

Date Bids Due 1/21/2015		Time of Bid Opening 1:00 PM	Bid Opening Location 800 Lincoln Way, Ames IA	
Proposal Number 13448	Description Fast Dry & High Durable Waterborne Traffic Paint for FY 2015			
Contract to Begin 3/1/2015	Date of Completion 2/28/2018	Proposal Guaranty Amount \$0.00		Liquidated Damages \$0.25
Purchasing Agent Rhonda Ruark	E-Mail Address rhonda.ruark@dot.iowa.gov	Phone 515-239-1285	Fax 515-239-1538	
Company Name			Federal Tax ID	
Street Address		City	State	Zip Code
Supplier Contact (type or print)	E-Mail Address	Phone	Fax	
Supplier agrees to sell items/services at the same prices under the same terms and conditions to any other state agency, Regent or Political Subdivision upon request. Please check Yes or No. <input type="checkbox"/> YES <input type="checkbox"/> NO			Are you a Iowa Targeted Small Business? <input type="checkbox"/> YES <input type="checkbox"/> NO	

## GENERAL INFORMATION

This bid package includes the proposal, schedule of prices, standard terms and conditions, supplemental terms, specifications, mailing label and other information you need to prepare your bid. The pages of the document labeled "Bid response" must be typed or completed in ink, signed, and returned in a flat style envelope prior to the bid opening date and time. Please use the furnished mailing label, or indicate on your return bid by marking "Iowa Department of Transportation, proposal number & letting date" on the outside of the return envelope. The bidder may personally deliver, mail, or select a carrier that ensures timely delivery. **Faxed bids will not be accepted.**

If required, each bid must be accompanied by a proposal guaranty in an accepted form, in the sum indicated above. Refer to the Standard Terms and Conditions for the accepted forms in which the proposal guaranty requirement may be fulfilled. Bids lacking a required proposal guaranty will not be considered for award. If the contractor fails to enter into a formal contract within fifteen (15) days after award is made, the proposal guaranty may be retained by the State.

## PROPOSAL STATEMENT

The entire contents of this Proposal, Addendums to the Proposal, Specifications, Supplemental Terms and Conditions, Standard Terms and Conditions, and Schedule of Prices shall become part of the contract.

We promise to enter into a contract within fifteen (15) days after award or forfeit the proposal guaranty furnished herewith.

We promise to furnish all materials, equipment and/or services specified, in the manner and the time prescribed, at prices hereinafter set out.

We certify that we have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition; that no attempt has been made to induce any other person or firm to submit or not to submit a bid; that this bid has been independently arrived at without collusion with any other bidder, competitor, or potential competitor; and that this bid has not been knowingly disclosed prior to the opening of bids to any other bidder or competitor.

We certify that all materials, equipment and/or services proposed meet or exceed the specifications and will be supplied in accordance with the entire contents of this proposal.

We promise to complete the contract within the contract period, or pay any liquidated damages, if stipulated, for each calendar day as set forth in the bid documents.

**Signed:** \_\_\_\_\_ **Date:** \_\_\_\_\_



**Iowa Department of Transportation  
Standard Terms and Conditions For  
Bid Proposals/Contracts  
-FORMAL-**

*Formal* is the procurement process required by Iowa law when the estimated, aggregate amount of the purchase equals or exceeds \$50,000.

The entire contents of this bid proposal shall become a part of a contract or purchase order. In case of a discrepancy between the contents of the bid documents, the following items listed by descending order shall prevail:

- Addendums to the bid proposal
- Bid Proposal-
- Schedule of Prices
- Specifications
- Plans and Drawings
- Supplemental Terms and Conditions
- Standard Terms and Conditions

(Example - if a statement in the specifications contradicts a statement in the Standard Terms and Conditions, the statement in the specifications shall apply)

**Preparation of Bid Response:** All bid responses must address all aspects of the proposal including clearly answering all questions within the proposal. Bid responses must be typed or completed in ink and submitted on the forms supplied by the Iowa DOT.

**Bid responses must be signed and received prior to the bid opening date and time as indicated on the Bid Response cover page or bid opportunity. The signed, submitted quotation or bidder's proposal shall become the official bid response to be considered for award.**

**No email, fax or web link bid responses will be accepted. Bid Responses must be signed, sealed and delivered in person or by a mail courier that ensures timely delivery.**

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**A. Bid Proposal**

1. **Bid Opening:** Bid openings are made public and conducted at the Iowa DOT, Ames complex unless otherwise specified. Bid responses received after the time of the bid opening will be returned unopened and considered non-compliant.
2. **Communications:** Questions concerning this proposal should be directed to the purchasing agent listed on the bid proposal. Inquiries can be written, phoned, or faxed. In all cases, written communication will take precedence over verbal communication
3. **Proposal Guarantee:** If required, the bid response page will indicate the amount required to be included in the bid response. A Proposal Guarantee can be supplied in one of the following ways: **(1)** Certified check or credit union certified share draft, cashier's check, or bank draft, drawn on a solvent bank or credit union. Certified checks and certified share drafts shall be drawn and endorsed in the amount indicated. Checks or drafts shall be made payable either to the Iowa Department of Transportation (Iowa DOT) or to the bidder. If payable to the bidder, the check or draft shall be endorsed without qualifications to the Iowa DOT by the bidder or an authorized agent. **(2)** An insurance or surety company may be retained to provide a bond in fulfillment of the proposal guarantee requirement. A properly completed and signed copy of the Proposal Guarantee (*Form 131084*) must accompany the bid. **The Iowa DOT's Proposal Guarantee form must be used; no other forms or formats will be accepted.**
4. **Pricing and Discount:** Unit prices shown on the bid/response shall be quoted as the price per unit (e.g., gal., case, each, etc.) as stated in the bid proposal. If there is a discrepancy between the unit bid prices, extension, or total amount of bid, the unit prices shall prevail. Unless otherwise indicated, prices shall be firm for the duration of the contract or purchase. Discounts for early payment are allowed, but not considered in award of the contract.

5. **Acceptance/Rejection:** The Iowa DOT reserves the right to accept or reject any or all bids and to waive irregularities or technicalities, provided such waiver does not substantially change the offer or provide a competitive advantage to any supplier(s). The Iowa DOT also reserves the right to accept that bid which is deemed to be in the best interests of the state. Any unauthorized changes, additions, or conditional bids including any ties to another bid or proposal or any reservations about accepting an award or entering into a contract, may result in rejection of the bid. Bids must remain available for award for thirty (30) days from date of bid opening.
6. **Bid Results & Disclosure:** Bid tabulations will be posted on the DOT website at [www.iowadot.gov/purchasing](http://www.iowadot.gov/purchasing) under the *Bid Award* link referencing the proposal number with an award recommendation indicated. At the conclusion of the selection process, the contents of all received bid responses will be placed in the public domain and be open to inspection by interested parties, according to state law. Trade secrets or proprietary information that are recognized as such and are protected by law may be withheld if clearly identified as such in the proposal.
7. **Quality:** All material shall be new and of first quality. Items which are used, demonstrators, refurbished, obsolete, seconds, or which have been discontinued are unacceptable without prior written approval by the Iowa DOT.
8. **Recycled Content:** The Iowa Code encourages purchase of products and materials with recycled content, including but not limited to paper products, oils, plastic products, compost materials, aggregate, solvents, and rubber products. Recycled items or alternatives must be noted in the bid response, if known.
9. **Shipping Terms:** Deliveries shall be F.O.B. Destination unless otherwise specified. All deliveries shall be accompanied by a packing slip indicating the Supplier, quantities shipped, and the purchase order number(s). All delivery charges shall be included in the bid price and paid by the Supplier. No collect C.O.D. deliveries shall be accepted. When entering into a contract, the Supplier shall notify the freight company that all freight and delivery charges are to be prepaid by the Supplier. Goods delivered to the Iowa DOT Distribution Center at 800 Lincoln Way, Ames, IA shall be received between the hours of 7:30 a.m. and 3:30 p.m. on any day except Saturday, Sunday, or a holiday. For deliveries to other Iowa DOT locations, the Supplier may contact the destination location for available times to deliver as not all Iowa DOT locations have the same business hours. The Iowa DOT will not be liable for any freight claims or unpaid freight bills arising from contract or purchase order issues.

## B. Award

The binding agreement (award) may be issued in the form a purchase order or contract or both depending on the requirements and complexity of the agreement.

1. **Method of Award:** Award shall be made to the lowest responsible, responsive bidder whose bid meets the requirements of the solicitation and is the most advantageous to the Iowa DOT unless otherwise specified. An Iowa bidder will be given preference over an out-of-state bidder when bid responses are equal in all aspects and are tied in price. By virtue of statutory authority preference will be given to products and provisions grown and coal produced within the State of Iowa.
2. **Award Protests:** Protests of award recommendations are to be addressed to the Director of Purchasing, and shall be made in accordance with paragraph 761--20.4(6)"e" of the Iowa Administrative Code.
3. **Contracts:** Successful contractor(s) may be sent either a formal Contract, Notification of Award or purchase order as confirmation of acceptance and award. Any of these binding agreements shall be for the term stated in the bid proposal or on a purchase order and may be renewed for additional period(s) under the same terms and conditions upon mutual agreement as defined. The successful bidder may not assign a contract to another party without written authorization from the Iowa DOT Purchasing Section. A service contract, including all optional renewals, shall not exceed a term of six years unless a state agency obtains a waiver of this provision pursuant to rule 11-11B.16 (8A).
4. **Payment Terms:** The Iowa DOT typically pays properly submitted vendor invoices within thirty (30) days of receipt, providing goods and/or services have been successfully delivered, installed or inspected (if required), and accepted. Invoices presented for payment must be only for quantities received by the Iowa DOT and must reference the purchase order number to be submitted for processing.

5. **Default:** Failure of the Supplier to adhere to specified delivery schedules or to promptly replace rejected materials shall render the Supplier liable for all costs in excess of the bid price when alternate procurement is necessary. This shall not be the exclusive remedy and the Iowa DOT reserves the right to pursue other remedies available to it by law or under the terms of the binding agreement.
6. **Default:** Failure of a Contractor other than a Supplier to meet any specified project completion deadline shall render the Contractor liable for all costs incurred by DOT that were: a) necessary to meet said deadline; or b) necessary to complete said project after said deadline. This shall not be the exclusive remedy and the Iowa DOT reserves the right to pursue other remedies available to it by law or under the terms of the agreement.

### C. General

1. **Administrative Rules:** For Additional details on the rules governing the actions of the Iowa DOT Purchasing Section, refer to 761 IAC, Chapter 20, Iowa Administrative Code, entitled "Procurement of Equipment, Materials, Supplies and Services".
2. **Affirmative Action:** The Contractor (and also subcontractor, vendor or supplier) is prohibited from engaging in discriminatory employment practices forbidden by federal and state law, executive orders and rules of the Iowa Department of Management, pertaining to equal employment opportunity and affirmative action. Contractor may be required to have on file a copy of their affirmative action program, containing goal and time specifications. Contractors doing business with Iowa in excess of \$5,000 annually and employing 50 or more full time employees may be required to file with the Iowa Department of Management a copy of their affirmative action plan. Failure to fulfill these non-discrimination requirements may cause the contract to be canceled and the contractor declared ineligible for future state contracts or subject to other sanctions as provided by law or rule.
3. **Applicable Law:** The contract shall be governed under the laws of the State of Iowa. The contractor shall at all times comply with and observe all federal and state laws, local laws, ordinances, and regulations which are in effect during the period of a contract and which in any manner affect the work or its conduct. Any legal action relating to a contract shall only be commenced in the Story County, Iowa, District Court or the United States District Court for the Southern District of Iowa.
4. **Conflict of Interest:** No state or county official or employee, elective or appointive shall be directly or indirectly interested in any contract issued by the Iowa DOT, see Code of Iowa 314.2.
5. **Debarment and Vendor Suspension:** By submitting a proposal, the contractor is certifying that it and its principals and/or subcontractors are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by the State of Iowa or any Federal department or agency.
6. **Equal Opportunity:** Firms submitting bids must be an "Equal Opportunity Employer" as defined in the Civil Rights Act of 1964 and in Iowa Executive Order Number Thirty-four.
7. **Infringement:** Goods shall be delivered free of the rightful claim of any third party by way of infringement. Contractor shall indemnify and save harmless the State of Iowa and the Iowa DOT against all claims for infringement of, and/or royalties claimed under, patents or copyrights on materials and equipment furnished under this bid.
8. **Records Audit:** The contractor agrees that the Auditor of the State of Iowa or any authorized representative of the state, and where federal funds are involved, the Comptroller General of the U.S. Government, shall have access to and the right to examine, audit, excerpt, and transcribe any directly pertinent books, documents, papers, and records of the contractor relating to orders, invoices, or payments of a contract or purchase order.
9. **Targeted Small Businesses:** The Iowa DOT seeks to provide opportunities for women and/or minority small business enterprises. To apply for certification as an Iowa Targeted Small Business, contact the Iowa Department of Inspection and Appeals (515-281-5796). Contractors shall take documented steps to encourage participation from Targeted Small Businesses for the purpose of subcontracting and supplying of good or services or both.
10. **Taxes:** Prices quoted shall not include state or federal taxes from which the state is exempt. Exemption certificates will be furnished upon request.
11. **Termination:**
  - **Termination Due to Lack of Funds or Change in Law**

The Iowa DOT shall have the right to terminate this Contract without penalty by giving thirty (30) days written notice to the vendor as a result of any of the following:

    - Adequate funds are not appropriated or granted to allow the Iowa DOT to operate as required and to fulfill its obligations under contract.
    - Funds are de-appropriated or not allocated or if funds needed by the Iowa DOT, at the

Iowa DOT's sole discretion, are insufficient for any reason.

- The Iowa DOT's authorization to operate is withdrawn or there is a material alteration in the programs administered by the Iowa DOT.
- The Iowa DOT's duties are substantially modified.

Following a 30 day written notice, the Iowa DOT may terminate a binding agreement in whole or in part without the payment of any penalty or incurring any further obligation to the Supplier. Following termination upon notice, the Supplier shall be entitled to compensation upon submission of invoices and proper proof of claim for goods and services under contract up to and including the date of termination.



# Schedule Of Prices

Number	13448
Date Required	01/21/2015 1:00 PM

Title Fast Dry & High Durable Waterborne Traffic Paint for FY 2015

Vendor

Delivery Location

PA Name Rhonda J Ruark

Shipping Terms FOB Destination/Freight Prepaid

Phone 515-239-1285

E-Mail rhonda.ruark@dot.iowa.gov

Description View supplemental terms and conditions for liquidated damages assessments of twenty-five cents per gallon, per day, for orders past the fourteen day delivery date.

Product Availability Days: \_\_\_\_\_

All items must be bid.

Item	Qty	Unit	Description	Part #	Unit Price	Total Price
1	93,000	GAL	White Fast Dry Waterborne Traffic Paint DOT Paint Crews throughout the State 250 gallon totes/12 totes (3,000 gallons) per truckload Stock #: 016-045054			
Comments:						
2	84,500	GAL	Yellow Fast Dry Waterborne Traffic Paint DOT Paint Crews throughout the State 250 gallon Totes Stock #: 016-047560			
Comments:						
3	16,500	GAL	White High Build Traffic Paint DOT Paint Crews throughout the State 250 gallon Totes Stock #: 016-045060			
Comments:						
4	15,000	GAL	Yellow High Build Traffic Paint DOT Paint Crews throughout the State 250 gallon Totes Stock #: 016-047570			
Comments:						
5	3,410	GAL	White Fast Dry Waterborne Traffic Paint 55 gallon Drums Stock #: 016-045057			
Comments:						
6	3,630	GAL	Yellow Fast Dry Waterborne Traffic Paint 55 gallon Drums Stock #: 016-047557			
Comments:						
7	600	CAN	White Fast Dry Waterborne Traffic Paint 5 gallon Cans Stock #: 016-045053			
Comments:						
8	425	CAN	Yellow Fast Dry Waterborne Traffic Paint 5 gallon Cans Stock #: 016-047555			
Comments:						
9	1,500	GAL	White Fast Dry Waterborne Traffic Paint 250 gallon Totes Linn County Stock #: 016-045054			
Comments:						

Item	Qty	Unit	Description	Part #	Unit Price	Total Price
10	1,250	GAL	Yellow Fast Dry Waterborne Traffic Paint 250 gallon Totes Linn County Stock #: 016-047560			
Comments:						
11	1,100	GAL	PAINT YELLOW TRAFFIC FAST DRY WATER BASE 55GAL DRM DRUMS ARE TO HAVE REMOVABLE LIDS WITH BUNS. City of Iowa City Stock #: 016-047557			
Comments:						
12	330	GAL	PAINT WHITE TRAFFIC FAST DRY WATER BASE 55GAL DRM DRUMS ARE TO HAVE REMOVABLE LIDS WITH BUNGS. City of Iowa City Stock #: 016-045057			
Comments:						
13	200	CAN	PAINT WHITE TRAFFIC FAST DRY WATER BASE 5GAL CAN City of Iowa City Stock #: 016-045053			
Comments:						

I HEREBY CERTIFY THAT THIS PROPOSAL MEETS OR EXCEEDS THE MINIMUM REQUIREMENT INCLUDING SPECIFICATIONS AND ADDENDUMS.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Iowa Department of Transportation  
Specifications**

**Regular Waterborne Traffic Paint**

**A. General Requirements**

The paint shall be capable of being heated and spray applied up to a temperature of 160 degrees F without damaging the formulation or serviceability of the product and the traffic striping equipment. The paint shall not be damaged or deteriorate when reheated or if held under heated conditions for 6 hours. The paint shall be suitable for use at a minimum pavement surface temperature of 40 deg F.

The paint shall provide proper anchorage and refraction for glass beads when the beads are applied at the rate of 8 pounds per gallon.

The pigments used in the paint shall be free of heavy metals as defined by the United States Environmental Protection Agency.

The paint shall be free of skins, pigment agglomerates, and foreign matter. The paint shall show no evidence of excessive settling, gelling, skinning, spoilage, or livering upon storage in sealed containers under normal, above freezing temperatures, within a 12 month period in the sealed delivery container. When the air temperature is below the freezing point (32 degrees F), the paint shall be shipped or stored in an insulated vehicle or storage building with heating capability to ensure the inside temperature is held above freezing.

**B. Composition**

The composition of the paint shall be left to the discretion of the manufacturer as long as the finished product meets the following requirements and any applicable Federal, State or Local regulations for products of this type.

1. **Pigment Content** The percent pigment by weight of the finished product shall be from 45.0 percent to 55.0 percent by weight for white and 55.0 percent to 58.0 percent by weight for yellow as tested by ASTM D-3723. The white paint shall contain a minimum of 1 lb. per gallon of TiO<sub>2</sub> ASTM D 476 Type II Rutile 92% min. TiO<sub>2</sub> tested in accordance with ASTM D 1394 or ASTM D 4764.
2. **Emulsion** The emulsion shall be Rohm & Haas 3427, Dow DT 250, or approved equal.
3. **Nonvolatile Vehicle** The nonvolatile vehicle shall not be less than 43.0 percent by weight for white paint and not less than 45.0 percent by weight for yellow paint. The following formula shall be used for calculating nonvolatile vehicle (NVV):

$$NVV = (N - P) / (100 - P)$$

Where N = the percent by weight of nonvolatiles as determined by ASTM D-2369 and P = the percent weight of pigment as determined by ASTM D-3723.

4. **Volatile Organic Compounds** Volatile organic compounds shall not exceed 150 g/L excluding water and VOC exempt solvents. ASTM D-3960 shall be used to

determine the level of VOC's.

5. **Flash Point** Closed cup flash point shall not be less than 100 degrees F as tested by ASTM D-56.
6. **Density** The density shall be a minimum of 12 pounds per gallon and the density of the production batches shall not vary more than plus or minus 0.2 pounds per gallon from the density of the qualification samples. ASTM D-1475 shall be used to measure density.

### C. Laboratory Test Requirements

1. **Color** For white, the color after drying shall be a flat white, free from tint, furnishing good opacity and visibility under both daylight and artificial light. For yellow, the color shall be within the following chromaticity limits. Color measurements shall be taken using a two-degree observer, standard C illuminant, and 45/0 or 0/45 geometry.

#### CIE Data Limits

	<u>Y</u>	<u>x</u>	<u>z</u>
Minimum	0.5000	0.471	0.428
Maximum	0.5900	0.501	0.455

2. **Viscosity** The viscosity for white and yellow shall be not less than 88 Kreb Units or not greater than 95 Kreb Units at 77 degrees F. ASTM D-562 shall be used to measure viscosity.
3. **No-Pick-Up Time** The no pick-up time shall be less than 5 minutes. The test shall follow the requirements of ASTM D-711 except the test stripe shall have a wet film thickness of 6 mils as measured by an Interchemical wet film thickness gauge. Drying shall take place in a drying box to restrict air movement.
4. **Directional Reflectance** The daylight directional reflectance of the paint (without glass spheres) shall be 84.0 percent minimum for white and 50 percent minimum for yellow.
5. **Dry Opacity** The white paint shall have a minimum contrast ratio of 0.955 and the yellow paint shall have a minimum contrast ratio of 0.930. The test shall follow the requirements of Federal Test 141a Method 4121. The test stripe shall have a wet film thickness of 7 mils as measured by an Interchemical wet-film thickness gauge.
6. **Flexibility** The paint shall not show cracking or flaking when tested in accordance with Federal Specification TT-P-1952b.
7. **Pigment Particle Size** The paint shall have a grind of not less than 3 on a Hegman Grind Gauge when measured according to ASTM D-1210.

### D. Field Service Requirements

1. **Paint Pigment** The paint pigment shall be well ground and be properly dispersed in the vehicle. The pigment shall not cake or thicken in the container, and shall not become granular or curdled. Any settlement of pigment in the paint shall result in a thoroughly wetted, soft mass permitting the complete and easy vertical penetration of a paddle. Settled pigment shall be easily mixed with minimum resistance to the

sideways manual motion of the paddle across the bottom of the container, to form a smooth uniform product of the proper consistency. If the paint cannot be easily redispersed due to excessive pigment settlement as described above or due to any other cause, the paint shall be considered unfit for use.

2. **Specified Properties** The paint shall retain all specified properties under normal above freezing, outside storage conditions for 12 months after acceptance and delivery. The vendor shall be responsible for all costs and transportation charges incurred in replacing paint that is unfit for use. The properties of any replacement paint shall remain satisfactory for 12 months from date of acceptance and delivery.
3. **Service Technician** Since proper application is deemed essential to the success of this process, the manufacturer shall have at least one technician available during normal business hours to instruct the field DOT applicators when needed. The technician shall be familiar with the application equipment and the materials and shall have successful experience in the placing of fast drying waterborne traffic paint.

## E. Packaging and Marking

This specification covers high molecular high density polyethylene (HDPE) caged bottle paint totes (a.k.a. composite intermediate bulk containers (IBCs)) enclosed by a galvanized square tubular steel cage. Tote capacity is 275 gallons.

Unless otherwise specified in the contract, all paint shall be delivered in square stackable shaped totes meeting the following requirements:

### DESIGN REQUIREMENTS

- The frame shall be zinc galvanized tubular steel. The pallet shall be either wood block or zinc galvanized tubular steel.
- Totes shall be reusable, capable of handling bulk liquids with a 1.9 specific gravity and shall not exceed 48 inches in either width or depth.
- Totes shall be UN / D.O.T certified for shipping and handling as required by Code of Federal Regulations (CFR) Title 49 Part 178.
- Totes shall have a base that allows four way forklift and pallet jack handling. The totes shall be capable of being stacked a minimum of two high when completely filled with paint.
- Totes shall be capable of completely emptying without propping.

### TANK FITTINGS/ ATTACHMENTS

- Bottom Drain Valve
  - o The bottom drain ball valve shall be recessed with of 2" (51mm) with 2"(51mm) male quick disconnect fitting for each tote. Full port and disconnect shall be leak free and compatible with waterborne paint.
- Top Fill Lid
  - o The top lid shall be a 6" screw cap style lid, and shall be easily opened by hand. The screw cap shall provide a vacuum vent.

All totes are to remain the property of the supplier. Each tote shall be plainly marked with the gross, tare, and net weight, the lot number, producer's name, the date of manufacture and type of paint.

## F. Inspection and Acceptance

1. **Qualification Samples** The paint manufacturer shall furnish a **one-quart sample of each color to the Materials Laboratory of the Iowa Department of Transportation (Iowa DOT) in Ames at least two (2) weeks prior to bid opening.** These samples shall meet all the specifications contained in this document. The formulation of the production samples shall not change from that of the qualification sample. The paint manufacturer shall send the following lab results along with the samples:
  - Percent pigment, TiO<sub>2</sub> content lbs/gal., non-volatile vehicle, VOC content, closed cup flashpoint, weight per gallon, chromaticity coordinates, viscosity, dry time, reflectance, opacity, flexibility, and grind.
  - Qualification samples not meeting the laboratory test requirements shall be disqualified.
2. **Contract Award** The contract will be awarded to the manufacturer having the lowest bid price meeting our minimum specifications. The Iowa Department of Transportation reserves the right to cancel the contract and go to the next low bidder if the DOT field applicators find the product unsuitable for application in their equipment to achieve their performance goals.
3. **Production Samples** The paint manufacturer awarded the contract shall furnish a one-quart sample from each batch of paint produced for the contract. The sample shall be identified by the date of manufacture, batch number, and the batch yield. These samples shall constitute the retained samples for future reference and are not necessarily the basis for paint acceptance.
4. **Inspection** Paint and containers may be sampled and inspected for final approval after delivery to destination. The Contracting Authority reserves the right to sample and inspect the paint and containers at the place of paint manufacture. If inspected at the plant, the manufacturer shall allow the Contracting Authority representative free access to the plant for inspection purposes and every facility shall be extended to the inspector for this purpose.
5. **Screening or Filtering process** A 30-mesh or finer filtering process, used to produce finished paints free of skins, pigment agglomerates, and foreign matter, must be completed prior to packaging. The DOT Engineer shall approve the process.
6. **Infrared and X-Ray** Analytical techniques may be used to verify formulation compliance between production and qualification samples.
7. **Final Acceptance** Final acceptance of the paint will be based on sample test results and container inspection. Delivered material that does not meet these specifications shall be disposed of by the Paint Manufacturer and immediately replaced with acceptable material without cost to the Contracting Authority.

Iowa Department of Transportation  
Specifications for  
**DURABLE WATERBORNE TRAFFIC PAINT**

1. SCOPE

**This specification covers fast-dry, high performance waterborne white and yellow traffic line marking paint for application on portland cement concrete and bituminous pavements. It shall be easily and uniformly applicable with mechanical airless or air assisted spray marking equipment at paint temperatures up to 160°F (71.1°C). The paint shall serve as a binder for glass beads in such a manner as to produce maximum adhesion and reflection.**

2. APPLICABLE DOCUMENTS

- 2.1 The following documents, of the issues as stated on date of invitation to bid or request for proposal, form a part of this specification to the extent specified herein:

**Federal Standards**

Fed. Test Method Std. No. 141C, January 24, 1986

Paint, Varnish, Lacquer and Related Materials; Methods of Inspection, Sampling and Testing.

**Fed. Std. No. 595a, January 2, 1968, Colors**

2.2 **Other Publications**

The following documents form a part of this specification. Unless otherwise indicated, the issue in effect on date of invitation for bid shall apply.

American Society for Testing & Materials (ASTM) Standards

Federal Specifications

**TT-P-1952B Paint, Traffic and Airfield Marking, Water Emulsion Base.**

3. WHITE AND YELLOW ACRYLIC WATERBORNE TRAFFIC PAINT

3.1 Composition requirements

To evaluate high solids white and yellow fast dry acrylic waterborne traffic paints further, the following will be required:

- 3.1.1 The emulsion shall be Rohm and Haas Rhoplex Fastrack HD-21A, Dow DT-400NA or approved equal. The white paint shall contain a minimum of 1 lb/gal of TiO<sub>2</sub>.

- 3.1.2 The prime, extender and organic pigments, dispersant surfactant, defoamer, volatile freeze-thaw agent, coalescing agent and thickener in addition to the emulsion utilized for the manufacture of the white and yellow traffic paint shall be left to the discretion of the manufacturer, as

long as the finished product meets the following requirements and any applicable Federal, State or local regulations for the products of this type:

<u>MATERIALS</u>	<u>WHITE</u>	<u>YELLOW</u>
<u>Lead</u> , parts per million, max ASTM D-3335 or X-ray fluorescence	100	100
 <u>Quantitative Requirements of Mixed Paint</u>		
<u>Pigment</u> percent by weight	62.0 max.	60.5 max.
<u>Total Solids</u> percent by weight; min. when tested in accordance with ASTM D-2369	77.0	76.1
<u>Non-volatile Vehicle</u> percent by weight of vehicle; the following formula shall be used for calculating nonvolatile vehicle (NVV): $NVV=(N-P)/(100-P)$ N=the percent by weight of non-volatiles As determined by ASTM D-2369 P=the percent weight of pigment as Determined by ASTM D-3723	42.5min.	42.5 min.
<u>Consistency</u> Equivalent Krieb Units. when tested in accordance with ASTM D 562 <i>Note:</i> The consistency of the paint shall remain constant from shipping point to destinations.	88 to 95	88 to 95
<u>Weight per Gallon</u> pounds min. when tested in accordance with ASTM D 1475 <i>Note:</i> In addition to compliance with the minimum, the weight per gallon of the production batches shall not vary more than $\pm 0.3$ lbs/gal. between batches.	13	13
<u>Fineness of Dispersion</u> Hegman Scale, min. when tested in accordance with ASTM D-1210	3 min. "B" Cleanliness	3 min. "B" Cleanliness
<u>Drying Time</u> no pick-up, minutes, max. when tested in accordance with ASTM D-711, except the wet film thickness shall be $12.5 \pm 0.5$ mils. The applied film shall be immediately placed in a laboratory drying chamber maintaining the relative humidity of $65 \pm 3\%$ , the temperature $73.5 \pm 3.5^{\circ}\text{F}$ ( $23 \pm 2^{\circ}\text{C}$ ), and air flow less than <b>one foot (1') per minute.</b>	12 max.	12max
<u>Directional Reflectance</u> min. when applied to a wet film thickness	85	50

of 15 mils and when tested in accordance with ASTM E-97 (Illuminant C 2°)

<u>pH</u> min. when tested in accordance with ASTM E-70	9.8	9.8
<u>Dry Opacity</u> contrast ratio, min. when applied at a wet film thickness of 6-7 mils and when tested in accordance with FTMS 141c (Method 4121 Illuminant C 2°)	0.955	0.93
<u>Volatile Organic Content</u> ( $V_{nw}$ ), max. in accordance with ASTM D-3960	150 g/liter	150 g/liter
<u>Flash Point</u> closed cup, min.	115°F	115°F

Color when applied, allowed to dry, and tested as specified above, the paint shall be color evaluated as follows:  
ASTM D 2244

White – The paint shall be white and match Federal Standard No. 595a color 37886. It shall not discolor in sunlight and shall maintain its lightfastness throughout the life of the paint (approximately two years).

Yellow – The paint shall closely match Federal Standard No. 595a color 35538. It shall not discolor in sunlight and shall maintain its colorfastness throughout the life of the paint (approximately two years). The chromaticity limits shall be  $\pm 6\%$  from the 35538 central color of “Highway Yellow Color Tolerance Chart” U.S. Department of Commerce, Bureau of Public Roads PR Color #1, June 1965. (CIE Data Central Color:  $x = 0.5007$ ;  $y = 0.4555$  for yellow.)

### 3.2 Qualitative Requirements of Mixed Paint:

#### 3.2.1 Condition in Container – Storage Stability

The paint shall not show excessive settling in a freshly opened full container and shall be easily redispersed with a paddle to a smooth homogeneous state within a period of twelve (12) months from the time of delivery and when examined in accordance with FTMS 141C (Method 3011.2). No undesirable characteristics shall show in the paint to include curdling, livering, caking, gelling or thixotropic properties, lumps, skins or color separation.

#### 3.2.2 Skinning

The paint shall not skin within 48 hours in a three-quarter filled, tightly closed container when examined in accordance with FTMS 141C (Method 3021.1).

#### 3.2.3 Flexibility and Adhesion

In accordance with FTMS 141C (Method 6221) the paint shall show no cracking, flaking or loss of adhesion when tested as specified:

Apply a wet film thickness of 0.005 inches with a film applicator to a 3 x 5 inch tin panel weighing 0.39 to 0.51 lbs. per sq. foot, previously cleaned with benzene and lightly buffed with steel wool. Dry the paint film at 70 to 80°F in a horizontal position for 18 hours, then bake in an oven at 122 ± 4°F (47.8 to 52.2°C) for two hours, and cool to room temperature for at least ½ hour. Bend over a ½ inch diameter rod and examine, without magnification.

3.2.4 Water Resistance

In accordance with FTMS 141C (Method 6011) the paint shall show no softening, blistering, loss of adhesion or other evidence of deterioration, other than a slight loss in gloss when tested as specified:

Apply a wet film thickness of 0.015 inches with a film applicator to a clean glass plate. Dry the paint film at 70 to 80°F in a horizontal position for 72 hours. Immerse one-half of the painted plate in distilled water in a vertical position at room temperature (70 to 80°F) for 18 hours. Remove the painted plate from the immersion liquid, allow to air dry for two hours and then examine.

3.2.5 Dilution Stability

In accordance with FTMS 141C (Method 4203.1) the paint shall be capable of dilution with any amount of water with no separation, curdling or precipitation observed when examined, such that the wet paint can be readily cleanable with only water.

*Special Note:* If the viscosity of the paint is greatly reduced with water the pigment in the paint will settle out.

3.2.6 Spraying Properties

The paint shall have satisfactory spraying and hiding properties when applied by either airless or air-assisted type traffic strippers to glass or metal plates at a wet film thickness of 0.015 to 0.025 inches as received.

4. FIELD SERVICE REQUIREMENTS

Specified Properties

The paint shall retain all specified properties under normal above freezing, outside storage conditions for 12 months after acceptance and delivery. The vendor shall be responsible for all costs and transportation charges incurred in replacing paint that is unfit for use. The properties of any replacement paint shall remain satisfactory for 12 months from date of acceptance and delivery.

Service Technician

Since proper application is essential to the success of this process, the manufacturer shall have at least one technician available during normal business hours to instruct the field DOT applicators when required. The technician shall be familiar with the application equipment and the materials and shall have successful experience in the placing of fast drying waterborne traffic paint.

## 5. PACKAGING AND MARKING

This specification covers high molecular high density polyethylene (HDPE) caged bottle paint totes (a.k.a. composite intermediate bulk containers (IBCs)) enclosed by a galvanized square tubular steel cage. Tote capacity is 275 gallons.

Unless otherwise specified in the contract, all paint shall be delivered in square stackable shaped totes meeting the following requirements:

### **DESIGN REQUIREMENTS**

- The frame shall be zinc galvanized tubular steel. The pallet shall be either wood block or zinc galvanized tubular steel.
- Totes shall be reusable, capable of handling bulk liquids with a 1.9 specific gravity and shall not exceed 48 inches in either width or depth.
- Totes shall be UN / D.O.T certified for shipping and handling as required by Code of Federal Regulations (CFR) Title 49 Part 178.
- Totes shall have a base that allows four way forklift and pallet jack handling. The totes shall be capable of being stacked a minimum of two high when completely filled with paint.
- Totes shall be capable of completely emptying without propping.

### **TANK FITTINGS/ ATTACHMENTS**

- Bottom Drain Valve
  - o The bottom drain ball valve shall be recessed width of 2" (51mm) with 2"(51mm) male quick disconnect fitting for each tote. Full port and disconnect shall be leak free and compatible with waterborne paint.
- Top Fill Lid
  - o The top lid shall be a 6" screw cap style lid, and shall be easily opened by hand. The screw cap shall provide a vacuum vent.

All totes are to remain the property of the supplier. Each tote shall be plainly marked with the gross, tare, and net weight, the lot number, producer's name, the date of manufacture and type of paint.

## 6. INSPECTION AND ACCEPTANCE

### 6.1 Qualification Samples

The paint manufacturer shall furnish a **one-quart sample of each color to the Materials Laboratory of the Iowa Department of Transportation (Iowa DOT) in Ames at least two (2) weeks prior to bid opening.** These samples shall meet all the specifications contained in this document. The formulation of the production samples shall not change from that of the qualification sample. The paint manufacturer shall send the following lab results along with the samples:

Percent pigment, non-volatile vehicle, VOC content, closed cup flashpoint, weight per gallon, chromaticity coordinates, viscosity, dry time, reflectance, opacity, flexibility, and grind.

Qualification samples not meeting the laboratory test requirements shall be disqualified.

### 6.2 Production Samples

The paint manufacturer awarded the contract shall furnish a one-quart sample from each batch of paint produced for the contract. The sample shall be identified by the date of manufacture, batch number, and the batch yield. These

samples shall constitute the retained samples for future reference and are not necessarily the basis for paint acceptance.

6.3 Inspection

Paint and containers may be sampled and inspected for final approval after delivery to destination. The Contracting Authority reserves the right to sample and inspect the paint and containers at the place of paint manufacture. If inspected at the plant, the manufacturer shall allow the Contracting Authority representative free access to the plant for inspection purposes and every facility shall be extended to the inspector for this purpose.

6.4 Screening or Filtering Process

A 30-mesh or finer filtering process, used to produce finished paints free of skins, pigment agglomerates, and foreign matter, must be completed prior to packaging. The DOT Engineer shall approve the process.

6.5 Infrard and X-ray

Analytical techniques may be used to verify formulation compliance between production and qualification samples.

6.6 Final Acceptance

Final acceptance of the paint will be based on sample test results and container inspection. Delivered material that does not meet these specifications shall be disposed of by the paint manufacturer and immediately replaced with acceptable material without cost to the Contracting Authority.

6.7 Contract Award

The contract will be awarded to the manufacturer having the lowest bid price meeting our minimum specifications. The Iowa Department of Transportation reserves the right to cancel the contract and go to the next low bidder if the DOT field applicators find the product unsuitable for application in their equipment to achieve their performance goals.

**Iowa Department of Transportation**  
**SUPPLEMENTAL TERMS & CONDITIONS**  
For  
**Traffic Paint Water Base Fast Dry for FY 2015-2016**  
**Proposal No.:13448**  
**Letting Date: January 21, 2015**

**Material Safety Data Sheet (MSDS)**

The vendor shall include with proposal a MSDS of materials bid. The successful bidder must furnish a MSDS with all material delivered.

A current MSDS shall be furnished to the Office of Support Services after receiving purchase orders.

**Ties and Reservations**

No ties or reservations by the bidders are permitted on this proposal.

**Contract Award**

One contract will be awarded for all items. All items are tied. The lowest bidder with total cost/usage will be awarded as long as all products meet all specifications and are in the best interest of the Iowa DOT.

**Contract Period**

The successful bidder will be awarded a three (3) year contract with an option to renew for three (3) additional years in twelve (12) month increments. A price adjustment may be allowed on each extension but must not exceed the CPI (PPI or appropriate index for adjustment may be used). Any adjustment must be mutually agreed upon and be pre-approved by the Iowa Department of Transportation, Purchasing Section.

**Purchase Orders**

Purchase orders will be issued for items as needed through out the contract period.

**Delivery Requirements**

The traffic paint shall be delivered to the designated maintenance garages specified on each purchase order in 275 gallon totes. The design of the totes shall be approved by the Iowa DOT State Paint Crew prior to the first delivery. The State Paint Crew Supervisors will order full truckload quantities to be delivered to specified locations. Orders will be emailed/faxed to the successful vendor.

Drums and cans are to be shipped on pallets. Materials shipped in full pallet quantities shall be stacked and securely banded and/or shrink wrapped on four-way entry pallets measuring 40" x 48" with a height of merchandise plus pallet not to exceed 60". Pallets should be made of durable material strong enough to hold weight of product.

Materials shall be delivered to the locations indicated on the Schedule of Prices between 7:30 A.M. and 3:30 P.M. on any day except Friday, Saturday, Sunday, or a holiday.

Delivery shall be no later than 14 calendar days after receipt of order. Late deliveries shall be subject to liquidated damages.

Locations shall be notified 24 hours in advance of any delivery to ensure DOT personnel is available to take delivery.

**Liquidated Damages**

At the end of the contract period the Iowa DOT will calculate and assess liquidated damages. The assessment of \$0.25 per gallon for each calendar day the order remains incomplete or unacceptable as per attached delivery schedule. This includes additional orders. No deliveries shall be made on Friday, Saturday, Sunday, or holiday unless approved by the Paint Crew Foreman or Maintenance Foreman at the delivery location.

**Political Subdivisions**

Political subdivision may participate in this proposal only to the extent listed in the Schedule of Prices unless the bidder otherwise indicates on the Schedule of Prices. Provisions of this Proposal shall apply to all participating political subdivisions, unless indicated otherwise. Political subdivisions will issue their own orders and make payments throughout the contract period.

Bidder \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## SEALED BID

LETTING DATE: January 21, 2015

PROPOSAL NO: 13448

PROPOSAL DESCRIPTION: Fast Dry & High Durable Waterborne Traffic  
Paint for FY 2015

Iowa Department of Transportation  
PURCHASING - SEALED BID PROPOSAL  
800 Lincoln Way  
Ames, IA 50010