# LAFAYETTE CONSOLIDATED GOVERNMENT SUPPLEMENTAL SPECIFICATIONS (FOR 2016 STANDARD SPECIFICATIONS)

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# LAFAYETTE CONSOLIDATED GOVERNMENT SUPPLEMENTAL SPECIFICATIONS

The 2016 Lafayette Consolidated Government Standard Specifications for Road, Drainage, Bridges and Other Infrastructure and supplemental specifications thereto are amended as follows:

# **SECTION 102 – BIDDING REQUIREMENTS:**

Subsection 102.01 – General Bidding Requirements (12/2020), page 19

Delete the following sentence in its entirety from Section 102.01:

"The bidder further agrees that within 15 calendar days after the contract has been transmitted to him via mail he will execute the contract and furnish LCG satisfactory performance and payment bonds."

And replace with:

"The bidder further agrees that within 10 calendar days after the contract has been transmitted to him via mail he will execute the contract and furnish LCG satisfactory performance and payment bonds."

Any other requirement found in Subsection 102.01 not addressed above shall be applicable.

<u>Subsection 102.08 – Preparation of Bid (12/2020), page 23 & 24</u>

Delete the following sentence from paragraph 3 in its entirety from Section 102.08: "Regardless of the bid results, the bidder will have 48 hours from opening of the bids to provide the Lafayette Consolidated Government the original bid documents".

Replace sentence from paragraph 3 on page 23 with the following:

"If a bidder fails to provide the original hard copies of the bid documents within 48 hours of the bid opening their bid shall be considered non responsive" and replace with "LCG requests bidder to submit the original hard copies of the bid documents".

Add the following to Section 102.08:

"Lafayette Consolidated Government requests vendor to submit to the Office of Purchasing the original documents of electronic bid submitted".

Delete reference to La. R.S. 38:2212(A)(1)(c) or R.S. 38:2212(O) on page 24 and replace with LRS Title 38:2212(B)5.

Add the following to Section 102.08:

Bids must be signed In accordance with LRS Title 38:2212(B)5 as stated below.

Written evidence of the authority of the person signing the bid for public works shall be submitted at the time of bidding. The authority of the signature of the person submitting the bid shall be deemed sufficient and acceptable if any of the following conditions are met:

- (a) The signature on the bid is that of any corporate officer listed on the most current annual report on file with the secretary of state, or the signature on the bid is that of any member of a partnership, limited liability company, limited liability partnership, or other legal entity listed in the most current business records on file with the secretary of state.
- (b) The signature on the bid is that of an authorized representative as documented by the legal entity certifying the authority of the person.
- (c) The legal entity has filed in the appropriate records of the secretary of state of this state, an affidavit, resolution, or other acknowledged or authentic document indicating the names of all parties authorized to submit bids for public contracts. Such document on file with the secretary of state shall remain in effect and shall be binding upon the principal until specifically rescinded and canceled from the records of the office.

# NOTE: LCG requires that written evidence of the authority of the person signing the bid is required regardless of whether the project is for public works or not. This written evidence shall be included with the vendor's sealed bid. Failure to provide written evidence of authority with bid shall result in rejection of bid.

Add the following to Section 102.08: LCG requires that written evidence of the authority of the person signing the bid is required regardless of whether the project is for Public Works or not. This written evidence must be included with the vendor's sealed bid from all bidders. Failure to provide written evidence of authority with bid shall result in rejection of bid.

Section L – "Certificate of Authority" may be used in lieu of a corporate resolution.

Any other requirement found in Subsection 102.08 not addressed above shall be applicable.

# <u>Subsection 102.15 - Attestation Affidavit (05/17), page 27 and Subsection 102.16 – Employment</u> <u>Status Verification Affidavit (05/17), page 27</u>

Delete the contents of these two subsections and substitute the following:

Attestations Affidavit (Section K) found in the specifications in accordance with the LA Revised Statutes listed below.

In addition add requirement for Verification of Employees and Certification Regarding Unpaid Workers Compensation Insurance in accordance with R.S. 23:1726 (B) which is made a part of the Attestations Affidavit.

In accordance with La. R.S. 38:2227, La. R.S. 38:2212.10 and La. R.S. 23:1726 (B) the low bidder on this project must submit the completed Attestations Affidavit (Past

Criminal Convictions of Bidders, Verification of Employees and Certification Regarding Unpaid Workers Compensation Insurance) form found within this bid package.

The Attestations Affidavit form of the LOW BIDDER shall be RECEIVED by Office of Purchasing & Property Management Division of Finance & Management, no later than **ten days after opening of bids.** The submission should be identified with the name of the bidder, project name, project number and the words ATTESTATIONS AFFIDAVIT. Failure to submit this form within ten (10) days after the bid shall be cause for declaring bid non responsive and the public entity may award the bid to the next lowest bidder and afford the next lowest bidder not less than ten days from the date the apparent low bidder is declared non-responsive to submit the proper information and documentation as required by the bidding documents and may continue such process until the public entity either determines the low bidder or rejects all bids.

Form may be sent via US mail, express mail or hand delivered to:

Physical Address:	Mailing Address
Lafayette Consolidated Government	Lafayette Consolidated Government
Purchasing & Property Management	Purchasing & Property Management
705 W. University Avenue	PO Box 4017-C
Lafayette LA 70506	Lafayette LA 70502

Any other requirement found in Subsection 102.15 not addressed above shall be applicable.

# **PART II – EARTHWORK**

## SECTION 203 - EXCAVATION AND EMBANKMENT:

#### Subsection 203.15 - Payment (08/18), page 150

Delete the following paragraph of this subsection in its entirety:

Payment of borrow material is for the material and delivery to the construction site only. Placement of borrow is paid for under the appropriate contract item for which the borrow is required.

Delete the fo	llowing pay item of this subsection in its entirety:	
203-07	Borrow (Vehicular Measurement)	Cubic Yard
203-08	Geotextile Fabric	Square Yard
Add the following pay item of this subsection in its entirety:		
203-07	Geotextile Fabric	Square Yard

Any other requirement found in Subsection 203.15 not addressed above shall be applicable.

# **PART III – BASE COURSES**

# **SECTION 301 - CLASS I BASE COURSE**

#### <u>Subsection 301.08 – Loading Transportation and Placing on Subgrade. (12/2020), page 167</u> Just after the title insert the following:

Prior to placing Class I Base Course, the contractor will be required to proof roll the existing subgrade layer to determine potential areas of concern that may have to be remediated prior to placing Class I Base Course. Proof rolling shall be considered incidental to the work and will be performed at no direct pay.

Any other requirement found in Subsection 301.08 not addressed above shall be applicable.

## Subsection 301.16 – Acceptance Requirements. (12/2020), page 175 Add a Subsection (f) Strength Requirements as follows:

All soil cement used to construct the base course shall have a minimum compressive strength of at least 250 psi but no more than 600 psi at 7 days. The Contractor shall furnish to LCG's testing laboratory a minimum of 8.5 cubic feet of soil material to be used for the base course and approximately 2.5 cubic foot of the cementitious material shall be provided to LCG's testing laboratory. The material supplied by the Contractor shall be used to determine the required percentage of cement needed to produce a soil cement strength of at least 250 psi but no more than 600 psi as per LA DOTD TR 432. The material supplied by the Contractor for validation testing shall be provided at no cost to LCG.

Field testing of soil cement strength will be determined using the testing method LA DOTD TR 645, to a depth of one inch beyond the soil cement layer. The location(s) shall be identified by LCG's inspector/field technician. At this location there shall be three tests performed. Each test location shall be two feet from one another, forming a triangle around the identified location. One test location shall be performed seven days after the soil cement is finished for every 250 foot per lane. The data shall be provided to the Project Engineer for analysis.

When the analysis of the soil cement result indicates strength between 250 psi and 600 psi through the entire layer of soil cement, the soil cement will be accepted by LCG. When the results indicate significant variability in strength through the entire layer or a strength that falls outside the range of the 250 psi to 600 psi, the following shall apply:

1. When the soil cement result indicates strength between 200 psi and 250 psi or 600psi and 650 psi, the soil cement base course shall require an additional inch of asphaltic base course to the original pavement design to mitigate the deficiency in the soil cement at no cost to LCG.

- 2. When the soil cement result indicates strength less than 200 psi, the Contractor shall determine the percentage of cement required to produce a soil cement strength of at least 250 psi but no more than 600 psi as per LA DOTD TR 432 and recut the base at no cost to LCG.
- 3. When the soil cement result indicates strength greater than 650 psi, the contractor shall be required to remove and replace the soil cement base. All cost required to determine the percentage of cement required to produce a soil cement strength of at least 250 psi but no more than 600 psi as per LA DOTD TR 432 at no cost to LCG. All labor, equipment, and materials needed to perform this work shall be at no cost to LCG.

Any other requirement found in Subsection 301.16 not addressed above shall be applicable.

#### SECTION 302 - CLASS II BASE COURSE

Subsection 302.06 – Transportation and Placing on Subgrade. (12/2020), page 181 Just after the title insert the following:

Prior to placing Class II Base Course, the contractor will be required to proof roll the existing subbase or base layer to determine potential areas of concern that may have to be remediated prior to placing the lime or soil cement application or Class II Base Course material. Proof rolling shall be considered incidental to the work and will be performed at no direct pay.

Any other requirement found in Subsection 302.06 not addressed above shall be applicable.

Subsection 302.12 – Acceptance Requirements. (12/2020), page 189 Add a Subsection (f) Strength Requirements as follows:

All soil cement used to construct the base course shall have a minimum compressive strength of at least 250 psi but no more than 600 psi at 7 days. The Contractor shall furnish to LCG's testing laboratory a minimum of 8.5 cubic feet of soil material to be used for the base course and approximately 2.5 cubic foot of the cementitious material shall be provided to LCG's testing laboratory. The material supplied by the Contractor shall be used to determine the required percentage of cement needed to produce a soil cement strength of at least 250 psi but no more than 600 psi as per LA DOTD TR 432. The material supplied by the Contractor for validation testing shall be provided at no cost to LCG.

Field testing of soil cement strength will be determined using the testing method LA DOTD TR 645, to a depth of one inch beyond the soil cement layer. The location(s) shall be identified by LCG's inspector/field technician. At this location there shall be three tests performed. Each test location shall be two feet from one another, forming a triangle around the identified location. One test location shall be performed seven days after the

soil cement is finished for every 250 foot per lane. The data shall be provided to the Project Engineer for analysis.

When the analysis of the soil cement result indicates strength between 250 psi and 600 psi through the entire layer of soil cement, the soil cement will be accepted by LCG. When the results indicate significant variability in strength through the entire layer or a strength that falls outside the range of the 250 psi to 600 psi, the following shall apply:

- 1. When the soil cement result indicates strength between 200 psi and 250 psi or 600psi and 650 psi, the soil cement base course shall require an additional inch of asphaltic base course to the original pavement design to mitigate the deficiency in the soil cement at no cost to LCG.
- 2. When the soil cement result indicates strength less than 200 psi, the Contractor shall determine the percentage of cement required to produce a soil cement strength of at least 250 psi but no more than 600 psi as per LA DOTD TR 432 and recut the base at no cost to LCG.
- 3. When the soil cement result indicates strength greater than 650 psi, the contractor shall be required to remove and replace the soil cement base. All cost required to determine the percentage of cement required to produce a soil cement strength of at least 250 psi but no more than 600 psi as per LA DOTD TR 432 at no cost to LCG. All labor, equipment, and materials needed to perform this work shall be at no cost to LCG.

Any other requirement found in Subsection 302.12 not addressed above shall be applicable.

# SECTION 303 - IN-PLACE CEMENT STABILIZED BASE COURSE

Subsection 303.04 – Preparation of Roadbed. (02/20), page 193

At the end of the subsection insert the following:

Prior to processing in-place cement stabilization, the contractor will be required to proof roll the existing subbase or base layer to determine potential areas of concern that may have to be remediated prior to placing the lime or soil cement application. Proof rolling shall be considered incidental to the work and will be performed at no direct pay.

Any other requirement found in Subsection 303.04 not addressed above shall be applicable.

# Subsection 303.11 – Acceptance Requirements. (12/2020), page 199 Add a Subsection (f) Strength Requirements as follows:

All soil cement used to construct the base course shall have a minimum compressive strength of at least 250 psi but no more than 600 psi at 7 days. The Contractor shall furnish to LCG's testing laboratory a minimum of 8.5 cubic feet of soil material to be used for the base course and approximately 2.5 cubic foot of the cementitious material shall be provided to LCG's testing laboratory. The material supplied by the Contractor

shall be used to determine the required percentage of cement needed to produce a soil cement strength of at least 250 psi but no more than 600 psi as per LA DOTD TR 432. The material supplied by the Contractor for validation testing shall be provided at no cost to LCG.

Field testing of soil cement strength will be determined using the testing method LA DOTD TR 645, to a depth of one inch beyond the soil cement layer. The location(s) shall be identified by LCG's inspector/field technician. At this location there shall be three tests performed. Each test location shall be two feet from one another, forming a triangle around the identified location. One test location shall be performed seven days after the soil cement is finished for every 250 foot per lane. The data shall be provided to the Project Engineer for analysis.

When the analysis of the soil cement result indicates strength between 250 psi and 600 psi through the entire layer of soil cement, the soil cement will be accepted by LCG. When the results indicate significant variability in strength through the entire layer or a strength that falls outside the range of the 250 psi to 600 psi, the following shall apply:

- 1. When the soil cement result indicates strength between 200 psi and 250 psi or 600psi and 650 psi, the soil cement base course shall require an additional inch of asphaltic base course to the original pavement design to mitigate the deficiency in the soil cement at no cost to LCG.
- 2. When the soil cement result indicates strength less than 200 psi, the Contractor shall determine the percentage of cement required to produce a soil cement strength of at least 250 psi but no more than 600 psi as per LA DOTD TR 432 and recut the base at no cost to LCG.
- 3. When the soil cement result indicates strength greater than 650 psi, the contractor shall be required to remove and replace the soil cement base. All cost required to determine the percentage of cement required to produce a soil cement strength of at least 250 psi but no more than 600 psi as per LA DOTD TR 432 at no cost to LCG. All labor, equipment, and materials needed to perform this work shall be at no cost to LCG.

Any other requirement found in Subsection 303.11 not addressed above shall be applicable.

## **SECTION 304 - LIME TREATMENT**

Subsection 304.04 –General Construction Requirements. (12/2020), page 201 Just after the title insert the following:

Prior to processing Lime, the contractor will be required to proof roll the existing subbase or base layer to determine potential areas of concern that may have to be remediated prior to placing the lime application. Proof rolling shall be considered incidental to the work and will be performed at no direct pay.

Any other requirement found in Subsection 304.04 not addressed above shall be applicable.

# **SECTION 305 – SUBGRADE LAYER:**

Subsection 305.04 –General Construction Requirements. (12/2020), page 209 Just after the title insert the following:

Prior to processing Lime, the contractor will be required to proof roll the existing subbase or base layer to determine potential areas of concern that may have to be remediated prior to placing the lime application. Proof rolling shall be considered incidental to the work and will be performed at no direct pay.

Any other requirement found in Subsection 305.04 not addressed above shall be applicable.

Subsection 305.07 – Payment (06/17), page 211

Replace the existing pay items and pay units with the following:

Item No.	Pay Item	Pay Unit
305-01	Subgrade Layer in. Thick	Square Yard
305-02	Windrow Base Materialin. Thick	Square Yard
305-03	Replace Windrowed Base Materialin. Thick	Square Yard

Any other requirement found in Subsection 305.07 not addressed above shall be applicable.

# SECTION 306 - SCARIFYING OR PULVERIZING & COMPACTING ROAD:

#### Subsection 306.02 –General Construction Requirements. (12/2020), page 212 Just after the title insert the following:

Prior to processing Lime, the contractor will be required to proof roll the existing subbase or base layer to determine potential areas of concern that may have to be remediated prior to placing the lime application. Proof rolling shall be considered incidental to the work and will be performed at no direct pay.

Any other requirement found in Subsection 306.02 not addressed above shall be applicable.

# SECTION 308 - IN-PLACE CEMENT TREATED BASE COURSE

# Subsection 308.11 – Acceptance Requirements. (12/2020), page 221

Add a Subsection (f) Strength Requirements as follows:

All soil cement used to construct the base course shall have a minimum compressive strength of at least 250 psi but no more than 600 psi at 7 days. The Contractor shall furnish to LCG's testing laboratory a minimum of 8.5 cubic feet of soil material to be used for the base course and approximately 2.5 cubic foot of the cementitious material shall be provided to LCG's testing laboratory. The material supplied by the Contractor shall be used to determine the required percentage of cement needed to produce a soil cement strength of at least 250 psi but no more than 600 psi as per LA DOTD TR 432.

The material supplied by the Contractor for validation testing shall be provided at no cost to LCG.

Field testing of soil cement strength will be determined using the testing method LA DOTD TR 645, to a depth of one inch beyond the soil cement layer. The location(s) shall be identified by LCG's inspector/field technician. At this location there shall be three tests performed. Each test location shall be two feet from one another, forming a triangle around the identified location. One test location shall be performed seven days after the soil cement is finished for every 250 foot per lane. The data shall be provided to the Project Engineer for analysis.

When the analysis of the soil cement result indicates strength between 250 psi and 600 psi through the entire layer of soil cement, the soil cement will be accepted by LCG. When the results indicate significant variability in strength through the entire layer or a strength that falls outside the range of the 250 psi to 600 psi, the following shall apply:

- 1. When the soil cement result indicates strength between 200 psi and 250 psi or 600psi and 650 psi, the soil cement base course shall require an additional inch of asphaltic base course to the original pavement design to mitigate the deficiency in the soil cement at no cost to LCG.
- 2. When the soil cement result indicates strength less than 200 psi, the Contractor shall determine the percentage of cement required to produce a soil cement strength of at least 250 psi but no more than 600 psi as per LA DOTD TR 432 and recut the base at no cost to LCG.
- 3. When the soil cement result indicates strength greater than 650 psi, the contractor shall be required to remove and replace the soil cement base. All cost required to determine the percentage of cement required to produce a soil cement strength of at least 250 psi but no more than 600 psi as per LA DOTD TR 432 at no cost to LCG. All labor, equipment, and materials needed to perform this work shall be at no cost to LCG.

Any other requirement found in Subsection 308.11 not addressed above shall be applicable.

# **PART V – ASPHALTIC PAVEMENTS**

# SECTION 501 – ASPHALTIC CONCRETE MIXTURES:

# <u>Table 501-4 - Minimum Plant Sampling and Testing (12/2020), page 250</u> Replace the existing Table 501-4 in its entirety with the following:

Minimum Plant Sampling and Testing				
	JMF Plant Plant Mix			
	Validation	Quality	Acceptance	
	Tests	Control	(Daily	
		(Daily	<b>Production</b> )	
		<b>Production</b> )		
Extracted Gradation	2 from 1 <sup>st</sup> /lot	1/lot or	1/lot or	
(LA DOTD TR 309)	2 from 2 <sup>nd</sup> /lot	Half Day	Half Day	
% Extracted AC	2 from 1 <sup>st</sup> /lot	1/lot or	1/lot or	
(LA DOTD TR 323)	2 from 2 <sup>nd</sup> /lot	Half Day	Half Day	
% Crushed	2 from 1 <sup>st</sup> /lot	1/lot or	1/lot or	
(LA DOTD TR 306)	2 from 2 <sup>nd</sup> /lot	Half Day	Half Day	
Theoretical Max. Grav.	2 from 1 <sup>st</sup> /lot	1/lot or	1/lot or	
G <sub>mm</sub> (aged 1 hr)	2 from 2 <sup>nd</sup> /lot	Half Day	Half Day	
(LA DOTD TR 327)				
G <sub>mb</sub> (LA DOTD TR 304)	2 from 1 <sup>st</sup> /lot	1/lot or	1/lot or	
	2 from 2 <sup>nd</sup> /lot	Half Day	Half Day	
Marshall Mix Stability	2 from 1 <sup>st</sup> /lot	1/lot or	1/lot or	
	2 from 2 <sup>nd</sup> /lot	Half Day	Half Day	
% G <sub>mm</sub>	2 from 1 <sup>st</sup> /lot	1/lot or	1/lot or	
	2 from 2 <sup>nd</sup> /lot	Half Day	Half Day	
VMA, VFA, G <sub>mb</sub> , and	2 from 1 <sup>st</sup> /lot	1/lot or	1/lot or	
%G <sub>mm</sub> @ N <sub>des</sub>	2 from 2 <sup>nd</sup> /lot	Half Day	Half Day	
(LA DOTD TR 304)				
Air Voids, %	2 from 1 <sup>st</sup> /lot	1/lot or	1/lot or	
(LA DOTD TR 304)	2 from 2 <sup>nd</sup> /lot	Half Day	Half Day	
Tensile Strength Ratio	1/JMF	1/10 lots or	1/10 lots or	
(LA DOTD TR 322)		Week	Week	

# Table 501-4Minimum Plant Sampling and Testir

Any other requirement found in Subsection 501.13 not addressed above shall be applicable.

Table 502-4:         Minimum Plant Sampling and Testing (12/18), page 281	
Replace the existing Table 502-4 in its entirety with the following	5:

Minimum Plant Sampling and Testing				
JMF Plant Quality Plant Mix				
	Validation	Control	Acceptance	
	Tests	(Daily	(Daily	
		<b>Production</b> )	<b>Production</b> )	
Extracted Gradation	2 from 1 <sup>st</sup> /lot	1/lot or	1/lot or	
(LA-DOTD TR 309)	2 from 2 <sup>nd</sup> /lot	Half Day	Half Day	
% Extracted AC	2 from 1 <sup>st</sup> /lot	2/lot or	1/lot or	
(LA-DOTD TR 323)	2 from 2 <sup>nd</sup> /lot	Half Day	Half Day	
% Crushed	2 from 1 <sup>st</sup> /lot	1/lot or	1/lot or	
(LA-DOTD TR 306)	2 from 2 <sup>nd</sup> /lot	Half Day	Half Day	
Theoretical Max. Grav.	4 from 1 <sup>st</sup> /lot	2/lot or	1/lot or	
G <sub>mm</sub> (aged 1 hr)	4 from 2 <sup>nd</sup> /lot	Half Day	Half Day	
(LA-DOTD TR 327)				
Gmb @ Ninitial	2 from 1 <sup>st</sup> /lot	1/lot or	N/A	
(LA-DOTD TR 304)	2 from 2 <sup>nd</sup> /lot	Half Day		
% Gmm @Ninitial	2 from 1 <sup>st</sup> /lot	1/lot or	1/lot or	
	2 from 2 <sup>nd</sup> /lot	Half Day	Half Day	
Gmb @ Nmax	2 from 1 <sup>st</sup> /lot	1/lot or	N/A	
(LA-DOTD TR 304)	2 from 2 <sup>nd</sup> /lot	Half Day		
% Gmm @Nmax	2 from 1 <sup>st</sup> /lot	1/lot or	1/lot or	
	2 from 2 <sup>nd</sup> /lot	Half Day	Half Day	
VMA, VFA, G <sub>mb</sub> , and	2 from 1 <sup>st</sup> /lot	1/lot or	1/lot or	
%Gmm @ Ndes	2 from 2 <sup>nd</sup> /lot	Half Day	Half Day	
(LA-DOTD TR 304)				
Air Voids, % at N <sub>design</sub>	2 from 1 <sup>st</sup> /lot	1/lot or	1/lot or	
(LA-DOTD TR 304)	2 from 2 <sup>nd</sup> /lot	Half Day	Half Day	
Load Wheel Tester	2 from 1 <sup>st</sup> /lot	1/10 lots or	1/10 lots or	
(LWT) AASHTO	2 from 2 <sup>nd</sup> /lot	Week	Week	
T324				
Semi Circular Bend	2 from 1 <sup>st</sup> /lot	N/A	N/A	
(SCB)	2 from 2 <sup>nd</sup> /lot			
(LA-DOTD TR330)				
Percent Passing No. 8	2 from 1 <sup>st</sup> /lot	N/A	N/A	
and No. 200 Sieves	2 from 2 <sup>nd</sup> /lot			
Moisture %, Cold Feed	1/day	1/day	1/day	
Aggregates (LA-				
DOTD TR203 or 319)				
Tensile Strength Ratio	N/A	1/10 lots or	1/10 lots or	
(LA DOTD TR 322)		Week	Week	

Table 502-4Minimum Plant Sampling and Testing

# Table 502-5: Superpave Requirements (12/18), page 283 Replace the existing Table 502-5 in its entirety with the following:

Superpave Requirements						
REQUIREMENTS FOR EXTRACTED ASPHALT CEMENT AND AGGREGATE GRADATION						
U.S. Sieve	1/2"	3/4"	3/4" 1" Mix T			lerance <sup>1</sup>
% Passing	Nominal	Nomir	al	Nominal	()	%)
2"					<u>±</u> 4	
1 1/2"				100	±4	
1"		100		90-100	+	4
3/4"	100	90-10	0	89 Max.	+	4
1/2"	90-100	89 Ma	x.		+	4
3/8"	89 Max.				+	4
No.4					+	4
No. 8	45 - 60	40 - 5	5	23-45	<u>+</u>	3
No. 16					<u>+</u>	2
No. 30					<u>+</u>	2
No. 50					±2	
No. 100					±2	
No. 200	4.0-10.0	3.0-8.	0	2.0-7.0	±0.7	
Extracted Asphalt, % (+/- 0.4%)					±2	
Mix Temperature						<u>5°F</u>
Mix Temperature	PAVEMEN	T REOUIE	EME	ENTS <sup>2</sup>	<u>–</u>	51
Density, Min.	% of Theoretical N				TD TR 32	.7
Travel Lane We	earing, Binder and I Courses			92.		
Shoulders, Bike	Shoulders, Bike Paths, and Parking Lots 90.0					
Patching, Widening, and Crossovers 90.0						
Surface Tolerance Variation, inches <sup>3</sup>		Longitud	inal	Transverse <sup>3</sup>	Cross Slope <sup>4</sup>	Grade <sup>5</sup>
Roadway Travel Lane Wearing Courses		1/2		1/8	3/8	1/2
Binder C	ourses	1/4		1/2	3/4	3/4
Shoulder Wea	ring Course	1/2		3/8	3/4	3⁄4

# **Table 502-5**

<sup>1</sup> Job Mix Formula based on validated mix design.

 $^2$  Density requirements for acceptance of roadway cores will be calculated using the  $G_{\mbox{\scriptsize mb}}$  of the core and the representative maximum specific gravity, G<sub>mm</sub>, of the LCG approved JMF, in accordance with Subsection 502.13.

<sup>3</sup> For longitudinal surface tolerance requirements, see Subsection 502.10 (b).

<sup>4</sup> Based on 10', using a loft static straight edge and static or electronic level.
 <sup>5</sup> Applicable only when profile grade is specified.

Any other requirement found in Subsection 502.14 not addressed above shall be applicable.

# SECTION 502 – SUPERPAVE ASPHALTIC CONCRETE MIXES:

Subsection 502.15 – Pa	yment (12/18	),	page 284
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Replace the existing pay items and pay units with the following:

Item No.	Pay Item	Pay Unit
502-01	Superpave Asphaltic Concrete	
	(Open Ditch Roadways)	Ton
502-02	Superpave Asphaltic Concrete	
	(Curb and Gutter Roadways)	Ton
502-03	Superpave Asphaltic Concrete	
	(Drives, Turnouts and Miscellaneous)	Ton
502-04	Superpave Asphaltic Concrete	Cubic Yard
502-05	Superpave Asphaltic Concrete (in. Thick)	Square Yard

Any other requirement found in Subsection 502.15 not addressed above shall be applicable.

 Table 502-7:
 Payment Adjustment for Superpave (12/2020), page 286

Replace the existing Table 502-7 in its entirety with the following:

Percent of Contract Unit Price/Lot <sup>2</sup>						
Parameter <sup>3</sup>	100	98	95	90	80	50 or Remove <sup>4</sup>
Pavement Density: (% Theoretical Max. Gravity) Travel Lane Shoulder Patching, Widening & Joint Repair	92.0 or above 91.0 or above 90.0 or above		91.0-91.9 90.0-90.9	88.1-89.9	90.0-90.9 89.0-89.9	Less than 90.0 Less than 89.0 Less than 88.0
Surface Tolerance, inches/mile/lot -Multi-Lift New Construction, Reconstruction and Overlays more than two	0.0-3.0		3.1-4.0		4.1-6.0	Over 6.0
lifts -One or Two Lift Overlay Construction over cold planed surfaces and two lift overlays	0.0-5.0		5.1-6.0		6.1-10.0	Over 10.0
over existing surface -Single Lift New Construction or Reconstruction -Single Lift Overlays over	0.0-8.0		8.1-9.5		9.6-11.0	Over 11.0
Existing Surfaces	0.0-12.0		12.1-13.5		13.6-15.0	Over 15.0
Aggregate Gradation: Deviations from Job Mix Formula Limits for Extracted Aggregate:						
No. 8 Sieve No. 200 Sieve	0.0 to 1.0 0.0 to 0.5	1.1 to 2.0 0.6 to 1.0	2.1 to 5.0 1.1 to 2.0		2.1 to 3.0	Over 5.0 Over 3.0
Air Voids, at Design Gyration from Table 502-6	2.5 to 4.5	2.0 to 2.4 and 4.6 to 5.0	1.5 to 1.0 and 5.1 to 5.5		5.6 to 6.0	Less than 1.5 Greater than 6.0

<b>Table 502-7</b>
Payment Adjustment for Superpave <sup>1</sup>

<sup>1</sup> Payment adjustments will be based on specification limit listed in Tables 502-5 and 502-6

<sup>2</sup> Portion of lot placed on the project.

<sup>3</sup> Of the total number of cores per lot. Determine surface tolerance in accordance with Table 502-5, if required.

<sup>4</sup> At the option of LCG.

Any other requirement found in Subsection 502.14 not addressed above shall be applicable.

# PART VI - RIGID PAVEMENT

# SECTION 602 – PORTLAND CEMENT CONCRETE PAVEMENT REHABILITATION:

<u>Subsection 602.07 – Full Depth Corner Patching of Jointed Concrete Pavement; Removal of</u> <u>Pavement in Patch Area. (9/2021), page 371</u>

Add the following contents to the first paragraph:

When concrete curb is a part of or attached to the concrete pavement, the removal of curb shall be incidental to the removal of concrete pavement.

Any other requirement found in Subsection 602.07 not addressed above shall be applicable.

<u>Subsection 602.08 – Full Depth Patching of Jointed Concrete Pavement; Removal of</u> <u>Pavement in Patch Area. (9/2021), page 373</u>

Add the following contents to the first paragraph:

When concrete curb is a part of or attached to the concrete pavement, the removal of curb shall be incidental to the removal of concrete pavement.

<u>Subsection 602.08(a) – Full Depth Patching of Jointed Concrete Pavement; Removal of</u> <u>Pavement in Patch Area (12/2020), page 373</u>

Add the following contents to this subsection:

(3) The use of a rock saw or equivalent type and size concrete saw, approved by LCG, to cut the existing roadway panels into sections shall be required. This procedure allows the lifting of the sections of the roadway panels which minimizes damages to the existing base and will minimize the potential for spalling and/or cracking of the adjacent roadway panels. The use of a concrete chain saw or demolition saw with a concrete cutting disk to cut into the corners without damaging adjacent panels shall also be required

<u>Subsection 602.08(b) – Full Depth Patching of Jointed Concrete Pavement; Preparation and</u> <u>Maintenance of Subgrade or Base Course (12/2020), page 374</u>

Replace the current paragraph with the following:

Displaced or deteriorated base course within the area to be patched shall be removed and replaced with concrete as directed by LCG. Payment for the new base course will be made in accordance with 602.18(e). An approved bond breaker shall be placed between the base course and the specified payement and at no direct cost to LCG.

Remove and replace base course damaged by the contractor within the area to be patched with material similar to existing base course and approved by LCG (concrete for soil cement or asphalt and stone for stone base course), at no direct pay to LCG. An approved bond breaker shall be placed between the base course and the pavement at no cost to LCG.

Any other requirement found in Subsection 602.08 not addressed above shall be applicable.

# <u>Subsection 602.09(b)(1) – Partial Depth Patching of Jointed Concrete Pavement; Patching</u> <u>Material; Portland Cement Concrete (12/2020), page 377</u>

Delete the contents of this subsection and substitute the following:

Portland Cement Concrete: Portland cement concrete for pavement patching shall be Type E complying with Section 901, except that a Size 89M or 67 coarse aggregate complying with Table 1003-2 shall be used. Use coarse aggregate LA-DOTD Size 89M or ASTM C-33 Size 8 aggregate gradation for patches less than 2-1/2 inches in depth. An approved non-chloride type set-accelerating admixture complying with Subsection 1011.02 may be used in the concrete mix at the dosage recommended by the admixture manufacturer for maximum strength. The set accelerator shall be added at the job site.

Steel fibers complying with ASTM A-820, Type I or II shall be added to the mix. The nominal length of the fibers shall not be less than 1" nor greater than 1-1/2". The fiber shall be deformed and shall have an aspect ratio not less than 40 or greater than 60. The concrete shall contain 85 to 90 lbs. of steel fibers per cubic yard. The fibers shall remain packaged until such time as they are included in the mix. Ensure fibers are uniformly distributed throughout the mix without clumping. Continue mixing at the manufacturer's recommended mixing speed for at least one (1) minute is required after addition of the fibers. Mixer capacity prior to the addition of the fibers shall not exceed 80%. Tightly bound or clumped steel fibers shall be broken up or prevented from entering the mix. LCG may require that the fibers be screened prior to placing onto the aggregate conveyor belt.

Any other requirement found in Subsection 602.09 not addressed above shall be applicable.

<u>Subsection 602.10 – Patching Continuously Reinforced Concrete Pavement.</u> (9/2021), page 379 Add the following contents to the first paragraph:

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When concrete curb is a part of or attached to the concrete pavement, the removal of curb shall be incidental to the removal of concrete pavement.

Any other requirement found in Subsection 602.10 not addressed above shall be applicable.

<u>Subsection 602.17 – Contractor Retained Reclaimed PCC Pavement (9/2021), page 388</u> Insert this subsection with the following:

**Description:** This work consists of loading and transporting LCG approved pulverized full-depth jointed concrete pavement. The material shall be delivered to the Public Works Yard located at 1515 E. University Ave. Contact Steve Viator at 291-8527 to coordinate deliveries.

Material shall be pulverized to a maximum of 18 inch diameter nominal size.

# Subsection 602.18 – Removal and Resetting of Existing Manhole Ring and Cover (9/2021), page 388

Insert this subsection with the following:

**Description:** This work consists of removing sufficient existing concrete pavement from around an existing manhole ring & cover, cleaning the existing manhole ring & cover, and resetting the manhole ring & cover back in its original place horizontally. The contractor shall match the top elevation of grate and ring to finish grade of roadway pavement riding surface (to account for cross slope and longitudinal slope), and placing new concrete pavement block out around the exiting manhole ring & cover with a  $\frac{3}{4}$ " isolation joint, in accordance with these specifications, and in conformity with details shown on the plans or established.

Materials for adjustment of existing manhole ring & cover shall comply with the requirements of the appropriate subsection. Materials necessary for performing the work shall be approved by LCG.

# **Construction Requirements:**

(a) Construction requirements for full depth removal of concrete walks and drives shall conform to Subsection 202.03(a).

(b) Construction requirements for installation of concrete walks and drives shall conform to Subsection 706.03.

(c) Construction requirements for full depth saw cutting of existing concrete walks and drives shall consist of furnishing all equipment, labor, materials and incidentals to perform saw cutting of existing concrete walks and drives as shown on the plans or as directed by LCG.

<u>Subsection 602.19 – Removal and Replacement of Existing Concrete Walks and Drives</u> (9/2021), page 388

Insert this subsection with the following:

**Description:** This item consists of furnishing all equipment, labor, materials and incidentals to perform removal and replacement of existing concrete walks and drives as shown on the plans or as directed by LCG.

Materials shall conform to Subsection 706.02 of the LCG Standard Specifications for Roads, Drainage, Bridges, and Other Infrastructure 2016.

# **Construction requirements:**

shall conform to Subsection 702.04 of the LCG Standard Specifications for Roads, Drainage, Bridges, and Other Infrastructure 2016.

Subsection 602.17 – Measurement (9/2021), page 388

Delete the contents of the first paragraph in this subsection and add the following:

**602.20 MEASUREMENT.** Measurement of portland cement concrete pavement rehabilitation will be as follows:

(n) Contractor Retained Reclaimed PCC Pavement shall be measured by the cubic yard of in place pavement, prior to pulverization.

(o) Removal and resetting of existing manhole ring and cover shall be measured per each.

(p) The full depth saw cutting and removal of existing concrete walks & drives will not be measured for payment, but will be considered incidental to the removal and replacement of the concrete walks and drives. The removal and replacement of existing concrete walks and drives will be measured by the square yard.

Any other requirement found in Subsection 602.20 not addressed above shall be applicable.

# Subsection 602.18 – Payment (09/2021), page 389

Delete the contents of the first paragraph and 602.18(e) in this subsection and add the following:

**602.21 PAYMENT.** Payment for portland cement concrete pavement rehabilitation will be as follows:

(e) The average measured thickness of each pavement panel shall be determined by averaging the thickness of each adjacent concrete panel. Measurements shall be taken 6 inches from both ends and at the middle along each of the existing pavement panel edges adjacent to the pavement patch. This average measured value will be rounded to the nearest half inch.

If the average measured thickness does not match any of the plan thickness quantities, then the value per inch thickness will be determined by dividing the contract unit price per square yard by the plan thickness. This value per inch will be multiplied by the average measured thickness to calculate the adjusted unit cost per square yard. The larger of the following will be used to determine which plan thickness pay item shall be used in the calculation for the value per inch:

- (1) The first pay item that is less than the measured thickness
- (2) The smallest plan thickness

(m) Payment shall include cost for loading and transportation to deliver the pulverized full-depth jointed concrete pavement material and paid at the contract unit price per cubic yard. LCG reserves the right to reject any material at any time for any reason.

(n) Payment shall include all materials, tools, equipment, labor, and incidentals necessary to complete the work for removal and resetting of existing manhole ring and cover and be paid at the contract unit price per each.

(o) The payment shall include saw cutting, removal, and replacement of existing concrete walks and drives and be paid at the contract unit price per square yard.

Item No.	Pay Item	Pay Unit
602-18	Contractor Retained Reclaimed PCC Pavement	Cubic Yard
602-19	Removal & Resetting of Existing Manhole Ring & Cover	Each
602-20	Removal & Replacement of Existing Concrete	
	(Description) (" Thick)	Square Yard

Any other requirement found in Subsection 602.21 not addressed above shall be applicable.

# **PART VII – INCIDENTAL CONSTRUCTION**

#### **SECTION 701 – CULVERTS and STORM DRAINS:**

#### Subsection 701.13 – Measurement (12/2020), page 412

Delete the contents of this subsection and substitute the following:

Measurement: Pipe, both new and re-laid, will be measured in linear feet as follows unless stated otherwise.

- (a) Pipe not confined by fixed structures will be measured by the number of joints at the nominal length of each joint.
- (b) Pipe confined by fixed structures will be measured along the pipe between the termini of pipe in structure walls.
- (c) Pipe confined by a fixed structure on one end and unconfined at the other end will be measured along the pipe from the terminus of pipe in the structure wall to the unconfined end of pipe.
- (d) Fabricating of pipe tees, elbows and other fittings will be measured per each fitting. The length of pipe in such fittings will be included in the pay length measurement of pipes of which they form a part of.
- (e) Excavation required for installation of pipe in such fittings will be measured for payment, except as otherwise specified in Subsection 203.14.
- (f) Furnishing and placing backfill material below natural ground for pipes will not be measured for payment. Backfill material needed to complete backfill of pipe trench when there is not sufficient useable on-site material generated from either the pipe trench excavation or other site sources will be furnished in accordance with Section 203 "Excavation and Embankment" and measured for payment in accordance with Section 203.14. Backfill material needed around pipes that extend above natural ground will be measured and payment will be made under applicable earthwork items. When specified, flowable fill will be measured and paid for in accordance with Section 710. Natural ground is defined as the existing ground surface in the area in which the pipe

will be constructed. In the case of an existing open ditch section, natural ground will be considered as being within the existing ditch surface; i.e. the ditch top banks and bottom.

- (g) Plugging and stubbing of pipes will not be measured for payment, unless otherwise noted in the plans and/or contract documents.
- (h) Cleaning existing pipes will be measured by the length of pipe cleaned and accepted.
- (i) Concrete collars will be measured per each.
- (j) Television inspection of storm drainage lines shall be measured on a linearfoot basis from centerline to centerline of drainage junctions to the nearest tenth of a foot.

Any other requirement found in Subsection 701.13 not addressed above shall be applicable.

# SECTION 702 – MANHOLES, JUNCTION BOXES, CATCH BASINS and END TREATMENTS:

#### Subsection 702.01 – Description (12/2020), page 415

Delete the contents of this subsection and substitute the following:

This work shall consist of the construction, installation, adjustment, and/or conversion of manholes, junction boxes, catch basins, culvert end treatments and safety ends in accordance with these specifications, and in conformity with lines and grades shown on the plans or established.

Any other requirement found in Subsection 702.01 not addressed above shall be applicable.

#### Subsection 702.02 – Materials (5/21), page 415

Delete the fist item in the list of subsections and substitute the following:

Cast-in-Place and Pre-Cast Concrete (Class M<sup>3</sup>) 901

Any other requirement found in Subsection 702.02 not addressed above shall be applicable.

#### <u>Subsection 702.05 – Measurement (12/2020), page 418</u>

Delete the contents of this subsection and substitute the following:

New, adjusted, and/or converted junction boxes, manholes, catch basins, culvert end treatments and safety ends will be measured per each.

Excavation and backfill required for installation of these units will not be measured for payment.

Any other requirement found in Subsection 702.05 not addressed above shall be applicable.

Subsection 702.06 - Payment (12/2020), page 418

Delete the contents of this subsection and substitute the following:

Payment for new, adjusted, and/or converted junction boxes, manholes, catch basins, culvert end treatments and safety ends will be made at the contract unit price per each which shall include all materials, tools, equipment, labor and incidentals necessary to complete the work.

The concrete in cast-in-place manholes, junction boxes, catch basins, culvert end treatments and safety ends will be identified by lots and shall be subject to pay adjustments in accordance with Table 901-5 and Note "A" therein. Acceptance for each precast concrete manhole, junction box and catch basin lot will be in accordance with the requirements of Standard Plan PC-01. Size, sampling and testing of each concrete lot shall be in accordance with the LA DOTD Materials Sampling Manual.

Item No.	Pay Item	Pay Unit
702-01	Junction Boxes	Each
702-02	Manholes	Each
702-03	Catch Basins	Each
702-04	Conflict Manholes	Each
702-05	Adjusting	Each
702-06	Convert	Each
702-07	Connect to Existing (Type)	Each
702-08	Cross Drain End Treatment (Type)	Each
702-09	Side Drain End Treatment (Type)	Each
702-10	Cross Drain Safety End (Type)	Each
702-11	Side Drain Safety End (Type)	Each
702-12	Pre-Cast Catch Basins	Each
702-13	Trench Grate& Frame	Linear Foot

Payment will be made under:

Any other requirement found in Subsection 702.06 not addressed above shall be applicable.

# **SECTION 704 – GUARD RAIL:**

Subsection 704.03(a) - Posts (05/17), page 425

Delete the contents of this subsection and substitute the following:

Posts: Posts shall be aligned and set plumb. When driving of posts is permitted, the manner of driving shall not damage posts. Post holes shall be backfilled with Class R concrete. When posts are to be placed within existing surfaced areas, surface material shall be replaced in kind or with Class R concrete.

Any other requirement found in Subsection 704.03 not addressed above shall be applicable.

#### Subsection 704.03(d) – Guard Rail End Treatments (12/2020), page 426

Delete the contents within the second paragraph of this subsection and substitute the following:

LCG has pre-approved a list of end treatment systems for selection by the contractor. The contractor shall provide LCG with a copy of the most recent working drawing/shop drawing of the selected guard rail end treatment system prior to installation. The drawings shall provide the details of all components of the guard rail end treatment system and shall state that all details are in compliance with the NCHRP Report 350 or MASH requirements as approved by FHWA.

Any other requirement found in Subsection 704.03 not addressed above shall be applicable.

Subsection 704.05 – Payment (12/2020), page 427

Replace the existing pay items and pay units with the following:

Item No.	Pay Item	Pay Unit
704-01	Guard Rail (Single Thrie Beam)	
	( Post Spacing)	Linear Foot
704-02	Guard Rail (Double Faced)	Linear Foot
704-03	Blocked Out Guard Rail	Linear Foot
704-04	Blocked Out Rail (Double Faced)	Liner Foot
704-05	Guard Rail Anchor Sections	Linear Foot
704-07	Guard Rail Bridge Attachments	Linear Foot
704-08	Guard Rail Transitions	Linear Foot
704-09	Guard Rail Anchor Blocks	Each
704-10	Guard Rail End Treatment (Flared)	Each

Any other requirement found in Subsection 704.05 not addressed above shall be applicable.

# **SECTION 712– REVETMENTS:**

Subsection 712.02(a) – Concrete: (12/2020), page 450

Delete the contents of this subsection and substitute the following:

Concrete for cast-in-place revetment shall be Class M complying with Section 901.

Any other requirement found in Subsection 712.02 not addressed above shall be applicable.

#### Subsection 712.03(f) – Flexible Revetment: (12/2020), page 453 Add the to the following:

Prior to the contractor ordering the flexible revetment, the contractor shall grade the area and the supplier shall come to the project site and take all necessary measurements to fabricate the mat to fit the field conditions. Quantities shown in the bid form are for bidding purposes only.

Any other requirement found in Subsection 712.02 not addressed above shall be applicable.

# SECTION 713- TEMPORARY TRAFFIC CONTROL:

Subsection 713.08(d) – Traffic Control Diary (12/2020), page 465

Delete the contents of this subsection and substitute the following:

The TCS shall maintain a project traffic control diary on a daily basis in a bound book which shall consists of utilizing the standard form "Traffic Control Daily Report for Lafayette Consolidated Government" (LCG Form (TCDR 100)). The TCS shall keep the

traffic control diary current on a daily basis, and shall sign each daily entry. Entries shall be made in ink and there shall be no erasures or white-outs. Incorrect entries shall be struck out and then replaced with the correct entry. Photographs and videotapes may be used to supplement the written text.

The traffic control diary shall be available at all times for inspection by LCG. The traffic control diary shall become the property of LCG at the completion of the project. The contractor shall request the form TCDR 100 prior to beginning the project.

Any other requirement found in Subsection 713.08 not addressed above shall be applicable.

# **SECTION 722– FIELD PROJECT SITE OFFICE BUILDING:**

#### Subsection 722.02 – General Requirements (12/2020), page 498

Delete the following sentence in its entirety from Section 722.02:

"A project site office building shall contain sanitary facilities, telephone service, fax machine with service, along with all other standard provisions as previously described." And replace with:

A project site office building shall contain sanitary facilities along with all other standard provisions as previously described.

Any other requirement found in Subsection 722.02 not addressed above shall be applicable.

# **SECTION 736– TRAFFIC SIGNALS:**

#### Subsection 736.02 – Materials (12/2020), page 545

Delete the contents of this subsection and substitute the following:

Materials shall comply with the following Sections and Subsections:

Usable Soils	203.06
Portland Cement Concrete, Class M1	901
Reinforcing Steel	1009
Precast Reinforced Concrete Junction Boxes and Manholes	1016
Manhole Frames and Covers	1018.04
Ground Rods	1018.05, 1108
Rigid Metal Electrical Conduit	1018.09, 1110.05
Electrical Conductors	1018.10
Traffic Signal Heads	1113
Traffic Detectors and Associated Equipment	1116
Traffic Signal Hardware and Equipment	1119
Pedestal Anchor Bolts	805.15, 1013.08
Support Cable	1111.06
Guy Components	1119.15
Wire and Cable	1110.06, 1111, 1112
Electrical Manhole	1114

Poles for Traffic Signal System	1115
Steel Standards and Mast Arms	1115.03

Controllers shall comply with the supplemental specifications entitled "Traffic Signal Control System, Traffic Control Standards".

Traffic detectors and associated equipment shall be included in the Traffic Signal Control System, Traffic Control Standards, unless otherwise noted on the plans.

Any other requirement found in Subsection 736.02 not addressed above shall be applicable.

# SECTION 742-B- WASTEWATER FORCE MAINS:

Subsection 742-B.02(b) – Force Main Pipe Materials (12/2020), page 626 Add the following contents to this subsection

(4) Fusible PVC Pipe (F.PVC Pipe)

- a. Pipe and Fittings: Made from clean, virgin NSF approved Type I, Grade I PVC conforming to ASTM Resin Specification D1784-65T.
- b. Size/Type: 4"-12"; AWWA C900, SDR 25, 165 psi pressure, NSF approved, 12454 B PVC compound conforming to ASTM Resin Specification D1784. 14"-24"; AWWA C905, SDR 25, 165 psi pressure, NSF approved, 12454 B PVC compound conforming to ASTM Resin Specification D1784.
- c. Fittings: Ductile iron and must conform to Section 742-B.02(b)(1)(e).
- d. Provide pipe which is homogeneous throughout, free of voids, cracks, inclusions and other defects, uniform as commercially practical in color, density and other physical properties.
- e. PVC pipe shall be supplied in standard nominal laying lengths of 20 feet. The color of the pipe shall be green or white with green lettering. The pipe shall be marked with the size, material code, dimension ratio (DR), AWWA pressure class and AWWA designation.
- f. Fusion-joined F-PVC pipe shall be Fusible C900 (4"-12") and C905 (14"-24") with the same properties (SDR, coloring, labeling, etc.) as stated above. The chemical compounds for fusion-joined PVC pipe shall be formulated to facilitate the thermal-fusion process.
- g. Fusion-joined F-PVC shall be joined by a pipe manufacturer-certified technician with manufacture approved equipment and shall include a means of logging fusion process data.

Any other requirement found in Subsection 742-B.02 not addressed above shall be applicable.

# **PART VIII – STRUCTURES**

# **SECTION 804 – DRIVEN PILES:**

# <u>Subsection 804.04(d) – Pile Driving System Submittal and Approval (12/2020), page 669</u> Add the following subsection:

(d) **Pre-Pile Driving Meeting:** A pre-pile driving meeting shall be held on-site no less than forty-eight (48) hours in advance of the pile driving operations. The contractor shall have in attendance or via conference call the contractor's geotechnical engineer who will evaluate the real-time data received from the Pile Driving Analyzer during the driving of the Indicator Piles and make recommendations or adjustments to the driving procedure during the pile driving operation to prevent damage to the proposed driven piles.

Any other requirement found in Subsection 804.04 not addressed above shall be applicable.

# SECTION 805 – STRUCTURAL CONCRETE:

# Subsection 805.01 – Description (12/2020), page 693

Add the following to the second paragraph:

All concrete used to construct approach slabs, barrier rails, bridge decks and caps, when precast, shall be Class IC(P) concrete and have a minimum 28-day compressive strength of 4,500 psi. All concrete used to construct approach slabs, barrier rails, bridge decks and caps, when cast-in-place, shall be Class IC(A)(M) concrete and have a minimum 28-day compressive strength of 4,500 psi. Refer to Sections 805, 901, and 1003 for further details related to Internally Cured (IC) Concrete.

Any other requirement found in Subsection 805.01 not addressed above shall be applicable.

Table 805-1 – Classes and Uses of Concrete (12/18), page 694

Replace the existing Table 805-1 in its entirety with the following:

<b>Classes and Uses of Concrete</b>				
Concrete Class	Use			
A, A(M), or IC(A)(M)	Concrete exposed to sea water, and all other concrete except as listed herein. Cast-in-place bridge superstructure			
P, P(M) or IC(P)	Precast-prestressed bridge superstructure, bridge piles			
S	Drilled shaft foundations			
$M^1$ , $M^2$ or $M^3$	Minor Structure			

<b>Table 805-1</b>				
<b>Classes and Uses of Concrete</b>				

Any other requirement found in Subsection 805.02 not addressed above shall be applicable.

# Subsection 805.03(a) – Handling and Placing Concrete and Precast Units - General (07/18), page 694

Remove first paragraph in its entirety and replace with:

(a) General: In preparation for placing concrete, a pre-pour meeting will be held a minimum of forty-eight (48) hours in advance of the scheduled pour. The contractor will have present representatives from the contractor's quality control testing laboratory, concrete supplier, superintendent, foreman and lead concrete finisher. No work or staging of equipment or material will take place on any cast-in-place structural concrete until the test specimens made and tested accordance with subsection 805.11 have attained a compressive strength of 4,000 psi. Compressive strength cylinders shall be made in accordance with LA DOTD TR 226 and tested in accordance with LADOTD TR 230.

Any other requirement found in Subsection 805.03(a) not addressed above shall be applicable.

Table 805-3 – Classes and Uses of Concrete (12/20), page 705

Replace the existing Table 805-3 in its entirety with the following:

Removal of Forms and Falsework					
Concrete Class Compressive Strength, Psi					
А	4,000				
A(M)	4,000				
IC(A)(M)	4,000				
P (non-prestressed)	4,000				
P(M)(non-prestressed)	3,600				
M <sup>1</sup>	3,000				
M <sup>2</sup>	3,000				
<b>M</b> <sup>3</sup>	3,500				

Table 805-3 Removal of Forms and Falsework

Any other requirement found in Subsection 805.11 not addressed above shall be applicable.

# **PART IX – PORTLAND CEMENT CONCRETE SECTION 901 – PORTLAND CEMENT CONCRETE:**

# Subsection 901.05 – Sampling and Testing (11/2021), page 832

Add the following paragraph:

Provide a storage chamber for temporary storage of the test cylinders, at no additional cost to LCG. The chamber shall provide an environment that prevents loss of moisture, maintain temperature within a range of  $60^{\circ}F - 80^{\circ}F$ , and be equipped with a continuously recording thermometer accurate to  $\pm 2$  °F. For mixtures with a specified strength of 6,000 psi or greater, the curing temperature shall be between  $68^{\circ}F - 78^{\circ}F$ . Provide data from the thermometer as directed. Locate the chamber so that cylinders are not subject to vibration. The chamber shall be of sufficient size and provide multiple chambers as necessary to store the required number of cylinders in a manner satisfactory to the engineer. Engineer shall approve the location and number of chambers prior to start of operations.

Any other requirement found in Subsection 902.05 not addressed above shall be applicable.

Table 901-2 – Portland Cement Concrete Mixture Substitutions (12/2020), page 838
Replace the existing Table 901-2 in its entirety with the following:

Portland Cement Concrete Mixture Substitutions				
Structural Class <sup>1</sup> (Includes Slope Pavement)	Substitute			
А	A(M)			
A(M)	No Substitutions			
IC(A)(M)	No Substitutions			
P(M)	No Substitutions			
Р	P(M)			
IC(P)	No Substitutions			
S	No Substitutions			
Minor Structure Class <sup>1</sup>				
$M^1$	A, B, D			
$M^2$	A, B, D			
$M^3$	A, B, D			
R	A, B, D			
Pavement Type <sup>1, 2</sup>				
В	D			
D	В			
E	No Substitutions			
Х	No Substitutions			

**Table 901-2** 

<sup>1</sup> The mixture being substituted shall meet the requirements of Table 901-3 and the mix design for its class or type. The compressive strength of the substituted mix shall meet the strength requirements of the original mixture specified.

<sup>2</sup> When justified in writing and approved by LCG, small irregular areas of paving projects using Types B, D, or X concrete may be substituted with Class A concrete.

Any other requirement found in Subsection 901.07 not addressed above shall be applicable.

# Subsection 901.12 – Acceptance and Payment Schedule (12/2020), page 849

Delete the contents of this subsection and substitute the following:

ACCEPTANCE AND PAYMENT SCHEDULE. Acceptance and payment schedules in Table 901-4 will apply to all structural portland cement concrete. Acceptance and payment schedules in Table 901-5 will apply to all portland cement concrete used for minor structures. Acceptance and payment schedules for portland cement concrete pavement are shown in Table 601-1 of Section 601.

These schedules do not apply to precast concrete.

Any other requirement found in Subsection 902.12 not addressed above shall be applicable.

Table 901-3 – Master Proportion Table for Portland Cement Concrete (12/2020), page 850 Replace the existing Table 901-3 in its entirety with the following:

~	Average	a 1 01 a	Minimum Bags of	Maximum	Shump I	Slump Range, in	lump Range, inches		
Class or Type of Concrete	Compressive         Grade Of Coarse         Cement of 94 lbs.         Water per Sack         (Percent by of Cement (a)           Strength, psi         Aggregate (l)         each to one Cu.         of Cement (a)         Volume)           at 28 days         Yd. of Concrete         (Gallons)         (d)(c)		Non-Vibrated Placing (n)	Vibrated Placing Paving (b)	Slip Form Placing	Resistivity (k) (kΩ–cm)			
STRUCTURAI	L CLASS (Inclue	les Slope Pavement)							
A(M) A IC(A)(M) P(M) P IC(P) S	. ,	57M, 67, B, D 57M, 67, 89M <sup>(m)</sup> , B, D 57M, 67, 89M <sup>(m)</sup> , B, D 57M, 67, 89M <sup>(m)</sup> , B, D 57M, 67, 8, D 57M, 67, 89M <sup>(m)</sup> , B, D 8, D	6.0 6.0 7.0 6.5 7.0	6.0 6.0 5.0 5.0 5.0 6.0	2 - 7 2 - 7	2 - 5 2 - 5 2 - 5 N.A. N.A. N.A. O.A.	2 - 4(n)  2 - 4(n)  2 - 4(n)  2 - 6(g)  2 - 6(g)  2 - 6(g)  N.A.	N.A. 1 – 2.5 1 – 2.5 N.A. N.A. N.A. N.A.	22 22 22 22 22 22 22 22 22 22 22
	CTURE CLASS		7.0	0.0	2 /	0 0	11.21	11.71.	22
$egin{array}{c} M^1 \ M^2 \ M^3 \ R \end{array}$	3,500 3,000 4500 2,000	57M, 67, 89M <sup>(m)</sup> , B,D 57M, 67, 89M <sup>(m)</sup> , B,D 57M, 67,89M <sup>(m)</sup> ,B,D 57M, 67,89M( <sup>m</sup> ),B,D	5.0 5.8	6.0 6.0 6.0 8.0	2 - 7 2 - 7 2 - 7 2 - 7 2 - 7	2 - 5 2 - 5 2 - 5 2 - 5 2 - 5	2-4 2-4 2-4(n) 1-3	1 – 2.5 1 – 2.5 1 – 2.5 N.A.	N.A. N.A. N.A. N.A.
PAVEMENT T	YPE								
B D E X	4,000 4,000 4,000(f) (i) 5,000(j)	B, D B, D 57M, 67, 89M <sup>(m)</sup> , B,D 57M, 67, B, D	5.4 6.5	6.0 6.0 6.0 6.0	2 - 7 2 - 7 2 - 7 2 - 7 2 - 7	N.A. N.A. N.A. N.A.	2 - 4 2 - 4 2 - 4 2 - 4	1 - 2.5 1 - 2.5 1 - 2.5 1 - 2.5 1 - 2.5	N.A. N.A. N.A. N.A.

**Table 901-3** Master Dream anti- Table for Develop d Comment Comments

\*LCG Will allow a lesser cement content if proof can be given that concrete will meet 700 P.S.I. Modulus of Rupture

(a) The maximum water-cement ratio (gal/sack) shall be reduced 5% when a water-reducing admixture is used and 10% when an air-entraining admixture or air- (k) Value based on a 4-inch x 8 inch test cylinder tested at 56 days of age entraining and water reducing admixtures are used

(b) Also slump range for other concrete placed by extruded methods.(c) Refer to Subsection 901.08(b)

Total air content ranges when air entrainment is allowed or specified. (d)

Minimum compressive strength required. Grade 89M or 67shall be used for partial depth patching in accordance with Table NOTE: (e) (f)

1003-2. No more than a 2" slump differential for any designated pour. Allow 8-inch (g)

maximum slump if water reducers are used

(h) See Subsection 901.08(a) for allowable types of cement.

For use in full and partial depth patching

(1) Combined aggregate gradation shall comply with the requirements of Section 1003.02(c) (m) Grade 89M Course aggregate shall be used only when specified or permitted.

(n) Allow 8-inch maximum slump if water reducers are used.

 $M^1$  - To be used for all curbs and driveways.  $M^2$  - To be used for sidewalks and all other incidental concrete work.

M3 To be used for pre-cast and cast-in-place manholes, catch basins, junction boxes, safety ends and other pre-cast and cast-in-place minor structures

N.A. - Not Applicable

Any other requirement found in Section 901.08 not addressed above shall be applicable.

# <u>Table 901-4 – Acceptance and Payment Schedules Cast-In-Place Structural Concrete (12/2020),</u> page 851

Replace the existing Table 901-4 in its entirety with the following:

Acceptance and Layment Schedules - Structural Concrete						
Class A(M), A, IC(A)(M), P(M) <sup>4</sup> , P <sup>4</sup> , IC(P) <sup>4</sup> and S						
Compressive Strength	Surface Resistivity (kΩ– cm) (4 x 8 Test Cylinders)	Percent of Contract Price <sup>1</sup>				
4500 & above	22.0 & Above	100				
4301-4499	20.0 - 21.9	98				
4000-4300	18.0 - 19.9	90				
below 4000	Below 18.0	50 or remove and replace <sup><math>2,3</math></sup>				

<b>Table 901-4</b>	
Acceptance and Payment Schedules - Structural Concrete	

<sup>1</sup>When concrete is part of an item or not a direct pay item, lot sizes, sampling and acceptance testing for the required quantities will be in accordance with Subsection 805.18. The value for each cubic yard required will be assessed at \$350 for the purpose of applying payment adjustment percentages. The amount of payment adjustment for the quantity of concrete involved will be deducted from payment. Acceptance and payment schedules shall apply to the contract item itself for cast-in-place piling.

<sup>2</sup>When the average compressive strength of <u>any batch in a lot</u> is less than the specified strength a prompt investigation will be made. If concrete is allowed to remain in place by LCG, payment will be based on 50 percent of the contract price unless associated cylinders were improperly molded or tested and investigative core strength results are above design strength ( $f_{c}$ ). If concrete is not allowed to remain in place, the identifiable deficient areas shall be removed and replaced at no direct pay.

<sup>3</sup>When the average surface resistivity is less than 18.0 kΩ–cm using 4-inch x 8-inch test cylinders, an investigation will be made. If concrete is allowed to remain in place by LCG, payment will be based on 50 percent of the contract price. Any cores obtained in these investigations are for evaluation purposes only. Payment will be based on original acceptance samples.

<sup>4</sup>Class P(M), P and IC(P) shall be measured for resistivity values only for acceptance and payment. No adjustment in pay will be made for these two classes of structural concrete. All test cylinders must meet or exceed the required concrete compressive strength. All other structural concrete classes shall be measured for compressive strength and resistivity values for acceptance and payment.

Any other requirement found in Subsection 901.12 not addressed above shall be applicable.

# PART X - MATERIALS

#### SECTION 1002 - ASPHALT CEMENT, EMULSIONS, AND ADDITIVES:

#### Table 1002-1 – Performance Graded Asphalt Cement Specifications (12/2020)

#### page 860

Replace the existing Table 1002-1 in its entirety with the following:

Property	Test Method	PG82-22rm6	PG76-22m <sup>6</sup>	PG70-22m <sup>6</sup>	PG67-22	PG58-28
Tests on Original Binder:						
Rotational Viscosity @ 135°C, Pa·s <sup>1</sup> 316	AASHTO T-	3.0	3.0	3.0	3.0	3.0
Dynamic Shear, 10 rad/s, G*/Sin δ, kPa 315	AASHTO T-	1.00+@ 82°C	1.00+@ 76°C	1.00+@ 70°C	1.00+@ 67°C	1.00+@ 58°C
Dynamic Shear, 10 rad/s, Phase Angle 315	AASHTO T-		75° @ 76°C			
Flash Point, °C	AASHTO T-48	232+	232+	232+	232+	232+
Solubility, % <sup>2</sup>	AASHTO T-44	N/A	99.0+	99.0+	99.0+	99.0+
Separation of Polymer, 163°C, 48 hours, °C difference in R & B from top to bottom <sup>5</sup>	ASTM D-7173 AASHTO T-53		2-	2-		
Tests on Rolling Thin Film Oven Residue:	AASHTO T-240	)				
Mass change, % 240	AASHTO T-	1.00-	1.00-	1.00-	1.00-	1.00-
Dynamic Shear, 10 rad/s,G*/Sin δ, kPa 315	AASHTO T-	2.20+@ 82°C			2.20+@ 67°C	2.20+@ 58°C
Elastic Recovery, 25°C, 10 cm elongation, % <sup>4</sup> 301	AASHTO T-	60+				
Multiple Stress Creep Recovery (MSCR), 67°C, Jnr (3.2 kPa) 350	AASHTO T-		0.5-	1.0 - 2.0		
Multiple Stress Creep Recovery (MSCR), 67°C, % Recovery (3.2 kPa) 350	AASHTO T-		Meets Curve <sup>3</sup>	15%		
Tests on Pressure Aging Vessel Residue:	AASHTO R 28					
Dynamic Shear, @ 26.5°C, 10 rad/s, G* Sin δ, kPa 315	AASHTO T-	5000-	6000-	6000-	5000-	5000-@ 19°C
Bending Beam Creep Stiffness, S, MPa @ -12°C. 313	AASHTO T-	300-	300-	300-	300-	300-@ -18°C
Bending Beam Creep Slope, m value,@ -12°C 313	AASHTO T-	0.300+	0.300+	0.300+	0.300+	0.300+@ -18°C

<b>Table 1002-1</b>
<b>Performance Graded Asphalt Cement Specifications</b>

<sup>1</sup> The rotational viscosity will be measured to determine product uniformity. The rotational viscosity measured by the supplier shall be noted on the Certificate of Delivery. A binder having a rotational viscosity of 3.0 Pa·s or less will typically have adequate mixing and pumping capabilities. Binders with rotational viscosity values higher than 3.0 Pa·s should be used with caution and only after consulting with the supplier as to any special handling procedures and guarantees of mixing and pumping capabilities.

<sup>2</sup> Not all polymers are soluble in the specified solvents. If the polymer modified asphalt digested in the solvent will not pass the filter media, a sample of the base asphalt used in making the polymer modified asphalt should be tested for solubility. If the solubility of the base asphalt is at least 99.0%, the material will be considered as passing.

<sup>3</sup> As defined in AASHTO M 332

<sup>4</sup> AASHTO T 301 except elongation shall be 10 cm.

<sup>5</sup> Prepare samples per ASTM D 7173. Determine softening point of top and bottom per AASHTO T 53.

<sup>6</sup> The quality assurance plan for this product will require the contractors who use his material to submit written documentation of tank cleaning annually to LCG. Contractors must have tank mixers.

<sup>7</sup> Handling of all samples for testing shall be in accordance with ASTM D 4957, Section 7.2, which requires heating the sample in an oven maintained at  $190^{\circ} \pm 2^{\circ}$ C. Stir the sample occasionally until homogenous and pour in suitable container for testing. Pouring temperatures shall be  $180^{\circ} \pm 2^{\circ}$ C for all tests.

Any other requirement found in Subsection 1002 not addressed above shall be applicable.

# **SECTION 1003 – AGGREGATES:**

Table 1003-2 – Gradation for Portland Cement Concrete Aggregates, Uncrushed (12/2020) page 875

Replace the existing Table 1003-2 in its entirety with the following:

Percent Passing							
U.S. Sieve	Size 57M	Size 89M	Size 67				
2-1/2"							
2"							
1-1/2"	100						
1"	90-100 <sup>1</sup>		100				
3/4"		100	90-100				
1/2"	25-60	90-100					
3/8"			20-55				
No. 4	0-10	15-60	0-10				
No. 8	0-5	0-30 <sup>2</sup>	0-5				
No. 16		0-5					
No. 200	0-1	0-1	0-1				

<b>Table 1003-2</b>		
<b>Gradation for Portland Cement</b>	Concrete Aggregates, Uncrushed	ł

<sup>1</sup> ASTM C33 No. 57 designation required 95-100.

<sup>2</sup> ASTM C33 No. 89 designation required 0-15.

Any other requirement found in Subsection 1003.02 not addressed above shall be applicable.

# SECTION 1009 – REINFORCING STEEL, STRAND, AND WIRE ROPE:

#### Subsection 1009.05 – Dowel Bars (12/2020), page 911

Remove the second paragraph and add replace it with the following paragraphs to the subsection:

One of the following types of coating shall be required:

- (a) Dowel Bars shall be undercoated with an adhesive and given an outer coat of polypropylene or polyethylene. The coated dowel bar shall comply with AASHTO M 254.
- (b) Dowel bars shall have an epoxy coating applied by the electrostatic spray method. The epoxy coted dowel bar shall comply with ASTM A775.

Prior to placement of concrete, ensure dowel bars are entirely covered with an approved bond breaker that is one of the following:

(a) Paraffin based lubricant, either Dayton Superior DSC BB-Coat or Valvoline Tectyl 506.

- (b) White-=pigmented curing compound conforming to ASTM C309, Type 2, Class A, with 22% minimum nonvolatile compound consisting of 50% paraffin wax.
- (c) Any other bond breaker that is submitted with documentation sufficient to validate that it is equal to the above alternatives. Any approved equal must be reviewed and approved in writing by LCG prior to use.

The use of oil-based or asphalt-based bond breakers is prohibited.

Any other requirement found in Subsection 1009.05 not addressed above shall be applicable.

# SECTION 1016 – CONCRETE PIPE and PRECAST REINFORCED CONCRETE DRAINAGE UNITS:

#### Subsection 1016.01 - General (06/17), page 959

Delete the contents of this subsection and substitute the following:

GENERAL: This specification covers the manufacture of precast reinforced concrete box culverts, manhole sections, catch basins, junction boxes, safety ends and concrete pipe. Concrete pipe and precast reinforced concrete drainage units shall be as listed in the LA DOTD AML and from Certified Plants. The fabrication procedure will require that the walls and bases of these structures be poured monolithically (one pour) with smooth wall faces. All shop drawings must be submitted for approval by LCG and the Consultant before fabrication can begin. Any deviation from either the LCG Precast Details or the specific design structure details contained within the plans will require design calculations, signed and stamped by a Professional Engineer registered in the State of Louisiana be submitted for approval by LCG and its Consultant before fabrication can begin.

<u>Subsection 1016.01(h)(1) - Rubber Gaskets – General (11/17), page 960</u> Replace AASHTO M 315 with ASTM C443 for compliance of rubber gaskets.

Any other requirement found in Subsection 1016.01 not addressed above shall be applicable.

## SECTION 1018 – MISCELLANEOUS MATERIALS:

#### Subsection 1018.31(a) –Flexible Revetment – General (07/18), page 984

Delete the contents of this subsection and substitute the following:

General: Flexible Revetment (pump filled concrete articulating block mat) shall consist of an approved unreinforced concrete liner made of double layer synthetic forms, cabled in two directions between the two layers of fabric. A minimum of two cables shall be included in the transverse direction of the mat and shall pass through each form compartment. A minimum of one cable shall be included in the longitudinal direction of the mat and shall pass through each form compartment. Forms shall be filled with a fine aggregate concrete mix meeting the mix design specified in Section 712.03(f). Prior to the contractor ordering the flexible revetment, the contractor shall grade the area and the supplier shall come to the project site and take all necessary measurements to fabricate the mat to fit the field conditions. Quantities shown in the bid form are for bidding purposes only.

Any other requirement found in Subsection 1018.31 not addressed above shall be applicable.

# PART XII – CONSTRUCTION PHOTOGRAPHS AND VIDEO

## SECTION 1201 – CONSTRUCTION PHOTOGRAPHS AND VIDEO:

Subsection 1201.03(a)(5) – Photographs (12/2020), page 1074

Delete the contents of this subsection and substitute the following:

"Print photographs on 8-1/2" by 11" sheets and identify with project name, property owner, street name, approximate location and date for each individual photo." This information shall also be provided on a USB storage device.

# PART XIV – NON-STANDARD ITEMS

## SECTION 1401 – NS DETECTABLE WARNING SYSTEM RETROFIT FOR CURB RAMPS:

Subsection 1401.01 – General (12/2020), page 1121

Delete Item No. NS-MSC "Detectable Warning System Retrofit for Curb Ramps" in its entirety and replace with the following item: NS-1401-00080 "Detectable Warning System Retrofit for Curb Ramps".

Pay unit remains the same.

Any other requirement found in Subsection 1401.01 not addressed above shall be applicable.

## SECTION 1402 – NS TEMPORARY CONSTRUCTION ENTRANCE

Subsection 1402.01 – General (12/2020), page 1122

Delete Item No. NS-MSC "Temporary Construction Entrance" in its entirety and replace with the following item: NS-1402-00240 "Temporary Construction Entrance".

Pay unit remains the same.

Any other requirement found in Subsection 1402.01 not addressed above shall be applicable.

#### SECTION 1403 – NS CLEANING EXISTING DITCHES

Subsection 1403.01 – General (12/2020), page 1123

Delete Item No. NS-200 "Cleaning Existing Ditches" in its entirety and replace with the following item: NS-1403-00020 "Cleaning Existing Ditches".

Pay unit remains the same.

Any other requirement found in Subsection 1403.01 not addressed above shall be applicable.

## SECTION 1404 – NS DOUBLE APPLICATION LIME TREATMENT

#### Subsection 1404.01 – General (12/2020), page 1125

Delete Item No. NS-300 "Lime" in its entirety and replace with the following item: NS-1404-00020 "Lime". Pay unit remains the same.

Delete Item No. NS-300 "Double Application Lime Treatment" in its entirety and replace with the following item: NS-1404-00040 "Double Application Lime Treatment".

Pay unit remains the same.

Any other requirement found in Subsection 1404.01 not addressed above shall be applicable.

#### **SECTION 1405 – NS GEOGRID**

Subsection 1405.04 – Measurement and Payment (12/2020), page 1127

Delete Item No. NS-300 "Geogrid Biaxial" in its entirety and replace with the following item: NS-1405-00100 "Geogrid Biaxial". Pay unit remains the same.

Delete Item No. NS-300 "Geogrid Triaxial" in its entirety and replace with the following item: NS-1405-00200 "Geogrid Triaxial". Pay unit remains the same.

Any other requirement found in Subsection 1405.04 not addressed above shall be applicable.

## SECTION 1406 – NS RAISED ASPHALTIC CONCRETE MEDIAN

Subsection 1406.01 – General (12/2020), page 1128

Delete Item No. NS-500 "Raised Asphaltic Concrete Median (4" Thick)" in its entirety and replace with the following item: NS-1406-00120 "Raised Asphaltic Concrete Median (4" Thick)". Pay unit remains the same.

Delete Item No. NS-500 "Raised Asphaltic Concrete Median (6" Thick)" in its entirety and replace with the following item: NS-1406-00140 "Raised Asphaltic Concrete Median (6" Thick)".

Pay unit remains the same.

Any other requirement found in Subsection 1406.01 not addressed above shall be applicable.

## SECTION 1407 – NS SAWING and SEALING LONGITUDINAL and TRANSVERSE JOINTS in ASPHALTIC CONCRETE OVERLAY, and SAW CUTS in ASPHALTIC CONCRETE LIFTS

### Subsection 1407.01 – General (12/2020), page 1130

Delete Item No. NS-500 "Sawing and Sealing Longitudinal Joints in Asphaltic Concrete Overlay" in its entirety

and replace with the following item: NS-1407-00100 "Sawing and Sealing Longitudinal Joints in Asphaltic Concrete Overlay". Pay unit remains the same.

Delete Item No. NS-500 "Sawing and Sealing Transverse Joints in Asphaltic Concrete Overlay" in its entirety and replace with the following item: NS-1407-00200 "Sawing and Sealing Transverse Joints in Asphaltic Concrete Overlay". Pay unit remains the same.

Delete Item No. NS-500 "Sawcuts Asphaltic Concrete Lifts" in its entirety and replace with the following item: NS-1407-00300 "Sawcuts in Asphaltic Concrete Lifts".

Pay unit remains the same.

Any other requirement found in Subsection 1407.01 not addressed above shall be applicable.

## SECTION 1408 – NS SAWCUTTING ASPHALTIC CONCRETE PAVEMENT

#### Subsection 1408.01 – General (12/2020), page 1131

Delete Item No. NS-500 "Sawcutting Asphaltic Concrete Pavement" in its entirety and replace with the following item: NS-1408-00340 "Sawcutting Asphaltic Concrete Pavement".

Pay unit remains the same.

Any other requirement found in Subsection 1408.01 not addressed above shall be applicable.

## SECTION 1409 – NS SAWCUTTING ASPHALTIC CONCRETE PAVEMENT OVER PORTLAND CEMENT CONCRETE PAVEMENT

#### Subsection 1409.01 – General (12/2020), page 1132

Delete Item No. NS-500 "Sawcutting Asphaltic Concrete Pavement Over Portland Cement Pavement" in its entirety

and replace with the following item: NS-1409-00360 "Sawcutting Asphaltic Concrete Pavement Over Portland Cement Concrete Pavement".

Pay unit remains the same.

Any other requirement found in Subsection 1409.01 not addressed above shall be applicable.

## SECTION 1410 – NS MICRO SURFACING AGGREGATE and MICRO SURFACING ASPHALT (POLYMER MODIFIED EMULSION)

Subsection 1410.08 – Payment (12/2020), page 1144

Delete Item No. NS-500 "Micro Surfacing Aggregate" in its entirety and replace with the following item: NS-1410-00100 "Micro Surfacing Aggregate". Pay unit remains the same.

Delete Item No. NS-500 "Micro Surfacing Asphalt (Polymer Modified Emulsion)" in its entirety

and replace with the following item: NS-1410-00200 "Micro Surfacing Asphalt (Polymer Modified Emulsion)". Pay unit remains the same.

Delete Item No. NS-500 "Micro Surfacing Mineral Filler" in its entirety and replace with the following item: NS-1410-00300 "Micro Surfacing Mineral Filler".

Pay unit remains the same.

Any other requirement found in Subsection 1410.08 not addressed above shall be applicable.

#### SECTION 1411 – NS SAWCUTTING PORTLAND CEMENT CONCRETE PAVEMENT

Subsection 1411.01 – General (12/2020), page 1145

Delete Item No. NS-600 "Sawcutting Portland Cement Concrete Pavement" in its entirety and replace with the following item: NS-1411-00100 "Sawcutting Portland Cement Concrete Pavement".

Pay unit remains the same.

Any other requirement found in Subsection 1411.01 not addressed above shall be applicable.

#### SECTION 1412 – NS FLEXIBLE POST TRAFFIC DELINEATORS

Subsection 1412.01 – General (12/2020), page 1146

Delete Item No. NS-700 "Flexible Post Traffic Delineators" in its entirety and replace with the following item: NS-1412-00100 "Flexible Post Traffic Delineators". Pay unit remains the same.

Delete Item No. NS-700 "Replacement of Flexible Post Traffic Delineators" in its entirety

and replace with the following item: NS-1412-00120 "Replacement of Flexible Post Traffic Delineators".

Pay unit remains the same.

Any other requirement found in Subsection 1412.01 not addressed above shall be applicable.

## SECTION 1413 – NS WHITE PREFORMED HEAT-APPLIED RETROFLECTIVE THERMOPLASTIC STRIPING MATERIAL

Subsection 1413.09 – Measurement and Payment (12/2020), page 1150

Delete Item No. NS-700 "White Preformed Heat-Applied Retroreflective Thermoplastic Striping Materials (Lines)" in its entirety and replace with the following item: NS-1413-00200 "White Preformed Heat-Applied

Retroreflective Thermoplastic Striping Materials (Lines)". Pay unit remains the same.

Delete Item No. NS-700 "White Preformed Heat-Applied Retroreflective Thermoplastic Striping Materials (Symbols)" in its entirety

and replace with the following item: NS-1413-00220 "White Preformed Heat-Applied Retroreflective Thermoplastic Striping Materials (Symbols)".

Pay unit remains the same.

Any other requirement found in Subsection 1413.09 not addressed above shall be applicable.

## SECTION 1414 – NS DYNAMIC MESSAGE SIGN UNIT

#### Subsection 1414.01 – General (12/2020), page 1152

Delete Item No. NS-713 "Dynamic Message Sign Unit" in its entirety and replace with the following item: NS-1414-00001 "Dynamic Message Sign Unit".

Pay unit remains the same.

Any other requirement found in Subsection 1414.01 not addressed above shall be applicable.

## SECTION 1415 – NS NAVIGATIONAL CLEARANCE GAUGE (MOUNTED)

#### Subsection 1415.05 - Payment (12/2020), page 1153

Delete Item No. NS-729 "Navigational Clearance Gauge (Mounted)" in its entirety and replace with the following item: NS-1415-00001 "Navigational Clearance Gauge (Mounted)".

Pay unit remains the same.

Any other requirement found in Subsection 1415.05 not addressed above shall be applicable.

## SECTION 1416 – NS NAVIGATIONAL LIGHTING (TEMPORARY)

Subsection 1416.05 – Payment (12/2020), page 1154

Delete Item No. NS-730 "Navigational Lighting (Temporary)" in its entirety and replace with the following item: NS-1416-00001 "Navigational Lighting (Temporary)".

Pay unit remains the same.

Any other requirement found in Subsection 1416.05 not addressed above shall be applicable.

#### SECTION 1417 – NS VIBRATION MONITORING

Section 1417 with the following: (12/2020), page 1155

Delete the contents of this section and substitute the following:

## Section 1417 NS Vibration Monitoring

**1417.01 DESCRIPTION.** This work consists of monitoring the ground or structure vibration caused by pile driving operations; heavy construction equipment operations, structure demolition, and other know sources of vibrations during construction activities. Locations and structures to be monitored shall be in accordance with the plan details, and the specifications. It shall include all labor, materials, and equipment necessary to complete the work.

**1417.02 MATERIALS.** Monitoring equipment shall directly measure particle velocity (rate of ground movement) in three mutually perpendicular directions (longitudinal, transverse and vertical) and be capable of recording the vector sum of these three measurements to an accuracy of 0.01 in/sec. In addition, the monitoring equipment shall be capable of producing a continuous written record of all measurements taken and the location of each station shall be recorded.

**1417.03 VIBRATION MONITORING PLAN.** When an item is included in the Contract for vibration monitoring, submit a Vibration Monitoring Plan to the Project Engineer for review at least 30 calendar days prior to commencing pile driving activities or construction activities that may produce vibrations. Describe how vibration monitoring will be performed, any equipment to be used, the schedule, and how the data and information will be reported. Comply with the plans for the limits and features to be monitored. Plan limits may be extended and features added by the Project Engineer. Show survey limits and features to be monitored.

Do not begin pile driving operations until acceptance of the Vibration Monitoring Plan.

Upon completion of pile driving operations, submit to the Project Engineer for record a comprehensive report for each feature monitored during the pile driving operations.

**1417.04 PRE-CONSTRUCTION SITE SURVEY.** Submit to the Project Engineer for review the Pre-construction Site Survey. Do not begin pile driving activities or construction activities that may produce vibrations until acceptance of the survey.

**1417.05 VIBRATION MONITORING REPORT.** Submit to the Project Engineer for review the Vibration Monitoring Report in accordance with 804.12.7 upon completion of

pile driving activities or construction activities that may cause vibrations. Acceptance of the work will be contingent on acceptance of the Vibration Monitoring Report.

**1417.06 POST-CONSTRUCTION SITE SURVEY.** Submit to the project engineer for review the post-construction site survey upon completion of pile driving activities or construction activities which may create vibrations. Acceptance of the work will be contingent on acceptance of the post-construction site survey.

**1417.07 VIBRATION MONITORING.** Perform vibration monitoring in and around sensitive features as indicated in the Vibration Monitoring Plan, the Contract or as directed by the Project Engineer. Sensitive features may include archaeological sites, historic features, utilities, instruments, structures, etc.

Use the services of a testing lab and a vibration specialist engineer, acceptable to the Project Engineer to develop the vibration monitoring plan and conduct seismic monitoring of vibrations during pile driving and other heavy equipment operations in areas that are not normally subjected to such operations. Render complete reports and interpretations of the data obtained including the possible effects of the measured vibrations on adjacent and surrounding structures. Acquire baseline vibration data for a period of at least 24 hours prior to beginning construction activities.

Perform vibration monitoring during Test Pile and Indicator/Production Pile driving operations to verify that vibrations from construction activities are below required threshold values. Modify construction methods as necessary to stay below threshold values.

Peak particle velocity (PPV) is the maximum rate of change of position of a soil particle with respect to time, measured on the ground. The velocity magnitude is given in units of inches per second.

Frequency of vibration is the number of oscillations that occur in 1 second. The frequency units given are in hertz (cycles per second).

Provide seismic monitoring of vibrations during pile driving and other heavy equipment operations in areas subjected to such operations as specified on the plans. Use an independent third party Louisiana registered professional engineer to provide complete reports and interpretations of the data obtained including the possible effects of the measured vibrations on adjacent and surrounding structures.

**1417.08** EQUIPMENT AND INSTRUMENTATION. Provide seismograph(s) with self-triggering units(s), accepted by the Project Engineer, and capable of recording three mutually perpendicular components (longitude, transverse, and vertical) of ground motion time histories, in terms of particle velocity. Provide units capable of reporting the frequency as well as the peak values for all vibration time histories.

The seismographs shall be Type I waveform recorders. It provides a particle velocity wave form or time history of the recorded event, sometimes in conjunction with peak event information. Independent chart recorders with separate motion transducers can be used in place of "stand-alone" monitors like seismographs when accepted by the Project Engineer.

**1417.09 NUMBER AND LOCATION.** Place seismographs and ground transducers in the ground outside and adjacent to the structure(s) or feature(s) to be monitored on the side facing the construction activity. Monitor structure(s) in accordance with the Vibration Monitoring Plan, the Contract, and as directed by the Project Engineer. Exact transducer number and locations shall be as directed by the Louisiana registered professional engineer.

Vibration monitoring distance (VMD) is the distance from the construction activity to the limits of monitoring. Comply with the limits shown in Table 1417-1, the Contract, and the Vibration Monitoring Plan.

	n Monitoring Distance (VMD)
Maximum Distance	Receptor
200 feet	Residential and Commercial Structures
500 feet	Historical Structures, Industrial Structures, Sensitive
	Features, Settlement Sensitive Ground, Utilities,
	Instruments, & Archeological Sites

Table 1417-1Vibration Monitoring Distance (VMD)

The number of seismographs required is dependent on the specific site. As a minimum, two seismographs of Type I are required on site. One seismograph will be used on site with one or more held in reserve for use at a specific complaint or potential complaint location.

**1417.10 TRANSDUCER** ATTACHMENT (COUPLING). Place transducers on the measurement surface and cover with heavy sandbags as directed by the Louisiana registered professional engineer.

**1417.11 PARTICLE VELOCITY CONTROLS AND THRESHOLD LIMITS.** Limit ground particle velocity so that structural damage due to pile driving is avoided. Measure Peak Particle Velocity (PPV) with instrumentation and methods described 1417.08. Peak particle velocity shall satisfy the following controls:

- (1) Limit PPV to values less than a specific control limit at the nearest structure, which is summarized in Table 1417-2 for different types of structures.
- (2) Record particle velocities in three mutually perpendicular axes. The maximum allowable peak particle velocity reading will be that of any of the three axes.

Linning Particle V	elocity
Structure and Condition	Limiting Particle Velocity (in/sec)
Historic Structures, Sensitive Features,	0.1
Sensitive Instruments, and Sensitive Utilities	
Residential Structures	0.5
Commercial and Industrial Structures	2.0
Bridges	2.0

Table 1417-2Limiting Particle Velocity

**1417.12 MONITORING GROUND VIBRATIONS.** Monitor ground vibrations at specified locations. All three components (longitudinal, transverse, and vertical) of particle velocity shall be measured and recorded. Background vibrations due to passing traffic or other activities should also be monitored prior to pile driving activities to establish a baseline.

Maintain a vibration monitoring log for the full length of pile penetration or heavy equipment operation and submit daily reports to the Project Engineer on vibrations measured.

**1417.13 APPLICATION OF THE PARTICLE VELOCITY CONTROL.** If 80percent of the limiting particle velocity shown in Table 1417-2 for the structure monitored is exceeded for any single axis, cease pile driving operations or the construction activity causing vibration, and notify the Project Engineer with a written report. Include in the report driving/operation information, vibration measurement data, and the proposed corrective action. The Project Engineer will make a determination before proceeding with pile driving operations or heavy equipment operation.

If 100 percent of the limiting particle velocity shown in Table 1417-2 for the structure monitored is exceeded or more, cease operations and notify the Project Engineer with a written report. Include in the report driving/operation information, vibration measurement data, and the proposed corrective action. Evaluate alternative pile installation equipment and techniques as well as having equipment operation in case corrective/mitigation action is not effective. Adjusting pile driving operations will be at no additional cost or time to the Department.

Do not commence with pile driving operations until the Project Engineer acknowledges in writing that a pile installation change has been implemented. Modify the Pile Installation Plan accordingly.

Notify the Project Engineer immediately if visual inspection indicates that damage to structure(s) may be occurring due to vibrations, or if property owners claim damage due to vibrations. Additional vibration monitoring or construction site survey may be required.

**1417.14 VIBRATION MONITORING REPORT.** Submit to the Project Engineer a digital copy and hard copy of a comprehensive report for each structure and feature monitored. Include in each report a discussion of the following:

- (1) Site conditions and descriptions, including a site map drawn to scale showing the location of the structures and/or sensitive features and the location of the construction activity.
- (2) Field procedures and equipment used, including seismograph manufacturer, model and unit serial number.
- (3) The name of the seismograph operator.
- (4) A digital and hard copy of all ground vibration time histories, in units of velocity.
- (5) A record summary of the maximum value of ground vibration in any one of three directions measured (longitudinal, transverse, or vertical), the frequency associated with the maximum value in hertz, and the measured distance between the seismograph and the construction activity.
- (6) Construction activities including construction equipment used, environmental conditions such as temperature and relative humidity ranges during construction, and other activities that are not construction related (train activity, heavy traffic, flooding, etc.).
- (7) Analysis of results with conclusions and recommendations.
- (8) Any additional inclusions to the report(s) requested by the Project Engineer.

**1417.15 ARCHIVING.** Maintain copies of all submittals for at least 5 years, or until all pending litigation is completed.

**1417.16 MEASUREMENT.** Vibration monitoring will be measured per day. A day is defined as a day in which the contractor drives piles for at least 6 hours.

**1417.17 PAYMENT.** Payment will be made at the contract unit price which includes all materials, equipment and labor necessary to complete the item.

(1) Vibration Monitoring. Payment for vibration monitoring will be made at the contract unit price which includes monitoring service, reporting and documentation of results, equipment, material, labor, and time necessary to complete the item.

Item No.	Pay Item	Pay Unit
NS-1417	Vibration Monitoring	Each

#### SECTION 1418 - NS RAISING and/or UNDERSEALING CONCRETE SLABS

#### Subsection 1418.06 - Measurement and Payment (12/2020), page 1160

Delete Item No. NS-602 "Raising and/or Undersealing Concrete Slabs (Polyurethane)" in its entirety and replace with the following item: NS-1418-00100 "Raising and/or Undersealing Concrete Slabs (Polyurethane)".

Pay unit remains the same.

Any other requirement found in Subsection 1418.01 not addressed above shall be applicable.

## SECTION 1419 - NS POLYESTER CONCRETE BRIDGE DECK OVERLAY

Subsection 1419.05 – Payment (12/2020), page 1170

Delete Item No. NS-805 "Polyester Concrete Bridge Deck Overlay" in its entirety and replace with the following item: NS-1419-00001 "Polyester Concrete Bridge Deck Overlay".

Pay unit remains the same.

Delete Item No. NS-805 "Polyester Concrete Placement" in its entirety and replace with the following item: NS-1419-00002 "Polyester Concrete Placement". Pay unit remains the same.

Any other requirement found in Subsection 1419.01 not addressed above shall be applicable.

## SECTION 1420 – NS BRICK RED CONCRETE STAIN SEALER:

<u>Section 1420 – Brick Red Concrete Stain Sealer (12/2020), page 1170</u> Insert the following section:

## Section 1420 NS Brick Red Concrete Stain Sealer

**1420.01 DESCRIPTION.** This item consists of furnishing all materials and labor for application of brick red concrete stain sealer to the cast-in-place raised Class A concrete roundabout. In addition, this item consists of all materials and labor for cleaning and preparation of the concrete surface to prior to application. Work shall be done in accordance with the LCG Standard Specifications for Roads, Drainage, Bridges and other Infrastructure Improvements unless otherwise specified.

**1420.02 MATERIALS/TECHNICAL INFORMATION.** Concrete stain sealer shall be a pigmented solvent-based acrylic concrete stain and sealer in Brick Red color such as INCRETE Systems Brick Red Concrete Stain Sealer or approved equal.

Typical Engineering Data (results do	eveloped under laboratory
conditions	
Drying time <sup>1</sup> at 73 <i>P</i> (22.7C), 50% RH	1-2 Hours
Adhesion to concrete	Excellent
Solvent resistance	Minimal
Solids content (wt)	36-42%
Min. Working Temperature	50°F (10°C)
Foot traffic	24 hours
Wheel traffic	48 hours
VOC content	588 g/L
Specific Gravity	1.0-1.1
Resistance to yellowing from UV	excellent
exposure	

1 Low concrete or air temperature and/or high relative humidity will extend drying time.

**1420.03 CONSTRUCTION REQUIREMENTS.** Once the concrete structure has been constructed as shown in the plans and specifications, the surface shall be prepared in accordance with the process described below. The concrete stain sealer shall then be applied to the concrete structure as shown in the plans and specifications, in accordance with the following specifications.

- (1) **Preparation:** Concrete should be at least 28 days old. All paint, oil, and grease must be removed. Old paint or coatings can be removed mechanically or chemically using UNI-STRIPP. Oil, grease, and dirt must be removed using GREASE-A-WAY, rinsed or pressure washed thoroughly, and the surface allowed to dry completely. Concrete must be etched, because a profiled surface is required. Etching should be done using a solution of 5 parts water to 1 part muriatic acid. Extremely hard or polished concrete may require a second application with a stronger solution. Rinse surface thoroughly with plenty of clean water and let dry completely. Ambient and substrate temperature must be between 50 °P to 90 °P (10 °C to 32 °C). Avoid application during rainy, foggy, or very humid weather when water condensation forms on the surface.
- (2) **Mixing:** Always stir stain well before use and during application to prevent settling and poor dispersion of colorant. A variable speed drill and a paddle mixer is the preferred method for mixing.
- (3) **Roller Application:** To apply the first coat, use a 114 in (6 mm) highquality, solvent-resistant roller when applying the stain. To help eliminate bubbling, saturate the roller thoroughly before starting and use a roller pan or a paint grid to remove excess stain. When applying the second coat, make sure the first coat has completely dried, usually a minimum of 4-6 hours.
- (4) **Spray Application:** Use an airless sprayer with a medium tip size and very low pressure. Do not use a typical plastic, garden-type sprayer. If conditions are windy or extremely hot, adjust technique to avoid "dry spraying" the

surface. A second coat should be sprayed only after the first coat is dry (usually a minimum of 4-6 hours).

**1420.04 MEASUREMENT.** Measurement of concrete stain sealer for coating of raised Class A concrete roundabout shall be by the square yard, theoretical measurement, based on the dimensions shown on the construction plans and application of two thin coats at 150 ft2/gal coverage and placed as directed by the Engineer.

**1420.05 PAYMENT.** Payment for concrete stain sealer as described above shall be at the contract unit price as shown and shall constitute full compensation for furnishing the stain sealer, preparing the concrete surface, and applying the stain sealer.

Item No.	Pay Item	Pay Unit
NS-1420	Brick Red Concrete Stain Sealer	Square Yard

# PART XV – APPENDIX

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## **APPENDIX D** (Reserved)

Appendix D LCG/LUS Street Light 72- Hour Burn Test Procedure (Arterial and Collector Streets) (12/18), page 1178

Add the following:

- a. Contractor will construct and install street lighting on LCG Public Works CID projects per plans and specifications (Lafayette City-Parish Consolidated Government / Lafayette Utilities System Street Lighting Standards guide).
- b. Upon street lighting system installation and when general contractor desires72 hour burn test contractor notifies engineer of record (consultant or PublicWorks engineer if designed in house) that street lighting test period be scheduled.
- c. Engineer proceeds to have an electrical engineer licensed in the State of Louisiana field inspect the system to ensure street lighting was installed in accordance with the project plans and specifications. A written report is required stating installation approved or rejected. Any minor punch list item(s) needing correction is listed on the report.
- d. If installation is approved engineer of record provides written request to Public Works project engineer street light system is ready to be energized system and that test period can commence. Copy of the electrical engineer report must be included with the request. Main breaker must be off (contractor's responsibility) prior to LUS connecting power.
- e. Public Works will notify LUS Power Marketing to hook up system for test.
- f. LUS Power Marketing hooks up and notifies Public Works burn test can proceed.
- g. 72-hour burn test can proceed. Notification chain: Public Works Engineer of Record →General Contractor. Public Works must be notified when burn test commences.
- h. Public Works/LUS inspects system after 72 hour period with Public Works notifying engineer of record that test passed or failed. If test passes contractor returns to normal operation with breaker in off position; if test fails contractor corrects problem with repeat of above steps.
- i. When LCG accepts and opens road for public use Public Works will contact LUS to put street lights in service.