STATE OF LOUISIANA
Competitive Contract

Vendor: 310008026
Company
DREHER CONTRACTING INC
1115 ELM ST
BASTROP LA 71220

T Number:
Version: 1
LAPS Contract: No
Fiscal Year: 2014
Min.Ord.Value: 0.00
Distributor Contract: No
PCard:No
Co-op Agreement:Yes

Buyer Information
Name: DEBORAH ROCK
Tel Number: 225-379-1410
Email: deborah.rock@la.gov

Contract number: 4400004368
Description: DOTD Asphaltic Mixture F/Hot Application

SEBD Vendor: No
SEHI Vendor: No
VSE Vendor: No
DVSE Vendor: No
Contract Valid Dates:
09/01/2013 - 02/28/2014

Supplier Text: DELIVERY: 1 Day ARO

THIS IS NOT AN ORDER TO SHIP OR BEGIN SERVICE. A PURCHASE ORDER MUST BE ISSUED BEFORE YOU ARE AUTHORIZED TO SHIP (OR BEGIN SERVICE).

THIS IS NOTICE THAT THE CONTRACT REFERENCED ABOVE HAS BEEN AWARDED TO YOU BASED ON THE BID (OR PROPOSAL) SUBMITTED. ALL TERMS, CONDITIONS AND SPECIFICATIONS OF THE SOLICITATION WILL APPLY TO ALL ORDERS.

Contract to furnish Asphaltic Mixture for Hot Application. Contract is for a period of six months beginning September 1, 2013 and ending February 28, 2014.

Notice to Vendor:

Line	Material No. / Supplier Part No.	Description	Prod. Cat.	UOM	Net Price	Discount
1	11505	ASPHALTIC MIXTURE,F/HOT APPL,REGULAR DOTD SPEC MS 164-002, 2/97	30121500	TON	87.25000	

Recommending Approval: _____ **Approved by:** _____

Line	Material No. ---------- Supplier Part No.	Description	Prod. Cat.	UOM	Net Price	Discount
		PLANT LOCATION: Bastrop PLANT CERTIFICATION CODE: H512				

Standard Terms and Conditions

1. THIS IS NOT AN ORDER TO SHIP (OR BEGIN SERVICE). A CONTRACT RELEASE OR PURCHASE ORDER MUST BE ISSUED BEFORE YOU ARE AUTHORIZED TO SHIP (OR BEGIN SERVICE).

2. THIS IS NOTICE THAT THE CONTRACT REFERENCED ABOVE HAS BEEN AWARDED TO YOU BASED ON THE BID (OR PROPOSAL) SUBMITTED. ALL TERMS, CONDITIONS, AND SPECIFICATIONS OF THE SOLICITATION WILL APPLY TO ALL ORDERS.

3. ANY AGENCY AUTHORIZED TO PURCHASE FROM THIS CONTRACT MUST ISSUE AN ORDER AND REFERENCE THE CONTRACT NUMBER, LINE NUMBER AND COMMODITY ITEM NUMBER FOR EACH ITEM.

4. CHANGES IN ITEMS TO BE FURNISHED ARE NOT PERMITTED (UNLESS APPROVED BY THE ISSUING AGENCY PRIOR TO DELIVERY). PRIOR APPROVAL MUST ALSO BE OBTAINED BEFORE DISTRIBUTORS CAN BE ADDED OR DELETED.

5. IF A DISTRIBUTOR LIST WAS SUBMITTED, CONTRACTOR MUST SEND COPIES OF THIS AWARD TO EACH DISTRIBUTOR.

6. QUANTITIES LISTED ARE ESTIMATED AND NO QUANTITIES ARE GUARANTEED (UNLESS "COMMITTED VOLUME" IS SPECIFICALLY STATED). CONTRACTOR MUST SUPPLY ACTUAL REQUIREMENTS ORDERED AT THE CONTRACT PRICE AWARDED.

7. COMPLIANCE WITH CIVIL RIGHTS LAWS.

   THE CONTRACTOR AGREES TO ABIDE BY THE REQUIREMENTS OF THE FOLLOWING AS APPLICABLE: TITLE IV AND TITLE VII OF THE CIVIL RIGHTS ACT OF 1964, AS AMENDED BY THE EQUAL OPPORTUNITY ACT OF 1972, FEDERAL EXECUTIVE ORDER 11246,THE FEDERAL REHABILITATION ACT OF 1973, AS AMENDED, THE VIETNAM ERA VETERAN'S READJUSTMENT ASSISTANCE ACT OF 1974, TITLE IX OF THE EDUCATION AMENDMENTS OF 1972, THE AGE ACT OF 1975, AND CONTRACTOR AGREES TO ABIDE BY THE REQUIREMENTS OF THE AMERICANS WITH DISIBILITIES ACT OF 1990. CONTRACTOR AGREES TO NOT TO DISCRIMINATE IN ITS EMPLOYMENT PRACTICES, AND WILL RENDER SERVICES UNDER THIS AGREEMENT AND ANY CONTRACT ENTERED INTO AS A RESULT OF THIS AGREEMENT, WITHOUT REGARD TO RACE, COLOR, RELIGION, SEX, NATIONAL ORIGIN, VETERAN STATUS, POLITICAL AFFILIATION, OR DISABILITIES. ANY ACT OF DISCRIMINATION COMMITTED BY CONTRACTOR OR FAILURE TO COMPLY WITH THESE STATUTORY OBLIGATIONS WHEN APPLICABLE SHALL BE GROUNDS FOR TERMINATION OF THIS AGREEMENT AND ANY CONTRACT ENTERED INTO AS A RESULT OF THIS AGREEMENT.

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SPECIAL CONDITIONS AND SPECIFICATIONS
FOR FURNISHING
ASPHALTIC MIXTURE FOR HOT APPLICATION

Please read the following instructions and special conditions and specifications carefully. Any deviation may cause your bid to be disqualified. All bid prices must be typed or written in ink. Any corrections or other forms of alteration to unit prices should be initialed by the bidder. This bid is to be manually signed in ink. Failure to do so will cause rejection of your bid.

CONTRACT

Contract for furnishing Asphaltic Mixture for Hot Application as requested in accordance with provisions set forth for the six (6) month period as specified herein.

The continuation of this contract is contingent upon the appropriation of funds to fulfill the requirements of the contract by the legislature. If the legislature fails to appropriate sufficient monies to provide for the continuation of a contract, or if such appropriation is reduced by the veto of the Governor or by any means provided in the Appropriations Act or Title 39 of the Louisiana Revised Statutes of 1950 to prevent the total appropriation for the year from exceeding revenues for that year, or for any other lawful purpose, and the effect of such reduction is to provide insufficient monies for the continuation of the contract, the contract shall terminate on the date of the beginning of the first fiscal year for which funds are not appropriated.

PURPOSE AND INTENTION

The purpose and intention of this invitation to bid is to comply with State laws and establish a contract between the Department and the successful bidder(s), whereby the Department may purchase Asphaltic Mixture for Hot Application from the contractor as shown herein.

CONTRACT PROPOSAL FORM

The contract form in its entirety shall become a part of the contract upon execution by the Department. Bidder shall fill in this form completely and shall sign in the appropriate places and return to the Procurement Section of the Department of Transportation and Development before the time set for receiving contracts on the front hereof. Bidders are advised that bids mailed through the U.S. Postal Service to our post office box are received at the Baton Rouge Main Post Office and are picked up by the Division of Administration and then routed to the Department of Transportation and Development; therefore, extra delivery time is needed in order for bids to be received and time-stamped in our office before the bid deadline.

Bids may be mailed through the U.S. Postal Service to our box at:

DOTD Procurement Section

Headquarters Administration

4th Floor East Wing S-447

P. O. Box 94245

Baton Rouge, LA 70804-9245

Bids may be delivered by hand or courier service to our physical location as follows:

DOTD Procurement Section

Headquarters Administration

4th Floor East Wing S-447

1201 Capitol Access Road

Baton Rouge, LA 70802

Bidders are solely responsible for ensuring that its courier service provider makes inside deliveries to our physical location. The DOTD Procurement Office is not responsible for any delays caused by the bidder's chosen means of delivery. Bidder is solely responsible for the timely delivery of its bid. Failure to meet the bid opening date and time shall result in rejection of the bid. **Note: The time set for receiving proposals is Central Standard Time (CST).**

SCOPE OF WORK

Scope of work includes labor, materials, and services required to produce Asphaltic Mixture for Hot Application which is acceptable to the Department of Transportation and Development.

QUANTITIES

No specific quantities are given or guaranteed, only such Asphaltic Mixture for Hot Application as required by the Department of Transportation and Development during the contract period will be ordered.

The successful bidder must supply at bid price actual quantities as ordered whether the total of such quantities are more or less than the quantities shown in the Bid Schedule.

Both regular and polymer modified asphaltic mixture will be available for use by the Department. It will be at each District Administrator's option of which product to purchase.

SPECIFICATIONS

All Asphaltic Mixture for Hot Application must be in accordance with DOTD Specification No. MS 164-002, Dated February 4, 1997 and Polymer Modified Asphaltic Materials, DOTD Specification No. MS 164-004, Dated November, 1995. Materials failing to meet the specifications will be paid according to the price adjustment schedule shown. If performance of the materials continues to be unsatisfactory, the Department reserves the right to cancel the contract.

PRE-QUALIFICATION REQUIREMENTS

Bidder's plant for supplying Asphaltic Mixture for Hot Application must be certified prior to award. After the award of the contract, it will be the responsibility of each District to make sure the bidder's plant is still certified before material is picked up at various plant locations throughout the life of the contract.

STANDARDS OF QUALITY

Any product or service bid shall conform to all applicable Federal and State laws and regulations and the specifications contained herein.

GUARANTEE AND LIABILITY

The contractor accepts the following guarantees:

(1) Guarantee that the supplies delivered are free from defects in design and construction.

(2) Guarantee that the supplies are the manufacturer's standard design in construction and that no changes or substitutions have been made in the items listed in this contract.

The contractor holds and saves the State, its officers, agents, and employees harmless from liability of any kind, including cost and expenses on account of any patented or unpatented invention, articles, devices or appliances manufactured or used in the performance of this contract, including use by the government.

The contractor agrees to replace free of charge all defective equipment, materials or supplies delivered under this contract. All transportation charges covering return and replacement shall be paid by the contractor.

PRICES

All prices quoted shall be in the unit of measure as shown on the Bid Schedule and shall remain firm for the contractual period. Unit price bid must not exceed two digits to right of decimal point. Unit price submitted beyond two digits will be rounded off to the nearest fourth digit.

Prices quoted shall include all costs incidental to any license or patent that may be held by any company processing the materials bid on and the dealer agrees to hold the Department of Transportation and Development harmless from any claims, suits, costs or penalties for infringement or use of licensed or patented products.

BID OPENING

Bids will be publicly opened and read but no information or opinions concerning the ultimate contract award will be given at the bid opening or during the evaluation process. Bids may be examined 72 hours after bid opening. Information pertaining to completed files may be secured by visiting the Department of Transportation and Development during normal working hours.

BASIS OF AWARD

The contract for furnishing Asphaltic Mixture for Hot Application herein specified for the period indicated shall be awarded to the bidder(s) offering Asphaltic Mixture for Hot Application at plants which have been certified by the Department prior to award and complying to all details of this contract proposal as determined by the DOTD Procurement Director. It will be up to the District Administrator to select the certified plant closest to the jobsite based upon the unit price bid and the current mileage factor. Mileage will be computed on the basis of $.15 per mile for the first 41 miles, then $.75 per mile thereafter.

Aggregates must be from an approved source listed on Qualified Products List No. 2. A copy of Qualified Products List No. 2 is attached for your reference.

Polymer Modified Asphalt PAC-40HG and PAC 30 must be from an approved source listed on Qualified Products List No. 41. A copy of Qualified Products List No. 41 is attached for your reference.

Plants which are established and certified during the life of the contract may be considered for supplemental award based on factors which are advantageous to the Department of Transportation and Development. The decision will be based on the best interest of the Department as determined by the DOTD Procurement Director. Awards will not be made if plant is within a radius of ten (10) road miles of a plant location which was awarded at the original contract award.

Discounts will not be considered in determining low bidder.

MATERIAL AVAILABILITY

The successful bidder will be required to have on hand or immediately available an adequate supply of Asphaltic Mixture for Hot Application in order to meet the Department's requirements, as ordered, where ordered, during the life of the contract.

Contractors must be in a position to furnish Asphaltic Mixture for Hot Application as requested by District Administrator.

It will be the responsibility of the contractor to give the District Administrator a forty-eight (48) hour notice as to when the plant will be out of operation and/or in the event that the plant is shut down permanently.

PURCHASE ORDERS

Purchase Orders will be issued by the Department of Transportation and Development. Each Purchase Order will state an actual or estimated quantity that is required and all other pertinent data necessary to assist the contractor to make proper delivery. In no event shall delivery be made without proper authorization.

INVOICES

Upon each delivery and its acceptance by the Department, the contractor shall bill the Department by means of an invoice and such invoice shall make reference to the Purchase Order Number on which delivery was made.

At the time of delivery, the contractor is to make a delivery receipt on his own form showing complete description, the exact quantity delivered, price and extension. Such delivery ticket must make reference to the Purchase Order Number.

Invoices shall be submitted by the contractor in triplicate directly to the address shown on the Purchase Order.

Invoice price must agree with contract price.

PAYMENTS

Invoices will be paid by the Department within the discount period or within thirty calendar days from receipt of correct invoice. If contractor proposes a discount, discount period will start from receipt of correct invoice.

SAMPLING AND ACCEPTANCE

All Asphaltic Mixture for Hot Application shall be sampled and accepted in accordance with the standard method of sampling asphaltic material as outlined in the Department's Sampling Manual.

TAXES

The contractor is responsible for including all applicable taxes in the bid price.

State Agencies are exempt from all State and Local Sales and Use Taxes.

REJECTION OF BIDS

The Department of Transportation and Development reserves the right to reject any and all bids and/or waive any informalities.

TERMINATION OF CONTRACT

The Department reserves the right to terminate this contract prior to the end of the contract period upon giving a ten (10) day written notice to the contractor for unsatisfactory performance, unsatisfactory delivery, unsatisfactory service, failure to meet specifications, misrepresentation by the contractor, fraud, collusion, conspiracy or other unlawful means of obtaining any contract with the State, conflict of contract provisions with constitutional or statutory provisions of State or Federal Law, and/or any breach of contract.

The Department reserves the right to terminate this contract prior to the end of the contract period upon giving a thirty (30) day written notice to the contractor if it is considered in the best interest of the Department.

Successful contractor may request cancellation of this contract upon giving thirty (30) day written notice to the DOTD Procurement Director.

All orders delivered prior to the effective date of such termination shall be paid for by the Department in accordance with the terms of the contract, whereupon all obligations of both parties to the contract shall cease.

In the event contract contains a provision entitled "Guarantees" such guarantees shall apply to all items delivered prior to termination.

BIDDERS CERTIFICATION OF EEOC AND ADA COMPLIANCE

The Department of Transportation and Development and the State of Louisiana is an equal opportunity employer and looks to its contractors, subcontractors, vendors and suppliers to take affirmative action to affect this commitment in its operations.

By submitting and signing this bid, bidder certifies that he agrees to abide by the requirements of the following as applicable: Title VI and VII of the Civil Rights Act of 1964, as amended by the Equal Opportunity Act of 1972, Federal Executive Order 11246, Federal Rehabilitation Act of 1973, as amended, the Vietnam ERA Veteran's Readjustment Assistance Act of 1974, Title IX of the Education Amendments of 1972, The Age Act of 1975, and bidder agrees to abide by the requirements of the Americans with Disabilities Act of 1990.

Bidder agrees not to discriminate in its employment practices and will render services under any contract entered into as a result of this solicitation without regard to race, color, religion, sex, sexual orientation, national origin, veteran status, political affiliation, or disabilities. Any act of discrimination committed by bidder, or failure to comply with these statutory obligations when applicable shall be grounds for termination of any contract entered into as a result of this proposal.

Bidder agrees to keep informed of and comply with all Federal, State and local laws, ordinances and regulations which affect his employees or prospective employees.

For good cause and as consideration for executing this contract, the contractor hereby conveys, sells, assigns and transfers to the State of Louisiana all rights, title and interest in and to all causes of action it may now or hereafter acquire under the Antitrust Laws of the United States and the State of Louisiana, relating to the particular goods or services purchased or acquired by the State of Louisiana pursuant to the Department of Transportation and Development.

COOPERATIVE PURCHASE AGREEMENT

State Agencies, Political Subdivisions of the State and Quasi State Agencies may be permitted to purchase from contracts made by the Department of Transportation and Development's Procurement Section.

The Bidder may, at his option, accept this Cooperative Purchase Agreement so that any contract awarded under this proposal will apply to other State Agencies, Political Subdivisions or Quasi Agencies.

Bidder hereby accepts this Cooperative Purchase Agreement so that any contract awarded will apply to other State Agencies, Quasi State Agencies or other Political Subdivisions of the State.

_____ Yes, I agree to accept Cooperative Purchase Agreement

_____ No, I do not accept Cooperative Purchase Agreement

Failure to mark "no" on the above will constitute acceptance of this Cooperative Purchase Agreement to other State Agencies, Political Subdivisions of the State and Quasi State Agencies.

Choosing not to accept this Cooperative Purchase Agreement will have no bearing on the award of the contract.

ORDERS: Other State Agencies are to issue contract release orders/purchase orders for the items required, as and when needed.

Political subdivisions of the State and Quasi Agencies who have been authorized by the Office of State Purchasing to purchase from contracts made by the Department of Transportation and Development are to issue their regular purchase orders directly to the Contractor, making reference to the Contract Number, Item Number (if applicable) and Contract Expiration Date.

CONTRACT ADMINISTRATION: The Department of Transportation and Development will not monitor, administer or resolve any discrepancies, controversies, invoicing or payments related to this contract on orders placed by other State Agencies, Political Subdivisions or Quasi Agencies.

Controversies between the Department of Transportation and Development and a Contractor will be resolved by the DOTD Procurement Director.

Controversies between other State Agencies and a Contractor will be resolved by the Director of State Purchasing in accordance with R.S. 39:1673.

It will be the responsibility of the ordering entity to correspond directly with the Contractor.

DELIVERY: Vendors accepting the Cooperative Purchase Agreement understand and agree that deliveries to other State Agencies, Political Subdivisions or Quasi Agencies will be on a statewide basis.

SAP Material Master No. 11505
(Stock Number 24-05-5120)

MS Spec. 164-002
Dated February 1997
4 Pages

LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SPECIFICATIONS

ASPHALTIC MIXTURES FOR HOT APPLICATION

DESCRIPTION:

The material shall consist of a mixture of aggregates and asphalt with additives.

Type 1M (Hard Rock) - Mix shall consist of one of the following combinations: crushed gravel, crushed stone, crushed slag, or a combination of these materials; sand; mineral filler; and asphalt with additives.

Type 6M (Sand) – Mix shall consist of crushed gravel, stone or slag; sand; mineral filler; and asphalt with additives.

COMPOSITION AND PROPORTIONING:

Aggregates and asphaltic material shall be combined in such proportions that the mixtures shall meet the following requirements:

Type 1M	% By Weight
Aggregates	93.0 – 95.0
Asphalt	5.0 – 7.0

Type 6M	% By Weight
Aggregates	91.0 – 94.0
Asphalt	6.0 – 9.0

MATERIALS:

Test methods shall be latest in effect.

(a) Aggregates: All aggregates, except fine sand, shall be from an approved source on Qualified Products List No. 2. Crushed aggregate shall have a minimum of 70% crushed faces as determined in accordance with DOTD TR 306.

Aggregates shall conform to the following gradation when tested in accordance with DOTD TR-113.

U. S. Sieve	% Passing By Wt. Type 1M	Type 6M
1 Inch	100	---
3/4 Inch	98 – 100	---
1/2 Inch	90 – 100	---
3/8 Inch	70 – 100	100
No. 4	50 – 75	85 – 100
No. 10	32 – 55	50 – 75
No. 40	16 – 33	24 – 40
No. 80	10 – 20	16 – 28
No. 200	6 – 12	8 – 18

Any approved DOTD wearing course mixture that does not contain PAC-30 or PAC-40HG polymer modified asphalt cements may be substituted for Type 1M mix.

(b) Asphalt: Asphaltic material shall be Grade AC 30 asphalt cement from a source listed on Qualified Products List No. 41, and conforming to Table 1, except as provided elsewhere herein.

(c) Additives: Anti-stripping additive shall be an approved product on Qualified Products List No. 57 added at approximately 0.5% by weight of asphalt cement.

RECYCLED MIX:

At the producer's option, reclaimed asphaltic concrete may be used in the mixtures. Mixtures containing reclaimed asphaltic concrete will be subject to the requirements specified herein with the following modifications.

All asphaltic concrete mixtures (except final wearing course mixtures for travel lanes) may contain a maximum of 30% reclaimed asphaltic concrete; this includes mixtures for base course, binder course, and wearing course for shoulders and temporary detour roads. The final wearing course mixture for travel lanes, with or without friction course, may contain a maximum of 15% reclaimed asphaltic concrete; however, such reclaimed material shall contain no expanded clay aggregate.

Reclaimed material shall be stockpiled separately from other materials at the plant and will be subject to approval prior to use. Such stockpiles shall be uniform and free of soil, debris, foreign matter and other contaminants. Reclaimed materials that cannot be readily broken down in the mixing process or that adversely affect paving operations shall be crushed to pass a 2" sieve prior to use.

Mixing shall be performed in either a batch plant or a dryer-drum plant; however, the plant shall be modified as required to permit recycling operations in conformance with air pollution standards. A separate cold feed system, including weight indicating apparatus, shall be provided for recycled material.

The quantity of reclaimed asphaltic concrete used shall be at the contractor's option and shall be designated in the job mix formula. If mixtures contain less than 20% reclaimed materials, Grade AC-30 asphalt cement shall be used. Grade AC-10 asphalt cement shall be used in mixtures containing from 20 to 30% reclaimed materials. The mixture produced shall conform to requirements for the type mixture specified. The Department reserves the right to require the contractor to reduce the percentage of reclaimed asphaltic concrete such that control and acceptance criteria are consistently maintained.

New aggregates shall be dried and heated to a sufficiently high temperature to produce a mixture with a discharge temperature of at least 280° F.

PREPARATION AND PROCESSING OF MIXTURES:

Preparation and processing of mixtures shall be in accordance with Sections 501 and 503 of the Standard Specifications. Plants supplying asphaltic mixtures must be certified by the District Laboratory.

MEASUREMENT AND PAYMENT:

Asphaltic concrete will be measured and paid for by the ton of 2,000 pounds from printed weights as provided in Section 503.

If asphaltic material does not conform to specifications, the final test results will be applied to the appropriate schedule of Table 1 and any adjustment in unit price will be made as specified. If the test results are such that a penalty would result from more than one test value, only the price adjustment for the greatest reduction will apply.

SAMPLING:

Sampling shall be in accordance with the Materials Sampling Manual.

TABLE 1
ASPHALT CEMENT, MODIFIED AASHTO GRADES AC-10 AND AC-30

	Test Method	Percent of Contract Unit Price/Ton Of Asphaltic Concrete					
		AC-10[1]			AC-30[1]		
		Specifications	Deviations		Specifications	Deviations	
		100	95	90 or Reject[2]	100	95	90 or Reject[2]
Penetration, 25°C (77°F), 100 g, 5 sec.	AASHTO T-49	85+[3]		79-	55+[4]		49-
Viscosity, 135°C (275°F), SSF[5]	ASTM E-102	125+			175+		
Viscosity, 135°C (275°F), cSt	AASHTO T-201	250+	200-249	199-	350+	300-349	299-
Viscosity, 60°C (140°F), Poises	AASHTO T-202	1000±200		799- 1201+	3000±600		2399- 3601+
Solubility in Trichloroethylene, %	AASHTO T-44	99.0+			99.0+		
Flash Point, COC, °C (°F)	AASHTO T-48	218(425)		217(424)-	232(450)+		231(449)-
Tests on Residue from Thin Film Oven Test: Viscosity, 60°C (140°F), Poises	AASHTO T-202	4000-		4001+	12000-		12000+
Ductility, 25°C (77°F), 5 cm/min.	AASHTO T-51	100+	70-99	69-	100+	70-99	69-
Thin Film Oven Test, % loss @ 325°F, 5 hr	AASHTO T-179	0.50-		0.51+	0.50-		0.51+
Spot Test (Standard Naptha Solvent)	AASHTO T-102	Neg		Pos	Neg		Pos

[1] All values are inclusive.

[2] At the option of the Department.

[3] For samples obtained at point of delivery, the penetration requirement shall be 80+.

[4] For samples obtained at point of delivery, the penetration requirement shall be 50+.

[5] For samples obtained at point of delivery, the viscosity @ 275° F may be determined using ASTM E 102.

SAP Material Master No. 11506
(Stock Number 24-05-5125)
SAP Material Master No. 11507
(Stock Number 24-05-5130)

MS Spec. 164-004
Dated November 1995
7 Pages

LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
SPECIFICATIONS

POLYMER MODIFIED ASPHALTIC MATERIALS

DESCRIPTION:

These specifications cover polymer modified asphaltic materials for road maintenance.

GENERAL REQUIREMENTS:

Polymer modified asphalt shall be prepared by the refining of petroleum. It shall be uniform in character, free from water, and shall not foam when heated to 350°. Asphalt shall be from an approved source on Qualified Products List No. 41.

Storage tanks, piping, retorts, booster tanks, distributors and other equipment used in delivering, storing or handling asphaltic materials shall be kept clean and in good operating condition and shall be operated in such manner as to avoid contamination of the contents with foreign materials.

Test methods shall be the latest in effect in addition to the ones included in this specification. Final test results for polymer modified asphaltic materials will be applied to the proper table herein for conformance to specifications. Any deviation from the specifications will result in a payment adjustment as specified. If test results are such that a price adjustment would result from more than 1 test value, the payment adjustment for the greatest reduction shall apply.

The adjustment in pay for polymer modified asphaltic materials shall be applied only to samples taken at the point of delivery. Samples taken at the refinery shall conform to specification requirements; if the refinery sample fails to meet these requirements, the material will be rejected and shall not be shipped.

SAMPLING:

Sampling will be in accordance with the Materials Sampling Manual.

TABLE 1
POLYMER MODIFIED ASPHALT CEMENTS[1]

PROPERTY	AASHTO TEST METHOD	PAC-40HG			PAC-30		
		Specification	Deviation		Specification	Deviation	
APPLICABLE TO ASPHALTIC CONCRETE		100	95	90 or Remove	100	95	90 or Remove
Penetration @ 25° C, 100 g., 5 sec.	T 49	50-75[7]	---	44-81+	50+[8]	---	44-
Viscosity[2], @ 60° C, Poise	T 202[9]	4,000+	---	3,400-	3,000+	---	2,400-
Viscosity @ 135° C, cSt	T 201[9]	2,000-	2,001-2,050	2,051+	2,000-	2,001-2,050	2,051+
Flash Point, ° C	T 48	232+	---	230-	232+	---	230-
Solubility[3], %	T 44	99.0+	---	---	99.0+	---	---
Separation of Polymer[4] 163° C, 48 hours difference in R & B from top to bottom sample, ° F	---	4-	---	---	4-	---	---
Force Ductility[5] (f_2/f_1, 4° C, 5 cm/min., 30 cm elongation)	---	0.30+	---	0.29-	---	---	---
Force Ductility[5], 4° C, 5 cm/min., 30 cm elongation, lb	---	---	---	---	0.50+	---	0.49-
Test for Residue from Thin Film Oven Test Penetration Retention, %	T 49	50+	---	49-	50+	---	49-
Elastic Recovery[6], 25° C, 10 cm elongation, %	---	60+	---	59-	40+	---	39-

[1] The following specifications shall define either Polymer Modified Asphalt Cement materials preblended or the sampled base asphalt cement plus additive combined at the plant site.

[2] The absolute viscosity shall be run in a Modified Koppers vacuum capillary viscometer. Report the viscosity at a shear rate of 1 reciprocal second.

[3] 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 shall be considered as passing.

[4] Separation of Polymer Test - See following test method. To be used for preblended modified asphalt cement materials or batched and stored materials. This test will be for informational purposes only.

[5] For Force Ductility Test, see following test method for PAC-40HG. For PAC-30, the Force Ductility test shall conform to ASTM P-226-92.

[6] For Elastic Recovery Test - See the following test method.

[7] For samples obtained at the point of delivery, the penetration requirement shall be 45-80.

[8] For samples obtained at the point of delivery, the penetration requirement shall be 45+.

[9] ASTM D 4957 may be used to determine viscosity.

TABLE 2
ANIONIC EMULSIFIED POLYMER MODIFIED ASPHALT

PROPERTY	TEST METHOD	SS-1P		
		SPECIFICATION	DEVIATION	
		100	80	50 or Remove
Viscosity, Saybolt 25° C, SSF	AASHTO T 59	20-100	10-19 101-150	9- 151+
Storage Stability, 24 Hour, %	AASHTO T 59	1.0-	---	---
Sieve Test, retained on the No. 20, %	AASHTO T 59	0.1-	---	---
Residue by Distillation[1], 250° C	ASTM D 244	57+	---	56-
TESTS ON RESIDUE FROM DISTILLATION TEST:				
Penetration, 25° C, 100g, 5s	AASHTO T 49	100-200	88-99 201-212	87- 213+
Solubility, %	AASHTO T 44	97.5+	---	---
Force Ductility[2] f_2/f_1, 4° C, 5 cm/min	---	0.15+	---	0.14-
Elastic Recovery[3], 10° C, 20 cm elongation 60 min, %	---	30+	---	29-

[1] ASTM D 244 Residue by Distillation is modified to include a maximum of 204° C to be held for a period of 15 minutes.
[2] For Force Ductility test see the following test method.
[3] For Elastic Recovery test see the following test method.

TABLE 3
ANIONIC EMULSIFIED LATEX MODIFIED ASPHALT

PROPERTY	TEST METHOD	SS-1L		
		SPECIFICATION	DEVIATION	
		100	80	50 or Remove
Viscosity, Saybolt 25° C, SSF	AASHTO T 59	20-100	10-19 101-150	9- 151+
Storage Stability, 24Hour, %	AASHTO T 59	1.0-	---	---
Sieve Test, retained on the No. 20, %	AASHTO T 59	0.1-	---	---
Residue by Distillation[1], 204° C, %	ASTM D 244	57+	---	56-
TESTS ON RESIDUE FROM DISTILLATION TEST:				
Penetration, 25° C, 100g, 5s	AASHTO T 49	100-200	88-99 201-212	87- 213+
Ductility, 5 cm/min., 4° C	AASHTO T 51	50+	41-49	40-
Elastic Recovery[2], 10° C, 20 cm elongation 60 min, %	---	50+	---	49-
Softening Point, Ring & Ball, ° C	AASHTO T 53	50.0+	45.1- 49.9	45.0-

[1] ASTM D244, Residue by Distillation, Section 12, is modified as follows: The temperature on the lower thermometer shall be brought slowly to 204 ± 5° C and maintained at this point for 15 minutes. Generally, the distillation should be complete at this point and must be accomplished within a maximum of 60 minutes.

[2] For Elastic Recovery test see the following test method.

SEPARATION OF POLYMER TEST

1. Scope

1.1 The separation of polymer from asphalt cement during hot storage is evaluated by comparing the ring and ball softening points of top and bottom samples taken from a conditioned sealed tube of polymer modified asphalt. The conditioning consists of placing a sealed tube of polymer modified asphalt in a vertical position in a 325° F oven for a 2 day period.

2. Referenced Documents

2.1 AASHTO T 53 Softening Point of Asphalt (Bitumen) and Tar in Ethylene Glycol (Ring-and-Ball).

2.2 ASTM E 11 Specifications for Wire Cloth Sieves for Testing Purposes.

3. Apparatus

3.1 Aluminum Tubes - The tubes are used to hold the test sample during the conditioning. The cylinders are defined as 1 inch diameter by 5 1/2 inches length blind aluminum tubes.

3.2 Oven - An oven capable of maintaining 325 ± 10° F.

3.3 Freezer - A freezer capable of maintaining 20 ± 10° F.

3.4 Rack - A rack capable of holding the aluminum tubes in a vertical position in an oven or in the freezer

3.5 Shears (or spatula and hammer) - The shears (or spatula and hammer) shall be rigid and sharp to allow cutting of the tube containing the polymer modified asphalt when it is at low temperature.

4. Procedure

4.1 Place the empty tube, sealed end down, in the rack.
4.2 Carefully heat the sample until sufficiently fluid to pour. Care should be taken to avoid localized overheating. Strain the melted sample through a No. 50 sieve conforming to ASTM E 11. After a thorough stirring, pour 50.0 g into the vertically held tube. Fold the excess tube over two times and crimp the seal.

4.3 Place the rack containing the sealed tubes in a 325 ± 10° F oven. Allow the tubes to stand undisturbed in the oven for a period of 48 ± 1 hour. At the end of the heating period, remove the rack from the oven and immediately place in the freezer, at 20 ± 10° F taking care to keep the tubes in a vertical position at all times. Leave the tubes in the freezer for a minimum of 4 hours to completely solidify the sample.

4.4 Upon removing the tube from the freezer, place the tube on a flat surface. With the shears (or spatula and hammer), cut the tube into three equal length portions. Place the top and bottom portions into separate marked beakers. Place the beakers in a 325 ± 10° F oven until sufficient fluid to remove the pieces of aluminum tube.

4.5 After a thorough stirring, pour the top and bottom samples into the appropriately marked rings of the ring and ball softening point test. Prepare the rings and apparatus as described in AASHTO T 53.

4.6 The top and bottom sample from the same tube should be run at the same time on the softening point test.

5. Report

5.1 Record the softening point of the top and bottom portions of the sample. Duplicate separation tests should be run.

FORCE DUCTILITY TEST

The force ductility test follows procedures as specified in ASTM D 113 - "Ductility of Bituminous Materials" with the following conditions and modifications:

(a) Temperature - 4° C

(b) Rate of Travel - 5 cm/min.

(c) The standard V-shaped sides for the specimen mold shall be replaced by straight-sided inserts of the same length, so that the specimen will contain a section 1 cm x 1 cm x 3 cm.

(d) A calibrated force adapter is placed on one end of the specimen mold, so that the tensile force can be determined at any point during the elongation.

The force ductility is defined as the force at 30 cm elongation (f_2) divided by the maximum force at the initial peak (f_1). Report the force ductility to the nearest hundredth (0.01).

ELASTIC RECOVERY

1. Ductilometer Temperature:

Polymerized Asphalt Cement	25° C
Emulsified Polymer or Latex Modified Asphalt	10° C

2. Procedure: Condition the ductilometer and samples to be tested at the temperature prescribed for that material. Prepare the brass plate, mold and briquet specimen in accordance with ASTM D 113, "Ductility of Bituminous Materials". The standard V-shaped sides for the specimen mold shall be replaced by straight-sided inserts of the same length, so that the specimen will contain a section 1 cm x 1 cm x 3 cm. With the specimen at the specified test temperature, place the specimen in the ductilometer and immediately elongate the specimen to 10 cm for Polymer Modified Asphalt Cement or 20 cm for Emulsified Polymer or Latex Modified Asphalt. The rate of pull shall be 5 cm/min, unless otherwise stated. For Polymer Modified Asphalt Cement, clip the sample approximately in half with scissors or other suitable cutting device immediately after reaching the 10 cm elongation. For Emulsified Polymer or Latex Modified Asphalt, allow the sample to remain in its elongated position for 5 ± 0.25 minutes after reaching the 20 cm elongation, then clip the sample approximately in half with scissors or other suitable cutting device. Let the severed sample remain in the ductilometer in an undisturbed condition for 1 hour. At the end of this time period, carefully move the traveling carriage back to a position where the severed ends of the specimen touch. Observe and record the elongation of the specimen with severed ends just touching each other.

3. Calculation: Calculate percent recover by the following formulas:

For Polymer Modified Asphalt Cement

$$\% \text{ Recovery} = \frac{10 - a}{10} \times 100$$

Where:

a = observed elongation after rejoining of sample, cm.

For Emulsified Polymer or Latex Modified Asphalt

$$\% \text{ Recovery} = \frac{20 - a}{20} \times 100$$

Where:

a = observed elongation after rejoining of sample, cm.

State of Louisiana
Department of Transportation and Development

Qualified Products List 2

AGGREGATES

Aggregates from the following sources have demonstrated the capability to conform to the quality requirements of Section 1003 of the Department's Standard Specifications for Roads and Bridges, except as noted.

*Superscript numbers placed **behind** the source, material, or column heading throughout this list indicate the existence of restrictions, exceptions, or special applications for sources and/or material. See 'Endnotes' and 'Notes' at the end of each section for legend and application.*

A. CHERT GRAVEL AND SILICA SAND

Chert gravels on this list have a Friction Rating of III when used as a coarse aggregate for Asphaltic Concrete. Friction Ratings are defined in Subsection 1003.06

1. IN-STATE SOURCES - BY DISTRICT

PRODUCT SOURCE CODE	SOURCE	SPECIFIC GRAVITY OF GRAVEL (SSD)[A-3]
	DISTRICT 03	
A307	Acadiana Home & Lawn, (Broussard) Eunice, LA	Sand Only
A305	B & D Sand Pit (Parks)	Sand Only
A309	DuPont Sand, LLC (Carencro)	Sand Only
A303	Henderson Pit (Broussard)[1]	Sand Only
A308	L & W Sand Pit, LLC (Carencro)	Sand Only
A310	Vermillion Shell & Limestone Co. Inc. (Maurice)	Sand Only
	DISTRICT 04	
A407	Billy Cobb Industries (Coushatta)	2.58
A429	Blount Bros. Construction, Inc. (Blount Bros. Pit) Shreveport, LA	Sand Only

PRODUCT SOURCE CODE	SOURCE	SPECIFIC GRAVITY OF GRAVEL (SSD)A-3
	DISTRICT 04 (continued)	
A420	Cobb Gravel (Castor)[1]	Sand Only
A413	Cobb Gravel - M3 (Coushatta)	Sand Only
A414	Cobb Gravel - M4 (Coushatta)	2.54 Gravel Only
A403	Hanson Aggregates #1 (Sibley)	2.59
A405	Hanson Aggregates #2 (Sibley)	2.57
A421	Hanson Aggregates #3 (Dixie Inn)[3]	2.59
A423	Hanson Aggregates #4 (Dixie Inn)	Sand Only
A424	Hanson Aggregates #5 (Sibley)	Sand Only
A411	Leon Gray (Sibley)	2.59
A404	Madden Pit (Minden)	Sand Only
A428	MRH Sand & Gravel (Benton, LA)[3]	2.60
A412	Raley Pit (Coushatta)	2.60
A415	Red River Gravel Company, Inc. #1 (Martin)[1]	Sand Only
A418	Red River Gravel Company, Inc. #2 (Martin)	2.58
A419	Ryan Sand & Gravel Company (Ringgold)	Sand Only

PRODUCT SOURCE CODE	SOURCE	SPECIFIC GRAVITY OF GRAVEL (SSD)[A-3]
	DISTRICT 04 (continued)	
A422	Sentell Gravel Pit (Minden)[3]	2.60
A427	South Land Sand (Ringgold)	2.60 Gravel Only
A425	Tri-State Sand & Gravel, Inc. #1 (Sibley) Haughton[4]	2.57
A426	Tri-State Sand & Gravel, LLC, Westfield Rd. Pit (Sibley, LA)[4]	2.58
A416	Wilson Pit (Coushatta)	2.60
	DISTRICT 05	
A512	Century Ready Mix (West Monroe)[3]	2.50 Gravel Only
A509	Century Ready Mix #2 (Jonesboro Road) Monroe	Sand Only
A510	Mississippi Limestone Corporation (Talla Bena)[1]	Sand Only
A504	Monroe Sand & Gravel (Perryville)	Sand Only
A511	Monroe Sand & Gravel (West Monroe)	Sand Only
A506	Runyon Sand & Gravel (Mound)	2.55
A505	Twin City Sand & Dirt (West Monroe)	2.54
A502	TXI (Perryville)	2.54
	DISTRICT 07	
A712	DSD Energy Services (Oakdale Pit) Oakdale	Sand Only
A701	Hanson Aggregates (Indian Village)	2.56

PRODUCT SOURCE CODE	SOURCE	SPECIFIC GRAVITY OF GRAVEL (SSD)[A-3]
DISTRICT 07 (continued)		
A707	Hanson Aggregates (Turkey Creek)	Sand Only
A706	Industrial Gravel (St. Landry)	2.57 Gravel Only
A710	Kinder Sand Company (Kinder)[2]	Sand Only
A704	Southwest Aggregates, Inc. (Merryville)	2.54
A708	St. Landry Gravel Company (St. Landry)	Sand Only
A702	Trinity (Indian Village Plant 1284)	2.55
A703	Trinity (Longville)	2.55
A709	Village Sand, Inc. (Indian Village)	Sand Only
DISTRICT 08		
A824	Anacoco Corporation, Inc. (Merryville)	2.55
A801	Arnold's Gravel (Merryville)	2.56
A827	B. G. Lutes & Son #1 (Colfax)	2.54
A830	B. G. Lutes & Son #2 (Pollock)	2.50 Gravel Only
A833	Bohannon Pit (Paradise)[1]	Sand Only
A838	Burns Sand & Gravel (New Llano)[4]	2.57
A831	D.P.W.P. Sand & Gravel (Dry Prong)	2.44

PRODUCT SOURCE CODE	SOURCE	SPECIFIC GRAVITY OF GRAVEL (SSD)[A-3]
	DISTRICT 08 (continued)	
A839	Davis Sand & Gravel (DeRidder)[3]	2.57
A804	Gravel Products (Joshlin Pit #2) Merryville	2.54
A817	Gray Pit (Colfax) (Leased to K & M Const.)	2.53
A803	Hanson Aggregates (Glenmora)	2.54
A829	Herron Sand & Gravel (Anacoco)	2.48
A840	Hodnett Pit (Pollock) Alexandria	Sand Only
A823	Industrial Gravel Company (Bobby Johnson Pit) Lonepine	2.56
A802	Industrial Gravel, Inc. (Forest Hill)	2.53
A825	J. L. Sandifer Pit (Colfax)	2.53
A828	L. G. Gravel Company (Forest Hill)	2.54
A834	L. G. Gravel Company (Melder) Lecompte	2.53
A832	Larry Grayson Pit (Old James Pit) Forest Hill[3]	2.51
A811	Mid State Sand & Gravel (Gardner)	2.56
A812	Mid State Sand & Gravel (Woodworth)	2.54
A835	Robbie Long Pit (Colfax)	Sand Only

PRODUCT SOURCE CODE	SOURCE	SPECIFIC GRAVITY OF GRAVEL (SSD)[A-3]
	DISTRICT 08 (continued)	
A813	Sewell's Pit (DeRidder)	2.57
A844	Tanner Heavy Equipment Co. (Tanner Pit #2) (Leesville)	Sand Only
A837	Tanner Pit (Pinewood)	2.54
A846	Trinity Materials, Inc. (Anacoco #1391) Merryville	2.56
A808	TXI (Paradise)	2.53
A822	TXI (Woodworth)[5]	2.54
A836	Vernon Sand & Gravel (Anacoco)[3]	2.45
A826	Wiggins Gravel Company (Alexandria)	2.51
A843	W T Pit (Forest Hill)	Sand Only
	DISTRICT 58	
A915	Aimwell Aggregates, Inc. (Aimwell)	2.54
A902	Chisium Sand & Gravel (Sicily Island)	2.53
A909	H. H. Hanks Gravel (Sicily Island)	2.56 Gravel Only
A911	Head Concrete, Inc. (Wisner)	2.54
A908	Manifest Gravel Company (Manifest)	2.54
A903	Sicily Island Sand & Gravel (Sicily Island)	2.53

PRODUCT SOURCE CODE	SOURCE	SPECIFIC GRAVITY OF GRAVEL (SSD)[A-3]
	DISTRICT 58 (continued)	
A914	Swim Enterprises, Inc. (Columbia)	Sand Only
A913	TXI Corporation (Jena)[3] (formerly Central Sand & Gravel)	2.55
A904	Western Gravel Company (Jena)	2.54
	DISTRICT 61	
A601	Ace Sand & Gravel (Baywood)	2.54
A602	Acme Sand & Gravel (Baywood)	2.53
A630	Allgood, Inc. (Bluff Creek)[3]	2.55
A631	B. & M. B., Inc. (Harvey Pit) St. Francisville	Sand Only
A641	B. & M.B., Inc. (Island Pit) St. Francisville	2.54
A643	B. & M. B., Inc. (Thompson Pit) St. Francisville	2.55
A628	Bear Industries (Port Allen)[1]	Sand Only
A623	Bunch's Sand & Gravel (Bluff Creek)[3]	2.53
A636	Feliciana Farms, Inc. (Bayou Sara)	2.54
A617	Feliciana Sand & Gravel (Jackson)	2.52
A635	Gulf Coast Gravel (Bluff Creek)	2.53
A621	Homer Elam Sand & Gravel (Jackson)	2.52

PRODUCT SOURCE CODE	SOURCE	SPECIFIC GRAVITY OF GRAVEL (SSD)[A-3]
	DISTRICT 61 (continued)	
A632	Hooper Road Dirt Pit (Baton Rouge)	Sand Only
A619	Industrial Sand Company (Clinton)	Sand Only
A629	J. K. Cowan, Sr. Contracting Company (Greenwell Springs)[3]	2.50
A616	J. P. Messina Gravel Company, Inc. (Baywood)	2.53
A606	Lambert Sand & Gravel (St. Francisville)	2.55
A634	Little D Sand & Gravel (Naquin Pit) Bluff Creek	Sand Only
A620	M. J. Materials (Greenwell Springs)	2.51
A638	Odom Dozer Service, LLC (Clinton)	2.53
A613	Plaquemine Sand & Gravel (Bluff Creek)	2.52
A609	Resource Material Company (Bluff Creek)	2.51
A640	Southern Aggregates (Felps)	2.53
A626	Southern Silica of LA (Baywood South) Greenwell Springs[3]	2.54
A633	Southern Silica of LA (Baywood North) Baywood[3]	2.50
A622	Thomas Sand & Gravel (Jackson Plant) Greenwell Springs	2.53
A610	Thomas Sand & Gravel #1 (Baywood)	2.53

PRODUCT SOURCE CODE	SOURCE	SPECIFIC GRAVITY OF GRAVEL (SSD)A-3
	DISTRICT 61 (continued)	
A611	Thomas Sand & Gravel #2 (Baywood)	2.53
A612	Tiffin Sand & Gravel (Bluff Creek)	2.51
A642	Tri-State Mine Site #1 Clinton	2.53
A607	TXI #1 (Baywood)	2.53
A608	TXI #2 (Baywood)	2.53
	DISTRICT 62	
AX24	A-1 Sand and Gravel (Tangipahoa) Mt. Hermon[3]	2.51 Gravel Only
A156	A-1 Sand and Gravel (Warnerton) Mt. Hermon	2.52
AX04	Accardo Materials, Inc. (Isabel)[3]	2.57
AX17	Addison/St. Helena (Dennis Mills)[3]	2.53
AX33	Aggregate Materials, Inc. (Dennis Mills)[3]	2.55
AX48	Allgood, Inc. (Denham Springs)[3]	2.50
AY22	Amite Gravel, L..L.C. (Amite)	2.52
A104	Amite Sand & Gravel #1 (Dennis Mills)	2.52
A187	Amite Sand & Gravel #2 (Watson)	2.53

PRODUCT SOURCE CODE	SOURCE	SPECIFIC GRAVITY OF GRAVEL (SSD)A-3
	DISTRICT 62 (continued)	
AX06	Amite Sand & Gravel #3 (Watson)[3]	2.54
A184	Anderson Gravel Corporation (Amite)	2.53
AY21	Angelle Aggregates (Greensburg)	2.56
A106	B. B. Development (Pearl River)	2.45
A188	B & B Sand & Gravel (Kentwood)	2.51
AX23	B & C Asphalt (Roseland)[3]	2.51
AX27	B & D Construction (Franklinton)	2.53
AX42	B & J, Inc. (McCain Pit) Franklinton[3]	2.53
AX11	B & W Materials, Inc. (Pearl River) Slidell[3]	2.49
AY29	BMS, L.L.C. (Amite Pit)[4]	2.52
AX81	Barriere Construction Co., LLC (Franklinton)	2.53 Gravel Only
AX95	Barriere Construction Co., LLC (Roseland)	2.52
AY25	Barriere Construction Co., LLC (Franklinton) Barriere-Knight Pit	2.49
AY27	Barriere Construction Co., LLC #4 (Roseland)	2.53
AY06	Bass Sand & Gravel (Bogalusa)	2.47

PRODUCT SOURCE CODE	SOURCE	SPECIFIC GRAVITY OF GRAVEL (SSD)A-3
	DISTRICT 62 (continued)	
AY07	Bearco Construction Aggregates (Enon)	2.51
AX94	Bayou Sand & Gravel, LLC (Tangipahoa)	2.55
AX97	Bayou Sand & Gravel, LLC (Amite)	2.53
AY20	Blackwell Aggregates, Inc. (Hickory Pit)[2]	2.46
A152	Carl Guilott Gravel Company (Bogalusa)	2.50
A183	Carrier Enterprises, Inc. (Kentwood)	2.47 Gravel Only
AY10	Cash Sand & Gravel, Inc. (Easterly Plant) Denham Springs, LA	2.52
AY11	Cash Sand & Gravel, Inc. (Linder Road Plant) Denham Springs, LA	2.55
A191	Claiborne McDaniel (Kentwood)	2.53 Gravel Only
A196	Claiborne McDaniel (Arcola)	2.54
AX79	Construction Aggregates, LLC (Magee Plant) Franklinton[3]	2.53
AX87	Construction Aggregates, LLC (Smith Plant) Roseland	2.54
A115	Core Contracting (Isabel)	2.50
AX19	Covington Pavement (Isabel)	Sand Only
AY04	Crawford Aggregate Industries, LLC (Grangeville)	2.53

PRODUCT SOURCE CODE	SOURCE	SPECIFIC GRAVITY OF GRAVEL (SSD)A-3
	DISTRICT 62 (continued)	
AY28	Crawford Aggregate Industries, LLC (Dennis Mills) Denham Springs, LA	2.52
AX38	Custom Materials, Inc. (Hunt Pit) Franklinton[3]	2.52
AX71	Daley Sand and Gravel (Roseland)	2.50
A193	Delta Asphalt (Arcola)[1]	Sand Only
AY13	Diamond B Constructon Co. (Drude Pit) Roseland	2.52
AX66	Diamond B Construction Co. (Tangipahoa/Ballard Pit) Kentwood[3]	2.55
AX80	Diamond L Construction, LLC (Amite)	2.53 Gravel Only
AX86	Diamond L Construction, Pit #1 (Amite)	Sand Only
AX80	Diamond L Construction, LLC (Amite)	2.53 Gravel Only
AX86	Diamond L Construction, Pit #1 (Amite)	Sand Only
AX08	Double A Aggregates, Inc. (Independence)[3]	2.52
AX86	Diamond L Construction, Pit #1 (Amite)	Sand Only
AX08	Double A Aggregates, Inc. (Independence)[3]	2.52
A180	EM-Jay Material (Johnsons Boys Gravel) (Watson)	2.52
AY17	Enon Sand and Gravel, LLC Enon Plant (Franklinton)	2.54

PRODUCT SOURCE CODE	SOURCE	SPECIFIC GRAVITY OF GRAVEL (SSD)A-3
	DISTRICT 62 (continued)	
A186	Esco, Inc. (Denham Springs)	2.50
A185	Esco, Inc. (Grangeville)	2.54
AY24	Florida Parishes Aggregate, Kent Pit (Fluker)	2.56
AX10	Fornea and Sons Trucking #1 (Angie)[3]	2.48
A159	Fornea and Sons Trucking #2 (Angie)[3]	2.48
AX91	Gillman Enterprises, LLC (Independence)	2.52
A182	Gravel Suppliers, Inc. (Franklinton)	2.53
A120	Gravel Suppliers, Inc. (Clifton)	2.50
AX07	Guilott Gravel Company (Bogalusa)[4]	2.52
AX21	Guilott Gravel Company #2 (Bogalusa) Isabel[3]	2.51
AX75	Hard Rock Sand & Gravel LLC (Franklinton)[4]	2.51
AY14	Hard Rock Sand & Gravel LLC #2 (Franklinton)	2.54
AX89	Hard Rock Sand & Gravel, LLC (Mt. Herman)	2.55
AX26	Hartner (Grangeville)[3]	2.54
A125	Hornsby Sand & Gravel (Grangeville)	2.52

PRODUCT SOURCE CODE	SOURCE	SPECIFIC GRAVITY OF GRAVEL (SSD)A-3
	DISTRICT 62 (continued)	
AX72	Industrial Aggregates, LLC (Franklinton)	2.53
AX03	Industrial Gravel Contractors of LA, Inc. (Grangeville)	2.49
A141	Jesse Rogers Gravel Products (Arcola)	2.53
A194	Jesse Rogers Gravel Products (Tickfaw)	Sand Only
AX22	Jesse Rogers Gravel Products #2 (Tickfaw)	2.50
A192	Joiner Dirt Pit	2.50 Gravel Only
AX68	K & C Gravel (Independence)	Sand Only
AX09	Kivett Sand & Gravel Company (Bush)[3]	2.50
AY01	Lafarge (Isabel) Bogalusa	2.52
AY03	Lafarge (Honey Island) Pearl River	2.51
AX61	Langley Sand & Gravel, L.L.C. (Bush)	2.49
AX25	LaPuma Pit (Independence)	Sand Only
AX50	Little D Sand & Gravel (Nichols Pit) Pine Grove	2.53
AX43	Lon-Land Gravel Company (Franklinton)[3]	2.53
AX18	Louisiana Aggregate Resources, Inc. (Arcola)[3]	2.55

PRODUCT SOURCE CODE	SOURCE	SPECIFIC GRAVITY OF GRAVEL (SSD)A-3
	DISTRICT 62 (continued)	
A135	Mears Sand & Gravel (Dennis Mills)	2.51
AX40	Martin Marietta Aggregates (Dennis Mills)	2.52
A137	Murphy Materials (Pearl River)	2.47
AX36	Murphy Sand and Gravel (Pearl River)	2.50
A170	O. A. Green & Son, Inc. (Bogalusa)	2.52
AY12	P & J Sand & Gravel, LLC (Independence)	2.48
A108	Pearl River Gravel Company, Inc. (Angie)	2.51
A189	Pelican #1 (Grangeville)[3]	2.55
A190	Pelican #2 (Grangeville)[3]	2.53
AX16	Penton Sand & Gravel (Franklinton)[3]	2.52
A139	Powers Sand & Gravel (Grangeville)	2.53
AX82	Premier Aggregates, LLC (Fluker Pit Mine A) Fluker	2.54
AX44	R. A. Michel Industries (Mt. Hermon) Franklinton[3]	2.53
AX29	Ram Industries (Franklinton)[4]	2.55
AX28	Rockbottom Sand & Gravel L.L.C.[3]	2.46

PRODUCT SOURCE CODE	SOURCE	SPECIFIC GRAVITY OF GRAVEL (SSD)A-3
	DISTRICT 62 (continued)	
A177	Rogers Sand & Gravel (Independence)[3]	2.52
A111	Rogers Sand & Gravel and CG (Independence)	2.46
A121	S & G Sand & Gravel (Darlington)	2.53
AY05	Sand Hill Aggregates (Watson)	2.51
AX98	Seal Dozer & Gravel, LLC (Franklinton #1)	2.55
AY19	Seal Dozer & Gravel, LLC (Franklinton #2)	2.52
AX93	SGM, LLC (Kentwood)	2.55
A143	Smith Sand & Gravel #2 (Mt. Hermon)	2.55
AX64	Smith Sand & Gravel (Enon)[3]	2.51
AX69	Smith Sand & Gravel (Franklinton)	2.52
A168	Southeast Aggregates, Inc. #1 (Independence)	2.50
A171	Southeast Aggregates, Inc. #2 (Independence)	2.51
AX12	Southeast Aggregates, Inc. #3 (Clemons Pit) Amite	2.48
AX41	Southeast Aggregates, Inc. #4 (Ballard Pit) Tangipahoa[3]	2.54
AX90	Southeastern Aggregate, LLC (Kentwood)	2.55

PRODUCT SOURCE CODE	SOURCE	SPECIFIC GRAVITY OF GRAVEL (SSD)A-3
	DISTRICT 62 (continued)	
AX59	Southern Aggregates, L.L.C. (Dennis Mills)	2.52
AY16	Southern Aggregates, LLC (Clemon's) Watson	2.51
AY26	Southern Aggregates, LLC (Plant #7) Denham Springs, LA	2.52
A195	South Spoon Sand & Gravel (Kentwood)	2.51
AX78	St. Helena Sand & Gravel Grangeville, LA	2.55
A145	Standard Gravel Company, Inc. (Clifton)	2.53
AX13	Standard Gravel Company, Inc. (Nicholson #7) Pearl River[3]	2.51
A151	Standard Gravel Company, Inc. (Enon)	2.50
AX84	Standard Gravel Company (Franklinton)	2.53 Gravel Only
AX88	Standard Gravel Company (Warnerton Plant) (Franklinton)	2.54 Gravel Only
AY09	Standard Gravel Company (Green Lakes Pit) Franklinton	2.55 Gravel Only
AX65	Standard Sand & Gravel, Company (Kat Kaw Plant) (Franklinton)[3]	2.52 Gravel Only
AY18	Standard Gravel Company (Honey Island Swamp) Pearl River Pit (Pearl River)	2.49
AX96	T & D Sand & Gravel, LLC (Amite)	2.53
AX99	Tangi Aggregates, LLC (Tickfaw)	2.52

PRODUCT SOURCE CODE	SOURCE	SPECIFIC GRAVITY OF GRAVEL (SSD)A-3
	DISTRICT 62 (continued)	
A181	Thomas Sand & Gravel (Carter Pit) Grangeville	2.55
A178	Thomas Sand & Gravel (Walker Pit) Grangeville[4]	2.53
AX30	Trail Construction Company (Magee Pit) Clifton[3]	2.53 Gravel Only
AX39	Transit Mix Concrete & Materials of LA #383 (Pine Grove)[4]	2.54
AX46	Trinity Materials, Inc. (Plant #392) Watson[3]	2.51
A134	TXI (Grangeville)	2.53
AX37	TXI (Magee Pit #97) Franklinton[3]	2.52
AX60	TXI (Stanley-Hornsby Plant) (Grangeville)[3]	2.55
AX15	V & W Gravel (Bogalusa)[3]	2.48
A198	Vicks Sand & Gravel #2 (Independence)	2.51
AX67	Ward Line Material, Inc. (Independence)[3]	2.50
AX32	Watson Dirt, Sand, & Gravel (Watson)[3]	2.51
AB98	Willis Sand & Gravel (Sun)	2.52

-End 'In-State' Sources

2. OUT-OF-STATE SOURCES

PRODUCT SOURCE CODE	SOURCE	TYPE OF MATERIAL	SPECIFIC GRAVITY (SSD)[A-3]
AB48	A. E. Boyer Company, LLC Prentiss, MS	Gravel	2.44
ASAN	Alabama Sand & Gravel (Billingsley Pit) Prattvile, AL	Gravel Sand	2.63 2.62
ASAV	Alliance Sand and Gravel, LLC (Phil Campbell Pit) Phil Campbell, AL	Sand	2.62
ASAK	Allstate Deatsville, LLC - Deatsville Pit Deatsville, AL	Sand	2.62
A045	Arkadelphia Sand & Gravel Arkadelphia, AR	Gravel	2.56
ABAJ	Arkansas Gravel Co., Inc.[3] (Wylie Mine) Hampton, AR	Gravel Sand	2.58 2.62
ABAO	Arkansas Gravel Co., Inc. (Bradshaw Mine) Hampton, AR	Gravel Sand	2.56 2.62
A048	Avant Sand & Gravel Hampton, AR	Gravel Sand	2.58 2.62
AB76	B & B Gravel And Trucking Co. Bearden, AR	Gravel Sand	2.55 2.62
AA21	B & B Construction Company Camden, AR	Gravel	2.55
ABAZ	Baldwin/Hazlehurst MS Pit Hazlehurst, MS	Gravel Sand	2.54 2.62
ASAR	Baldwin Sand & Gravel (Crystal Springs Pit)[4] Philadelphia, MS	Gravel Sand	2.57 2.62
AB34	Barbara's Dirt & Gravel (Fleming Pit) Natchez, MS	Sand	2.62
ASAM	Blackwell Aggregates, Inc. (Jackson Landing Pit) Nicholson, MS	Gravel Sand	2.48 2.62
AB81	Blain Sand & Gravel (Ford Pit) Natchez, MS	Gravel Sand	2.57 2.62
AA57	Blain Sand & Gravel, Inc. Crystal Springs, MS	Gravel Sand	2.54 2.62

PRODUCT SOURCE CODE	SOURCE	TYPE OF MATERIAL	SPECIFIC GRAVITY (SSD)[A-3]
	OUT-OF-STATE SOURCES (continued)		
AB31	Blain Sand & Gravel, Inc.[3] Natchez, MS (Cloverhill Pit)	Gravel Sand	2.57 2.62
AA34	Blain Sand & Gravel, Inc. Washington, MS	Gravel Sand	2.54 2.62
AB81	Blain Sand & Gravel (Ford Pit) Woodville, MS	Gravel Sand	2.57 2.62
A004	Braswell Industries Wilton, AR	Gravel	2.57
ASAC	Broken Bow Sand & Gravel Broken Bow, OK	Sand	2.62
ASAD	Bulldog Sand & Gravel, Inc. Columbus, MS	Gravel Sand	2.50 2.62
AB03	Bush Construction Company, Inc.[3] Picayune, MS	Gravel Sand	2.49 2.62
ABAQ	Camden Aggregates Bearden, AR	Gravel	2.56
AA47	Camden Gravel Company Locust Bayou, AR	Gravel	2.59
A059	Cook Brothers Sand & Gravel Donaldson, AR	Gravel	2.55
AA67	Cossatot Materials, Inc.[3] Lockesburg, AR	Gravel Sand	2.54 2.62
ASAB	Cottonwood Pit #1204 Rosser, TX	Sand Gravel	2.62 2.65
AA88	Courson, R. M., Inc.[3] Harrell, AR	Gravel Sand	2.56 2.62
AB01	Cranfield Pit Cranfield, MS	Sand	2.62
AB46	D & B Sand & Gravel Co., Inc.[3] Georgetown, MS	Gravel Sand	2.53 2.62
ABAU	D C Aggregate, LLC Natchez, MS	Sand Gravel	2.62 2.56

PRODUCT SOURCE CODE	SOURCE	TYPE OF MATERIAL	SPECIFIC GRAVITY (SSD)[A-3]
	OUT-OF-STATE SOURCES (continued)		
AA87	Dallas Gravel Company[3] Holly Springs, AR	Gravel	2.55
A019	Delight Sand & Gravel Delight, AR	Gravel	2.57
A065	Diamond & Rader Perkinston, MS	Sand	2.62
AA80	Dickerson & Bown Riverside Gravel McComb, MS	Gravel Sand	2.46 2.62
AB64	Draughn Sand & Gravel, Inc. Petal, MS	Gravel Sand	2.50 2.62
A070	Earnest, L. J. Holly Springs, AR	Gravel	2.55
ASAS	Eastern Oklahoma Quarries, LLC (Spiro Pit) Spiro, OK	Sand	2.62
A007	Fairchild Pit Bearden, AR	Gravel	2.57
AB96	Florida Rock Industries - Escambia Sand & Gravel Atmore, AL	Sand	2.62
ASAJ	Foley Materials Company – Plant 505 Phenix City, AL	Sand	2.62
ASAT	Foley Materials Company – Plant 501 Phenix City, AL	Sand	2.62
ASAI	Fouke Aggregate, LLC Fouke, AR	Gravel Sand	2.61 2.62
ASAZ	FRAC Diamond Aggregates, LLC (Nicholson Pit)[4] Nicholson, MS	Gravel Sand	2.49 2.63
AB97	Garland Sand and Gravel (Garland City Quarry) Garland City, AR	Gravel Sand	2.60 2.62
AB32	Gibson, A. J., Sand & Gravel[2] Natchez, MS (Gibson Pit #2)	Sand	2.62
AA99	Gibson Gravel Company[3] McCall Creek, MS	Gravel Sand	2.51 2.62

PRODUCT SOURCE CODE	SOURCE	TYPE OF MATERIAL	SPECIFIC GRAVITY (SSD)[A-3]
	OUT-OF-STATE SOURCES (continued)		
AA20	Gottrocks, W. B. Nicholson, MS	Gravel Sand	2.48 2.62
AB21	Gravel, Inc. (E. L. McCalip)[4] Natchez, MS	Gravel Sand	2.58 2.62
ABAK	Green Bros. Gravel Co. #22 Hazlehurst, MS	Gravel Sand	2.50 2.62
ABAL	Green Bros. Gravel Co. #65 Crystal Springs, MS	Gravel Sand	2.50 2.62
AA73	Haddox Pit[3] Prescott, AR	Gravel	2.59
ASAW	Hallett Materials – Texas Division (Porter Plant) Porter, TX	Sand	2.63
ASAU	Hammett Gravel Co., Inc. (Yazoo City Operation) Bentonia, MS	Gravel Sand	2.56 2.62
AA17	Hanson Aggregates Delight, AR	Gravel Sand	2.55 2.62
AA70	Hanson Aggregates Eagle Mills, AR	Gravel Sand	2.57 2.62
AA54	Hanson Aggregates Ferris, TX	Sand	2.62
A088	Hanson Aggregates Lewisville, AR	Sand	2.62
A009	Hanson Aggregates Millville, AR	Gravel Sand	2.58 2.62
AB57	Hanson Aggregates Prescott, AR	Gravel Sand	2.58 2.62
A010	Hanson Aggregates Texarkana, AR	Sand	2.62
A092	Hanson Aggregates (Little River) Wilton, AR	Gravel Sand	2.56 2.62
AB23	Hanson Aggregates (Stewart Pit) Waco, TX	Sand	2.62

PRODUCT SOURCE CODE	SOURCE	TYPE OF MATERIAL	SPECIFIC GRAVITY (SSD)[A-3]
	OUT-OF-STATE SOURCES (continued)		
A060	Hensley Gravel Company Washington, MS	Gravel	2.56
AB07	Huey Stockstill, Inc.[3] Picayune, MS	Gravel Sand	2.47 2.62
AB26	Hutchinson Island Mining Corporation[4] Picayune, MS	Gravel Sand	2.53 2.62
A081	Jet Asphalt Hampton, AR	Gravel	2.57
A090	Jet Asphalt & Rock Company Bearden, AR	Gravel Sand	2.54 2.62
ABAP	JJ Ferguson Sand & Gravel Blackhawk Pit[2] Greenwood, MS	Sand Gravel	2.62 2.54
A027	Johnny Walter Gravel Company Prescott, AR	Gravel	2.54
A091	Johnsville Sand & Gravel Johnsville, AR	Gravel Sand	2.55 2.62
ASAG	King Sand & Gravel Kerens, TX	Sand	2.62
AB91	Krystal Gravel, Inc. Crystal Springs, MS	Gravel Sand	2.53 2.62
AA58	Ladner Bros. Sand & Gravel Gulfport, MS	Sand	2.62
AA96	Ladner Brothers Sand & Gravel[3] Saucier, MS	Gravel Sand	2.51 2.62
ASAE	Lockesburg - 1544	Gravel Sand	2.56 2.62
AA02	M & M Gravel, Inc.[3] Picayune, MS	Gravel Sand	2.52 2.62
ASAL	Marion Clay and Gravel, L.L.C. Columbia, MS	Gravel Sand	2.48 2.62
A072	Martin Marietta Aggregates Tombigbee, AL	Gravel	2.52

PRODUCT SOURCE CODE	SOURCE	TYPE OF MATERIAL	SPECIFIC GRAVITY (SSD)[A-3]
	OUT-OF-STATE SOURCES (continued)		
AA68	Martin Marietta Aggregates Mobile, AL	Gravel	2.61
A022	Martin Marietta Aggregates Harrell, AR	Gravel Sand	2.57 2.62
ABAS	Martin Marietta Materials (Broken Bow Sand & Gravel) Eagleton, OK	Gravel	2.56
ASAX	Martin Marietta Materials (Garwood Plant) Humble, TX	Gravel	2.57
AA07	McDaniel, Claiborne[3] Pike County, MS	Gravel	2.53
ABAC	Memphis Stone & Gravel Co. (Anderson Plant) Nesbit, MS	Sand	2.62
ABAD	Memphis Stone & Gravel Co. (Perry Plant) Senatobia, MS	Sand	2.62
A078	Miller Sand & Gravel Beechwood, MS	Gravel Sand	2.56 2.62
AA16	Mississippi Limestone Corporation Friars Point, MS	Gravel	2.54
AA98	Nashville Gravel[3] Center Point, AR	Gravel	2.57
ASAQ	Oddee Smith Construction, Inc. (Oddee California Camp Pit) Brookhaven, MS	Gravel	2.56
A055	Ouachita Gravel Company Malvern, AR	Gravel	2.56
A018	Perkinston Sand & Gravel Perkinston, MS	Sand	2.62
AA26	Phillips, Joseph Picayune, MS	Gravel Sand	2.47 2.62
AB44	Pine Bluff Sand & Gravel Company Pine Bluff, AR	Sand	2.62
AB17	Pioneer Concrete of Texas, Inc.[3] (Altair Plant) Houston, TX	Gravel Sand	2.59 2.62

PRODUCT SOURCE CODE	SOURCE	TYPE OF MATERIAL	SPECIFIC GRAVITY (SSD)[A-3]
	OUT-OF-STATE SOURCES (continued)		
AA45	Polk, Dale & Sons, Inc. (Cedargrove Pit) Washington, MS	Gravel Sand	2.57 2.62
AA75	Quality Sand & Gravel Pit #3 Crossroads, MS	Gravel Sand	2.52 2.62
ASAF	R & R Logging & Gravel Columbia, MS	Gravel Sand	2.49 2.62
AB24	Reid & Sons Sand & Gravel, Inc.[4] (Goss Plant) Columbia, MS	Gravel Sand	2.49 2.62
ASAP	Riverside Sand & Gravel (NW St. Paul Pit) Tylertown, MS	Sand	2.62
A020	Runyon Pit Beechwood, MS	Gravel Sand	2.57 2.62
AA08	Runyon 61 Pit Vicksburg, MS	Gravel Sand	2.53 2.62
AA53	Ryan Watts Sand & Gravel Fouke, AR	Gravel Sand	2.61 2.62
A023	Samco Hampton, AR	Gravel	2.57
AB74	Settoon Construction Natchez, MS	Gravel Sand	2.56 2.62
ASAY	Simpson Materials Company (Ranken Site) Valley Park, MO	Gravel	2.51
AA28	Smith Sand & Gravel Company Perkinston, MS	Gravel	2.53
AA18	Southeast Arkansas Sand & Gravel Star City, AR	Gravel	2.56
ASBA	South Gate Aggregates, L.L.C.[3] (Burge Pit) Nicolson, MS	Gravel Sand	2.47 2.63
A021	St. Catherine Gravel Company Natchez, MS	Gravel Sand	2.56 2.62

PRODUCT SOURCE CODE	SOURCE	TYPE OF MATERIAL	SPECIFIC GRAVITY (SSD)A-3
	OUT-OF-STATE SOURCES (continued)		
AA97	Standard Gravel[3] Eagle Mills, AR	Gravel Sand	2.55 2.62
AB69	Standard Gravel Company (SGC Glendale Pit) Hattiesburg, MS	Gravel Sand	2.56 2.62
ASAO	Standard Gravel Company Columbia, MS (Bradley Pit)	Gravel	2.54
AA60	Tates Bluff Gravel Company Ouachita, AR	Gravel	2.57
AB27	The Fordyce Company[3] Victoria, TX (Briggs Plant)	Gravel Sand	2.74 2.62
A025	Traxler Sand & Gravel Crystal Springs, MS	Gravel Sand	2.54 2.62
ASAH	Triangle Aggregates, Inc. Jackson, AL	Gravel	2.61
A026	Triangle Gravel Company Camden, AR	Gravel	2.53
AB22	Trinity Materials (Pit #174) Waco, TX	Gravel Sand	2.65 2.62
AB72	Vicksburg Sand & Gravel Vicksburg, MS	Sand	2.63
ASAA	Wooten Sand & Gravel Fouke, AR	Gravel Sand	2.60 2.62

-End 'Out-of-State' Sources

ENDNOTES TO SECTION A:

1. *Sand from this source is approved for asphaltic concrete only.*

2. *Sand from this source is restricted in Portland Cement Concrete to cements or cement/fly ash combinations with 0.6% alkalies or less.*

3. *Gravel from this source is restricted in Portland Cement Concrete to cements or cement/fly ash combinations with 0.6% alkalies or less.*

4. *Sand and Gravel from this source are restricted in Portland Cement Concrete to cements or cement/fly ash combinations with 0.6% alkalies or less.*

5. *Gravel from this source contains an unusual amount of hematite iron ore. If used in Portland Cement Concrete, the hematite content cannot exceed 2%.*

NOTES:

Note A-1:
Source approval samples of gravel and sand are obtained by personnel from the Materials and District Laboratories. The source is defined as the pit or quarry which produces the aggregate being evaluated. All aggregate which does not pass through the 4.75mm (No. 4) sieve shall be source approved prior to use. Certain aggregates may be approved for restricted use. A complete source approval analysis shall be run on each aggregate source.

NOTE A-2:
All material, regardless of prior approval, shall be sampled in accordance with the Materials Sampling Manual and tesed for conformance to the appropriate specifications. An deviation in performance from the original sample submitted may result in removal of the material from the qualified list.

NOTE A-3:
A specific gravity value of 2.62 (SSD) may be used for all in-state silica sands used for portland cement concrete.

NOTE A-4:
Because absorption has been found to correlate with the type and specific gravity of silica sands and chert gravels, the water absorption factors given in the following table may be used:

Specific Gravity (SSD)	Water Absorption Factor
SAND	
2.62	0.5
GRAVEL	
2.45	4.0
2.46	4.0
2.47	3.5
2.48	3.5
2.49	3.5
2.50	3.0
2.51	2.5
2.52	2.5
2.53	2.2
2.54	1.7
2.55	1.5
2.56	1.2
2.57	1.0
2.58	1.0
2.59	1.0
2.60	1.0
2.61	0.8
2.62	0.8
2.63	0.8

B. OTHER AGGREGATE MATERIALS

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGS[B-1]
ABBC	Agrecasa Del Caribe Relelpedregal 21 y 23 Calle 22 Ave. B San Pedro Sula-Honduras (Water Absorption = 1.6) (Spec. Gravity - SSD = 2.63)	Stone (Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AB05	American Limestone, Inc. 4919 Jamestown Street Suite 202 Baton Rouge, LA 70808 (Water Absorption = 0.5) (Spec. Gravity - SSD = 2.68)	Stone[2] (Limestone; Batesville, AR)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
ABBY	APAC-Brickey's Stone 13588 Brickey's Road Bloomsdale, MO 63627 (Water Absorption = 1.4) (Spec. Gravity – SSD = 2.64)	Stone (Limestone) Burlington Formation	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
ABCD	APAC-Brickey's Stone 13588 Brickey's Road Bloomsdale, MO 63627 (Water Absorption = 1.9) (Spec. Gravity – SSD = 2.61)	Stone (Limestone) Plattin Formation	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
A061	Arkhola Sand & Gravel Company P. O. Box 1627 Ft. Smith, AR 72902 (Water Absorption = 2.2) (Spec. Gravity - SSD = 2.55)	Stone (Sandstone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = I) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
AB50	Atlantic USA, LLC 3546 Mimosa Court New Orleans, LA 70131 (Water Absorption = 0.5) (Spec. Gravity - SSD = 2.82)	Stone[2] (Limestone; Las Ilusiones Quarry; Morales, Guatemala)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGS[B-1]
	OTHER AGGREGATE MATERIALS (continued)		
AB30	Barnhart Limestone, Inc. P. O. Box 459 Barnhart, MO 63012 (Water Absorption = 1.1) (Spec. Gravity - SSD = 2.65)	Stone[2] (Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
ABBE	Bayside Marine Quarry 3019 RTE 127 Bayside, NB, Canada, E5B2S4 (Water Absorption = 0.5) (Spec. Gravity - SSD = 2.71)	Stone (Granite)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AB25	Big River Industries, Inc. Erwinville, LA 70729 (Water Absorption = 16.3) (Spec. Gravity - SSD = 1.65)	Expanded Clay Lightweight Aggregate	1) Asphaltic Surface Treatment (Type B, C, & D applications only) 2) Asphaltic Concrete (excluding wearing surfaces) (Friction Rating = I) 3) Portland Cement Concrete (where specified)
AB45	Brickeys Stone 13588 Brickeys Road Bloomsdale, MO 63627 (Water Absorption = 0.8) (Spec. Gravity - SSD = 2.63)	Stone (Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
ABBU	Calx Resources Chaudet Creek Quarry 877 Dover Road Grand Rivers, KY 42025 (Water Absorption = 0.5) (Spec. Gravity – SSD = 2.70)	Stone (Siliceous Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
ABBK	Capital Aggregates Marble Falls 8147 US-281 North Burnet, TX 78611 (Water Absorption = 0.6) (Spec. Gravity - SSD = 2.79)	Stone (Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGS[B-1]
		OTHER AGGREGATE MATERIALS (continued)	
ABAR	Carolina Stalite Company P. O. Box 186 Gold Hill, NC 28072 (Water Absorption = 3.7) (Spec. Gravity - SSD = 1.45)	Lightweight Aggregate (Expanded Slate); Gold Hill, NC	1) Asphaltic Surface Treatment 2) Asphaltic Concrete (excluding wearing surfaces) (Friction Rating = I) 3) Portland Cement Concrete (where specified)
ABBX	Columbus Quarry, L.L.C. Fortson Quarry 3001 Smith Road Fortson, GA 31808 (Water Absorption = 0.7) (Spec. Gravity – SSD = 2.66)	Granite	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AB02	Construction Aggregates, Ltd. P. O. Box 278 Mulgrave, Nova Scotia, Canada BOE2GO (Water Absorption = 0.5) (Spec. Gravity - SSD = 2.71)	Stone (Granite)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
ABBN	Crystal Hill Quarry (Granite Mountain Quarries) 9100 Rowlett Drive North Little Rock, AR 72113 (Water Absorption = 0.9) (Spec. Gravity - SSD = 2.62)	Stone (Sandstone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AB51	Dean Word Company P. O. Box 364 Marble Falls, TX 78654 (Water Absorption = 0.6) (Spec. Gravity - SSD = 2.80)	Stone (Granite)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AB04	Delta Materials P. O. Box 99 Marble Falls, TX 78654 (Water Absorption = 2.1) (Spec. Gravity - SSD = 2.56)	Stone (Sandstone; Fairland, TX)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = I) 4) Portland Cement Concrete 5) Riprap & Stone Revetment

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGS[B-1]
		OTHER AGGREGATE MATERIALS (continued)	
AB28	Donna Fill, Inc. P. O. Box 722 Little Rock, AR 72203 (Spec. Gravity - Apparent = 2.62)	Stone (Syenite Granite Fines, Donna Fill, Little Rock, AR)	This is a manufactured sand approved for the following applications: 1) Special Embankment (non-plastic) 2) Select Materials 3) Granular Material for Subbase 4) Supplemental Fines (screenings) for Asphaltic Concrete (Friction Rating = III)
AB65	Downen Aggregate, LLC P. O. Box 620 Shawneytown, IL 62984 (Water Absorption = 0.8) (Sp. Grav. (SSD) = 2.67)	Stone (Limestone: Rosiclare, Illinois)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AB77	Downen Quarry MM 896.0 on Ohio River Near Shetlerville, IL (Water Absorption = 0.7) (Sp. Grav. (SSD) = 2.69) (Sp. Grav. (App) = 2.72) (Sp. Grav. (Bulk) = 2.67)	Stone (Siliceous Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete and PCC (Friction Rating = IV) (Excluding bridge decks) 4) Bedding Material 5) Riprap & Stone Revetment
ABAE	Duffield Gravel Co. 16 Bluff Drive Russellville, AR 72802 (Water Absorption = 1.4) (Sp. Grav. (SSD) = 2.62)	Stone (Sandstone; New Hope Quarry)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
ABAF	Duffield Gravel Co. 16 Bluff Drive Russellville, AR 72802 (Water Absorption = 1.5) (Sp. Grav. (SSD) = 2.60)	Stone (Sandstone; Gum Log Quarry)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
AA76	Dunne & Sentell Const. Co., Inc. Rt. 1, Box 8-D Bradford, AR 72020 (Water Absorption = 1.6) (Specific Gravity - SSD = 2.56)	Stone (Sandstone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = II) 4) Portland Cement Concrete 5) Riprap & Stone Revetment

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGS[B-1]
		OTHER AGGREGATE MATERIALS (continued)	
AB93	Florida Rock Industries, Inc. 155 East 21st Street P. O. Box 190999 Jacksonville, FL 32201 (Water Absorption = 2.0) (Spec. Gravity - SSD = 2.59)	Stone (Calcareous Sandstone, Golconda Quarry, Golconda, IL)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
AA15	Foster Yoeman Limited Shepton Mallet Somerset, England BA4 4SQ (Water Absorption = 0.5) (Spec. Gravity - SSD = 2.62)	Stone (Granite; Glensanda Quarry, Scotland)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
AB52	Franklin Industrial Division P. O. Box 1189 Belton, TX 76513 (Water Absorption = 4.9) (Spec. Gravity - SSD = 2.35)	Stone (Limestone; Nolanville, TX)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AB56	Fuselier Mining & Mineral - Arkansas Rock Products 427 HMB Road P. O. Box 317 Lockesburg, AR 71846 (Water Absorption = 1.3) (Spec. Gravity - SSD = 2.61)	Stone (Sandstone - Jack Fork; Plant #7; Sevier County)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = II) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
AA89	Gads Hill Quarry P. O. Box 307 Piedmont, MO 63957 (Water Absorption = 0.3) (Spec. Gravity - SSD = 2.64)	Stone[2] (Rhyolite 'Traprock'; Gads Hill, MO)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
A033	Granite Mountain Quarries P. O. Box 138 Sweet Home, AR 72164 (Water Absorption = 0.9) (Spec. Gravity - SSD = 2.59)	Stone (Syenite Granite)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = II) 4) Portland Cement Concrete 5) Riprap & Stone Revetment

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGS[B-1]
OTHER AGGREGATE MATERIALS (continued)			
A077	Hanson Aggregates P. O. Box 190999 Dallas, TX 75219 (Water Absorption = 0.8) (Spec. Gravity - SSD = 2.68)	Stone[2] (Limestone; Perch Hill Plant; Bridgeport, TX)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AB18	Hanson Aggregates P. O. Box 31135 New Braunfels, TX (Water Absorption = 1.6) (Spec. Gravity - SSD = 2.58)	Stone[2] (Limestone; New Braunfels, TX)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AA90	Hastie Mining Company 5845 Carsten Road Medina, OH 44256 (Water Absorption = 0.8) (Spec. Gravity - SSD = 2.66)	Stone (Sandstone; Hastie Mining Company Quarry; Cave-In-Rock, IL)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = I) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
A087	Heckett Corporation P. O. Box 1071 Butler, PA 16001 (Water Absorption = 6.0) (Spec. Gravity - SSD = 2.21)	Slag (Chicago Plant)	1) Asphaltic Surface Treatment 2) Asphaltic Concrete (Friction Rating = I)
AB70	Heckett/MultiServ Plant #49 P. O. Box 247 Amorel, AR 72310 (Water Absorption = 1.0) (Spec. Gravity - SSD = 3.73) (Spec. Gravity - App. = 3.84) (Spec. Gravity - Bulk = 3.69)	Steel Slag[1] (Nucor Steel of Arkansas, Blytheville, AR)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Bedding Material
AB55	Heckett/MultiServ Plant #51 P. O. Box 822 Warsaw, KY 41095 (Water Absorption = 2.0) (Spec. Gravity - SSD = 3.26)	Slag (EAF Steel Slag; Gallatin Steel Co., Ghent, KY)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = I)

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGS[B-1]
OTHER AGGREGATE MATERIALS (continued)			
AB71	Heckett/MultiServ Plant #54 P. O. Box 247 Amorel, AR 72310 (Water Absorption = 1.6) (Spec. Gravity - SSD = 3.60) (Spec. Gravity - App. = 3.75) (Spec. Gravity - Bulk = 3.54)	Steel Slag[1] (Nucor-Yamato Steel Co., Blytheville, AR)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = II) 4) Bedding Material
A049	H.M.B. Construction Company P. O. Box 5606 Texarkana, TX 75501 (Water Absorption = 0.8) (Spec. Gravity - SSD = 2.62)	Stone (Sandstone; DeQueen, AR)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = II) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
ABBM	Howe Mine P. O. Box 11050 Fort Smith, AR 72956 (Water Absorption = 2.5) (Spec. Gravity = 2.49)	Stone (Sandstone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = I) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AA91	Ideal Dominicana, S.A. P. O. Box 1323 Santo Domingo, Dominican Republic (Water Absorption = 1.3) (Spec. Gravity - SSD = 2.61)	Stone (Limestone)	1) Base & Surface Course
ABCE	Industrias de Agregados Peralvillo los Montones, S.R.L. Avenida Romulo Batancourt #2058 Suite 202 Santo Domingo, Dominican Republic (Water Absorption = 0.8) (Spec. Gravity – SSD = 3.0)	Stone[1] (Basalt Rock)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = II) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
A172	International Mill Service Laplace, LA 70068 (Water Absorption = 1.8) (Spec. Gravity - SSD = 3.25) (Apparent Gravity = 3.45)	Slag[1] (Bayou Steel Plant)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III)

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGS[B-1]
		OTHER AGGREGATE MATERIALS (continued)	
AA65	International Mill Service P. O. Box 629 Middletown, OH 45042 (Water Absorption = 1.9) (Spec. Gravity - SSD = 3.37)	Slag (Armco Steel Mill)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III)
AB14	International Mill Service Rose City, TX (Water Absorption = 1.5) (Spec. Gravity - SSD = 3.60) (Apparent Gravity = 3.74)	Steel Slag[1] (North Star Steel Company)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = II)
AB16	International Mill Service 1155 Business Center Drive Horsham, PA 19044 (Water Absorption = 1.6) (Spec. Gravity - SSD = 3.73) (Apparent Gravity = 3.89)	Slag[1] (Granite City, IL Steel Plant)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = II)
AB73	Iron Mountain Trap Rock Co. 325 Highway W, Box 8 Iron Mountain, MO 63650 (Water Absorption = 0.2) (Sp. Grav.- SSD = 2.65)	Stone (Rhyolite: Iron Mountain, MO)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
ABBO	Jamaica Aggregates Limited dba Lafarge 31 Molynes Road Kingston Jamaica (Water Absorption = 1.0%) (Spec. Gravity - SSD = 2.72)	Stone (Crushed Alluvial Stone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
AB08	Key Stone Steel & Wire 7000 South West Adams Street Peoria, IL 61641 (Water Absorption = 0.7) (Spec. Gravity - SSD = 3.59) (Apparent Gravity = 3.66)	Slag[1] (Peoria Plant)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = II)
ABAM	Lafarge Aggregates RRI Box 267 Cave-In-Rock, IL 62919 (Water Absorption = 0.7) (Spec. Gravity - SSD = 2.68)	Stone (Siliceous Limestone; Cave-In-Rock, IL; Ledges 8 - 10)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete 5) Riprap & Stone Revetment

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGS[B-1]
ABAN	Lafarge Aggregates RRI Box 267 Cave-In-Rock, IL 62919 (Water Absorption = 0.8) (Spec. Gravity - SSD = 2.67)	Stone (Sandstone; Cave-In-Rock, IL)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = I) 4) Portland Cement Concrete 5) Riprap & Stone Revetment

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGS[B-1]
	OTHER AGGREGATE MATERIALS (continued)		
ABBJ	Lafarge Aggregates 730 Hwy 23 Calera, AL (Water Absorption = 0.4) (Spec. Gravity - SSD = 2.76)	Stone (Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
ABBW	Lafarge North America Three Rivers Quarry – Pit #1 830 Three Rivers Quarry Road Smithland, KY 42081 (Water Absorption = 0.89) (Spec. Gravity-SSD = 2.68)	Stone (Siliceous Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
ABBZ	Lafarge North America Three Rivers Quarry – Pit #2 830 Three Rivers Quarry Road Smithland, KY 42081 (Water Absorption – 0.84) (Spec. Gravity-SSD = 2.66)	Stone (Siliceous Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
ABCA	Lafarge North America Fredonia Quarry 297 Fredonia Quarry Road Fredonia, KY 42411 (Water Absorption = 0.7) (Spec. Gravity-SSD=2.69)	Stone (Siliceous Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
ABCB	Lafarge North America Perryville Quarry 521 Quarry Lane Perryville, MO 63775 (Water Absorption=0.5) (Spec. Gravity-SSD=2.70)	Stone (Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
ABCC	Lafarge North America Rosiclair Quarry Rural Rt. 1, Box 128 Golconda, IL 62938 (Water Absorption=0.6) (Spec. Gravity-SSD=2.68)	Stone (Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete 5) Riprap & Stone Revetment

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGS[B-1]
		OTHER AGGREGATE MATERIALS (continued)	
AB58	Limestone Specialties P. O. Box 3199 Batesville, AR 72501 (Water Absorption = 0.4) (Spec. Gravity - SSD = 2.69)	Stone (Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
A067	Little Rock Quarry Company P. O. Box 548 Benton, AR 72015 (Water Absorption = 1.2) (Spec. Gravity - SSD = 2.62)	Stone (Sandstone; Arkadelphia, AR)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = I) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
AA11	Louisiana Granite Mix Corp. 622 East College Lake Charles, LA 70605 (Water Absorption = 0.7) (Spec. Gravity - SSD = 2.56)	Stone (Syenite Granite Fines, Donna Fill)	This is a manufactured sand appoved for the following applications: 1) Special Embankment (non-plastic) 2) Select Materials 3) Granular Material for Subbase 4) Supplemental Fines (screenings) for Asphaltic Concrete (Friction Rating = III)
A052	M & M Rock Company P. O. Box 1190 Conway, AR 72032 (Water Absorption = 1.2) (Spec. Gravity - SSD = 2.64)	Stone (Sandstone; Toad Suck Quarry)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = I) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
AA84	M & M Rock Company P. O. Box 1190 Conway, AR 72032 (Water Absorption = 1.5) (Spec. Gravity - SSD = 2.61)	Stone (Sandstone; Morrilton Quarry)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = I) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
A084	M & M Rock Company P. O. Box 1190 Conway, AR 72032 (Water Absorption = 0.8) (Spec. Gravity - SSD = 2.67)	Stone (Sandstone; Greenbrier Quarry)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = I) 4) Portland Cement Concrete 5) Riprap & Stone Revetment

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGS[B-1]
		OTHER AGGREGATE MATERIALS (continued)	
AA85	Madden Contracting P. O. Box 856 Minden, LA 71058-0856 (Water Absorption = 1.0) (Spec. Gravity - SSD = 2.54)	Stone (Novaculite; Hattton, AR Quarry)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = II) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
AA92	Martin Marietta Aggregates P. O. Box 1325 Mena, AR 71953 (Water Absorption = 1.0) (Spec. Gravity - SSD = 2.64)	Stone[3] (Rhyloite 'Traprock'; Hatton, AR)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = II) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
AA39	Martin Marietta Aggregates 6401 France Road P. O. Box 26396 New Orleans, LA 70126 (Water Absorption = 0.9) (Spec. Gravity - SSD = 2.70)	Stone (Granite; Nova Scotia, Construction Aggregate Quarry)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = I) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
AA86	Martin Marietta Aggregates 6401 France Road P. O. Box 26396 New Orleans, LA 70126 (Water Absorption = 3.9) (Spec. Gravity - SSD = 2.38)	Stone (Porous Limestone; Bahama Island, Freeport)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete
AA51	Martin Marietta Aggregates P. O. Box 219 Powderly, TX 75473 (Water Absorption = 2.3) (Spec. Gravity - SSD = 2.52)	Stone (Sandstone; Sawyer, OK)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = I) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
ABAW	Martin Marietta Aggregates 524 Central Avenue Hot Springs, AR 71901 (Water Absorption = 2.2) (Spec. Gravity - SSD = 2.53)	Stone (Sandstone; Jones Mill Pit, Malvern, AR)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = II) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
ABAX	Martin Marietta Aggregates 524 Central Avenue Hot Springs, AR 71901 (Water Absorption = 0.9) (Spec. Gravity - SSD = 2.58)	Stone (Syenite Granite; Jones Mill Pit, Malvern, AR)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete 5) Riprap & Stone Revetment

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGSB-1
		OTHER AGGREGATE MATERIALS (continued)	
AA77	Midwest Lime Company Box 2608 Batesville, AR 72501 (Water Absorption = 0.4) (Spec. Gravity - SSD = 2.72)	Stone[2] (Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AB06	Midwest Minerals, Inc. O. O. Box 412 Pittsburg, KS 66762 (Water Absorption = 1.0) (Spec. Gravity - SSD = 2.66)	Stone[2] (Limestone; Miami, OK)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
ABAG	Mineral Technology Systems 61 Nor Brook Drive Kingston, Jamaica W.I. (Water Absorption = 3.9) (Spec. Gravity - SSD = 2.40)	Stone (Porous Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks)
AA23	Missouri Portable Stone P. O. Box 449 Warrenton, MO 63383 (Water Absorption = 0.8) (Spec. Gravity - SSD = 2.84)	Stone ('Trap Rock')	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AB88	Missouri Red Quarries, Inc. HCR 63 Box 3371 Ironton, MO 63650 (Water Absorption = 0.4) (Sp. Gravity - SSD = 2.62)	Stone (Granite: Ironton, Missouri)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AB75	MMD Stone, LLC 600 N.E. Quarry Drive Jackson, MO 63755 (Water Absorption = 1.2) (Spec. Gravity - SSD = 2.64)	Stone Siliceous Limestone; (Bailey Formation) Jackson, MO	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete 5) Riprap & Stone Revetment

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGSB-1
	OTHER AGGREGATE MATERIALS (continued)		
AB92	Noren Properties Quarry #1 9446 N. State Hwy 309 Ozark, AR 72949 (Water Absorption = 1.9) (Spec. Gravity - SSD = 2.55)	Stone Sandstone Paris, AR	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = I) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
ABAT	Phillips & Jordan, Inc. Mobile, AL (Kellerman Quarry, Kellerman, AL) (Water Absorption = 1.8) (Spec. Gravity - SSD = 2.57)	Sandstone	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
ABBF	Pike County Constr./Earnest Investments P. O. Box 141 Kirby, AR 71950 (Water Absorption = 2.0) (Spec. Gravity - SSD = 2.56)	Stone (Sandstone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AB13	Pine Bluff Sand & Gravel Co. P. O. Box 80 New Blaine, AR 72851 (Water Absorption = 1.0) (Spec. Gravity - SSD = 2.63)	Stone (Sandstone; River Mountain Quarry)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = I) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
ABBS	Pine Bluff Sand & Gravel Co. Cumberland River Quarry 780 Spencer Road Salem, KY 42078 (Water Absorption = 0.8) (Spec. Gravity - SSD = 2.68)	Stone (Siliceous Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
AA69	Plattin Materials Company, Inc. 313 Sixteenth Street Moline, IL 61275 (Water Absorption = 2.2) (Spec. Gravity - SSD = 2.60)	Stone (Oolitic; St. Genevieve Quarry)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete 5) Riprap & Stone Revetment

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGSB-1
		OTHER AGGREGATE MATERIALS (continued)	
ABBH	Productos Mitza, S.A. DE C.V. KM 4.5 Carr. A. Caucel Merida Yucatan, Mexico 97248 (Water Absorption = 6.1) (Spec. Gravity - SSD = 2.32)	Stone (Porous Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks)
AA40	Redland Worth Corporation Route 2, Box 222 San Antonio, TX 78228 (Water Absorption = 1.8) (Spec. Gravity - SSD = 2.56)	Stone[2] (Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AB79	Riverside Stone Co. 4800 Cedar Flat Road Battletown, KY (Water Absorption = 0.9) (Spec. Gravity - SSD = 2.68) (Spec. Gravity - App = 2.72) (Spec. Gravity - Bulk = 2.66)	Stone (Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Bedding Material 6) Riprap & Stone Revetment
AA81	Searcy Asphalt & Materials, Inc. P. O. Box 1428 Searcy, AR 72143 (Water Absorption = 1.8) (Spec. Gravity - SSD = 2.60)	Stone (Sandstone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = II) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
AB15	Texas Crushed Stone Co., Inc. Georgetown, TX (Water Absorption = 3.6) (Spec. Gravity - SSD = 2.48)	Stone[2] (Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
A056	Tower Rock Stone Company 19829 Lower Frenchman Road, Ste Genevieve, MO 63670 (Water Absorption = 1.6) (Spec. Gravity - SSD = 2.64) (Spec. Gravity - App = 2.72) (Spec. Gravity - Bulk = 2.60)	Stone[2] (Limestone; St. Genevieve, MO)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGSB-1
OTHER AGGREGATE MATERIALS (continued)			
A079	Tower Rock Stone Company P. O. Box 69 Columbia, IL 62236 (Water Absorption = 4.8) (Spec. Gravity - SSD = 2.47)	(Oolitic Stone; St. Genevieve, MO)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
AB33	Tower Rock Stone Company P. O. Box 4248 Scott City, MO 63789 (Water Absorption = 0.5) (Spec. Gravity - SSD = 2.70)	Stone[2] (Limestone; Gray's Point Quarry)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
ABBD	Travis Creek Entergy, LLC 5969 Deans Ferry Road Trafford, AL 35233 (Water Absorption = 1.6) (Spec. Gravity - SSD = 2.64)	Stone (Granite)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = I) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
AB10	TXI P. O. Box 217 Streetman, TX 75859 (Water Absorption = 16.3) (Spec. Gravity - SSD = 1.54)	Expanded Shale Lightweight Aggregate (Streetman- Lightweight)	1) Asphaltic Surface Treatment 2) Asphaltic Concrete (excluding wearing surfaces) (Friction Rating = I) 3) Portland Cement Concrete (where specified)
AB61	TXI 4600 Lee Street Alexandria, LA 71302 (Water Absorption = 1.3) (Spec. Gravity - SSD = 2.64)	Stone (Limestone; Bridgeport, TX)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
A042	Vulcan Materials Company P. O. Box 7497 Birmingham, AL 35263 (Water Absorption = 0.7) (Spec. Gravity – SSD = 2.71)	Stone[2] (Limestone Calera Quarry)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGSB-1
OTHER AGGREGATE MATERIALS (continued)			
AB42	Vulcan Materials Company P. O. Box 459 Cherokee, AL 35616 (Water Absorption = 0.9) (Spec. Gravity - SSD = 2.62)	Stone[2] (Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AB53	Vulcan Materials Company P. O. Box 193 Georgetown, TX 78622 (Water Absorption = 0.8) (Spec. Gravity - SSD = 2.64)	Stone (Limestone; Brownwood, TX)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AB35	Vulcan Materials Company 1277 S. 7000 West Road Kankakee, IL 60901 (Water Absorption = 1.5) (Spec. Gravity - SSD = 2.69)	Stone[2] (Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AB36	Vulcan Materials Company 6141 North Route 50 Manteno, IL 60950 (Water Absorption = 1.6) (Spec. Gravity - SSD = 2.65)	Stone[2] (Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AA95	Vulcan Materials Company 285 West Esplanade Avenue Suite 402 Kenner, LA 70065 (Water Absorption = 3.7) (Spec. Gravity - SSD = 2.38)	Stone (Porous Limestone - Sactun; Cancun, MX)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete
AB19	Vulcan Materials Company P. O. Box 96 Trinity, AL 35673 (Water Absorption = 1.2) (Spec. Gravity - SSD = 2.65)	Stone[2] (Limestone; Trinity Plant; Decatur, AL)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGSB-1
		OTHER AGGREGATE MATERIALS (continued)	
AB41	Vulcan Materials Company P. O. Box 110 Tuscambia, AL 35674 (Water Absorption = 0.7) (Spec. Gravity - SSD = 2.64)	Stone[2] (Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
ABBP	Vulcan Materials Company 947 U. S. Highway 62 Grand Rivers, KY 42045 (Water Absorption = 0.9) (Spec. Gravity - SSD = 2.67)	Stone (Limestone; Grand Rivers Quarry Warsaw Formation)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
ABBQ	Vulcan Materials Company 947 U. S. Highway 62 Grand Rivers, KY 42045 (Water Absorption = 0.2) (Spec. Gravity - SSD = 2.68)	Stone (Siliceous Limestone; Grand Rivers Quarry Ft. Payne Formation)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = II) *for ADT ≤ 20,000* 4) Portland Cement Concrete 5) Riprap & Stone Revetment
ABBR	Vulcan Materials Company 947 U. S. Highway 62 Grand Rivers, KY 52045 (Water Absorption = 0.7) (Spec. Gravity - SSD = 2.24)	Stone (Siliceous Limestone: Lake City Quarry Salem Formation)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (Bridge Decks Excluded) 5) Riprap & Stone Revetment
ABBT	Vulcan Materials Company Pride Quarry 18055 Highway 72 West Tuscumbia, AL 35674 (Water Absorption = 1.9) (Spec. Gravity – SSD = 2.60)	Stone (Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
ABBV	Vulcan Materials Company LaGrange Quarry 628 Vulcan Materials Road LaGrange, GA 30241 (Water Absorption = 0.4) (Spec. Gravity – SSD=2.66)	Granite	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment

PRODUCT SOURCE CODE	SOURCE	MATERIAL	APPROVED USES & FRICTION RATINGSB-1
		OTHER AGGREGATE MATERIALS (continued)	
ABAY	Warren Paving 712 Lee Lane Salem, KY 42078 (Water Absorption = 0.3) (Spec. Gravity - SSD = 2.70)	Stone (Limestone; Slats Lucas Quarry)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = III) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment
AA83	Western Arkansas Sandstone, Inc. 9 Melinda Drive Little Rock, AR 72209 (Water Absorption = 1.1) (Spec. Gravity - SSD = 2.59)	Stone (Sandstone; Delaware)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = II) 4) Portland Cement Concrete 5) Riprap & Stone Revetment
AB78	Winn Materials Clarksville, TN (Water Absorption = 0.6) (Sp. Gravity - SSD = 2.7) (Sp. Gravity - App = 2.72) (Sp. Gravity - Bulk = 2.68)	Stone (Siliceous Limestone)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete and PCC (Friction Rating = IV) (excluding bridge decks) 4) Bedding Material 5) Riprap & Stone Revetment
A073	3M Company P. O. Box 6150 Little Rock, AR 72216 (Water Absorption = 0.7) (Spec. Gravity - SSD = 2.56)	Stone[2] (Syenite Granite)	1) Base & Surface Course 2) Asphaltic Surface Treatment 3) Asphaltic Concrete (Friction Rating = IV) 4) Portland Cement Concrete (excluding bridge decks) 5) Riprap & Stone Revetment

ENDNOTES TO SECTION B:

1. *Due to the high apparent gravity of this aggregate, the yield of asphaltic concrete mixtures utilizing this material would be less than standard mixtures.*

2. *May be used in a final Asphaltic Concrete Wearing Course where the ADT per lane is less than 1000 VPD or the ADT per roadway is less than 2000 VPD and this aggregate does not constitute more than 70% by volume of the total aggregate in the mixture.*

3. *May be used as a Friction Rating of II in final Asphaltic Concrete Wearing Surfaces where the ADT for the total roadway is less than 40,000 VPD.*

4. *May be used in Asphaltic Surface Treatment for Type B and Type D applications only.*

NOTES:

NOTE B-1:

Refer to Subsections 501.02 and 1003.06 for definition and application of Friction Ratings.

NOTE B-2:

All material, regardless of prior approval, shall be sampled in accordance with the Materials Sampling Manual and tested for conformance to the original specification. Any deviation in composition or performance from the original sample submitted may result in removal of the product from the qualified list.

REFERENCE:

DOTD Standard Specifications and Special Provisions, Section 1003
DOTD Supplemental Specifications
DOTD Maintenance Specifications

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State of Louisiana
Department of Transportation and Development

Qualified Products List 41

ASPHALTIC MATERIALS

SMM Material Codes					
Product	**SMM Material Code**	**Product**	**SMM Material Code**	**Product**	**SMM Material Code**
Binder 58-22	**1002M00020**	Emulsion SS-1	**1002M00080**	Emulsion EPR-1	**1002M00150**
Binder 64-22	**1002M00030**	Emulsion SS-1H	**1002M00090**	Emulsion AEP	**1002M00160**
Binder 70-22m	**1002M00040**	Emulsion CRS-2	**1002M00100**	Emulsion SS-1P	**1002M00170**
Binder 76-22m	**1002M00050**	Emulsion CMS-2	**1002M00110**	Polymer Modified Emulsion	**1002M00175**
Binder 70-22 Alt	**1002M00060**	Emulsion CSS-1	**1002M00120**	Emulsion SS-1L	**1002M00180**
Binder PG 82-22m	**1002M00065**	Emulsion CSS-1H	**1002M00130**	NTSS-1HM	**1002M00185**
PAC- 15 for Asph. Surf. Treatment	**1002M00070**	Emulsion CSS-1HP	**1002M00135**	Cutback MC-30	**1002M00180**
		Emulsion CRS-2P	**1002M00140**	Cutback MC-70	**1002M00200**
		Emulsion CQS-1H	**1002M00145**	Cutback MC-250	**1002M00210**

PRODUCT SOURCE CODE	**PRODUCT**	**SOURCE**
4124	Cutback Asphalt (MC-30, MC-70)	Asphalt Products Unlimited, Inc. 4675 Interstate Highway Port Allen, LA 70767 *SMM: APS00000330*
4125	Emulsified Asphalt (SS-1, SS-1h, CRS-2, CQS-1H[2])	
4178	Emulsified Polymerized Asphalt (SS-1L)	
41CH	Emulsified Polymerized Asphalt (CRS-2P)	
41CI	AEP Asphalt Emulsion Prime	
41EG	NTSS-1HM Anionic "Trackless Tack"	
41FG	Polymer Modified Emulsion (PME)	
4162	Emulsified Petroleum Resin (EPR-1)	Blacklidge Emulsions, Inc. 12251 Bernard Parkway Suite 200 Gulfport, MS 39503 *SMM: APS00000340*
4163	Emulsified Asphalt (SS-1, CRS-2)	
41EJ	PG82-22RM	
41EL	NTSS-1HM "Trackless Tack"	
41EN	SS-1H	
41FN	PG 64-22	
41FO	PAC-15	

PRODUCT SOURCE CODE	PRODUCT	SOURCE
41EH	PG 64-22	Calumet Lubricants Co. 3333 Midway Avenue Shreveport, LA 71109 *SMM: APS00002480*
41FI	NTSS-1HM	Calumet Lubricants Co. 10234 Highway 157 Princeton, LA 71067 *SMM: APS00011030*
41EM 41FK 41FM	MC-30 Cutback Asphalt PG 76-22M PG 70-22M	Ergon Asphalt & Emulsions P. O. Box 13387 1989 Channel Avenue Memphis, TN 38113 *SMM: APS00010280*
4181 4187	Emulsified Asphalt (SS-1, CRS-2) Emulsified Polymerized Asphalt (CRS-2P)	Ergon, Inc. 209 Airport Road Mt. Pleasant, TX 75455 *SMM: APS00000350*
41FL	PG 76-22M	Ergon Asphalt & Emulsion 7890 Birmingport Road Mulga, AL 35118 *SMM: APS00011110*
4134 4182 41BT 41AU 41AT 41CJ 41EE 41FD	Emulsified Ashpalt (CRS-2, CQS-1H[2]) Emulsified Polymerized Asphalt (CRS-2P) PG 64-22[1] PG 70-22M[1] PG 76-22M[1] CSS-1 CSS-1HP Polymer Modified Emulsion (PME)	Ergon Refining, Inc. P. O. Box 309 2611 Haining Road Vicksburg, MS 39180 *SMM: APS00000360*
41EF	PG 76-22M	Hunt-Southland Refining Co. (Sandersville Facility) P. O. Drawer A Sandersville, MS 39477 *SMM: APS00000380*

PRODUCT SOURCE CODE	PRODUCT	SOURCE
41EY 41FE	PG 64-22 PG 70-22M	Hunt-Southland Refining Company (Heidelberg) 177 Haney Road Heidelberg, MS 39439 *SMM: APS00000385*
4139 41BF 41BM 41BG	Cutback Asphalt (MC-30) PG 64-22[1] PG 70-22M[1] PG 76-22M[1]	Lion Oil Company 1000 McHenry Street El Dorado, AR 71730 *SMM: APS00000390*
41BP 41BJ 41BK 41BL	PG 58-28[1] PG 64-22[1] PG 70-22M[1] PG 76-22M[1]	Marathon Petroleum Company, LP P. O. Box AC Garyville, LA 70051 *SMM: APS00000400*
41EQ 41ER 41ES 41ET 41EZ 41FC 41FH	PG 64-22 PG 70-22M CRS-2P Polymer Modified Emulsion PG 76-22M AEP SS-1H	Martin Asphalt Company 300 Christy Place South Houston, TX 77587 *SMM: APS00010660*
41EU 41EV 41EW 41EX 41FJ	Polymer Modified Emulsion CRS-2P SS-1 CRS-2 SS-1H	Martin Asphalt Company 100 ½ East Port Neches Avenue Port Neches, TX 77651 *SMM: APS00010850*
41FA	PG 64-22	Martin Asphalt Company (Stanolind Facility) 10 Sulfur Plant Road Beaumont, TX 77701 *SMM: APS00010870*
41FB	PG 64-22	Martin Asphalt Company (Neches Facility) One Gulf State Road Beaumont, TX 77704 *SMM: APS00010880*

PRODUCT SOURCE CODE	PRODUCT	SOURCE
41EC 41EA 41EB 41EP 41FF	PG 64-22[1] PG 70-22M[1] PG 76-22M[1] PAC-15 PG 82-22rm	Pelican Refining Co., LLC 4646 Old Town Road Lake Charles, LA 70615 *SMM: APS00000410*
41EO	PAC-15	Pelican Refining Co., LLC 17310 Market Street Channelview, TX 77530 *SMM: APS00010050*
41FP	Emulsified Petroleum Resin (EPR-1)	PennzSuppress Corporation 360 Nueces #3609 Austin, TX 78701 *SMM: APS00000420*
41FQ	PG 64-22 (PG 67-22)	Shell Oil Products, US 11843 River Road St. Rose, LA 70087 *SMM: APS00011250*
41FR	PG 76-22M	Shell Oil Products, US 835 Cochrane Causeway Mobile, AL 36610 *SMM: APS00001270*
41DT 41DU 41DV	PG 64-22[1] PG 70-22M[1] PG 76-22M[1]	TOTAL Petrochemicals USA, Inc. P. O. Box 849 Hwy. 366th & 32nd Street Port Arthur, TX 77642 *SMM: APS00000480*
41DO 41DP 41DQ 41DR 41DS	PG 58-28[1] PG 64-22[1] PG 70-22M[1] PG 76-22M[1] MC-30 Cutback Asphalt	Valero Marketing and Supply 10455 Hwy 18 St. James, Louisiana 70086 *SMM: APS00000510*

ENDNOTES:

1. *Material is approved for the Louisiana Approved Supplier Certification Program*

2. *CQS-1H allowed by Contract Specifications only.*

3. *Binders with rotational viscosity values higher than 3.0 Pascal Seconds 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.*

REFERENCE:

DOTD Standard Specifications, Subsection 1002.01 (Metric/English)
DOTD Special Provisions (Metric/English)
DOTD Maintenance Specifications, DOTD 158-001, DOTD 164-002 and DOTD 164-003 Louisiana Approved Supplier Certification Program

NOTE:

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