



Department of Administrative Services

Purchasing and Contracts

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Sabra Smith Newby, Chief Administrative Officer
Adleen B. Stidhum, Purchasing Administrator

CLARK COUNTY, NEVADA BID NO. 603481-14 SLURRY SEAL 2015 - RESIDENTIAL

November 26, 2014

ADDENDUM NO. 1

INVITATION TO BID

1. The bid opening date of December 5, 2014 at 2:15:00 p.m. **remains unchanged.**

BID FORM

2. Disregard the Bid Form, pages 4-1 through 4-5 and replace with the attached Revised Bid Form, pages 4-1 through 4-5 attached to this Addendum No. 1.
 - a. Quantity for bid item 627.01 – PERMANENT SIGN POST has been changed to **3**.
 - b. Quantity for bid item 627.04 – PERMANENT SIGN PANEL (R3-7) (30X30) has been changed to **1**.
 - c. Quantity for bid item 628.01 – TYPE 2 FILM (CROSSWALK) has been changed to **10,540**.
 - d. Quantity for bid item 628.02 – TYPE 2 FILM (STOP BAR) has been changed to **2,520**.
 - e. Quantity for bid item 628.07 – TYPE 2 FILM TRANSITION MARKING (WHITE) has been changed to **453**.
 - f. Quantity for bid item 628.08 – TYPE 1 FILM (4" WHITE) has been changed to **430**.
 - g. Quantity for bid item 628.10 – TYPE 1 FILM (8" WHITE) has been changed to **450**.
 - h. Bid Item 412.01 SLURRY SEAL TYPE 2 has been changed to **SLURRY SEAL (TYPE II)**
 - i. Bid Item 412.02 SLURRY SEAL TYPE 3 has been changed to **SLURRY SEAL (TYPE III)**

SPECIAL PROVISIONS

3. The following sections are being **reissued** with this addendum No.1
 - a. Section 412 - Pavement Surface Treatment – Slurry Seal/Microsurfacing
 - b. Section 714 - Paint and Pavement Markings – Physical Properties and Tests

4. SECTION 703.03.02 ASPHALT CEMENTS

- a. Table 12 – Slurry Seal Emulsion. Line for Penetration should be **changed** to read:

Penetration. 77°F, 100g, 5s	T49	35 - 50
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CONTRACT DRAWINGS

5. The following sheets are being reissued with this addendum.
 - a. DWG-03, DWG-04, DWG-05, DWG-13, and DWG-19

6. The following sheets are **NOT** being reissued with this addendum. The Contractor shall make the following changes, which will be reflected in the "Issued for Construction" plans.

- a. DWG-14, DWG-15, DWG-16, DWG-17 and DWG-18
 - i. Adjust Traffic Note #8 to read, **Install Bike Lane Legends (Type 2 Slip Resistant Film) Per Detail on sheet 19**
 - ii. Adjust Traffic Note #9 to read, **Install 6" Bike Lane Lines (Type 1 Slip Resistant Film)**
 - iii. Adjust Traffic Note #10 to read, **Install 6"X2' Bike Lane Skip Lines 8' OC (Type 1 Slip Resistant Film) Per Detail on Sheet 19**

QUESTIONS & ANSWERS

Q1. What materials are approved for use for Type1 Pavement Markings on this project?

ATM 300 ?

ATM 400 ?

3M 270 ?

3M LPM 1200 Polyurea ?

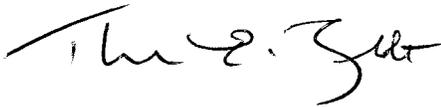
You spell it out for Type 2 Pavement Markings ATM 400 or approved equal.

Clarification would be appreciated.

A1. Addendum #1 will further clarify the fact Polyurea will not be used or allowed on this project (Section 714). Furthermore, we will not be requiring a specific material type for Type 1 film, rather we will allow the Contractor to choose while following the special provision for Section 714. Hence, the Contractor will determine which material to use that both complies with the "Heavy Traffic" performance criteria in the Blue Book and found within the current NDOT QPL list identified in the above mentioned special provision.

Except as modified herein, all other bid specifications, terms, conditions, and special provisions shall remain the same.

ISSUED BY:



THOMAS E. BOLDT, C.P.M.

Senior Purchasing Analyst

Attachment(s):

Revised Bid Form, pages 4-1 to 4-5

DWG - 03

DWG - 04

DWG - 05

DWG - 13

DWG - 19

Section 412

Section 714

cc: Ray Falcon, P.E., Public Works
Joe Yatson, P.E., Public Works
Mike Mamer, Public Works
Cindy Beauchamp, Public Works

CLARK COUNTY, NEVADA

BID FORM

BID NO. 603481-14
SLURRY SEAL 2015 - RESIDENTIAL
PWP NUMBER: CL-2015-41
Revised per Addendum No. 1

(NAME)

(ADDRESS)

I, THE UNDERSIGNED BIDDER:

1. Agree, if awarded this Contract, I will complete all work for which a Contract may be awarded and to furnish any and all labor, equipment, materials, transportation, and other facilities required for the services as set forth in the Bidding and Contract Documents.
2. Have examined the Contract Documents and the site(s) for the proposed work and satisfied themselves as to the character, quality of work to be performed, materials to be furnished and as to the requirements of the specifications.
3. Have completed all information in the blanks provided and have submitted the following within this Bid:
 - a) Have listed the name of each Subcontractor which will be paid an amount exceeding five percent (5%) of the Total Base Bid amount.
 - b) Attached a bid security (in the form of, at my option, a Cashiers Check, Certified Check, Money Order, or Bid Bond in favor of the Owner in the amount of five percent (5%) of the Total Base Bid amount.
 - c) If claiming the preference eligibility, I have submitted a valid Certificate of Eligibility with this Bid.
4. I acknowledge that if I am one of the three apparent low bidders at the bid opening, and if I have listed Subcontractor(s) pursuant to NRS 338.141, I must submit Bid Attachment 2 within two-hours after completion of the bid opening pursuant to the Instructions to Bidders, forms must be submitted via hand delivery or email to COUNTYPURCHASING@CLARKCOUNTYNV.GOV and I understand that hand delivery is recommended, and Owner shall not be responsible for lists received after the two-hour time limit, regardless of the reason. I understand that submission after the two-hour time limit is not allowed and will be returned to me and the bid will be deemed non-responsive. I acknowledge that for:
 - a) Projects UNDER \$5,000,000
I need to list **only those Subcontractors** that will provide labor/improvements exceeding \$50,000.00.
5. I acknowledge that if I am one of the three apparent low bidders at bid opening, and if I have submitted a valid Certificate of Eligibility as described in 3.c above, I must submit Bid Attachment 3, Affidavit Pertaining to Preference Eligibility, within two-hours after completion of the bid opening pursuant to the General Conditions. The forms must be submitted via hand delivery or email to COUNTYPURCHASING@CLARKCOUNTYNV.GOV and I understand hand delivery is recommended. Owner shall not be responsible for lists received after the two-hour time limit, regardless of the reason. I understand that submission of the Certificate after the two-hour time limit is not allowed and it will be returned to me and the bid will be deemed non-responsive. **(Delete if Federally Funded)**
6. I acknowledge that if notified that I am the low bidder, I must submit the Disclosure of Ownership/Principals form within 24-hours of request.
7. I acknowledge that my bid is based on the current State of Nevada prevailing wages.
8. I acknowledge that I have not breached a public work contract for which the cost exceeds \$25,000,000, within the preceding year, for failing to comply with NRS 338.147 and the requirements of a contract in which I have submitted within 2 hours of the bid opening an Affidavit pertaining to preference eligibility.

9. Upon faxed or mailed receipt of a Notice of Intent to Award the Contract, I will provide the following submittals within seven business days from receipt of the Notice:
- a) Performance Bond, Labor and Material Payment Bond and a Guaranty Bond, for 100% of the Contract amount as required.
 - b) Certificates of insurance for Commercial General Liability in the amount of \$1,000,000, Automobile Liability in the amount of \$1,000,000, and Workers' Compensation insurance issued by an insurer qualified to underwrite Workers' Compensation insurance in the State of Nevada, as required by law.
10. I acknowledge that if I do not provide the above submittals on or before the seventh business day after receipt of the Notice of Intent to Award; or do not keep the bonds or insurance policies in effect, or allow them to lapse during the performance of the Contract; I will pay over to the Owner the amount of \$1,500 per day as liquidated damages.
11. I confirm this bid is genuine and is not a sham or collusive, or made in the interest of, or on behalf of any person not herein named, nor that the Bidder in any manner sought to secure for themselves an advantage over any bidders.
12. I further propose and agree that if my bid is accepted, I will commence to perform the work called for by the contract documents on the date specified in the Notice to Proceed and I will complete all work within the calendar days **specified in the General Conditions**.
13. I further propose and agree that I will accept as full compensation for the work to be performed the price written in the Bid Schedule below.
14. I have carefully checked the figures below and the Owner will not be responsible for any error or omissions in the preparation or submission of this Bid.
15. I agree no verbal agreement or conversation with an officer, agent or employee of the owner, either before or after the execution of the contract, shall affect or modify any of the terms or obligations of this Bid.
16. I am responsible to ascertain the number of addenda issued, and I hereby acknowledge receipt of the following addenda:

Addendum No. _____ dated, _____	Addendum No. _____ dated, _____
Addendum No. _____ dated, _____	Addendum No. _____ dated, _____
Addendum No. _____ dated, _____	Addendum No. _____ dated, _____
Addendum No. _____ dated, _____	Addendum No. _____ dated, _____
Addendum No. _____ dated, _____	Addendum No. _____ dated, _____

17. I agree to perform all work described in the drawings, specifications, and other documents for the amounts quoted below:

BID SCHEDULE				
ITEM NUMBER	ITEM DESCRIPTION	APPROX. QUANTITY	UNIT	TOTAL
107.01	TRAFFIC CONTROL	45	DAY	
109.01	CONSTRUCTION CONFLICTS AND ADDITIONAL WORK	1	LS	\$100,000
109.02	HISTORICAL OWNER CAUSED DELAY ALLOWANCE	5	DAY	\$ 2,500
109.03	ADDITIONAL AMOUNT OVER \$500.00 / DAY AS DETERMINED BY BIDDER	5	DAY	
200.01	MOBILIZATION	1	LS	
412.01	SLURRY SEAL (TYPE II)	618000	SY	

BID SCHEDULE				
ITEM NUMBER	ITEM DESCRIPTION	APPROX. QUANTITY	UNIT	TOTAL
412.02	SLURRY SEAL (TYPE III)	62420	SY	
412.03	SURFACE GRINDING	100	HR	
412.04	ROLLING	100	HR	
412.05	EXCESS RAVEL SWEEPING	100	HR	
619.01	MARKER POST (K-71) (YELLOW)	3	EA	
627.01	PERMANENT SIGN POST	3	EA	
627.02	PERMANENT SIGN PANEL (R3-17) (24X18)	4	EA	
627.03	PERMANENT SIGN PANEL (R3-17BP) (24X8)	1	EA	
627.04	PERMANENT SIGN PANEL (R3-7) (30X30)	1	EA	
628.01	TYPE 2 FILM (CROSSWALK)	10540	SF	
628.02	TYPE 2 FILM (STOP BAR)	2520	SF	
628.03	TYPE 2 FILM (ARROW LEGEND)	66	EA	
628.04	TYPE 2 FILM ("ONLY" LEGEND)	2	EA	
628.05	TYPE 2 FILM (BIKE LEGEND)	21	EA	
628.06	TYPE 2 FILM TRANSITION MARKING (YELLOW)	130	SF	
628.07	TYPE 2 FILM TRANSITION MARKING (WHITE)	453	SF	
628.08	TYPE 1 FILM (4" WHITE)	430	LF	
628.09	TYPE 1 FILM (6" WHITE)	21228	LF	
628.10	TYPE 1 FILM (8" WHITE)	450	LF	
628.11	MEDIAN ISLAND PAINT (YELLOW)	442	SF	
633.01	PAVEMENT MARKERS (NON-REFLECTIVE)	6234	EA	
633.02	PAVEMENT MARKERS (REFLECTIVE)	2295	EA	
637.02	DUST CONTROL	45	DAY	
TOTAL BASE BID			\$	

18. BUSINESS ENTERPRISE INFORMATION:

The Prime Contractor submitting this Bid is a MBE WBE PBE SBE VET DVET ESB as defined in the Instructions to Bidders.

19. BUSINESS ETHNICITY INFORMATION:

The Prime Contractor submitting the Bid Ethnicity is Caucasian (CX) African American (AA) Hispanic American (HA) Asian Pacific American (AX) Native American (NA) Other as defined in the Instructions to Bidders.

20. BIDDERS' PREFERENCE Is the Bidder claiming Bidders' Preference?

Yes If yes, the Bidder acknowledges that he/she is required to follow the requirements set forth in the Affidavit (Bid Attachment 3).

No I do not have a Certificate of Eligibility to receive preference in bidding.

21.

LEGAL NAME OF FIRM AS IT WOULD APPEAR IN CONTRACT

ADDRESS OF FIRM

CITY, STATE, ZIP CODE

TELEPHONE NUMBER

FAX NUMBER

NEVADA STATE CONTRACTORS' BOARD LICENSE INFORMATION:

I certify that the license(s) listed below will be the license(s) used to perform the majority of the work on this project.

LICENSE NUMBER: _____

LICENSE CLASS: _____

LICENSE LIMIT: _____

ONE TIME LICENSE LIMIT INCREASE \$ _____ IF YES, DATE REQUESTED _____

CLARK COUNTY BUSINESS LICENSE NO. _____

STATE OF NEVADA BUSINESS LICENSE NO. _____

AUTHORIZED REPRESENTATIVE
(PRINT OR TYPE)

E-MAIL ADDRESS

SIGNATURE OF AUTHORIZED
REPRESENTATIVE

TODAY'S DATE

SLURRY SEAL 2015

DUNEVILLE & VIKING AREA



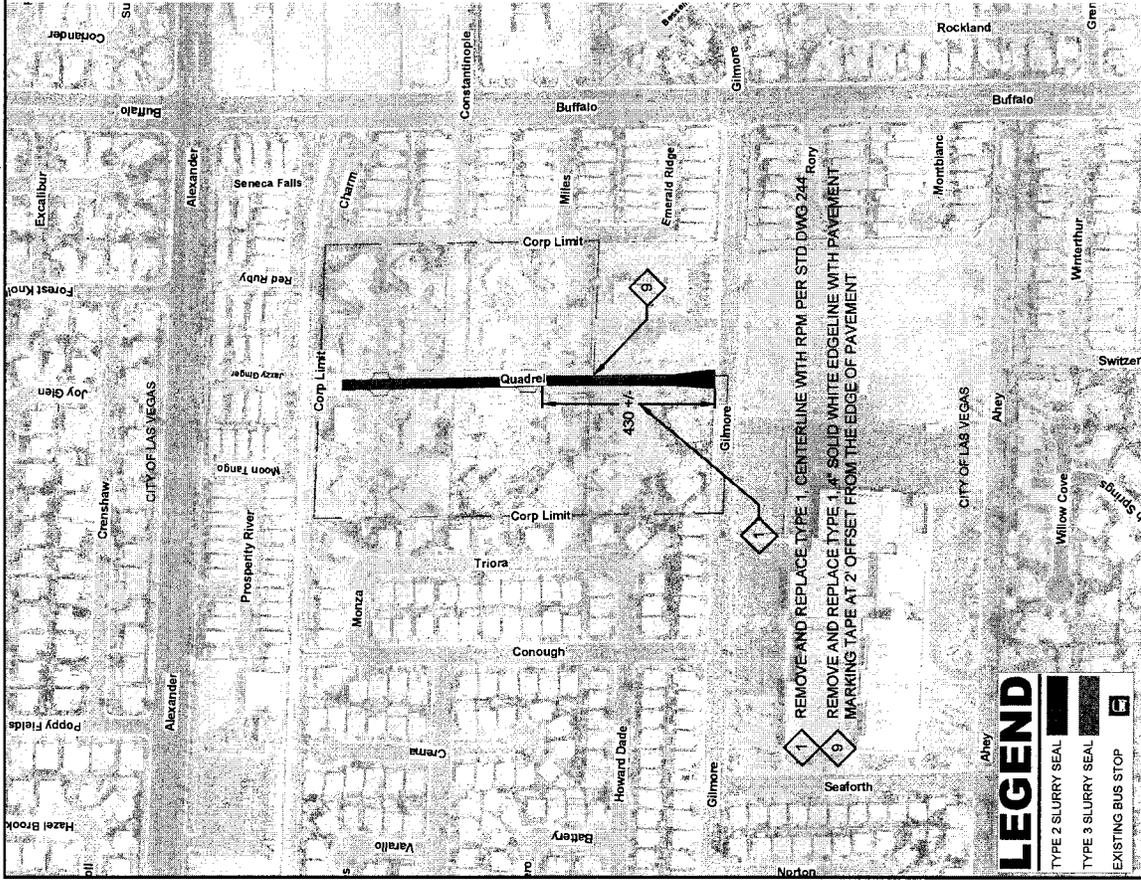
SLURRY SEAL 2015 - RESIDENTIAL BID NUMBER 603481-14

DWG-03

04-03-2014

SLURRY SEAL 2015

GILMORE & QUADREL AREA

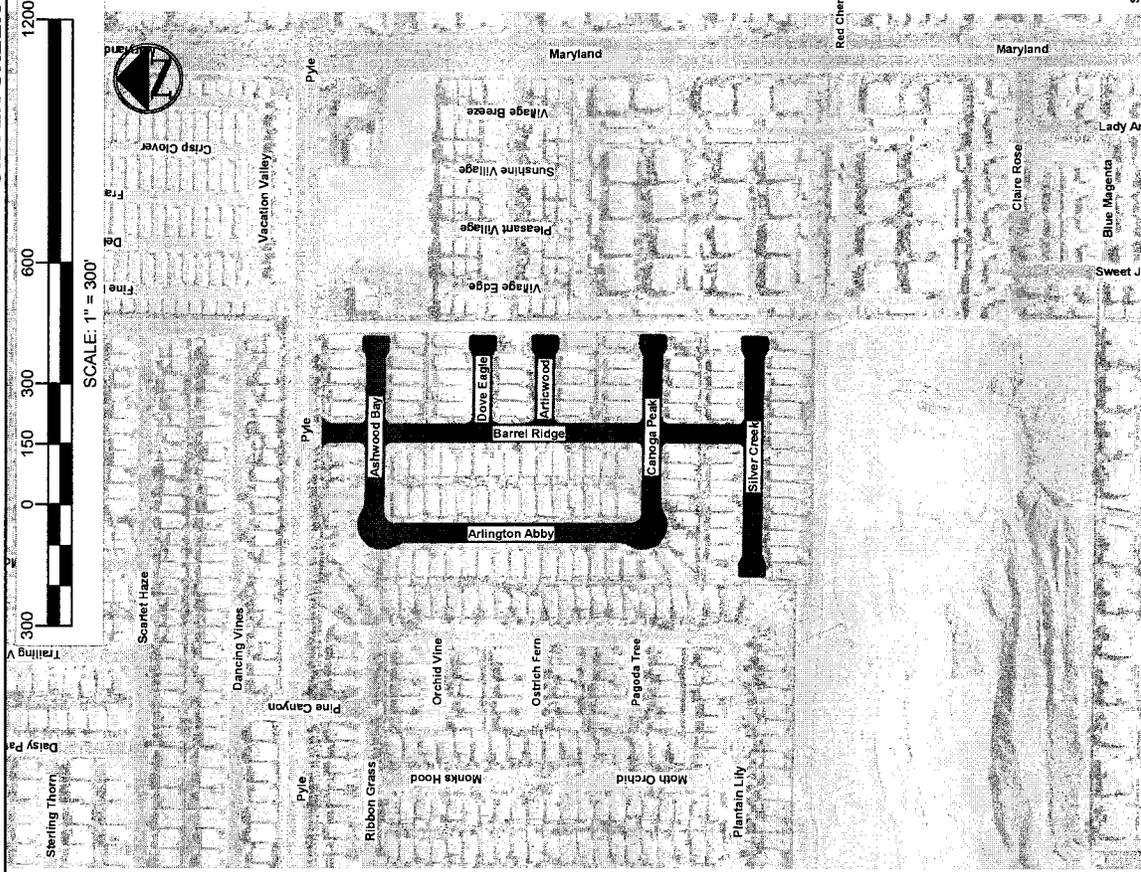


- 1 REMOVE AND REPLACE TYPE 1 CENTERLINE WITH RPM PER STD DWG 244 RORY
- 2 REMOVE AND REPLACE TYPE 1 1" SOLID WHITE EDGELINE WITH PAVEMENT MARKING TAPE AT 2' OFFSET FROM THE EDGE OF PAVEMENT
- 3

LEGEND	
[Symbol]	TYPE 2 SLURRY SEAL
[Symbol]	TYPE 3 SLURRY SEAL
[Symbol]	EXISTING BUS STOP

04-03-2014

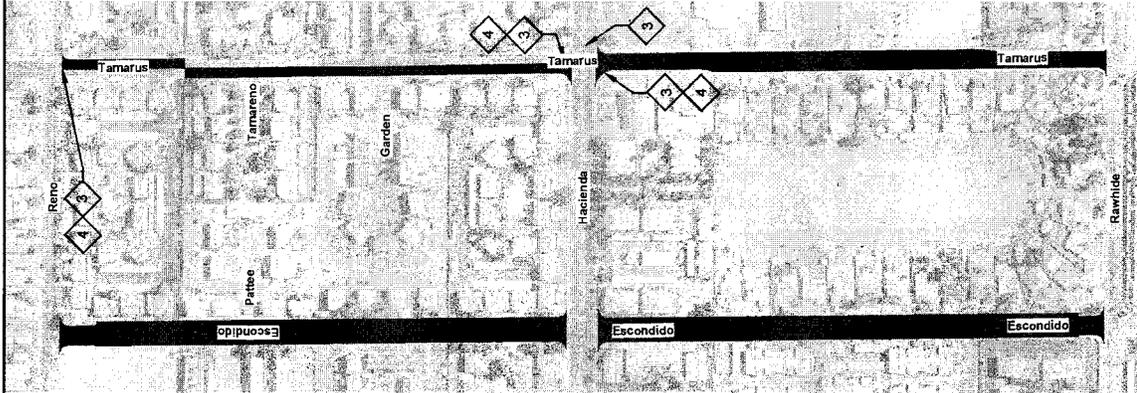
SILVER CREEK



SCALE: 1" = 300'



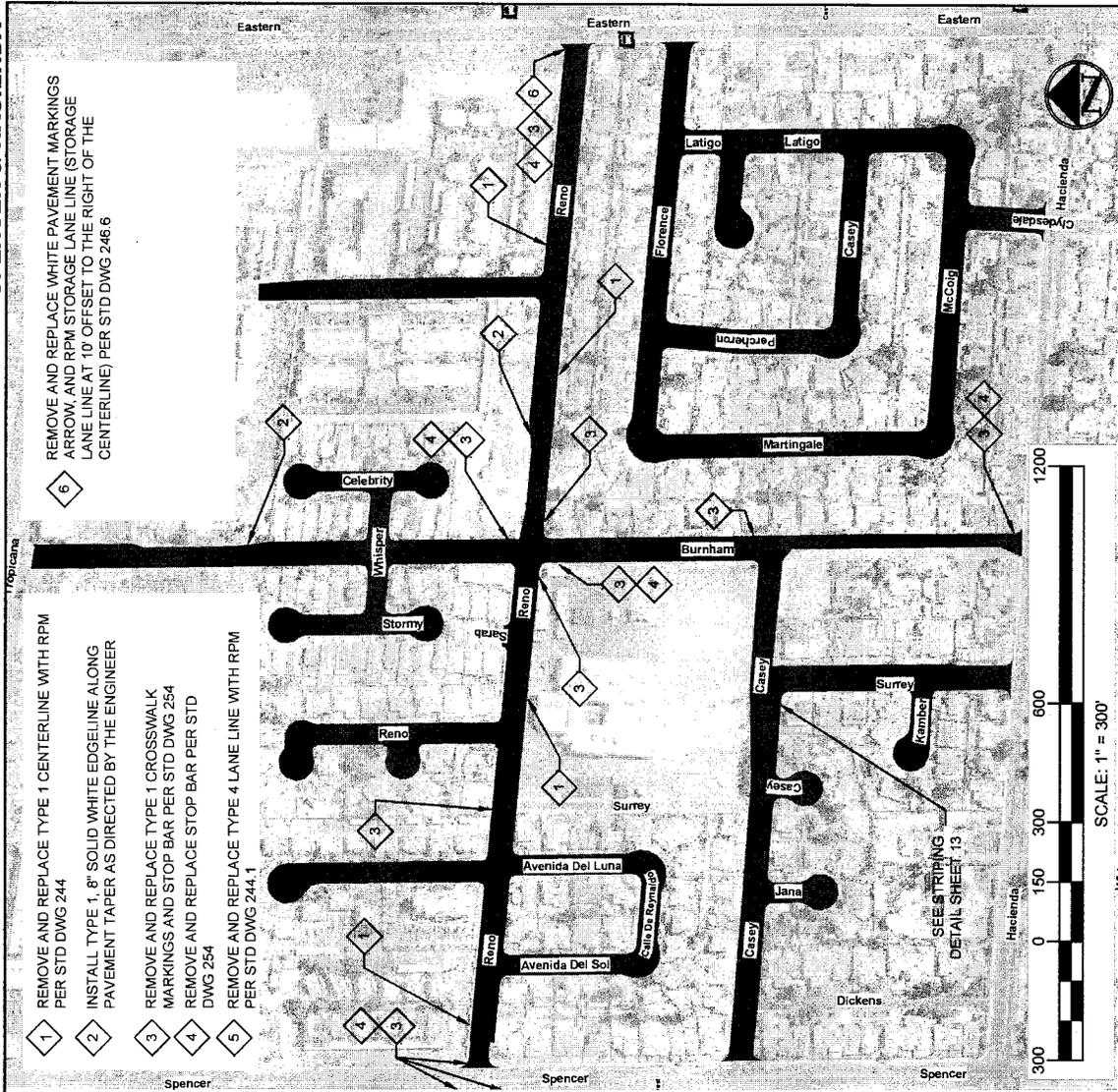
SLURRY SEAL 2015



LEGEND	
[Symbol]	TYPE 2 SLURRY SEAL
[Symbol]	TYPE 3 SLURRY SEAL
[Symbol]	EXISTING BUS STOP

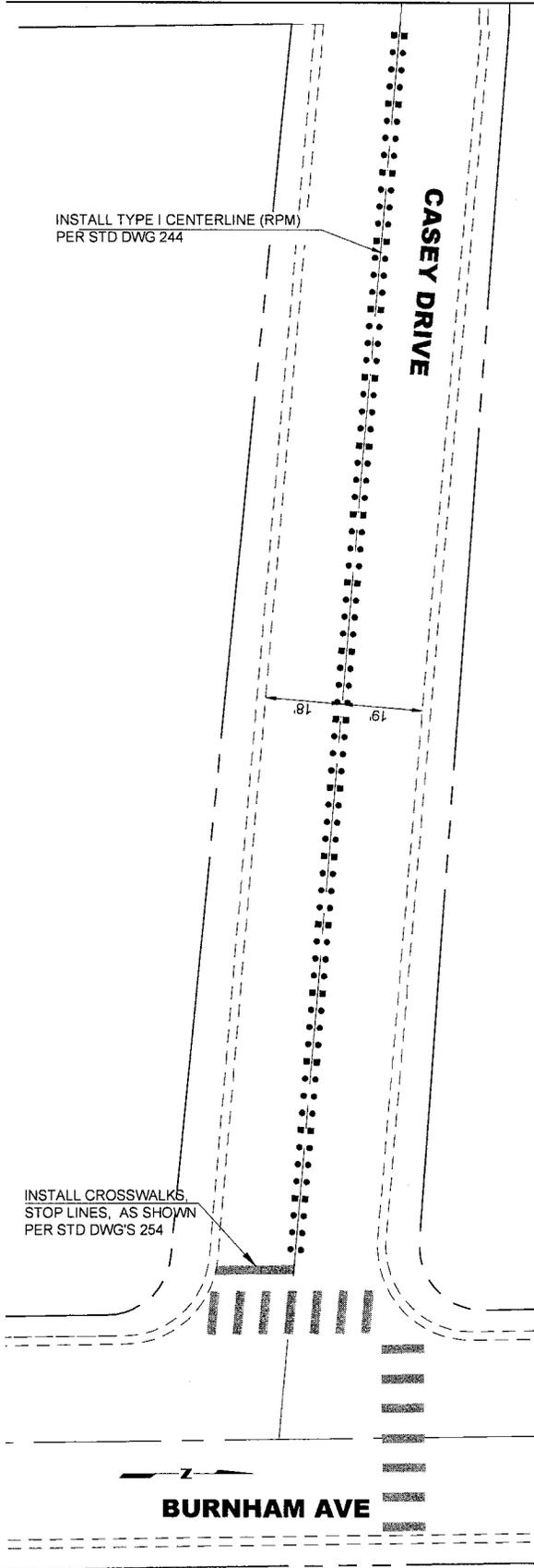
04-03-2014

SPENCER & HACIENDA

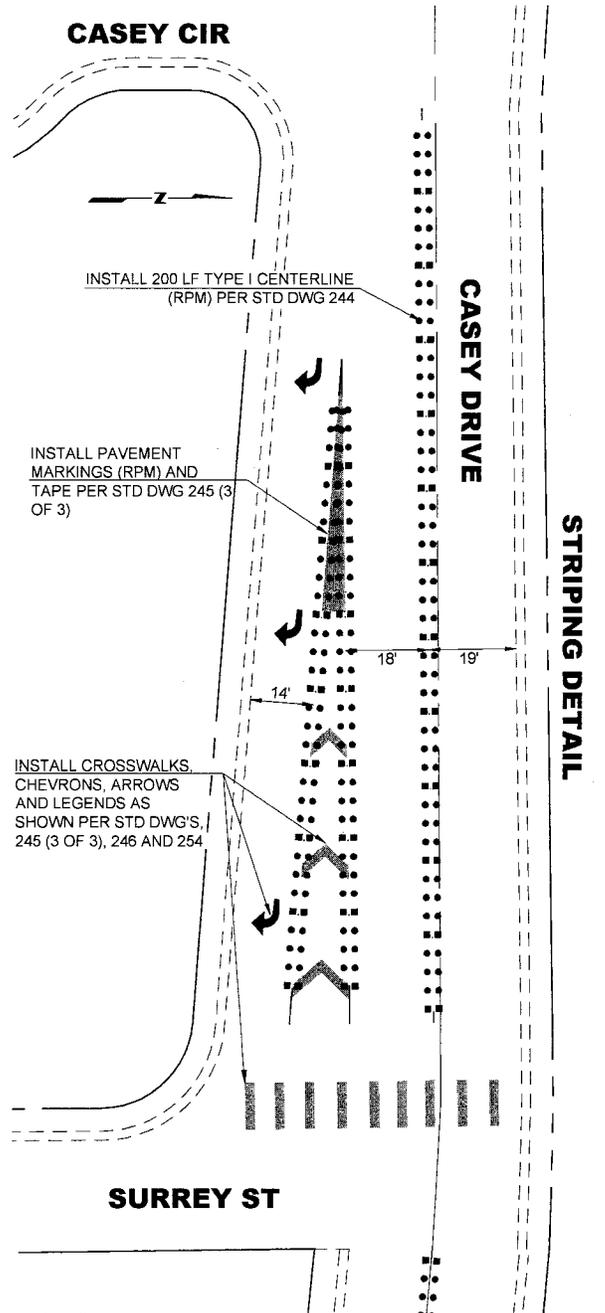


- 1 REMOVE AND REPLACE TYPE 1 CENTERLINE WITH RPM PER STD DWG 244
- 2 INSTALL TYPE 1, 8" SOLID WHITE EDGELINE ALONG PAVEMENT TAPER AS DIRECTED BY THE ENGINEER
- 3 REMOVE AND REPLACE TYPE 1 CROSSWALK MARKINGS AND STOP BAR PER STD DWG 254
- 4 REMOVE AND REPLACE STOP BAR PER STD DWG 254
- 5 REMOVE AND REPLACE TYPE 4 LANE LINE WITH RPM PER STD DWG 244.1
- 6 REMOVE AND REPLACE WHITE PAVEMENT MARKINGS ARROW, AND RPM STORAGE LANE LINE (STORAGE LANE LINE AT 10' OFFSET TO THE RIGHT OF THE CENTERLINE) PER STD DWG 246.6

SEE BELOW RIGHT

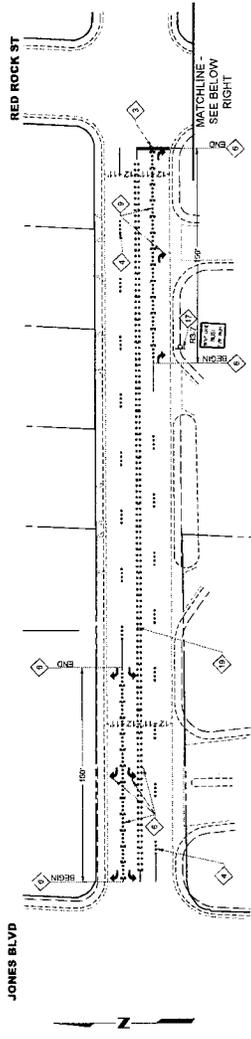


CASEY CIR

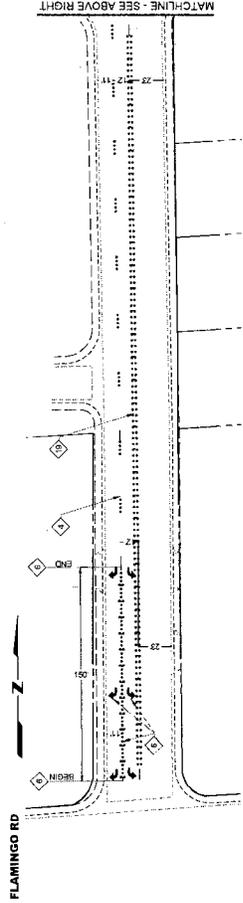


STRIPING DETAIL

SEE ABOVE LEFT

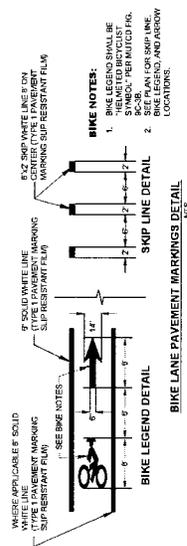


SADDLE AVE



REDROCK ST

- TRAFFIC NOTES**
- 1. INSTALL UNDERLAYMENT SIGN PANELS w/ RIMS PER USD 241
 - 2. INSTALL TYPE 4 LANE LINE w/ RIMS PER USD 241 & 242
 - 3. INSTALL TURN ARROWS (WHITE TYPE Z FILM PER DETAIL ON SHEET 17)
 - 4. INSTALL ADDED LEFT TURN LANE PER USD 249 AND DETAIL ON SHEET 17
 - 5. INSTALL GROUND MOUNTED SIGN PANELS & POSTS PER USD 248.1
 - 6. INSTALL TYPE 1 CENTERLINE w/ RIMS PER USD 244



2015 SLURRY SEAL
 PAVEMENT MARKINGS
 SADDLE AVE AND REDROCK ST
 CLARK COUNTY, NEVADA, DEPARTMENT OF PUBLIC WORKS

REV'S	DATE	DESCRIPTION	APPROVED



DESIGNED BY: S.M.R.
 DRAWN BY: S.M.R.
 CHECKED BY: S.M.R.
 DATE: Nov 26, 2014 - 8:00 AM

SECTION 412

PAVEMENT SURFACE TREATMENTS - SLURRY SEAL/MICROSURFACING

DESCRIPTION

412.01.01 GENERAL

Change Paragraph A to read as follows:

The slurry seal shall consist of a mixture of emulsified asphalt, mineral aggregate, mineral filler if required, set control additive and water; proportioned, mixed and spread evenly on a prepared surface in accordance with these specifications, or as directed by the Engineer. The slurry when cured, shall have a homogeneous appearance, fill all cracks, adhere firmly to the surface and have skid resistant texture.

Add the following:

Slurry seals shall be applied by experienced machine operators and material mixers. Experienced machine operators and material mixers shall have successfully completed a minimum of three (3) recent and consecutive construction seasons operating a slurry seal or micro-surfacing machine on a government agency project.

MATERIALS

412.02.01 ASPHALT EMULSION

Change Paragraphs A and B to read as follows:

The asphalt emulsion shall be a Latex Modified Cationic Quick-set (LMCQS-1h) as determined by compatibility test procedures specified in ISSA Technical Bulletin #115, latest edition.

Each shipment of emulsified asphalt shall be accompanied with a certificate of analysis/compliance from the manufacturer for that lot.

412.02.05 SET CONTROL ADDITIVE

Change Paragraphs A and B to read as follows:

To control the setting time of the slurry mixture, an additive shall be added which will retard the set when a cationic emulsion is used. The set control additive shall be aluminum sulfate or Portland Type I/II cement, and shall be added to the slurry mix by an approved method that will assure uniform distribution and proper control. The exact amount shall be determined by conditions in the field and in compliance with the mix design parameters.

412.02.07 MINERAL AGGREGATE

Change Paragraph A to read as follows:

The mineral aggregate shall conform to the specified contract gradations for ISSA Type I, Type II, or Type III. The gradation types are listed in section 705 Tables 10, 11, and 12.

Add the following to this subsection:

The mineral aggregate shall consist of angular sand or crushed stone that is free from dirt, organic matter, clay balls, adherent films of clay, dust or other objectionable matter. When tested according to AASHTO T176, the aggregate shall have a sand equivalent of not less than 50, and the aggregate shall be non-plastic. When tested according to AASHTO T104, the aggregate shall show a loss of not more than 15 percent (using Na₂SO₄) and when tested according to AASHTO T96 the aggregate shall show a loss of not more than 35 percent.

The gradation test for the job mix formula shall not be out-of-spec for two consecutive tests. If this criterion is not met, the placing of material shall stop and the stockpile modified to adhere to the gradation specified.

CONSTRUCTION

412.03.01 SLURRY SEAL/MICROSURFACING MIXTURES

Change Paragraph C to read as follows:

Prior to the start of work, the Contractor shall place one test section of at least 1,000 square yards each, for each mix to be used, in an area designated by the Engineer.

The test section shall be placed using the same equipment, methods, and mixes as scheduled for use on the Contract.

At the test section, the Contractor shall also satisfactorily demonstrate the equipment and procedure intended for the removal of oil deposits from the pavement surface.

The test section will be evaluated for a minimum of 3 days after placement under traffic and normal usage.

If a test section proves to be unsatisfactory, the necessary adjustments to the mix design, equipment, and placement methods shall be made.

Additional test sections, as required, shall be constructed and evaluated for conformance to the specifications.

The initial test section, if acceptable, will be paid for at the contract unit price.

The Contractor will be given a maximum of 15 calendar days to successfully place an acceptable test section. These days will not be counted toward nor added to the contract calendar days. The contract calendar days will commence after the test section is approved or the maximum 15 day limit is attained.

412.03.01 SLURRY SEAL/MICROSURFACING MIXTURES

Change Paragraph F to read as follows:

Job Mix Design:

No slurry or microsurfacing mixture shall be placed until mix design(s) submitted by the Contractor have been approved by the Engineer.

Sources of all materials shall be selected prior to the time when the materials are required to be used in the work, and suitable sized samples of aggregate, bituminous material and mineral filler shall be submitted when required by the Engineer, for approval not less than ten days before the work starts. All samples of materials shall be supplied by the Contractor at his expense, and all tests necessary to determine conformance with requirements specified shall be performed without cost to the Contractor. AASHTO T2/ASTM D75 shall be used for sampling aggregate; AASHTO T127/ASTM C183 shall be used for sampling mineral filler; and AASHTO T40/ASTM D140 shall be used for sampling asphalt emulsions. Additional samples of materials shall be furnished as directed by the Engineer during progress of the work.

The exact proportions used in the preparation of the slurry seal or microsurfacing shall be determined by a testing laboratory, experienced in slurry seal and microsurfacing mix design procedures, and approved by the Engineer.

Mix design preparation shall conform to Section 703, "Bituminous Materials," and shall be at no additional cost to the Contracting Agency.

The approved mixture shall be homogenous and sufficiently stable during the entire mixing and spreading period so that the emulsion does not break prematurely, there is no segregation of the fines from the coarser aggregate, and the liquid portion of the mix does not float to the surface.

The amount and type of asphalt emulsion to be blended with aggregate shall be determined by the laboratory mix design.

The set control additive shall be introduced into the slurry mix by an approved method that will ensure uniform distribution and proper control. The exact amount shall be determined by conditions in the field and indicated in the mix design.

A minimum amount of water, added as specified by the Engineer, shall be used as necessary to obtain a workable and homogeneous mixture.

The slurry mixture shall show no signs of uncoated aggregate or premature breaking of emulsion when applied to the pavement surface.

The slurry shall be a homogeneous mixture. Prior to the emulsion breaking, it shall be sufficiently stable during the entire mixing and spreading. There shall not be any segregation of the fines and coarse aggregate nor liquid floating on the surface. If it is established that a satisfactory mixture meeting the requirements specified herein cannot be produced from the materials furnished, the materials shall be rejected and the Contractor shall submit a new mix design.

412.03.02 PREPARATION OF SURFACE

Add the following to Paragraph B:

It shall be the Contractor's responsibility to ensure that the surface is suitable for the proper adhesion of Slurry Seal when complete.

Change paragraph D.1 to read as follows:

Traffic paint not tightly bonded to the surface, pavement marking tape, polyurea pavement markings and thermoplastic markings shall be removed prior to slurry seal placement and replaced afterwards. Unless directed otherwise, the pavement markings shall be reinstalled in the identical pattern as existed prior to their removal.

Change paragraph D.2.b to read as follows:

The grinding shall conform to the roto-mill fine grind to provide a pavement texture acceptable to the Engineer.

Change Paragraph F to read as follows:

Manholes, valve boxes, drop inlets, monuments, and other facilities will be protected from the slurry seal by placing "FIBREEN GRADE 208 - SD10" reinforced, waterproof all-purpose paper as manufactured by the Fortifiber Corporation (or approved equal), held in place with spray glue, or other suitable method approved by the Engineer. The paper shall be removed within twenty-four hours after the Slurry Seal has cured.

Change Paragraph G to read as follows:

Raised pavement markers shall be removed prior to slurry seal application and replaced following the slurry seal operation in the identical pattern as before their removal unless otherwise directed by the Engineer or as shown on plans.

412.03.03 MIXING UNIT

Change Paragraph A to read as follows:

The slurry seal or microsurfacing shall be mixed and applied with a machine designed and manufactured to lay the mixture. The equipment, tools and machines needed in the performance of the work shall be provided by the Contractor, shall be subject to the approval of the Engineer and shall be maintained in a satisfactory working condition at all times.

Change paragraph C.9 to read as follows:

The mixing machine shall be equipped with a water pressure system and fog type spray-bar adequate for completely fogging the surface with up to 0.05 gallons per square yard immediately ahead of the spreading equipment.

Change paragraph D.1 to read as follows:

Previous calibrations documentation covering the exact materials to be used may be accepted provided they were made during the current calendar year, within the current slurry seal application season. Previous Calibrations will only be accepted if the calibrations were completed and verified by a Clark County representative of another local public agency.

Add the following to Paragraph D:

No machine will be allowed to work on the project until the calibration has been completed and/or accepted. Calibrations shall be completed in the presence of the Engineer or another local agency representative.

All units must have a suitable means of accurately metering each individual material being fed into the mixer with counter and meter devices. All feeding mechanisms must be continuous feed and proportioning must remain constant at all times. The units shall be equipped with approved devices so that the machine can be accurately calibrated and the quantities of material used during any one period can be estimated. In the event these metering devices stop working, the slurry unit(s) will stop the application process until they are fixed. The Construction Manager or representative may allow for the completion of the day's work, however the unit(s) will be removed from the service at the end of shift and not be allowed to return until they have been repaired. All meters and digital readout must be visible to the representative during the application of the slurry seal.

Dry weight shall be defined as the weight of aggregate delivered to the job site from the approved source. Application rates for emulsion and aggregate will be verified by certified weight tags from the public weigh master for each delivery of emulsion and aggregate to the project. All materials will be delivered to the project between the hours of 6:00 am and 2:00 pm. to allow the material deliveries to be witnessed by the Engineer. No materials will be accepted for use on the project without approval and delivery confirmation by the Engineer. All material delivery tickets will indicate the type

of material and the project name and number. Each delivery ticket once approved, and prior to the material placed on the project shall be signed and accepted by the Engineer.

It is the responsibility of the Contractor to notify the Engineer prior to the offloading of emulsion from suppliers to the Contractor's storage tanker. The Engineer may physically inspect each and every oil shipment prior to transfer. Oil quantities of the Contractor's emulsion storage tankers shall be submitted and physically verified at the beginning of each work day, prior to supplier transfer, after supplier transfer and at the end of each working day. Contractor shall supply an undiluted emulsion sample on the first shipment and subsequent random samples upon request by Engineer.

All delivery tickets shall certify from the manufacture the material meets the project specifications. The weight tags for the emulsion and aggregate shall be delivered to the Construction Manager on the same day as the materials arrive at the stockpile. No material will be accepted for use on the project without the Engineer verification and approval. All aggregate and emulsion delivery tickets shall have the date, project number and the project site staging area location printed on each ticket. If the Contractor removes or transfers emulsion from the stockpile, the weigh back tags shall be delivered to the Engineer on the same day or the next day. Before aggregate is moved from or transferred from the stockpile, the Engineer may visually check the quantity being moved or transferred.

The Contractor shall not use the aggregate or emulsions designated for the project on other private or public jobs until the Engineer and Contractor have mutually accounted for all materials placed and stockpiled. The Contractor shall keep separate weight tickets and stockpiles for any other private or public jobs.

Each slurry machine shall have a calibrated tank and stick gauge for emulsion, a flow meter for water delivered to the Pugmill and a flow meter for checking the rate of addition of liquid additive to the Pugmill. A calibrated tank and stick gauge may be substituted for the flow meter for either the water or the Pugmill or liquid additive or both. These gauges are for the purpose of field verification according to the mix design and calibrations at the discretion of the Engineer.

Add the following to Paragraph F:

Power pick-up brooms, power brooms, power blowers, air compressors, water flushing equipment, and hand brooms shall be suitable for cleaning the pavement surface and cracks therein.

Hand squeegees, shovels and other equipment shall be provided as necessary to perform the work.

412.03.04 MIX PREPARATION

Add the following to this subsection:

The slurry seal shall be mixed and applied with a slurry machine. The amount and type of asphalt emulsion to be blended with the aggregate shall be determined by the laboratory mix design. A minimum amount of water, added as specified by the Engineer, shall be used as necessary to obtain a workable and homogeneous mixture. The slurry mixture shall be of proper consistency with no segregation when deposited on the surface of the pavement and no additional elements shall be added. The slurry mixture shall show no signs of uncoated aggregate or premature breaking of emulsion when applied to the pavement surface. Total time of mixing shall not exceed four minutes. The Mixing machine shall be equipped with a temperature indicating device installed in the emulsion tank at the suction line level. The machine shall be equipped with a hydraulically controlled steel pugmill gate for positive discharge operations. Discharge from the pugmill shall be controlled by a chute or other mechanical device. The pugmill shall not leak slurry seal or other fluids.

412.03.06 APPLICATION

Change Paragraph C to read as follows:

The slurry seal shall be placed in accordance with the following:

Aggregate	Minimum Application Rate (pounds per square yard)
Type I	13
Type II	18
Type III	28

Add the following to Paragraph E:

Report the gallons per minute of Carbon Black, sulfate, and water used.

Yields shall be calculated daily and will be calculated on a street section basis, as directed by the Engineer. The actual yield will be divided by the Minimum Acceptable application rate shown above. If the actual yield divided by the Minimum Acceptable yield is less than one (1), the contractor shall be paid his unit bid price times the daily fraction for the volume of work completed that day. However, if the yield on any street section is outside the acceptable range stipulated above, the Contractor shall correct the application rate to achieve the stipulated range, at his cost.

Add the following to Paragraph G:

If in the Contractor's opinion, the proposed Slurry Seal Type or application rate is not

appropriate for a particular street, he shall notify the Engineer prior to any application of slurry on that particular street. Once the Contractor notifies the Engineer of a potential problem with a particular street, the Engineer shall review the field conditions and make the final decision regarding the appropriate Slurry Seal Type and application rate.

Add the following to Paragraph H:

No build-up of cured slurry seal shall be allowed to collect in the spreader box.

412.03.08 PRODUCTION

Change Paragraph A to read as follows:

The Contractor shall average a minimum of 16,000 square yards of material, in place, per working day.

412.03.11 CURING

Change Paragraph D to read as follows:

Areas which are damaged before being opened to traffic shall be repaired by the Contractor at his expense.

412.03.12 ROLLING

Change Paragraph A to read as follows:

All streets will be compacted using a smooth pneumatic tire roller, with a minimum weight of four (4) tons.

412.03.13 WEATHER LIMITATIONS

Change Paragraph A to read as follows:

Slurry seal shall be applied only when the atmospheric temperature is fifty (50) degrees Fahrenheit and rising and when the temperature is not expected to fall below fifty (50) degrees Fahrenheit during working hours.

Change Paragraph B to read as follows:

Application of slurry seal when the atmospheric temperatures are expected to exceed one hundred five (105) degrees Fahrenheit may be allowed, if approved by the Engineer.

Add the following to this subsection:

The Contractor may be granted excusable, non-compensable days for weather limitations in accordance with Section 108.08.

412.03.17 CLEANUP

Change Paragraph B to read as follows:

All applied slurry seal surfaces shall be swept by the Contractor with a sweeper approved by the Engineer to remove any excess raveled material that becomes dislodged from the street after 72 hours.

1. Dislodged material from the street shall be disposed of to a site approved by the Engineer.
2. Sweeping required beyond the initial 5-day cure due to normal raveling shall be paid for under the appropriate bid item for sweeping.

METHOD OF MEASUREMENT

412.04.01 MEASUREMENT

Add the following to this subsection:

Rolling polymer modified slurry seal treatment shall be measured for payment by the number of machine hours logged during the rolling process.

BASIS OF PAYMENT

412.05.01 PAYMENT

Change Paragraphs A and B to read as follows:

Payment for emulsified asphalt slurry seal surface treatment shall be full compensation for preparing the surface including cleaning, applying herbicide and water fog spray, developing the mix design, furnishing the material, mixing, hauling, loading, test sections, placing, protection of facilities, cleanup and any incidentals required for completing all the work involved to achieve the finished product in accordance with the application rates specified in Section 412.03.06.

Payment at the unit prices bid for Surface Grinding, Rolling, and Excess Ravel Sweeping shall be full compensation for all work involved to complete those items.

The following pay items and pay units are added to paragraph E:

Payment will be made under:

<u>Pay Item</u>	<u>Pay Unit</u>
Slurry Seal (Type II)	Square Yard
Slurry Seal (Type III)	Square Yard
Surface Grinding	Hour
Rolling	Hour
Excess Ravel Sweeping.....	Hour

SECTION 714

PAINT AND PAVEMENT MARKINGS

PHYSICAL PROPERTIES AND TESTS

714.01.01 MATERIALS COVERED

Add the following:

Contractor shall provide and install the type(s) of pavement marking materials as specified in the plans. No substitutions of types of materials will be allowed.

714.03.05 PAINT FOR TRAFFIC STRIPING, PAVEMENT MARKING, AND CURB MARKING – GENERAL

Add the following:

Contractor shall use an approved material listed under Rapid Dry Waterborne Paint – Permanent Striping Formulations (Type II) in the current NDOT QPL that also meets the requirements set forth in the Standard Specifications and these special provisions. A material listed in the NDOT QPL is not guaranteed to be accepted for use on this project. Contractor's shop drawings/materials submittals for approval of materials that are in the NDOT QPL which do not meet the requirements in the Standard Specifications and the special provisions will be rejected.

714.03.06 PAVEMENT MARKINGS

Replace Sentence 4 in Subparagraph A.2.f with the following:

Type 2 pavement marking material shall also meet the "Heavy Traffic" performance criteria establish in the table below.

Type 2 film shall have a min. thickness of 0.065 inches and shall provide a minimum service period of 3 years.

Add the following:

Qualified Products List

For transverse pavement marking applications, Contractor shall use an approved material listed under Pavement Marking Tape (Type II) in the current NDOT QPL that also meets the Type 2 pavement marking material requirements set forth in the Standard Specifications and these special provisions. A material listed in the NDOT QPL is not guaranteed to be accepted for use on this project. Contractor's shop drawings/materials submittals for approval of materials that are in the NDOT QPL which do not meet the requirements in the Standard Specifications and the special provisions will be rejected.

The following products have been approved for transverse pavement marking applications in

this contract:

ATM - 400 Tape or approved equal. Product manufacturer shall provide specifications that prove it meets the criteria for "Heavy Traffic" applications. Note: Previously approved products that do not meet these criteria will not be accepted.

Replace Sentence 4 in Subparagraph B.3.g with the following:

Type 1 pavement marking material shall also meet the "Heavy Traffic" performance criteria establish in the table below.

Replace Subparagraph B.3.i, "Qualified Products List" with the following:

For longitudinal pavement marking applications, Contractor shall use an approved material listed under Pavement Marking Tape (Type IV) in the current NDOT QPL that also meets the Type 1 pavement marking material requirements set forth in the Standard Specifications and these special provisions. A material listed in the NDOT QPL is not guaranteed to be accepted for use on this project. Contractor's shop drawings/materials submittals for approval of materials that are in the NDOT QPL which do not meet the requirements in the Standard Specifications and the special provisions will be rejected.