | Individual Test3/ |
| IL-9.5FG | Lifts < 1.25 in. (32 mm) | Ndesign 50 - 105 | 91.0 – 97.0% 2/ |
| Lifts ≥ 1.25 in. (32 mm) | Ndesign 50 - 105 | 93.0 – 97.0% |
| IL-9.5, IL-12.5 | | Ndesign ≥ 90 | 92.0 – 96.0 % |
| IL-9.5, IL-9.5L, IL-12.5 | | Ndesign < 90 | 92.5 – 97.4 % |
| IL-19.0, IL-25.0 | | Ndesign ≥ 90 | 93.0 – 96.0 % |
| IL-19.0, IL-19.0L, IL-25.0 | | Ndesign < 90 | 93.0 – 97.4 % |
| All Other | | Ndesign = 30 | 93.0 1/ - 97.4 % |

1/ 92.0 % when placed as first lift on an unimproved subgrade.

2/ Density shall be determined by cores or by correlated, approved thin lift nuclear gauge.

3/ Bulk Specific Gravity and Density that are determined using coated samples must be in accordance with ASTM 1188-96.

CONSTRUCTION REQUIREMENTS

Leveling Binder. Revise the table and second paragraph of Article 406.05(c) of the Standard Specifications to read:

|  |  |
| --- | --- |
| “Leveling Binder | |
| Nominal, Compacted, Leveling  Binder Thickness, in. (mm) | Mixture Composition |
| ≤ 1 1/4 (32) | IL-9.5, IL-9.5 FG, or IL-9.5L |
| > 1 1/4 to 2 (32 to 50) | IL-9.5, IL-9.5FG, IL-9.5L, or IL-12.5 |

The density requirements of Article 1030.05(d)(4) shall apply for leveling binder, machine method, when the nominal, compacted thickness is: 3/4 in. (19 mm) or greater for IL-9.5FG mixtures, 1 1/4 in. (32 mm) or greater for IL-9.5 and IL-9.5L mixtures, and 1 1/2 in. (38 mm) or greater for IL-12.5 mixtures.”

Compaction. Revise Table 1 in Article 406.07(a) of the Standard Specifications to read:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| “TABLE 1 - MINIMUM ROLLER REQUIREMENTS FOR HMA | | | | |
|  | Breakdown Roller (one of the following) | Intermediate Roller | Final Roller (one or more of  the following) | Density Requirement |
| Level Binder:  (When the density requirements of Article 406.05(c) do not apply.) | P 3/ | - - | VS, P 3/, TB, TF, 3W | To the satisfaction of the Engineer. |
| Level Binder:  (When placed at ≤ 1 ¼ (32 mm) and density requirements apply.) | TB, 3W | P 3/ | VS, TB, TF | As specified in Articles:  1030.05(d)(3), (d)(4), and (d)(7). |
| Binder and Surface 1/  (When the density requirements of Article 406.05(c) apply.) | VD, P 3/, TB, 3W | P 3/ | VS, TB, TF | As specified in Articles:  1030.05(d)(3), (d)(4), and (d)(7). | |
| Bridge Decks 2/ | TB | - - | TF | As specified in Articles:  582.05 and 582.06. | |

1/ If the average delivery at the job site is 85 ton/hr (75 metric ton/hr) or less, any roller combination may be used provided it includes a steel wheeled roller and the required density and smoothness is obtained.

2/ One TB may be used for both breakdown and final rolling on bridge decks 300 ft (90 m) or less in length, except when the air temperature is less than 60 ºF (15 ºC).

3/ A vibratory roller (VD) may be used in lieu of the pneumatic-tired roller on mixtures containing polymer modified asphalt binder.

Basis of Payment. Add the following two paragraphs after the third paragraph of Article 406.14 of the Standard Specifications:

” Mixture IL-9.5FG will be paid for at the contract unit price per ton (metric ton) for LEVELING BINDER (HAND METHOD), IL-9.5FG, of the Ndesign specified; LEVELING BINDER (MACHINE METHOD), IL-9.5FG, of the Ndesign specified; or HOT-MIX ASPHALT SURFACE COURSE, IL‑9.5FG, of the Ndesign specified.

Mixture IL-9.5FG in which polymer modified asphalt binders are required will be paid for at the contract unit price per ton (metric ton) for POLYMERIZED LEVELING BINDER (HAND METHOD), IL-9.5FG, of the Ndesign specified; POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-9.5FG, of the Ndesign specified; or POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, of the Ndesign specified.”

06-23-14

(No. 63)

**NOTE: Include in all contracts with Traffic Control Surveillance**

# **TRAFFIC CONTROL SURVEILLANCE**

Effective: January 1, 2011

Revise the first sentence of the first paragraph of Article 701.10 of the Standard Specifications to read:

“ When open holes, broken pavement, trenches over 3 in. deep and 4 in. wide or other hazards are present within 8 ft. of the edge of an open lane, the Contractor shall furnish traffic control surveillance at all times, whether or not the Contractor is engaged in construction operations.”

(No. 64)

**NOTE: Use when IL-19.0 FG is listed in the Mixtures Table in the General Notes. This mix will be required or be an option in all binder applications. Check with the Mixtures Control Engineer for any questions.**

# **hot-mix asphalt mixture il-19.0fg (bmpr)**

Effective: December 1, 2009 Revised: December 6, 2010

Description. This work shall consist of constructing fine graded hot-mix asphalt (HMA) binder course with an IL-19.0FG mixture. Work shall be according to Sections 406, 407 and 1030 of the Standard Specifications, except as modified herein.

Materials. Revise Article 1003.03(c) of the Standard Specifications to read:

“(c) Gradation. The fine aggregate gradation for all HMA shall be FA 1, FA 2, FA 20, or FA 21. For mixture IL-19.0FG, the fine aggregate fraction shall consist of at least 67 percent manufactured sand meeting FA 20 gradation. The manufactured sand shall be stone sand, slag sand, steel slag sand, or combinations thereof.”

Mixture Design. Add the following to the table in Article 1030.04(a)(1) of the Standard Specifications:

|  |  |  |
| --- | --- | --- |
| “High ESAL, MIXTURE COMPOSITION (% PASSING) 1/ | | |
| Sieve  Size | IL-19.0FG | |
| min | max |
| 1 1/2 in (37.5 mm) |  |  |
| 1 in. (25 mm) |  | 100 |
| 3/4 in. (19 mm) | 90 | 100 |
| 1/2 in. (12.5 mm) | 69 | 89 |
| 3/8 in. (9.5 mm) |  |  |
| #4 (4.75 mm) | 45 | 60 |
| #8 (2.36 mm) | 30 | 45 |
| #16 (1.18 mm) | 20 | 35 |
| #30 (600 μm) |  |  |
| #50 (300 μm) | 8 | 15 |
| #100 (150 μm) | 6 | 9 |
| #200 (75 μm) | 3.5 | 5.5 |
| Ratio  Dust/Asphalt Binder |  | 1.0 |

Revise the table in Article 1030.04(b)(1) of the Standard Specifications to read:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| “VOLUMETRIC REQUIREMENTS High ESAL | | | | | | |
|  | Voids in the Mineral Aggregate (VMA),  % minimum | | | | | Voids Filled  with Asphalt Binder (VFA),  % |
| Ndesign | IL-25.0 | IL-19.0 | IL-19.0FG | IL-12.5 | IL-9.5 |
| 50 | 12.0 | 13.0 | 13.5 | 14.0 | 15 | 65 - 78 |
| 70 | 65 - 75 |
| 90 |
| 105 |

Quality Control/Quality Assurance (QC/QA). Revise the second table in Article 1030.05(d)(4) of the Standard Specifications to read:

|  |  |  |
| --- | --- | --- |
| “DENSITY CONTROL LIMITS | | |
| Mixture Composition | Parameter | Individual Test |
| IL-9.5, IL-12.5 | Ndesign ≥ 90 | 92.0 – 96.0 % |
| IL-9.5, IL-9.5L, IL-12.5 | Ndesign < 90 | 92.5 – 97.4 % |
| IL-19.0, IL-19.0FG, IL-25.0 | Ndesign ≥ 90 | 93.0 – 96.0 % |
| IL-19.0, IL-19.0FG, IL-19.0L, IL-25.0 | Ndesign < 90 | 93.0 – 97.4 % |
| All Other | Ndesign = 30 | 93.0 1/ - 97.4 % |

1/ 92.0 % when placed as first lift on an unimproved subgrade.”

07-18-14

Basis of Payment. Add the following two paragraphs after the third paragraph of Article 406.14 of the Standard Specifications:

“ Mixture IL-19.0FG will be paid for at the contract unit price per ton (metric ton) for HOT-MIX ASPHALT BINDER COURSE, IL-19.0FG, of the Ndesign specified.

Mixture IL-19.0FG in which polymer modified asphalt binders are required will be paid for at the contract unit price per ton (metric ton) for POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, IL-19.0FG, of the Ndesign specified.”

(No. 65)

**DESIGNER NOTE: Check with the Mixtures Control Engineer for use on jobs with 3,000 or more tons of HMA mainline surface. This is experimental, so it will not go on all jobs. Be sure to check with Materials.**

# **Hot-Mix Asphalt quality control for Performance (BMPR)**

Effective: January 1, 2012 Revised: December 1, 2013

Description. This special provision describes the procedures for production, placement and payment of hot-mix asphalt (HMA). This work shall be according to the Standard Specifications except as modified herein. This special provision shall apply to HMA mixtures as specified in the mixtures table in the plan’s General Notes.

Exceptions may be approved for small tonnage less than 800 (725 metric) tons and miscellaneous mixture applications as defined by the Engineer.

Delete Articles: 406.06(b)(1), 2nd Paragraph (Temperature requirements)

406.06 (e), 3rd Paragraph (Pavers speed requirements)

406.07 (Compaction)

1030.05(a)(4, 5, 9,) (QC/QA Documents)

1030.05(d)(2)a. (Plant Tests)

1030.05(d)(2)b. (Dust-to-Asphalt and Moisture Content)

1030.05(d)(2)d. (Small Tonnage)

1030.05(d)(2)f. (HMA Sampling)

1030.05(d)(3) (Required Field Tests)

1030.05(d)(4) (Control Limits)

1030.05(d)(5) (Control Charts)

1030.05(d)(7) (Corrective Action for Field Tests (Density))

1030.05(e) (Quality Assurance by the Engineer)

1030.05(f) (Acceptance by the Engineer)

1030.06(a), 3rd paragraph (Before start-up…)

1030.06(a), 7th paragraph (After an acceptable…)

1030.06(a), 8th paragraph (If a mixture…)

1030.06(a), 9th paragraph (A nuclear/core…)

Definitions:

(a) Quality Control (QC): All production and construction activities by the Contractor required to achieve the required level of quality.

(b) Quality Assurance (QA): All monitoring and testing activities by the Engineer required to assess product quality, level of payment, and acceptability of the product.

(c) Pay Parameters: Pay Parameters shall be field Voids in the Mineral Aggregate (VMA), voids, and density. Field VMA will be calculated using the combined aggregates bulk specific gravity (Gsb) from the mix design.

(d) Mixture Lot. A lot shall begin once an acceptable test strip has been completed and the AJMF has been determined. If the test strip is waived, a sublot shall begin with the start of production. A mixture lot shall consist of four sublots unless it is the last or only lot, in which case it may consist of as few as one sublot.

(e) Mixture Sublot. A mixture sublot for field VMA, voids, and Dust/AC will be a maximum of 1000 tons (910 metric tons).

* If the remaining quantity is greater than 200 but less than 1000 tons, a sublot will consist of that amount.
* If the remaining quantity is less than or equal to 200 tons, the quantity shall be combined with the previous sublot.

(f) Density Interval. Density Intervals shall be every 0.2 mile (320 m) for lift thickness equal to or less than 3 in. (75 mm) and 0.1 mile (160 m) for lift thickness greater than 3 in. (75 mm).

(g) Density Sublot. A sublot for density shall be the average of five consecutive Density Intervals. If a Density Interval is less than 200 ft (60 m), it will be combined with the previous Density Intervals.

* If one or two Density Intervals remain outside a sublot, they shall be included in the previous sublot.
* If three or more Density Intervals remain, they shall be considered a sublot.

(h) Density Test: A density test consists of a core taken at a random longitudinal and random transverse offset within each Density Interval. The HMA maximum theoretical gravity (Gmm) will be based on the running average of four Department test results. Initial Gmm will be based on the average of the first four test results. If less than four Gmm results are available, use an average of all available Department Gmm test results.

The random transverse offset excludes a distance from each outer edge equal to the lift thickness or a minimum of 4 in. (100 mm). If a core is located within one foot of an unconfined edge, 2.0 percent density will be added to the density of that core.

Quality Control (QC) by the Contractor:

The Contractor’s QC plan shall include the schedule of testing for both pay parameters and non-pay parameters required to control the product such as asphalt binder content and mixture gradation. The minimum test frequency shall be according to the following table.

Minimum Quality Control Sampling and Testing Requirements

|  |  |  |
| --- | --- | --- |
| Quality Characteristic | | Minimum Test Frequency |
| Mixture Gradation | | 1 per sublot |
| Asphalt Binder Content | |
| Dust/AC Ratio | |
| Field VMA | |
| Voids | Gmb |
| Gmm |

The Contractor’s splits in conjunction with other quality control tests shall be used to control production.

The Contractor shall submit split jobsite mix sample test results to the Engineer within 48 hours of the time of sampling. All QC testing shall be performed in a qualified laboratory by personnel who have successfully completed the Department’s HMA Level I training.

Quality Assurance (QA) by the Engineer:

Voids, field VMA and Dust/AC ratio: The Engineer will determine the random tonnage and the Contractor shall be responsible for obtaining the sample according to the “PFP Hot-Mix Asphalt Random Jobsite Sampling” procedure.

Density: The Engineer will identify the random locations for each density testing interval. The Contractor shall be responsible for obtaining the four inch cores within the same day and prior to opening to traffic unless otherwise approved by the Engineer according to the “PFP and QCP Random Density Procedure”. The locations will be identified after final rolling and cores shall be obtained under the supervision of the Engineer. All core holes shall be filled immediately upon completion of coring. All water shall be removed from the core holes prior to filling. All core holes shall be filled with a rapid hardening mortar or concrete which shall be mixed in a separate container prior to placement in the hole. Any depressions in the surface of the filled core holes greater than 1/4 inch at the time of final inspection will require removal of the fill material to the depth of the lift thickness and replacement.

The Engineer will witness and secure all mixture and density samples. The Contractor shall transport the secured sample to a location designated by the Engineer.

The Engineer will test one or all of the randomly selected split samples from each lot for voids, field VMA and dust/AC ratio. The Engineer will test a minimum of one sample per project. The Engineer will test all of the pavement cores for density. All QA testing will be performed in a qualified laboratory by personnel who have successfully completed the Department’s HMA Level I training. QA test results will be available to the Contractor within 10 working days from receipt of secured cores and split mixture samples.

The Engineer will maintain a complete record of all Department test results and copies will be provided to the Contractor with each set of sublot results. The records will contain, as a minimum, the originals of all Department test results and raw data, random numbers used and resulting calculations for sampling locations, and quality level analysis calculations.

If the QA results do not meet the 100% sublot pay factor limits or do not compare to QC results within the precision limits listed below, the Engineer will test all split mix samples for the lot.

|  |  |
| --- | --- |
| **Test Parameter** | **Limits of Precision** |
| Gmb | 0.030 |
| Gmm | 0.026 |
| Field VMA | 1.0 % |

Acceptance by the Engineer: All of the Department’s tests shall be within the acceptable limits listed below:

|  |  |  |
| --- | --- | --- |
| **Parameter** | | **Acceptable Limits** |
| Field VMA | | -1.0 – +3.0%1/ |
| Voids | | 2.0 – 6.0% |
| Density: | IL-9.5, IL-12.5, IL-19.0, IL-25.0, IL-4.75, IL-9.5FG3/ | 90.0 – 98.0% |
| SMA | 92.0 – 98.0% |
| Dust / AC Ratio | | 0.4 – 1.62/ |

1/ Based on minimum required VMA from mix design

2/ Does not apply to SMA.

3/ Acceptable density limits for IL-9.5FG placed less than 1.25 in. shall be 89.0% - 98.0%

In addition, no visible pavement distresses shall be present such as, but not limited to, segregation, excessive coarse aggregate fracturing or flushing.

Basis of Payment: Payment will be based on the calculation of the Composite Pay Factor using QA results for each mix according to the “QCP Payment Calculation” document.

Dust / AC Ratio. A monetary deduction will be made using the pay adjustment table below for dust/AC ratios that deviate from the 0.6 to 1.2 range. If the tested sublot is outside of this range, the Department will test the remaining sublots for Dust / AC pay adjustment.

Dust / AC Pay Adjustment Table1/

|  |  |
| --- | --- |
| Range | Deduct / sublot |
| 0.6 ≤ X ≤ 1.2 | $0 |
| 0.5 ≤ X < 0.6 or 1.2 < X ≤ 1.4 | $1000 |
| 0.4 ≤ X < 0.5 or 1.4 < X ≤ 1.6 | $3000 |
| X < 0.4 or X > 1.6 | Shall be removed and replaced |

1/ Does not apply to SMA