



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Janet T. Mills
GOVERNOR

Bruce A. Van Note
COMMISSIONER

May 2, 2023
Subject: Pavement Milling & ultra-
Thin Bonded Wearing Course
State WIN: 026630.04 &
026724.00
Location: **Columbia, Harrington,
Whitting & Eastport**

Dear Sir/Ms.:

Make The following changes to the bid documents:

In the Bid book:

Remove pages seventeen to nineteen titled Proposal Schedule of Items Dated 4/5/2023 and **Replace** with the attached Proposal Schedule of items dated 5/1/2023 and totaling four pages

Remove Page thirty-four to thirty-seven titled Typical sections totaling four pages and **Replace** with the attached Typical sections totaling five pages

Insert CROSS SLOPE SHEET Whiting dated April 28, 2023, totaling three pages

Remove Pages forty-four to fifty-one titled Construction notes dated March 16, 2023 totaling eight pages and **Replace** with the attached Construction notes dated May 1, 20223 totaling nine pages

Remove Pages One Hundred and Twenty-Two to Pages one hundred and twenty-seven Titled Special Provision Section 410 Asphalt-Rubber Membrane (ASPHALT-RUBBER MEMEBRANE WITH AGGREGATE COVER and **Replace** with the attached SPECIAL PROVISION SECTION 400 Pavements (emulsified Asphalt Seal Coat with Cover Coat Material) totaling four pages

Insert CROSS SLOPE SHEET Eastport dated May 1, 2023, Totaling Eight pages

The following questions have been received:

Question: Item 410.15 Emulsified Asphalt is shown as 49,900 G, should this item be paid by the SY?

Response: See the attached Special Provision 410, and attached Proposal Schedule of items

Consider these changes and information prior to submitting your bid on **May 3, 2023**

Sincerely,

George M. A. Macdougall P.E.
Contracts & Specifications Engineer

Maine Department of Transportation

Proposal Schedule of Items

Proposal ID: 026630.04

Project(s): 026630.04, 026724.00

SECTION: 1 INITIAL GROUP

Alt Set ID: Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0010	202.2023 REMOVING PAVEMENT SURFACE - MEDIUM CUT DRUM	141,200.000 SY	_____	 _____	_____	 _____
0020	202.203 PAVEMENT BUTT JOINTS	1,540.000 SY	_____	 _____	_____	 _____
0030	403.209 HOT MIX ASPHALT 9.5 MM (SIDEWALKS, DRIVES, INCIDENTALS)	130.000 T	_____	 _____	_____	 _____
0040	403.211 HOT MIX ASPHALT (SHIMMING)	6,990.000 T	_____	 _____	_____	 _____
0050	403.213 HOT MIX ASPHALT 12.5 MM BASE	200.000 T	_____	 _____	_____	 _____
0060	409.15 BITUMINOUS TACK COAT - APPLIED	5,970.000 G	_____	 _____	_____	 _____
0070	410.151 EMULSIFIED ASPHALT SEALCOAT, APPLIED	49,900.000 SY	_____	 _____	_____	 _____
0080	411.10 UNTREATED AGGREGATE SURFACE COURSE (TRUCK MEASURE)	40.000 CY	_____	 _____	_____	 _____
0090	424.22 ASPHALT RUBBER CRACK SEALER TYPE 2, APPLIED	46,800.000 LB	_____	 _____	_____	 _____
0100	424.38 CRACK REPAIR - HOT POUR MASTIC	5,600.000 LB	_____	 _____	_____	 _____
0110	462.301 POLYMER MODIFIED ULTRATHIN BONDED WEARING COURSE	226,600.000 SY	_____	 _____	_____	 _____

Maine Department of Transportation

Proposal Schedule of Items

Proposal ID: 026630.04

Project(s): 026630.04, 026724.00

SECTION: 1 INITIAL GROUP

Alt Set ID: Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0120	606.1305 31" W-BM GR, MID-WAY SPLICE FLARED TERMINAL	7.000 EA	_____	 _____	_____	 _____
0130	606.178 GUARDRAIL BEAM	1,525.000 LF	_____	 _____	_____	 _____
0140	606.353 REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	35.000 EA	_____	 _____	_____	 _____
0150	606.362 GUARDRAIL ADJUSTED	5,250.000 LF	_____	 _____	_____	 _____
0160	606.3671 REPLACE UNUSABLE OFFSET BLOCKS	18.000 EA	_____	 _____	_____	 _____
0170	615.10 DIRTY BORROW	3,400.000 CY	_____	 _____	_____	 _____
0180	618.14 SEEDING METHOD NUMBER 2	612.000 UN	_____	 _____	_____	 _____
0190	619.12 MULCH	612.000 UN	_____	 _____	_____	 _____
0200	627.733 4" WHITE OR YELLOW PAINTED PAVEMENT MARKING LINE	212,100.000 LF	_____	 _____	_____	 _____
0210	627.78 TEMPORARY 4 INCH PAINTED PAVEMENT MARKING LINE, WHITE OR YELLOW	440,400.000 LF	_____	 _____	_____	 _____
0220	629.05 HAND LABOR, STRAIGHT TIME	120.000 HR	_____	 _____	_____	 _____

Maine Department of Transportation

Proposal Schedule of Items

Proposal ID: 026630.04

Project(s): 026630.04, 026724.00

SECTION: 1 INITIAL GROUP

Alt Set ID: Alt Mbr ID:

Contractor: _____

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price		Bid Amount	
			Dollars	Cents	Dollars	Cents
0230	631.111 TRACTOR MOUNTED HYDRAULIC HAMMER	10.000 HR	_____	 _____	_____	 _____
0240	631.12 ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	170.000 HR	_____	 _____	_____	 _____
0250	631.133 SKID STEER (INCLUDING OPERATOR)	30.000 HR	_____	 _____	_____	 _____
0260	631.172 TRUCK - LARGE (INCLUDING OPERATOR)	315.000 HR	_____	 _____	_____	 _____
0270	639.19 FIELD OFFICE TYPE B	1.000 EA	_____	 _____	_____	 _____
0280	652.33 DRUM	70.000 EA	_____	 _____	_____	 _____
0290	652.34 CONE	235.000 EA	_____	 _____	_____	 _____
0300	652.35 CONSTRUCTION SIGNS	2,700.000 SF	_____	 _____	_____	 _____
0310	652.36 MAINTENANCE OF TRAFFIC CONTROL DEVICES	94.000 CD	_____	 _____	_____	 _____
0320	652.38 FLAGGER	2,150.000 HR	_____	 _____	_____	 _____
0330	656.75 TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL	LUMP SUM		 LUMP SUM	_____	 _____
0340	659.10 MOBILIZATION	LUMP SUM		 LUMP SUM	_____	 _____

5/1/2023

Maine Department of Transportation

Proposal Schedule of Items

Page 4 of 4

Proposal ID: 026630.04

Project(s): 026630.04, 026724.00

Section: 1

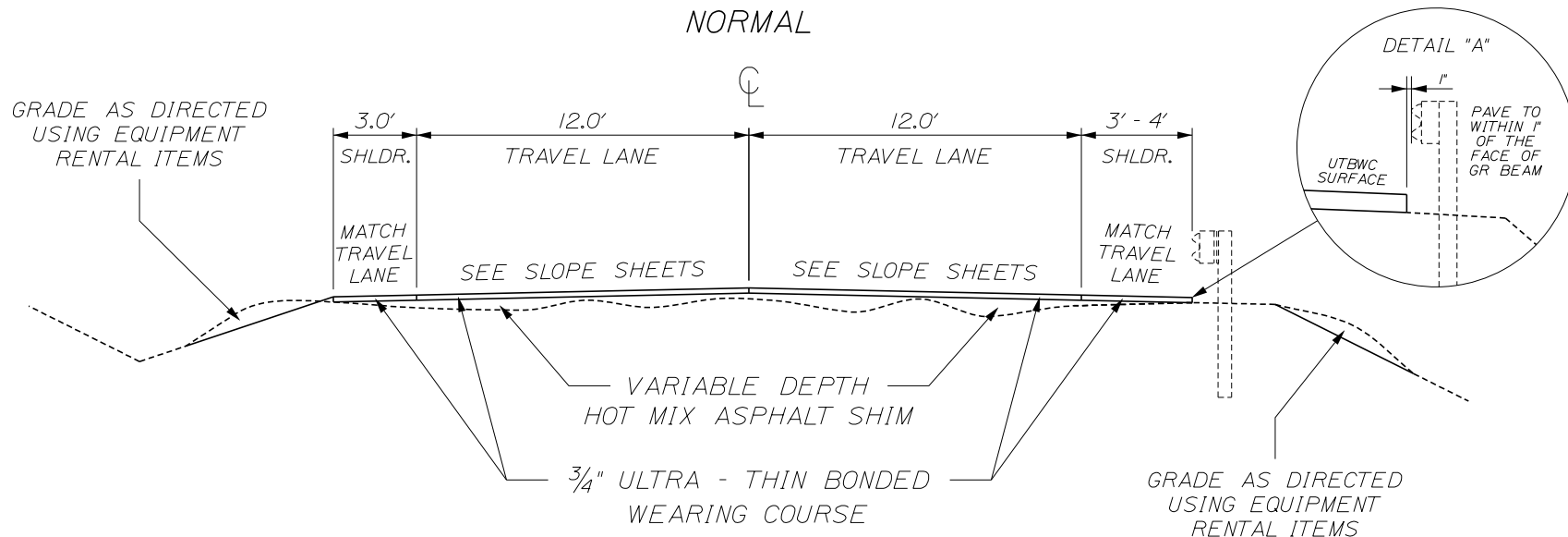
Total:

_____!

Total Bid:

_____!

*ULTRA - THIN BONDED WEARING COURSE
WITH VARIABLE DEPTH HOT MIX ASPHALT SHIM*



NOT TO SCALE

SECTION 1 - WHITING
US ROUTE 1

TYPICAL SECTIONS

WIN 26630.04

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2663004

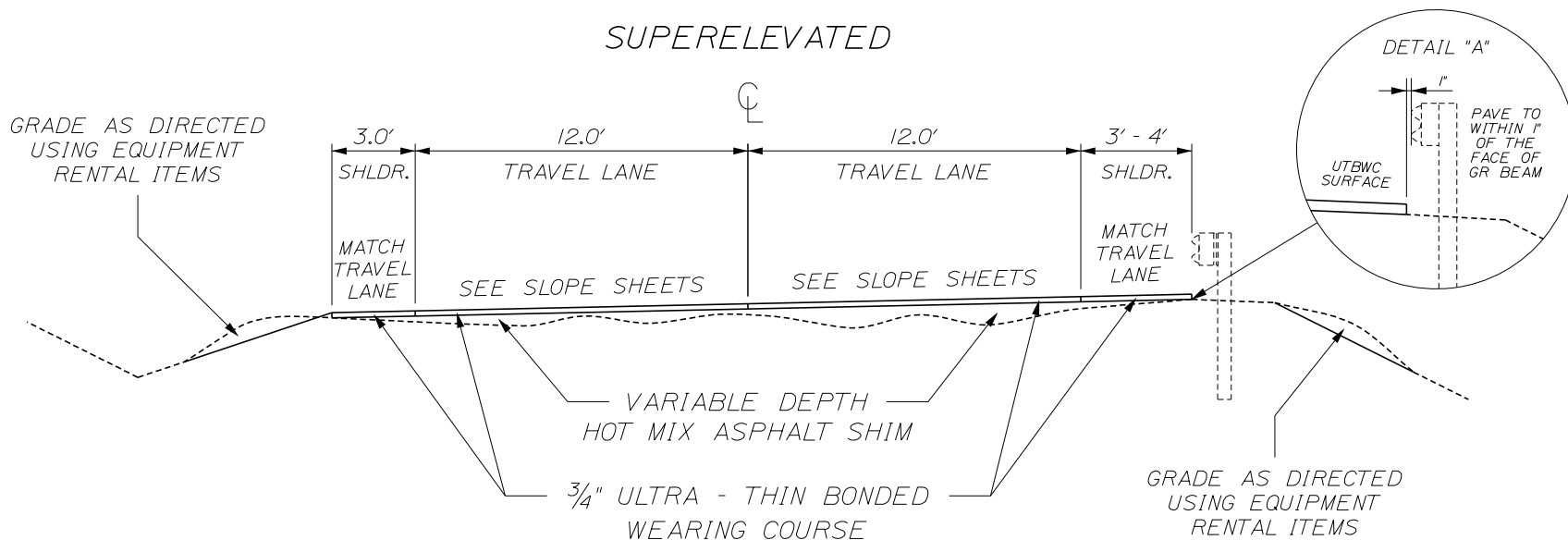
HIGHWAY PLANS

SHEET NUMBER

1 OF 5

*ULTRA - THIN BONDED WEARING COURSE
WITH VARIABLE DEPTH HOT MIX ASPHALT SHIM*

SUPERELEVATED



NOT TO SCALE

SECTION 1 - WHITING
US ROUTE 1

TYPICAL SECTIONS

WIN 26630.04

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2663004

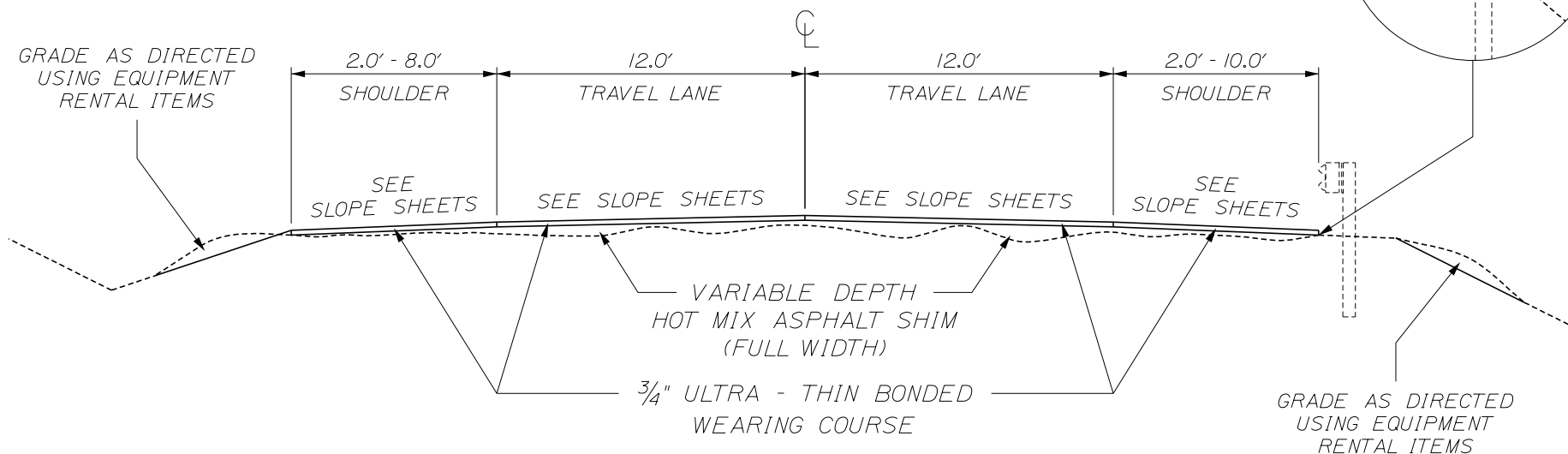
HIGHWAY PLANS

SHEET NUMBER

2 OF 5

ULTRA - THIN BONDED WEARING COURSE
WITH VARIABLE DEPTH HOT MIX ASPHALT SHIM

NORMAL



NOT TO SCALE

SECTION 2 - EASTPORT
ROUTE 190

TYPICAL SECTIONS

WIN 26630.04

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2663004

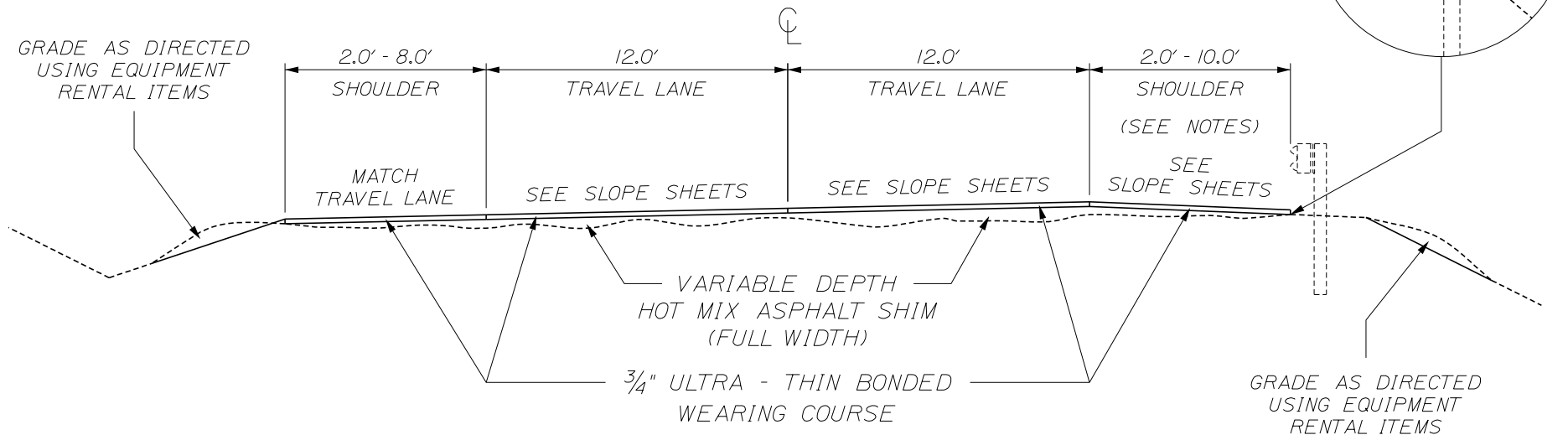
HIGHWAY PLANS

SHEET NUMBER

3 OF 5

*ULTRA - THIN BONDED WEARING COURSE
WITH VARIABLE DEPTH HOT MIX ASPHALT SHIM*

SUPERELEVATED



NOTES:

- 1. WHEN SHOULDER WIDTH IS 4 FEET OR LESS ON THE HIGH SIDE OF A SUPER THE SHOULDER SLOPE SHALL MATCH SLOPE OF THE ADJACENT TRAVEL LANE.*
- 2. ON THE HIGH SIDE OF A SUPER THE ALGEBRAIC ROLLOVER BETWEEN THE MAINLINE & SHOULDER SLOPES SHALL NOT EXCEED 8%.*

NOT TO SCALE

SECTION 2 - EASTPORT
ROUTE 190

TYPICAL SECTIONS

WIN 26630.04

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

2663004

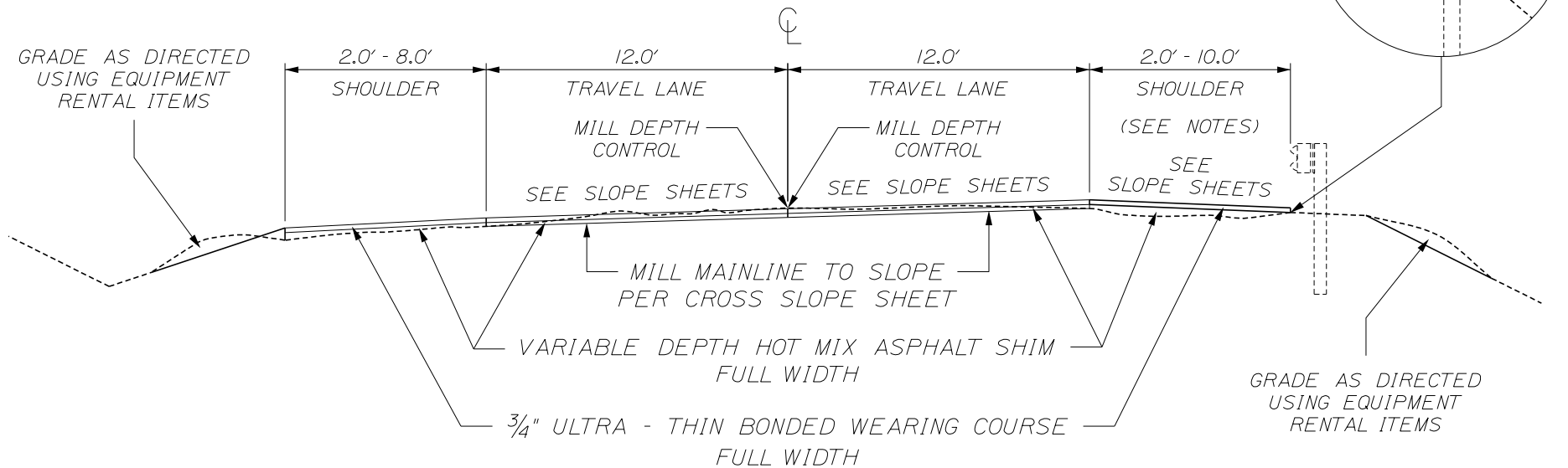
HIGHWAY PLANS

SHEET NUMBER

4 OF 5

ULTRA - THIN BONDED WEARING COURSE FULL WIDTH
 WITH 1½" MILLING ON MAINLINE
 AND VARIABLE DEPTH HOT MIX ASPHALT SHIM FULL WIDTH

SUPERELEVATED



NOTES:

1. WHEN SHOULDER WIDTH IS 4 FEET OR LESS ON THE HIGH SIDE OF A SUPER THE SHOULDER SLOPE SHALL MATCH SLOPE OF THE ADJACENT TRAVEL LANE.
2. ON THE HIGH SIDE OF A SUPER THE ALGEBRAIC ROLLOVER BETWEEN THE MAINLINE & SHOULDER SLOPES SHALL NOT EXCEED 8%.

NOT TO SCALE

SECTION 2 - EASTPORT
 ROUTE 190

TYPICAL SECTIONS

WIN 26630.04

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

2663004

HIGHWAY PLANS

SHEET NUMBER

5 OF 5

Construction Notes

Please Note:

- Section 1 - Whiting begins at Station 10+00 and ends at Station 209+76.
- Section 2 - Eastport begins at Station 300+00 and ends at Station 510+15.
- Section 1 & Section 2 are located approximately 30 miles apart.

202.2023 Removing Pavement Surface – Medium Cut Drum

EASTPORT

Mainline

Station	to	Station	Side	Average Width (ft)	Comments
313+00		490+00	LT	13	
500+50		507+00	LT	13	
313+00		490+00	RT	13	
500+50		507+00	RT	13	

This intent of this item is to mill 0” to 1½” at centerline per the mainline slopes and mark-downs (0 and negative numbers) as shown on the Cross Slope Sheet. The intent is to mill the mainline slope out onto the shoulder if necessary, until it daylight. 13 ft. is the *estimated* average width.

202.203 Pavement Butt Joints

WHITING

Mainline & Shoulder

Station	to	Station	Width (ft)	Comments
10+00		10+41	35	Begin Project - Section 1
209+35		209+76	30	End Project – Section 1

Construction Notes

202.203 Pavement Butt Joints (continued)

EASTPORT

Mainline & Shoulder

Station	to	Station	Width (ft)	Comments
300+00		300+38	42	Begin Project – Section 2
510+64		510+90	36	End Project – Section 2

This item is also intended to be used at side roads, paved drives/entrances, and as directed by the Resident.

403.209 Hot Mix Asphalt 9.5 mm (Incidentals)

This item is intended to be used for drives/entrances, when adjusting guardrail, and as directed by the Resident.

403.211 Hot Mix Asphalt (Shim)

The intent of this item in milled areas is to shim variable depth on mainline and to shim to slope on the shoulders per the slope sheets provided.

The intent of this item in all other areas is to shim full width of pavement to slope and mark-ups per the slope sheets provided.

409.15 Bituminous Tack Coat, Applied

This item will be applied in all areas where Item 403.211 - HMA Shim is to be placed and as directed by the Resident.

411.10 Untreated Aggregate Surface Course – Truck Measure

This item is intended to be used to back paved driveway aprons and as directed by the Resident. The Contractor may opt to use SCREENED millings in place of gravel meeting the gradation requirements for Item 411.10.

424.22 Asphalt Rubber Crack Sealer Type 2, Applied

This item shall be applied as needed on mainline and shoulders before HMA Shim is placed.

Construction Notes

462.301 Polymer Modified Ultra-Thin Bonded Wearing Course

WHITING

Mainline & Shoulder

Station	to	Station	Side	Width
10+00		209+76	LT	15' – 16'
10+00		209+76	RT	15' – 16'

EASTPORT

Mainline

Station	to	Station	Side	Width	Comments
300+00		510+15	LT	12'	
300+00		510+15	RT	12'	

Shoulders

Station	to	Station	Side	Width	Comments
300+00		442+75	LT	8'	
442+75		443+90	LT	8' to 2'	Transition
443+90		505+50	LT	2'	
505+50		505+65	LT	2' to 4'	Transition
505+65		510+90	LT	4'	End Project Left
300+00		303+95	RT	10'	
303+95		305+00	RT	10' to 8'	Transition
305+00		306+50	RT	8'	
306+50		307+30	RT	8' to 10'	Transition
307+30		311+25	RT	10'	
311+25		312+00	RT	10' to 8'	Transition
312+00		326+15	RT	8'	
326+15		326+90	RT	8' to 10'	Transition
326+90		333+95	RT	10'	
333+95		334+60	RT	10' to 8'	Transition
334+60		336+00	RT	8'	

Construction Notes

462.301 Polymer Modified Ultra-Thin Bonded Wearing Course (continued)

EASTPORT Shoulders (continued)

Station	to	Station	Side	Width	Comments
336+00		336+40	RT	8' to 10'	Transition
336+40		348+45	RT	10'	
348+45		349+20	RT	10' to 8'	Transition
349+20		443+90	RT	8'	
443+90		444+30	RT	8' to 2'	Transition
444+30		467+80	RT	2'	
467+80		468+00	RT	2' to 8'	Transition
468+00		472+50	RT	8'	
472+50		473+00	RT	8' to 2'	Transition
473+00		505+50	RT	2'	
505+50		505+65	RT	2' to 4'	Transition
505+65		510+90	RT	4'	End Project Right

606.1305 31" W-BM GR, Mid-Way Splice Flared Terminal

This item is to be used to completely replace existing damaged Guardrail 350 Flared Terminals at the locations listed below:

Station	to	Station	Side	Station	to	Station	Side
127+61		127+98	LT	173+85		174+23	RT
346+35		346+72	LT	178+48		178+86	RT
				326+61		326+98	RT
				348+42		348+70	RT
				429+25		429+62	RT

Construction Notes

606.178 Guardrail Beam

This item is to be used to replace individual damaged Guardrail Beams and includes some Radius Beams. Below is the estimated # of damaged beam(s) within each of the listed runs of guardrail. Actual beams to be replaced will be determined in the field by the Resident.

WHITING

Station	to	Station	Side	#Beam	Straight (S) or Radius (R)
94+61		95+30	LT	1	S
124+48		127+61	LT	5	S
166+38		167+51	LT	2	S
94+99		95+86	RT	1	S
137+38		147+63	RT	6	S

EASTPORT

Station	to	Station	Side	#Beam	Straight (S) or Radius (R)
300+00		304+16	LT	13	S
337+35		346+72	LT	23	S
388+87		398+24	LT	26	S
326+98		334+11	RT	2	S
393+01		393+10	RT	1	R
395+70		434+24	RT	18	S
434+50		434+62	RT	1	R
434+62		441+37	RT	15	S
467+97		472+32	RT	5	S

606.353 Reflectorized Flexible Guardrail Marker

Guardrail Markers are to be replaced at the direction of the Resident; locations listed are approximate. Reflector colors are designated as follows: W = White, G = Green, R= Red.

Station	Side	Color	Station	Side	Color
12+72	RT	G	348+42	RT	W
167+51	LT	W	348+70	RT	G
303+79	LT	W	388+87	LT	W
304+16	LT	R	393+12	RT	G

Construction Notes

606.353 Reflectorized Flexible Guardrail Marker (continued)

Station	Side	Color	Station	Side	Color
304+20	RT	R	394+35	RT	G
306+91	RT	R	397+87	LT	W
307+28	RT	W	398+24	LT	R
311+28	RT	W	415+08	RT	W
311+65	RT	G	415+45	RT	G
326+61	RT	R	429+25	RT	R
326+98	RT	W	429+62	RT	W
334+11	RT	G	434+24	RT	G
336+42	RT	R	434+62	RT	R
336+98	LT	W	440+99	RT	W
337+35	LT	W	441+37	RT	G
338+50	LT	G	467+97	RT	R
346+35	LT	W	472+32	RT	G
346+72	LT	R			

606.362 Guardrail Adjusted

Station	to	Station	Side	Length (ft)
300+00		303+79	LT	379
337+35		346+35	LT	900
300+00		303+83	RT	383
307+28		311+28	RT	400
326+98		334+11	RT	713
336+42		348+42	RT	1,200
434+62		441+00	RT	638
467+97		472+32	LT	435

606.3671 Replace Unusable Existing Guardrail Blocks

This item is to be used to replace individual damaged guardrail offset blocks. Below is the estimated # of damaged blocks within each of the listed runs of guardrail. Actual blocks to be replaced will be determined in the field by the Resident.

Station	to	Station	Side	# Blocks	Station	to	Station	Side	# Blocks
94+00		95+30	LT	1	94+61		95+86	RT	3
124+10		127+98	LT	5	166+08		167+96	RT	3

Construction Notes

606.3671 Replace Unusable Existing Guardrail Blocks (continued)

Station	to	Station	Side	# Blocks	Station	to	Station	Side	# Blocks
137+00		147+63	LT	3	173+85		178+86	RT	1
166+00		167+51	LT	2					

615.10 Dirty Borrow

This item has been estimated to back the edge of pavement for the entire length of the Section 1 – Whiting project on both sides of the road and for ½ the length of the Section 2 – Eastport project on both sides of the road in areas where there is not enough existing material to back the edge of pavement using the hourly rental items. Actual areas where Dirty Borrow will be used will be determined in the field by the Resident.

WHITING

Station	to	Station	Side	Width
10+00		209+76	LT	6'
10+00		209+76	RT	6'

EASTPORT

Station	to	Station	Side	Width
300+00		510+90	LT	6'
300+00		510+90	RT	6'

618.14 Seeding Method Number 2 & 619.12 Mulch

WHITING

Station	to	Station	Side	Width
10+00		209+76	LT	6'
10+00		209+76	RT	6'

Construction Notes

618.14 Seeding Method Number 2 & 619.12 Mulch (continued)

EASTPORT

Station	to	Station	Side	Width
300+00		510+90	LT	6'
300+00		510+90	RT	6'

627.733 4" White or Yellow Painted Pavement Marking Line

Center lines and edge lines shall be painted on all matched pavement within one week. Center line TOMs may be utilized until final striping and will be considered incidental to the contract.

627.78 Temporary Pavement Mark Line, White or Yellow

Centerline and edge lines will receive one application of temporary paint on the Ultra-Thin Bonded Wearing Course prior to final striping.

One application of temporary paint will be required on the centerline and edge lines on the shim.

Temporary center lines and edge lines shall be painted on all matched pavement within one week.

All temporary lines shall be painted prior to final striping.

629.05 Hand Labor, 631.12 All Purpose Excavator, & 631.172 Truck – Large

These items will be used to pay for backing the edge of pavement with existing material, cleaning excess winter sand from guardrail areas and other locations as needed, and for shaping the inslope as needed. All equipment used for certain tasks and operations will be as directed by the Resident.

631.111 Tractor Mounted Hydraulic Hammer

This item is to be used for removing an area of high ledge on Section 2 - Eastport, some of which is within 16 feet of centerline, out to the right-of-way line (assumed to be 33 feet from CL).

Station	to	Station	Side	Width
480+00		481+40	LT	Varies

Construction Notes

631.133 Skid Steer

This item is to be used for removing excess winter sand from between guardrail posts and for other miscellaneous use as directed by Resident.

652.35 Construction Signs

- (2) "ROAD WORK NEXT 4 MILES" signs are required for Section 1 - Whiting.
- (2) "ROAD WORK NEXT 4 MILES" signs are required for Section 2 - Eastport.

SPECIAL PROVISION
SECTION 400
Pavements

(Emulsified Asphalt Seal Coat with Cover Coat Material)

Description This work consists of furnishing and applying one or more applications of emulsified asphalt sealcoat material with cover coat material on an approved surface in accordance with these specifications, and in reasonably close conformity with the lines shown on the plans or established.

Materials The bituminous material shall meet the applicable requirements of Section 702 – Bituminous Materials. Liquid asphalt grades for the fog coat treatment shall meet the requirements for CSS-1, CSS-1h, CRS-2h, or CRS-2P. The emulsion type selected shall be used for the entire fog seal application areas unless otherwise approved by the Department.

The emulsified asphalt shall be produced with an approved, certified emulsion product, diluted, and thoroughly mixed into a homogenous liquid at the emulsion manufacturing facility. Each load shall be accompanied by a loading invoice listing the material supplier, emulsion type, dilution rate, total quantity loaded, and copy of the undiluted emulsified asphalt product certification. The diluted emulsion shall meet the requirements listed in Table 1 of this specification.

Table 1 – Diluted Asphalt Emulsion for Seal Coat

<u>Test requirements for diluted material</u>	<u>Range</u>
Sieve test %	0 – 0.10
Residue by distillation, %	28 - 40
Penetration	40 - 90
Application Temperature	100 - 180°F

The cover coat material shall be black or dark brown in color. Cover coat material shall be dried and free from moisture, and be of similar type and size as aluminum oxide or silicon carbide abrasive sandblasting grit meeting the “fine” or “extra fine” gradation requirements (ref: Black Beauty abrasive or similar product).

The Contractor may propose an alternative material for the aggregate cover, but will be required to demonstrate the materials compatibility with the emulsion fog seal prior to use on the project.

Equipment Emulsified asphalt sealcoat material application equipment shall meet the requirements specified in Section 409 – Bituminous Tack Coat, subsection 409.05 – Equipment with the addition of the following:

The asphalt distributor shall contain suitable mechanical circulating and heating mechanisms to provide a uniform approved temperature of the entire mass of material. The distributor shall be equipped with a radar type sensor used to measure ground speed, and feed a Digital Volumetric Accumulator capable of measuring gallons applied and distance traveled.

It shall be capable of applying asphalt material in accurately measured quantities at any rate between 0.01 to 2.0 gallons per square yard, of roadway surface, at any length of spray bar up to 16 feet. The distributor shall be capable of maintaining a uniform rate of distribution of asphalt material regardless of change in grade, width or direction of the road. It shall be equipped with an electronic control for setting asphalt pump discharge rate and on/off switching of spray for nozzles in one (1) foot, increments which shall be located in the truck cab. The spray nozzles and pressure system shall provide a sufficient and uniform fan-shaped spray of asphalt material throughout the entire length of the spray bar at all times while operating. The spray shall completely cover the roadway surface receiving the treatment.

The aggregate spreader shall be mounted on the asphalt distributor. It shall have a minimum capacity of 2000 lbs. The hopper shall have vibratory agitation to facilitate material flow. The cover aggregate spinners shall be variable speed, capable of distributing cover aggregate consistently over variable roadway widths in a single pass. All controls shall be cab-mounted and capable of being operated during the application of the asphalt emulsion by the distributor operator.

CONSTRUCTION PROCEDURES

Weather Limitations Emulsified asphalt sealcoat material shall not to be applied when the atmospheric temperature is below 50°F, or pavement surface temperature below 50°F.

Emulsified asphalt sealcoat shall not be applied in wet conditions, or when wet weather conditions are forecasted within a 6 hour period after application.

Preparation of Surface Before application of the emulsion seal coat material the surface shall be thoroughly cleaned of all loose and objectionable material. Preparation of the surface shall be considered incidental to the contract. The Contractor shall be responsible for covering all utility irons just prior to application of emulsion and uncovering utilities after application.

Immediately before applying an emulsified asphalt seal coat, the pavement surface must be cleaned with a road sweeper, power broom to remove dust, dirt, and debris. The pavement surface must be clean and dry before applying the emulsified asphalt sealcoat.

Application Emulsified asphalt seal coat materials shall be applied by a pressure distributor in a uniform, continuous spread over the area to be treated. The target application rate shall be 0.12 gallons per square yard. Emulsion application rates may be adjusted within the range of 0.10 to 0.14 gallons per square yard, as determined by the test section and as directed by the Department. No additional payment consideration or adjustment shall be made unless the required application rate varies from the rate as specified above.

The cover aggregate shall be applied immediately after the emulsion, prior to the emulsion break or cure, and simultaneously with the pressure distributors pass.

Equipment or traffic will not be allowed on the emulsion treated surface until the emulsion has fully cured. Emulsion materials will be applied within the temperature range specified in Section 702.05 – Application Temperatures, or as otherwise listed in this specification. No moisture shall be present on the roadway surface.

The Contractor shall provide dry cover material meeting the requirements of this specification and at a spread rate of 0.35 to 0.75 lbs./ s.y. as determined by the control section. The Contractor shall be required to apply additional cover material above the prescribed rate in the event that excessive emulsion materials are applied. Use of cover material shall be paid for by the pound, by means of verified bagged quantity, or by scaled weight of actual materials applied.

A test section shall be established to verify emulsion and cover coat material target application rates. The section shall be of sufficient length to verify the approximate emulsion use at the prescribed rate. Generally, the length of test section shall be approximately 200-500 linear feet. During emulsion seal material application, adequate provisions shall be made to prevent marring and discoloration of adjacent pavements, structures, vehicles, foliage or personal property. The use of skirting or end panels may be required to control application widths, and limit overspray.

Areas found to lack the proper emulsified asphalt seal coat application rate will require a re-application of emulsion material to meet the required rate. Areas requiring re-application will not be paid for directly but shall be considered incidental to the emulsified asphalt seal coat pay item,

In the event that excessive emulsion materials are applied, the use of cover coat material shall be used to reduce the risk of bleeding and tracking by traffic. Additional aggregate cover material, if required, will be considered incidental to the emulsified asphalt seal coat pay item.

Traffic Control The Contractor may be allowed a limited lane closure lengths if outlined in the contract. If allowed in the contract, traffic volumes shall be monitored to determine peak traffic levels, and lane closures shall be allowed outside peak traffic level times. The Traffic Control Plan will be amended to address traffic control at intersections, businesses, or other high traffic areas. Additional signage shall be used to at .5 mile intervals to warn motorists to stay out of the closed lane and off the sealant. When mainline travelway sealing work is required, adequate quantity and properly spaced cones for travelway delineation along with cones or barricades shall be required. Whether treating travelway, or shoulders, cones or barricades shall be placed across the treated area every 500 ft, immediately after the emulsion and aggregate application, to prevent vehicles from traveling through the sealant during the cure period.

All traffic shall be kept off the emulsified asphalt seal coat areas for a minimum of 4 hours or until curing is complete. The emulsified asphalt seal coat surface will be considered cured when the emulsion and cover coat material does not track off the treated surface and there are no visible uncured emulsion on the surface. The Contractor may elect to use a polymer modified emulsion to further reduce cure time. No additional payment will be made should a polymer modified emulsion be used.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Method of Measurement The Department will measure the emulsified asphalt seal coat by the square meter (square yard). Payment will be for the actual number of square yards applied in accordance with the typical, Standard Specifications, and Section 109 - Measurement and Payment. Payment for the cover coat material will be paid for by the pound, verified by independent scale checks for bagged or bulk products. Payment shall be full compensation for all labor, materials and equipment required to complete the work in accordance with these specifications.

Basis of Payment The Department will pay for the Work, in place and accepted, in accordance with the applicable sections of the Special Provisions at the contract unit price per square yard applied, and by the pound applied.

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
410.151 Emulsified Asphalt Seal Coat, Applied	Square Yard
410.161 Cover Coat Material, Sand	Pound

CROSS SLOPE SHEET

Station	Centerline Mark-Up (inch)	Left Slope %	Right Slope %
56+50	1.00	-2.0	
56+00	0.75	-1.0	
55+50		0.0	
55+00		1.5	
54+50		3.0	
49+00		3.0	
48+50		1.5	
48+00		0.0	-3.0
47+50		-1.5	-2.5
47+00		-3.0	
42+00			-2.5
41+50			-2.0
41+00			-1.5
40+50		-3.0	-0.5
40+00		-3.5	1.0
39+50		-3.5	2.5
39+00		-4.0	4.0
37+50		-4.0	
37+00		-5.0	
35+00		-5.0	4.0
34+50		-4.0	3.5
32+00			3.5
31+50			3.0
31+00			2.5
30+50			2.0
30+00			0.5
29+50		-4.0	-1.0
29+00		-3.0	-2.5
11+00			-2.5
10+50	0.75	-3.0	-1.5
10+00	0.00	MATCH	MATCH
Begin WIN 26630.04 Section 1 - Whiting			

Station	Centerline Mark-Up (inch)	Left Slope %	Right Slope %
93+00		-3.0	-1.0
92+50		-2.5	-2.5
92+00			-3.0
91+00		-2.5	
90+50		-3.0	
90+00		-3.0	
89+50		-1.5	
89+00		0.0	-3.0
88+50		1.5	-3.5
88+00		3.0	
84+50			-3.5
84+00			-3.0
76+50		3.0	-3.0
76+00		1.5	-1.5
75+50		0.0	0.0
75+00		-1.5	1.5
74+50		-3.0	3.0
74+00		-4.5	4.5
72+00		-4.5	
71+50		-5.0	
69+00		-5.0	
68+50		-4.5	4.5
68+00		-4.0	3.5
67+50		-3.5	2.5
67+00		-3.0	1.0
66+50			-1.0
66+00			-2.5
60+00	0.75	-3.0	
59+50	1.00	-2.0	
59+00			-2.5
58+50			-3.0

CROSS SLOPE SHEET

Station	Centerline Mark-Up (inch)	Left Slope %	Right Slope %
137+50		-3.0	
134+00		-3.0	
133+50		-2.0	
133+00		-1.0	
132+50		0.0	
132+00		1.0	
131+50		2.0	
129+00		2.0	
128+50		3.0	
125+50		3.0	
125+00		2.5	
124+50		2.0	
124+00		1.5	
123+50		1.0	-3.0
123+00		0.0	-2.5
122+50		-1.0	-2.0
122+00		-2.0	
121+50		-3.0	
110+50			-2.0
110+00			-2.5
109+50			-3.0
109+00	0.75		
108+50	1.00		
104+00			-3.0
103+50			-1.5
103+00	1.00		0.0
102+50	0.75		1.5
102+00			3.0
94+50			3.0
94+00			1.5
93+50			0.0

Station	Centerline Mark-Up (inch)	Left Slope %	Right Slope %
177+00			-2.0
176+50			0.0
176+00	1.25		2.0
175+50	1.00	-3.0	3.0
175+00	0.75	-4.0	4.0
169+50		-4.0	4.0
169+00		-3.0	2.0
168+50			0.0
168+00			-1.0
167+50			-2.0
158+50			-2.0
158+00			-3.0
157+00			
156+50			
152+50		-3.0	
152+00		-2.5	
151+50	0.75	-1.0	
151+00	1.00	0.0	
150+50		1.5	-3.0
150+00		3.5	-4.0
149+50	1.00	5.0	-5.0
149+00	1.25		
147+00	1.25		
146+50	1.00		
141+50	1.00		
141+00	1.25		
139+50		5.0	-5.0
139+00	1.25	3.0	-4.0
138+50	1.00	1.0	-3.0
138+00	0.75	-1.0	

CROSS SLOPE SHEET

Station	Centerline Mark-Up (inch)	Left Slope %	Right Slope %
End WIN 26630.04 Section 1 - Whiting			
209+70	0.00	MATCH	MATCH
209+50	0.75	-3.0	-2.5
209+00			-2.0
203+00		-3.0	
202+50		-2.5	-2.0
202+00		-2.5	-2.5
197+50		-2.5	-2.5
197+00		-2.5	-2.0
196+50		-2.0	-1.0
196+00		-2.0	0.0
195+50		-2.5	1.0
195+00		-2.5	2.0
194+50		-2.5	2.5
194+00		-3.5	3.5
193+50		-4.5	4.5
185+50		-4.5	4.5
185+00		-4.0	2.5
184+50		-3.5	1.0
184+00		-3.0	-0.5
183+50	-3.0	-2.0	
181+00	0.75		
181+00	1.00		
180+50	1.25		

CROSS SLOPE SHEET

Station	Centerline Mark-Up (inch)	Left Slope		Right Slope	
		Shoulder %	Travel Lane %	Travel Lane %	Shoulder %
327+50				2.5	-5.0
327+00				3.0	
324+50				3.0	-5.0
324+00				2.5	-5.5
316+50				2.5	-5.5
316+00	-1.50		-3.5	2.0	-6.0
315+50	-1.25		-3.0	1.5	
315+00	-1.00	-6.0	-2.5	1.0	
314+50	-0.75	-4.0	-1.5	0.0	
314+00	-0.50	-3.5		-0.5	
313+50	-0.25	-3.5	-1.5	-1.5	
313+00	0.00	-4.5			
312+50	0.25	-5.0			
312+00	0.50	-6.0			
309+50	0.75	-6.0			
309+00		-5.5			
308+50		-5.0	-1.5		
308+00			-2.0	-1.5	
307+50		-5.0	-2.5	-1.0	
307+00		-6.0		-0.5	
306+50			-2.5	0.5	
306+00			-3.0	1.0	
305+50				1.5	
303+50				1.5	
303+00				1.0	
302+00				1.0	
301+50		-6.0		0.5	
301+00		-5.0	-3.0	0.0	-6.0
300+50	0.75	-4.0	-2.0	-1.0	-5.5
300+00	0.00	MATCH		MATCH	
Begin WIN 26630.04 Section 2 - Eastport					

NOTE: Negative (-) Mark-Ups indicate a mill section, positive (+) indicate a shim mark-up

CROSS SLOPE SHEET

Station	Centerline Mark-Up (inch)	Left Slope		Right Slope	
		Shoulder %	Travel Lane %	Travel Lane %	Shoulder %
347+00			0.0	-2.5	-6.0
346+50			-1.0	-2.0	-5.0
346+00		-6.0	-1.5		
345+50	-1.50	-5.0	-1.5	-2.0	-5.0
345+00	Mill 0.00				-4.0
344+50		-4.5			
344+00		-5.0			
343+50		-2.0			
343+00		-5.0		-1.5	-5.0
342+50		-4.0		-4.0	
342+00				-4.0	
341+50				-4.5	
341+00				-5.0	
340+50			-1.5		
340+00	Mill 0.00		-1.5	-0.5	
339+50	-0.50		-1.5	0.5	
339+00	-0.75	-4.0	-2.5		
338+50	-1.00	-6.0	-3.5	1.5	-5.0
338+00	-1.25			2.0	-6.0
337+50	-1.50			2.5	-5.5
336+00				2.5	-5.5
335+50				3.0	-5.0
333+00				3.0	-5.0
332+50				2.5	-5.5
332+00				2.0	-6.0
331+00	-1.50				
330+50	-1.25				
330+00	-1.00				
329+00	-1.00				
328+50	-1.25				
328+00	-1.50			2.0	-6.0

NOTE: Negative (-) Mark-Ups indicate a mill section, postivie (+) indicate a shim mark-up

CROSS SLOPE SHEET

Station	Centerline Mark-Up (inch)	Left Slope		Right Slope	
		Shoulder %	Travel Lane %	Travel Lane %	Shoulder %
388+50	-1.50			5.0	-3.0
388+00	-1.25		-6.0	4.5	-3.5
387+50	-1.00		-5.0		
382+50	-1.00			4.5	-3.5
382+00	-0.75			4.0	-4.0
381+50	-0.50		-5.0	4.0	
381+00	-0.25		-4.5	2.5	-4.0
380+50	Mill 0.00		-3.5	0.5	-5.0
380+00			-2.5	0.0	-6.0
379+50			-2.0	-1.0	-6.0
379+00				-2.0	-5.5
373+50					-5.5
373+00					-6.0
371+00			-2.0		
370+50			-1.5	-2.0	
370+00			-1.5	-2.5	
369+50	Mill 0.00		-0.5	-3.0	
369+00	-0.25		0.0	-3.5	
368+50	-0.50	-6.0	2.0	-4.5	
368+00	-0.75	-5.0	3.0	-4.5	
367+50	-1.00	-4.0	4.0	-5.5	
367+00	-1.25	-3.0	5.0	-6.0	
366+50	-1.50				
350+50		-3.0	5.0		
350+00		-3.5	4.5		
349+50		-4.0	4.0	-6.0	
349+00		-4.5	3.5	-5.0	
348+50		-5.5	2.5	-4.5	
348+00		-6.0	1.5	-3.5	
347+50			1.0	-3.0	

NOTE: Negative (-) Mark-Ups indicate a mill section, positive (+) indicate a shim mark-up

CROSS SLOPE SHEET

Station	Centerline Mark-Up (inch)	Left Slope		Right Slope	
		Shoulder %	Travel Lane %	Travel Lane %	Shoulder %
419+00	-0.50	-3.0	5.0	-5.5	
418+50	-0.25	-3.5	4.5	-4.5	
412+50	Mill 0.00	-3.5	4.5	-4.5	
412+00		-4.5	3.5	-3.5	
411+50		-6.0	2.0	-2.0	
411+00			0.5		
410+50			-1.0		
410+00			-2.0		
404+00					-6.0
403+50				-2.0	-5.5
403+00				-1.5	-5.0
402+50	Mill 0.00			-1.0	-4.5
402+00	-0.25		-2.0	0.5	-4.0
401+50	-0.50		-3.0	1.5	-3.0
401+00	-0.75		-4.0	3.0	-2.0
400+50	-1.00			3.5	
400+00	-1.25			3.5	
399+50	-1.50			4.0	
399+00					-2.0
398+50					-2.5
398+00					-3.0
397+50					-3.5
397+00					
396+50					-3.5
396+00					-2.5
395+50					-1.5
395+00					0.0
394+50					-1.0
394+00					-2.0
393+50			-4.0		
393+00			-5.0	4.0	-2.0
392+50			-6.0	4.5	-3.0
392+00				5.0	

NOTE: Negative (-) Mark-Ups indicate a mill section, postivie (+) indicate a shim mark-up

CROSS SLOPE SHEET

Station	Centerline Mark-Up (inch)	Left Slope		Right Slope	
		Shoulder %	Travel Lane %	Travel Lane %	Shoulder %
462+50	-1.00	2.5	2.5	-3.5	-3.5
462+00	-0.75	1.0	1.0	-2.5	-2.5
461+50	-0.50	0.0	0.0		
461+00	-0.25	-1.0	-1.0		
460+50	Mill 0.00	-2.5	-2.5		
460+00					
445+00		-2.5	-2.5		
444+50		-2.0	-2.0	-2.5	-2.5
444+00		-3.0		-2.0	-4.5
443+50		-4.5			-6.0
443+00		-5.5			
442+50		-6.0			
441+50				-2.0	
441+00	Mill 0.00			-1.0	-6.0
440+50	-0.25			0.0	-5.0
440+00	-0.50		-2.0	2.0	-5.0
439+50	-0.75		-2.5	2.5	-4.5
439+00			-3.5	3.5	-4.5
438+50	-0.75		-4.0	4.0	-4.0
438+00	-1.00		-5.5	5.5	-2.5
431+50	-1.00		-5.5	5.5	-2.5
431+00	-0.75		-4.0	4.0	-3.5
430+50	-0.50		-2.5	2.5	-4.0
430+00				-1.0	0.5
429+50			0.5	-1.0	-5.0
429+00		-6.0	1.5	-1.5	-6.0
428+50	-0.50	-5.0	3.0	-3.0	
428+00	-0.75	-3.5	4.5	-4.5	
427+50	-1.00	-2.0	6.0	-6.0	
420+00	-1.00	-2.0	6.0		
419+50	-0.75	-2.5	5.5	-6.0	

NOTE: Negative (-) Mark-Ups indicate a mill section, postivie (+) indicate a shim mark-up

CROSS SLOPE SHEET

Station	Centerline Mark-Up (inch)	Left Slope		Right Slope	
		Shoulder %	Travel Lane %	Travel Lane %	Shoulder %
481+50				1.5	1.5
481+00				2.5	2.5
479+00				2.5	2.5
478+50				3.0	3.0
478+00	-1.00			3.0	3.0
477+50	-0.75			3.0	3.0
477+00	-0.50			2.0	2.0
476+50	-0.25			1.0	1.0
476+00	Mill 0.00	-3.0	-3.0	-1.0	-1.0
475+50		-2.5	-2.5		
474+00				-1.0	-1.0
473+50	Mill 0.00			-0.5	-0.5
473+00	-0.25	-2.5	-2.5	1.5	1.5
472+50	-0.50	-3.5	-3.5	3.0	1.0
472+00	-0.75	-4.0	-4.0	3.0	2.0
471+50		-5.0	-5.0	4.0	4.0
471+00		-6.0	-6.0	5.0	2.5
470+50		-6.0	-6.0	6.0	6.0
470+00		-5.0	-5.0	5.0	5.0
469+50	-0.75	-5.0	-5.0	5.0	-3.0
469+00	-1.00	-4.0	-4.0	4.0	-4.0
468+50		-3.0	-3.0	3.0	-4.0
468+00		-3.0	-3.0	1.5	-1.5
467+50		-1.5	-1.5	0.0	0.0
467+00		0.0	0.0	-1.0	-1.0
466+50		1.5	1.5	-2.0	-2.0
466+00		2.5	2.5	-3.0	-3.0
465+50		3.5	3.5	-4.0	-4.0
465+00	-1.00	4.5	4.5	-5.0	-5.0
464+50	-1.50	5.0	5.0		
463+50	-1.50	5.0	5.0	-5.0	-5.0
463+00	-1.25	4.0	4.0	-4.0	-4.0

NOTE: Negative (-) Mark-Ups indicate a mill section, postivie (+) indicate a shim mark-up

CROSS SLOPE SHEET

Station	Centerline Mark-Up (inch)	Left Slope		Right Slope			
		Shoulder %	Travel Lane %	Travel Lane %	Shoulder %		
508+00	0.50	-3.0	-3.0	2.0	2.0		
507+50	0.25	-2.5	-2.5	0.0	0.0		
507+00	Mill 0.00	-1.5	-1.5	-2.0	-2.0		
506+50				-3.0	-3.0		
502+50				-3.0	-3.0		
502+00				-2.5	-2.5		
500+50	Mill 0.00	-1.5	-1.5				
500+00	0.25	-2.5	-2.5				
499+50	0.50						
499+00	0.75						
494+50	0.75						
494+00	1.00						
493+00	1.00						
492+50	0.75						
490+50	0.75						
490+00	0.00						
489+50	-0.25			-2.5	-2.5		
489+00	-0.50			-1.0	-1.0	-2.5	-2.5
488+50	-0.75			1.0	1.0	-3.5	-3.5
488+00	-1.00	3.0	3.0	-5.0	-5.0		
487+50	-1.25	5.0	5.0	-6.0	-6.0		
487+00	-1.50	6.0	6.0				
485+50		6.0	6.0				
485+00		5.0	5.0				
484+50		5.0	5.0	-6.0	-6.0		
484+00		3.5	3.5	-5.0	-5.0		
483+50	-1.50	1.5	1.5	-4.0	-4.0		
483+00	-1.25	0.0	0.0	-2.0	-2.0		
482+50	-1.00	-1.5	-1.5	-1.0	-1.0		
482+00		-3.0	-3.0	0.5	0.5		

NOTE: Negative (-) Mark-Ups indicate a mill section, postivie (+) indicate a shim mark-up

CROSS SLOPE SHEET

Station	Centerline Mark-Up (inch)	Left Slope		Right Slope	
		Shoulder %	Travel Lane %	Travel Lane %	Shoulder %
510+90	0.00	MATCH	MATCH	MATCH	MATCH
510+50	0.75	-2.0	-2.0	0.0	0.0
510+00		-2.5	-2.5	2.0	2.0
509+50		-3.0	-3.0	3.0	3.0
509+00				4.0	4.0
508+50	0.75			4.5	4.5

NOTE: Negative (-) Mark-Ups indicate a mill section, positive (+) indicate a shim mark-up