



# Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

October 28, 2009

SUBJECT: FAI Route 80  
Section (81-1B)M-4  
Rock Island County  
Contract No. 64F31  
Item No. 192, November 6, 2009 Letting  
Addendum C

## NOTICE TO PROSPECTIVE BIDDERS:

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

1. Replaced the Schedule of Prices.
2. Revised the Recurring Special Provision check sheet.
3. Revised the Table of Contents to the Special Provisions.
4. Revised pages 1, 2, 5 - 7, 12, 15, 16, 71, 76 - 78, 89, 90, 111, 112 & 115 - 119 of the Special Provisions.
5. Added pages 143 - 155 to the Special Provisions.
6. Revised sheets 2 - 5, 8 - 12, 15, 17, 19, 21 - 24, 26, 61, 62, 68 & 69 of the Plans.

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

Bidders using computer-generated bids are cautioned to reflect any and all Schedule of Prices changes, if involved, into their computer programs.

Very truly yours,

Charles Ingersoll, Chief  
Bureau of Design and Environment

A handwritten signature in cursive script, reading "Ted B. Walschleger" followed by a small "P.E." to the right.

By: Ted B. Walschleger, P. E.  
Engineer of Project Management

cc: George F. Ryan, Region 2, District 2; Bill Frey; Estimates

TBW:MS:jc

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SCHEDULE OF PRICES  
 CONTRACT  
 NUMBER -

64F31

State Job # - C-92-192-09  
 PPS NBR - 2-17231-0000  
 County Name - ROCK ISLAND- -  
 Code - 161 - -  
 District - 2 - -  
 Section Number - (81-1B)M-4

Project Number

Route  
 FAI 80

\* REVISED : OCTOBER 28, 2009

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
XX002866	CONC BAR WALL SPL	CU YD	84.000				
XX004656	EMBANKMENT	CU YD	6.300				
* X0321750	REM TEMP CONC BAR SO	FOOT	2,681.000				
X0321781	MECHANICAL SPLICE	EACH	10,228.000				
* X0323644	PAVT MKING GROOVING	FOOT	1,742.000				
X0325194	IMP ATTEN FRN TL3 SPL	EACH	1.000				
X0325305	STR REP CON DP = < 5	SQ FT	11.600				
* DELETED							
* X0326719	FALCON PROTECTION	EACH	19.000				
X0326720	MECHL TREATMENT WELDS	EACH	828.000				
X0326721	FIELD WELD STIFFENERS	EACH	828.000				
* DELETED							
Z0021400	EXPANSION JOINT SPL	FOOT	233.000				
* Z0030260	IMP ATTN TEMP FRN TL3	EACH	3.000				
Z0031300	JACKING & CRIBBING	L SUM	1.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
* Z0048665	RR PROT LIABILITY INS	L SUM	1.000				
Z0073500	TEMP SUPPORT SYSTEM	L SUM	1.000				
25100630	EROSION CONTR BLANKET	SQ YD	45.000				
28000400	PERIMETER EROS BAR	FOOT	150.000				
44000157	HMA SURF REM 2	SQ YD	374.000				
48203005	HMA SHOULDERS 2	SQ YD	374.000				
50102400	CONC REM	CU YD	427.200				
50104650	SLOPE WALL REMOV	SQ YD	11.700				
50157300	PROTECTIVE SHIELD	SQ YD	6,123.000				
50300255	CONC SUP-STR	CU YD	611.600				
50300260	BR DECK GROOVING	SQ YD	1,479.000				
50300300	PROTECTIVE COAT	SQ YD	2,224.000				
50500105	F & E STRUCT STEEL	L SUM	1.000				
50500505	STUD SHEAR CONNECTORS	EACH	4,312.000				
50501110	STRUCT STEEL REMOV	POUND	155,620.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
50501130	STRUCT STEEL REPAIR	POUND	211,520.000				
50606701	C & P STRUCT STL L1	L SUM	1.000				
* 50800105	REINFORCEMENT BARS	POUND	7,106.000				
50800205	REINF BARS, EPOXY CTD	POUND	167,320.000				
51100100	SLOPE WALL 4	SQ YD	11.700				
52000110	PREF JT STRIP SEAL	FOOT	1,636.000				
52100010	ELAST BEARING ASSY T1	EACH	100.000				
59200100	BRIDGE WASHING	EACH	1.000				
63700275	CONC BAR 2F 42HT	FOOT	1,398.000				
63700805	CONC BAR TRANS	FOOT	20.000				
* 63801205	TEMP MOD GLARE SCREEN	FOOT	1,355.000				
67000400	ENGR FIELD OFFICE A	CAL MO	16.000				
67100100	MOBILIZATION	L SUM	1.000				
* 70100205	TRAF CONT-PROT 701401	EACH	3.000				
* 70100207	TRAF CONT-PROT 701402	EACH	2.000				

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 District - 2 - -  
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Route  
 FAI 80

\* REVISED : OCTOBER 28, 2009

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
70100410	TRAF CONT-PROT 701416	EACH	1.000				
70100420	TRAF CONT-PROT 701411	EACH	1.000				
70100820	TRAF CONT-PROT 701451	L SUM	1.000				
70106800	CHANGEABLE MESSAGE SN	CAL MO	172.000				
70300625	TEMP PT PVT M LINE 4	FOOT	41,420.000				
70300635	TEMP PT PVT M LINE 6	FOOT	96.000				
70300645	TEMP PT PVT M LINE 12	FOOT	492.000				
* 70301000	WORK ZONE PAVT MK REM	SQ FT	14,347.000				
* 70400100	TEMP CONC BARRIER	FOOT	18,829.000				
* 70400200	REL TEMP CONC BARRIER	FOOT	730.000				
* 70400600	REL TEMP CONC BAR SO	FOOT	1,181.000				
78008210	POLYUREA PM T1 LN 4	FOOT	20,272.000				
78008230	POLYUREA PM T1 LN 6	FOOT	4,094.000				
78008240	POLYUREA PM T1 LN 8	FOOT	4,079.000				
78008250	POLYUREA PM T1 LN 12	FOOT	1,333.000				

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Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
78008310	POLYUREA PM T2 LN 4	FOOT	13,932.000				
78008330	POLYUREA PM T2 LN 6	FOOT	1,742.000				
78100105	RAISED REF PVT MKR BR	EACH	86.000				
78200100	MONODIR PRIS BAR REFL	EACH	339.000				
78200200	BIDIR PRIS BAR REFL	EACH	222.000				
78300100	PAVT MARKING REMOVAL	SQ FT	7,000.000				

RECURRING SPECIAL PROVISIONS

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

<u>CHECK SHEET #</u>	<u>PAGE NO.</u>
1	65
2	67
3 X	68
4 X	78
5 X	83
6	88
7	89
8 X	90
9	91
10	94
11	97
12	99
13	103
14	105
15	106
16	108
17	109
18	111
19	112
20 X	113
21	117
22 X	119
23	121
24 X	123
25	124
26	125
27	126
28	127
29	128
30	129
31 X	137
32	149
33	150

Revised 10/28/2009

**TABLE OF CONTENTS**

LOCATION OF PROJECT ..... 1

DESCRIPTION OF PROJECT ..... 1

TRAFFIC CONTROL PLAN ..... 1

START DATE ..... 6

WORK ZONE PAVEMENT MARKING AND REMOVAL ..... 6

CRITICAL PATH SCHEDULE ..... 6

ENGINEER’S FIELD OFFICE TYPE A ..... 7

HOT-MIX ASPHALT SURFACE REMOVAL, 2” ..... 9

TEMPORARY MODULAR GLARE SCREEN ..... 9

BRIDGE WASHING ..... 10

PAVEMENT MARKING GROOVING ..... 10

IMPACT ATTENUATORS (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3, SPECIAL ..... 12

IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3, SPECIAL  
..... 12

TRAFFIC CONTROL AND PROTECTION, STANDARD 701451 ..... 12

INCENTIVE/DISINCENTIVE ..... 13

FALCON PROTECTION ..... 15

TEMPORARY CONCRETE BARRIER, STATE OWNED ..... 16

JACKING AND CRIBBING ..... 16

EMBANKMENT ..... 17

MECHANICAL TREATMENT OF STEEL WELDS ..... 17

TEMPORARY SUPPORT SYSTEM ..... 22

STRUCTURAL STEEL REMOVAL ..... 22

STRUCTURAL STEEL REPAIR ..... 23

EXPANSION JOINT (SPECIAL) ..... 24

CLEANING AND PAINTING CONTACT SURFACE AREAS OF EXISTING STEEL STRUCTURES ..... 24

CLEANING AND PAINTING NEW METAL STRUCTURES ..... 29

CLEANING AND PAINTING EXISTING STEEL STRUCTURES ..... 37

STRUCTURAL REPAIR OF CONCRETE ..... 56

MECHANICAL SPLICERS ..... 64

STRUCTURAL ASSESSMENT REPORTS FOR CONTRACTOR’S MEANS AND METHODS ..... 65

ALKALI-SILICA REACTION FOR CAST-IN-PLACE CONCRETE (BDE) ..... 68

APPROVAL OF PROPOSED BORROW AREAS, USE AREAS, AND/OR WASTE AREAS INSIDE  
ILLINOIS STATE BORDERS (BDE) ..... 70

Revised 10/28/2009



CEMENT (BDE) ..... 71

CONCRETE ADMIXTURES (BDE) ..... 74

CONCRETE MIX DESIGNS (BDE) ..... 78

CONSTRUCTION AIR QUALITY - DIESEL VEHICLE EMISSIONS CONTROL (BDE) ..... 79

CONSTRUCTION AIR QUALITY - IDLING RESTRICTIONS (BDE)..... 80

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION – NONFEDERAL-AID CONTRACTS  
(BDE)..... 81

EQUIPMENT RENTAL RATES (BDE)..... 89

IMPACT ATTENUATORS (BDE) ..... 90

IMPACT ATTENUATORS, TEMPORARY (BDE) ..... 92

LIQUIDATED DAMAGES (BDE)..... 94

METAL HARDWARE CAST INTO CONCRETE (BDE)..... 94

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM / EROSION AND SEDIMENT  
CONTROL DEFICIENCY DEDUCTION (BDE) ..... 94

NIGHTTIME WORK ZONE LIGHTING (BDE) ..... 96

NOTIFICATION OF REDUCED WIDTH (BDE) ..... 97

ORGANIC ZINC-RICH PAINT SYSTEM (BDE)..... 98

PAVEMENT MARKING REMOVAL (BDE) ..... 101

PAYMENTS TO SUBCONTRACTORS (BDE) ..... 102

PAYROLLS AND PAYROLL RECORDS (BDE) ..... 103

PERSONAL PROTECTIVE EQUIPMENT (BDE) ..... 104

POLYUREA PAVEMENT MARKING (BDE) ..... 104

PUBLIC CONVENIENCE AND SAFETY (BDE) ..... 112

RAISED REFLECTIVE PAVEMENT MARKERS (BDE)..... 112

RAMP CLOSURE FOR FREEWAY/EXPRESSWAY (BDE)..... 112

REFLECTIVE SHEETING ON CHANNELIZING DEVICES (BDE) ..... 113

REINFORCEMENT BARS (BDE) ..... 114

REINFORCEMENT BARS - STORAGE AND PROTECTION (BDE)..... 115

SILT FILTER FENCE (BDE) ..... 119

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE) ..... 120

TEMPORARY EROSION CONTROL (BDE) ..... 120

FUEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID) ..... 121

STEEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID) ..... 125

PROJECT LABOR AGREEMENT ..... 129

HOT-MIX ASPHALT – ANTI-STRIPPING ADDITIVE (BDE) ..... 143

Revised 10/28/2009

HOT-MIX ASPHALT - FIELD VOIDS IN THE MINERAL AGGREGATE (BDE) ..... 143  
HOT-MIX ASPHALT – PLANT TEST FREQUENCY (BDE) ..... 145  
HOT-MIX ASPHALT – TRANSPORTATION (BDE) ..... 146  
RECLAIMED ASPHALT PAVEMENT (RAP) (BDE) ..... 146  
SEEDING (BDE) ..... 153

Revised 10/28/2009

## STATE OF ILLINOIS

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### SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2007, 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 FAI Route 80 (I-80), Section (81-1B)M-4, Rock Island County, Contract 64F31, 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

I-80 bridge (SN 081-0011) over the Mississippi River.

#### DESCRIPTION OF PROJECT

Miscellaneous bridge repairs.

#### TRAFFIC CONTROL PLAN

Effective January 14, 1999

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.

Standards:

701101 **701106** 701400 701401 **701402** 701411  
701416 701426 701451 701901 704001

Details:

District Two Standard 25.4  
District Two Standard 40.4  
District Two Standard 87.4  
Staging Details

**No traffic control tapers or partial lane closures on the bridge over the Mississippi River will be allowed except those shown on the staging plans.**

Revised 10/28/2009

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.

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.

All regulatory signs shall be mounted at a 5' minimum bottom height (rural), 7' minimum bottom height (urban).

General:

**Twenty (20) changeable message signs (CMS) will be set up at the following locations:**

Two (2) changeable message sign (CMS) shall be placed on each of the cross roads of Illinois Route 84, U.S. Route 67, Middle Road, and U.S. Route 61. One (1) CMS shall be placed in Iowa on each of Interstates 74 and 280 in advance of ramps leading to eastbound I-80, one (1) CMS will be placed at each of the following **Illinois** locations; on westbound I-80 east of I-74, on westbound I-74 south of I-80, and on westbound I-80 south of I-88. These CMS's shall be placed in operation **two (2)** weeks in advance of any lane closures on Interstate 80 with the following message: MISSISSIPPI BRIDGE REPAIRS TO BEGIN      (DATE)     . After lane closures begin, the message boards shall advise I-80 travelers of work progress, travel restrictions, or travel times through the work zone, as directed by the Engineer.

Two (2) changeable message sign (CMS) shall be placed in advance of Interstate 280, to advise eastbound I-80 traffic of stage one lane closure and stage two lane restrictions along with giving directions to traffic in the use of Interstate 280. These signs shall be placed in operation one (1) week in advance of any lane closures on Interstate 80 and will be placed 1.10 miles and 2.20 miles west of the Interstate 280 eastbound ramp.

Two (2) changeable message sign (CMS) per each route will be placed on eastbound Interstate 74 and eastbound Interstate 280 directing traffic to follow the respective route for "XX" miles to Eastbound I-80. Message example is "FOLLOW EB I-280 22 MILES; 22 MILES TO EB I-80". These signs shall be placed in operation one (1) week in advance of any lane closures on Interstate 80.

Two (2) changeable message sign (CMS) shall be placed as directed by the Engineer, on Interstate 80 at locations determined by the Engineer for the purpose of providing travel advisories for eastbound traffic into Illinois one (1) week prior to any lane closures on Interstate 80.

**Stage three will have four (4) CMS signs, two (2) in each direction in advance of the project.**

Revised 10/28/2009

**This request shall be submitted between three and four weeks (21 to 28 days) prior to the anticipated lane restriction.**

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 701401.

Maintenance of Traffic: Traffic as shown in the plans shall be maintained using Traffic Control and Protection Standard **701401**, 701402 and 701416.

The Contractor shall be required to notify the Rock Island County Highway Department, the Village of Rapids City, the Illinois State Police (District 7), Rock Island County Sheriff Department, Iowa Department of Transportation, Iowa State Police, Scott County (Iowa) Sheriff Department, Scott County (Iowa) Highway Department, the Village of Le Claire, the corresponding Township Commissioner, emergency response agencies (i.e.: fire, ambulance, police), school bus companies and written notification to the Department of Transportation (Bureau of Project Implementation) regarding changes in lane closures, changes in traffic control and protection and any changes to the traffic control plans. This list of agencies to be contacted is not all inclusive and may be expanded or reduced as directed by the Engineer.

The roadway shall be kept open to traffic at all times, **as shown on staging plans.**

**The Contractor shall submit to the Department for approval, a Traffic Control Plan for any work planned prior to April 5, 2010 (Stage One) and April 4, 2011 (Stage Three). Costs of approved Traffic Control Plan(s) shall be bore solely by the Contractor.**

The Contractors schedule of work should promote driver safety within the work zone.

In addition to the Traffic Control in the Plans, the Contractor shall conduct his/her work activities to minimize driver delay and inconvenience.

If an unforeseen event closes a direction of travel for a period estimated to be greater than 15 minutes, the Contractor shall immediately contact:

- Emergency services for medical aid or fire/rescue as needed.
- Call Law enforcement agencies.
- Perform work as directed by Engineer to open lane(s) as quickly as possible without jeopardizing safety of the traveling public or job site workers.

Work Restrictions:

All ramps shall remain open to traffic as shown in the plans.

Ramps to and from the Scenic Overlook/Rest Area shall remain open at all times.

Placing and removing pavement marking shall be completed using Traffic Control and Protection Standard 701426.

**Prior to beginning Stage One and Stage Three, 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 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.***

Revised 10/28/2009

## **START DATE**

**The two lanes of two way traffic shall be maintained until 8:00A.M. on April 5, 2010. The stage one detour and road closure shall not begin until 8:00 A.M. on April 5, 2010.**

No work shall be started on this project until April 5, 2010 **except for FALCON PROTECTION that shall be in place prior to February 1, 2010.**

## **WORK ZONE PAVEMENT MARKING AND REMOVAL**

Effective: December 29, 2008

This work shall consist of installing and removing **existing and** 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 (172,000 kPa) with maximum flow rate of 15 gal/min (56 L/min). The nozzle shall be in close proximity to the pavement surface.

## **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:

Revised 10/28/2009

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.

#### **ENGINEER'S FIELD OFFICE TYPE A**

Effective: June 1, 2009

Revise Article 670.02 of the Standard Specifications to read:

**“670.02 Engineer's Field Office Type A.** Type A field offices shall have a minimum ceiling height of 7 ft (2 m) and a minimum floor space 450 sq ft (42 sq m). The office shall be provided with sufficient heat, natural and artificial light, and air conditioning.

The office shall have an electronic security system that will respond to any breach of exterior doors and windows. Doors and windows shall be equipped with locks. Doors shall also be equipped with dead bolt locks or other secondary locking device.

Windows shall be equipped with exterior screens to allow adequate ventilation. All windows shall be equipped with interior shades, curtains, or blinds. Adequate all-weather parking space shall be available to accommodate a minimum of ten vehicles.

Suitable on-site sanitary facilities meeting Federal, State, and local health department requirements shall be provided, maintained clean and in good working condition, and shall be stocked with lavatory and sanitary supplies at all times.

Sanitary facilities shall include hot and cold potable running water, lavatory and toilet as an integral part of the office where available. Solid waste disposal consisting of two waste baskets and an outside trash container of sufficient size to accommodate a weekly provided pick-up service.

Revised 10/28/2009

Basis of Payment. This work will be paid for at the contract unit price per foot (meter) for PAVEMENT MARKING GROOVING of the groove width specified, and per square foot (square meter) PAVEMENT MARKING GROOVING, LETTERS, NUMBERS AND SYMBOLS, of the type specified.

**IMPACT ATTENUATORS (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3, SPECIAL**

This work shall consist of transporting, furnishing transition section and installing at the location(s) shown on the plans. This work shall be performed according to the BDE Special Provision for IMPACT ATTENUATORS and as noted herein.

The Contractor shall pick up the new impact attenuator from IDOT Quad Cities maintenance facility.

A QuadGuard Elite impact attenuator manufactured by Energy Absorption Systems, Inc. shall be installed. The manufacturer's model number for this attenuator is QS3614E.

The Contractor shall be responsible for obtaining a transition section for connecting the attenuator to the Departments 42 inch high concrete median barrier wall (Highway Standard 637006-02).

This work shall be paid for at the contract unit price per Each for IMPACT ATTENUATORS (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3, SPECIAL.

**IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3, SPECIAL**

Effective: September 9, 2009

This work shall consist of furnishing and installing a temporary impact attenuator during stage two (2), at the location shown in the plans. This work shall be performed according to the BDE Special Provision for IMPACT ATTENUATORS and as noted herein.

Only the REACT 350 Self-Restoring impact attenuator with self-contained backup manufactured by Energy Absorption Systems, Inc. shall only be allowed for this application.

The attenuator shall be anchored into only the paved median.

This work shall be paid for at the contract unit price per Each for IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3, SPECIAL.

**TRAFFIC CONTROL AND PROTECTION, STANDARD 701451**

Effective: September 14, 2009

This work shall consist of furnishing, installation, maintenance, relocation, and removal of work zone traffic control and protection at locations shown in the plans in accordance with Section 701 of the Standard Specifications for Road and Bridge Construction and as noted herein.

Revised 10/28/2009



The Department shall not be required to provide any actual loss to recover these liquidated damages provided herein; as these damages are very difficult to ascertain. Furthermore, no provision of this clause shall be construed as a penalty, as such is not the intention of the parties.

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

Incentive Payment Plan: The nature of this project is such that the use of this roadway cannot be safely and efficiently used until all roadway work is essentially complete. On this basis, the Contractor shall be entitled to an Incentive Payment for the completion of Stage 2 including clean up and opening all lanes to traffic, except as provided for Stage 3 and permanent pavement marking installation operations, as set forth by the date of completion.

The Incentive Payment shall be paid at the rate of \$13,000 per calendar day for each day of completion prior to November 1, 2010. The maximum payment under this incentive plan will be limited to 30 calendar days.

A calendar day is every day on the calendar and starts at 12:00 midnight and ends at the following 12:00 midnight, twenty-four hours later. No payment will be paid for any day less than twenty-four hours.

Should the Contractor be delayed in the commencement, prosecution, or completion of the work for any reason, there shall be no extension of the incentive payment calculation date even though there may be granted an extension of time for completion of the work unless significant extra work is added to the contract by the Department. No Incentive Payment will be made if the Contractor fails to complete the work before the specified date of completion or within such extended time allowed by the Department. Failure of the Contractor to complete all work as required by the contract before November 1, 2010 shall release and discharge the State, the Department and all of its officers, agents, and employees from any and all claims and demands for the payment of any incentive amount or damages arising from the refusal to pay any incentive amount.

If the contract is part of a combination award, no Incentive Payment shall commence on this contract which is part of the combination until all work on contracts which are part of the combination award has been completed.

## **FALCON PROTECTION**

**This work shall consist of furnishing, installing, maintaining, and removing Falcon Protection on all piers of the I-80 Bridge (SN 081-0011). Peregrine Falcons are known to nest on the piers of the I-80 Bridge: therefore, Falcon Protection shall be installed around every pier of the bridge to prevent them from nesting during this project.**

**Falcon Protection shall consist of Heavy Delta Knotless Netting, ½ inch square mesh netting, UV stabilized polypropylene or equivalent, minimum breaking strength of 250 pounds per foot by tensile strength test method ASTM D 4595, and have a NON translucent color and will be installed prior to February 1 of the construction year so as to prevent the falcons from landing or nesting on the piers. The Falcon Protection shall extend from the bottom of the cantilever floorbeam to below the top of each pier.**

**It is the Contractor's responsibility to ensure that all piers are enclosed so as to prevent the Falcons from nesting on them. It is the Contractor's responsibility to ensure that all piers are enclosed so as to prevent the Falcons from nesting on them. If the Falcons are able to nest on any pier, they cannot be disturbed, harmed, or harassed without an Incidental Take Authorization which takes a minimum of 6 months to acquire.**

Revised 10/28/2009

All bridge construction work within 100 feet of the nest shall be stopped during this time period. Any delay this creates shall not release the Contractor from any completion day or working day requirements.

Use of navigation fixtures (lights, conduits, etc.) shall not be used to secure the Falcon Protection in place. The Falcon Protection shall not be installed in a manner that obscures, blocks, covers, or otherwise prohibits riverboat traffic from viewing the navigation lighting on the structure. All Coast Guard fines and penalties deriving from obscured navigation lighting shall be solely the Contractors responsibility and no additional compensation from the State shall be allowed.

The Falcon Protection shall remain in place until all work under the bridge deck including BRIDGE WASHING is completed.

If Falcons are observed nesting on the bridge, the Engineer shall immediately be notified and all work within 100 feet of the nest shall be halted, until the Engineer determines a course of action.

This work will be measured as each, where each is defined as a pier location.

This work will be paid for at the contract unit price per Each for FALCON PROTECTION.

### **TEMPORARY CONCRETE BARRIER, STATE OWNED**

Effective: September 9, 2009

This work shall consist of relocating existing temporary concrete barrier and project designed 'Sliding Barrier System' from within the project limits and transporting these sections to the designated locations in accordance with Section 704 of the Standard Specifications for Road and Bridge Construction.

The location and number of sections (assumed to be 12'-6" per section) to be relocated are;

1. Silvis Illinois DOT Maintenance Yard on Old Route 2 – 40 (500') sections & 1 sliding system, estimated one-way distance from project is 5 miles.
2. Milan Illinois DOT Maintenance Yard on Airport Road in Milan – 119 (1487.5') sections & 1 sliding system, estimated one-way distance from project is 21 miles.
3. **Geneseo, Illinois DOT Maintenance Yard on Illinois Route 81 – 48 (600') sections, estimated one-way distance from project is 22 miles.**

The sliding barrier system, shall be treated and relocated as existing State owned temporary concrete barrier. Each sliding barrier system shall be marked for identification as a matched set. A sliding barrier system shall consist of two individual concrete barrier wall sections with steel plating attached to the barrier wall. Each wall section shall be measured separately for payment.

This work shall be paid for at the contract unit price per foot for REMOVE TEMPORARY CONCRETE BARRIER, STATE OWNED.

### **JACKING AND CRIBBING**

Effective: October 1, 2009

Description: This item shall consist of furnishing all material, equipment and labor to support the stringer and concrete deck during replacement of the bronze plate as part of Structural Steel Repair A as shown on the plans, as herein specified, and as directed by the Engineer.

Construction Requirements: The Contractor shall submit details, calculations, and additional information as-required, prepared and sealed by an Illinois Licensed Structural Engineer, for the jacking and cribbing he/she proposes to use for approval by the Engineer prior to ordering of material and implementation. Such approval shall in no way relieve the Contractor of responsibility for the safety of the structure.

Revised 10/28/2009

**“107.22 Approval of Proposed Borrow Areas, Use Areas, and/or Waste Areas Inside Illinois State Borders.”**

Add the following sentence to the end of the first paragraph of Article 107.22 of the Standard Specifications:

“Proposed borrow areas, use areas, and/or waste areas outside of Illinois shall comply with Article 107.01.”

**CEMENT (BDE)**

Effective: January 1, 2007

Revised: April 1, 2009

Revise Section 1001 of the Standard Specifications to read:

**“SECTION 1001. CEMENT**

**1001.01 Cement Types.** Cement shall be according to the following.

- (a) Portland Cement. Acceptance of portland cement shall be according to the current Bureau of Materials and Physical Research’s Policy Memorandum, “Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants”.

Portland cement shall be according to ASTM C 150, and shall meet the standard physical and chemical requirements. Type I or Type II may be used for cast-in-place, precast, and precast prestressed concrete. Type III may be used according to Article 1020.04, or when approved by the Engineer. All other cements referenced in ASTM C 150 may be used when approved by the Engineer.

The total of all organic processing additions shall be a maximum of 1.0 percent by weight (mass) of the cement. The total of all inorganic processing additions shall be a maximum of 4.0 percent by weight (mass) of the cement. However, a cement kiln dust inorganic processing addition shall be limited to a maximum of 1.0 percent. Organic processing additions shall be limited to grinding aids that improve the flowability of cement, reduce pack set, and improve grinding efficiency.

Revised 10/28/2009

**1021.02 Air-Entraining Admixtures.** Air-entraining admixtures shall be according to AASHTO M 154.

**1021.03 Retarding and Water-Reducing Admixtures.** The admixture shall be according to the following.

- (a) The retarding admixture shall be according to AASHTO M 194, Type B (retarding) or Type D (water-reducing and retarding).
- (b) The water-reducing admixture shall be according to AASHTO M 194, Type A.
- (c) The high range water-reducing admixture shall be according to AASHTO M 194, Type F (high range water-reducing) or Type G (high range water-reducing and retarding).

**1021.04 Accelerating Admixtures.** The admixture shall be according to AASHTO M 194, Type C (accelerating) or Type E (water reducing and accelerating).

**1021.05 Self-Consolidating Admixtures.** The self-consolidating admixture system shall consist of either a high range water-reducing admixture only or a high range water-reducing admixture combined with a separate viscosity modifying admixture. The one or two component admixture system shall be capable of producing a concrete mixture that can flow around reinforcement and consolidate under its own weight without additional effort and without segregation.

The high range water-reducing admixture shall be according to AASHTO M 194, Type F.

The viscosity modifying admixture shall be according to ASTM C 494, Type S (specific performance).

**1021.06 Rheology-Controlling Admixture.** The rheology-controlling admixture shall be capable of producing a concrete mixture with a lower yield stress that will consolidate easier for slipform applications used by the Contractor. The rheology-controlling admixture shall be according to ASTM C 494, Type S (specific performance).

**1021.07 Corrosion Inhibitor.** The corrosion inhibitor shall be according to one of the following.

- (a) Calcium Nitrite. The corrosion inhibitor shall contain a minimum 30 percent calcium nitrite by weight (mass) of solution, and shall comply with the requirements of AASHTO M 194, Type C (accelerating).
- (b) Other Materials. The corrosion inhibitor shall be according to ASTM C 1582.”

Revised 10/28/2009

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Revised 10/28/2009

## **CONCRETE MIX DESIGNS (BDE)**

Effective: April 1, 2009

Add the following to Article 1020.05(c) of the Standard Specifications:

- “(5) Performance Based Finely Divided Mineral Combination. For Class PV and SI concrete a performance based finely divided mineral combination may be used. The minimum cement factor, maximum cement factor, and water cement ratio of Article 1020.04 shall be replaced with the values below, and the performance based finely divided mineral combination herein is an alternative to Articles 1020.05(c)(1), (c)(2), (c)(3), and (c)(4). The mix design shall meet the following requirements and the Engineer may request a trial batch.
- a. The mixture shall contain a minimum of 375 lbs/cu yd (222 kg/cu m) of portland cement. For a blended cement, a sufficient amount shall be used to obtain the required 375 lbs/cu yd (222 kg/cu m) of portland cement in the mixture. For example, a blended cement stated to have 20 percent finely divided mineral, ignoring any ASTM C 595 tolerance on the 20 percent, would require a minimum of 469 lbs/cu yd (278 kg/cu m) of material in the mixture. When the mixture is designed for cement content from 375 lbs/cu yd (222 kg/cu m) to 400 lbs/cu yd (237 kg/cu m), the total of organic processing additions, inorganic processing additions, and limestone addition in the cement shall not exceed 5.0 percent.
  - b. The mixture shall contain a maximum of two finely divided minerals. The finely divided mineral in a blended cement shall count toward the total number of finely divided minerals allowed. The finely divided mineral(s) shall constitute a maximum of 35.0 percent of the total cement plus finely divided mineral(s). The fly ash portion shall not exceed 30.0 percent for Class C fly ash or 25.0 percent for Class F fly ash. The Class C and F fly ash combination shall not exceed 30.0 percent. The ground granulated blast-furnace slag portion shall not exceed 35.0 percent. The microsilica or high-reactivity metakaolin portion used together or separately shall not exceed 5.0 percent. The finely divided mineral in the blended cement shall apply to the maximum 35.0 percent, and shall be determined as discussed in a. above for determining portland cement in blended cement.
  - c. For central mixed Class PV and SI concrete, the mixture shall contain a minimum of 535 lbs/cu yd (320 kg/cu m) of cement and finely divided mineral(s) summed together, and a water-reducing admixture shall be used.

Revised 10/28/2009

- (e) Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department.

### **EQUIPMENT RENTAL RATES (BDE)**

Effective: August 2, 2007

Revised: January 2, 2008

Replace the second and third paragraphs of Article 105.07(b)(4)a. of the Standard Specifications with the following:

"Equipment idled which cannot be used on other work, and which is authorized to standby on the project site by the Engineer, will be paid for according to Article 109.04(b)(4)."

Replace Article 109.04(b)(4) of the Standard Specifications with the following:

- "(4) Equipment. Equipment used for extra work shall be authorized by the Engineer. The equipment shall be specifically described, be of suitable size and capacity for the work to be performed, and be in good operating condition. For such equipment, the Contractor will be paid as follows.
- a. Contractor Owned Equipment. Contractor owned equipment will be paid for by the hour using the applicable FHWA hourly rate from the "Equipment Watch Rental Rate Blue Book" (Blue Book) in effect when the force account work begins. The FHWA hourly rate is calculated as follows.

$$\text{FHWA hourly rate} = (\text{monthly rate}/176) \times (\text{model year adj.}) \times (\text{Illinois adj.}) + \text{EOC}$$

Where: EOC = Estimated Operating Costs per hour (from the Blue Book)

Revised 10/28/2009

The time allowed will be the actual time the equipment is operating on the extra work. For the time required to move the equipment to and from the site of the extra work and any authorized idle (standby) time, payment will be made at the following hourly rate: 0.5 x (FHWA hourly rate - EOC).

All time allowed shall fall within the working hours authorized for the extra work.

The rates above include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs, overhaul and maintenance of any kind, depreciation, storage, overhead, profits, insurance, and all incidentals. The rates do not include labor.

The Contractor shall submit to the Engineer sufficient information for each piece of equipment and its attachments to enable the Engineer to determine the proper equipment category. If a rate is not established in the Blue Book for a particular piece of equipment, the Engineer will establish a rate for that piece of equipment that is consistent with its cost and use in the industry.

- b. Rented Equipment. Whenever it is necessary for the Contractor to rent equipment to perform extra work, the rental and transportation costs of the equipment plus five percent for overhead will be paid. In no case shall the rental rates exceed those of established distributors or equipment rental agencies.

All prices shall be agreed to in writing before the equipment is used.”

**IMPACT ATTENUATORS (BDE)**

Effective: November 1, 2003

Revised: November 1, 2008

Description. This work shall consist of furnishing and installing impact attenuators of the category and test level specified.

Revised 10/28/2009



Inspection. The polyurea pavement markings will be inspected following installation according to Article 780.10 of the Standard Specifications, except, no later than December 15, and inspected following a winter performance period that extends 180 days from December 15.

Method of Measurement. This work will be measured for payment as follows:

- (a) Contract Quantities. The requirements for the use of contract quantities shall be according to Article 202.07(a).
- (b) Measured Quantities. Lines will be measured for payment in place in feet (meters). Double yellow lines will be measured as two separate lines.

Basis of Payment. This work will be paid for at the contract unit price per foot (meter) for POLYUREA PAVEMENT MARKING TYPE I – LINE of the line width specified or for POLYUREA PAVEMENT MARKING TYPE II – LINE of the line width specified.

Revised 10/28/2009

**PUBLIC CONVENIENCE AND SAFETY (BDE)**

Effective: January 1, 2000

Add the following paragraph after the fourth paragraph of Article 107.09 of the Standard Specifications.

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

**RAISED REFLECTIVE PAVEMENT MARKERS (BDE)**

Effective: November 1, 2009

Revise the first sentence of the second paragraph of Article 781.03 of the Standard Specifications to read:

“The pavement shall be cut to match the bottom contour of the marker using a concrete saw fitted with 18 and 20 in. (450 and 500 mm) diameter blades.”

**RAMP CLOSURE FOR FREEWAY/EXPRESSWAY (BDE)**

Effective: January 1, 2009

Description. This work shall consist of furnishing and installing traffic control for the closure of ramps on a freeway/expressway.

Revised 10/28/2009

- (2) Epoxy Coated Reinforcement Bars. Epoxy coated reinforcement bars shall be according to Article 1006.10(a)(1) and shall be epoxy coated according to AASHTO M 284 (M 284M) and the following.
- a. Certification. The epoxy coating applicator shall be certified according to the current Bureau of Materials and Physical Research Policy Memorandum, "Epoxy Coating Plant Certification Procedure". The Department will maintain an approved list.
  - b. Coating Thickness. When spiral reinforcement is coated after fabrication, the thickness of the epoxy coating shall be 7 to 20 mils (0.18 to 0.50 mm).
  - c. Cutting Reinforcement. Reinforcement bars may be sheared or sawn to length after coating, providing the end damage to the coating does not extend more than 0.5 in. (13 mm) back and the cut is patched before any visible rusting appears. Flame cutting will not be permitted."

### **REINFORCEMENT BARS - STORAGE AND PROTECTION (BDE)**

Effective: August 1, 2008

Revised: April 1, 2009

Revise Article 508.03 of the Standard Specifications to read:

**“508.03 Storage and Protection.** Reinforcement bars shall be stored off the ground using platforms, skids, or other supports; and shall be protected from mechanical injury and from deterioration by exposure. Epoxy coated bars shall be stored on wooden or padded steel cribbing and all systems for handling shall have padded contact areas. The bars or bundles shall not be dragged or dropped.

When epoxy coated bars are stored in a manner where they will be exposed to the weather more than 60 days prior to use, they shall be protected from deterioration such as that caused by sunlight, salt spray, and weather exposure. The protection shall consist of covering with opaque polyethylene sheeting or other suitable opaque material. The covering shall be secured and allow for air circulation around the bars to minimize condensation under the cover.

Covering of the epoxy coated bars will not be required when the bars are installed and tied, or when they are partially incorporated into the concrete.”

Revised 10/28/2009

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Revised 10/28/2009

**SILT FILTER FENCE (BDE)**

Effective: January 1, 2008

For silt filter fence fabric only, revise Article 1080.02 of the Standard Specifications to read:

Revised 10/28/2009

**HOT-MIX ASPHALT – ANTI-STRIPPING ADDITIVE (BDE)**

Effective: November 1, 2009

Revise the first and second paragraphs of Article 1030.04(c) of the Standard Specifications to read:

“(c) Determination of Need for Anti-Stripping Additive. The mixture designer shall determine if an additive is needed in the mix to prevent stripping. The determination will be made on the basis of tests performed according to Illinois Modified AASHTO T 283. To be considered acceptable by the Department as a mixture not susceptible to stripping, the conditioned to unconditioned split tensile strength ratio (TSR) shall be equal to or greater than 0.85 for 6 in. (150 mm) specimens. Mixtures, either with or without an additive, with TSRs less than 0.85 for 6 in. (150 mm) specimens will be considered unacceptable. Also, the conditioned tensile strength for mixtures containing an anti-strip additive shall not be lower than the original conditioned tensile strength determined for the same mixture without the anti-strip additive.

If it is determined that an additive is required, the additive may be hydrated lime, slaked quicklime, or a liquid additive, at the Contractor's option.”

**HOT-MIX ASPHALT - FIELD VOIDS IN THE MINERAL AGGREGATE (BDE)**

Effective: April 1, 2007

Revised: April 1, 2008

Add the following to the table in Article 1030.05(d)(2)a. of the Standard Specifications:

“Parameter	Frequency of Tests	Frequency of Tests	Test Method See Manual of Test Procedures for Materials
	High ESAL Mixture Low ESAL Mixture	All Other Mixtures	
VMA	Day’s production ≥ 1200 tons:  1 per half day of production	N/A	Illinois-Modified AASHTO R 35
Note 5.	Day’s production < 1200 tons:  1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)		

Note 5. The  $G_{sb}$  used in the voids in the mineral aggregate (VMA) calculation shall be the same average  $G_{sb}$  value listed in the mix design.”

Add the following to the Control Limits table in Article 1030.05(d)(4) of the Standard Specifications:

Added 10/28/2009



"CONTROL LIMITS			
Parameter	High ESAL Low ESAL	High ESAL Low ESAL	All Other
	Individual Test	Moving Avg. of 4	Individual Test
VMA	-0.7 % <sup>2/</sup>	-0.5 % <sup>2/</sup>	N/A

2/ Allowable limit below minimum design VMA requirement"

Add the following to the table in Article 1030.05(d)(5) of the Standard Specifications:

"CONTROL CHART REQUIREMENTS	High ESAL Low ESAL	All Other
	VMA"	

Revise the heading of Article 1030.05(d)(6)a.1. of the Standard Specifications to read:

"1. Voids, VMA, and Asphalt Binder Content."

Revise the first sentence of the first paragraph of Article 1030.05(d)(6)a.1.(a.) of the Standard Specifications to read:

"If the retest for voids, VMA, or asphalt binder content exceeds control limits, HMA production shall cease and immediate corrective action shall be instituted by the Contractor."

Revise the table in Article 1030.05(e) of the Standard Specifications to read:

"Test Parameter	Acceptable Limits of Precision
% Passing: <sup>1/</sup>	
1/2 in. (12.5 mm)	5.0 %
No. 4 (4.75 mm)	5.0 %
No. 8 (2.36 mm)	3.0 %
No. 30 (600 μm)	2.0 %
Total Dust Content No. 200 (75 μm) <sup>1/</sup>	2.2 %
Asphalt Binder Content	0.3 %
Maximum Specific Gravity of Mixture	0.026
Bulk Specific Gravity	0.030
VMA	1.4 %
Density (% Compaction)	1.0 % (Correlated)

1/ Based on washed ignition."

Added 10/28/2009

**HOT-MIX ASPHALT – PLANT TEST FREQUENCY (BDE)**

Effective: April 1, 2008

Revise the table in Article 1030.05(d)(2)a. of the Standard Specifications to read:

"Parameter	Frequency of Tests		Test Method See Manual of Test Procedures for Materials
	High ESAL Mixture Low ESAL Mixture	All Other Mixtures	
Aggregate Gradation  Hot bins for batch and continuous plants.  Individual cold-feed or combined belt-feed for drier drum plants.  % passing sieves: 1/2 in. (12.5 mm), No. 4 (4.75 mm), No. 8 (2.36 mm), No. 30 (600 μm) No. 200 (75 μm)  Note 1.	1 dry gradation per day of production (either morning or afternoon sample).  and  1 washed ignition oven test on the mix per day of production (conduct in the afternoon if dry gradation is conducted in the morning or vice versa).  Note 3.  Note 4.	1 gradation per day of production.  The first day of production shall be a washed ignition oven test on the mix. Thereafter, the testing shall alternate between dry gradation and washed ignition oven test on the mix.  Note 4.	Illinois Procedure
Asphalt Binder Content by Ignition Oven  Note 2.	1 per half day of production	1 per day	Illinois-Modified AASHTO T 308
Air Voids  Bulk Specific Gravity of Gyrotory Sample	Day's production ≥ 1200 tons:  1 per half day of production  Day's production < 1200 tons:  1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	1 per day	Illinois-Modified AASHTO T 312
Maximum Specific Gravity of Mixture	Day's production ≥ 1200 tons:  1 per half day of production  Day's production < 1200 tons:  1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	1 per day	Illinois-Modified AASHTO T 209"

Added 10/28/2009

## **HOT-MIX ASPHALT – TRANSPORTATION (BDE)**

Effective: April 1, 2008

Revise Article 1030.08 of the Standard Specifications to read:

**“1030.08 Transportation.** Vehicles used in transporting HMA shall have clean and tight beds. The beds shall be sprayed with asphalt release agents from the Department’s approved list. In lieu of a release agent, the Contractor may use a light spray of water with a light scatter of manufactured sand (FA 20 or FA 21) evenly distributed over the bed of the vehicle. After spraying, the bed of the vehicle shall be in a completely raised position and it shall remain in this position until all excess asphalt release agent or water has been drained.

When the air temperature is below 60 °F (15 °C), the bed, including the end, endgate, sides and bottom shall be insulated with fiberboard, plywood or other approved insulating material and shall have a thickness of not less than 3/4 in (20 mm). When the insulation is placed inside the bed, the insulation shall be covered with sheet steel approved by the Engineer. Each vehicle shall be equipped with a cover of canvas or other suitable material meeting the approval of the Engineer which shall be used if any one of the following conditions is present.

- (a) Ambient air temperature is below 60 °F (15 °C).
- (b) The weather is inclement.
- (c) The temperature of the HMA immediately behind the paver screed is below 250 °F (120 °C).

The cover shall extend down over the sides and ends of the bed for a distance of approximately 12 in. (300 mm) and shall be fastened securely. The covering shall be rolled back before the load is dumped into the finishing machine.”

## **RECLAIMED ASPHALT PAVEMENT (RAP) (BDE)**

Effective: January 1, 2007

Revised: April 1, 2009

In Article 1030.02(g), delete the last sentence of the first paragraph in (Note 2).

Revise Section 1031 of the Standard Specifications to read:

### **“SECTION 1031. RECLAIMED ASPHALT PAVEMENT**

**1031.01 Description.** Reclaimed asphalt pavement (RAP) is reclaimed asphalt pavement resulting from cold milling or crushing of an existing dense graded hot-mix asphalt (HMA) pavement. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction.

**1031.02 Stockpiles.** The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. No additional RAP shall be added to the pile after the pile has been sealed. Stockpiles shall be sufficiently separated to prevent intermingling at the base. Stockpiles shall be identified by signs indicating the type as listed below (i.e. “Homogeneous Surface”).

Added 10/28/2009

Prior to milling, the Contractor shall request the District to provide verification of the quality of the RAP to clarify appropriate stockpile.

- (a) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures and represent: 1) the same aggregate quality, but shall be at least C quality; 2) the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag); 3) similar gradation; and 4) similar asphalt binder content. If approved by the Engineer, combined single pass surface/binder millings may be considered "homogenous" with a quality rating dictated by the lowest coarse aggregate quality present in the mixture.
- (b) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen. Conglomerate RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.
- (c) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from Class I, Superpave (High or Low ESAL), HMA (High or Low ESAL), or equivalent mixtures. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an inconsistent gradation and/or asphalt binder content. Conglomerate DQ RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.
- (d) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, joint sealants, etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.

**1031.03 Testing.** When used in HMA, the RAP shall be sampled and tested either during or after stockpiling.

For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).

For testing after stockpiling, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

Added 10/28/2009

Before extraction, each field sample shall be split to obtain two samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedure. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

Evaluation of Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation and, when applicable  $G_{mm}$ . Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	Homogeneous / Conglomerate	Conglomerate "D" Quality
1 in. (25 mm)		± 5 %
1/2 in. (12.5 mm)	± 8 %	± 15 %
No. 4 (4.75 mm)	± 6 %	± 13 %
No. 8 (2.36 mm)	± 5 %	
No. 16 (1.18 mm)		± 15 %
No. 30 (600 μm)	± 5 %	
No. 200 (75 μm)	± 2.0 %	± 4.0 %
Asphalt Binder	± 0.4 % <sup>1/</sup>	± 0.5 %

1/ The tolerance for fractionated reclaimed asphalt pavement (FRAP) shall be ± 0.3 %.

If more than 20 percent of the individual sieves are out of the gradation tolerances, or if more than 20 percent of the asphalt binder content test results fall outside the appropriate tolerances, the RAP shall not be used in HMA unless the RAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the Illinois Test Procedure, "Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)".

**1031.04 Quality Designation of Aggregate in RAP.** The quality of the RAP shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.

- (a) RAP from Class I, Superpave (High ESAL), or HMA (High ESAL) surface mixtures are designated as containing Class B quality coarse aggregate.
- (b) RAP from Superpave (Low ESAL)/HMA (Low ESAL) IL-19.0L binder and IL-9.5L surface mixtures are designated as Class D quality coarse aggregate.
- (c) RAP from Class I, Superpave (High ESAL), or HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.

Added 10/28/2009

- (d) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.

**1031.05 Use of RAP in HMA.** The use of RAP shall be a Contractor's option when constructing HMA in all contracts. The use of RAP in HMA shall be as follows.

- (a) Coarse Aggregate Size. The coarse aggregate in all RAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.
- (b) Steel Slag Stockpiles. RAP stockpiles containing steel slag or other expansive material, as determined by the Department, shall be homogeneous and will be approved for use in HMA (High ESAL and Low ESAL) surface mixtures only.
- (c) Use in HMA Surface Mixtures (High and Low ESAL). RAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be homogeneous in which the coarse aggregate is Class B quality or better.
- (d) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be homogeneous, or conglomerate, in which the coarse aggregate is Class C quality or better.
- (e) Use in Shoulders and Subbase. RAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be homogeneous, conglomerate, or conglomerate DQ.
- (f) When the Contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in the table below for a given N Design.

Max RAP Percentage			
HMA Mixtures <sup>1/, 3/</sup>	Maximum % RAP		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified
30	30	30	10
50	25	15	10
70	15 / 25 <sup>2/</sup>	10 / 15 <sup>2/</sup>	10
90	10	10	10
105	10	10	10

1/ For HMA shoulder and stabilized subbase (HMA) N-30, the amount of RAP shall not exceed 50% of the mixture.

2/ Value of Max % RAP if homogeneous RAP stockpile of IL-9.5 RAP is utilized.

3/ When RAP exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

Added 10/28/2009

If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275°F (135 °C) the grades shall be reduced as follows:

Overlays:

When WMA contains between 20 and 30 percent RAP the high temperature shall be reduced by one grade (i.e. 25 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-22). When WMA contains 30 percent or more RAP the high and low temperature grades shall each be reduced by one grade (i.e. 35 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

Full Depth:

When WMA contains between 20 and 30 percent RAP, the low temperature shall be reduced by one grade (i.e. 25 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG64-28). When the WMA contains 30 percent or more RAP the high and low temperature grades shall each be reduced by one grade (i.e. 35 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

- (g) When the Contractor chooses the FRAP option, the percentage of FRAP shall not exceed the amounts indicated in the table below for a given N Design.

Max FRAP Percentage<sup>1/</sup>

HMA Mixtures <sup>2/, 3/</sup>	Maximum % FRAP		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified
30	35	35	10
50	30	25	10
70	25	20	10
90	20	15	10
105	10	10	10

- 1/ Minimum of two fractions for surface and binder applications.
- 2/ For HMA shoulder and stabilized subbase (HMA) N30, the amount of RAP shall not exceed 50 percent of the mixture.
- 3/ When FRAP exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent RAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275°F (135 °C) the grades shall be reduced as follows:

Overlays:

When WMA contains between 20 and 30 percent FRAP the high temperature shall be reduced by one grade (i.e. 25 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-22).

Added 10/28/2009

When WMA contains 30 percent or more FRAP the high and low temperature grades shall each be reduced by one grade (i.e. 35 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

Full Depth:

When WMA contains between 20 and 30 percent FRAP, the low temperature shall be reduced by one grade (i.e. 25 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG64-28). When the WMA contains 30 percent or more FRAP the high and low temperature grades shall each be reduced by one grade (i.e. 35 percent FRAP would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

**1031.06 HMA Mix Designs.** At the Contractor's option, HMA mixtures may be constructed utilizing RAP material meeting the above detailed requirements.

RAP designs shall be submitted for volumetric verification. If additional RAP stockpiles are tested and found that no more than 20 percent of the results, as defined under "Testing" herein, are outside of the control tolerances set for the original RAP stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP stockpiles may be used in the original mix design at the percent previously verified.

**1031.07 HMA Production.** The coarse aggregate in all RAP used shall be equal to or less than the nominal maximum size requirement for the HMA mixture being produced.

To remove or reduce agglomerated material, a scalping screen, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAP feed system to remove or reduce oversized material. If material passing the sizing device adversely affects the mix production or quality of the mix, the sizing device shall be set at a size specified by the Engineer.

If the RAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP and either switch to the virgin aggregate design or submit a new RAP design.

HMA plants utilizing RAP shall be capable of automatically recording and printing the following information.

(a) Dryer Drum Plants.

- (1) Date, month, year, and time to the nearest minute for each print.
- (2) HMA mix number assigned by the Department.
- (3) Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

Added 10/28/2009



- (4) Accumulated dry weight of RAP in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
- (5) Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.
- (6) Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.
- (7) Residual asphalt binder in the RAP material as a percent of the total mix to the nearest 0.1 percent.
- (8) Aggregate and RAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAP are printed in wet condition.)

(b) Batch Plants.

- (1) Date, month, year, and time to the nearest minute for each print.
- (2) HMA mix number assigned by the Department.
- (3) Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).
- (4) Mineral filler weight to the nearest pound (kilogram).
- (5) RAP weight to the nearest pound (kilogram).
- (6) Virgin asphalt binder weight to the nearest pound (kilogram).
- (7) Residual asphalt binder in the RAP material as a percent of the total mix to the nearest 0.1 percent.

The printouts shall be maintained in a file at the plant for a minimum of one year or as directed by the Engineer and shall be made available upon request. The printing system will be inspected by the Engineer prior to production and verified at the beginning of each construction season thereafter.

**1031.08 RAP in Aggregate Surface Course and Aggregate Shoulders.** The use of RAP in aggregate surface course and aggregate shoulders shall be as follows.

- (a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Other". The testing requirements of Article 1031.03 shall not apply.
- (b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5 mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded or single sized will not be accepted."

Added 10/28/2009

**SEEDING (BDE)**

Effective: July 1, 2004

Revised: July 1, 2009

Revise the following seeding mixtures shown in Table 1 of Article 250.07 of the Standard Specifications to read:

"Table 1 - SEEDING MIXTURES		
Class – Type	Seeds	lb/acre (kg/hectare)
1A Salt Tolerant Lawn Mixture 7/	Bluegrass Perennial Ryegrass Red Fescue (Audubon, Sea Link, or Epic) Hard Fescue (Rescue 911, Spartan II, or Reliant IV) Fults Salt Grass 1/ or Salty Alkaligrass	60 (70) 20 (20) 20 (20)  20 (20)  60 (70)
2 Roadside Mixture 7/	Tall Fescue (Inferno, Tarheel II, Quest, Blade Runner, or Falcon IV) Perennial Ryegrass Creeping Red Fescue Red Top	100 (110)  50 (55) 40 (50) 10 (10)
2A Salt Tolerant Roadside Mixture 7/	Tall Fescue (Inferno, Tarheel II, Quest, Blade Runner, or Falcon IV) Perennial Ryegrass Red Fescue (Audubon, Sea Link, or Epic) Hard Fescue (Rescue 911, Spartan II, or Reliant IV) Fults Salt Grass 1/ or Salty Alkaligrass	60 (70)  20 (20) 30 (20)  30 (20)  60 (70)
3 Northern Illinois Slope Mixture 7/	Elymus Canadensis (Canada Wild Rye) Perennial Ryegrass Alsike Cover 2/ Desmanthus Illinoensis (Illinois Bundleflower) 2/, 5/ Andropogon Scoparius (Little Bluestem) 5/ Bouteloua Curtipendula (Side-Oats Grama) Fults Salt Grass 1/ or Salty Alkaligrass Oats, Spring Slender Wheat Grass 5/ Buffalo Grass (Cody or Bowie) 4/, 5/, 9/	5 (5)  20 (20) 5 (5) 2 (2)  12 (12)  10 (10)  30 (35) 50 (55) 15 (15) 5 (5)
6A Salt Tolerant Conservation Mixture	Andropogon Scoparius (Little Bluestem) 5/ Elymus Canadensis (Canada Wild Rye) 5/ Buffalo Grass (Cody or Bowie) 4/, 5/, 9/ Vernal Alfalfa 2/ Oats, Spring Fults Salt Grass 1/ or Salty Alkaligrass	5 (5)  2 (2)  5 (5) 15 (15) 48 (55) 20 (20)"

Added 10/28/2009

Revise Note 7 of Table 1 – Seeding Mixtures of Article 250.07 of the Standard Specifications to read:

“7/ In Districts 1 through 6, the planting times shall be April 1 to June 15 and August 1 to November 1. In Districts 7 through 9, the planting times shall be March 1 to June 1 and August 1 to November 15. Seeding may be performed outside these dates provided the Contractor guarantees a minimum of 75 percent uniform growth over the entire seeded area(s) after a period of establishment. Inspection dates for the period of establishment will be as follows: Seeding conducted in Districts 1 through 6 between June 16 and July 31 will be inspected after April 15 and seeding conducted between November 2 and March 31 will be inspected after September 15. Seeding conducted in Districts 7 through 9 between June 2 and July 31 will be inspected after April 15 and seeding conducted between November 16 and February 28 will be inspected after September 15. The guarantee shall be submitted to the Engineer in writing prior to performing the work. After the period of establishment, areas not exhibiting 75 percent uniform growth shall be interseeded or reseeded, as determined by the Engineer, at no additional cost to the Department.”

Delete the last sentence of the first paragraph of Article 1081.04(c)(2) of the Standard Specifications.

Revise Table II of Article 1081.04(c)(6) of the Standard Specifications to read:

TABLE II						
Variety of Seeds	Hard Seed	Purity	Pure Live	Weed	Secondary *	Notes
	% Max.	% Min.	Seed % Min.	% Max.	Noxious Weeds No. per oz (kg) Max. Permitted	
Alfalfa	20	92	89	0.50	6 (211)	1/
Clover, Alsike	15	92	87	0.30	6 (211)	2/
Red Fescue, Audubon	0	97	82	0.10	3 (105)	-
Red Fescue, Creeping	-	97	82	1.00	6 (211)	-
Red Fescue, Epic	-	98	83	0.05	1 (35)	-
Red Fescue, Sea Link	-	98	83	0.10	3 (105)	-
Tall Fescue, Blade Runner	-	98	83	0.10	2 (70)	-
Tall Fescue, Falcon IV	-	98	83	0.05	1 (35)	-
Tall Fescue, Inferno	0	98	83	0.10	2 (70)	-
Tall Fescue, Tarheel II	-	97	82	1.00	6 (211)	-
Tall Fescue, Quest	0	98	83	0.10	2 (70)	-
Fults Salt Grass	0	98	85	0.10	2 ( 70)	-
Salty Alkaligrass	0	98	85	0.10	2 (70)	-
Kentucky Bluegrass	-	97	80	0.30	7 (247)	4/
Oats	-	92	88	0.50	2 ( 70)	3/
Redtop	-	90	78	1.80	5 (175)	3/
Ryegrass, Perennial, Annual	-	97	85	0.30	5 (175)	3/
Rye, Grain, Winter	-	92	83	0.50	2 ( 70)	3/
Hard Fescue, Reliant IV	-	98	83	0.05	1 (35)	-
Hard Fescue, Rescue 911	0	97	82	0.10	3 (105)	-
Hard Fescue, Spartan II	-	98	83	0.10	3 (105)	-
Timothy	-	92	84	0.50	5 (175)	3/
Wheat, hard Red Winter	-	92	89	0.50	2 ( 70)	3/”

Added 10/28/2009

Revise the first sentence of the first paragraph of Article 1081.04(c)(7) of the Standard Specifications to read:

“The seed quantities indicated per acre (hectare) for Prairie Grass Seed in Classes 3, 3A, 4, 4A, 6, and 6A in Article 250.07 shall be the amounts of pure, live seed per acre (hectare) for each species listed.”

Added 10/28/2009