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OVERVIEW

This chapter provides guidance for the preparation of supporting documentation (stockpiles, liquidated damages and penalties) for Contractor payments and creation of the semi-monthly Progress Pay Estimate. The Pay Estimate information is exported to NDOT's financial system for processing the contractor's progress payment.

Forms change periodically, go to the NDOT Website Construction Forms Area for the latest form available.

STOCKPILES

Stockpile partial payments may be made for acceptable materials furnished and stored for use on a contract if such storage is within the vicinity of the job site in the State of Nevada and subject to or under the control of NDOT. This is more commonly referred to as payment for Materials On Hand. Refer to Subsection 109.06, (Measurement and Payment) Partial Payment, of the Standard Specifications for details.

- The Prime Contractor must submit a signed Request for Payment for Materials On Hand form, (Form No. 040-015) (Figure 24-1), an invoice (Figure 24-2), material certification(s), all test reports including RAP test reports if applicable, and approved mix design or contractor's proposed mix design (if applicable) to request a stockpile partial payment. Any subsequent additions to the stockpile must be requested by submitting a new signed form and additional invoices.
- Partial payments for materials fabricated or manufactured off the job site (pipe, rebar, fence, etc.) shall be allowed at invoice prices, providing the invoice costs are less than unit bid price for each item.
- Sales tax and freight charges may be included in the adjusted unit price if it is requested and substantiated by an invoice.
- The stockpiled price for reinforcing steel and all guardrail items (guardrail, end anchors, connections, etc.) cannot be greater than 50% of the bid price for the bid item.
- Payments for reinforcing steel for drilled shafts should not be greater than 50% of the unit bid price for the drilled shafts. If unusually high or low bid prices for these items are encountered, contact Construction Administrative Services staff on a case-by-case basis.
- Partial payments are not allowed for any perishable items unless allowed in the Special Provisions. This is especially important on the contracts which include planting or beautification items.
- Any Stockpile request submitted, will need contractor informational testing verification from the Construction QA, IA Section and they will have
 14 calendar days to approve or reject the request.

RESIDENT ENGINEER'S RESPONSIBILITIES

- When stockpile partial payment is requested but the materials have not been brought to the job site, add a detailed explanation of where the material is being stored and shipment date if known on the Request for Payment for Materials On Hand form (Figure 24-1).
- Assign an NDOT representative to verify quantity, quality, location, proper storage, acceptability of the material, and the information furnished with the Contractor's request.
- Determine a percentage of the unit bid price to be paid for the stockpile item if the unit price on the invoice exceeds the unit bid price for any item.
- Determine if materials included for payment have been incorporated in the work. Material incorporated into the work needs to be reduced from
 the stockpile unless there is enough in the item to cover the stockpile.

STATE OF NEVADA DEPARTMENT OF TRANSPORTATION REQUEST FOR PAYMENT FOR MATERIALS ON HAND

		REQUEST FOR PATIVE	INIFORI	MATERIA	LS ON HAND	
Date: 01/05/2	023				Location & Verified	•
To: Samih Al	hwayek	Contrac	ct No.: 3890		Fluorspar Canyon Rd &	US95 - N. Tani
	Resident E	ingineer				
From: Las Ve	egas Paving Prime Con		nt No: 1		*Entered by crev	w office staff.
	Prime Con	tractor			•	
In acc this request is	ordance with made for a p	n the provisions of Subsection 109. ayment Materials on Hand for the fo	.06 of the Star ollowing mater	ndard Specifi als:	cations for Road and B	Bridge Construction,
Bid Item No.	Quantity	Material Description	Value		vidence of Purchase ction Costs Attached	Cert Sample Record ID*
6030720	360.00	30 inch x 19 inch RCP	\$26,727.84	Invoice and	Visual Inspection	LCurri20230104074814
6030770	400.00	38 inch x 24 inch RCP	\$34,087.68	Invoice and	Visual Inspection	LCurri20230104081523
6030990	3.00	38 inch x 24 inch FES	\$5,907.24	Invoice and	Visual Inspection	LCurri20230104104055
6031000	2.00	53 inch x 34 inch FES	\$6,712.09	Invoice and	Visual Inspection	LCurri20230104113042
				*Cost Cosmolo	Bassed ID astered by serv	w office stoff when applicable
				Cert Sample	Record ID entered by cre-	w office staff when applicable.
		Α.	FFIDAVI	г		
The	antoriolo linte				solly identified as our	property and have been
purchased excl	usively for us	ed above are separated from othe se on Contract No: <u>3890</u> . The	State may en	ter upon the	premises for the purpor	ses set forth in Subsection
		cifications for Road and Bridge Cons pressly understood and agreed that				
obtaining paym	ent for the al	bove materials before they are incor				
	-	and under the control of the State.				
		eclares, under the penalties of per and to the best of their knowledge a				
agreed by the (Contractor the	at in the event the Contractor misrepenses, including reasonable attome	presents to the	State, the M	laterials on Hand above	, the Contractor will pay to
		eason of such misrepresentation.	y s iees, iii aii	y action broc	ignit by the State to rec	over any and all damages
					Charles Rodgers	
				_	Prime Contrac	ctor Signature
Instru evidence of pur		ontractors: Submit original and one ginal.	duplicate to F	Resident Engi	ineer prior to the end of	the payment cycle. Attach
-		esident Engineer: Forward original:	to Headquarte	re Conetructi	ion. Retain dunlicate in	vour office as a supporting

040-015 (Rev. 3/23) Figure 24-1: Request for Payment On Materials on Hand

NDOT

record for the progress payment.

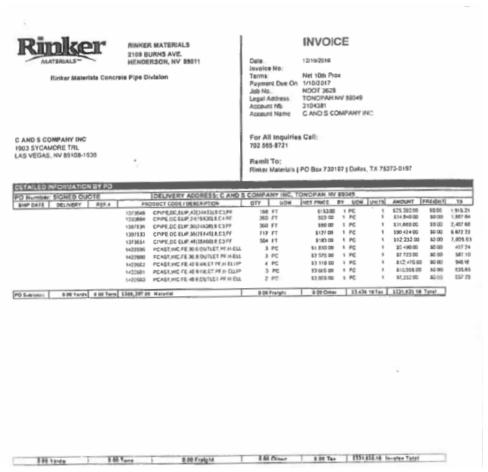


Figure 24-2: Request for Payment on Materials On Hand Invoice

OFFICE ENGINEER'S RESPONSIBILITIES

- Save the Material Certification(s) and test report(s) to the appropriate Contract Files\Materials\03 Certs & Test Reports\3.# directory.
- Create a Cert Sample Record for each Material Certification received. Refer to the <u>AWP Cert Sample Record Creation</u> document and Chapter 24, Progress Payments, in this Manual for details.
- Enter the Cert Sample Record ID(s) in the appropriate location on the Request for Payment for Materials On Hand form, (Form No. 040-015)
 (Figure 24-1).
- Save the signed Request for Material On Hand form and invoice(s) to the appropriate Contract Files\Contract\07 Estimates\7.# Mat on Hand directory.
- Prior to creating the bi-weekly estimate (by Friday of the cut-off date) email the Request for Material On Hand form and invoice to the Construction Admin Services Section (const.admin@dot.nv.gov) for review.
- Create the stockpile record using the dollar amount information from the invoice. Refer to Chapter 7, Stockpiles, in the <u>AWP User Guide With Materials</u> for details. Once a stockpile for an item has been set up it will pay the entire stockpile amount on the next Payment Estimate processed. The Stockpile will automatically recover in later Payment Estimate(s) when the associated item has been paid for.

Note: The stockpile must be created and included in a bi-weekly estimate before any DWR postings for the stockpile bid items are made. AWP will not allow stockpile payment on bid items to exceed plan quantity.

DAILY DIARIES

A Daily Diary is used to document pertinent daily contract activities and to assess working days for contracts that have an Available Time (Working Day) Main Site Time. It also incorporates information from Approved DWR's from Inspectors and the Office Engineer for the corresponding day.

RESIDENT ENGINEER'S RESPONSIBILITIES

Create and generate one Daily Diary, per day, per contract, prior to the creation of the Payment Estimate. Refer to Chapter 6, Daily Diaries, in the AWP User Guide With Materials for details.

Note: Make sure that all Inspector's DWRs for the corresponding day are Approved prior to creating the Daily Diary.

Note: Daily diaries are still required for the months of December, January and February if winter suspension as defined in subsection 108.02 of the Special Provisions, however, no time charges will be entered in the Site Times tab.

OFFICE ENGINEER DWR POSTINGS

OFFICE ENGINEER'S RESPONSIBILITIES

The Office Engineer will make DWR postings for the following items: ALL Ton items, Mobilization, Percentage (prorated) items, Trainee, Time Related Overhead (TRO), Lump Sum, and items paid by invoices. Multiple postings can be added to one DWR. They can be completed daily, weekly or bi-weekly within the two-week pay period. Refer to Chapter 5, Daily Work Reports, in the AWP User Guide With Materials for details.

- 1. Add a DWR in AWP.
 - a. General Tab:
 - i. Enter all appropriate information.
 - ii. Select a Remark Type of General and a Remark related to the item posting(s)
 - b. Note Tab: Enter a Note if appropriate.
 - c. Contractors On Site Tab: Select the Prime Contractor and click the Save button.
 - d. **Posting** Tab: Enter the appropriate item postings (Figure 24-3) through (Figure 24-7).
- 2. Approve the DWR.

TON ITEMS

Refer to the Office Engineer's Responsibilities Sections in Chapters 9, 10 and 11 in this Manual for details and screen shots of the Ton Item DWR postings.

MOBILIZATION (L.S.)

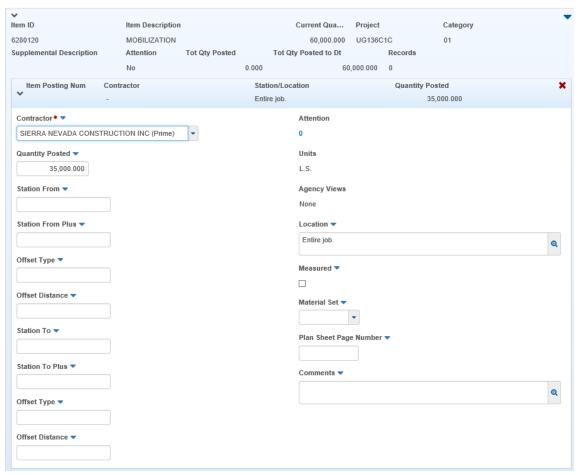


Figure 24-3: Office Engineer's DWR Item Posting (Mobilization L.S.)

NOTES for Mobilization L.S. (Figure 24-3):

- The Exceptions Tab (Figure 24-22), within the Payment Estimate, lists the suggested quantity for mobilization, when appropriate. Refer to Chapter 9, Payment Estimates, in the AWP User Guide With Materials for details. The quantity suggested is based on the information in Subsection 109.06 of the Standard Specifications and the percent complete awarded amount of the contract. This suggested amount must be entered in the Quantity Posted field.
- Location: Enter 'Entire job'.
- Sig. Fig. = .01

PRORATED ITEM (L.S.)

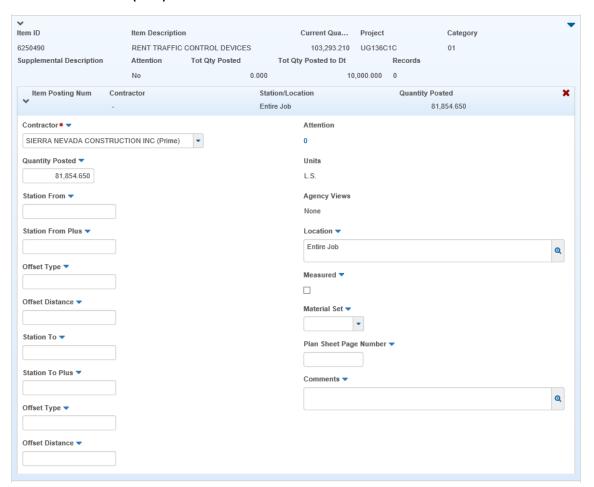


Figure 24-4: Office Engineer's DWR Item Posting (Prorated L.S.)

NOTES for Prorated L.S. (Figure 24-4):

- The Exceptions Tab (Figure 24-22), within the Payment Estimate, lists the suggested quantity for Percenage (Prorated) items, when appropriate. Refer to Chapter 9, Payment Estimates, in the <u>AWP User Guide With Materials</u> for details. The quantity suggested is based on the information in subsection 109.06 of the Standard Specifications and the percent complete awarded amount of the contract.
- Location: Enter 'Entire job'.
- Sig. Fig. = .01

TRAINEE

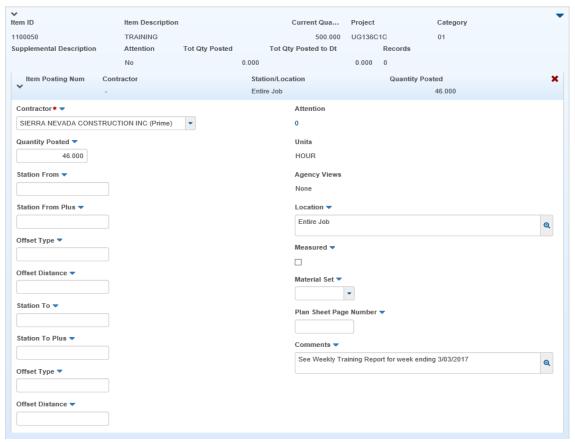


Figure 24-5: Office Engineer's DWR Item Posting (Training HOUR)

NOTES for Training HOUR (Figure 24-5):

- Payment for Trainee is based on hours.
- Location: Enter 'Entire Job'.
- Trainee hours for apprentices will be documented on a Weekly Trainee Report (Form No. 040-042) completed and signed weekly (Figure 24-6) or a Training Reimbursement Report printed from LCPtracker.
- Comments: Reference the Weekly Trainee Report.
- Reference the 2017 Certified Payroll and Compliance Manual
- Sig. Fig. = 0.01 the nearest one-half (0.30) hour.

(FHWA ORDER INTERIM 7-2/2	n				PROJE	CT NO.	STP-16	3-040	
TOANIES INFORMATION	HOTES	AGREEMENT	Ι		DAILY H	OURS OF	TRAININ	IG	
TRAINEE INFORMATION	NOTES	ON FILE	S	M	T	W	Т	F	S
TRAINEE 1	Payroll # 5								
Name: Timothy James	1 dyron ir o	 Yes 		2.00	5.00	8.00	8.00		
Classification: Teamsters Group 1A		□ No							
Employer: LV Paving Corp.	Payroll # 5 Payroll # 5				WE	EK 1 TOT	AL: 2	3.00	
TRAINEE 2	Payroll # 5								
Name: Nicole Patrice	1 ayıdı # 0	Yes			2.00	5.00	8.00	8.00	
Classification: Teamsters Group 2A		□ No							
Employer: LV Paving Corp.					WE	EK 2 TOT	AL: 2	3.00	
TRAINEE 3									
Name:		Yes							
Classification:		□ No							
Employer:		□ NO			WE	ЕК ЗТОТ	AL: 0	.00	
TRAINEE 4									
Name:		Yes							
Classification:									
Employer:		■ No			WE	EK 4 TOT	ÀL: 0	.00	
TRAINEE 5									
Name:		Yes							
Classification:		□ No							
Employer:					WE	EK 5 TOT	AL: 0	.00	
TRAINEE 6									
Name:		☐ Yes							
Classification:		□ No							
Employer: TRAINEE 7		_	<u> </u>	_	WE	EK 6 TOT	AL: U	.00	
Name:		☐ Yes							
Classification:		Tes							
Employer:		■ No			WE	EK 7 TOT	TAL: 0	.00	
Linpoyer.				TO					
Signature of State Representative	Aaron Rogers Date (3/06/2017		10	TAL WE	EKLY HO	URS: 4	6.00	

Figure 24-6: Weekly Trainee Report

TIME RELATED OVERHEAD

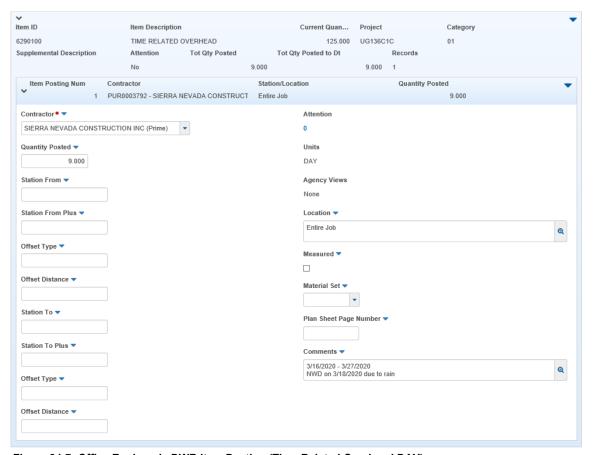


Figure 24-7: Office Engineer's DWR Item Posting (Time Related Overhead DAY)

NOTES for Time Related Overhead DAY (Figure 24-7):

- Payment for Time Related Overhead is based on Days.
- Location: Enter 'Entire Job'.
- Comments: Reference the time frame and any non-working days.
- Sig. Fig. = .01

ITEMS PAID BY INVOICE

There are three bid items which are paid by invoices received by the crew: 6240130 - Uniformed Traffic Control Officer, 7340224 - Railroad Flagging and Inspection, and 7360020 - Partnering.

UNIFORMED TRAFFIC CONTROL OFFICER

Uniformed Traffic Control Officers are paid using the Nevada Department of Public Safety invoice received from the Prime Contractor. This only applies to Nevada Highway Patrol Officers.

The Prime Contractor will turn in a copy of the Uniformed Traffic Control Officer invoice (Figure 24-8) they received from the Nevada Department of Public Safety.

- 1. Enter the Contract number and report number sequence (e.g., Report 1 of 5) (Figure 24-8).
- 2. Enter calculations for a 10 percent markup on the invoice (Figure 24-8).
- Save the invoice, showing the 10 percent markup, in the appropriate Contract Files\Contract\07 Estimates\7.# Invoices directory.
- 4. Enter the invoice total with the 10 percent markup in an AWP DWR posting (Figure 24-9). Refer to Chapter 5, Daily Work Reports) in the <u>AWP User Guide With Materials</u>, for details on DWR postings.
- 5. Enter the totals for each invoice on an Invoice Recap Tracking Sheet (Figure 24-13). Details on filling out this tracking sheet are found in Section, *Instructions For completing the Invoice Recap Tracking Sheet*, on page 24-18. Save the spreadsheet in the appropriate Contract Files\Contract\07 Estimates\7.# Invoices directory.

SERVICE INVOICE

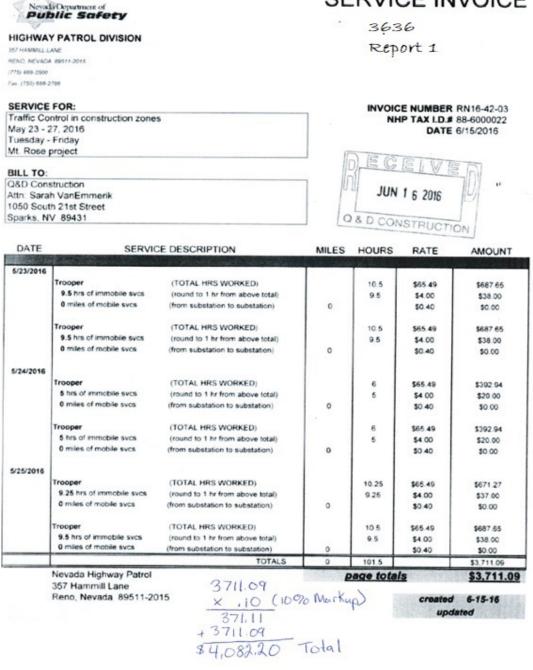


Figure 24-8: Uniformed Traffic Control Invoice With 10% Markup Calculations

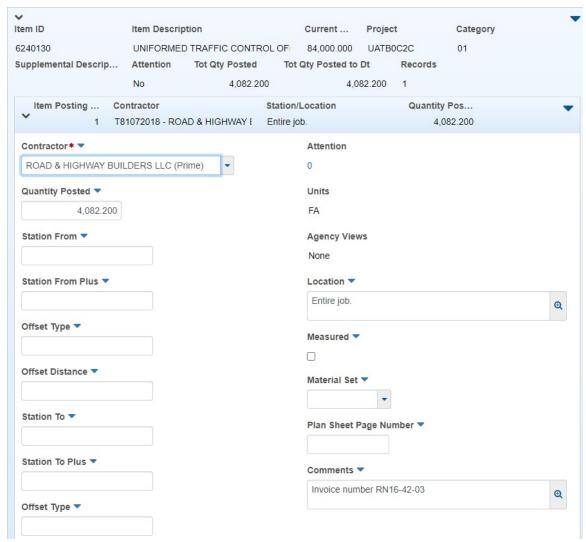


Figure 24-9: Uniformed Traffic Control DWR Posting

			Invoi	ce Reca	p Tracking	Shee	t		
Total Paid	Catg # 01		\$4,082.20		Contract #:			F-97-241-00	
Total Paid	Catg # 00		\$0.00		Contract w.		3635		
Total Paid	Catg # 00		\$0.00		Descriptions				
					Description:	Uniformed Traffic Control Officer			
Accum Total PAIL	All Catg		\$4,082.20		Bid Item Number:	6240130		6240130	
	Catg # 01	Catg # 00	Catg # 00			Payment	Pay		
Inv. Report #	TOTAL	TOTAL	TOTAL	Invoice Date	Invoice #	Amount	Estimate #	Remarks	
1	\$4,082.20			6/15/2016	RN16-42-03	\$4,082.20	1		
·	6	- N	is in						
	7								
	-								
FINAL TOTAL	\$4,082.20	\$0.00	\$0.00			4082.20			

Figure 24-10: Completed Invoice Recap Tracking Sheet (Uniformed Traffic Control)

RAILROAD FLAGGING AND INSPECTION

Qualified railroad flaggers/inspectors are paid using the railroad flagger/inspector service provider invoice received from the Prime Contractor.

The Prime Contractor will turn in a copy of the railroad flagger/inspector invoice (Figure 24-11) they received from the service provider.

- 1. Enter the Contract number and report number sequence (e.g., Report 1 of 3) (Figure 24-11).
- 2. Enter calculations for a 5 percent markup on the invoice. (Figure 24-11).
- Save the invoice, showing the 5 percent markup, in the appropriate Contract Files\Contract\07 Estimates\7.# Invoices directory.
- 4. Enter the invoice total with the 5 percent markup in an AWP DWR posting (Figure 24-12). Refer to Chapter 5, Daily Work Reports) in the <u>AWP</u> User Guide With Materials, for details on DWR postings.
- 5. Enter the totals for each invoice on an Invoice Recap Tracking Sheet (Figure 24-13). Details on filling out this tracking sheet are found in Section, *Instructions For completing the Invoice Recap Tracking Sheet*, on page 24-18. Save the spreadsheet in the appropriate Contract Files\Contract\07 Estimates\7.# Invoices directory.

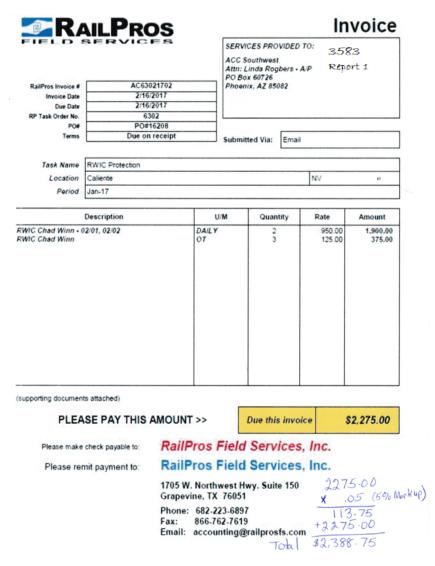


Figure 24-11: Railroad Flagger/Inspector Invoice With 5% Markup Calculation

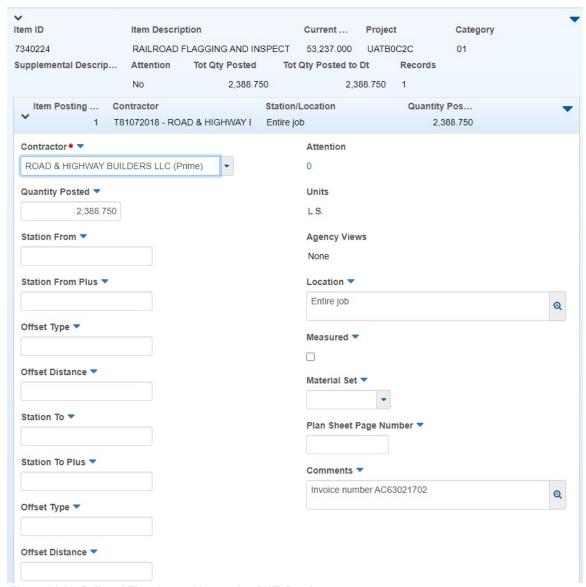


Figure 24-12: Railroad Flagging and Inspection DWR Posting

			Invoi	ce Reca	p Tracking	g Shee	t		
Total Paid Total Paid	Catg # 05 Catg # 00		\$2,388.75 \$0.00		Contract #:			3583	
Total Paid Catg # 00			\$0.00		Description:	Railroad Flagging and Inspector			
Accum Total PAIL	O All Catg		\$2,388.75		Bid Item Number:				
Inv. Report #	Catg # 05 TOTAL	Catg # 00 TOTAL	Catg # 00 TOTAL	Invoice Date	Invoice #	Payment Amount	Pay Estimate #	Re	emarks
1	\$2,388.75			2/16/2017	AC63021702	\$2,388.75	35		
FINAL TOTAL	\$2,388.75	\$0.00	\$0.00			2388.75			

Figure 24-13: Completed Invoice Recap Tracking Sheet (Railroad Flagger/Inspector)

PARTNERING

Partnering is paid using the Partnering invoice received from the Prime Contractor.

The Prime Contractor will turn in a copy of the Partnering Invoice (Figure 24-14).

- 1. Enter the Contract number and report number sequence (e.g., Report 1 of 1) (Figure 24-14).
- 2. Save the invoice in the appropriate Contract Files\Contract\07 Estimates\7.# Invoices directory.

Note: No markup is allowed.

- 3. Enter the invoice total in an AWP DWR posting (Figure 24-15). Refer to Chapter 5, Daily Work Reports) in the <u>AWP User Guide With</u> <u>Materials</u>, for details on DWR postings.
- 4. Enter the totals for each invoice on an Invoice Recap Tracking Sheet (Figure 24-16). Details on filling out this tracking sheet are found in Section, Instructions For completing the Invoice Recap Tracking Sheet, on page 24-18. Save the spreadsheet in the appropriate Contract Files\Contract\07 Estimates\7.# Invoices directory.

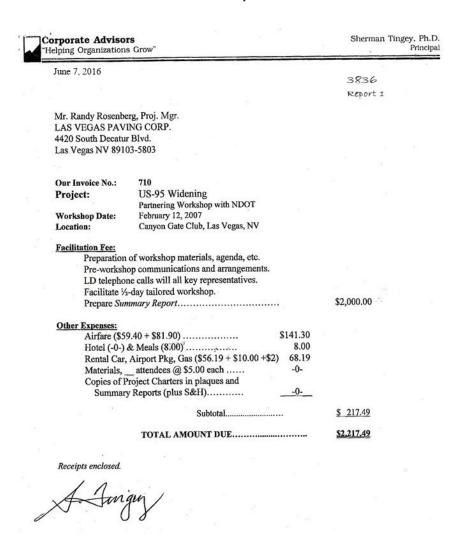


Figure 24-14: Partnering Invoice

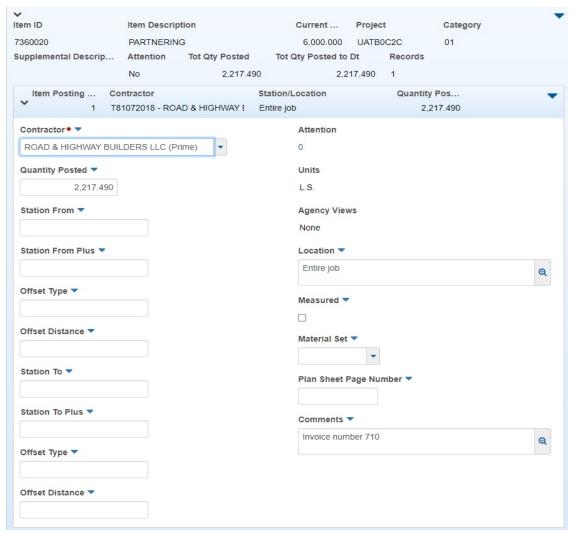


Figure 24-15: Partnering DWR Posting

	Invoice Recap Tracking Sheet												
Total Paid	Catg # 02		\$2,217.49		Contract #:	Contract #:							
Total Paid	Catg # 00		\$0.00			3836							
Total Paid	Catg # 00		\$0.00		Description:								
					Description.	Partnering							
Accum Total PAII	D All Catg		\$2,217.49		Bid Item Number:								
								1000020	2				
	Catg # 02	Catg # 00	Catg # 00			Payment	Pay						
Inv. Report #	TOTAL	TOTAL	TOTAL	Invoice Date	Invoice #	Amount	Estimate #	Rei	marks				
1	\$2,217.49			6/7/2016	710	\$2,217.49	35						
FINAL TOTAL	\$2,217.49	\$0.00	\$0.00			2217.49							

Figure 24-16: Completed Invoice Recap Tracking Sheet (Partnering)

INSTRUCTIONS FOR COMPLETING THE INVOICE RECAP TRACKING SHEET

The Invoice Recap Tracking Sheet (Figures 24-10, 24-13 & 24-16) is a spreadsheet used to track Uniform Traffic Control Officer invoice, Railroad Flagger and Inspector invoice, and Partnering invoice progress payments. Each bid item will be tracked on a separate spreadsheet. The spreadsheet is used as part of the source documents for payment. The Invoice Recap Tracking Sheet is located in the NDOT Website <u>Construction</u> Forms Area.

- 1. Record the following information specific to your contract and invoice:
 - Contract #
 - Description
 - · Bid item number
 - Category (Catg) # Change the Catg. # in the YELLOW box (this will update the Catg. Field at the top automatically.) If the contract only
 has one Catg. change the other Catg. fields in YELLOW to 00. If there are more Categories than what is provided on the sheet, contact
 Construction Admin Services staff.
 - Inv. Report #
 - TOTAL- quantity to be paid in the correct Catg. Column
 - Invoice Date Date listed on the invoice
 - Invoice #
 - Payment Amount
 - Pay Estimate # the invoice was paid on
 - · Remarks when applicable

RIDE PAY ADJUSTMENT

The Ride Pay Adjustment item (7360033 – Ride Incentive/Disincentive) provides an incentive to the contractor to construct a road-way with a ride surface smoother than the specified Mean Roughness Index (MRI) and has a financial disincentive if the ride surface is rougher than the specified MRI or if the ride surface contains any localized roughness in excess of the specified maximum allowable International Roughness Index (IRI) values.

The prime contractor will provide a Profile Summary Report on the MRI and IRI values of the pavement riding surface upon completion of the placement of the open-graded material. The information provided in the summary report in conjunction with the table for the appropriate incentive/disincentive amounts based on MRI values, which can be found in Subsection 403.05.02, (Plantmix Bituminous Open-Graded Surface) Ride Pay Adjustment, of the Special Provisions, will be used for Ride Pay Adjustments.

Participation in the Construction Division's Workshop - Introduction to Inertial Profilers, is strongly encouraged to aid in Ride Pay Adjustment procedures. Contact Construction Division Quality Assurance staff for ALL questions pertaining to Ride Pay Adjustment.

OFFICE ENGINEER'S RESPONSIBILITIES

Upon receiving the Profile Summary Report from the contractor, the following steps must be completed:

- Obtain the Ride Pay Adjustment Columnar Sheet (Form No. 040-084) (Figure 24-17) from the <u>Quality Assurance</u> Form Area in NDOT Website.
- 2. Use the information in the Profile Summary Report (Figure 24-18) and Table 1 in Subsection 403.05.02, (*Plantmix Bituminous Open-Graded Surface*) Ride Pay Adjustment, of the Special Provisions, to fill out the Ride Pay Adjustment Columnar Sheet (Figure 24-17).
- Create a DWR in AWP to document the Ride Pay Adjustment based on the Payment Total from the Ride Pay Adjustment Columnar Sheet.
 Refer to Chapter 5, Daily Work Reports, in the AWP User Guide With Materials for details.

STATE OF NEVADA DEPARTMENT OF TRANSPORTATION RIDE PAY ADJUSTMENT COLUMNAR SHEET

Contract No	o: 3791	Proje	ct No: NHP	-080-2(058)				Sheet No:	1 of1	
Contractor:	Road and H	lighway Builde	rs	Su	urface Type:	PBS Open-Grade		Date: July 2	24, 2020	
Highway/R	oute No: IR-8	0		Lane Dire	ection: East	bound	Lane Nu	mber: 1		
Ride Quality	Ride Quality	Ride Quality	Ride Quality	Ride Quality Localized Ride Pay			Accum. Ride Pay	y PROGRESS PAYME		
Lot No.	Lot Begin	Lot End	Lot Length	Lot MRI	Roughness	Adjustment	Adjustment		Payment Amount	
(Segment #)	(Station/MP)	(Station/MP)	(Miles)	(Inches/Mile)	(Defects?)	(Dollars)	(Balance Forward)	Payment	(Balance Forward)	
RQL NO.	RQL BEGIN	RQL END	RQL LENGTH	RQL MRI	YES / NO	RQL RPA		Number		
1	"LE" 1694+00	"LE" 1699+28	0.100	48.029	YES	\$0.00	\$0.00			
2	"LE" 1699+28	"LE" 1704+56	0.100	23.876		\$2,500.00	\$2,500.00			
3	"LE" 1704+56	"LE" 1709+84	0.100	36.315		\$1,125.00	\$3,625.00			
4	"LE" 1709+84	"LE" 1715+12	0.100	23.159		\$2,500.00	\$6,125.00			
5	"LE" 1715+12	"LE" 1720+40	0.100	21.807		\$2,500.00	\$8,625.00			
6	"LE" 1720+40	"LE" 1725+68	0.100	52.462	YES	\$0.00	\$8,625.00			
7	"LE" 1725+68	"LE" 1730+96	0.100	26.790		\$2,375.00	\$11,000.00			
8	"LE" 1730+96	"LE" 1736+24	0.100	21.197		\$2,500.00	\$13,500.00			
9	"LE" 1736+24	"LE" 1741+52	0.100	23.233		\$2,500.00	\$16,000.00			
10	"LE" 1741+52	"LE" 1746+80	0.100	30.387		\$1,875.00	\$17,875.00			
11	"LE" 1746+80	"LE" 1752+08	0.100	28.186		\$2,125.00	\$20,000.00			
122	"LE" 2332+88	"LE" 2338+16	0.100	22.490		\$2,500.00	\$293,000.00			
123	"LE" 2338+16	"LE" 2343+44	0.100	22.516		\$2,500.00	\$295,500.00			
124	"LE" 2343+44	"LE" 2348+72	0.100	25.295		\$2,500.00	\$298,000.00			
125	"LE" 2348+72	"LE" 2354+00	0.100	18.841		\$2,500.00	\$300,500.00			
126	"LE" 2354+00	"LE" 2359+28	0.100	21.784		\$2,500.00	\$303,000.00			
127	"LE" 2359+28	"LE" 2360+41.417	0.021	50.173	YES	\$0.00	\$303,000.00	11	\$303,000.00	
Actual leng	th of segment (mi	ile) / 0.100 X RPA	value for MRI =	Pro-Rated RPA		\$303,000.00		I	\$303,000.00	
Ride Pay Ad	djustment based o	on Subsection 403.	.05.02, Table 1	for PBS Open-G	rade and Subse	ection 409.05.02, Table	e 1 for Portland Cemen	t Concrete Pavir	ıg.	
Remarks:										
Checked B	By: DEH			Signature:	Ämy	Smith, PE				
NDOT 040-084	(Flectronic)						Resident Engineer			
Per 7/2020	(2.22.2		Dietrih	ution: Headaw	ertare Construct	ion Resident Engineer				

Figure 24-17: Ride Pay Adjustment Columnar Sheet

Report Settings

Highlight RI values above 50.00 in/mi Highlight RI values below 26.00 in/mi

				Summary - H	Run 1			
	Tra	ck 1			Tra	ck 2		Average
Segment	Station (ft)	Defects	IRI (in/mi)	Segment	Station (ft)	Defects	IRI (in/mi)	IRI (in/mi)
1	1694+00.000 1699+28.000	1	46.116	1	1694+00.000 1699+28.000	1	49.942	48.029
2	1699+28.000 1704+56.000	0	23.081	2	1699+28.000 1704+56.000	0	24.671	23.876
<u>3</u>	1704+56.000 1709+84.000	1	41.210	3	1704+56.000 1709+84.000	0	31.420	36.315
4	1709+84.000 1715+12.000	0	22.202	4	1709+84.000 1715+12.000	0	24.116	23.159
<u>5</u>	1715+12.000 1720+40.000	0	21.093	<u>5</u>	1715+12.000 1720+40.000	0	22.521	21.807
<u>6</u>	1720+40.000 1725+68.000	2	54.711	<u>6</u>	1720+40.000 1725+68.000	2	50.214	52.462
2	1725+68.000 1730+96.000	0	25.047	2	1725+68.000 1730+96.000	0	28.533	26.790
8	1730+96.000 1736+24.000	0	21.568	8	1730+96.000 1736+24.000	0	20.826	21.197

	Defect Locations - Run 1 - By Station								
Defect	Туре	Track	Segment	Start (ft)	End (ft)	Length (ft)	Peak Height (in/mi)	Peak Station (ft)	Closest GPS
1	IRI Peak	2	1	1694+25.500	1694+51.667	26.167	238.540	1694+37.333	40 41' 32.51" N 118 3' 17.94" W
2	IRI Peak	1	1	1694+29.333	1694+74.917	45.583	217.245	1694+37.167	40 41' 32.51" N 118 3' 17.94" W
3	IRI Peak	1	3	1705+71.000	1705+95.083	24.083	195.469	1705+81.167	40 41' 42.81" N 118 3' 12.01" W
4	IRI Peak	1	6	1721+94.917	1722+15.750	20.833	176.248	1722+02.667	40 41' 57.51" N 118 3' 03.59" W
5	IRI Peak	2	6	1722+05.000	1722+08.000	3.000	152.236	1722+06.917	40 41' 57.55" N 118 3' 03.57" W
6	IRI Peak	2	6	1722+14.833	1722+28.583	13.750	181.271	1722+21.250	40 41' 57.68" N 118 3' 03.49" W
7	IRI Peak	1	6	1722+28.000	1722+34.333	6.333	156.379	1722+32.000	40 41' 57.78" N 118 3' 03.44" W
8	IRI Peak	1	127	2360+05.167	2360+25.250	20.083	178.379	2360+14.500	40 51' 27.60" N 117 57' 08.69" W

Figure 24-18: Example of a Profile Summary Report

PERCENT WITHIN LIMITS (PWL)

The Percent Within Limits (PWL) specification is included on all contracts that contain 25,000 tons or greater of Type 2 or Type 2C plantmix bituminous surface. Depending on the ability of the contractor to produce a consistent mix that is within specification, the Progress Payment for item, 7360030 - PWL Incentive/Disincentive, provides a financial incentive or disincentive to the contractor.

PWL uses a statistical analysis to determine the consistency of a given lot of the plantmix bituminous surface. The statistical analysis is based upon the asphalt content, in-place density, and aggregate gradation (1/2 inch for Type 2C or 3/8 inch for Type 2, No. 4, No.10 and No. 200). The information pertaining to the PWL Specifications can be found in Subsection 401.02.02, (*Plantmix Bitumnous Pavements*) Composition of Mixtures and Subsection 402.05.02 (*Plantmix Bitumnous Pavements*) Plantmix Progress Payment Adjustment, of the Special Provisions.

Participation in the Construction Division's Workshop - Percent Within Limits (PWL) Training, is strongly encouraged to aid in the PWL procedures. Contact Construction Division Quality Assurance staff for ALL questions pertaining to PWL.

OFFICE ENGINEER'S RESPONSIBILITIES

Prior to the production of (Type 2 or Type 2C) plantmix bituminous surface, the following must be completed:

- 1. Obtain the most current PWL calculation sheet for either Type 2 or Type 2C from the PWL folder of the Quality Assurance Documents Area in SharePoint.
- 2. Fill out the required header information on the PWL calculation sheet (Resident Engineer, Contract Number, County, etc.) (Figure 24-19).
 - a. The Unit price, \$/ton is the contract bid price for the Type 2 or Type 2C plantmix bituminous surface.

- 3. As the required test reports are received, input the applicable data into the PWL calculation sheet using the rounding convention from each test report's cover sheet.
 - a. Based upon the criteria established in Subsection 402.05.02 of the Special Provisions, assign sublot and corresponding lot numbers to the applicable test reports.
- 4. Prior to making the bi-weekly payment, check with the Construction Division's Quality Assurance Section to ensure the correct Progress Pay Adjustment (PPA) is being used.
 - a. The Construction Division's Admin Services Section will not approve the bi-weekly payment without consent from the Quality Assurance Section.

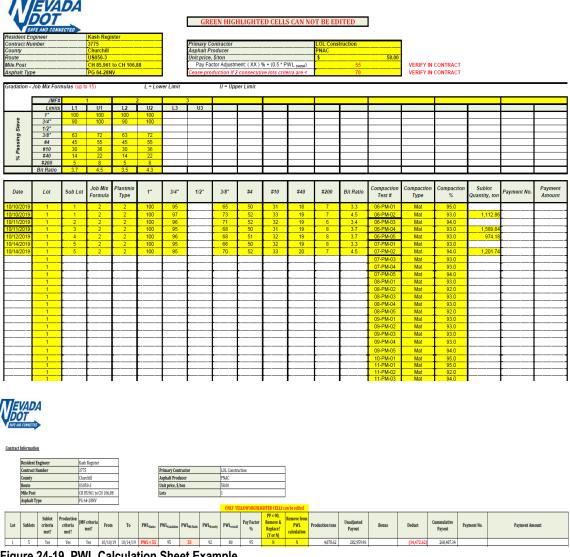


Figure 24-19. PWL Calculation Sheet Example

The Contractor will be paid for the work performed on a bi-weekly basis using an AWP Payment Estimate. The bi-weekly cut-off date for all estimates is every other Friday. Contact Construction Admin Services staff for cut-off dates.

24

PROGRESS PAYMENTS

An AWP Payment Estimate can include:

- DWR item postings that have not been paid in a prior estimate but are approved. The maximum allowable amount that can be paid for Major Items (any item over \$50,000) based on NDOT's overrun criteria is \$100,000 or 100%. The overrun is calculated at the item's project/category level
- Retainage calculations based on NDOT's Standard Specifications
- Liquidated Damages for Main Site Time overages
- Stockpile transactions
- Payment Adjustments (Liquidated Damages or Penalties)
- Other Item Adjustments for Insufficient Materials for items with deficient/missing certifications
- Price Indexes (Fuel and Asphalt Escalations)

The Payment Estimate process also calculates the Site Time charges for the contract. For Working Day Site Times, AWP bases its calculations on Daily Diary records within the pay period. For Completion Date Site Times, AWP bases the calculations on the date of the estimate.

Liquidated Damages (LDs) to asses overages on the contract's Main Site Time are automatically calculated and assessed by the AWP software in a Payment Estimate for the following criteria. Refer to Chapter 2, Contract Setup, Site Area, in the AWP User Guide With Materials for details.

- Available Time (Working Day) Contracts: LDs are assessed in a Payment Estimate when the days charged in the RE's Daily Diaries exceed the days designated in the contract's Main Site Time, Units and Dates Tab, Current Number of Time Units. The amount assessed equals the number of days exceeded times the Liquidated Damage/Disincentive Rate found in the Rates and Cap Amount Tab in the Main Contracts Site Time.
- Completion Date Contracts: LDs are assessed in a Payment Estimate when the date entered in the Actual Completion date exceeds the Current Completion date in the contract's Main Site Time, Units and Dates Tab. The amount assessed equals the number of days exceeded times the Liquidated Damage/Disincentive Rate found in the Rates and Cap Amount Tab in the Main Contracts Site Time.

The AWP software allows for Payment Adjustments within a payment estimate (supporting documentation is REQUIRED). These adjustments will allow NDOT Construction Crews to assess liquidated damages for the following: Environmental issues, Material discrepancies where the item's unit price is NOT changed, Traffic and Lane Closures, and Penalties for Labor Compliance, thus eliminating the creation and processing of a Change Order

The AWP software automatically withholds payment on items with deficient and/or missing material certifications. This automatic process uses a Material Certification Sample, where the crew office creates a Cert Sample Record and attaches a copy of the material certification. This Cert Sample Record is reviewed and approved by the Material Division, Lab Services (Carson City) staff.

The AWP software automatically calculates Fuel and Asphalt Escalation payment or decrement amounts. The AWP software designates an escalation as a Price Adjustment Index. NDOT's Fuel and Asphalt Escalations will be automatically calculated on each Payment Estimate (starting with estimate number one).

Important: ALL contracts will use the AWP Payment Estimate Review and Approval process to obtain signatures on Payment Estimates.

OFFICE ENGINEER'S RESPONSIBILITIES

INSPECTOR'S DAILY WORK REPORT (DWR) REVIEW

Prior to adding and processing a Progress Payment Estimate, review and verify all Inspector DWRs for the following. Refer to Chapter 5, Daily Work Reports, in the AWP User Guide With Materials for details.

- Information in the Remarks (decided on by the Resident Engineer)
- Information in the Contractor On Site tab

- Information in the Contractor Equipment tab
- Information in the Contractor Personnel tab
- Items are paid correctly according to the contract documents (e.g., plans, supplemental notices, Change Orders).
- Quantities paid to the correct amount in the correct category to the correct Sig. Fig. (.01)

Note: Use the NDOT Power BI Report, Item Posting Tracking-AWP, to aid in tracking item posting quantities. Contact the Construction Admin Services staff for details on this Power BI report.

- Material Set is correct.
- Stationing and Location RT, LT or CL, and offset if known. "Quotations" can be around the line designations.
- Comments contain required info to the bid item; necessary calculations have been referenced and/or made correctly.
- If Comments/Remarks reference a memo or person, include the date of memo, and full name and title of person.
- Approve all DWRs for the cut-off period if everything is correct.
- If there are edits required in the DWR, it can be Rejected and the Inspector will complete the edits, or it can be corrected by the Office Engineer.
- If the DWR is Rejected, notify the Inspector who created the DWR there are edits to be completed. The Inspector will be required to log into the AWP program on a computer (not the iPAD) to complete the edits.
- Review the edited DWR and Approve.
- If the correction is completed by the Office Engineer a DWR Note must be completed noting the name of the person completing the correction, the date of the correction, and details of the correction.

Note: Non-Quantity Error in a DWR included in a Payment Estimate.

When a non-quantity error is made in a DWR in the below Tabs/Fields <u>and</u> the DWR has been included in a Payment Estimate, create a DWR Note in the DWR with specific details of the correction for the error.

- General Tab: Weather, Temperature, Remarks Type or Remarks
- Equipment Tab and Personnel Tab: Number, Hours or Comments (Description and Name)
- Postings Tab: Stationing/Location, Offsets, Line Destination or Comments

Note: Quantity Error in an DWR.

When a quantity error (Only) is made in a DWR <u>and</u> it has been included in a Payment Estimate, a new DWR must be created to correct the quantity.

Use the DWR Notes to cross-reference both DWRs.

- In the Note for DWR with the quantiterrory, provide details on the specific error and the following information from the correcting DWR: Item number and Description, Stationing/Location, Inspector, and the details of the correction that was applied.
- In the Posting comments for the correcting DWR, reference the following information from the DWR were the error occurred: DWR Date, Inspector, Item Number and Description, Stationing/Location and the details on the specific error and provide details on the correction applied.

ADDING AND PROCESSING A PROGRESS TYPE PAYMENT ESTIMATE

Refer to Chapter 9, Payment Estimates, in the AWP User Guide With Materials for details.

- 1. Add the Progress Type Payment Estimate.
- 2. Review the Draft Payment Estimate and complete the Contract Payment Estimate Summary Tabs as appropriate.

a. **General**: Review the Draft Payment Estimate summary information (Figure 24-20).

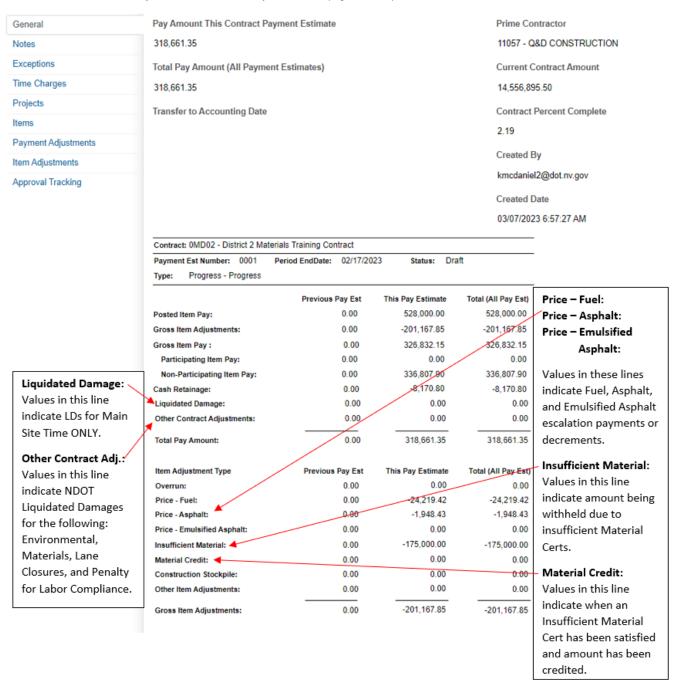


Figure 24-20. General Tab Details

- b. Notes: Enter a Payment Estimate Note as appropriate. .
- c. **Exceptions Tab**: This tab displays payment exceptions, which may prevent the payment estimate's approval. The exceptions require specific responses depending on the estimate type. Refer to the chart in Figure 24-21. It is strongly recommended to first search the entire list for all exceptions (Insufficient Materials, Overrun, Missing Percentage of Schedule DWR Item Positing, Pending or Draft Daily Work Reports, etc.) that must be Resolved and/or-* Acknowledged using the Quick Find search box (Figure 24-22).

Payment Est	imate Exception Ch	art
Exception	Progress	Semi-Final
Construction Stockpile Balance	Not Displayed	Must Resolve
Funding Check	Must Resolve	Must Resolve
Item Incomplete	Not Displayed	Must Resolve
Item Overrun	Must Acknowledge	Must Resolve
Missing Percentage of Schedule DWR Item Posting	Must Acknowledge	Must Acknowledge
Missing Start Time	Must Resolve	Must Resolve
Negative Estimate	Must Resolve	Must Resolve
Pending or Draft Daily Work Reports	Must Acknowledge	Must Resolve
Insufficient Materials	May Be Left Unresolved*	May Be Left Unresolved*

Definition of Status Response

Must Acknowledge - Exception is valid, issue the specified payment to Contractor. Must include a detailed Remark.

Must Resolve - Exception is valid and must be corrected to continue with estimate.

May Be Left Unresolved - Exception is valid, issue the specified payment to Contractor. *MUST Acknowledge ONLY when the Adjustment value is Yes. Must include a detailed Remark.

Figure 24-21. Payment Estimate Exception Chart

Contract Payment Estimate Summary

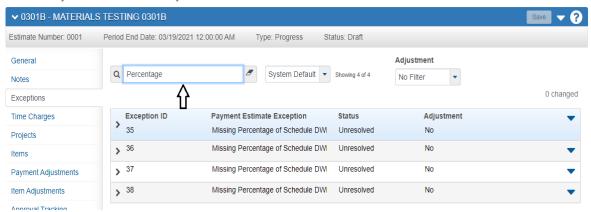


Figure 24-22. Payment Estimate Exception Tab Details - Quick Find Search Box

With the introduction of Materials functionality, the Payment Estimate Exception list includes exceptions for Insufficient Materials. These materials exceptions indicate insufficiencies with sampling & testing and certifications. A new filter is available where you can filter on the Adjustment (Figure 24-23). The only exceptions of this type that WILL be Acknowledged are those where the Adjustment has a value of 'Yes' (Figure 24-23). These exceptions indicate there are insufficient material certifications and payment will be withheld on the item associated to the material certification. The Insufficient Materials exceptions where the Adjustment has a value of 'No' indicate that there are sample/testing insufficiencies (Figure 24-24). These exceptions do NOT affect payments but are listed for information purposes only.

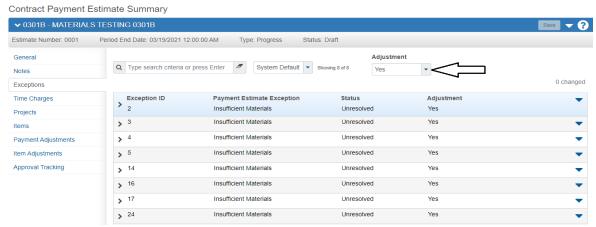


Figure 24-23. Payment Estimate Exception Tab Details - Insufficient Materials Exceptions, Adjustment = Yes

Contract Payment Estimate Summary

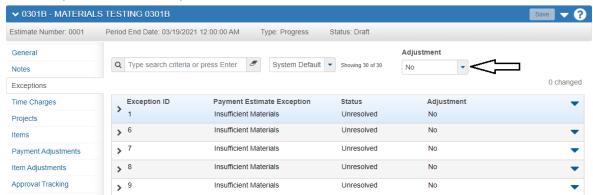


Figure 24-24. Payment Estimate Exception Tab Details - Insufficient Materials Exceptions, Adjustment = No

Important: When reviewing and resolving Payment Estimate Exception(s), be sure to work with the Resident Engineer to determine the appropriate response(s) for ALL Payment Estimate Exceptions PRIOR to updating the Payment Estimate Exception Status. If there are multiple Payment Estimate Exceptions and, for example, one requires an additional DWR be created and/or approved in order to be included on the Payment Estimate, the Payment Estimate will have to be deleted and all data entered on the Payment Estimate will be lost. When the new Payment Estimate is created, the Payment Estimate Exceptions which are still unresolved, will show again and will require re-entry with the appropriate response.

Review the Exception by clicking the Expand Chevron found to the left of the Exception (Figure 24-25).



Figure 24-25. Expand Chevron

Click the Expand Text box icon for the Description field to view full details of the Exception (Figure 24-26).

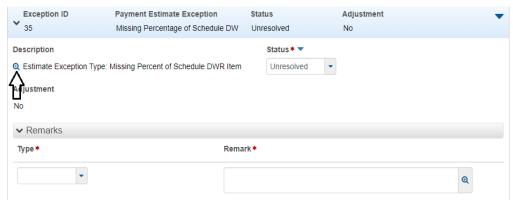


Figure 24-26. Expand Text box Icon

iii. Provide the Description details (Figures 9-27 & 9-28) to the Resident Engineer in order to determine the action to be taken. The Exception will need to be resolved (delete the Payment Estimate and make the appropriate change to the contract to resolve the exception) or Acknowledged according to the Payment Estimate Exception Chart (Figure 24-21).

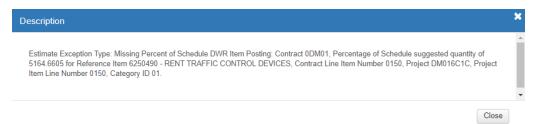


Figure 24-27. Description Large Text window



Figure 24-28. Description Large Text window

Important: Remember, review ALL Payment Estimate Exceptions PRIOR to continuing on to the next steps.

- iv. If there are any exceptions, address each one according to the chart. See Figure 24-21 Payment Estimate Exception Chart.
 - Must Resolve: This requires the exception to be resolved at the contract level. The Payment Estimate must be deleted prior to
 resolving the issue. Once the issue is resolved, the estimate must be recreated.
 - Must Acknowledge: This requires the exception to have a Status set to Acknowledged (Figure 24-29).

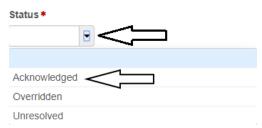


Figure 24-29. Exception Status, Acknowledged

• May Be Left Unresolved: This exception is unique for Insufficient Materials. Only the Insufficient Materials Exceptions where the Adjustment value is 'Yes' MUST have a Status of Acknowledged (Figure 24-30).



Figure 24-30. Exception Status, Insufficient Materials Where Adjustment = Yes

Note: NDOT will not be using the Overridden Exception at this time.

v. Once the Status has been updated, select the **Remarks Type** of Acknowledged - Acknowledged Explanation and enter specific details explaining the recommendation for the Exception in the **Remark** field (Figure 24-31).



Figure 24-31. Exception Remarks, Acknowledged

vi. Repeat for all exceptions, then click the Save button (Figure 24-32).

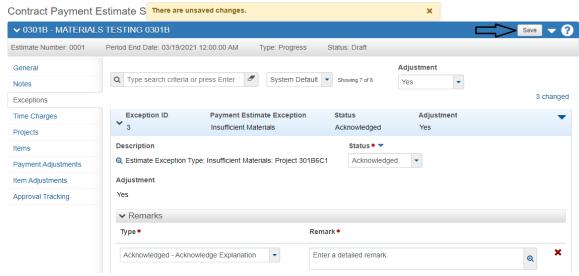


Figure 24-32. Contract Payment Estimate Summary Save button

Important: Be sure to resolve ALL exceptions prior to moving forward. If you need to delete the payment estimate and re-create it to reevaluate the Estimate Exceptions, you will lose any information entered in the Estimate Exceptions.

- Time Charges: This tab is used to summarize time charged on this Payment Estimate.
- e. **Projects**: This tab is used to summarize project information on this Payment Estimate.
- f. **Items**: This tab is used to summarize item information on this Payment Estimate.
- g. Payment Adjustments:
 - i. User-Generated Payment Adjustments are used to withhold payment for Liquidated Damages (Environmental, Materials, Traffic and Lane Closures, and Penalty for Labor Compliance). Refer to the Payment Adjustments To Assess Liquidated Damages and Penalties Section in this chapter for details on entering these types of adjustments.
 - ii. **System-Generated Payment Adjustments** include the retainage information for the Payment Estimate. This information is readonly.
- h. Item Adjustments:
 - i. User-Generated Quantity-Based Item Adjustments will NOT be used on contracts where materials are set up.
 - ii. **System-Generated Quantity-Based Item Adjustments** include: Stockpile, Overrun, Insufficient Materials (Material & MaterialCredit, and Fuel and/or Asphalt Escalation (Price) payments or decrements. This information is Read-Only.
- i. **Approval Tracking**: The Approval Tracking tab will populate after the payment estimate is submitted for approval and will track the AWP four-level approval process.
- 3. When all appropriate tabs have been updated and the Payment Estimate has been reviewed, Submit for Approval. This starts the AWP Payment Estimate approval process, where the federally required signatures are obtained. This approval process goes through four levels: Level 1 Estimate Generator (the individual who added the Payment Estimate and submitted it for Approval), Level 2 Estimate Review, Level 3 Estimate Approve, and Level 4 Estimate Final Check (this step is complete by Construction Admin staff). Every level MUST be completed by a different individual.
- 4. When Construction Admin staff Approve Level 4 the Payment Estimate changes to the Approved status (the Payment Estimate is completed at this point) (Figure 24-14). Print the Payment Estimate for Contractor Report (this report contains the electronic signatures obtained during the four-level approval process) to PDF and save the file in the Contract Files\Contract\07 Estimates\7.# Pay Est Reports directory. The signed report must be printed and saved PRIOR to the creation of the next Payment Estimate.

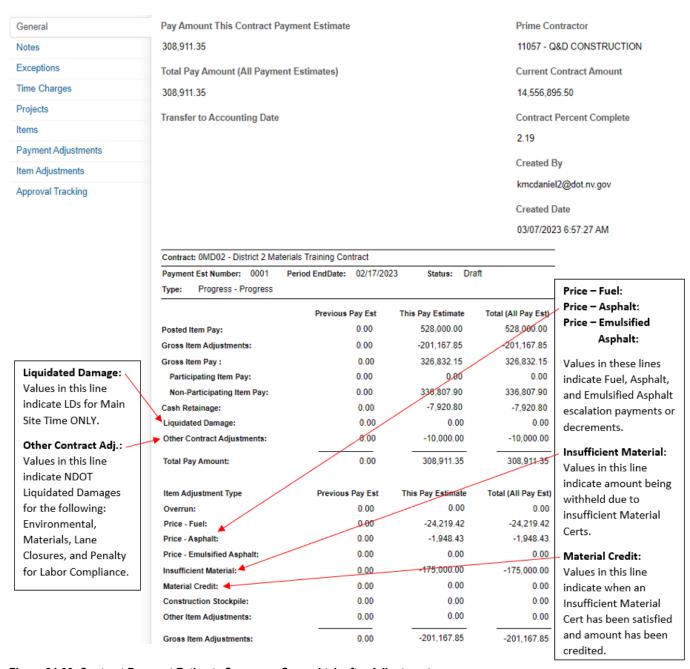


Figure 24-33. Contract Payment Estimate Summary, General tab after Adjustments

PAYMENT ADJUSTMENTS TO ASSESS LIQUIDATED DAMAGES AND PENALTIES

Liquidated Damages and Penalties are defined as justifiable damages to the Department or general public.

Liquidated Damages and Penalties for Environmental, Materials, Traffic and Lane Closures, and Penalty for Labor Compliance are assessed in the AWP software by adding a Payment Estimate, Payment Adjustment and attaching all supporting documentation in the Payment Adjustment record.

Refer to Chapter 9, Payment Estimates, in the <u>AWP User Guide With Materials</u> for details. The following steps asume the Payment Estimate has been added.

- 1. Click on the Payment Adjustment Tab.
- 2. Click on the New button under the User-Generated Payment Adjustments section.
- 3. Complete the following fields (Figure 24-35):
 - a. Other Payment Adjustment Type: Select the appropriate type (Figure 24-34).

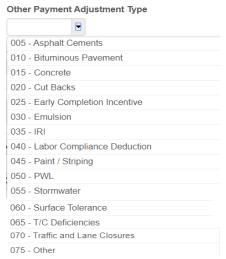


Figure 24-34. Other Payment Adjustment Types List

- b. Amount: Enter the Liquidated Damage or Penalty Amount.
- c. Comments: Enter an appropriate comment..
- 4. Click the Save button.
- 5. Attach all required supporting documentation (Failing test reports and material worksheets, email corespondence, Nevada Labor Commissioner memos, etc.) for this Liquidated Damage or Penalty.

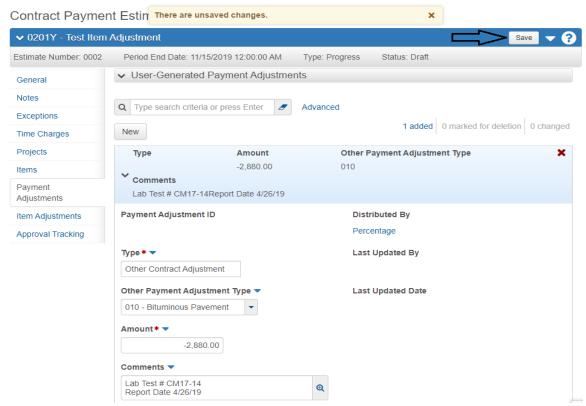


Figure 24-35. Payment Adjustment Detail

NOTES for Liquidated Damage and Penalty Payment Adjustments.

- Liquidated Damange Environmental
 - Refer to Section 637, (Temporary Pollution Control), of the Special Provisions and the NDOT Stormwater Guidance Manual for Construction Project for details.
 - A separate Payment Adjustment must be processed per deficiency per item.
 - Call the Stormwater Division for guidance on environmental deficiencies.
 - Save all required supporting documentation to the Contract Files\Contract\07 Estimates\7.#LD Env directory.
- Liquidated Damage Material *(Examples for failing asphalt and plantmix Lottman are described in this chapter).
 - Refer to Subsection 109.02, (Measurement and Payment) Scope of Payment, of the Standard Specifications for details.
 - A separate Payment Adjustment must be completed for each failing material type, but consecutive failures can be assessed on each material type.
 - Save all required supporting documentation to the Contract Files\Contract\07 Estimates\7.# LD Mat directory.
- Liquidated Damage Traffic or Lane Closure
 - Refer to Subsections 108.09, (Prosecution and Progress) Failure to Complete the Work on Time, of the Standard Specifications and the Special Provisions for details.
 - A separate Payment Adjustment must be completed each time additional damages are assessed.
 - Save all required supporting documentation to the Contract Files\Contract\07 Estimates\7.#LD Traffic directory.
- Penalty (Labor Compliance)
 - Refer to Nevada Labor Commissioner memo(s) received from the Contract Compliance staff.
 - A separate Payment Adjustment must be completed for each wage determination and late payroll determination.
 - Save all required supporting documentation to the Contract Files\Contract\07 Estimates\7.# LD Labor directory.

*EXAMPLE OF LIQUIDATED DAMAGES FOR ASPHALT

Asphalt samples will be taken every 25 tons or any fraction thereof on the last sample of the day. Acual sample size will be determined by total wet tons (Figure 24-40). When utilizing the LD worksheet to find the total asphalt cement, please enter zero for the moisture. Moisture will remain on the form for other purposes.

The amount of asphalt samples taken for the day will determine the tons per sample:

From the Job-Mix Formula: Bitumen ratio = 5.0%, Mineral filler = 1.28%, RAP = 0.8% 1+(.05+.0128+.008) = 1.0708 Total wet tons for day = $2200.00 \div 1.0708 = 2054.54$ Dry tons
PG for the day = $2054.54 \times 0.05 = 102.73$ tons
Samples taken for the day = 5Tons per sample = $102.73 \div 5 = 20.55$ 20.55 tons will represent each sample for that day.

If 4 samples were taken, you still need to account for the total PG Asphalt:

Tons per sample = $102.73 \div 4 = 25.68$ 25.68 tons will represent each sample for that day.

This is done on all samples for the day whether they passed or failed.

The items needed to calculate damages for asphalt are:

The Report of Tests of Asphaltic Cement (Figure 24-36) from the Materials Division shows whether a sample has pass/failed. Failures will include demerits. The information on top of the form comes from the Transmittal for Asphalt Samples (Form No. 020-016) that was turned in with the asphalt sample.

JUL 2 5 2016			F NEVADA			
			f Transportation			
			s Division			
			EET CARSON CI		12	
			f Asphaltic Cemer	ət		
Lab Number	CCAC-2016-0043	9		ımber	102	_
Contract Number	3583			onnage	20.55	
Project Number*	STP-580-1(032)		Sampled	l By d By	LENCHO WANG	
County	WASHOE					
Nevada Specification.	PG 64-28NV			npled	SR 7/17/2016	
Asphalt Producer	PARAMOUNT-NE FERNLEY, NV.	VADA		ceived	7/18/2016	
Shipping Point Contractor			Coto Too	sted	7/18/2016	
Contractor	SIERRA NEVADA	CONSTRUCTI	ON	ported	7/22/2016	
						_
TESTS PERF	ORMED	Test Results	Re-Test Results	NEVAD	A SPECIFICATIONS	
ORIGINAL BINDER Viscosity, 135°C, Pa·s				Maximum	n 3 Pa·s	\neg
Original Dynamic Shear, G	s*/sin	1,41			1.00 kPa	\dashv
6.10 rad/s, kPa @ 64 °C		71.0				_
Original Phase Angle @ 64 Original Ductility, 4°C,5 cm	/min_cm**FAII FD**	71.9	32	N/A Minimum	50 cm	\dashv
Toughness, Inch-lbs	"*FAILED"	79	84	Minimum	110 Inch-lbs	\dashv
Tenacity, Inch-lbs Sieve Test	"FAILED"	64	67		75 Inch-lbs	
Original Penetration @ 25°	C 100a			Maximun N/A	10	\dashv
5 sec, dmm	o, 100g,			14174		
RTFO RESIDUE					7.65	\neg
Loss on Heating, % Residue Dynamic Shear, G	Stysin A			Maximum	1 1.0 % 2.20 kPa	\dashv
10 rad/s, kPa @ 64 °C			i 1		2.20 KF-W	- 1
Residue Ductility, 4°C,5 cm	Vmin, "FAILED"	17	17	Minimum	25 cm	\neg
om Creep Recovery, R3.2 @ 3	3.2kPa.			N/A		\dashv
% @ 64 °C						
Non-Recoverable Creep Compliance, Jnr3.2 @ 3.29	·De			N/A		╗
kPa-1 @ 64 °C	KPa,					- 1
Non-Recoverable Creep				N/A		\neg
Compliance Difference, Jni PAV RESIDUE	rdiff					—
PAV Dynamic Shear, G'sin	1 5,10			Maximum	5000 kPa	\dashv
rad/s, kPa @ 22 °C						
Creep Stiffness, 60s, S, Mi -18 °C	Pa @			Maximum	1 300 MPa	
M-value @ -18 °C				Minimum	0.300	\dashv
REMARKS AND RECOMM	ENDATIONS: M.	ATERIAL HAS I	FAILED NEVADA S	PECIFICATIO	INS	_
TOTAL 10 DEMERIT(S)						
DISTRIBUTION						
	1 Contractor					
1 Resident Engineer	State Purchasing					
1 Laboratory	Maintenance Engine	er:		1	1	
1 Asphalt Producer	L.V. Facility Bituminous Lab			ml.	5hr	-
1 Construction	Clark County		* Ot	her Project No.	imbere May Be Applicable	_
		Page	1 of 1		ReportOrTestsAC	Smt.

Figure 24-36: Report of Tests of Asphaltic Cement

Sample numbers 1 thru 7 shown below on the Plant Record spreadsheet, are used in the example on Figure 24-40.

Plant Record

Contract No.:	3583		Total Tons:		154.79	
Asphalt Type:	PG 64-28NV					
Sample No.	Date	Time	Tons	Inspector	Remarks	
	(mm/dd/yyyy)		Represented	(initials)		
TWATSO20160716063028	07/15/2016	8:30 AM	26.02	TJW		
TWATSO20160716082035	07/15/2016	9:55 AM	26.02	TJW	7/15 - 1,152 wet tons placed.	

Sample No.	(mm/dd/yyyy)	lime	Represented	(initials)	Remarks
TWATSO20160716063028	07/15/2016	8:30 AM	26.02	TJW	
TWATSO20160716082035	07/15/2016	9:55 AM	26.02	TJW	7/15 - 1,152 wet tons placed.
TWATER20160718115045	07/17/2016	8:45 AM	20.55	NPW	
TWATER20160718123033	07/17/2016	11:50 AM	20.55	NPW	
TWATER20160718012541	07/17/2016	1:22 PM	20.55	NPW	
TWATER20160718020351	07/17/2016	3:00 PM	20.55	NPW	
TWATER20160718035903	07/17/2016	4:35 PM	20.55	NPW	7/17 - 2,200 wet tons placed.

Figure 24-37: Plant Record Spreadsheet

Record of Delivery - Plantmix Surface Spreadsheet (Figure 24-38) that shows the Total Tons of mix placed on the day the sample(s) failed.

Record	of Delive	ry Plant	tmix Surface				
Date: Contract No.: Item No. / Description: Tickets taken by: Checked against scale sheet:		07/17/2016	(mm/dd/yyyy)	Total Tons	2,200.00		
		3583					
		4020190 - PBS TYPE 2C (WE					
				(initials)			
				(initials)			
Ticket	Truck	Time	Station	Temperature	Tons	Cumulative	Remarks
No.	No.			(°F)	Delivered	Tons	
5176	154				40.12	1,736.33	
5177	317				38.23	1,774.56	
5178	411				39.58	1,814.14	
5179	622				39.56	1,853.70	
5172	154				38.10	1,891.80	
5173	317	1:45 PM	"X"- 69+50	325	36.81	1,928.61	
5174	411				37.33	1,965.94	
5175	622				39.22	2,005.16	
5176	154				40.12	2,045.28	
5177	317				39.23	2,084.51	
5178	411				40.58	2,125.09	
5179	622	3:30 AM	"X"- 61+50	315	40.56	2,165.65	
5172	154				39.10	2,204.75	
					-4.75	2,200.00	4.75 tons of waste at the end of shift

Figure 24-38: Record of Delivery – Plantmix Surface

• A copy of the applicable JMF (Figure 24-39) for the percent of asphalt and mineral filler.

	STATE OF NEVA		
	MATERIALS DIVISIO		
	1263 S. STEWART ST, CARSON O		
	OPEN GRADED BITUMINOUS		
LAB NUMBER:	BF16-44	BITUMEN RATIO: 6.2 PG 64	-28NV
CONTRACT NUMBER:	3609		
COUNTY:	ELKO		
PRIMARY CONTRACTOR:	W.W. CLYDE	Bitumen Ratio and Mineral	
DATE AGG. SAMPLED:	07/07/16		
DATE AGG. RECEIVED:	07/12/16 /	Filler are used for Asphalt	
REPORT DATE:	07/22/16	Escalation, Asphalt Damages,	
SAMPLED BY:	C. HANSEN	and in calculating to assure	
CHECKED BY:	RP & GR	there are enough B/Ls to cover	
TYPE MATERIAL:	3/8" OPEN GRADED PLANT	what has been used.	
SOURCE OF SAMPLE(S):	EL 84-15		
MINERAL FILLER:	1.5% HYDRATED LIME WET-	CURED (MARINATED) 48 HOURS	
TYPE ASPHALT:	PG 64-28NV CCAC16-		
ASPHALT PRODUCER:	CALUMET		
ON I-80 FROM 0,05 MILES	WEST OF THE WILLOW CREEK GRADE SEPARATION	TO 0.82 MILES EAST OF THE EAST WELLS	INTERCHANGE
MAX. DENSITY, Mg/m² (PCF):	2.418 (150.9)		
SURFACE AREA m ³ /kg (ft ³ /lb):	4.28 (20.9)		
SAND EQUIVALENT:	78		
CALIF. SPECIFIC GRAVITY:	2.65		SPECIFICATIONS
COARSE AGG. BULK SPECIFIC	GRAVITY: 2.62		2.95 MAX
FINE AGG. BULK SPECIFIC GRA	IWTY: 2.54		2.95 MAX
+#4 WATER ABSORPTION:	CHIPS 0.9		4% MAX
SS SOUNDNESS COARSE:	5		12% MAX
SS SOUNDNESS FINES:	8		15% MAX
LIQUID LIMIT (BEFORE MARINA	TION): CHIPS: 19; CLEAN FINES: N	A; DIRTY FINES: N/A	35 MAX
PLASTICITY INDEX (BEFORE M	ARINATION): CHIPS: 3; CLEAN FINES: NP:	DIRTY FINES: NP	10 MAX
LA ABRASION:	20.2		37% MAX
FRACTURE FACE COUNT:	CHIPS: 100		90% MIN
LABORATORY TE DISTRIBUTION: I DISTRICT ENGINEER 2 CONSTRUCTION ENGINEER I LAB FILES	STS INDICATE A BITUMEN RATIO OF 6.2 PG 64-28NV : TREATED WITH 1.5% HYDRATED LIME WET-CURE BIN PERCENTAGES:		EGATE
1 BYTUMINOUS LAB 1 ASPIRALT LAB 1 BYTUMINOUS OPERATIONS 1 LAS VEGAS LAB 1 AGGREGATE LAB	DISCUSSED WITH THE MATE	MMENDED BITUMEN RATIO SHALL BE RIALS DIVISION. THE RECOMMENDED PON DRY WEIGHT OF AGGREGATE.	

Figure 24-39: JMF Mix Design

- The dollar amount per ton from Subsection 402.05.01, (Plantmix Bituminous Surface) Payment, of the Special Provisions.
- The demerit chart in Subsection 109.02, (Measurement and Payment) Scope of Payment, of the Standard Specifications.
- Use the Liquidated Damages for Failing Asphalt Cement Calculation Worksheet (Figure 24-40) found in the NDOT Website Construction
 Forms Admin Area Construction Admin Payment Forms. Complete the cells in Blue. Make sure the asphalt cement for the day and the total
 tons match. If the total tons do not match the asphalt cement for the day, an adjustment must be made on as many samples as it takes to get
 the total to equal.
- Complete the cells in Blue on Liquidated Damages for Failing Asphalt Cement form (Form No. 040-077) (Figure 24-40). Use one form for each
 material. Do not create a separate sheet for each pay period. Fill in the CATG# totals at the bottom when the form is complete or full. The
 Grand Total must match the total of all the CATG#s.

- When all calculations have been completed a letter explaining the Liquidated Damage must be sent to the Contractor, notifying when it will be deducted from the Progress Payment Estimate. Send a copy to the Construction Division.
- Liquidated Damages for Asphalt Cement Calculation Worksheet and all backup documentation will be saved to the appropriate Contract
 Files\Contract\07 Estimates\7.#LD Mat directory.

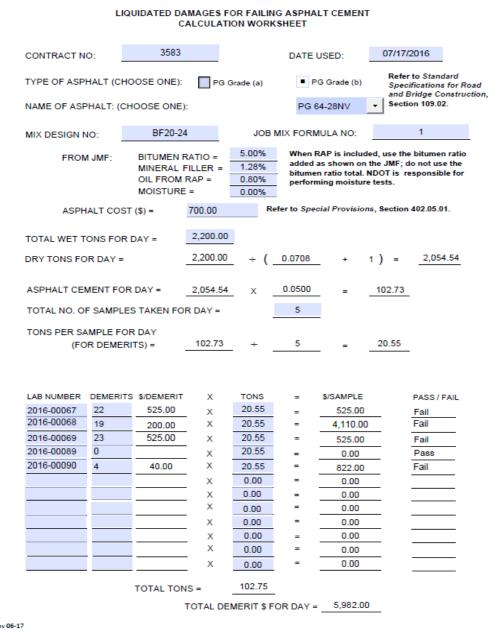


Figure 24-40: Liquidated Damages for Failing Asphalt Cement Calculation Worksheet

STATE OF NEVADA DEPARTMENT OF TRANSPORTATION LIQUIDATED DAMAGES FOR FAILING ASPHALT CEMENT ITEM NO.: 999 CONTRACT NO.: 3583 MATERIAL COST: \$700.00 (Refer to Special Provisions, Section 402.05.01, for the material cost.) TYPE OF MATERIAL: PG Grade (a) PG Grade (b) NAME OF MATERIAL: PG 64-28NV (Refer to Standard Specifications for Road and Bridge Construction, Section 109.02, for the material type/name.) LAB DATE TEST # SAMPLED SAMPLE# CATG. # TONS DEMERITS PER TON TOTAL EST. # DATE 2016 00067 07/15/20046 2 2 4 20.55 2 20 555 00 640 700 75 42 07/20/2016

LAB TEST#	DATE SAMPLED	SAMPLE #	CATG. #	TONS	DEMERITS	LD \$ PER TON	TOTAL	EST.#	CUT-OFF DATE
2016-00067	07/17/2016	3	1	20.55	22	525.00	\$ 10,788.75	12	07/29/2016
2016-00068	07/17/2016	4	1	20.55	19	200.00	\$ 4,110.00	12	07/29/2016
2016-00069	07/17/2016	5	1	20.55	23	525.00	\$ 10,788.75	12	07/29/2016
2016-00090	07/17/2016	7	1	20.55	4	40.00	\$ 822.00	12	07/29/2016
							\$ 0.00		
							\$ 0.00		
							\$ 0.00		
							\$ 0.00		
							\$ 0.00		
							\$ 0.00		
							\$ 0.00		
							\$ 0.00		
							\$ 0.00		
							\$ 0.00		
							\$ 0.00		
							\$ 0.00		
							\$ 0.00		
							\$ 0.00		
ΓG.# =	CATG.#	=	CATG.#	=	CATG.#	=	CATG.#=	GF	AND TOTAL:

Figure 24-41: Liquidated Damages for Failing Asphalt Cement (Form No. 040-077)

*EXAMPLE OF LIQUIDATED DAMAGES FOR PLANTMIX FAILING LOTTMAN

Refer to Subsections 401.02.02, (*Plantmix Bituminous Pavements – General*) Materials – Composition of Mixtures and 109.02, (Measurement and Payment) Scope of Payment, of the Standard Specifications for details.

The calculation of Liquidated Damages for Failing Lottman are represented by wet tons per shift.

The items needed to calculate damages for plantmix Lottman are:

- Test result number(s) Lottman Test Report (Figure 24-42) from the Materials Division.
 - Original Tensile Strength, PSI
 - % Retained Strength

NDOT 040-077 (Rev 08-16)

- The Liquidated Damages for Failing Lottman Test Report Calculation Worksheet (Figure 24-43), found in the NDOT Website Construction Forms, Admin Area - Construction Admin - Payment Forms. Complete the blued cells.
 - Requirement and Rejection Limit number (by type of material), found in Subsection 401.02.02, (*Plantmix Bituminous Pavements General*) Materials Composition of Mixtures, of the Standard Specifications.

When all calculations have been completed, a letter explaining the Liquidated Damage must be sent to the Contractor, notifying when it will be deducted from the progress payment. Send a copy of the letter to the Construction Division.

Liquidated Damages for Failing Lottman Test Report Calculation Worksheet and all backup documentation will be saved to the appropriate Contract Files\Contract\07 Estimates\7.#LD - Mat directory.

ega Call

12	STATE OF NEVADA DEPARTMENT OF TRANSPORTATIO MATERIALS DIVISION 263 S. STEWART ST. CARSON CITY, NV LOTTMAN TEST REPORT	/ 89712
	BITUMINOUS LABORATORY	
LAB NUMBER:	OM17-14	
CONTRACT NUMBER:	3583	
COUNTY(S):	CLARK	
PRIMARY CONTRACTOR:	ROAD AND HIGHWAY BUILDERS	
DATE SAMPLED:	04/16/17	
DATE RECEIVED: REPORT DATE:	04/19/17	
SAMPLED BY:	04/26/17	
CHECKED BY:	T. HOUGH GR	
TYPE MATERIAL:	TYPE 2C/RAP PLANTMIX	
MIX DESIGN NUMBER:	BF17-19	
SOURCE OF SAMPLE:	R3~12+50 #3 LN	
TYPE ASPHALT:	PG 76-22NV	
ASPHALT PRODUCER:	CALUMET	
ODICINAL TENOU E OTDENOTU DOL	86	444 504 444
ORIGINAL TENSILE STRENGTH, PSI: % RETAINED STRENGTH:	84	100 PSI MIN
REMARKS:	84	70% MINIMUM
THIS SAMPLE FAILS TO	MEET PROJECT SPECIFICATIONS FOR ORI	GINAL TENSILE STRENGTH.
DISTRIBUTION: I DISTRICT ENGINEER I RESIDENT ENGINEER I CONSTRUCTION ENGINEER I LAB FILES I BITUMINOUS LAB		

Figure 24-42: Lottman Test Report

LIQUIDATED DAMAGES FOR FAILING LOTTMAN TEST REPORT CALCULATION WORKSHEET

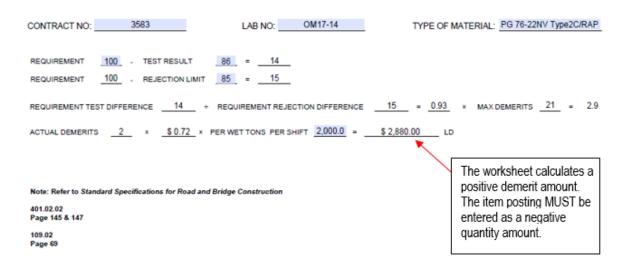


Figure 24-43: Liquidated Damage for Failing Lottman Test Report Calculation Worksheet

FUEL ESCALATION - AWP PRICE ADJUSTMENT INDEX

Fuel Escalation is a price adjustment to minimize impact of fluctuations in fuel prices on the Contractor and the Department. Fuel Escalation is only included on contracts where Fuel Factor Percentage > 1%. Refer to the Contract Special Provisions for the "Fuel Factor Percentage" (Ffp). Refer to subsection 109.05, (Measurement and Payment) Fuel Escalation, of the Standard Specifications for details.

At the start of the contract, Construction Admin Services staff will set up the contract's Fuel Escalation in AWP. The AWP software designates an escalation as a Price Adjustment Index. The Price Adjustment Index automatically calculates Fuel Escalation when a Payment Estimate is processed. Refer to subsection 109.05, (Measurement and Payment) Asphalt Escalation, of the Standard Specifications for details on how the AWP software calculates Asphalt Escalation.

Note: The AWP software starts calculating Fuel Escalation (Price Adjustment Index) starting with the first Payment Estimate. Refer to subsection 109.05, (Measurement and Payment) Fuel Escalation, of the Standard Specifications for details.

ASPHALT ESCALATION - AWP PRICE ADJUSTMENT INDEX

Asphalt Escalation is an adjustment to minimize the impact of price uncertainty to the Contractor and the Department for "Asphalt Cement" used in construction contracts. Asphalt Escalation is added to a contract which has 500+ wet tons of dense and/or open-graded plantmix. Asphalt Escalation is assessed on actual tonnage placed and accepted. Refer to subsection 109.04, (Measurement and Payment) Asphalt Escalation, of the Standard Specifications for details.

At the start of the contract, Construction Admin Services staff will set up the contract's Asphalt Escalation in AWP. The AWP software designates an escalation as a Price Adjustment Index. The Price Adjustment Index automatically calculates Asphalt Escalation when a Payment Estimate is processed. Refer to subsection 109.04, (*Measurement and Payment*) Asphalt Escalation, of the Standard Specifications for details on how the AWP software calculates Asphalt Escalation.

Note: The AWP software starts calculating Asphalt Escalation (Price Adjustment Index) starting with the first Payment Estimate. Refer to subsection 109.04, (Measurement and Payment) Asphalt Escalation, of the Standard Specifications for details.

EMULSIFIED ASPHALT ESCALATION - AWP PRICE ADJUSTMENT INDEX

Emulsified Asphalt Escalation is an adjustment to minimize the impact of price uncertainty to the Contractor and the Department for "Emulsified Asphalt" used in accordance with Sections 404, 406, 407, 408, and 418, for the construction of the contract. The quantity of asphalt used in escalation calculations for emulsified asphalt is based upon the minimum residue (MR) percentage with the specified dilution factors for the particular type of emulsion bid and supplied by the Contractor in accordance with Subsection 703.03.04. Refer to subsection 109.09, (Measurement and Payment) Emulsified Asphalt Escalation, of the Standard Specifications for details.

At the start of the contract, Construction Admin Services staff will set up the contract's Emulsified Asphalt Escalation in AWP. The AWP software designates an escalation as a Price Adjustment Index. The Price Adjustment Index automatically calculates Emulsified Asphalt Escalation when a Payment Estimate is processed. Refer to subsection 109.04, (Measurement and Payment) Asphalt Escalation, of the Standard Specifications for details on how the AWP software calculates Asphalt Escalation.

Note: The AWP software starts calculating Emulsified Asphalt Escalation (Price Adjustment Index) starting with the first Payment Estimate. Refer to subsection 109.09, (Measurement and Payment) Emulsified Asphalt Escalation, of the Standard Specifications for details.