Illinois Department of Transportation

Memorandum

To: *

From: Rich Dotson

Subject: **Special Provision Changes**

Date: May 5, 2014

The following special provisions have been revised for the August 1, 2014 and September 19, 2014 lettings. Please revise your special provision books as indicated.

Recurring Special Provisions

None.

Interim Special Provisions

ISP Number	Description
Alphabetic ISP Index (Revised)	Remove existing alphabetic index and insert revised index.
Numerical ISP Index (Revised)	Remove existing numeric index and insert revised index.
107.19a (Revised)	**"Building Removal – Case I (Non-Friable and Friable Asbestos Abatement)"** (BDE) Minor revision to the Designer Note.
107.19b (Revised)	**"Buiding Removal – Case I (Non-Friable Asbestos Abatement)"** (BDE) Minor revision to the Designer Note.
107.19c (Revised)	**"Building Removal – Case III (Friable Asbestos Abatement)"** (BDE) Minor revision to the Designer Note.
303.00 (Revised)	**"Aggregate Subgrade Improvement"** (BDE) Minor revision to the Designer Note.
406.00f (Revised)	**"Material Transfer Device"** (BDE) Increased the allowed contact pressure for partially completed pavements.
406.01 (Revised)	**"Hot-Mix Asphalt – Mixture Design Verification and Production"** (BDE) Revised the Designer Note to tell Designers to use the District's version of this special.
420.03 (New)	**"Mechanical Side Tie Bar Inserter"** (BDE) Allows new method of installing longitudinal tie bars in new pavement.
606.02 (Revised)	**"Concrete Gutter, Curb, Median, and Paved Ditch"** (BDE) Revised to clarify the ASTM specification.

Interim Special Provisions *(Continued)*

ISP Number		Description	
701.15	(New)	**"Speed Display Trailer"** Provides requirements and basis of payment for new pay item.	(BDE)
780.03	(Revised)	**"Grooving for Recessed Pavement Markings"** Revised to include minimum depth for thermoplastic.	(BDE)
814.03	(New)	**"Precast Concrete Handhole"** Allows the use of precast handholes.	(BDE)
821.06	(New)	**"Underpass Luminaire"** Clarifications to the specification and to allow the use of aluminum.	(BDE)
1067.07	(New)	**"Waterway Obstruction Warning Luminaire"** Requires the use of bronze hardware.	(BDE)
1088.01	(Revised)	**"Coated Galvanized Steel Conduit"** Revises the testing requirements.	(BDE)
1088.02	(New)	**"Coilable Non-Metallic Conduit"** New special provision that revises the testing requirements.	(BDE)
1088.03	(New)	**"Rigid Metal Conduit"** Allows an alternative to coated galvanized steel conduit.	(BDE)

District Special Provisions

District Number		Description
Alphabetic District Index (Revised)		Remove existing alphabetic index and insert revised index.
Numerical District Index (Revised)		Remove existing numeric index and insert revised index.
107.00a	(Delete)	**"Nationwide 404 Permit Requirements"** No longer need. Same information is included in other documents.
406.02	(Revised)	**"Hot-Mix Asphalt – Prime Coat (BMPR)"** Updated special provision to include prime application rate.
407.06	(Delete)	**"Bituminous Prime Coat for Hot-Mix Asphalt Pavement (Full-Depth)"** Information now contained in HMA-Prime Coat special provision.
407.13	(Revised)	**"Grooved – In Rumble Strip"** Revised the Designer Note to clarify when to use.
440.00	(Revised)	**"Partial Depth Patching"** Revised to match the available pay items.
440.02	(Revised)	**"Longitudinal Joint Repair"** Removed one of the prime types.
440.03c	(Delete)	**"Center Joint Repair System"** Pay item was deleted because this type of work is covered by other pay items.
550.00	(Revised)	**"Storm Sewer, (Water Main Quality Pipe)"** Deleted the second to last paragraph that conflicted with the rest of the requirements.

District Special Provisions *(Continued)*

District Number		Description
1030.02	(Revised)	**"HMA Mixture Design Requirements, Volumetric Requirements, Verification and Production (D-4)"** Revised the Designer Note.
1031.00	(Revised)	**"Reclaimed Asphalt Pavement and Reclaimed Asphalt Shingles (D-4)"** Minor revisions.

District Special Provisions & General Notes

District Number		Description
Alphabetical Index	(Revised)	No Changes.
Numerical Index	(Revised)	No Changes.
406.05	(Revised)	**"Polymerized Bituminous Materials (Prime Coat) Rates"** Revised the Designer Note.

RD:tdp

Attachments

cc: * M. Lewis, T. Phillips, N. Jack, C. Maushard
Team 1, Team 2, Team 3, Team 4
Team 5, Team 6, Team 7, Team 8
Team 9, Team 10, Team 11, Geometrics
Galesburg Design
Local Roads (M. Augspurger)
Local Roads (S. Alwan)
Local Roads (D. Rasmussen)
Materials (J. Olson)
Bridge (T. Inglis)

specprovchngsmemo_2014-05-05.doc

Special Provisions Generated Checklist
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August 1, 2014 & September 19, 2014 Lettings

SPECIAL PROVISIONS CHECK LIST
Generated - 5/6/14 11:07 AM

Designer: _____ **FAP:** _____

Contract No.: _____ **Section:** _____

☐ **August 1, 2014** ☐ **September 19, 2014** **County:** _____

Note: Specials that go in every contract have already been marked with an "√" for you.

√	Dir	File Name	Spec Title	Spec Dates
	BRG\	APSLRP-1.DOC	Approach Slab Repair	E 3/13/97
	DES\	00000.doc	Opening Paragraph-State of IL	E 1/1/12 R 1/1/14
	DES\	10500.doc	Construction Station Layout	E 7/30/10
	DES\	10506.doc	Prestage Site Construction Meetings	E 6/1/92
	DES\	10507.doc	Removal of Abandoned Underground Utilities	E 1/15/96 R 11/21/96
	DES\	10507a.doc	Status of Utilities/Utilities To Be Adjusted	E 1/21/05
	DES\	10507b.doc	Utilities - Locations/Information on Plans	E 11/8/13
√	DES\	10731.doc	Location of Underground State Maintained Facilities	E 8/3/07 R 7/31/09
	DES\	10732.doc	Right-of-Way Restrictions	E 7/1/94
	DES\	10803.doc	Delayed Start of Multiple Contracts	E 11/1/01
	DES\	10805a.doc	Date of Completion	E 3/1/90 R 4/25/08
	DES\	10805b.doc	Date of Completion (Plus Working Days)	E 3/1/90 R 7/1/94
	DES\	20400.doc	Borrow and Furnished Excavation	E 3/7/00 R 4/27/07
	DES\	20500.doc	Geotechnical Reinforcement	E 6/10/93 R 1/1/07
	DES\	20504.doc	Embankment (Restrictions)	E 1/21/05 R 8/3/07
	DES\	20505.doc	Embankment	E 7/1/90 R 11/1/07
	DES\	20505a.doc	Embankment (Small Embankment)	E 10/1/99 R 1/1/07
	DES\	25000.doc	Seeding, Minor Areas	E 7/1/90 R 1/1/07
	DES\	25006a.doc	Mowing	E 12/11/01 R 8/2/13
	DES\	25006b.doc	Mowing	E 12/11/01 R 8/2/13
	DES\	25300a.doc	Tree Whip Mixture	E 8/15/91 R 4/25/08
	DES\	25300b.doc	Seedling Mixture A	E 5/5/00 R 11/1/08
	DES\	28100.doc	Grout for Use With Riprap	E 7/30/10
	DES\	28104.doc	Stone Dumped Riprap*	E 4/15/91 R 1/1/07
	DES\	28106.doc	Stone Riprap	E 11/5/10
	DES\	28303.doc	Aggregate Ditch	E 4/15/91 R 10/15/01
	DES\	30101.doc	Proof Rolling	E 4/23/04 R 1/1/07
	DES\	30103.doc	Subgrade Treatment	E 7/1/90 R 4/25/08
	DES\	30200.doc	Soil Modification	E 7/1/90 R 7/30/10
	DES\	31100.doc	Rock Fill	E 10/15/95 R 4/26/13
	DES\	31101.doc	Subbase Granular Material	E 11/5/04
	DES\	35500d.doc	Temporary Pavement	E 10/1/95 R 4/23/10
	DES\	35600.doc	Temporary Base Course Widening ___"	E 4/26/13
	DES\	40600.doc	Clean Existing Pavement Edge Joint	E 1/3/00 R 1/1/07
	DES\	40601.doc	Anti-Strip Additive for Hot-Mix Asphalt	E 7/30/10
	DES\	40602.doc	Hot-Mix Asphalt - Prime Coat (BMPR)	E 2/19/13 R 3/1/14
	DES\	40604a.doc	Hot-Mix Asphalt Surface Course Surface Tests	E 11/1/03 R 1/1/07
	DES\	40613.doc	Payment for Use of Material Transfer Device	E 4/23/10

SPECIAL PROVISIONS CHECK LIST
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	DES\	42020.doc	Railroad Approach Pavement	E 10/1/95 R 1/1/07
	DES\	42401.doc	Sidewalk Drains	E 3/1/91 R 1/1/07
	DES\	42402.doc	Temporary Sidewalks	E 3/1/91 R 2/1/96
	DES\	44000.doc	Partial Depth Patching	E 4/26/13 R 8/1/14
	DES\	44001.doc	Bridge Wearing Surface Removal	E 7/1/90 R 1/1/07
	DES\	44002.doc	Longitudinal Joint Repair	E 4/26/13 R 8/1/14
	DES\	44003.doc	Protection of Frames and Lids of Utility Structures	E 3/6/91 R 1/1/07
	DES\	44003a.doc	Hot-Mix Asphalt Surface Removal, **" (** mm)	E 3/1/93 R 11/8/13
	DES\	44003b.doc	Hot-Mix Asphalt Surface Removal, **" (** mm)	E 2/5/93 R 11/8/13
	DES\	44003d.doc	Pavement Drainage After Cold Milling	E 3/15/96 R 1/1/07
	DES\	44003e.doc	Pavement Patching with Hot-Mix Asphalt Surface Removal	E 3/1/97 R 1/1/07
	DES\	44003f.doc	Hot-Mix Asphalt Concrete Milling Material	E 11/1/03 R 8/3/07
	DES\	44200.doc	Class (*) Patches, Type (**),(***) "	E 1/1/99 R 11/1/07
	DES\	44300.doc	Reflective Crack Control Treatment	E 3/1/96 R 1/1/07
	DES\	45100.doc	Crack and Joint Sealing	E 6/15/97 R 1/1/07
	DES\	48205.doc	Hot-Mix Asphalt Shoulder Resurfacing Required to be Constructed Simultaneously with Mainline Paving	E 4/23/10
	DES\	48206.doc	Hot-Mix Asphalt Shoulder Resurfacing Constructed Simultaneously with Mainline Paving	E 1/22/01 R 1/1/07
	DES\	50103.doc	Concrete Headwall Removal	E 7/1/90
	DES\	50104.doc	Concrete Handrail Removal	E 7/1/90 R 1/1/07
	DES\	50300.doc	Bin-Type Retaining Wall	E 7/1/90 R 1/1/07
	DES\	50301.doc	Concrete Wearing Surface	E 7/1/90 R 1/1/07
	DES\	50302.doc	Surface Filler, Special (Gallon)	E 4/23/10
	DES\	50312.doc	Plug Existing Deck Drains	E 1/1/96 R 3/22/01
	DES\	50312a.doc	Floor Drain Extension	E 3/22/01
	DES\	50317.doc	Bridge Floor Finishing Machine	E 5/1/95 R 1/1/07
	DES\	50319.doc	Protective Coat, Special	E 4/23/10
	DES\	52100b.doc	Jack and Reposition Bearings	E 11/15/93 R 1/1/09
	DES\	52100c.doc	Jacking and Cribbing	E 1/1/94 R 1/1/07
	DES\	54200.doc	Seepage Collar	E 12/1/96
	DES\	54201.doc	Remove and Relay Pipe Culverts	E 7/1/90 R 1/1/07
	DES\	54202.doc	Pipe Culverts (Jacked)	E 1/1/14
	DES\	54204.doc	Pipe Culverts	E 7/1/90 R 1/1/07
	DES\	54204e.doc	Backfill - Pipe Culverts	E 10/15/95 R 1/1/07
	DES\	55000.doc	Storm Sewer, (Water Main Quality Pipe)	E 1/1/11 R 8/1/14
	DES\	55007.doc	Backfill, Building Removal	E 8/20/91 R 1/1/07
	DES\	55200.doc	Steel Pipe Culvert, Special (Jacked) * inches (* mm)	E 7/1/94 R 1/1/07
	DES\	55201.doc	(*Storm Sewer/Pipe Culvert) Jacked in Place, ** inches (** mm)	E 7/1/94 R 1/1/07
	DES\	56100.doc	Steel Casings * Inches	E 7/1/90 R 1/1/13
	DES\	56101.doc	Steel Casings * Inches	E 7/1/90 R 1/1/13
	DES\	60101.doc	Pipe Underdrain	E 8/1/03
	DES\	60200a.doc	Inlets, Type G-1	E 10/1/95 R 1/1/07

SPECIAL PROVISIONS CHECK LIST
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	DES\	60200b.doc	Inlets, Type G-1, Special	E 10/1/95 R 1/1/07
	DES\	60200c.doc	Inlets, Type G-1, Double, Special	E 10/1/95 R 1/1/07
	DES\	60200d.doc	Inlet Manhole, Type G-1, 4' (1.2 m) Diameter	E 10/1/95 R 1/1/07
	DES\	60200e.doc	Inlet-Manhole, Type G-1, 4' (1.2 m) Diameter, Special	E 10/1/95 R 1/1/07
	DES\	60200f.doc	Inlet-Manhole, Type G-1, 5' (1.5 m) Diameter	E 10/1/95 R 1/1/07
	DES\	60200g.doc	Inlet-Manhole, Type G-1, 5' (1.5 m) Diameter, Special	E 10/1/95 R 1/1/07
	DES\	60200h.doc	Inlet-Manhole, Type G-1, 5' (1.5 m) Diameter, Double, Special	E 10/1/95 R 1/1/07
	DES\	60200i.doc	Inlet-Manhole, Type G-1, 8' (2.4 m) Diameter, Double, Special	E 10/1/95 R 1/1/07
	DES\	60200j.doc	Manhole to be Adjusted with New Type G-1 Frame and Grate	E 10/1/95 R 1/1/07
	DES\	60200k.doc	Temporary Inlet Drainage Treatment	E 1/1/97
	DES\	60200l.doc	Inlets, Type G-2	E 11/1/03 R 1/1/07
	DES\	60200m.doc	Inlets, Type G-1, Double	E 7/31/09
	DES\	60200n.doc	Inlets, Type " * ", With Special Frame and Grate	E 8/2/13
	DES\	60200o.doc	Manhole, Type A, of the Diameter Specified with Special Frame and Grate	E 8/2/13
	DES\	60504.doc	Filling Existing Inlets	E 7/1/90 R 7/1/94
	DES\	60504a.doc	Filling Existing Culverts	E 10/15/95 R 1/1/07
	DES\	60504b.doc	Filling Existing Drainage Structures	E 10/15/95 R 1/1/07
	DES\	60608.doc	Island Pavement Constructed on Existing Pavement	E 1/1/97 R 1/1/07
	DES\	60612.doc	Drainage Holes	E 7/1/90 R 1/1/07
	DES\	63000.doc	Erosion Control Curb	E 4/1/91 R 1/1/07
	DES\	63001.doc	Guardrail Aggregate Erosion Control	E 2/1/93 R 1/1/07
	DES\	63008.doc	Steel Plate Beam Guardrail, Type A, 6.75 Foot Posts	E 7/31/09 R 4/27/12
	DES\	63104.doc	Traffic Barrier Terminals, Type 1, Special (Flared) or (Tangent)	E 7/31/09 R 4/26/13
	DES\	63107.doc	Traffic Barrier Terminals, Type 6	E 7/31/09
	DES\	63111c.doc	Traffic Barrier Terminals	E 2/1/96 R 11/5/04
	DES\	63114.doc	Traffic Barrier Terminals, Type 2	E 7/31/09
	DES\	63200.doc	Guard Post Removal	E 7/1/90 R 1/1/07
	DES\	63500.doc	Flexible Delineator Maintenance	E 5/5/92 R 1/1/94
	DES\	63501.doc	Flexible Delineators	E 10/1/95 R 1/1/07
	DES\	66701.doc	Permanent Survey Markers	E 1/1/14
	DES\	66704.doc	Permanent Survey Marker, Type 1, Bridge Placement	E 7/1/90 R 3/11/11
	DES\	66802.doc	Permanent Survey Ties	E 4/1/91 R 4/27/12
	DES\	67005.doc	Equipment Vault for Nuclear Testing Equipment	E 6/24/93 R 7/1/94
	DES\	68000.doc	Railroad Track Removal	E 11/1/94 R 1/1/07
	DES\	68000a.doc	Railroad Ties Removal and Disposal	E 11/1/94 R 10/1/95
	DES\	68300.doc	Mortared Stone Wall	E 3/1/91 R 1/1/07
√	DES\	70100.doc	Traffic Control Plan	E R
	DES\	70106.doc	Speeding Penalty	E 1/21/05

SPECIAL PROVISIONS CHECK LIST
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	DES\	70108b.doc	Traffic Control and Protection Standard 701331 (Special)	E 10/15/95 R 7/31/09
	DES\	70114.doc	Width Restriction Signing	E 11/1/07 R 1/1/12
	DES\	70120.doc	Traffic Control and Protection BLR 21 and BLR 21 (Special)	E 4/25/08
	DES\	70121.doc	Traffic Control and Protection BLR 22 and BLR 22 (Special)	E 4/25/08 R 7/31/09
	DES\	70122.doc	Traffic Control and Protection Standard 701606 (Special)	E 7/31/09
	DES\	70300.doc	Pavement Marking Removal/Work Zone Pavement Marking Removal	E 4/29/05
	DES\	70400.doc	Temporary Concrete Barrier, State Owned and Temporary Concrete Barrier Terminal Sections, State Owned	E 5/1/91 R 1/1/07
	DES\	70400a.doc	Temporary Concrete Barrier Reflectors	E 1/21/05
	DES\	73300.doc	Re-Tightening Anchor Bolts for Cantilever Sign Structures	E 4/25/14
	DES\	78000.doc	Thermoplastic Pavement Marking Equipment	E 7/1/90 R 1/1/07
	DES\	78001.doc	Preformed Plastic Pavement Marking, Type B - Inlaid	E 8/2/13
	DES\	78002.doc	Grooving for Recessed Pavement Marking	E 8/2/13
	DES\	81000.doc	Conduit, Pushed or Trenched	E 10/1/91 R 1/1/07
	DES\	81500.doc	Trench & Backfill, Special for Conduit Installation Beneath Bituminous Shoulders	E 3/21/94 R 1/1/07
	DES\	86300.doc	Terminal Facility	E 3/21/94 R 1/1/07
	DES\	87300.doc	Electric Cable in Conduit, Lead-In, No. 18	E 3/21/94 R 10/15/01
	DES\	88600.doc	Detector Loop, Special for Traffic Counters	E 3/21/94 R 1/1/07
	DES\	88600a.doc	Detector Loops, Type 1	E 3/1/96 R 8/3/07
	DES\	100400.doc	Aggregate Optimization of Class PV Mix for Slipform Paving	E 8/3/12
	DES\	100401.doc	Coarse Aggregate Fill	E 4/29/11
	DES\	100402.doc	Concrete Superstructure Aggregate Optimization	E 8/4/06 R 8/3/12
	DES\	100403b.doc	Coarse Aggregate for Bituminous Courses, Class A	E 6/29/93 R 1/1/07
	DES\	100404.doc	Aggregate Quality	E 7/1/90 R 4/26/13
	DES\	103000.doc	Hot Mix Asphalt Quality Control for Performance (D-4)	E 4/26/13
	DES\	103001.doc	Hot-Mix Asphalt - Pay for Performance Using Percent within Limits - Jobsite Sampling (D-4)	E 4/26/13
	DES\	103002.doc	HMA Mixture Design Requirements, Volumetric Requirements, Verification and Production (D-4)	E 4/25/14
	DES\	103100.doc	Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS) (D-4)	E 4/25/14 R 8/1/14
	DES\	110300.doc	PCC QC/QA Electronic Report Submittal	E 4/26/13
	DES\	110303.doc	PCC Automatic Batching Equipment	E 4/23/10 R 11/8/13

First Page
&
Index for
Supplemental Specifications
and
Recurring Special Provisions

Contract No. _____ **Route(s):** _____

(SLT No. SLT-94-_____ **D.L. No.:** _____)

Designer: _____ **Section(s):** _____

Lettings: Aug. 1, 2014 & Sept. 19, 2014 **County(ies):** _____
(circle correct letting)

STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted **January 1, 2012 (Revised January 1, 2014)**, 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, and the "Recommended Standards for Water Works", (Ten State Standards), latest edition, which apply to and govern the construction of

_____

_____

_____

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

DESCRIPTION OF PROJECT

Contract No. _____ Route(s): _____

(SLT No. SLT-94-_____ D.L. No.: _____)

Designer: _____ Section(s): _____

Lettings: Aug. 1, 2014 & Sept. 19, 2014 County(ies): _____
(circle correct letting)

LOCATION OF PROJECT *(CONTINUED)*

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2014

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

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-12) (Revised 1-1-14)

SUPPLEMENTAL SPECIFICATIONS

RECURRING SPECIAL PROVISIONS

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

Designer Notes
Recurring Special Provisions

Designer Notes for January 1, 2014 Recurring Special Provisions
(Updated for August 1, 2014 and September 19, 2014 lettings.)

1. Designer Note: This check sheet is required in all contracts that involve Federal funds.

2. Designer Note: This check sheet is required in all Federal contracts.

3. Designer Note: This check sheet is required in all contracts.

4. Designer Note: This check sheet is required in all contracts involving State funds only.

5. Designer Note: This check sheet is required in all contracts involving State funds only.

6. Designer Note: Include in all contracts where Asbestos Bearing Pad Removal is part of the structure work.

7. Designer Note: Include in all contracts where the existing bridge deck HMA surface is to be removed and the waterproofing membrane contains asbestos and will be removed. The designer must have in the project files a completed "Asbestos Determination Certificate" for every bridge within the project limits. The District Bridge Maintenance Engineer and/or the District Hydraulics Engineer can provide copies of these certificates. If your project has any bridge deck containing asbestos, insert this special provision as well as the General Notes entitled "Asbestos Bridge Wearing Surface Removal".

8. Designer Note: This check sheet will be required for those contracts that will involve Contractor work on haul road stream crossings, other temporary stream crossings, and in stream work pads. Contracts that would generally involve this type of work would be bridges/structures, new or rebuilt, and contracts involving earth excavation, embankment or borrow excavation. Discuss these types of work operations and any other stream related work with your Project Engineer. Any in-stream crossing or other work will require an individual 404 permit from the Corps of Engineers. Be sure to let the Hydraulics Engineer (Jim Miller) know as soon as possible that a Corps permit will be needed. The permit has a lead-time and is required for the project to proceed to letting.

9. Designer Note: (See #10 below.) Depending on IDOT manpower, this check sheet will be included as a pay item when the Contractor will be required to do all contract staking, except bridges. A large span culvert measuring more than 6 meters (20 feet) along the survey line will require a structure number be assigned to the structure. This will require that the Designer, if he is calling for Contractor staking, use the check sheet entitled Construction Layout Stakes and not the check sheet entitled Construction Layout Stakes Except for Structures. Discuss with the Bureau of Project Implementation (Construction) as to what manpower sources are available.

10. Designer Note: Depending on IDOT manpower needs, this check sheet will be included as a pay item when the Contractor will be required to do all contract staking, including bridges. This check sheet should be used for a large box culvert or a multi pipe that will require a structure number. This would be a structure that will have a span length along survey line of more than 6 meters (20 feet).

    Discuss this check sheet with the Bureau of Project Implementation (Construction) as to what manpower sources are available.

11. Designer Note: This special provision specifies the requirements for geotextile fabric for use on railroad crossings.

    Include only on projects where the railroad crossing is a contract pay item. Also may be required for temporary crossings.

    Railroad crossings are generally (99%) handled by the Railroad through an agreement and not part of our contract. If in doubt as to how to handle, discuss with Project Support.

12. Designer Note: Use this check sheet where existing pavement is being reconstructed and voids are evident under the existing pavement that can be filled by grouting. Discuss with Maintenance Field Engineer responsible for the area.

    NOTE: A detail of the slab movement detection device is included in CADD and this drawing must be included in your contract plans.

13. Designer Note: This check sheet will be required on a contract where cold milling is required but where the cold milled area will not be overlaid. Include CADD Standard 440001 in your plans. If your contract is to be cold milled and the area overlaid, you should use one of the two District special provisions on this subject, **not** this check sheet.

14. Designer Note: This check sheet requires that once a lift of bituminous resurfacing is placed on a lane of pavement, any adjoining bituminous shoulder shall be resurfaced with an equal thickness before any other lane is resurfaced for each lift of resurfacing. Insert this special on resurfacing projects which meet the following criteria: All four lane interstates and freeways, all four lane expressways, four lane highways with ADT > 25,000 or peak one-way VPH > 1700, two lane highways with ADT > 10,000 or peak one-way VPH > 800.

15. Designer Note: Do not use this check sheet. It has been superseded by the Bureau of Design & Environment (BD&E) special provision of the same name.

16. Designer Note: Intended to remove thick bituminous overlay so that the original pavement can be examined and then patched, if necessary. It also further defines specific pay items for work involved.

17. Designer Note: This check sheet was developed by Materials and Physical Research as an alternate to replacing Preformed Joint Sealer and Neoprene Expansion Joints up to 65 mm (2 ½ inches). Include with any projects that have POLYMER CONCRETE as a pay item.

18. Designer Note: This rehabilitation process can be used in a variety of gravity applications such as trenchless rehabilitation of sanitary sewers, storm sewers, and process piping. Insert this special provision if trenchless repair of the items listed above is selected. Prior to selection consult your Project Engineer. Additional information such as size of pipe to be lined, number of laterals, and manhole treatment may be necessary.

19. Designer Note: This check sheet calls for CA 16 for backfill and wrapping the trench. Discuss usage with Implementation.

20. Designer Note: This check sheet was developed by the Central Bureau of Traffic and should be incorporated into all plans containing guardrail, barrier wall or bridge rail. The designer is required to specify the color of all reflectors to be placed and to provide appropriate traffic control standards for the installation of reflectors/markers. It is the District's option to select the type of reflector marker for use on guardrail and barrier walls, and the type of terminal marker for guardrail. This option should be specified by the pay item used. The District prefers use of the top mounted reflector Type C on barrier walls. Include Highway Standards 635006 and 635011 in the plans if this Check Sheet is used.

21. Designer Note: This check sheet was developed to obtain the desired pipe coating on bike racks. Use on all projects with bike racks.

22. Designer Note: This special provision covers the installation of temporary glare screens on temporary concrete barrier. Glare screens may be needed on temporary concrete barriers separating opposing lanes of traffic, especially on horizontal and vertical curves where oncoming headlight glare could be a problem. Discuss usage with your project engineer.

23. Designer Note: This special provision is for use on bridge contracts where staging is required and the District wants the contractor to have an option to post-mounting the temporary bridge and traffic signals. Discuss use with the District Traffic Control Technician.

24. Designer Note: Intended for use on all freeway/expressway contracts with lane closures as shown on Highway Standard 701400. It may also be used at the District's discretion on high visibility projects and/or projects that will require several months to complete.

25. Designer Note: This check sheet should be included for all projects containing roadway lighting. The designer should also include CADD Standard 701301-D4 in the plans.

26. Designer Note: This check sheet was developed to address difficulties with obtaining metric sized bolts. Include in all metric projects, which contain or could contain any type of bolted connection.

27. Designer Note: This check sheet was developed to address difficulties with obtaining metric sized reinforcement bars. Include in all metric projects containing reinforcement bars.

28. Designer Note: This special provision not to be used in District Four. Not recommended for use on recently constructed pavements or bridge decks. This is not recommended when there is steel in the patches due to the corrosion the calcium chloride causes.

29. Designer Note: Insert into contracts where a PCC inlay or overlay is selected. This method is for locations where excessive rutting has become a problem. Discuss with the Project Engineer, Operations, and Implementation before using. Also, refer to BDE Manual, Chapter 53 before using.

30. Designer Note: Do not use Check Sheet #30 unless requested by Materials.

31. Designer Note: Use in all contracts involving cast-in-place concrete.

32. Designer Note: This special allows the use of digital terrain modeling for field measurements of earthwork. This is to be used at the district's discretion. Discuss it with your Project Engineer and Construction.

33. Designer Notes: Insert at the district's discretion. Discuss with Construction. This special will not allow grinders to be used. When it is possible that Temporary Pavement Markings will be required over the winter and performed plastic pavement markings will be installed the next season; this may not be feasible since removing the temporary will require grinding.

34. Designer Note: Insert this special into contracts using an A-1 bituminous surface treatment. Use of this special provision shall be according to the Bureau of Design and Environment Manual, Chapter 52.

    The designer must specify the gradation for the bituminous surface treatment on the plans. Districts are encouraged to use the CA 20 gradation as it has proven to perform well for A-1 surface treatments.

    Include Special Provision on Temporary Flexible Raised Pavement Marker with this work.

    Include the following information in the Traffic Control Plan Special Provision:
    - Contractor shall post the roadway with "LOOSE GRAVEL" and SPEED LIMIT 35" signs in accordance with applicable articles of Division 700 of the Standard Specifications.
    - These signs shall be placed at the start of the work, near intersecting roadways and then at an average spacing of 0.5 mi (0.8 km).
    - The signs may be removed as soon as the sweeping operation has been completed.

35. Designer Note: Insert into all contracts using cape seal. Use of this special provision shall be according to the Bureau of Design and Environment Manual, Chapter 52.

Districts are encouraged to use the CA 20 gradation as it has proven to perform well for A-1 surface treatments.

The designer must specify the aggregate gradation for the A-1 bituminous surface treatment. Districts are encouraged to use the CA 20 gradation as it has proven to perform well for A-1 surface treatments.

The designer must specify the proper friction aggregate for the micro-surfacing layer on the plans using the following note:

"The aggregates for the micro-surfacing shall meet the friction aggregate requirements for Mixture __ in Article 1004.03(a)."

Insert either "C" or "D" into the note to indicate which mixture is to be used according to the ADT volume on the project. ADT ≤ 5,000 shall use Mixture C and ADT > 5,000 shall use Mixture D.

Include the following information in the Traffic Control Plan Special Provision:

- Contractor shall post the roadway with "LOOSE GRAVEL" and SPEED LIMIT 35" signs in accordance with applicable articles of Division 700 of the Standard Specifications. These signs shall be placed at the start of the work, near intersecting roadways and then at an average spacing of 0.5 mi (0.8 km). The signs may be removed as soon as the sweeping operation has been completed.

Include Special Provision on Temporary Flexible Raised Pavement Marker with this work.

36. Designer Note: Insert into all contracts using micro-surfacing. Use of this special provision shall be according to the Bureau of Design and Environment Manual, Chapter 52.

The designer must specify the friction aggregate mixture and the following information on the plans using the following note:

"The aggregates for the surface lift of micro-surfacing shall meet the friction aggregate requirements for Mixture __ in Article 1004.03(a)."

Insert either "C" or "D" into the note to indicate which mixture is to be used according to the ADT volume on the project. ADT ≤ 5,000 shall use Mixture C, and ADT > 5,000 shall use Mixture D.

37. Designer Note: Insert into all contracts using slurry seal. Use of this special provision shall be according to the Bureau of Design and Environment Manual, Chapter 52.

The designer must include the following note on the plans.

"Aggregates for the slurry seal shall meet the friction aggregate requirements for Mixture C."

38. Designer Note: Insert into preventative maintenance contracts using cape seals or bituminous surface treatments.

39. Design Note: Insert into contracts using high-density expanding polyurethane foam or restoring the elevation of settled bridge approach pavements.

BDE Special Provisions Checklist

August 1, 2014 & September 19, 2014 Lettings

Designer: _____ **FAP:** _____

Contract No.: _____ **Section:** _____

Lettings: **August 1, 2014 & September 19, 2014** **County:** _____

Note: Specials that go in every contract have already been marked with an "X" for you.

BDE SPECIAL PROVISIONS
For the August 1 and September 19, 2014 Lettings

The following special provisions indicated by an "x" are applicable to this contract and will be included by the Project Development and Implementation Section of the BD&E. An * indicates a new or revised special provision for the letting.

	File Name	#		Special Provision Title	Effective	Revised
	80240	1		Above Grade Inlet Protection	July 1, 2009	Jan. 1, 2012
	80099	2		Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2014
	80274	3		Aggregate Subgrade Improvement	April 1, 2012	Jan. 1, 2013
	80192	4		Automated Flagger Assistance Device	Jan. 1, 2008	
	80173	5		Bituminous Materials Cost Adjustments	Nov. 2, 2006	Aug. 1, 2013
	80241	6		Bridge Demolition Debris	July 1, 2009	
	5026I	7		Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5048I	8		Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5049I	9		Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
	5053I	10		Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
	80292	11		Coarse Aggregate in Bridge Approach Slabs/Footings	April 1, 2012	April 1, 2013
*	80310	12		Coated Galvanized Steel Conduit	Jan. 1, 2013	Aug. 1, 2014
*	80341	13		Coilable Nonmetallic Conduit	Aug. 1, 2014	
	80198	14		Completion Date (via calendar days)	April 1, 2008	
	80199	15		Completion Date (via calendar days) Plus Working Days	April 1, 2008	
	80293	16		Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet	April 1, 2012	April 1, 2014
	80294	17		Concrete Box Culverts with Skews ≤ 30 Degrees Regardless of Design Fill and Skews > 30 Degrees with Design Fills > 5 Feet	April 1, 2012	April 1, 2014
	80311	18		Concrete End Sections for Pipe Culverts	Jan. 1, 2013	
*	80334	19		Concrete Gutter, Curb, Median, and Paved Ditch	April 1, 2014	Aug. 1, 2014
	80277	20		Concrete Mix Design – Department Provided	Jan. 1, 2012	Jan. 1, 2014
	80261	21		Construction Air Quality – Diesel Retrofit	June 1, 2010	Jan. 1, 2014
	80335	22	X	Contract Claims	April 1, 2014	
	80029	23		Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Aug. 2, 2011
	80265	24		Friction Aggregate	Jan. 1, 2011	
	80229	25		Fuel Cost Adjustment	April 1, 2009	July 1, 2009
	80329	26		Glare Screen	Jan. 1, 2014	
	80303	27		Granular Materials	Nov. 1, 2012	
*	80304	28		Grooving for Recessed Pavement Markings	Nov. 1, 2012	Aug. 1, 2014
	80246	29		Hot-Mix Asphalt – Density Testing of Longitudinal Joints	Jan. 1, 2010	April 1, 2012
	80322	30		Hot-Mix Asphalt – Mixture Design Composition and Volumetric Requirements	Nov. 1, 2013	
	80323	31		Hot-Mix Asphalt – Mixture Design Verification and Production	Nov. 1, 2013	
	80315	32		Insertion Lining of Culverts	Jan. 1, 2013	Nov. 1, 2013
	80336	33		Longitudinal Joint and Crack Patching	April 1, 2014	
	80324	34		LRFD Pipe Culvert Burial Tables	Nov. 1, 2013	April 1, 2014
	80325	35		LRFD Storm Sewer Burial Tables	Nov. 1, 2013	
*	80045	36		Material Transfer Device	June 15, 1999	Aug. 1, 2014
*	80342	37		Mechanical Side Tie Bar Inserter	Aug. 1, 2014	
	80165	38		Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2010

	File Name	#		Special Provision Title	Effective	Revised
	80337	39		Paved Shoulder Removal	April 1, 2014	
	80330	40		Pavement Marking for Bike Symbol	Jan. 1, 2014	
	80298	41		Pavement Marking Tape Type IV	April 1, 2012	
	80254	42		Pavement Patching	Jan. 1, 2010	
	80331	43	X	Payrolls and Payroll Records	Jan. 1, 2014	
	80332	44		Portland Cement Concrete – Curing of Abutments and Piers	Jan. 1, 2014	
	80326	45		Portland Cement Concrete Equipment	Nov. 1, 2013	
	80338	46		Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching	April 1, 2014	
*	80343	47		Precast Concrete Handhole	Aug. 1, 2014	
	80300	48		Preformed Plastic Pavement Marking Type D - Inlaid	April 1, 2012	
	80328	49	X	Progress Payments (All contracts except MCHD Motorist-caused.)	Nov. 2, 2013	
	80281	50		Quality Control/Quality Assurance of Concrete Mixtures	Jan. 1, 2012	Jan. 1, 2014
	3426I	51		Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
	80157	52		Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
	80306	53		Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS)	Nov. 1, 2012	April 1, 2014
	80327	54		Reinforcement Bars	Nov. 1, 2013	
	80283	55		Removal and Disposal of Regulated Substances	Jan. 1, 2012	Nov. 2, 2012
	80319	56		Removal and Disposal of Surplus Materials	Nov. 2, 2012	
*	80344	57		Rigid Metal Conduit	Aug. 1, 2014	
	80307	58		Seeding	Nov. 1, 2012	
*	80340	59		Speed Display Trailer	April 2, 2014	
	80339	60		Stabilized Subbase	April 1, 2014	
	80127	61		Steel Cost Adjustment	April 2, 2004	April 1, 2009
	80317	62		Surface Testing of Hot-Mix Asphalt Overlays	Jan. 1, 2013	
	80301	63	X	Tracking the Use of Pesticides	Aug. 1, 2012	
	80333	64		Traffic Control Setup and Removal Freeway/Expressway	Jan. 1, 2014	
	20338	65		Training Special Provisions	Oct. 15, 1975	
	80318	66		Traversable Pipe Grate	Jan. 1, 2013	April 1, 2014
*	80345	67		Underpass Luminaire	Aug. 1, 2014	
*	80346	68		Waterway Obstruction Warning Luminaire	Aug. 1, 2014	
	80288	69		Warm Mix Asphalt	Jan. 1, 2012	Nov. 1, 2013
	80302	70	X	Weekly DBE Trucking Reports	June 2, 2012	
	80289	71		Wet Reflective Thermoplastic Pavement Marking	Jan. 1, 2012	
	80071	72		Working Days ( )	Jan. 1, 2002	

The following special provisions are in the 2014 Supplemental Specifications and Recurring Special Provisions:

File Name	Special Provision Title	New Location	Effective	Revised
80309	Anchor Bolts	Articles 1006.09, 1070.01, and 1070.03	Jan. 1, 2013	
80276	Bridge Relief Joint Sealer	Article 503.19 and Sections 588 and 589	Jan. 1, 2012	Aug. 1, 2012
80312	Drain Pipe, Tile, Drainage Mat, and Wall Drain	Article 101.01, 1040.03, and 1040.04	Jan. 1, 2013	
80313	Fabric Bearing Pads	Article 1082.01	Jan. 1, 2013	
80169	High Tension Cable Median Barrier	Section 644 and Article 1106.02	Jan. 1, 2007	Jan. 1, 2013
80320	Liquidated Damages	Article 108.09	April 1, 2013	
80297	Modified Urethane Pavement Marking	Section 780, Articles 1095.09 and 1105.04	April 1, 2012	
80253	Movable Traffic Barrier	Section 707 and Article 1106.02	Jan. 1, 2010	Jan. 1, 2013
80231	Pavement Marking Removal	Recurring CS #33	April 1, 2009	

File Name	Special Provision Title	New Location	Effective	Revised
80321	Pavement Removal	Article 440.07	April 1, 2013	
80022	Payments to Subcontractors	Article 109.11	June 1, 2000	Jan. 1, 2006
80316	Placing and Consolidating Concrete	Articles 503.06, 503.07, and 516.12	Jan. 1, 2013	
80278	Planting Woody Plants	Section 253 and Article 1081.01	Jan. 1, 2012	Aug. 1, 2012
80305	Polyurea Pavement Markings	Article 780.14	Nov. 1, 2012	Jan. 1, 2013
80279	Portland Cement Concrete	Sections 312, 503, 1003, 1004, 1019, and 1020	Jan. 1, 2012	Nov. 1, 2013
80218	Preventive Maintenance – Bituminous Surface Treatment	Recurring CS #34	Jan. 1, 2009	April 1, 2012
80219	Preventive Maintenance – Cape Seal	Recurring CS #35	Jan. 1, 2009	April 1, 2012
80220	Preventive Maintenance – Micro-Surfacing	Recurring CS #36	Jan. 1, 2009	April 1, 2012
80221	Preventive Maintenance – Slurry Seal	Recurring CS #37	Jan. 1, 2009	April 1, 2012
80224	Restoring Bridge Approach Pavements Using High-Density Foam	Recurring CS #39	Jan. 1, 2009	Jan. 1, 2012
80255	Stone Matrix Asphalt	Sections 406, 1003, 1004, 1030, and 1011	Jan. 1, 2010	Aug. 1, 2013
80143	Subcontractor Mobilization Payments	Article 109.12	April 2, 2005	April 1, 2011
80308	Synthetic Fibers in Concrete Gutter, Curb, Median and Paved Ditch	Articles 606.02 and 606.11	Nov. 1, 2012	
80286	Temporary Erosion and Sediment Control	Articles 280.04 and 280.08	Jan. 1, 2012	
80225	Temporary Raised Pavement Marker	Recurring CS #38	Jan. 1, 2009	
80256	Temporary Water Filled Barrier	Section 708 and Article 1106.02	Jan. 1, 2010	Jan. 1, 2013
80273	Traffic Control Deficiency Deduction	Article 105.03	Aug. 1, 2011	
80270	Utility Coordination and Conflicts	Articles 105.07, 107.19, 107.31, 107.37, 107.38, 107.39 and 107.40	April 1, 2011	Jan. 1, 2012

The following special provisions require additional information from the designer. The additional information needs to be included in a separate document attached to this check sheet. The Project Development and Implementation section will then include the information in the applicable special provision. The Special Provisions are:

- Bridge Demolition Debris
- Building Removal-Case I
- Building Removal-Case II
- Building Removal-Case III
- Building Removal-Case IV
- Completion Date
- Completion Date Plus Working Days
- DBE Participation
- Material Transfer Device
- Railroad Protective Liability Insurance
- Training Special Provisions
- Working Days

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√	Dir	File Name	Spec Title	Spec Dates
	BRG\	APSLRP-1.DOC	APPROACH SLAB REPAIR	E 3/13/97
	ZDE\	z10000.doc	ERRATA FOR THE 2012 STANDARD SPECIFICATIONS (BDE)	E 4/1/12 R 8/1/12
	ZDE\	z10701.doc	CONSTRUCTION AIR QUALITY - DIESEL RETROFIT (BDE)	E 8/1/11 R 1/1/14
	ZDE\	z10711a.doc	RAILROAD PROTECTIVE LIABILITY INSURANCE (BDE)	E 12/1/86 R 1/1/06
	ZDE\	z10711b.doc	RAILROAD PROTECTIVE LIABILITY INSURANCE (5 AND 10) (BDE)	E 1/1/06
	ZDE\	z10719a.doc	BUILDING REMOVAL - CASE I (NON-FRIABLE AND FRIABLE ASBESTOS ABATEMENT) (BDE)	E 9/1/90 R 4/1/10
	ZDE\	z10719b.doc	BUILDING REMOVAL - CASE II (NON-FRIABLE ASBESTOS ABATEMENT) (BDE)	E 9/1/90 R 4/1/10
	ZDE\	z10719c.doc	BUILDING REMOVAL - CASE III (FRIABLE ASBESTOS ABATEMENT) (BDE)	E 9/1/90 R 4/1/10
	ZDE\	z10719d.doc	BUILDING REMOVAL - CASE IV (NO ASBESTOS) (BDE)	E 9/1/90 R 4/1/10
	ZDE\	z10723.doc	TRACKING THE USE OF PESTICIDES (BDE)	E 8/1/12
	ZDE\	z10738.doc	BRIDGE DEMOLITION DEBRIS (BDE)	E 7/1/09
	ZDE\	z10800.doc	PAYROLLS AND PAYROLL RECORDS (BDE)	E 1/1/14
	ZDE\	z10805.doc	WORKING DAYS (BDE)	E 1/1/02
	ZDE\	z10805a.doc	COMPLETION DATE (VIA CALENDAR DAYS) (BDE)	E 4/1/08
	ZDE\	z10805b.doc	COMPLETION DATE (VIA CALENDAR DAYS) PLUS WORKING DAYS (BDE)	E 4/1/08
	ZDE\	z10806.doc	TRAINING SPECIAL PROVISION (BDE)	E 10/15/75
	ZDE\	z10806a.doc	DISADVANTAGES BUSINESS ENTERPRISE PARTICIPATION (BDE)	E 9/1/00 R 8/2/11
	ZDE\	z10806b.doc	WEEKLY DBE TRUCKING REPORTS (BDE)	E 6/2/12
	ZDE\	z10900a.doc	STEEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)	E 4/2/04 R 4/1/09
	ZDE\	z10901.doc	BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE(RETURN FORM WITH BID)	E 11/2/06 R 1/1/12
	ZDE\	z10903.doc	FUEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)	E 4/1/09 R 7/1/09
	ZDE\	z10907.doc	PROGRESS PAYMENTS (BDE)	E 11/2/13
	ZDE\	z10909.doc	CONTRACT CLAIMS (BDE)	4/1/14
	ZDE\	z20203.doc	REMOVAL AND DISPOSAL OF SURPLUS MATERIALS (BDE)	E 11/02/12
	ZDE\	z25007.doc	SEEDING (BDE)	E 11/1/12
	ZDE\	z28002.doc	ABOVE GRADE INLET PROTECTION (BDE)	E 7/1/09 R 1/1/12
	ZDE\	z30300.doc	AGGREGATE SUBGRADE IMPROVEMENT (BDE)	E 4/1/12 R 1/1/13

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	ZDE\	z31206.doc	STABILIZED SUBBASE (BDE)	E 4/1/14
	ZDE\	z40600.doc	WARM MIX ASPHALT (BDE)	E 1/01/12 R 11/1/13
	ZDE\	z40600f.doc	MATERIAL TRANSFER DEVICE (BDE)	E 6/15/99 R 8/1/14
	ZDE\	z40601.doc	HOT-MIX ASPHALT - MIXTURE DESIGN VERIFICATION AND PRODUCTION (BDE)	E 11/1/13
	ZDE\	z40603.doc	SURFACE TESTING OF HOT-MIX ASPHALT OVERLAYS (BDE)	E 1/1/13
	ZDE\	z40607.doc	HOT-MIX ASPHALT - DENSITY TESTING OF LONGITUDINAL JOINTS (BDE)	E 1/1/10 R 4/1/12
	ZDE\	z40614.doc	HOT-MIX - MIXTURE DESIGN COMPOSITION AND VOLUMETRIC REQUIREMENTS (BDE)	E 11/1/13
	ZDE\	z42003.doc	MECHANICAL SIDE TIE BAR INSERTER (BDE)	E 8/1/14
	ZDE\	z44000.doc	LONGITUDINAL JOINT AND CRACK PATCHING (BDE)	E 4/1/14
	ZDE\	z44001.doc	PAVED SHOULDER REMOVAL (BDE)	E 4/1/14
	ZDE\	z44002.doc	PORTLAND CEMENT CONCRETE PARTIAL DEPTH HOT-MIX ASPHALT PATCHING (BDE)	E 4/1/14
	ZDE\	z50400.doc	CONCRETE BOX CULVERTS WITH SKEWS > 30 DEGREES AND DESIGN FILLS ≤ 5 FEET (BDE)	E 4/1/12 R 4/1/14
	ZDE\	z50404.doc	CONCRETE BOX CULVERTS WITH SKEWS ≤ 30 DEGREES REGARDLESS OF DESIGN FILL AND SKEWS > 30 DEGREES WITH DESIGN FILLS > 5 FEET (BDE)	E 4/1/12 R 4/1/14
	ZDE\	z50805.doc	REINFORCEMENT BARS (BDE)	E 11/01/13
	ZDE\	z54200.doc	CONCRETE END SECTIONS FOR PIPE CULVERTS (BDE)	E 1/1/13
	ZDE\	z54201.doc	TRAVERSABLE PIPE GRADE (BDE)	E 1/1/13 R 4/1/14
	ZDE\	z54202.doc	LRFD PIPE CULVERT BURIAL TABLES (BDE)	E 11/1/13 R 4/1/14
	ZDE\	z54300.doc	INSERTION LINING OF CULVERTS (BDE)	E 1/1/13 R 11/01/13
	ZDE\	z55000.doc	LRFD STORM SEWER BURIAL TABLES	E 11/01/13
	ZDE\	z60602.doc	CONCRETE GUTTER, CURB, MEDIAN, AND PAVED DITCH (BDE)	E 4/1/14 R 8/1/14
	ZDE\	z63800.doc	GLARE SCREEN (BDE)	E 1/1/14
	ZDE\	z66901.doc	REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)	E 1/1/12 R 11/2/12
	ZDE\	z70100.doc	AUTOMATED FLAGGER ASSISTANCE DEVICES (BDE)	E 1/1/08
	ZDE\	z70115.doc	SPEED DISPLAY TRAILER (BDE)	E 4/2/14
	ZDE\	z70117.doc	PAVEMENT PATCHING (BDE)	E 1/1/10
	ZDE\	z70118.doc	TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY (BDE)	E 1/1/14
	ZDE\	z70302.doc	PAVEMENT MARKING TAPE TYPE IV (BDE)	E 4/1/12
	ZDE\	z78000.doc	WET REFLECTIVE THERMOPLASTIC PAVEMENT MARKING (BDE)	E 1/1/12

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	ZDE\	z78002.doc	PREFORMED PLASTIC PAVEMENT MARKING TYPE D - INLAID (BDE)	E 4/1/12
	ZDE\	z78003.doc	GROOVING FOR RECESSED PAVEMENT MARKINGS (BDE)	E 11/1/12 R 8/1/14
	ZDE\	z78014.doc	PAVEMENT MARKING FOR BIKE SYMBOL (BDE)	E 1/1/14
	ZDE\	z81403.doc	PRECAST CONCRETE HANDHOLE (BDE)	E 8/1/14
	ZDE\	z82106.doc	UNDERPASS LUMINAIRE (BDE)	E 8/1/14
	ZDE\	z88800.doc	ACCESSIBLE PEDESTRIAN SIGNALS (APS) (BDE)	E 4/1/03 R 1/1/14
	ZDE\	z100304.doc	GRANULAR MATERIALS(BDE)	E 11/1/12
	ZDE\	z100401.doc	FRICTION AGGREGATE (BDE)	E 1/1/11
	ZDE\	z100402.doc	COARSE AGGREGATE IN BRIDGE APPROACH SLABS/FOOTINGS (BDE)	E 4/1/12 R 4/1/13
	ZDE\	z100827.doc	MOSITURE CURED URETHANE PAINT SYSTEM (BDE)	E 11/01/06 R 1/1/10
	ZDE\	z102005a.doc	CONCRETE MIX DESIGN - DEPARTMENT PROVIDED (BDE)	E 1/1/12 R1/1/14
	ZDE\	z102013.doc	PORTLAND CEMENT CONCRETE - CURING OF ABUTMENTS AND PIERS (BDE)	E 1/1/14
	ZDE\	z102016.doc	QUALITY CONTROL/QUALITY ASSURANCE OF CONCRETE MIXTURES (BDE)	E 1/1/12 R 1/1/14
	ZDE\	z103100.doc	RECLAIMED ASPHALT PAVEMENT (RAP) AND RECLAIMED ASPHALT SHINGLES (RAS) (BDE)	E 11/1/12 R 4/1/14
	ZDE\	z106707.doc	WATERWAY OBSTRUCTION WARNING LUMINAIRE (BDE)	E 8/1/14
	ZDE\	z108801.doc	COATED GALVANIZED STEEL CONDUIT (BDE)	E 1/1/13 R 8/1/14
	ZDE\	z108802.doc	COILABLE NON-METALLIC CONDUIT (BDE)	E 8/1/14
	ZDE\	z108803.doc	RIGID METAL CONDUIT (BDE)	E 8/1/14
	ZDE\	z110303.doc	PORTLAND CEMENT CONCRETE EQUIPMENT	E 11/01/13

BDE Special Provisions

REVISED INDEX

NUMERIC DESIGN INTERIM SPECIAL PROVISIONS (ISP's)

Get a copy of the current check list from the Program Development Secretary, indicate which ISP's are to be included in your set of special provisions, fill in any blanks as indicated on the check list, and include with your set of special provisions to be sent to Springfield where they will be inserted.

Standard Spec. No.	PC No.	Item
100.00	10000	Errata for the 2012 Standard Specifications
107.01	10701	Construction Air Quality – Diesel Retrofit
107.11a	10711a	Railroad Protective Liability Insurance
107.11b	10711b	Railroad Protective Liability Insurance (5 and 10)
107.19a	10719a	Building Removal Case
107.19b	10719b	Building Removal Case II
107.19c	10719c	Building Removal Case III
107.19d	10719d	Building Removal Case IV
107.23	10723	Tracking the Use of Pesticides
107.38	10738	Bridge Demolition Debris
108.05	10805	Working Days
108.05a	10805a	Completion Date (Via Calendar Days)
108.05b	10805b	Completion Date (Via Calendar Days) Plus Working Days
108.06	10806	Training Special Provision
108.06a	10806a	Disadvantaged Business Enterprise Participation
108.06b	10806b	Weekly DBE Trucking Reports
109.00a	10900a	Steel Cost Adjustment
109.01	10901	Bituminous Materials Cost Adjustments
109.03	10903	Fuel Cost Adjustment
109.09	10909	Contract Claims

NUMERIC DESIGN INTERIM SPECIAL PROVISIONS (ISP's)

Standard Spec. No.	PC No.	Item
202.03	20203	Removal and Disposal of Surplus Materials
250.07	25007	Seeding
280.02	28002	Above Grade Inlet Protection
303.00	30300	Aggregate Subgrade Improvement
312.06	31206	Stabilized Subbase
406.00	40600	Warm Mix Asphalt
406.01	40601	Hot-Mix Asphalt – Mixture Design Verification and Production
406.00f	40600f	Material Transfer Device
406.03	40603	Surface Testing of Hot-Mix Asphalt Overlays
406.07	40607	Hot-Mix Asphalt – Density Testing of Longitudinal Joints
406.14	40614	Hot-Mix Asphalt – Mixture Design Composition and Volumetric Requirements
420.03	42003	Mechanical Side Tie Bar Inserter
440.00	44000	Longitudinal Joint and Crack Patching
440.01	44001	Paved Shoulder Removal
440.02	44002	Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching
504.00	50400	Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet
504.04	50404	Concrete Box Culverts with Skews ≤ 30 Degrees Regardless of Design Fill and Skews >30 Degrees with Design Fills > 5 Feet
508.05	50805	Reinforcement Bars
542.00	54200	Concrete End Sections for Pipe Culverts
542.01	54201	Traversable Pipe Grate
542.02	54202	LRFD Pipe Culvert Burial Tables
543.00	54300	Insertion Lining of Culverts

NUMERIC DESIGN INTERIM SPECIAL PROVISIONS (ISP's)

Standard Spec. No.	PC No.	Item
550.00	55000	LRFD Storm Sewer Burial Tables
606.02	60602	Concrete Gutter, Curb, Median, and Paved Ditch
669.01	69901	Removal and Disposal of Regulated Substances
701.00	70100	Automated Flagger Assistance Devices
701.15	70115	Speed Display Trailer
701.17	70117	Pavement Patching
703.02	70302	Pavement Marking Tape Type IV
780.00	780.00	Wet Reflective Thermoplastic Pavement Marking
780.02	78002	Preformed Plastic Pavement Marking Type D - Inlaid
780.03	780.03	Grooving for Recessed Pavement Markings
814.03	81403	Precast Concrete Handhole
821.06	82106	Underpass Luminaire
888.00	88800	Accessible Pedestrian Signals (APS)
1003.04	100304	Granular Materials
1004.01	100401	Friction Aggregate
1004.02	100402	Coarse Aggregate in Bridge Approach Slabs/Footings
1008.27	100827	Moisture Cured Urethane Paint System
1020.05a	102005a	Concrete Mix Design – Department Provided
1020.13	102013	Portland Cement Concrete – Curing of Abutments and Piers
1020.16	102016	Quality Control/Quality Assurance of Concrete Mixtures
1031.00	103100	Reclaimed Asphalt Pavement and Reclaimed Asphalt Shingles
1067.07	106707	Waterway Obstruction Warning Luminaire
1088.01	108801	Coated Galvanized Steel Conduit

NUMERIC DESIGN INTERIM SPECIAL PROVISIONS (ISP's)

Standard Spec. No.	PC No.	Item
1088.02	108802	Coilable Non Metallic Conduit
1088.03	108803	Rigid Metal Conduit
1103.03	110303	Portland Cement Concrete Equipment

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ALPHABETIC LIST OF DESIGN INTERIM SPECIAL PROVISIONS (ISP's)

Get a copy of the current check list from the Program Development Secretary, indicate which ISP's are to be included in your set of special provisions, fill in any blanks as indicated on the check list, and include with your set of special provisions to be sent to Springfield where they will be inserted.

Standard Spec. No.	PC No.	Item
280.02	28002	Above Grade Inlet Protection
888.00	88800	Accessible Pedestrian Signals (APS)
303.00	30300	Aggregate Subgrade Improvement
701.00	70100	Automated Flagger Assistance Devices
109.01	10901	Bituminous Materials Cost Adjustment
107.38	10738	Bridge Demolition Debris
503.19	50319	Bridge Relief Joint Sealer
107.19a	10719a	Building Removal Case I
107.19b	10719b	Building Removal Case II
107.19c	10719c	Building Removal Case III
107.19d	10719d	Building Removal Case IV
1004.02	100402	Coarse Aggregate in Bridge Approach Slabs/Footings
1088.01	108801	Coated Galvanized Steel Conduit
1088.02	108802	Coilable Non Metallic Conduit
108.05a	10805a	Completion Date (Via Calendar Days)
108.05b	10805b	Completion Date (Via Calendar Days) Plus working Days
504.00	50400	Concrete Box Culverts with Skews > 30 Degrees and Design Fills ≤ 5 Feet
504.04	50404	Concrete Box Culverts with Skews ≤ 30 Degrees Regardless of Design Fill and Skews >30 Degrees with Design Fills > 5 Feet
542.00	54200	Concrete End Sections for Pipe Culverts
606.02	60602	Concrete Gutter, Curb, Median, and Paved Ditch

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ALPHABETIC LIST OF DESIGN INTERIM SPECIAL PROVISIONS (ISP's)

Standard Spec. No.	PC No.	Item
1020.05a	102005a	Concrete Mix Design – Department Provided
107.01	10701	Construction Air Quality – Diesel Retrofit
109.09	10909	Contract Claims
108.06a	10806a	Disadvantaged Business Enterprise Participation
100.00	10000	Errata for the 2012 Standard Specifications
1004.01	100401	Friction Aggregate
109.03	10903	Fuel Cost Adjustment
1003.04	100304	Granular Materials
780.03	780.03	Grooving for Recessed Pavement Markings
406.07	40607	Hot-Mix Asphalt-Density Testing of Longitudinal Joints
406.14	40614	Hot-Mix Asphalt – Mixture Design Composition and Volumetric Requirements
406.01	40601	Hot-Mix Asphalt – Mix Design Verification and Production
440.00	44000	Longitudinal Joint and Crack Patching
543.00	54300	Insertion Lining of Culverts
542.02	54202	LRFD Pipe Culvert Burial Tables
550.00	55000	LRFD Storm Sewer Burial Tables
420.03	42003	Mechanical Side Tie Bar Inserter
406.00f	40600f	Material Transfer Device
1008.27	100827	Moisture Cured Urethane Paint System
440.01	44001	Paved Shoulder Removal
703.02	70302	Pavement Marking Tape Type IV
701.17	70117	Pavement Patching

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ALPHABETIC LIST OF DESIGN INTERIM SPECIAL PROVISIONS (ISP's)

Standard Spec. No.	PC No.	Item
1103.03	110303	Portland Cement Concrete Equipment
440.02	44002	Portland Cement Concrete Partial Depth Hot-Mix Asphalt Patching
1020.13	102013	Portland Cement Concrete – Curing of Abutments and Piers
814.03	81403	Precast Concrete Handhole
780.00	78000	Preformed Plastic Pavement Marking Type D - Inlaid
1020.16	102016	Quality Control/Quality Assurance of Concrete Mixtures
107.11	10711a	Railroad Protective Liability Insurance
107.11	10711b	Railroad Protective Liability Insurance (5 and 10)
1031.00	103100	Reclaimed Asphalt Pavement and Reclaimed Asphalt Singles
508.05	50805	Reinforcement Bars
669.01	66901	Removal and Disposal of Regulated Substances
202.03	20203	Removal and Disposal of Surplus Materials
1088.03	108803	Rigid Metal Conduit
250.07	25007	Seeding
701.15	70115	Speed Display Trailer
312.06	31206	Stabilized Subbase
109.00	10900a	Steel Cost Adjustment
406.03	40603	Surface Testing of Hot-Mix Asphalt Overlays
280.04	28004	Temporary Erosion and Sediment Control
107.23	10723	Tracking the Use of Pesticides
108.06	10806	Training Special Provision
542.01	54201	Traversable Pipe Grate

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ALPHABETIC LIST OF DESIGN INTERIM SPECIAL PROVISIONS (ISP's)

Standard Spec. No.	PC No.	Item
821.06	82106	Underpass Luminaire
406.00	40600	Warm Mix Asphalt
1067.07	106707	Waterway Obstruction Warning Luminaire
108.06b	10806b	Weekly DBE Trucking Reports (BDE)
780.00	78000	Wet Reflective Thermoplastic Pavement Marking
108.05	10805	Working Days

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Designer Note: Include on contracts with building demolition involving buildings containing non-friable and friable asbestos abatement. Land Acquisition inspects all buildings to be removed for the presence of asbestos and can provide the designer with that information for use in this special provision. Note that this special provision requires the insertion of information in several places. The designer must also complete Appendices A-D for insertion with this special provision.

BUILDING REMOVAL - CASE I (NON-FRIABLE AND FRIABLE ASBESTOS ABATEMENT) (BDE)

Effective: September 1, 1990
Revised: April 1, 2010

BUILDING REMOVAL: This work shall consist of the removal and disposal of _____ building(s), together with all foundations, retaining walls, and piers, down to a plane 1' ft. (300 mm) below the ultimate or existing grade in the area and also all incidental and collateral work necessary to complete the removal of the building(s) in a manner approved by the Engineer. Any holes, such as basements, shall be filled with a suitable granular material. The building(s) are identified as follows:

Bldg. No.	Parcel No.	Location	Description

Discontinuance of Utilities: The Contractor shall arrange for the discontinuance of all utility services and the removal of the metering devices that serve the building(s) according to the respective requirements and regulations of the City, County, or utility companies involved. The Contractor shall disconnect and seal, in an approved manner, all service outlets that serve any building(s) he/she is to remove.

Signs: Immediately upon execution of the contract and prior to the wrecking of any structures, the Contractor shall be required to paint or stencil, in contrasting colors of an oil base paint, on all four sides of each residence and two opposite sides of other structures, the following sign:

PROPERTY ACQUIRED FOR
HIGHWAY CONSTRUCTION
TO BE DEMOLISHED BY THE

VANDALS WILL BE PROSECUTED

The signs shall be positioned in a prominent location on the structure so that they can be easily seen and read and at a sufficient height to prevent defacing. The Contractor shall not paint signs nor start demolition of any building(s) prior to the time that the State becomes the owner of the respective building(s).

All friable asbestos shall be removed from the building(s) prior to demolition. The Contractor has the option of removing the non-friable asbestos prior to demolition or demolishing the building(s) with the non-friable asbestos in place. Refer to the Special Provisions titled "Asbestos Abatement (General Conditions)", "Removal and Disposal of Friable Asbestos Building No._____", and "Removal and Disposal of Non-Friable Asbestos Building No. _____" contained herein.

Basis of Payment: This work will be paid for at the contract lump sum unit price for BUILDING REMOVAL, numbers as listed above, which price shall be payment in full for complete removal of the buildings and structures, including any necessary backfilling material as specified herein. The lump sum unit price(s) for this work shall represent the cost of demolition and disposal assuming all asbestos, friable and non-friable, is removed prior to demolition. Any salvage value shall be reflected in the contract unit price for this item.

EXPLANATION OF BIDDING TERMS: Three separate contract unit price items have been established for the removal of each building. They are:

1. BUILDING REMOVAL NO. _____

2. REMOVAL AND DISPOSAL OF FRIABLE ASBESTOS, BUILDING NO. _____

3. REMOVAL AND DISPOSAL OF NON-FRIABLE ASBESTOS, BUILDING NO. _____

The Contractor shall have two options available for the removal and disposal of the non-friable asbestos.

The pay item for removal and disposal of non-friable asbestos will not be deleted regardless of the option chosen by the Contractor.

ASBESTOS ABATEMENT (GENERAL CONDITIONS): This work consists of the removal and disposal of friable and non-friable asbestos from the building(s) to be demolished. All work shall be done according to the requirements of the U.S. Environmental Protection Agency (USEPA), the Illinois Environmental Protection Agency (IEPA), the Occupational Safety and Health Administration (OSHA), the Special Provisions for "Removal and Disposal of Friable Asbestos, Building No._____" and "Removal and Disposal of Non-Friable Asbestos, Building No. _____", and as outlined herein.

Sketches indicating the location of Asbestos Containing Material (ACM) are included in the proposal on pages _____ thru _____. Also refer to the Materials Description Table on page _____ for a brief description and location of the various materials. Also included is a Materials Quantities Table on page _____. This table states whether the ACM is friable or non-friable and gives the approximate quantity. The quantities are given only for information and it shall be the Contractor's responsibility to determine the exact quantities prior to submitting his/her bid.

The work involved in the removal and disposal of friable asbestos, and non-friable asbestos if done prior to demolition, shall be performed by a Contractor or Sub-Contractor prequalified with the Illinois Capital Development Board.

The Contractor shall provide a shipping manifest, similar to the one shown on page _____, to the Engineer for the disposal of all ACM wastes.

Permits: The Contractor shall apply for permit(s) in compliance with applicable regulations of the Illinois Environmental Protection Agency. Any and all other permits required by other federal, state, or local agencies for carrying on the work shall be the responsibility of the Contractor. Copies of these permits shall be sent to the district office and the Engineer.

Notifications: The "Demolition/Renovation Notice" form, which can be obtained from the IEPA office, shall be completed and submitted to the address listed below at least ten days prior to commencement of any asbestos removal or demolition activity. Separate notices shall be sent for the asbestos removal work and the building demolition if they are done as separate operations.

Asbestos Demolition/Renovation Coordinator
Illinois Environmental Protection Agency
Division of Air Pollution Control
P. O. Box 19276
Springfield, Illinois 62794-9276
(217) 785-1743

Notices shall be updated if there is a change in the starting date or the amount of asbestos changes by more than 20% percent.

Submittals:

A. All submittals and notices shall be made to the Engineer, except where otherwise specified herein.

B. Submittals that shall be made prior to start of work:

1. Submittals required under Asbestos Abatement Experience.

2. Submit documentation indicating that all employees have had medical examinations and instruction on the hazards of asbestos exposure, on use and fitting of respirators, on protective dress, on use of showers, on entry and exit from work areas, and on all aspects of work procedures and protective measures as specified in Worker Protection Procedures.

3. Submit manufacturer's certification stating that vacuums, ventilation equipment, and other equipment required to contain airborne fibers conform to ANSI 29.2.

4. Submit to the Engineer the brand name, manufacturer, and specification of all sealants or surfactants to be used. Testing under existing conditions will be required at the direction of the Engineer.

5. Submit proof that all required permits, site locations, and arrangements for transport and disposal of asbestos-containing or asbestos-contaminated materials, supplies, and the like have been obtained (i.e., a letter of authorization to utilize designated landfill).

6. Submit a list of penalties, including liquidated damages, incurred through non-compliance with asbestos abatement project specifications.

7. Submit a detailed plan of the procedures proposed for use in complying with the requirements of this specification. Include in the plan the location and layout of decontamination units, the sequencing of work, the respiratory protection plan to be used during this work, a site safety plan, a disposal plan including the location of an approved disposal site, and a detailed description of the methods to be used to control pollution. The plan shall be submitted to the Engineer prior to the start of work.

8. Submit proof of written notification and compliance with Paragraph "Notifications".

C. Submittals that shall be made upon completion of abatement work:

1. Submit copies of all waste chain-of-custodies, trip tickets, and disposal receipts for all asbestos waste materials removed from the work area;

2. Submit daily copies of work site entry logbooks with information on worker and visitor access;

3. Submit logs documenting filter changes on respirators, HEPA vacuums, negative pressure ventilation units, and other engineering controls; and

4. Submit results of any bulk material analysis and air sampling data collected during the course of the abatement including results of any on-site testing by any federal, state, or local agency.

Certificate of Insurance:

A. The Contractor shall document general liability insurance for personal injury, occupational disease and sickness or death, and property damage.

B. The Contractor shall document current Workmen's Compensation Insurance coverage.

C. The Contractor shall supply insurance certificates as specified by the Department.

Asbestos Abatement Experience:

A. Company Experience: Prior to starting work, the Contractor shall supply evidence that he/she has been prequalified with the Illinois Capital Development Board and that he/she has been included on the Illinois Department of Public Health's list of approved Contractors.

B. Personnel Experience:

1. For Superintendent, the Contractor shall supply:

a. Evidence of knowledge of applicable regulations in safety and environmental protection is required as well as training in asbestos abatement as evidenced by the successful completion of a training course in supervision of asbestos abatement as specified in 40 CFR 763, Subpart E, Appendix C, EPA Model Contractor Accreditation Plan. A copy of the certificate of successful completion shall be provided to the Engineer prior to the start of work.

b. Documentation of experience with abatement work in a supervisory position as evidenced through supervising at least two asbestos abatement projects; provide names, contact, phone number, and locations of two projects in which the individual(s) has worked in a supervisory capacity.

2. For workers involved in the removal of friable and non-friable asbestos, the Contractor shall provide training as evidenced by the participation and successful completion of an accredited training course for asbestos abatement workers as specified in 40 CFR 763, Subpart E, Appendix C, EPA Model Contractor Accreditation Plan. A copy of the certificate of successful completion shall be provided to all employees who will be working on this project.

ABATEMENT AIR MONITORING: The Contractor shall comply with the following:

A. Personal Monitoring: All personal monitoring shall be conducted per specifications listed in OSHA regulation, Title 29, Code of Federal Regulation 1926.58. All area sampling shall be conducted according to 40 CFR Part 763.90. All air monitoring equipment shall be calibrated and maintained in proper operating condition. Excursion limits shall be monitored daily. Personal monitoring is the responsibility of the Contractor. Additional personal samples may be required by the Engineer at any time during the project.

B. Contained Work Areas for Removal of Friable Asbestos: Area samples shall be collected for the department within the work area daily. A minimum of one sample shall be taken outside of the abatement area removal operations. The Engineer will also have the option to require additional personal samples and/or clearance samples during this type of work.

C. Interior Non-Friable Asbestos-Containing Materials: The Contractor shall perform personal air monitoring during removal of all nonfriable Transite and floor tile removal operations. The Engineer will also have the option to require additional personal samples and/or clearance samples during this type of work.

D. Exterior Non-Friable Asbestos-Containing Materials: The Contractor shall perform personal air monitoring during removal of all nonfriable cementitious panels, piping, roofing felts, and built up roofing materials that contain asbestos.

The Contractor shall conduct down wind area sampling to monitor airborne fiber levels at a frequency of no less than three per day.

E. Air Monitoring Professional

1. All air sampling shall be conducted by a qualified Air Sampling Professional supplied by the Contractor. The Air Sampling Professional shall submit documentation of successful completion of the National Institute for Occupational Safety and Health (NIOSH) course #582 - "Sampling and Evaluating Airborne Asbestos Dust".

2. Air sampling shall be conducted according to NIOSH Method 7400. The results of these tests shall be provided to the Engineer within 24 hours of the collection of air samples.

REMOVAL AND DISPOSAL OF FRIABLE ASBESTOS, BUILDING NO. _____: This work consists of the removal and disposal of all friable asbestos from the building(s) prior to demolition. The work shall be done according to the Special Provision titled "Asbestos Abatement (General Conditions)" and as outlined herein.

This work will be paid for at the contract unit price per lump sum for REMOVAL AND DISPOSAL OF FRIABLE ASBESTOS, BUILDING NO. _____, as shown, which price shall include furnishing all labor, materials, equipment and services required to remove and dispose of the friable asbestos.

REMOVAL AND DISPOSAL OF NON-FRIABLE ASBESTOS, BUILDING NO. _____: The Contractor has the option of removing and disposing of the non-friable asbestos prior to demolition of the building(s) or demolishing the building(s) with the non-friable asbestos in place.

Option #1 - If the Contractor chooses to remove all non-friable asbestos prior to demolition, the work shall be done according to the Special Provision titled "Asbestos Abatement (General Conditions)".

Option #2 - If the Contractor chooses to demolish the building(s) with the non-friable asbestos in place, the following provisions shall apply:

1. Continuously wet all non-friable ACM and other building debris with water during demolition.

2. Dispose of all demolition debris as asbestos containing material by placing it in lined, covered transport haulers and placing it in an approved landfill.

This work will be paid for at the contract unit price per lump sum for REMOVAL AND DISPOSAL OF NON-FRIABLE ASBESTOS, BUILDING NO. _____, as shown.

The cost for this work shall be determined as follows:

Option #1 - Actual cost of removal and disposal of non-friable asbestos.

Option #2 - The difference in cost between removing and disposing of the building if all non-friable asbestos is left in place and removing and disposing of the building assuming all non-friable asbestos is removed prior to demolition.

The cost of removing and disposing of the building(s), assuming all asbestos, friable and non-friable is removed first, shall be represented by the pay item "BUILDING REMOVAL NO. _____".

Regardless of the option chosen by the Contractor, this pay item will not be deleted, nor will the pay item BUILDING REMOVAL NO. _____ be deleted.

EXAMPLE

Attached are Appendixes A - D. These appendixes are examples of the information to be included in the proposal and referred to on page 3 of the Special Provision.

Appendix A are the sketches of the building(s) noted on page 1 of the Special Provision. These sketches show the location of asbestos on each floor of the building(s).

Appendix B provides a "Material Description Table" also referred to on page 3 of the Special Provision.

Appendix C is a "Material Quantities Table" and is referred to on page 3 of the Special Provision.

Appendix D is a sample of a Shipping Manifest form referred to on page 3.

Appendix E is a sample of the building(s) identification needed on page 1.

APPENDIX A

SKETCHES

BUILDING NO. _____

APPENDIX B

MATERIAL DESCRIPTION TABLE

Material Description	% And Type Of Asbestos	Location, Description, Sample Number (If Applicable)

I. _____

Material Description	% Type	Location, Description, Sample No.

II. _____

Material Description	% Type	Location, Description, Sample No.

APPENDIX C

MATERIAL QUANTITIES TABLE

The following are approximate quantities of ACM to be removed from the building indicated. These material quantities do not indicate the cleaning required to remove asbestos debris and resulting contamination from the work areas.

I. _____

Material	Floor	Quantity Present	Friable

II. _____

Material	Floor	Quantity Present	Friable

APPENDIX D

SHIPPING MANIFEST
Generator

1. Work Site Name and Mailing Address	Owner's Name		Owner's Telephone No.
2. Operator's Name and Address			Operator's. Telephone No
3. Waste Disposal Site (WDS) Name Mailing Address, and Physical Site Location			WDS Telephone No.
4. Name and Address of Responsible Agency			
5. Description of Materials			
6. Containers	No.	Type	
7. Total Quantity	M^3	(Yd^3)	
8. Special Handling Instructions and Additional Information			
9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.			
Printed/Typed Name & Title	Signature		Month Day Year

Transporter

10. Transporter 1 (Acknowledgement of Receipt of Materials)		
Printed/Typed Name & Title Address and Telephone No.	Signature	Month Day Year
11. Transporter 2 (Acknowledgement of Receipt of Materials)		
Printed/Typed Name & Title Address and Telephone No.	Signature	Month Day Year

Disposal Site

12. Discrepancy Indication Space		
13. Waste Disposal Site Owner or Operator: Certification of Receipt of Asbestos Materials Covered By This Manifest Except As Noted in Item 12		
Printed/Typed Name & Title	Signature	Month Day Year

APPENDIX D

INSTRUCTIONS

Waste Generator Section (Items 1-9)

1. Enter the name of the facility at which asbestos waste is generated and the address where the facility is located. In the appropriate spaces, also enter the name of the owner of the facility and the owner's phone number.

2. If a demolition or renovation, enter the name and address of the Company and authorized agent responsible for performing the asbestos removal. In the appropriate spaces, also enter the phone number of the operator.

3. Enter the name, address, and physical site location of the waste disposal site (WDS) that will be receiving the asbestos materials. In the appropriate spaces, also enter the phone number of the WDS. Enter "on-site" if the waste will be disposed of on the generator's property.

4. Provide the name and address of the local, State, or EPA Regional Office responsible for administering the asbestos NESHAP program.

5. Indicate the types of asbestos waste materials generated. If from a demolition or renovation, indicate the amount of asbestos that is

   - Friable asbestos material
   - Non-friable asbestos material

6. Enter the number of containers used to transport the asbestos materials listed in Item 5. Also enter one of the following container codes used in transporting each type of asbestos material (specify any other type of container used if not listed below):

   DM - Metal drums, barrels
   DP - Plastic drums, barrels
   BA - 6 mil plastic bags or wrapping

7. Enter the quantities of each type of asbestos material removed in units of cubic meters (cubic yards).

8. Use this space to indicate special transportation, treatment, storage or disposal or Bill of Lading information. If an alternate waste disposal site is designated, note it here. Emergency response telephone numbers or similar information may be included here.

9. The authorized agent of the waste generator shall read and then sign and date this certification. The date is the date of receipt by transporter.

NOTE: The waste generator shall retain a copy of this form.

APPENDIX D

INSTRUCTIONS

Transporter Section (Items 10 & 11)

10. & 11. Enter name, address, and telephone number of each transporter used, if applicable. Print or type the full name and title of person accepting responsibility and acknowledging receipt of materials as listed on this waste shipment record for transport.

NOTE: The transporter shall retain a copy of this form.

Disposal Site Section (Items 12 & 13)

12. The authorized representative of the WDS shall note in this space any discrepancy between waste described on this manifest and waste actually received as well as any improperly enclosed or contained waste. Any rejected materials should be listed and destination of those materials provided. A site that converts asbestos-containing waste material to non-asbestos material is considered a WDS.

13. The signature (by hand) of the authorized WDS agent indicates acceptance and agreement with statements on this manifest except as noted in Item 12. The date is the date of signature and receipt of shipment.

NOTE: The WDS shall retain a completed copy of this form. The WDS shall also send a completed copy to the operator listed in Item 2.

APPENDIX E

Bldg. No.	Parcel No.	Location	Description

Designer Note: Include on all contracts with building demolition involving buildings containing only non-friable asbestos. Land Acquisition inspects all buildings to be removed for the presence of asbestos and can provide the designer with that information for use in selecting the proper buildings removal case number to use. Note this special provision requires the insertion of information in several locations. The designer must also fill out Appendices A-D for insertion with this special provision.

BUILDING REMOVAL - CASE II (NON-FRIABLE ASBESTOS ABATEMENT) (BDE)

Effective: September 1, 1990
Revised: April 1, 2010

BUILDING REMOVAL: This work shall consist of the removal and disposal of _____ building(s), together with all foundations, retaining walls, and piers, down to a plane 1 ft. (300 mm) below the ultimate or existing grade in the area and also all incidental and collateral work necessary to complete the removal of the building(s) in a manner approved by the Engineer. Any holes, such as basements, shall be filled with a suitable granular material. The building(s) are identified as follows:

Bldg. No.	Parcel No.	Location	Description

Discontinuance of Utilities: The Contractor shall arrange for the discontinuance of all utility services and the removal of the metering devices that serve the building(s) according to the respective requirements and regulations of the City, County, or utility companies involved. The Contractor shall disconnect and seal, in an approved manner, all service outlets that serve any building(s) he/she is to remove.

Signs: Immediately upon execution of the contract and prior to the wrecking of any structures, the Contractor shall be required to paint or stencil, in contrasting colors of an oil base paint, on all four sides of each residence and two opposite sides of other structures, the following sign:

PROPERTY ACQUIRED FOR
HIGHWAY CONSTRUCTION
TO BE DEMOLISHED BY THE

VANDALS WILL BE PROSECUTED

The signs shall be positioned in a prominent location on the structure so that they can be easily seen and read and at a sufficient height to prevent defacing. The Contractor shall not paint signs nor start demolition of any building(s) prior to the time that the State becomes the owner of the respective building(s).

The Contractor has the option of removing the non-friable asbestos prior to demolition or demolishing the building(s) with the non-friable asbestos in place. Refer to the Special Provisions titled "Asbestos Abatement (General Conditions)" and "Removal and Disposal of Non-Friable Asbestos Building No. _____" contained herein.

Basis of Payment: This work will be paid for at the contract lump sum unit price for BUILDING REMOVAL, numbers as listed above, which price shall be payment in full for complete removal of the buildings and structures, including any necessary backfilling material as specified herein. The lump sum unit price(s) for this work shall represent the cost of demolition and disposal assuming all non-friable asbestos is removed prior to demolition. Any salvage value shall be reflected in the contract unit price for this item.

EXPLANATION OF BIDDING TERMS: Two separate contract unit price items have been established for the removal of each building. They are:

1. BUILDING REMOVAL NO. _____

2. REMOVAL AND DISPOSAL OF NON-FRIABLE ASBESTOS, BUILDING NO. _____

The Contractor shall have two options available for the removal and disposal of the non-friable asbestos.

The pay item for removal and disposal of non-friable asbestos will not be deleted regardless of the option chosen by the Contractor.

ASBESTOS ABATEMENT (GENERAL CONDITIONS): This work consists of the removal and disposal of non-friable asbestos from the building(s) to be demolished. All work shall be done according to the requirements of the U.S. Environmental Protection Agency (USEPA), the Illinois Environmental Protection Agency (IEPA), the Occupational Safety and Health Administration (OSHA), the Special Provision for "Removal and Disposal of Non-Friable Asbestos, Building No. _____," and as outlined herein.

Sketches indicating the location of Asbestos Containing Material (ACM) are included in the proposal on pages _____ thru _____. Also refer to the Materials Description Table on page _____ for a brief description and location of the various materials. Also included is a Materials Quantities Table on page _____. This table states the ACM is non-friable and gives the approximate quantity. The quantities are given only for information and it shall be the Contractor's responsibility to determine the exact quantities prior to submitting his/her bid.

The work involved in the removal and disposal of non-friable asbestos if done prior to demolition, shall be performed by a Contractor or Sub-Contractor prequalified with the Illinois Capital Development Board.

The Contractor shall provide a shipping manifest, similar to the one shown on page _____, to the Engineer for the disposal of all ACM wastes.

Permits: The Contractor shall apply for permit(s) in compliance with applicable regulations of the Illinois Environmental Protection Agency. Any and all other permits required by other federal, state, or local agencies for carrying on the work shall be the responsibility of the Contractor. Copies of the permit(s) shall be sent to the district office and the Engineer.

Notifications: The "Demolition/Renovation Notice" form, which can be obtained from the IEPA office, shall be completed and submitted to the address listed below at least ten days prior to commencement of any asbestos removal or demolition activity. Separate notices shall be sent for the asbestos removal work and the building demolition if they are done as separate operations.

Asbestos Demolition/Renovation Coordinator
Illinois Environmental Protection Agency
Division of Air Pollution Control
P. O. Box 19276
Springfield, Illinois 62794-9276
Telephone: (217) 785-1743

Notices shall be updated if there is a change in the starting date or the amount of asbestos changes by more than 20% percent.

Submittals:

A. All submittals and notices shall be made to the Engineer except where otherwise specified herein.

B. Submittals that shall be made prior to start of work:

1. Submittals required under Asbestos Abatement Experience.

2. Submit documentation indicating that all employees have had medical examinations and instruction on the hazards of asbestos exposure, on use and fitting of respirators, on protective dress, on use of showers, on entry and exit from work areas, and on all aspects of work procedures and protective measures as specified in Worker Protection Procedures.

3. Submit manufacturer's certification stating that vacuums, ventilation equipment, and other equipment required to contain airborne fibers conform to ANSI 29.2.

4. Submit to the Engineer the brand name, manufacturer, and specification of all sealants or surfactants to be used. Testing under existing conditions will be required at the direction of the Engineer.

5. Submit proof that all required permits, site locations, and arrangements for transport and disposal of asbestos-containing or asbestos-contaminated materials, supplies, and the like have been obtained (i.e., a letter of authorization to utilize designated landfill).

6. Submit a list of penalties, including liquidated damages, incurred through non-compliance with asbestos abatement project specifications.

7. Submit a detailed plan of the procedures proposed for use in complying with the requirements of this specification. Include in the plan the location and layout of decontamination units, the sequencing of work, the respiratory protection plan to be used during this work, a site safety plan, a disposal plan including the location of an approved disposal site, and a detailed description of the methods to be used to control pollution. The plan shall be submitted to the Engineer prior to the start of work.

8. Submit proof of written notification and compliance with the "Notifications" paragraph.

C. Submittals that shall be made upon completion of abatement work:

1. Submit copies of all waste chain-of-custodies, trip tickets, and disposal receipts for all asbestos waste materials removed from the work area;

2. Submit daily copies of work site entry logbooks with information on worker and visitor access;

3. Submit logs documenting filter changes on respirators, HEPA vacuums, negative pressure ventilation units, and other engineering controls; and

4. Submit results of any bulk material analysis and air sampling data collected during the course of the abatement including results of any on-site testing by any federal, state, or local agency.

Certificate of Insurance:

A. The Contractor shall document general liability insurance for personal injury, occupational disease and sickness or death, and property damage.

B. The Contractor shall document current Workmen's Compensation Insurance coverage.

C. The Contractor shall supply insurance certificates as specified by the Department.

Asbestos Abatement Experience:

A. Company Experience. Prior to starting work, the Contractor shall supply evidence that he/she has been prequalified with the Illinois Capital Development Board and that he/she has been included on the Illinois Department of Public Health's list of approved Contractors.

B. Personnel Experience:

   1. For Superintendent, the Contractor shall supply:

      a. Evidence of knowledge of applicable regulations in safety and environmental protection is required as well as training in asbestos abatement as evidenced by the successful completion of a training course in supervision of asbestos abatement as specified in 40 CFR 763, Subpart E, Appendix C, EPA Model Contractor Accreditation Plan. A copy of the certificate of successful completion shall be provided to the Engineer prior to the start of work.

      b. Documentation of experience with abatement work in a supervisory position as evidenced through supervising at least two asbestos abatement projects; provide names, contact, phone number, and locations of two projects in which the individual(s) has worked in a supervisory capacity.

   2. For workers involved in the removal of asbestos, the Contractor shall provide training as evidenced by the participation and successful completion of an accredited training course for asbestos abatement workers as specified in 40 CFR 763, Subpart E, Appendix C, EPA Model Contractor Accreditation Plan. A copy of the certificate of successful completion shall be provided to all employees who will be working on this project.

ABATEMENT AIR MONITORING: The Contractor shall comply with the following:

A. Personal Monitoring. All personal monitoring shall be conducted per specifications listed in OSHA regulation, Title 29, Code of Federal Regulation 1926.58. All area sampling shall be conducted according to 40 CFR Part 763.90. All air monitoring equipment shall be calibrated and maintained in proper operating condition. Excursion limits shall be monitored daily. Personal monitoring is the responsibility of the Contractor. Additional personal samples may be required by the Engineer at any time during the project.

B. Interior Non-Friable Asbestos-Containing Materials. The Contractor shall perform personal air monitoring during removal of all non-friable Transite and floor tile removal operations. The Engineer will also have the option to require additional personal samples and/or clearance samples during this type of work.

C. Exterior Non-Friable Asbestos-Containing Materials. The Contractor shall perform personal air monitoring during removal of all non-friable cementitious panels, piping, roofing felts, and built up roofing materials that contain asbestos.

   The Contractor shall conduct down-wind area sampling to monitor airborne fiber levels at a frequency of no less than three per day.

D. Air Monitoring Professional

   1. All air sampling shall be conducted by a qualified Air Sampling Professional supplied by the Contractor. The Air Sampling Professional shall submit documentation of successful completion of the National Institute for Occupational Safety and Health (NIOSH) course #582 - "Sampling and Evaluating Airborne Asbestos Dust".

   2. Air sampling shall be conducted according to NIOSH Method 7400. The results of these tests shall be provided to the Engineer within 24 hours of the collection of air samples.

REMOVAL AND DISPOSAL OF NON-FRIABLE ASBESTOS, BUILDING NO. _____: The Contractor has the option of removing and disposing of the non-friable asbestos prior to demolition of the building(s) or demolishing the building(s) with the non-friable asbestos in place.

Option #1 - If the Contractor chooses to remove all non-friable asbestos prior to demolition, the work shall be done according to the Special Provision titled "Asbestos Abatement (General Conditions)".

Option #2 - If the Contractor chooses to demolish the building(s) with the non-friable asbestos in place, the following provisions shall apply:

1. Continuously wet all non-friable ACM and other building debris with water during demolition.

2. Dispose of all demolition debris as asbestos containing material by placing it in lined, covered transport haulers and placing it in an approved landfill.

This work will be paid for at the contract unit price per lump sum for REMOVAL AND DISPOSAL OF NON-FRIABLE ASBESTOS, BUILDING NO. _____, as shown.

The cost for this work shall be determined as follows:

Option #1 - Actual cost of removal and disposal of non-friable asbestos.

Option #2 - The difference in cost between removing and disposing of the building if all non-friable asbestos is left in place and removing and disposing of the building assuming all non-friable asbestos is removed prior to demolition.

The cost of removing and disposing of the building(s), assuming all non-friable asbestos is removed first, shall be represented by the pay item "BUILDING REMOVAL NO. _____".

Regardless of the option chosen by the Contractor, this pay item will not be deleted, nor will the pay item BUILDING REMOVAL NO. _____ be deleted.

EXAMPLE

Attached are Appendixes A - D. These appendixes are examples of the information to be included in the proposal and referred to on page 3 of the Special Provision.

Appendix A are the sketches of the building(s) noted on page 1 of the Special Provision. These sketches show the location of asbestos on each floor of the building(s).

Appendix B provides a "Material Description Table" also referred to on page 3 of the Special Provision.

Appendix C is a "Material Quantities Table" and is referred to on page 3 of the Special Provision.

Appendix D is a sample of a Shipping Manifest form referred to on page 3.

Appendix E is a sample of the building(s) identification needed on page 1.

APPENDIX A

SKETCHES

BUILDING NO. _____

APPENDIX B

MATERIAL DESCRIPTION TABLE

Material Description	% And Type Of Asbestos	Location, Description, Sample Number (If Applicable)

I. _____

Material Description	% Type	Location, Description, Sample No.

II. _____

Material Description	% Type	Location, Description, Sample No.

APPENDIX C

MATERIAL QUANTITIES TABLE

The following are approximate quantities of ACM to be removed from the building indicated. These material quantities do not indicate the cleaning required to remove asbestos debris and resulting contamination from the work areas.

I. _____

Material	Floor	Quantity Present	Friable

II. _____

Material	Floor	Quantity Present	Friable

APPENDIX D

SHIPPING MANIFEST
Generator

1. Work Site Name and Mailing Address	Owner's Name		Owner's Telephone No.
2. Operator's Name and Address			Operator's. Telephone No
3. Waste Disposal Site (WDS) Name Mailing Address, and Physical Site Location			WDS Telephone No.
4. Name and Address of Responsible Agency			
5. Description of Materials			
6. Containers	No.	Type	
7. Total Quantity	M^3	(Yd^3)	
8. Special Handling Instructions and Additional Information			
9. OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.			
Printed/Typed Name & Title	Signature		Month Day Year

Transporter

10. Transporter 1 (Acknowledgement of Receipt of Materials)		
Printed/Typed Name & Title Address and Telephone No.	Signature	Month Day Year
11. Transporter 2 (Acknowledgement of Receipt of Materials)		
Printed/Typed Name & Title Address and Telephone No.	Signature	Month Day Year

Disposal Site

12. Discrepancy Indication Space		
13. Waste Disposal Site Owner or Operator: Certification of Receipt of Asbestos Materials Covered By This Manifest Except As Noted in Item 12		
Printed/Typed Name & Title	Signature	Month Day Year

APPENDIX D

INSTRUCTIONS

Waste Generator Section (Items 1-9)

1. Enter the name of the facility at which asbestos waste is generated and the address where the facility is located. In the appropriate spaces, also enter the name of the owner of the facility and the owner's phone number.

2. If a demolition or renovation, enter the name and address of the Company and authorized agent responsible for performing the asbestos removal. In the appropriate spaces, also enter the phone number of the operator.

3. Enter the name, address, and physical site location of the waste disposal site (WDS) that will be receiving the asbestos materials. In the appropriate spaces, also enter the phone number of the WDS. Enter "on-site" if the waste will be disposed of on the generator's property.

4. Provide the name and address of the local, State, or EPA Regional Office responsible for administering the asbestos NESHAP program.

5. Indicate the types of asbestos waste materials generated. If from a demolition or renovation, indicate the amount of asbestos that is

   - Friable asbestos material
   - Non-friable asbestos material

6. Enter the number of containers used to transport the asbestos materials listed in Item 5. Also enter one of the following container codes used in transporting each type of asbestos material (specify any other type of container used if not listed below):

   DM - Metal drums, barrels
   DP - Plastic drums, barrels
   BA - 6 mil plastic bags or wrapping

7. Enter the quantities of each type of asbestos material removed in units of cubic meters (cubic yards).

8. Use this space to indicate special transportation, treatment, storage or disposal or Bill of Lading information. If an alternate waste disposal site is designated, note it here. Emergency response telephone numbers or similar information may be included here.

9. The authorized agent of the waste generator shall read and then sign and date this certification. The date is the date of receipt by transporter.

NOTE: The waste generator shall retain a copy of this form.

APPENDIX D

INSTRUCTIONS

Transporter Section (Items 10 & 11)

10. & 11. Enter name, address, and telephone number of each transporter used, if applicable. Print or type the full name and title of person accepting responsibility and acknowledging receipt of materials as listed on this waste shipment record for transport.

NOTE: The transporter shall retain a copy of this form.

Disposal Site Section (Items 12 & 13)

12. The authorized representative of the WDS shall note in this space any discrepancy between waste described on this manifest and waste actually received as well as any improperly enclosed or contained waste. Any rejected materials should be listed and destination of those materials provided. A site that converts asbestos-containing waste material to non-asbestos material is considered a WDS.

13. The signature (by hand) of the authorized WDS agent indicates acceptance and agreement with statements on this manifest except as noted in Item 12. The date is the date of signature and receipt of shipment.

NOTE: The WDS shall retain a completed copy of this form. The WDS shall also send a completed copy to the operator listed in Item 2.

APPENDIX E

Bldg. No.	Parcel No.	Location	Description

Designer Note: Include in all contracts with building demolition involving buildings containing only friable asbestos. Note that this special provision requires the insertion of information in several locations and the filling out of Appendices A-D for insertion with this special provision.

BUILDING REMOVAL - CASE III (FRIABLE ASBESTOS ABATEMENT) (BDE)

Effective: September 1, 1990
Revised: April 1, 2010

BUILDING REMOVAL: This work shall consist of the removal and disposal of _____ building(s), together with all foundations, retaining walls, and piers, down to a plane 1 ft. (300 mm) below the ultimate or existing grade in the area and also all incidental and collateral work necessary to complete the removal of the building(s) in a manner approved by the Engineer. Any holes, such as basements, shall be filled with a suitable granular material. The building(s) are identified as follows:

Bldg. No.	Parcel No.	Location	Description

Discontinuance of Utilities: The Contractor shall arrange for the discontinuance of all utility services and the removal of the metering devices that serve the building(s) according to the respective requirements and regulations of the City, County, or utility companies involved. The Contractor shall disconnect and seal, in an approved manner, all service outlets that serve any building(s) he/she is to remove.

Signs: Immediately upon execution of the contract and prior to the wrecking of any structures, the Contractor shall be required to paint or stencil, in contrasting colors of an oil base paint, on all four sides of each residence and two opposite sides of other structures, the following sign:

PROPERTY ACQUIRED FOR
HIGHWAY CONSTRUCTION
TO BE DEMOLISHED BY THE

VANDALS WILL BE PROSECUTED

The signs shall be positioned in a prominent location on the structure so that they can be easily seen and read and at a sufficient height to prevent defacing. The Contractor shall not paint signs nor start demolition of any building(s) prior to the time that the State becomes the owner of the respective building(s).

All friable asbestos shall be removed from the building(s) prior to demolition. Refer to the Special Provisions titled "Asbestos Abatement (General Conditions)" and "Removal and Disposal of Friable Asbestos Building No. _____" contained herein.

Basis of Payment: This work will be paid for at the contract lump sum unit price for BUILDING REMOVAL, numbers as listed above, which price shall be payment in full for complete removal

of the buildings and structures, including any necessary backfilling material as specified herein. The lump sum unit price(s) for this work shall represent the cost of demolition and disposal assuming all friable asbestos has been removed prior to demolition. Any salvage value shall be reflected in the contract unit price for this item.

EXPLANATION OF BIDDING TERMS: Two separate contract unit price items have been established for the removal of each building. They are:

1. BUILDING REMOVAL NO. _____

2. REMOVAL AND DISPOSAL OF FRIABLE ASBESTOS, BUILDING NO. _____

ASBESTOS ABATEMENT (GENERAL CONDITIONS): This work consists of the removal and disposal of friable asbestos from the building(s) to be demolished. All work shall be done according to the requirements of the U.S. Environmental Protection Agency (USEPA), the Illinois Environmental Protection Agency (IEPA), the Occupational Safety and Health Administration (OSHA), the Special Provision for "Removal and Disposal of Friable Asbestos, Building No. _____" and as outlined herein.

Sketches indicating the location of Asbestos Containing Material (ACM) are included in the proposal on pages _____ thru _____. Also refer to the Materials Description Table on page _____ for a brief description and location of the various materials. Also included is a Materials Quantities Table on page _____. This table states the ACM is friable and gives the approximate quantity. The quantities are given only for information and it shall be the Contractor's responsibility to determine the exact quantities prior to submitting his/her bid.

The work involved in the removal and disposal of friable asbestos shall be performed by a Contractor or Sub-Contractor prequalified with the Illinois Capital Development Board.

The Contractor shall provide a shipping manifest, similar to the one shown on page _____, to the Engineer for the disposal of all ACM wastes.

Permits: The Contractor shall apply for permit(s) in compliance with applicable regulations of the Illinois Environmental Protection Agency. Any and all other permits required by other federal, state, or local agencies for carrying on the work shall be the responsibility of the Contractor. Copies of these permits shall be sent to the district office and the Engineer.

Notifications: The "Demolition/Renovation Notice" form, which can be obtained from the IEPA office, shall be completed and submitted to the address listed below at least ten days prior to commencement of any asbestos removal or demolition activity. Separate notices shall be sent for the asbestos removal work and the building demolition.

Asbestos Demolition/Renovation Coordinator
Illinois Environmental Protection Agency
Division of Air Pollution Control
P. O. Box 19276
Springfield, Illinois 62794-9276
Telephone: (217) 785-1743

Notices shall be updated if there is a change in the starting date or the amount of asbestos changes by more than 20% percent.

Submittals:

A. All submittals and notices shall be made to the Engineer except where otherwise specified herein.

B. Submittals that shall be made prior to start of work:

1. Submittals required under Asbestos Abatement Experience.

2. Submit documentation indicating that all employees have had medical examinations and instruction on the hazards of asbestos exposure, on use and fitting of respirators, on protective dress, on use of showers, on entry and exit from work areas, and on all aspects of work procedures and protective measures as specified in Worker Protection Procedures.

3. Submit manufacturer's certification stating that vacuums, ventilation equipment, and other equipment required to contain airborne fibers conform to ANSI 29.2.

4. Submit to the Engineer the brand name, manufacturer, and specification of all sealants or surfactants to be used. Testing under existing conditions will be required at the direction of the Engineer.

5. Submit proof that all required permits, site locations, and arrangements for transport and disposal of asbestos-containing or asbestos-contaminated materials, supplies, and the like have been obtained (i.e., a letter of authorization to utilize designated landfill).

6. Submit a list of penalties, including liquidated damages, incurred through non-compliance with asbestos abatement project specifications.

7. Submit a detailed plan of the procedures proposed for use in complying with the requirements of this specification. Include in the plan the location and layout of decontamination units, the sequencing of work, the respiratory protection plan to be used during this work, a site safety plan, a disposal plan including the location of an approved disposal site, and a detailed description of the methods to be used to

control pollution. The plan shall be submitted to the Engineer prior to the start of work.

8. Submit proof of written notification and compliance with the "Notifications" paragraph.

C. Submittals that shall be made upon completion of abatement work:

1. Submit copies of all waste chain-of-custodies, trip tickets, and disposal receipts for all asbestos waste materials removed from the work area;

2. Submit daily copies of work site entry logbooks with information on worker and visitor access;

3. Submit logs documenting filter changes on respirators, HEPA vacuums, negative pressure ventilation units, and other engineering controls; and

4. Submit results of any bulk material analysis and air sampling data collected during the course of the abatement including results of any on-site testing by any federal, state, or local agency.

Certificate of Insurance:

A. The Contractor shall document general liability insurance for personal injury, occupational disease and sickness or death, and property damage.

B. The Contractor shall document current Workmen's Compensation Insurance coverage.

C. The Contractor shall supply insurance certificates as specified by the Department.

Asbestos Abatement Experience:

A. Company Experience: Prior to starting work, the Contractor shall supply evidence that he/she has been prequalified with the Illinois Capital Development Board and that he/she has been included on the Illinois Department of Public Health's list of approved Contractors.

B. Personnel Experience:

1. For Superintendent, the Contractor shall supply:

a. Evidence of knowledge of applicable regulations in safety and environmental protection is required as well as training in asbestos abatement as evidenced by the successful completion of a training course in supervision of asbestos abatement as specified in 40 CFR 763, Subpart E, Appendix C, EPA Model Contractor Accreditation Plan. A copy of the certificate of successful completion shall be provided to the Engineer prior to the start of work.

b. Documentation of experience with abatement work in a supervisory position as evidenced through supervising at least two asbestos abatement projects; provide names, contact, phone number, and locations of two projects in which the individual(s) has worked in a supervisory capacity.

2. For workers involved in the removal of asbestos, the Contractor shall provide training as evidenced by the participation and successful completion of an accredited training course for asbestos abatement workers as specified in 40 CFR 763, Subpart E, Appendix C, EPA Model Contractor Accreditation Plan. A copy of the certificate of successful completion shall be provided to all employees who will be working on this project.

ABATEMENT AIR MONITORING: The Contractor shall comply with the following:

A. Personal Monitoring: All personal monitoring shall be conducted per specifications listed in OSHA regulation, Title 29, Code of Federal Regulation 1926.58. All area sampling shall be conducted according to 40 CFR Part 763.90. All air monitoring equipment shall be calibrated and maintained in proper operating condition. Excursion limits will be monitored daily. Personal monitoring is the responsibility of the Contractor. Additional personal samples may be required by the Engineer at any time during the project.

B. Contained Work Areas for Removal of Friable Asbestos: Area samples shall be collected for the department within the work area daily. A minimum of one sample shall be taken outside of the abatement area removal operations. The Engineer will also have the option to require additional personal samples and/or clearance samples during this type of work.

C. Air Monitoring Professional

1. All air sampling will be conducted by a qualified Air Sampling Professional supplied by the Contractor. The Air Sampling Professional shall submit documentation of successful completion of the National Institute for Occupational Safety and Health (NIOSH) course #582 - "Sampling and Evaluating Airborne Asbestos Dust".

2. Air sampling will be conducted according to NIOSH Method 7400. The results of these tests shall be provided to the Engineer within 24 hours of the collection of air samples.

REMOVAL AND DISPOSAL OF FRIABLE ASBESTOS, BUILDING NO. _____: This work consists of the removal and disposal of all friable asbestos from the building(s) prior to demolition. The work shall be done according to the Special Provision titled "Asbestos Abatement (General Conditions)" and as outlined herein.

This work will be paid for at the contract unit price per lump sum for REMOVAL AND DISPOSAL OF FRIABLE ASBESTOS, BUILDING NO. _____, as shown.

Designer Note: Insert into all projects utilizing aggregate subgrade improvements. When using also include District special "Reclaimed Asphalt Pavement (RAP) and Reclaimed Asphalt Shingles (RAS) (D-4)." Check with district Soils Engineer to determine thickness.

AGGREGATE SUBGRADE IMPROVEMENT (BDE)

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

Add the following Section to the Standard Specifications:

"SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT

303.01 Description. This work shall consist of constructing an aggregate subgrade improvement.

303.02 Materials. Materials shall be according to the following.

Item	Article/Section
(a) Coarse Aggregate	1004.06
(b) Reclaimed Asphalt Pavement (RAP) (Notes 1, 2, and 3)	1031

Note 1. Crushed RAP, from either full depth or single lift removal, may be mechanically blended with aggregate gradations CS 01, CS 02, and RR 01 but shall not exceed 40 percent of the total product. The top size of the RAP shall be less than 4 in. (100 mm) and well graded.

Note 2. RAP having 100 percent passing the 1½ in. (37.5 mm) sieve and being well graded, may be used as capping aggregate in the top 3 in. (75 mm) when aggregate gradations CS 01, CS 02, or RR 01 are used in lower lifts.

Note 3. The RAP used for aggregate subgrade improvement shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".

303.03 Equipment. The vibratory machine shall be according to Article 1101.01, or as approved by the Engineer.

303.04 Soil Preparation. The stability of the soil shall be according to the Department's Subgrade Stability Manual for the aggregate thickness specified.

303.05 Placing Aggregate. The maximum nominal lift thickness of aggregate gradations CA 02, CA 06, or CA 10 shall be 12 in. (300 mm). The maximum nominal lift thickness of aggregate gradations CS 01, CS 02, and RR 01 shall be 24 in. (600 mm).

303.06 Capping Aggregate. The top surface of the aggregate subgrade shall consist of a minimum 3 in. (75 mm) of aggregate gradations CA 06 or CA 10. When the contract specifies that a granular subbase is to be placed on the aggregate subgrade improvement, the 3 in. (75 mm) of capping aggregate shall be the same gradation and may be placed with the underlying aggregate subgrade improvement material.

303.07 Compaction. All aggregate lifts shall be compacted to the satisfaction of the Engineer. If the moisture content of the material is such that compaction cannot be obtained, sufficient water shall be added so that satisfactory compaction can be obtained.

303.08 Finishing and Maintenance of Aggregate Subgrade Improvement. The aggregate subgrade improvement shall be finished to the lines, grades, and cross sections shown on the plans, or as directed by the Engineer. The aggregate subgrade improvement shall be maintained in a smooth and compacted condition.

303.09 Method of Measurement. This work will be measured for payment according to Article 311.08.

303.10 Basis of Payment. This work will be paid for at the contract unit price per cubic yard (cubic meter) or ton (metric ton) for AGGREGATE SUBGRADE IMPROVEMENT or at the contract unit price per Square Yard (Square Meter) for AGGREGATE SUBGRADE IMPROVEMENT, of the thickness specified."

Add the following to Section 1004 of the Standard Specifications:

"**1004.06 Coarse Aggregate for Aggregate Subgrade Improvement.** The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate shall be crushed gravel, crushed stone, or crushed concrete.

(b) Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials.

(c) Gradation.

(1) The coarse aggregate gradation for total subgrade thickness less than or equal to 12 in. (300 mm) shall be CA 2, CA 6, CA 10, or CS 01.

The coarse aggregate gradation for total subgrade thickness more than 12 in. (300 mm) shall be CS 01, CS 02 or RR 01(see Article 1005.01(c)).

Grad No.	COARSE AGGREGATE SUBGRADE GRADATIONS				
	Sieve Size and Percent Passing				
	8"	6"	4"	2"	#4
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 02		100	80 ± 10	25 ± 15	

Grad No.	COARSE AGGREGATE SUBGRADE GRADATIONS (Metric)				
	Sieve Size and Percent Passing				
	200 mm	150 mm	100 mm	50 mm	4.75 mm
CS 01	100	97 ± 3	90 ± 10	45 ± 25	20 ± 20
CS 02		100	80 ± 10	25 ± 15	

(2) The 3 in. (75 mm) capping aggregate shall be gradation CA 6 or CA 10."

Designer Note: This special provision shall be inserted into interstate hot-mix asphalt (HMA) paving and full depth HMA contracts. For full depth HMA contracts the MTD shall be used for constructing all lifts of pavement. It should be inserted in other HMA paving contracts at the district's discretion. It has been revised to increase the roadway contact pressure in which the use of a Material Transfer Device (MTD) is allowed for partially completed segments of full-depth HMA pavement where the thickness of in place pavement is less than 10 in.

The special provision contains three fill in the blank areas, which must be determined by the district and are considered project specific requirements. The following guidelines should be considered:

(1) Type of materials to be placed with the MTD (to be determined by the district). Example wording: This work shall consist of placing HMA binder and surface course mixtures according to Section 406 of the Standard Specifications, except that these materials shall be placed using a material transfer device.

(2) Location where the MTD will be used on the project (to be determined by the district). Example wording: The material transfer device shall be used for the placement of all HMA binder and surface course mixtures placed with a paver including ramps but excluding shoulders.

(3) Based on (1) above, the designer must restate, which materials are placed with the MTD (to be determined by the district). If square yard pay items are placed with the MTD, conversion factors must be shown on the plans. Example wording: This work will be measured for payment in tons (metric tons) for all HMA binder and surface course materials placed with a material transfer device.

The operation or transportation of heavy equipment on pavement or structures within contract limits is governed by Article 107.16 of the Standard Specifications and implemented through Construction Memorandum No. 39. Additionally, this special provision contains specific restrictions regarding travel on bridges and full depth pavements. The designer shall submit information to the Bureau of Bridges and Structures identifying the structures that will be crossed by the MTD. The Bureau of Bridges and Structures will analyze the structures to verify that they have the capacity to safely carry an emptied MTD and will provide the designer with recommendations. The recommendations provided by the Bureau of Bridges and Structures will identify any structure, which due to general deterioration or insufficient load carrying capacity, cannot be crossed by an emptied MTD. The plans shall include notice to the contractor of special requirements and restrictions for structures that cannot be crossed by an emptied MTD. The notice shall indicate to the contractor that the emptied MTD must be transported over the identified structures on a transport vehicle and that information describing axle loads and axle spacing of the transport vehicle must be provided to the Engineer for review by the Bureau of Bridges and Structures.

MATERIAL TRANSFER DEVICE (BDE)

Effective: June 15, 1999
Revised: August 1, 2014

Description. This work shall consist of placing **(1)**_____, except that these materials shall be placed using a material transfer device (MTD).

Materials and Equipment. The MTD shall have a minimum surge capacity of 15 tons (13.5 metric tons), shall be self-propelled and capable of moving independent of the paver, and shall be equipped with the following:

(a) Front-Dump Hopper and Conveyor. The conveyor shall provide a positive restraint along the sides of the conveyor to prevent material spillage. MTDs having paver style hoppers shall have a horizontal bar restraint placed across the foldable wings which prevents the wings from being folded.

(b) Paver Hopper Insert. The paver hopper insert shall have a minimum capacity of 14 tons (12.7 metric tons).

(c) Mixer/Agitator Mechanism. This re-mixing mechanism shall consist of a segmented, anti-segregation, re-mixing auger or two full-length longitudinal paddle mixers designed for the purpose of re-mixing the hot-mix asphalt (HMA). The longitudinal paddle mixers shall be located in the paver hopper insert.

CONSTRUCTION REQUIREMENTS

General. The MTD shall be used for the placement of **(2)**_____. The MTD speed shall be adjusted to the speed of the paver to maintain a continuous, non-stop paving operation.

Use of a MTD with a roadway contact pressure exceeding 25 psi (172 kPa) will be limited to partially completed segments of full-depth HMA pavement where the thickness of binder in place is 10 in. (250 mm) or greater.

Structures. The MTD may be allowed to travel over structures under the following conditions:

(a) Approval will be given by the Engineer.

(b) The vehicle shall be emptied of HMA material prior to crossing the structure and shall travel at crawl speed across the structure.

(c) The tires of the vehicle shall travel on or in close proximity and parallel to the beam and/or girder lines of the structure.

Method of Measurement. This work will be measured for payment in Tons (Metric Tons) for **(3)**_____ materials placed with a material transfer device.

Basis of Payment. This work will be paid for at the contract unit price per Ton (Metric Ton) for MATERIAL TRANSFER DEVICE.

The various HMA mixtures placed with the MTD will be paid for as specified in their respective specifications. The Contractor may choose to use the MTD for other applications on this project; however, no additional compensation will be allowed.

Designer Note: Use the District special provision, "HMA Mixture Design Requirements, Volumetric Requirements, Verification and Production (D-4)," instead of the BDE version.

HOT-MIX ASPHALT – MIXTURE DESIGN VERIFICATION AND PRODUCTION (BDE)

Effective: November 1, 2013

Description. This special provision provides the requirements for Hamburg Wheel and tensile strength testing for High ESAL, IL-4.75, and Stone Matrix Asphalt (SMA) hot-mix asphalt (HMA) mixes during mix design verification and production. This special provision also provides the plant requirements for hydrated lime addition systems used in the production of High ESAL, IL-4.75, and SMA mixes.

Mix Design Testing. Add the following to Article 1030.04 of the Standard Specifications:

"(d) Verification Testing. High ESAL, IL-4.75, and SMA mix designs submitted for verification will be tested to ensure that the resulting mix designs will pass the required criteria for the Hamburg Wheel Test (Illinois Modified AASHTO T 324) and the Tensile Strength Test (Illinois Modified AASHTO T 283). The Department will perform a verification test on gyratory specimens compacted by the Contractor. If the mix fails the Department's verification test, the Contractor shall make necessary changes to the mix and provide passing Hamburg Wheel and tensile strength test results from a private lab. The Department will verify the passing results.

All new and renewal mix designs shall meet the following requirements for verification testing.

(1) Hamburg Wheel Test Criteria. The maximum allowable rut depth shall be 0.5 in. (12.5 mm). The minimum number of wheel passes at the 0.5 in. (12.5 mm) rut depth criteria shall be based on the high temperature binder grade of the mix as specified in the mix requirements table of the plans.

Illinois Modified AASHTO T 324 Requirements [1/]

PG Grade	Number of Passes
PG 58-xx (or lower)	5,000
PG 64-xx	7,500
PG 70-xx	15,000
PG 76-xx (or higher)	20,000

1/ When produced at temperatures of 275 ± 5°F (135 ± 3°C) or less, loose Warm Mix Asphalt shall be oven aged at 270 ± 5°F (132 ± 3°C) for two hours prior to gyratory compaction of Hamburg Wheel specimens.

(2) Tensile Strength Criteria. The minimum allowable conditioned tensile strength shall be 415 kPa (60 psi) for non-polymer modified performance graded (PG) asphalt binder and 550 kPa (80 psi) for polymer modified PG asphalt binder. The maximum allowable unconditioned tensile strength shall be 1380 kPa (200 psi)."

Production Testing. Revise Article 1030.06(a) of the Standard Specifications to read:

"(a) High ESAL, IL-4.75 and SMA Mixtures. For each contract, a 300 ton (275 metric tons) test strip will be required at the beginning of HMA production for each mixture with a quantity of 3,000 tons (2,750 metric tons) or more according to the Manual of Test Procedures for Materials "Hot Mix Asphalt Test Strip Procedures".

Before start-up, target values shall be determined by applying gradation correction factors to the JMF when applicable. These correction factors shall be determined from previous experience. The target values, when approved by the Engineer, shall be used to control HMA production. Plant settings and control charts shall be set according to target values.

Before constructing the test strip, target values shall be determined by applying gradation correction factors to the JMF when applicable. After any JMF adjustment, the JMF shall become the Adjusted Job Mix Formula (AJMF). Upon completion of the first acceptable test strip, the JMF shall become the AJMF regardless of whether or not the JMF has been adjusted. If an adjustment/plant change is made, the Engineer may require a new test strip to be constructed. If the HMA placed during the initial test strip is determined to be unacceptable to remain in place by the Engineer, it shall be removed and replaced.

The limitations between the JMF and AJMF are as follows.

Parameter	Adjustment
1/2 in. (12.5 mm)	± 5.0%
No. 4 (4.75 mm)	± 4.0%
No. 8 (2.36 mm)	± 3.0%
No. 30 (600 μm)	*
No. 200 (75 μm)	*
Asphalt Binder Content	± 0.3%

* In no case shall the target for the amount passing be greater than the JMF.

Any adjustments outside the above limitations will require a new mix design.

Mixture sampled to represent the test strip shall include additional material sufficient for the Department to conduct Hamburg Wheel testing according to Illinois Modified AASHTO T324 (approximately 60 lbs. (27 kg) total).

The Contractor shall immediately cease production upon notification by the Engineer of failing Hamburg Wheel test. All prior produced material may be paved out provided all other mixture criteria is being met. No additional mixture shall be produced until the Engineer receives passing Hamburg Wheel tests.

The Department may conduct additional Hamburg Wheel tests on production material as determined by the Engineer."

Revise the title of Article 1030.06(b) of the Standard Specifications to read:

"(b) Low ESAL and All Other Mixtures."

System for Hydrated Lime Addition. Revise the fourth sentence of the third paragraph of Article 1030.04(c) of the Standard Specifications to read:

"The method of application shall be according to Article 1102.01(a)(10)."

Replace the first three sentences of the second paragraph of Article 1102.01(a)(10) of the Standard Specifications to read:

"When hydrated lime is used as the anti-strip additive, a separate bin or tank and feeder system shall be provided to store and accurately proportion the lime onto the aggregate either as a slurry, as dry lime applied to damp aggregates, or as dry lime injected onto the hot aggregates prior to adding the liquid asphalt cement. If the hydrated lime is added either as a slurry or as dry lime on damp aggregates, the lime and aggregates shall be mixed by a power driven pugmill to provide a uniform coating of the lime prior to entering the dryer. If dry hydrated lime is added to the hot dry aggregates in a dryer-drum plant, the lime shall be added in such a manner that the lime will not become entrained into the air stream of the dryer-drum and that thorough dry mixing shall occur prior to the injection point of the liquid asphalt. When a batch plant is used, the hydrated lime shall be added to the mixture in the weigh hopper or as approved by the Engineer."

Basis of Payment. Replace the seventh paragraph of Article 406.14 of the Standard Specifications with the following:

"For mixes designed and verified under the Hamburg Wheel criteria, the cost of furnishing and introducing anti-stripping additives in the HMA will not be paid for separately, but shall be considered as included in the contract unit price of the HMA item involved.

If an anti-stripping additive is required for any other HMA mix, the cost of the additive will be paid for according to Article 109.04. The cost incurred in introducing the additive into the HMA will not be paid for separately, but shall be considered as included in the contract unit price of the HMA item involved.

No additional compensation will be awarded to the Contractor because of reduced production rates associated with the addition of the anti-stripping additive."

Designer Note: Insert into all contracts with PCC pavement utilizing Highway Standard 420001.

MECHANICAL SIDE TIE BAR INSERTER (BDE)

Effective: August 1, 2014

Add the following to Article 420.03 of the Standard Specifications:

"(k) Mechanical Side Tie Bar Inserters 1103.18"

Revise Article 420.05(b) of the Standard Specifications to read:

"(b) Longitudinal Construction Joint. The tie bars shall be installed using one of the following methods.

(1) Preformed or Drilled Holes. The tie bars shall be installed with an approved non-shrink grout or chemical adhesive providing a minimum pull-out strength as follows.

Bar Size	Minimum Pull-Out Strength
No. 6 (No. 19)	11,000 lbs. (49 kN)
No. 8 (No. 25)	19,750 lbs. (88 kN)

Holes shall be blown clean and dry prior to placing the grout or adhesive. If compressed air is used, the pneumatic tool lubricator shall be bypassed and a filter installed on the discharge valve to keep water and oil out of the lines. The installation shall be with methods and tools conforming to the grout or adhesive manufacturer's recommendations.

The Contractor shall load test five percent of the first 500 tie bars installed. No further installation will be allowed until the initial five percent testing has been completed and approval to continue installation has been given by the Engineer. Testing will be required for 0.5 percent of the bars installed after the initial 500. For each bar that fails to pass the minimum requirements, two more bars selected by the Engineer shall be tested. Each bar that fails to meet the minimum load requirement shall be reinstalled and retested. The equipment and method used for testing shall meet the requirements of ASTM E 488. All tests shall be performed within 72 hours of installation. The tie bars shall be installed and approved before concrete is placed in the adjacent lane."

(2) Inserted. The tie bars shall be installed with the use of a mechanical side tie bar inserter. The tie bars shall be No. 6 (No. 19) bars, 30 inches (750 mm) long, placed mid-depth on 24 in. (600 mm) centers along the joint edge. The inserter shall insert the tie bars with vibration after the concrete has been struck off and consolidated without deformation of the slab. The inserter shall remain stationary relative to the pavement when inserting tie bars, while the formless paver continues to move in the direction of paving.

A void greater than 1/8 in. (3 mm) at any location around the tie bar shall require immediate adjustment of the paving operation. A void greater than 1/2 in. (13 mm) shall be repaired with a non-shrink grout or chemical adhesive after the concrete has hardened. If at the end of the day of paving more than 20 percent of the tie bars

show a void larger than 1/8 in. (3 mm) at any point around the bar, the use of the side tie bar inserter shall be discontinued.

(3) Formed in Place. The tie bar shall be formed in place as shown on the plans.

The sealant reservoir shall be formed either by sawing after the concrete has set according to Article 420.05(a) or by hand tools when the concrete is in a plastic state."

Add the following to Section 1103 of the Standard Specifications:

"**1103.18 Mechanical Side Bar Inserters.** The mechanical side tie bar inserter shall be self-contained and supported on the formless paver with the ability to move independently from the formless paver. The insertion apparatus shall vibrate within a frequency of 2,000 to 6,000 vpm. A vibrating reed tachometer, hand type, shall be provided according to Article 1103.12."

Designer Note: Insert into all contracts with concrete gutter, curb, median, or paved ditch.

CONCRETE GUTTER, CURB, MEDIAN, AND PAVED DITCH (BDE)

Effective: April 1, 2014
Revised: August 1, 2014

Add the following to Article 606.02 of the Standard Specifications:

"(i) Polyurethane Joint Sealant ..... 1050.04"

Revise the fifth paragraph of Article 606.07 of the Standard Specifications to read:

"Transverse contraction and longitudinal construction joints shall be sealed according to Article 420.12, except transverse joints in concrete curb and gutter shall be sealed with polysulfide or polyurethane joint sealant."

Add the following to Section 1050 of the Standard Specifications:

"**1050.04 Polyurethane Joint Sealant.** The joint sealant shall be a polyurethane sealant, Type S, Grade NS, Class 25 or better, Use T (T_1 or T_2), according to ASTM C 920."

Designer Note: Insert into all freeway and expressway projects that use Highway Standard 701400. Remember to include this pay item in the plans.

SPEED DISPLAY TRAILER (BDE)

Effective: April 2, 2014

Add the following to Article 701.15(l) of the Standard Specifications:

"(l) Speed Display Trailer. A speed display trailer shall be utilized on freeways and expressways as part of Highway Standard 701400. The trailer shall be placed on the right hand side of the roadway adjacent to, or within 100 ft. (30 m) beyond, the first work zone speed limit sign.

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

Add the following to Article 701.20 of the Standard Specifications:

"(k) Speed Display Trailer will be paid for at the contract unit price per Calendar Month or fraction thereof for Each trailer as SPEED DISPLAY TRAILER."

Add the following to Article 1106.02 of the Standard Specifications:

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

The speed measurement shall be by radar and provide a minimum detection distance of 1,000 ft. (300 m). The radar shall have an accuracy of ±1 mile-per-hour.

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

The speed indicator display shall be equipped with a violation alert that flashes the displayed detected speed when the posted limit is exceeded. The speed indicator shall have a maximum speed cutoff. The display shall include automatic dimming for nighttime operation.

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

Designer Note: Insert into projects where the grooving in of pavement marking is specified. Discuss the need for grooving with Operations and your Project Engineer.

GROOVING FOR RECESSED PAVEMENT MARKINGS (BDE)

Effective: November 1, 2012
Revised: August 1, 2014

Description. This work shall consist of grooving the pavement surface in preparation for the application of recessed pavement markings.

Equipment. Equipment shall be according to the following.

(a) Pavement Marking Tape Installations: The grooving equipment shall have a free-floating saw blade cutting head equipped with gang-stacked diamond saw blades. The diamond saw blades shall be of uniform wear and shall produce a smooth textured surface. Any ridges in the groove shall have a maximum height of 15 mils (0.38 mm).

(b) Liquid and Thermoplastic Pavement Marking Installations: The grooving equipment shall be equipped with either a free-floating saw blade cutting head or a free-floating grinder cutting head configuration with diamond or carbide tipped cutters and shall produce an irregular textured surface.

CONSTRUCTION REQUIREMENTS

General. The Contractor shall supply the Engineer with a copy of the pavement marking material manufacturer's recommendations for constructing a groove.

Pavement Grooving Methods. The grooves for recessed pavement markings shall be constructed using the following methods.

(a) Wet Cutting Head Operation. When water is required or used to cool the cutting head, the groove shall be flushed with high pressure water immediately following the cut to avoid build up and hardening of slurry in the groove. The pavement surface shall be allowed to dry for a minimum of 24 hours prior to the final cleaning of the groove and application of the pavement marking material.

(b) Dry Cutting Head Operation. When used on HMA pavements, the groove shall be vacuumed or cleaned by blasting with high-pressure air to remove loose aggregate, debris, and dust generated during the cutting operation. When used on PCC pavements, the groove shall be flushed with high pressure water or shot blasted to remove any PCC particles that may have become destabilized during the grooving process. If high pressure water is used, the pavement surface shall be allowed to dry for a minimum of 24 hours prior to the final cleaning of the groove and application of the pavement marking material.

Pavement Grooving. Grooving shall not cause ravels, aggregate fractures, spalling or disturbance of the joints to the underlying surface of the pavement. Grooves shall be cut into the pavement prior to the application of the pavement marking material. Grooves shall be cut such that the width is 1 in. (25 mm) greater than the width of the pavement marking line as specified on the plans. Grooves for letters and symbols shall be cut in a square or rectangular shape so that the entire marking will fit within the limits of the grooved area. The position of the edge of the grooves shall be a minimum of 4 in. (100 mm) from the edge of all longitudinal joints. The depth of the groove shall not be less than the manufacturer's recommendations for the pavement marking material specified, but shall be installed to a minimum depth of 110 mils (2.79 mm) and a maximum depth of 200 mils (5.08 mm) for pavement marking tapes thermoplastic markings and a minimum depth of 40 mils (1.02 mm) and a maximum depth of 80 mils (2.03 mm) for liquid markings. The cutting head shall be operated at the appropriate speed in order to prevent undulation of the cutting head and grooving at an inconsistent depth.

At the start of grooving operations, a 50 ft. (16.7 m) test section shall be installed and depth measurements shall be made at 10 ft. (3.3 m) intervals within the test section. The individual depth measurements shall be within the allowable ranges according to this Article. If it is determined the test section has not been grooved at the appropriate depth or texture, adjustments shall be made to the cutting head and another 50 ft. (16.7 m) test section shall be installed and checked. This process shall continue until the test section meets the requirements of this Article.

For new HMA pavements, grooves shall not be installed within 14 days of the placement of the final course of pavement.

Final Cleaning. Immediately prior to the application of the pavement marking material or primer sealer, the groove shall be cleaned with high-pressure air blast.

Method of Measurement. This work will be measured for payment in place, in Feet (Meter) for the groove width specified.

Grooving for letter, numbers and symbols will be measured in Square Feet (Square Meters).

Basis of Payment. This work will be paid for at the contract unit price per Foot (Meter) for GROOVING FOR RECESSED PAVEMENT MARKING of the groove width specified, and per Square Foot (Square Meter) for GROOVING FOR RECESSED PAVEMENT MARKING, LETTERS AND SYMBOLS.

The following shall only apply when preformed plastic pavement markings are to be recessed:

Add the following paragraph after the first paragraph of Article 780.07 of the Standard Specifications.

"The markings shall be capable of being applied in a grooved slot on new and existing Portland cement concrete and HMA surfaces, by means of a pressure-sensitive, precoated adhesive, or liquid contact cement which shall be applied at the time of installation. A primer sealer shall be applied with a roller and shall cover and seal the entire bottom of the groove. The primer sealer shall be recommended by the manufacturer of the pavement marking material and shall be compatible with the material being used. The Contractor shall install the markings in the groove as soon as possible after the primer sealer cures according to the manufacturer's

recommendations. The markings placed in the groove shall be rolled and tamped into the groove with a roller or tamper cart cut to fit the groove and loaded with or weighing at least 200 lbs. (90kg). Vehicle tires shall not be used for tamping. The Contractor shall roll and tamp the material with a minimum of 6 passes to prevent easy removal or peeling."

Designer Note: Insert into contracts with single or double handholes.

PRECAST CONCRETE HANDHOLE (BDE)

Effective: August 1, 2014

Revise the third paragraph of Article 814.03 of the Standard Specifications to read:

"Handholes shall be constructed as shown on the plans and shall be cast-in-place, composite concrete, or precast units. Heavy duty handholes shall be either cast-in-place or precast units."

Add the following to Article 814.03 of the Standard Specifications:

"(c) Precast Concrete. Precast concrete handholes shall be fabricated according to Article 1042.17. Where a handhole is contiguous to a sidewalk, preformed joint filler of 1/2 inch (13 mm) thickness shall be placed between the handhole and the sidewalk."

Add the following to Section1042 of the Standard Specifications:

"**1042.17 Precast Concrete Handholes.** Precast concrete handholes shall be according to Articles 1042.03(a)(c)(d)(e)."

Designer Note: Insert into all contacts with underpass luminaires.

UNDERPASS LUMINAIRE (BDE)

Effective: August 1, 2014

Revise the first paragraph of Article 821.06 of the Standard Specifications to read:

"**821.06 Underpass Installation.** When attached directly to a structure, the underpass luminaire shall have stainless steel brackets installed between the luminaire and the structure to create a gap of not less than 1 in. (25 mm)."

Revise the third sentence of the third paragraph of Article 821.06 of the Standard Specifications to read:

"All mounting hardware, including the vibration dampers, shall be stainless steel."

Revise Article 1067.04(a) of the Standard Specifications to read:

"(a) Housing. The housing and lens frame shall be made of heavy duty die cast aluminum or 16 gauge (1.5 mm) minimum thickness stainless steel according to ASTM A 269, Grade 304L. All seams in the housing enclosure shall be welded by continuous welds.

The housing shall have an opening for installation of 3/4 in. (19 mm) diameter conduit."

Revise the third sentence of the first paragraph of Article 1067.04(b) of the Standard Specifications to read:

"The lens frame shall be hinged with a continuous stainless steel piano type hinge for stainless steel housings."

Revise the first sentence of the first paragraph of Article 1067.04(c) of the Standard Specifications to read:

"Four luminaire mounting brackets fabricated from 11 gauge (3.05 mm) stainless steel according to ASTM A 269, Grade 304L shall be used to attach the luminaire housing."

Designer Note: Insert into contracts involving cast-in-place, precast, or precast prestressed concrete abutments and/or piers.

PORTLAND CEMENT CONCRETE – CURING OF ABUTMENTS AND PIERS (BDE)

Effective: January 1, 2014

Revise Note 7/ of the Index Table of Curing and Protection of Concrete Construction of Article 1020.13 of the Standard Specifications to read:

"7/ Asphalt emulsion for waterproofing may be used in lieu of other curing methods when specified and permitted according to Article 503.18. The top surfaces of abutments and piers shall be cured according to Article 1020.13(a)(3) or (5)."

Designer Note: Insert into all contracts requiring waterway obstruction warning luminaires. This would be structures over navigable waters.

WATERWAY OBSTRUCTION WARNING LUMINAIRE (BDE)

Effective: August 1, 2014

Revise the second paragraph of Article 1067.07(a) of the Standard Specifications to read:

"The luminaire shall have a bronze housing and shall meet the requirements set forth by the United States Coast Guard in Title 33, Part 118 of the Code of Federal Regulations. Nuts, bolts, thumb screws, hardware, thread rods, and mounting bases which are exterior, shall be stainless steel (300 series) or bronze. Hardware on the interior of the lamp cavity shall be stainless steel or bronze."

Add the following paragraphs after the third paragraph of Article 1067.01(a) of the Standard Specifications:

"The pivot type mounting assembly shall be bronze and shall be mounted on an external vibration isolator. The pivot assembly shall include a greased bearing with a grease fitting installed near the counterweight such that the bearing can be lubricated from the bridge deck. An aluminum or stainless steel extension tube shall run from the grease fitting to the bearing. A locking rod assembly made of aluminum or stainless steel shall secure the luminaire in operating position. Stainless steel pipes shall be used to attach the pivot assembly to both the luminaire housing and the counterweights. A stainless steel locknut shall be used at all threaded connections to the pipes.

Stainless steel hook, ring, and connecting plates shall be attached to the bridge railing with stainless steel hardware or shall be anchored in the parapet. The connecting plate shall include a vandal-resistant rod locking mechanism. The service chain shall be stainless steel."

Add the following to the end of the first paragraph of Article 1067.07(a)(3) of the Standard Specifications:

"Surge protection for the luminaire shall be integral to the fixture housing."

Designer Note: Insert into contracts utilizing coated galvanized steel conduit in electrical installations.

COATED GALVANIZED STEEL CONDUIT (BDE)

Effective: January 1, 2013
Revised: August 1, 2014

Revise Article 811.03(b) of the Standard Specifications to read:

"(b) Coated Galvanized Steel Conduit. In addition to the methods described in Article 810.05(a) the following methods shall be observed when installing coated conduit.

Coated conduit pipe vise jaw adapters shall be used when the conduit is being clamped to avoid damaging the coating.

Coated conduit shall be cut with a roller cutter or by other means approved by the conduit manufacturer.

After any cutting or threading operations are completed, the bare steel shall be touched up with the conduit manufacturer's touch up compound."

Revise Article 1088.01(a)(3) of the Standard Specifications to read:

"(3) Coated Galvanized Steel Conduit. The conduit prior to coating shall meet the requirements for rigid metal conduit and be manufactured according to NEMA Standard No. RN1.

The coating shall have the following characteristics.

Hardness	85+ Shore A Durometer
Dielectric Strength	400 V/mil @ 60 Hz
Aging	1,000 Hours Atlas Weatherometer
Brittleness Temperature	0°F (-18°C) when tested according to ASTM D 746
Elongation	200 percent

The exterior galvanized surfaces shall be coated with a primer before the coating to ensure a bond between the zinc substrate and the coating. The bond strength created shall be greater than the tensile strength of the plastic coating. The nominal thickness of the coating shall be 40 mils (1 mm). The coating shall pass the following bonding test.

Two parallel cuts ½ in. (13 mm) apart and 1½ in. (38 mm) in length shall be made with a sharp knife along the longitudinal axis. A third cut shall be made perpendicular to and crossing the longitudinal cuts at one end. The knife shall then be worked under the coating for ½ in. (13 mm) to free the coating from the metal.

Using pliers, the freed tab shall be pulled with a force applied vertically and away from the conduit. The tab shall tear rather than cause any additional coating to separate from the substrate.

A two part urethane coating shall be applied to the interior of the conduit. The internal coating shall have a nominal thickness of 2 mils (50 µm). The interior coating shall be applied in a manner so there are no runs, drips, or pinholes at any point. The coating shall not peel, flake, or chip off after a cut is made in the conduit or a scratch is made in the coating. The urethane interior coating applied shall afford sufficient flexibility to permit field bending without cracking or flaking of the interior coating.

All conduit fittings and couplings shall be as specified and recommended by the conduit manufacturer. All conduit fitting covers shall be furnished with stainless steel screws which have been encapsulated with a polyester material on the head to ensure maximum corrosion protection."

Designer Note: Insert into contracts using coilable non-metallic conduit for electrical installations.

COILABLE NON-METALLIC CONDUIT (BDE)

Effective: August 1, 2014

Revise Article 1088.01(c) of the Standard Specifications to read:

"(c) Coilable Nonmetallic Conduit. The conduit shall be a high density polyethylene duct which is intended for underground use can be manufactured and coiled or reeled in continuous transportable lengths and uncoiled for further processing and/or installation without adversely affecting its properties or performance. The conduit and its manufacture shall be according to UL Standard 651A.

Performance Tests. Testing procedures and test results shall meet the requirements of UL Standard 651A. Certified copies of the test report shall be submitted to the Engineer prior to the installation of the conduit."

Designer Note: Insert into contracts requiring stainless steel conduit in electrical installations.

RIGID METAL CONDUIT (BDE)

Effective: August 1, 2014

Add the following to Article 1088.01(a) of the Standard Specifications:

"(6) Stainless Steel Conduit. The conduit shall be Type 304 or Type 316 stainless steel, shall be manufactured according to UL Standard 6A, and shall meet ANSI Standard C80.1. Conduit fittings shall be Type 304 or Type 316 stainless steel and shall be manufactured according to UL Standard 514B.

All conduit supports, straps, clamps. And other attachments shall be Type 304 or Type 316 stainless steel. Attachment hardware shall be stainless steel according to Article 1006.31."

District Special Provisions

SECTION 100

District Special Provisions

Standard Specifications	Item/Description	Doc. #
105.00	CONSTRUCTION STATION LAYOUT	10500
105.06	PRESTAGE SITE CONSTRUCTION MEETINGS	10506
105.07	REMOVAL OF ABANDONED UNDERGROUND UTILITIES	10507
105.07a	STATUS OF UTILITIES/UTILITIES TO BE ADJUSTED	10507a
105.07b	UTILITIES – LOCATION/INFORMATION ON PLANS	10507b
107.31	LOCATION OF UNDERGROUND STATE MAINTAINED FACILITIES	10731
107.32	RIGHT-OF-WAY RESTRICTIONS	10732
108.03	DELAYED START OF MULTIPLE CONTRACTS	10803
108.05a	DATE OF COMPLETION	10805a
108.05b	DATE OF COMPLETION (PLUS WORKING DAYS)	10805b

SECTION 200

District Special Provisions

Standard Specifications	Item/Description	Doc. #
204.00	BORROW AND FURNISHED EXCAVATION	20400
205.00	GEOTECHNICAL REINFORCEMENT	20500
205.04	EMBANKMENT (RESTRICTIONS)	20504
205.05	EMBANKMENT	20505
205.05a	EMBANKMENT (SMALL EMBANKMENTS)	20505a
250.00	SEEDING, MINOR AREAS	25000
250.06a	MOWING	25006a
250.06b	MOWING	250.06b
253.00	TREE WHIP MIXTURE	25300
253.00b	SEEDLING MIXTURE A	25300b
281.00	GROUT FOR USE WITH RIPRAP	28100
281.04	STONE DUMPED RIPRAP *	28104
281.06	STONE RIPRAP	28106
283.03	AGGREGATE DITCH	28303

SECTION 300

District Special Provisions

Standard Specifications	Item/Description	Doc. #
301.01	PROOF ROLLING	30101
301.03	SUBGRADE TREATMENT	30103
302.00	SOIL MODIFICATION	30200
311.00	ROCKFILL	31100
311.01	SUBBASE GRANULAR MATERIAL	31101
355.00	TEMPORARY PAVEMENT	35500
356.00	TEMPORARY BASE COURSE WIDENING	35600

SECTION 400

District Special Provisions

Standard Specifications	Item/Description	Doc. #
406.00	CLEAN EXISTING PAVEMENT EDGE JOINT	40600
406.01	ANTI-STRIP ADDITIVE FOR HOT-MIX ASPHALT	40601
406.02	HOT-MIX ASPHALT – PRIME COAT (BMPR)	40602
406.04a	HOT-MIX ASPHALT SURFACE COURSE SURFACE TESTS	40604a
406.13	PAYMENT FOR USE OF MATERIAL TRANSFER DEVICE	40613
407.13	GROOVED-IN RUMBLE STRIP	40713
420.20	RAILROAD APPROACH PAVEMENT	42020
424.01	SIDEWALK DRAINS	42401
424.02	TEMPORARY SIDEWALKS	42402
440.00	PARTIAL DEPTH PATCHING	44000
440.01	BRIDGE WEARING SURFACE REMOVAL	44001
440.02	LONGITUDINAL JOINT REPAIR	44002
440.03	PROTECTION OF FRAMES AND LIDS OF UTILITY STRUCTURES	44003
440.03a	HOT-MIX ASPHALT SURFACE REMOVAL, **" (** MM)	44003a
440.03b	HOT-MIX ASPHALT SURFACE REMOVAL, **" (** MM)	44003b
440.03d	PAVEMENT DRAINAGE AFTER COLD MILLING	44003d
440.03e	PAVEMENT PATCHING WITH HOT-MIX ASPHALT SURFACE REMOVAL	44003e
440.03f	HOT-MIX ASPHALT CONCRETE MILLING MATERIAL	44003f
442.00	CLASS (*) PATCHES, TYPE (**), (***")	44200
443.00	REFLECTIVE CRACK CONTROL TREATMENT	44300
451.00	CRACK AND JOINT SEALING	45100
482.05	HOT-MIX ASPHALT SHOULDER RESURFACING REQUIRED TO BE CONSTUCTED SIMULTANEOUSLY WITH MAINLINE PAVING	48205
482.06	HOT-MIX ASPHALT SHOULDER RESURFACING CONSTRUCTED SIMULTANEOUSLY WITH MAINLINE PAVING	48206

SECTION 500

District Special Provisions

Standard Specifications	Item/Description	Doc. #
501.03	CONCRETE HEADWALL REMOVAL	50103
501.04	CONCRETE HANDRAIL REMOVAL	50104
503.00	BIN-TYPE RETAINING WALL	50300
503.01	CONCRETE WEARING SURFACE	50301
503.02	SURFACE FILLER, SPECIAL (GALLON)	50302
503.12a	FLOOR DRAIN EXTENSIONS	50312a
503.12	PLUG EXISTING DRAINS	50312
503.17	BRIDGE FLOOR FINISHING MACHINE	50317
503.19	PROTECTING COAT, SPECIAL	50319
521.00b	JACK AND REPOSITION BEARINGS	52100b
521.00c	JACKING AND CRIBBING	52100c
542.00	SEEPAGE COLLAR	54200
542.01	REMOVE AND RELAY PIPE CULVERTS	54201
542.02	PIPE CULVERTS (JACKED)	54202
542.04	PIPE CULVERTS	54204
542.04e	BACKFILL - PIPE CULVERTS	54204e
550.00	STORM SEWER (WATER MAIN QUALITY PIPE)	55000
550.07	BACKFILL, BUILDING REMOVAL	55007
552.00	STEEL PIPE CULVERT, SPECIAL (JACKED) *" (* MM)	55200
552.01	(*STORM SEWER/PIPE CULVERT) JACKED IN PLACE, *" (* MM)	55201
561.00	STEEL CASINGS (*") INCHES	56100
561.01	STEEL CASINGS (*") INCHES	56101

SECTION 600

District Special Provisions

Standard Specifications	Item/Description	Doc. #
601.01	PIPE UNDERDRAIN	60101
602.00a	INLETS, TYPE G-1	60200a
602.00b	INLETS, TYPE G-1, SPECIAL	60200b
602.00c	INLETS, TYPE G-1, DOUBLE, SPECIAL	60200c
602.00d	INLET-MANHOLE, TYPE G-1, 4' (1.2 M) DIAMETER	60200d
602.00e	INLET-MANHOLE, TYPE G-1, 4' (1.2 M) DIAMETER, SPECIAL	60200e
602.00f	INLET-MANHOLE, TYPE G-1, 5' (1.5 M) DIAMETER	60200f
602.00g	INLET-MANHOLE, TYPE G-1, 5' (1.5 M) DIAMETER, SPECIAL	60200g
602.00h	INLET-MANHOLE, TYPE G-1, 5' (1.5 M) DIAMETER, DOUBLE, SPECIAL	60200h
602.00i	INLET-MANHOLE, TYPE G-1, 8' (2.4 M) DIAMETER, DOUBLE, SPECIAL	60200i
602.00j	MANHOLE TO BE ADJUSTED WITH NEW TYPE G-1 FRAME AND GRATE	60200j
602.00k	TEMPORARY INLET DRAINAGE TREATMENT	60200k
602.00l	INLETS, TYPE G-2	60200l
602.00m	INLETS, TYPE G-1, DOUBLE	60200m
602.00n	INLETS, TYPE "*", WITH SPECIAL FRAME AND GRATE	60200n
602.00o	MANHOLE, TYPE A, OF THE DIAMETER SPECIFIED WITH SPECIAL FRAME AND GRATE	60200o
605.04	FILLING EXISTING INLETS	60504
605.04a	FILLING EXISTING CULVERTS	60504a
605.04b	FILLING EXISTING DRAINAGE STRUCTURES	60504b
606.08	ISLAND PAVEMENT CONSTRUCTED ON EXISTING PAVEMENT	60608
606.12	DRAINAGE HOLES	60612

SECTION 600

District Special Provisions

Standard Specifications	Item/Description	Doc. #
630.00	EROSION CONTROL CURB	63000
630.01	GUARDRAIL AGGREGATE EROSION CONTROL	63001
630.08	STEEL PLATE BEAM GUARDRAIL, TYPE A, 6.75 FOOT POSTS	63008
631.04	TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (FLARED) OR (TANGENT)	63104
631.07	TRAFFIC BARRIER TERMINALS, TYPE 6	63107
631.11c	TRAFFIC BARRIER TERMINALS	63111c
631.14	TRAFFIC BARRIER TERMINALS, TYPE 2	63114
632.00	GUARD POST REMOVAL	63200
635.00	FLEXIBLE DELINEATOR MAINTENANCE	63500
635.01	FLEXIBLE DELINEATORS	63501
667.01	PERMANENT SURVEY MARKERS	667.01
667.04	PERMANENT SURVEY MARKER, TYPE I, BRIDGE PLACEMENT	66704
668.02	PERMANENT SURVEY TIES	66802
670.05	EQUIPMENT VAULT FOR NUCLEAR TESTING EQUIPMENT	67005
680.00a	RAILROAD TIES REMOVAL AND DISPOSAL	68000a
680.00	RAILROAD TRACK RAIL REMOVAL	68000
683.00	MORTARED STONE WALL	68300

SECTION 700

District Special Provisions

Standard Specifications	Item/Description	Doc. #
701.00	TRAFFIC CONTROL PLAN	70100
701.06	SPEEDING PENALTY	70106
701.08b	TRAFFIC CONTROL AND PROTECTION STANDARD 701331 (SPECIAL)	70108b
701.14	WIDTH RESTRICTION SIGNING	70114
701.20	TRAFFIC CONTROL AND PROTECTION STANDARD BLR 21 AND BLR 21 (SPECIAL)	70120
701.21	TRAFFIC CONTROL AND PROTECTION STANDARD BLR 22 AND BLR 22 (SPECIAL)	70121
701.22	TRAFFIC CONTROL AND PROTECTION STANDARD 701606 (SPECIAL)	70122
703.00	PAVEMENT MARKING REMOVAL/WORK ZONE PAVEMENT MARKING REMOVAL	70300
704.00a	TEMPORARY CONCRETE BARRIER REFLECTORS	70400a
704.00	TEMPORARY CONCRETE BARRIER, STATE OWNED AND TEMPORARY CONCRETE BARRIER TERMINAL SECTIONS, STATE OWNED	70400
733.00	RE-TIGHTENING ANCHOR BOLTS FOR CANTILEVER SIGN STRUCTURES	73300
780.00	THERMOPLASTIC PAVEMENT MARKING EQUIPMENT	78000
780.01	PREFORMED PLASTIC PAVEMENT MARKNIG, TYPE B-INLAID	78001
780.02	GROOVING FOR RECESSED PAVEMENT MARKING	78002

SECTION 800

District Special Provisions

Standard Specifications	Item/Description	Doc. #
810.00	CONDUIT, PUSHED OR TRENCHED	81000
815.00	TRENCH & BACKFILL, SPECIAL FOR CONDUIT INSTALLATION BENEATH BITUMINOUS SHOULDERS	81500
863.00	TERMINAL FACILITY	86300
873.00	ELECTRIC CABLE CONDUIT NO. 18	87300
886.00	DETECTOR LOOP, SPECIAL FOR TRAFFIC COUNTERS	88600
886.00a	DETECTOR LOOPS, TYPE 1	88600a

SECTION 900

District Special Provisions

Standard Specifications	Item/Description	Doc. #

SECTION 1000

District Special Provisions

Standard Specifications	Item/Description	Doc. #
1004.00	AGGREGATE OPTIMIZATION OF CLASS PV MIX FOR SLIPFORM PAVING	100400
1004.01	COARSE AGGREGATE FILL	100401
1004.02	PCC SUPERSTRUCTURE AGGREGATE OPTIMIZATION	100402
1004.03b	COARSE AGGREGATE FOR BITUMINOUS COURSES, CLASS A	d100403b
1004.04	AGGREGATE QUALITY	d100404
1030.00	HOT-MIX ASPHALT QUALITY CONTROL FOR PERFORMANCE (D-4)	103000
1030.01	HOT-MIX ASPHALT – PAY FOR PERFORMANCE USING PERCENT WITHIN LIMITS – JOBSITE SAMPLING (D4)	103001
1030.02	HMA MIXTURE DESIGN REQUIREMENTS, VOLUMETRIC REQUIREMENTS, VERIFICATION AND PRODUCTION (D-4)	103002
1031.00	RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (D-4)	103100
1103.00	PCC QC/QA ELECTRONIC REPORT SUBMITTAL	110300
1103.03	PCC AUTOMATIC BATCHING EQUIPMENT	110303

ALPHABETIC INDEX OF DISTRICT SPECIAL PROVISIONS

ALPHABETIC INDEX OF DISTRICT SPECIAL PROVISIONS

Item/Description	Standard Specification	Filename
DATE OF COMPLETION (PLUS WORKING DAYS)	108.05b	10805b
DELAYED START OF MULTIPLE CONTRACTS	108.03	10803
DETECTOR LOOP, SPECIAL FOR TRAFFIC COUNTERS	886.00	88600
DETECTOR LOOPS, TYPE 1	886.00a	88600a
DRAINAGE HOLES	606.12	60612
ELECTRIC CABLE CONDUIT, LEAD-IN, NO. 18	873.00	87300
EMBANKMENT	205.05	20505
EMBANKMENT (RESTRICTIONS)	205.04	205.04
EMBANKMENT (SMALL EMBANKMENTS)	205.05a	20505a
EQUIPMENT VAULT FOR NUCLEAR TESTING EQUIPMENT	670.05	67005
EROSION CONTROL CURB	630.00	63000
FILLING EXISTING CULVERTS	605.04a	60504a
FILLING EXISTING DRAINAGE STRUCTURES	605.04b	60504b
FILLING EXISTING INLETS	605.04d	60504d
FLEXIBLE DELINEATOR MAINTENANCE	635.00	63500
FLEXIBLE DELINEATORS	635.01	63501
FLOOR DRAIN EXTENSION	503.12a	50312a
GEOTECHNICAL REINFORCEMENT	205.00	20500
GROOVED-IN RUMBLE STRIP	407.13	40713
GROOVING FOR RECESSED PAVEMENT MARKING	780.02	78002
GROUT FOR USE WITH RIPRAP	281.00	28100
GUARD POST REMOVAL	632.00	63200
GUARDRAIL AGGREGATE EROSION CONTROL	630.01	63001
HOT-MIX ASPHALT CONCRETE MILLING MATERIAL	440.03f	44003f

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Item/Description	Standard Specification	Filename
STATUS OF UTILITIES/UTILITIES TO BE ADJUSTED	105.07	10507
STEEL CASINGS (*") INCHES	561.00	56100
STEEL CASINGS (*") INCHES	561.01	56101
STEEL PIPE CULVERT, SPECIAL (JACKED) *" (* MM)	552.00	55200
STEEL PLATE BEAM GUARDRAIL, TYPE A, 6.75 FOOT POSTS	630.08	63008
STONE DUMPED RIPRAP*	281.04	28104
STONE RIPRAP	281.06	28106
STORM SEWER/PIPE CULVERT) JACKED IN PLACE **" (** MM)	552.01	55201
STORM SEWER (WATER MAIN QUALITY PIPE)	550.00	55000
SUBBASE GRANULAR MATERIAL	311.01	31101
SUBGRADE TREATMENT	301.03	30103
SURFACE FILLER, SPECIAL (GALLON)	503.02	50302
TEMPORARY BASE COURSE WIDENING	356.00	35600
TEMPORARY CONCRETE BARRIER REFLECTORS	704.00a	70400a
TEMPORARY CONCRETE BARRIER, STATE OWNED & TEMPORARY CONCRETE BARRIER TERMINAL SECTIONS, STATE OWNED	704.00d	70400d
TEMPORARY INLET DRAINAGE TREATMENT	602.00k	60200k
TEMPORARY PAVEMENT	355.00	35500
TEMPORARY SIDEWALKS	424.02	42402
TERMINAL FACILITY	863.00	86300
THERMOPLASTIC PAVEMENT MARKING EQUIPMENT	780.00	78000
TRAFFIC BARRIER TERMINALS	631.11c	63111c
TRAFFIC BARRIER TERMINALS, TYPE 1, SPECIAL (FLAMED) OR (TANGENT)	631.04	631.04
TRAFFIC BARRIER TERMINALS, TYPE 2	631.14	63114

ALPHABETIC INDEX OF DISTRICT SPECIAL PROVISIONS

Item/Description	Standard Specification	Filename
TRAFFIC BARRIER TERMINALS, TYPE 6	631.07	63107
TRAFFIC CONTROL AND PROTECTION STANDARD 701331 (SPECIAL)	701.08b	70108b
TRAFFIC CONTROL AND PROTECTION STANDARD BLR 21 AND BLR 21 (SPECIAL)	701.20	70120
TRAFFIC CONTROL AND PROTECTION STANDARD BLR 22 AND BLR 22 (SPECIAL)	701.21	701.21
TRAFFIC CONTROL AND PROTECTION STANDARD 701606 (SPECIAL)	701.22	70122
TRAFFIC CONTROL PLAN	701.00	70100
TREE WHIP MIXTURE	253.00	25300
TRENCH & BACKFILL, SPECIAL FOR CONDUIT INSTALLATION BENEATH BITUMINOUS SHOULDERS	815.00	81500
UTILITIES – LOCATIONS/INFORMATION ON PLANS	105.07b	10507b
WIDTH RESTRICTION SIGNING	701.14	70114

Designer Note: Include in all contracts with HMA overlays or full-depth HMA pavements.

HOT-MIX ASPHALT – PRIME COAT (BMPR)

Effective: February 19, 2013
Revised: March 1, 2014

Revise Note 1 of Article 406.02 of the Standard Specifications to read:

"Note 1. The bituminous material used for prime coat shall be one of the types listed in the following table.

When emulsified asphalts are used, any dilution with water shall be performed by the emulsion producer. The emulsified asphalt shall be thoroughly agitated within 24 hours of application and show no separation of water and emulsion.

Application	Bituminous Material Types
Prime Coat on Brick, Concrete, or HMA Bases	SS-1, SS-1h, SS-1hP, SS-1vh, CSS-1, CSS-1h, CSS-1hP, HFE-90, RC-70
Prime Coat on Aggregate Bases	MC-30, PEP"

Add the following to Article 406.03 of the Standard Specifications:

"(i) Regenerative Air Vacuum Sweeper.....1101.19"

Revise Article 406.05(b) of the Standard Specifications to read:

"(b) Prime Coat. The bituminous material shall be prepared according to Article 403.05 and applied according to Article 403.10. The use of RC-70 shall be limited to air temperatures less than 60°F (15°C)."

(1) Brick, Concrete or HMA Bases. The base shall be cleaned of all dust, debris and any substance that will prevent the prime coat from adhering to the base. Cleaning shall be accomplished by sweeping to remove all large particles and air blasting to remove dust. As an alternate to air blasting, vacuum sweeping may be used to accomplish the dust removal. Vacuum sweeping shall be accomplished with a regenerative air vacuum sweeper. The base shall be free of standing water at the time of application. The prime coat shall be applied uniformly and at a rate that will provide a residual asphalt rate on the prepared surface as specified in the following table.

Type of Surface to be Primed	Residual Asphalt Rate lb./sq. ft. (kg/sq. m)
Milled HMA, Aged Non-Milled HMA, Milled Concrete, Non-Milled Concrete & Tined Concrete	0.05 (0.244)
Fog Coat between HMA Lifts, IL-4.75 & Brick	0.025 (0.122)

The bituminous material for the prime coat shall be placed one lane at a time. The primed lane shall remain closed until the prime coat is fully cured and does not pickup under traffic. When placing prime coat through an intersection where it is not possible to keep the lane closed, the prime coat may be covered immediately following its application with fine aggregate mechanically spread at a uniform rate of 2 to 4 lb./sq. yd. (1 to 2 kg/sq. m).

(2) Aggregate Bases. The prime coat shall be applied uniformly and at a rate that will provide a residual asphalt rate on the prepared surface of 0.25 lb./sq. ft. ± 0.01 (1.21 kg/sq. m ± 0.05).

The prime coat shall be permitted to cure until the penetration has been approved by the Engineer, but at no time shall the curing period be less than 24 hours for MC-30 or four hours for PEP. Pools of prime occurring in the depressions shall be broomed or squeegeed over the surrounding surface the same day the prime coat is applied.

The base shall be primed 1/2 width at a time. The prime coat on the second half/width shall not be applied until the prime coat on the first half/width has cured so that it will not pick up under traffic.

The residual asphalt binder rate will be verified a minimum of once per type of surface to be primed as specified herein for which at least 2,000 tons of HMA will be placed. The test will be according to the "Determination of Residual Asphalt in Prime and Tack Coat Materials" test procedure.

Prime coat shall be fully cured prior to placement of HMA to prevent pickup by haul trucks or paving equipment. If pickup occurs, paving shall cease in order to provide additional cure time.

Prime coat shall be placed no more than five days in advance of the placement of HMA. If after five days loss of prime coat is evident prior to covering with HMA, additional prime coat shall be placed as determined by the Engineer at no additional cost to the Department."

Revise the last sentence of the first paragraph of 406.13(b) to read:

"Water added to emulsified asphalt as allowed in article 406.02 will not be included in the quantities measured for payment."

Revise the second paragraph of Article 406.13(b) of the Standard Specifications to read:

"Aggregate for covering prime coat will not be measured for payment."

Revise the first paragraph of Article 406.14 of the Standard Specifications to read:

"Prime Coat will be paid for at the contract unit price per Pound (Kilogram) of residual asphalt applied for BITUMINOUS MATERIALS (PRIME COAT), or POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)"

Revise Article 407.06(b) of the Standard Specifications to read:

"A bituminous prime coat shall be applied between each lift of HMA according to Article 406.05(b)."

Revise Article 1032.02 of the Standard Specifications to read:

"1032.02 Measurement. Asphalt binders, emulsified asphalts, rapid curing liquid asphalt, medium curing liquid asphalts, slow curing liquid asphalts, asphalt fillers, and road oils will be measured by weight.

A weight ticket for each truck load shall be furnished to the inspector. The truck shall be weighed at a location approved by the Engineer. The ticket shall show the weight of the empty truck (the truck being weighed each time before it is loaded), the weight of the loaded truck, and the net weight of the bituminous material.

When an emulsion or cutback is used for prime coat, the percentage of asphalt residue of the actual certified product shall be shown on the producer's bill of lading or attached certificate of analysis. If the producer adds extra water to an emulsion at the request of the purchaser, the amount of water shall also be shown on the bill of lading.

Payment will not be made for bituminous materials in excess of 105 percent of the amount specified by the Engineer."

Add the following to the table in article 1032.04 of the Standard Specifications:

"SS-1vh	160 - 180	70 – 80"

Add the following to Article 1032.06 of the Standard Specifications:

"(g) Non Tracking Emulsified Asphalt SS-1vh:

Requirements for SS-1vh			
Test		SPEC	AASHTO Test Method
Saybolt Viscosity @ 25C,	SFS	20-200	T 72
Storage Stability, 24hr.,	%	1 max.	T 59
Residue by Evaporation,	%	50 min.	T 59
Sieve Test,	%	0.3 max.	T 59
Tests on Residue from Evaporation			
Penetration @25°C, 100g., 5 sec., dmm		20 max.	T 49
Softening Point,	°C	65 min.	T 53
Solubility,	%	97.5 min.	T 44
Orig. DSR @ 82°C,	kPa	1.00 min.	T 315"

Revise the last table of Article 1032.06 to read:

"Grade	Use
SS-1, SS-1h, CSS-1, CSS-1h, HFE-90, SS-1hP, CSS-1hP, SS-1vh	Prime or fog seal

PEP	Bituminous surface treatment prime
RS-2, HFE-90, HFE-150, HFE-300, CRSP, HFP, CRS-2, HFRS-2	Bituminous surface treatment
CSS-1h Latex Modified	Microsurfacing"

Add the following to Article 1101 of the Standard Specifications:

"1101.19 Regenerative Air Vacuum Sweeper. The regenerative air vacuum sweeper shall blast re-circulated, filtered air through a vacuum head having a minimum width of 6.0 feet at a minimum rate of 20,000 cubic feet per minute."

Designer Note: Use for permanent installation of rumble strips across a lane in advance of stop signs where warranted. Check with Traffic on usage/spacing of strips. Include CADD detail on layout of rumble strips. Pay item is Z0055500, Rumble Strip. This is not intended for shoulder rumble strips.

GROOVED-IN RUMBLE STRIP

Effective: November 16, 2007
Revised: July 30, 2010

This work shall consist of the construction of grooved-in rumble strips at locations as detailed in the plans.

The equipment shall be a self-propelled milling machine with a rotary-type cutting head(s). The cutting head(s) shall be suspended from the machine such that it can align itself with the slope of the pavement and any surface irregularities. The teeth of the cutting head(s) shall be arranged to provide a smooth cut, with no more than an 1/8 in. (3 mm) difference between peaks and valleys.

Prior to commencement of the work, the Contractor shall demonstrate the ability of the equipment to achieve the desired results without damaging the pavement.

The rumble strips shall be cut to the dimensions shown on the plans. Guides shall be used to ensure consistent alignment, spacing and depth. In Portland cement concrete, rumble strips may be formed according to the details shown on the plans immediately after the application of the final finish.

Rumble strips shall be omitted within the limits of structures, entrances and side roads. In Portland cement concrete pavement, rumble strips shall not be placed within 6 in. (150 mm) of transverse joints.

This work will be measured for payment in Square Feet (Square Meters). Measurement will include both the cut and uncut (formed and unformed) sections of the rumble strips.

This work will be paid for at the contract unit price per Square Feet (Square Meter) of the actual treated area for RUMBLE STRIP.

Designer Note: Include in contracts with partial depth patching. Discuss depth of patch and replacement lift thicknesses with Construction and Materials. If patches must remain open overnight, remove the paragraph saying they have to be opened the same day.

Pay Item is X0556100, PARTIAL DEPTH PATCHING (SPECIAL), by the Square Yard to cover the milling. Use PARTIAL DEPTH PATCHING by the Ton to cover the HMA.

Fillings: * Total depth patch.
** Number of lifts.
*** Thickness of lifts.

PARTIAL DEPTH PATCHING

Effective April 26, 2013 Revised August 1, 2014

This work shall consist of partial depth patching of the existing pavement structure and replacement with Hot-Mix Asphalt (HMA) material at the locations shown in the plans or as directed by the Engineer. This work will be performed before completion of the cold milling operation and prior to the placement of the HMA overlay.

This work shall include all labor, equipment, and materials necessary to remove the existing HMA overlay to a depth of (_____")*. The removal shall be performed with a cold milling machine of sufficient size and weight to remove the existing HMA. The milling machine must be operated longitudinally with the flow of traffic and will not be permitted to cut transversely across the lane. Disposal of waste materials for the work described herein shall be in accordance with Article 202.03 of the Standard Specifications. After cold milling the patch, all loose material shall be removed and the area air-blast cleaned to the satisfaction of the Engineer. Replacement HMA material shall be as shown in the Mixture Requirements Table in the plans.

Prior to placement of the HMA material, the bottom and sides of the patch shall be primed in accordance with Article 406.05 of the Standard Specifications using an SS-1hP bituminous material. The prime shall be applied at a residual rate of 0.05 Gal./Sq. Yd. by means of a mechanical distributor, and shall be placed on all surfaces of the milled trench.

The HMA material shall be placed in (_____)** (_____")*** inch lifts and shall match the elevation of the surrounding pavement after final compaction. Bumps greater than ¼" left after compaction shall be removed.

The HMA mixture and density control limits shall conform to Article 1030 of the Standard Specifications. Compaction shall be accomplished using a vibrating roller that conforms to the applicable sections of Article 1101.01 of the Standard Specifications.

The Contractor shall fill all patches with the HMA material in the same day they are milled. No open patches will be allowed to remain overnight.

Removal of the existing HMA [PARTIAL DEPTH PATCHING (SPECIAL)] will be measured for payment in place, and the area computed in Square Yards. The limits will be the area of the patch that measures at least (_____")* in depth, and shall not include the rounded transition at the beginning and end of the patch.

Replacement with HMA will be measured in Tons placed to fill the milled area (PARTIAL DEPTH PATCHING).

Basis of Payment: Partial depth removal and cleaning of the pavement will be paid for at the contract unit price per Square Yard for PARTIAL DEPTH PATCHING (SPECIAL). The HMA placed and the priming of the partial depth patches will be paid for at the contract unit price per Ton for PARTIAL DEPTH PATCHING.

Designer Note: To be used for milling deteriorated pavement longitudinal joints 3" inches deep, 2' feet wide and placement of Hot-Mix Asphalt (HMA) surface mix in trench.

When different depths and widths are needed, revise and use as a project specific special.

Consider when using BDE special "Longitudinal Joint and Crack Patching" before using the District version.

LONGITUDINAL JOINT REPAIR

Effective April 26, 2013 Revised August 1, 2014

This work shall include all labor, equipment, and material required to mill out an area along and either side of an existing pavement longitudinal joint and replacement with Hot-Mix Asphalt (HMA). The replacement HMA material shall be as specified in the HMA Mixtures Design table in the plans. The removal shall be done with a cold milling machine of sufficient size and weight to remove the pavement to a depth of three inches (3") and a width of two feet (2') in a single operation; skid steer mounted mills will not be allowed. After cold milling the existing joint, all loose material shall be removed with a mechanical sweeper or vacuum, then air blast cleaned to the satisfaction of the Engineer.

Prior to placement of the HMA material, the milled trench shall be primed in accordance with Article 406.05 of the Standard Specifications using a SS-1hP bituminous material. The prime shall be applied at a residual rate of 0.05 Gal./Sq. Yd. by means of a mechanical distributor and shall be placed on all surfaces of the milled trench.

The HMA mixtures and density control limits shall conform to Article 1030 of the Standard Specifications. Placement shall be in a single lift by machine methods and shall match the profile of the existing pavement after final compaction. Compaction shall be accomplished using a vibratory roller that conforms to the applicable sections of Article 1101.01 of the Standard Specifications.

The Contractor shall fill all trenches with HMA in the same day they are milled. No open trench will be allowed to remain overnight.

This work will be paid for at the contract unit price per Foot for LONGITUDINAL JOINT REPAIR.

Designer Note: Use in locations where a water main quality pipe is required for storm sewer, such as, adjacent to water lines.

STORM SEWER, (WATER MAIN QUALITY PIPE)

Effective January 1, 2011
Revised August 1, 2014

This work consists of constructing storm sewer to meet water main standards, as required by the IEPA or when otherwise specified. The work shall be performed in accordance with applicable parts of Section 550 of the Standard Specifications, applicable sections of the current edition of the IEPA Regulations (Title 35 of the Illinois Administrative Code, Subtitle F, Chapter II, Section 653.119), the applicable sections of the current edition of the "Standard Specifications for Water and Sewer Main Construction in Illinois", and as herein specified.

This provision shall govern the installation of all storm sewers which do not meet IEPA criteria for separation distance between storm sewers and water mains. Separation criteria for storm sewers placed adjacent to water mains and water service lines are as follows:

(1) Water mains and water service lines shall be located at least 10 feet (3.05 meters) horizontally from any existing or proposed drain, storm sewer, sanitary sewer, or sewer service connections.

(2) Water mains and water service lines may be located closer than 10 feet (3.05 meters) to a sewer line when:

   (a) Local conditions prevent a lateral separation of 10 feet (3.05 meters); and

   (b) The water main or water service invert is 18 inches (460 mm) above the crown of the sewer; and

   (c) The water main or water service is either in a separate trench or in the same trench on an undisturbed earth shelf located to one side of the sewer.

(3) A water main or water service shall be separated from a sewer so that its invert is a minimum of 18 inches (460 mm) above the crown of the drain or sewer whenever water mains or services cross storm sewers, sanitary sewers or sewer service connections. The vertical separation shall be maintained for that portion of the water main or water services located within 10 feet (3.05 meters) horizontally of any sewer or drain crossed.

When it is impossible to meet (1), (2) or (3) above, the storm sewer shall be constructed of concrete pressure pipe, slip-on or mechanical joints ductile iron pipe, or PVC pipe equivalent to water main standards of construction. Construction shall extend on each side of the crossing until the perpendicular distance from the water main or water service to the sewer or drain line is at least 10 feet (3.05 meters). Storm sewer meeting water main requirements shall be constructed of the following pipe materials:

Concrete Pressure Pipe

Concrete pressure pipe shall conform to the latest ANSI/AWWA C300, C301, C302, or C303.

Joints shall conform to Article 41-2.07B of the "Standard Specifications for Water and Sewer Main Construction in Illinois."

Ductile Iron Pipe

Ductile Iron pipe shall conform to ANSI A 21.51 (AWWA C151), class or thickness designed per ANSI A 21,50 (AWWA C150), tar (seal) coated and/or cement lined per ANSI A 21.4 (AWWA C104), with a mechanical or rubber ring (slip seal or push on) joints.

Joints for ductile iron pipe shall be in accordance with the following applicable specifications.

1. Mechanical Joints - AWWA C111 and C600
2. Push-On Joints - AWWA C111 and C600

Plastic Pipe

Plastic pipe shall be marked with the manufacturer's name (or trademark); ASTM or AWWA specification; Schedule Number, Dimension Ratio (DR) Number or Standard Dimension Ratio (SDR) Number; and Cell Class. The pipe and fittings shall also meet NSF Standard 14, and bear the NSF seal of approval. Fittings shall be compatible with the type of pipe used. The plastic pipe options shall be in accordance with the following:

1. Polyvinyl Chloride (PVC) conforming to ASTM Standard D 1785. Schedule 80 is the minimum required for all pipe sizes, except when the pipe is to be threaded, and then it shall be Schedule 120. It shall be made from PVC compound meeting ASTM D 1784, Class 12454.
2. Polyvinyl Chloride (PVC) conforming to ASTM D 2241. A minimum wall thickness of SDR 26 is required for all pipe sizes (Note: The lower the SDR number, the higher the wall thickness and pressure rating). It shall be made from PVC compound meeting ASTM D 1784, Class 12454.
3. Chlorinated Polyvinyl Chloride (CPVC) conforming to ASTM f 441. A minimum of Schedule 80 is required for all pipe sizes. Threaded joints are not allowed. It shall be made from CPVC compound meeting ASTM D 1784, Class 23447.
4. Chlorinated Polyvinyl Chloride (CPVC) conforming to ASTM F 442. A minimum wall thickness of SDR 26 is required for all pipe sizes (Note: The lower the SDR number, the higher the wall thickness and pressure rating). It shall be made from CPVC compound meeting ASTM D 1784.
5. Polyvinyl Chloride (PVC) conforming to ANSI/AWWA C900. A minimum of wall thickness of DR 25 is required for all pipe sizes (Note: The lower the DR number, the higher the wall thickness and pressure rating). It shall be made from PVC compound meeting ASTM D 1784, Class 12454.
6. Polyvinyl Chloride (PVC) conforming to ANSI/AWWA C905. A minimum of wall thickness of DR 26 is required for all pipe sizes (Note: The lower the DR number, the higher the wall thickness and pressure rating). It shall be made from PVC compound meeting ASTM D 1784, Class 12454.

Joining of plastic pipe shall be by push-on joint, solvent welded joint, heat welded joint, flanged joint, or threaded joint, in accordance with the pipe manufacturer's instructions and industry standards. Special precautions shall be taken to insure clean, dry contact surfaces when making solvent or heat welded joints. Adequate setting time shall be allowed for maximum strength.

Elastometric seals (gaskets) used for push-on joints shall comply with ASTM F477.

Solvent cement shall be specific for the plastic pipe material and shall comply with ASTM D 2564 (PVC) or ASTM F 493 (CPVC) and be approved by NSF.

This work will be measured and paid for at the contract unit price per Foot (Meter) for STORM SEWER (WATER MAIN QUALITY PIPE) of the diameter and type specified.

Designer Note: This district special provision shall be included in all projects including HMA. This special shall be used in lieu of the BDE Special Provisions "HMA Mix Design Composition and Volumetric Requirements" and "HMA Mix Design Verification and Production".

FYI – Don't need a test strip for less than 3,000 tons and we don't pay for them anymore.

HMA MIXTURE DESIGN REQUIREMENTS, VOLUMETRIC REQUIREMENTS, VERIFICATION AND PRODUCTION (D-4)

Effective: April 25, 2014

Design Composition and Volumetric Requirements

Revise the following table in Article 1030.01 of the Standard Specifications to read:

High ESAL	IL-25.0 binder; IL-19.0 binder; IL-12.5 surface; IL-9.5 surface; IL-4.75; SMA
Low ESAL	IL-19.0L binder; IL-9.5L surface
All Other	Stabilized Subbase (HMA), HMA Shoulders

Revise the following table in Article 1030.04(a)(1):

"(1) High ESAL Mixtures. The Job Mix Formula (JMF) shall fall within the following limits.

High ESAL, MIXTURE COMPOSITION (% PASSING) [1/]														
Sieve Size	IL-25.0 mm		IL-19.0 mm		IL-12.5 mm		IL-9.5 mm		IL-4.75 mm		SMA [4/] IL-12.5 mm		SMA [4/] IL-9.5 mm	
	Min	max	min	max	min	max	min	max	min	max	min	max	min	max
1 1/2 in (37.5 mm)		100												
1 in. (25 mm)	90	100		100										
3/4 in. (19 mm)		90	82	100		100						100		
1/2 in. (12.5 mm)	45	75	50	85	90	100		100		100	80	100		100
3/8 in. (9.5 mm)						89	90	100		100		65	90	100
#4 (4.75 mm)	24	42 [2/]	24	50 [2/]	28	65	32	69	90	100	20	30	36	50
#8 (2.36 mm)	16	31	20	36	28	48 [3/]	32	52 [3/]	70	90	16	24 [5/]	16	32
#16 (1.18 mm)	10	22	10	25	10	32	10	32	50	65				
#30 (600 µm)											12	16	12	18

#50 (300 μm)	4	12	4	12	4	15	4	15	15	30				
#100 (150 μm)	3	9	3	9	3	10	3	10	10	18				
#200 (75 μm)	3	6	3	6	4	6	4	6	7	9 6/	7.0	9.0 6/	7.5	9.5 6/
Ratio Dust/Asphalt Binder		1.0		1.0		1.0		1.0		1.0		1.5		1.5

1/ Based on percent of total aggregate weight.

2/ The mixture composition shall not exceed 40 percent passing the #4 (4.75 mm) sieve for binder courses with Ndesign ≥ 90.

3/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign ≥ 90.

4/ The maximum percent passing the 20 μm sieve shall be ≤ 3 percent.

5/ When establishing the Adjusted Job Mix Formula (AJMF) the #8 (2.36mm) sieve shall not be adjusted above 24 percent.

6/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer."

Delete Article 1030.04(a)(4) of the Standard Specifications.

Revise Article 1030.04(b)(1) of the Standard Specifications to read.

"(1) High ESAL Mixtures. The target value for the air voids of the HMA shall be 4.0 percent, except for IL-4.75 which shall be 3.5 percent, at the design number of gyrations. The VMA and VFA of the HMA design shall be based on the nominal maximum size of the aggregate in the mix, and shall conform to the following requirements.

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	IL-4.75 1/	
50	12.0	13.0	14.0	15.0	18.5	65 – 78 2/
70						65 - 75
90						
105						

1/ Maximum Draindown for IL-4.75 shall be 0.3%

2/ VFA for IL-4.75 shall be 72-85%"

Delete Article 1030.04(b) (4) of the Standard Specifications.

Add table in Article 1030.04(b) as follows:

"(5) SMA Mixtures.

Volumetric Requirements SMA [1/]			
Ndesign	Design Air Voids Target %	Voids in the Mineral Aggregate (VMA), % min.	Voids Filled with Asphalt (VFA), %
80 [4/]	3.5	17 [2/] 16 [3/]	75 - 83

1/ Maximum Draindown shall be 0.3%.

2/ Applies when specific gravity of coarse aggregate is ≥ 2.760.

3/ Applies when specific gravity of coarse aggregate is < 2.760.

4/ For surface course, coarse aggregate shall be Class B Quality; the coarse aggregate can be crushed steel slag, crystalline crushed stone or crushed sandstone. For binder course, coarse aggregate shall be crushed stone (dolomite), crushed gravel, crystalline crushed stone, or crushed sandstone. Blending of different types of aggregate will not be permitted.

Revise the "Control Limits" table in Article 1030.05(d)(4) of the Standard Specifications to read:

CONTROL LIMITS					
Parameter	High ESAL Low ESAL Individual Test	High ESAL Low ESAL Moving Avg. of 4	All Other Individual Test	IL-4.75 Individual Test	IL-4.75 Moving Avg. of 4
% Passing: [1/]					
1/2 in. (12.5 mm)	± 6%	± 4%	± 15%		
No. 4 (4.75 mm)	± 5%	± 4%	± 10%		
No. 8 (2.36 mm)	± 5%	± 3%			
No. 16 (1.18 mm)				± 4%	± 3%
No. 30 (600 µm)	± 4%	± 2.5%			
Total Dust Content No. 200 (75 µm)	± 1.5%	± 1.0%	± 2.5%	± 1.5%	± 1.0%
Asphalt Binder Content	± 0.3%	± 0.2%	± 0.5%	± 0.3%	± 0.2%
Voids	± 1.2%	± 1.0%	± 1.2%	± 1.2%	± 1.0%
VMA	-0.7% [2/]	-0.5% [2/]		-0.7% [2/]	-0.5% [2/]

Design Verification and Production

Description. The following states the requirements for Hamburg Wheel and Tensile Strength testing for High ESAL, IL-4.75, and Stone Matrix Asphalt (SMA) Hot-Mix Asphalt (HMA) mixes during mix design verification and production. The following also defines an acceptable test

strip. In addition it provides the plant requirements for hydrated lime addition systems used in the production of High ESAL, IL-4.75 and SMA mixtures.

When the options of Warm Mix Asphalt, Reclaimed Asphalt Shingles, or Reclaimed Asphalt Pavement are used by the Contractor, the Hamburg Wheel and tensile strength requirements in this special provision will be superseded by the special provisions for Warm Mix Asphalt and/or by the District special provision for Reclaimed Asphalt Pavement and Reclaimed Asphalt Shingles as applicable.

Mix Design Testing.

Add the following to Article 1030.04 of the Standard Specifications:

"(d) Verification Testing. High ESAL, IL-4.75, and SMA mix designs submitted for verification will be tested to ensure that the resulting mix designs will pass the required criteria for the Hamburg Wheel Test (IL mod AASHTO T-324) and the Tensile Strength Test (IL mod AASHTO T-283). The Department will perform a verification test on gyratory specimens compacted by the Contractor. If the mix fails the Department's verification test, the Contractor shall make the necessary changes to the mix and resubmit compacted specimens to the Department for verification. If the mix fails again, the mix design will be rejected.

All new and renewal mix designs will be required to be tested, prior to submittal for Department verification meeting the following requirements:

(1)Hamburg Wheel Test criteria.

Asphalt Binder Grade	# Repetitions	Max Rut Depth (mm)
PG 70 -XX (or higher)	20,000	12.5
PG 64 -XX (or lower)	10,000	12.5

Note: For SMA Designs (N-80) the maximum rut depth is 6.0 mm at 20,000 repetitions.

For IL 4.75mm Designs (N-50) the maximum rut depth is 9.0mm at 15,000 repetitions.

(2) Tensile Strength Criteria. The minimum allowable conditioned tensile strength shall be 415 kPa (60 psi) for non-polymer modified performance graded (PG) asphalt binder and 550 kPa (80 psi) for polymer modified PG asphalt binder. The maximum allowable unconditioned tensile strength shall be 1,380 kPa (200 psi)."

Production Testing.

Revise Article 1030.06(a) to read:

"(a) High ESAL and IL-4.75 Mixtures. For each contract, a 300 ton (275 metric tons) test strip, except for IL -4.75 it will be 400 ton (363 metric ton), will be required at the beginning of HMA production for each mixture with a quantity of 3,000 tons (2,750 metric tons) or more according to the Manual of Test Procedures for Materials 'Hot-Mix Asphalt Test Strip Procedures'."

Before start-up, target values shall be determined by applying gradation correction factors to the JMF when applicable. These correction factors shall be determined from previous experience. The target values, when approved by the Engineer, shall be used to control HMA production. Plant settings and control charts shall be set according to target values.

Before constructing the test strip, target values shall be determined by applying gradation correction factors to the JMF when applicable. After any JMF adjustment, the JMF shall become the Adjusted Job Mix Formula (AJMF). Upon completion of the first acceptable test strip, the JMF shall become the AJMF regardless of whether or not the JMF has been adjusted. If an adjustment/plant change is made, the Engineer may require a new test strip to be constructed. If the HMA placed during the initial test strip is determined to be unacceptable to remain in place by the Engineer, it shall be removed and replaced.

The limitations between the JMF and AJMF are as follows.

Parameter	Adjustment
1/2 in. (12.5 mm)	± 5.0%
No. 4 (4.75 mm)	± 4.0%
No. 8 (2.36 mm)	± 3.0%
No. 30 (600 μm)	*
No. 200 (75 μm)	*
Asphalt Binder Content	± 0.3%

* In no case shall the target for the amount passing be greater than the JMF.

Any adjustments outside the above limitations will require a new mix design.

Mixture sampled to represent the test strip shall include additional material sufficient for the Department to conduct Hamburg Wheel testing according to Illinois Modified AASHTO T 324 (approximately 60 lbs. (27 kg) total).

Revise the title of Article 1030.06(b) of the Standard Specifications to read:

"(b) Low ESAL and All Other Mixtures."

Add the following to Article 1030.06 of the Standard Specifications:

"(c) Hamburg Wheel Test. All HMA mixtures shall be sampled within the first 500 tons (450 metric tons) on the first day of production or during start up with a split reserved for the Department. The mix sample shall be tested according to the Illinois Modified AASHTO T 324 and shall meet the requirements specified herein. Mix production shall not exceed 1,500 tons (1,350 metric tons) or one day's production, whichever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced mixture demonstrates conformance prior to start of mix production for a contract.

The Department may conduct additional Hamburg Wheel Tests on production material as determined by the Engineer. If the mixture fails to meet the Hamburg Wheel criteria, no further mixture will be accepted until the Contractor takes such action as is necessary to furnish a mixture meeting the criteria."

The Contractor shall immediately cease production upon notification by the Engineer of failing Hamburg Wheel test. All prior produced material may be paved out provided all other mixture criteria are being met. No additional mixture shall be produced until the Engineer receives passing Hamburg Wheel tests.

Test Strip.

Revise Article 406.14(b) of the Standard Specifications to read.

"(b) If the HMA placed during the initial test strip (1) is determined to be unacceptable to remain in place by the Engineer, and (2) was not produced within 2.0 to 6.0 percent air voids or within the individual control limits of the JMF, the mixture and test strip will not be paid for and the mixture shall be removed at the Contractor's expense. An additional test strip and mixture will be paid for in full, if produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF."

Revise Article 406.14(c) of the Standard Specifications to read.

"(c) If the HMA placed during the initial test strip (1) is determined to be unacceptable to remain in place by the Engineer, and (2) was produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF, the mixture shall be removed. Removal will be paid in accordance to Article 109.04 of the Standard Specifications. This initial mixture and test strip will be paid for at the contract unit prices. The additional mixture will be paid for at the contract unit price, and any additional test strips will be paid for at one half the unit price of each test strip."

Plant Requirements for Hydrated Lime Addition Systems.

Revise the fourth sentence of the third paragraph of Article 1030.04(c) of the Standard Specifications to read:

"The method of application shall be according to Article 1102.01(a)(10)."

Replace the first three sentences of the second paragraph of Article 1102.01(a)(10) of the Standard Specifications to read:

"When hydrated lime is used as the anti-strip additive, a separate bin or tank and feeder system shall be provided to store and accurately proportion the lime onto the aggregate either as a slurry, as dry lime applied to damp aggregates, or as dry lime injected onto the hot aggregates prior to adding the liquid asphalt cement. If the hydrated lime is added either as a slurry or as dry lime on damp aggregates, the lime and aggregates shall be mixed by a power driven pugmill to provide a uniform coating of the lime prior to entering the dryer. If dry hydrated lime is added to the hot dry aggregates in a dryer-drum plant, the lime shall be added in such a manner that the lime will not become entrained into the air stream of the dryer-drum and that thorough dry mixing shall occur prior to the injection point of the liquid asphalt. When a batch plant is used, the hydrated lime shall be added to the mixture in the weigh hopper or as approved by the Engineer."

Basis of Payment.

Revise the seventh paragraph of Article 406.14 of the Standard Specifications to read:

"For all mixes designed and verified under the Hamburg Wheel criteria, the cost of furnishing and introducing anti-stripping additives in the HMA will not be paid for separately, but shall be considered as included in the contract unit price of the HMA item involved.

No additional compensation will be awarded to the Contractor because of reduced production rates associated with the addition of the anti-stripping additive."

Designer Note: Use this version of the RAP/RAS Special Provision instead of the BDE version of the same name. Also, use the District Special Provision "HMA Mixture Design Requirements, Volumetric Requirements, Verification and Production (D-4)" when using this RAP/RAS Special Provision.

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (D-4)

Effective April 25, 2014 Revised August 1, 2014

Revise Section 1031 of the Standard Specifications to read:

"SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES

1031.01 Description. Reclaimed asphalt pavement and reclaimed asphalt shingles shall be according to the following.

(a) Reclaimed Asphalt Pavement (RAP). RAP is the material resulting from cold milling or crushing an existing hot-mix asphalt (HMA) pavement. RAP will be considered processed FRAP after completion of both crushing and screening to size. The Contractor shall supply written documentation that the RAP originated from routes or air fields under federal, state, or local agency jurisdiction.

(b) Reclaimed Asphalt Shingles (RAS). Reclaimed asphalt shingles (RAS). RAS is from the processing and grinding of preconsumer or post-consumer shingles. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable material, as defined in Bureau of Materials and Physical Research Policy Memorandum "Reclaimed Asphalt Shingle (RAS) Sources", by weight of RAS. All RAS used shall come from a Bureau of Materials and Physical Research approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 90 percent passing the #4 (4.75 mm) sieve. RAS shall meet the testing requirements specified herein. In addition, RAS shall meet the following Type 1 or Type 2 requirements.

(1) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.

(2) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

1031.02 Stockpiles. RAP and RAS stockpiles shall be according to the following.

(a) RAP Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. Additional processed RAP (FRAP) shall be stockpiled in a separate working pile, as designated in the QC Plan, and only added to the sealed stockpile when test results for the working pile are complete and are found to meet tolerances specified herein for the original sealed FRAP stockpile. Stockpiles shall be sufficiently separated to prevent intermingling at the base. All stockpiles (including unprocessed RAP and FRAP) shall be identified by signs indicating the type as listed below (i.e. "Non- Quality, FRAP -#4 or Type 2 RAS", etc.).

(1) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, Superpave

HMA (High and Low ESAL) or equivalent mixtures. The coarse aggregate in FRAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. All FRAP shall be processed prior to testing and sized into fractions with the separation occurring on or between the #4 (4.75 mm) and 1/2 in. (12.5 mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP in the coarse fraction shall pass the maximum sieve size specified for the mix the FRAP will be used in.

(2) Restricted FRAP (B quality) stockpiles shall consist of RAP from Class I, Superpave (High ESAL), or HMA (High ESAL). If approved by the Engineer, the aggregate from a maximum 3.0 inch single combined pass of surface/binder milling will be classified as B quality. All millings from this application will be processed into FRAP as described previously.

(3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, Superpave HMA (High and Low 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 (FRAP) prior to testing. Conglomerate RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

(4) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from HMA shoulders, bituminous stabilized subbases or Superpave (Low ESAL)/HMA (Low ESAL) IL-19.0L binder mixture. 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.

(5) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

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

(b) RAS Stockpiles. Type 1 and Type 2 RAS shall be stockpiled separately and shall be sufficiently separated to prevent intermingling at the base. Each stockpile shall be signed indicating what type of RAS is present.

However, a RAS source may submit a written request to the Department for approval to blend mechanically a specified ratio of type 1 RAS with type 2 RAS. The source will not be permitted to change the ratio of the blend without the Department prior written approval. The Engineer's written approval will be required, to mechanically blend RAS with any fine aggregate produced under the AGCS, up to an equal weight of RAS, to improve workability. The fine aggregate shall be "B Quality" or better from an approved Aggregate Gradation Control System source. The fine aggregate shall be one that is approved for use in the HMA mixture and accounted for in the mix design and during HMA production.

Records identifying the shingle processing facility supplying the RAS, RAS type and lot number shall be maintained by project contract number and kept for a minimum of

three years.

1031.03 Testing. FRAP and RAS testing shall be according to the following.

(a) FRAP Testing. When used in HMA, the FRAP shall be sampled and tested either during processing or after stockpiling. It shall also be sampled during HMA production.

(1) During 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 2,000 tons (1,800 metric tons) and one sample per 2,000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4,000 tons (3,600 metric tons).

(2) Incoming Material. For testing as incoming material, washed extraction samples shall be run at a minimum frequency of one sample per 2,000 tons (1,800 metric tons) or once per week, whichever comes first.

(3) After Stockpiling. 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/FRAP 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.

Before extraction, each field sample of FRAP, 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.

(b) RAS Testing. RAS shall be sampled and tested during stockpiling according to Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Sources". The Contractor shall also sample as incoming material at the HMA plant.

(1) During Stockpiling. Washed extraction and testing for unacceptable materials shall be run at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1,000 tons (900 metric tons) and one sample per 1000 tons (900 metric tons) thereafter. A minimum of five samples are required for stockpiles less than 1,000 tons (900 metric tons). Once a ≤ 1,000 ton (900 metric ton), five-sample/test stockpile has been established it shall be sealed. Additional incoming RAS shall be in a separate working pile as designated in the Quality Control plan and only added to the sealed stockpile when the test results of the working pile are complete and are found to meet the tolerances specified herein for the original sealed RAS stockpile.

(2) Incoming Material. For testing as incoming material at the HMA plant, washed extraction shall be run at the minimum frequency of one sample per 250 tons (227 metric tons). A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). The incoming material test results shall meet the tolerances specified herein.

The Contractor shall obtain and make available all test results from start of the initial stockpile sampled and tested at the shingle processing facility in accordance with the facility's QC Plan.

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 procedures. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

1031.04 Evaluation of Tests. Evaluation of tests results shall be according to the following.

(a) Evaluation of FRAP Test Results. All test results shall be compiled to include asphalt binder content, gradation and, when applicable (for slag), G_{mm}. A five test average of results from the original pile will be used in the mix designs. Individual extraction test results run thereafter, shall be compared to the average used for the mix design, and will be accepted if within the tolerances listed below.

Parameter	FRAP
No. 4 (4.75 mm)	± 6%
No. 8 (2.36 mm)	± 5%
No. 30 (600 µm)	± 5%
No. 200 (75 µm)	± 2.0%
Asphalt Binder	± 0.3%
G_{mm}	± 0.03 1/

1/ For stockpile with slag or steel slag present as determined in the current Manual of Test Procedures Appendix B 21, "Determination of Reclaimed Asphalt Pavement Aggregate Bulk Specific Gravity".

If any individual sieve and/or asphalt binder content tests are out of the above tolerances when compared to the average used for the mix design, the FRAP stockpile shall not be used in Hot-Mix Asphalt unless the FRAP representing those tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

The Contractor shall maintain a representative moving average of five tests to be used for Hot-Mix Asphalt production.

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)" or Illinois Modified AASHTO T-164-11, Test Method A.

(b) Evaluation of RAS Test Results. All of the test results, with the exception of percent unacceptable materials, shall be compiled and averaged for asphalt binder content and gradation. A five test average of results from the original pile will be used in the mix designs. Individual test results run thereafter, when compared to the average used for the mix design, will be accepted if within the tolerances listed below.

Parameter	RAS
No. 8 (2.36 mm)	± 5%
No. 16 (1.18 mm)	± 5%
No. 30 (600 µm)	± 4%
No. 200 (75 µm)	± 2.5%
Asphalt Binder Content	± 2.0%

If any individual sieve and/or asphalt binder content tests are out of the above tolerances when compared to the average used for the mix design, the RAS shall not be used in Hot-Mix Asphalt unless the RAS representing those tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

(c) Quality Assurance by the Engineer. The Engineer may witness the sampling and splitting conduct assurance tests on split samples taken by the Contractor for quality control testing a minimum of once a month.

The overall testing frequency will be performed over the entire range of Contractor samples for asphalt binder content and gradation. The Engineer may select any or all split samples for assurance testing. The test results will be made available to the Contractor as soon as they become available.

The Engineer will notify the Contractor of observed deficiencies.

Differences between the Contractor's and the Engineer's split sample test results will be considered acceptable if within the following limits.

Test Parameter	Acceptable Limits of Precision	
% Passing:[1/]	FRAP	RAS
1 / 2 in.	5.0%	
No. 4	5.0%	
No. 8	3.0%	4.0%
No. 30	2.0%	3.0%
No. 200	2.2%	2.5%
Asphalt Binder Content	0.3%	1.0%
G_{mm}	0.030	

1/ Based on washed extraction.

In the event comparisons are outside the above acceptable limits of precision, the Engineer will immediately investigate.

(d) Acceptance by the Engineer. Acceptable of the material will be based on the validation of the Contractor's quality control by the assurance process.

1031.05 Quality Designation of Aggregate in RAP and FRAP.

(a) RAP. The aggregate quality of the RAP for homogenous, conglomerate, and conglomerate "D" quality stockpiles shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.

(1) RAP from Class I, Superpave/HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B Quality Coarse Aggregate.

(2) RAP from Superpave/HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D Quality Coarse Aggregate.

(3) RAP from Class I, Superpave/HMA (High ESAL) binder mixtures, bituminous base

course mixtures, and bituminous base course widening mixtures are designated as containing Class C Quality Coarse Aggregate.

(4) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D Quality Coarse Aggregate.

(b) FRAP. If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer.

If the quality is not known, the quality shall be determined as follows. Fractionated RAP stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5,000 tons (4,500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb. (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant prequalified by the Department for the specified testing. The consultant shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent will be applied for all HMA applications. The fine aggregate portion of the fractionated RAP shall not be used in any HMA mixtures that require a minimum of "B" quality aggregate or better, until the coarse aggregate fraction has been determined to be acceptable thru a MicroDeval Testing.

1031.06 Use of FRAP and/or RAS in HMA. The use of FRAP and/or RAS shall be a Contractor's option when constructing HMA in all contracts.

(a) FRAP. The use of FRAP in HMA shall be as follows.

(1) Coarse Aggregate Size (after extraction). The coarse aggregate in all FRAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.

(2) Steel Slag Stockpiles. FRAP 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) mixtures regardless of lift or mix type.

(3) Use in HMA Surface Mixtures (High and Low ESAL). FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall have coarse aggregate that is Class B quality or better. FRAP shall be considered equivalent to limestone for frictional considerations unless produced/screened to minus 3/8" inch.

(4) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP in which the coarse aggregate is Class C quality or better.

(5) Use in Shoulders and Subbase. FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, Restricted FRAP, conglomerate, or conglomerate DQ.

(b) RAS. RAS meeting Type 1 or Type 2 requirements will be permitted in all HMA applications as specified herein.

(c) FRAP and/or RAS Usage Limits. Type 1 or Type 2 RAS may be used alone or in conjunction with FRAP in HMA mixtures up to a maximum of 5.0% by weight of the total mix.

When FRAP, RAS or FRAP in conjunction with RAS is used, the percent of virgin asphalt binder replacement (ABR) shall not exceed the amounts indicated in the table below for a given N Design.

Max Asphalt Binder Replacement for FRAP with RAS Combination

HMA Mixtures [1/ 2/ 4/]	Maximum % ABR		
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified [3/]
30L	50	40	30
50	40	35	30
70	40	30	30
90	40	30	30
4.75 mm N-50			40
SMA N-80			30

1/ For HMA "All Other" (shoulder and stabilized subbase) N-30, the percent asphalt binder replacement shall not exceed 50% of the total asphalt binder in the mixture.

2/ When the binder replacement exceeds 15 percent for all mixes, except for SMA and IL-4.75, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent binder replacement using a virgin asphalt binder grade of PG64-22 will be reduced to a PG58-28). When constructing full depth HMA and the ABR is less than 15 percent, the required virgin asphalt binder grade shall be PG64-28.

3/ When the ABR for SMA or IL-4.75 is 15 percent or less, the required virgin asphalt binder shall be SBS PG76-22 and the elastic recovery shall be a minimum of 80. When the ABR for SMA or IL-4.75 exceeds 15%, the virgin asphalt binder grade shall be SBS PG70-28 and the elastic recovery shall be a minimum of 80.

4/ When FRAP or RAS is used alone, the maximum percent asphalt binder replacement designated on the table shall be reduced by 10%.

1031.07 HMA Mix Designs. At the Contractor's option, HMA mixtures may be constructed utilizing FRAP and/or RAS material meeting the detailed requirements specified herein.

(a) FRAP and/or RAS. FRAP and /or RAS mix designs shall be submitted for verification. If additional FRAP or RAS stockpiles are tested and found to be within tolerance, as defined under "Evaluation of Tests" herein, and meet all requirements herein, the additional FRAP or RAS stockpiles may be used in the original design at the percent previously verified.

(b) RAS. Type 1 and Type 2 RAS are not interchangeable in a mix design. A RAS stone bulk specific gravity (Gsb) of 2.500 shall be used for mix design purposes.

1031.08 HMA Production. HMA production utilizing FRAP and/or RAS shall be as follows.

To remove or reduce agglomerated material, a scalping screen, gator, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAS and FRAP 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 during mix production, corrective actions fail to maintain FRAP, RAS or QC/QA test results within control tolerances or the requirements listed herein the Contractor shall cease production of the mixture containing FRAP or RAS and conduct an investigation that may require a new mix design.

(a) RAS. RAS shall be incorporated into the HMA mixture either by a separate weight depletion system or by using the RAP weigh belt. Either feed system shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes. The portion of RAS shall be controlled accurately to within ± 0.5 percent of the amount of RAS utilized. When using the weight depletion system, flow indicators or sensing devices shall be provided and interlocked with the plant controls such that the mixture production is halted when RAS flow is interrupted.

(b) HMA Plant Requirements. HMA plants utilizing FRAP and/or RAS shall be capable of automatically recording and printing the following information.

(1) Dryer Drum Plants.

a. Date, month, year, and time to the nearest minute for each print.

b. HMA mix number assigned by the Department.

c. Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

d. Accumulated dry weight of RAS and FRAP in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).

e. Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.

f. Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.

g. Residual asphalt binder in the RAS and FRAP material as a percent of the total mix to the nearest 0.1 percent.

h. Aggregate RAS and FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAS and FRAP are printed in wet condition.)

i. When producing mixtures with FRAP and/or RAS, a positive dust control

system shall be utilized.

j. Accumulated mixture tonnage.

k. Dust Removed (accumulated to the nearest 0.1 ton)

(2) Batch Plants.

a. Date, month, year, and time to the nearest minute for each print.

b. HMA mix number assigned by the Department.

c. Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).

d. Mineral filler weight to the nearest pound (kilogram).

e. RAS and FRAP weight to the nearest pound (kilogram).

f. Virgin asphalt binder weight to the nearest pound (kilogram).

g. Residual asphalt binder in the RAS and FRAP 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.

1031.09 RAP in Aggregate Surface Course and Aggregate Shoulders. The use of RAP or FRAP 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 "Non-Quality" and "FRAP". The testing requirements of Article 1031.03 shall not apply. RAP used to construct aggregate surface course and aggregate shoulders shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications"

(b) Gradation. One hundred percent of the RAP material shall pass the 1½ in. (37.5mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded, FRAP, or single sized will not be accepted for use as Aggregate Surface Course and Aggregate Shoulders."

District General Notes

Effective: January 1, 2011
Revised: August 1, 2014

Designer Note: Don't need to put table in plans. This information is now in DSP 406.02, "HOT-MIX ASPHALT – PRIME COAT (BMPR)".

POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT) RATES

Surface Type	Estimated Truck Application Rate	Residual Rate
Milled (HMA or PCC)	0.10 gal/sy (0.0004 ton/sy)	0.05 gal/sy
Existing Pavement	0.05 gal/sy (0.00022 ton/sy)	0.025 gal/sy
Fog Coat (between lifts)	0.05 gal/sy (0.00022 ton/sy)	0.025 gal/sy

Note: Estimated truck application rate is used for estimating quantities.