

## **SB-.1 Special Surface Finish of Concrete Surfaces**

**DESIGNER NOTE: The Department's Architectural Specialist (Melissa Schultz, 651.366.4465) will determine the Level of Aesthetic Impact on this particular bridge(s). For the following paragraph, customize as needed and add one of the following three Levels A, B, or C as noted on the preliminary plan.**

To preserve and enhance the state's environmental, scenic, historic and cultural values and in response to the National Environmental Policy Act of 1969 (NEPA) the *Cost Participation and Maintenance Responsibilities with Local Units of Government Manual* dictates that the Aesthetic level of bridge(s) insert bridge number(s) here is level (insert level here) impact.

**DESIGNER NOTE: The following paragraph will only be used if the SSF option is allowed by the MnDOT Regional Br. Const. Engineer.**

At the Contractor's option, follow the provisions of SSF II SB .2 or SSF .3 as a whole for all elements receiving special surface finish on this project. Use only **one** of the systems per structure.

## **SB-.2 Special Surface Finish II (SSF II)**

### **A. Description of Work**

Delete the contents of 2401.3.F.2.c, "Special Surface Finish," and substitute the following:

The work consists of the preparation of the concrete surfaces, cleaning the surfaces, furnishing and apply a single component SSF II finish on structure surfaces required by the contract. Follow the approved Quality Control Plan to produce a surface uniform in texture and appearance. Final approval of appearance will be made by the Engineer.

### **B. Materials**

Use only **one** Department-approved product to apply a concrete coating to the entire structure that meets the need for aesthetics and chloride protection as listed on the MnDOT Approved/Qualified Products List for "Special surface finish II coatings," [www.dot.state.mn.us/products](http://www.dot.state.mn.us/products).

Supply a SSF II product that meets the requirements of 3501, "Basic Requirements for Paints." Per 3501 provide a color draw down sample on a Leneta chart per ASTM D2805, "Standard Test Method for Hiding Power of Paints by Reflectometry" to the Engineer. The Department requires an acceptable initial draw down sample prior to beginning any work because color testing is the initial control for the quality of the product.

The Engineer will randomly take liquid samples of SSF II in the field at the rates and sample sizes that will eventually be shown in the Schedule of Materials Control. Sampling requirements are one quart of liquid taken at a rate of one per 500 gallons of SSF II material, minimum of 1 per each batch/lot. The Engineer will send the samples to the Department's Lab Director for drawdown readings. The Lab will send the testing results back to the Engineer. The Department will sample an entire unopened, manufacturer sealed container if the Engineer determines there is a need.

Non-conforming Material: For any batch/lot that does not test in compliance with 3501, the Engineer will adjust payment based on the table below. Since the contract does not contain a separate contract unit price for SSF II, the Department will reduce payment per the following table.

| <b>Table 1</b>  |   |
|---|---|
| <b>Deviation of sample color from accepted standard</b> |   |
| <b>Deviation</b>  | <b>Adjusted Unit Price</b>  |
| $\Delta E \leq 3$                                       | No deduction for SSF II materials placed as approved by the Engineer.   |
| $\Delta E > 3$ to 4                                     | The Department will reduce payment by \$0.13 per sq. ft. of failing batch/lot material placed.  |
| $\Delta E > 4$ to 5                                     | The Department will reduce payment by \$0.25 per sq. ft. of failing batch/lot material placed.  |
| $\Delta E > 5$ to 6                                     | The Department will reduce payment by \$0.38 per sq. ft. of failing batch/lot material placed.  |
| $\Delta E > 6$  | The Department will not reduce payment. Recoat the failing surface with smooth textured SSF II product in the color specified, at no cost to the Department until $\Delta E \leq 3$ . |

Deliver SSF II product to the job site in manufacturer sealed containers bearing the manufacturer's original labels. Assure SSF II containers remain sealed and are maintained at a temperature above 40° F and less than 100° F and not in direct sun light until ready to be mixed and sampled. Do not use product that is older than its shelf-life.

### **C. Contractor Qualifications and Documentation**

At least 20 calendar days before starting SSF II application submit a project specific Quality Control Plan (QCP) meeting the requirements of Table 2, "Concrete Coating Inspection Requirements" to the Engineer for acceptance.

In appendices of the QCP include:

- (1) Training materials and documentation showing that the SSF II manufacturer's technical representative trained the applicators, and Contractor's Quality Control (QC) personnel to apply the SSF II coating system used on this project;
- (2) Include the method by which the QC person will monitor and document the wet film measurements taken to assure proper coating mils are being maintained utilizing ASTM D4414 "Measurement of Wet Film Thickness by Notch Gauges"; and
- (3) The drawdown sample and the Department Lab Director's letter accepting the initial color.

The Department's Quality Assurance Inspector (QAI) will take wet-film readings and review Contractor QCP documentation as necessary to assure the Contractor is in compliance with the specifications. Supply wet film notched gauges to the QAI as needed.

| <b>Table 2<br/>Concrete Coating Inspection Requirements</b>  |  |
|--|--|
| <b>Requirement</b>   | <b>Frequency/Extent</b>  |
| <b>General</b>   |  |
| Date, time, and location on structure  | Beginning of each shift or location  |
| Ambient temperature  | Beginning of work and then every 4 hours   |
| Dew point and humidity   | Beginning of work and then every 4 hours   |
| Concrete Surface temperature to be coated with SSF II  | Beginning of work and then every 4 hours   |
| Wet Film Thickness per ASTM D4414 immediately following the application of the coating (WFT using a wet film thickness gauge provided by the manufacturer of the SSF II product) | Determine and Report the mean and range of the readings every ½ hour of application time or more as defined by the Engineer (if out of compliance take a reading every 10 minutes until in compliance)   |
| Visual inspection  | 100 percent  |
| <b>Surface Preparation Prior to Coating</b>  |  |
| Formed Surfaces (2401.3.F.2.a and/or 2401.3.F.2.b):<br>Pre-clean (grind, sand blast, water blast, vapor blast)   | Each component to receive an Ordinary Surface Finish coating. Visually inspect 100 percent of concrete area that will receive SSF II and ensure that all applied release agents, curing compounds, dirt, grease and other deleterious contaminants are completely removed. |
| Un-Formed Surfaces (2401.3.F.3):<br>Pre-clean (water wash if necessary)  | Visually inspect 100 percent for cleanliness   |
| <b>Finish Coat: (Premixed Single Coat System)</b>  |  |
| Batch/Lot number   | Every container  |
| Verification of surface cleanliness  | Examine visually within 1 hour before application  |
| Temperature of mixed product   | Just before application  |
| Complete mixing of all components in the shipping container  | Examine visually every container (NO residual components left in container)  |
| Coating evaluation and repair  | Visual, 100 percent  |
| Recoat time  | As recommended by the manufacturer   |
| Coating system final evaluation and repair   | Visual, 100 percent  |

Provide written documentation of the observed and document results of the requirements contained in table 2 to the QAI or to the Engineer within 5 working days from when each SSF II application shift was completed and all testing results in their entirety at the completion of the job. All SSF II QCP results are required to be submitted to the Engineer, **prior to receiving either partial or full payment for SSF II application.** The QAI or the Engineer will reject the coating system or reduce payment if the Contractor did not adhere to the approved QCP or provided inadequate documentation of adherence to the QCP.

#### **D. Application Requirements**

Do not start **any** SSF II coating application until the Engineer has written confirmation from the Department's Lab Director that the product complies with initial color requirements.

Cure concrete as required by 2401.3.G and the SSF II manufacturer prior to applying the surface coating. Prepare concrete that is older than 24 hrs. by power washing with potable water using a minimum of 3500 psi. Remove all efflorescence, flaking coatings, oil, curing compounds, release agents and other deleterious contaminants from the concrete surface prior to the application of the coating. Curing compound and release agent must be completely removed and may require additional means beyond 3500 psi pressure washing, grinding, or blasting as approved by the Engineer.

SSF II may be applied to "green" or "damp" concrete surface per the manufacturer's recommendations provided surface does not show liquid water droplets or pooling.

- (1) Department's preferred method: begin SSF II finishing operations only when it is possible to perform the work continuously from beginning to completion on any one structure element.
- (2) Department's alternative method: if continuous SSF II application cannot be accomplished then select coverage zones that will not produce an obvious start/stop delineation line.
- (3) For cooler times of the year concrete surface finishing operations **cannot** start when the temperature of the substrate, coating, or ambient air temperature is outside the manufacturer's recommended range. If no recommendation is given, use a minimum of at least 40° F and rising ambient air temperature. Suspend surface finishing operations if the ambient air temperature falls to 45° F and is dropping. Avoid application in direct sunlight to minimize a premature dry-out condition.

Single-component coatings require the SSF II product to be thoroughly mixed in its original container, then remixed as necessary and as recommended by the manufacturer to keep components in suspension and to incorporate the color pigments. If the SSF II product is shipped in 5 gallon containers, thoroughly mix the contents then completely empty all the contents into a larger container **maintaining** a minimum of 30 gallons of uniformly mixed product at all times. Equip the large container with an agitator during spraying. Provide an agitator or stirring rod capable of reaching within 2 inches of the bottom of the 30 gallon container to keep the product thoroughly mixed during application.

Supply a manufactured SSF II product that doesn't require thinning. Thinning of SSF II product is **not** allowed and the Engineer will reject all thinned SSF II product. Any SSF II product thinned and then applied will be required to be completely removed and replaced, at no cost to the Department.

The Engineer will require the complete removal of all SSF II that is adversely affected by moisture within the first 24 hours after SSF II placement. Once all SSF II is removed, recoat concrete with SSF II to original specified requirements referenced above, at no cost to the Department.

Apply one coat of the SSF II mixture by **spray application only**, using spray equipment as recommended by the manufacturer. Use the minimum coverage rate of wet mils as defined on the MnDOT APL for applying the material. The Engineer will reject, require removal, and recoating of concrete with SSF II if runs, sags, excessive build-up, or overlap of texture causes a non-uniform appearance.

Perform surface finishing that produces a uniform color and texture in the dried surface. To prevent a non-uniform appearance "Tiger-Stripping" of the texture limit the overlap of each spray applied pass of the coating. The final SSF II surface finish will not have laps or breaks in continuity. Perform corrective work on unaccepted finished areas coated with SSF II as directed by the Engineer, at no additional cost to the Department.

Protect non-coated surfaces from overspray. If the Engineer determines that the overspray damage is non-conforming the Engineer will direct that the overspray be removed, at no additional cost to the Department.

**1. Exposed Concrete Surfaces receiving a surface finish**

Apply a **textured** SSF II (see APL) on the exposed concrete surfaces as designated below for Bridge No.(s). **[insert bridge number(s) here ]**. Apply the SSF II coating at a rate as defined on the APL in a uniform texture and color appearance.

**DESIGNER NOTE: Refer to attached "Designer Guide for Surface Finish Requirements," or to the documentation furnished by the Department's Architectural Specialist (Melissa Schultz, 651.366.4465); then create a list of surfaces to be coated.**

- Edges of slab;
- Bottom of overhangs;
- Copings;
- Wingwalls;
- Abutments;
- Piers/pier caps;
- Parapets;
- Pilasters; and
- Crash struts.

**DESIGNER NOTE: Select a color and color # specified by the Department's Architectural Specialist (Melissa Schultz, 651.366.4465).**



Provide a finish color for all SSF II matching [MnDOT standard color "Gray-Modified" on file in the MnDOT Chemical Laboratory (651-366-5548)] [AMS-STD-595A Color No. 26622 (pearl gray), or **[ ]**]. Provide paint free of toxic metals and toxic pigments.

**2. Finishing Roadway Faces, Tops of barrier, and Outside surface of barriers**

Apply a **smooth** SSF II (see APL) on the exposed concrete surfaces as designated for Bridge No.(s). **[ ]**. Apply the SSF II coating at a rate as defined on the APL in a uniform texture and color appearance.

1. Finish conventionally formed roadway faces, tops of barriers, and outside surface of barriers as per 2401.3.F.2.d, "Curb, Sidewalk, and Median Finish," and the following:

- (a) Plan and execute concrete placement, form removal, and finishing operations so that the surface finishing can be started immediately after forms are removed. Remove the roadway face forms as soon as the concrete can retain its molded shape. In no case shall the elapsed time between concrete placement and initial surface finishing exceed 12 hours.

**DESIGNER NOTE: For the next paragraph, select a color and color # to be specified by the Department's Architectural Specialist (Melissa Schultz, 651.366.4465). This is a "smooth" finish because the broom gives the surface its texture.**



- (b) After completion of the proper curing period, begin SSF II application. Provide a finish color for all SSF II matching [MnDOT standard color "Gray-Modified" on file in the MnDOT Chemical Laboratory (651-366-5548)] [AMS-STD-595A Color No. 26622 (pearl gray), or **[ ]**].

2. Finish slipformed barriers, in accordance with the following:

- (a) Lightly broom in a texture on the barrier surface immediately after passage of the slipformer.

(b) Coat the surfaces of the barrier as described in paragraph D.2.1.(a) of this special provision with SSF II.

**DESIGNER NOTE: For the following section "C", use when PCB are included in the plan.**

### 3. Finishing Precast Concrete Girders

Apply a **smooth** SSF II (see APL) on the exposed concrete surfaces as designated below for Bridge No.(s). [REDACTED]. Apply the SSF II coating at a rate as defined on the APL in a uniform texture and color appearance.

**DESIGNER NOTE: Refer to attached "Designer Guide for Surface Finish Requirements," then create a list of the surfaces to be coated. This is a "smooth" finish.**

- Outside face of fascia girders;
- Bottom of bottom flange of fascia girders;
- All faces of all girders; and
- Bottom of bottom flange of all girders.

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Provide a finish color for matching [MnDOT standard color "Gray-Modified" on file in the MnDOT Chemical Laboratory (651-366-5548)] [AMS-STD-595A Color No. 26622 (pearl gray), or [REDACTED]].

**DESIGNER NOTE: The following SB\_.3 will only be used if the SSF option is allowed by the MnDOT Regional Br. Const. Engineer.**

### SB-**.3** Special Surface Finish (SSF)

**DESIGNER NOTE: For the following paragraph, modify minimum curing days when needed for short working day contracts.**

Cure concrete for a minimum of 28 days or as recommended by the special surface finish (SSF) manufacturer prior to applying SSF or acrylic paint. Thoroughly flush all surfaces that are to receive SSF with potable water not more than 24 hours before commencing with the SSF finishing.

#### A. Description of Work for SSF

The provisions of 2401.3.F.2.c, "Special Surface Finish," are supplemented as follows:

The work consists of the preparation of the concrete surfaces, cleaning the surfaces, furnishing and applying a two coat SSF finish on structure surfaces required by the contract. Follow the approved Quality Control Plan to produce a surface uniform in texture and appearance. Upon satisfactory completion of surface preparation, the Engineer will approve surfaces ready for SSF application.

#### B. Materials

Use only **one** Department-approved finish listed on the MnDOT Approved/Qualified Products List for "Special Surface Finish System," [www.dot.state.mn.us/products](http://www.dot.state.mn.us/products) to apply a concrete coating for the entire structure.

Supply a SSF product that meets the requirements of 3501, "Basic Requirements for Paints." Per 3501, provide a color draw down sample on a Leneta chart per ASTM D2805, "Standard Test Method for Hiding Power of Paints by Reflectometry" to the Engineer. The Department requires an acceptable initial draw down sample prior to beginning any work because color testing is the initial control for the quality of the product.

The Engineer will randomly take liquid samples of SSF in the field. Sampling requirements are one quart liquid samples will be taken at a rate of one per 500 gallons of SSF material, minimum of 1 per

each SSF batch/lot. The Engineer will send the samples to the Department's Lab Director for drawdown readings. The Lab will send the testing results back to the Engineer.

Non-conforming Material: For any batch/lot that does not test in compliance with 3501, the Engineer will adjust payment based on the table below. Since the contract does not contain a separate contract unit price for SSF, the Engineer will reduce payment per the following table.

| <b>Deviation of sample color from accepted standard</b> |   |
|---|---|
| <b>Deviation</b>  | <b>Adjusted Unit Price</b>  |
| $\Delta E \leq 3$                                       | No deduction for SSF materials placed as approved by the Engineer.  |
| $\Delta E > 3$ to 4                                     | The Department will reduce payment by \$0.13 per sq. ft. of failing batch/lot material placed.  |
| $\Delta E > 4$ to 5                                     | The Department will reduce payment by \$0.25 per sq. ft. of failing batch/lot material placed.  |
| $\Delta E > 5$ to 6                                     | The Department will reduce payment by \$0.38 per sq. ft. of fail batch/lot material placed.   |
| $\Delta E > 6$  | Recoat the failed surface with 100% acrylic paint per specification 3584, "Exterior Masonry Acrylic Emulsion Paint," in the color specified, at no cost to the Department and to the satisfaction of the Engineer until the $\Delta E \leq 3$ . |

Deliver the SSF product to the job site in sealed containers bearing the manufacturer's original labels. Assure storage containers remain sealed until mixed and sampled, and are maintained at a temperature above 40° F and less than 100° F and not in direct sunlight. Do not use product that is older than its shelf-life.

### **C. Contractor Qualifications and Documentation**

At least 20 calendar days before starting SSF application submit a project specific Quality Control Plan (QCP) meeting the requirements of Table 2, "Concrete Coating Inspection Requirements" to the Engineer for acceptance.

In appendices of the QCP include:

- (1) Training materials and documentation showing that the SSF manufacturer's technical representative trained the applicators, and Contractor's Quality Control (QC) personnel to apply the SSF coating system used on this project;
- (2) Include the method by which the QC person will monitor and document the wet-film measurements taken to assure proper mils are being maintained utilizing ASTM D4414 "Measurement of Wet Film Thickness by Notch Gauges"; and
- (3) Process for obtaining the drawdown sample and the Department Lab Director's letter accepting the initial color.

The Department's Quality Assurance Inspector (QAI) will take wet-film readings and review Contractor QCP documentation as necessary to assure the Contractor is in compliance. Supply wet-film gauges to the QAI as needed.

| <b>Table 2<br/>Concrete Coating Inspection Requirements</b>  |  |
|--|--|
| <b>Requirement</b>   | <b>Frequency/Extent</b>  |
| <b>General</b>   |  |
| Date, time, and location on structure  | Beginning of each shift or location  |
| Ambient temperature  | Beginning of work and then every 4 hours   |
| Dew point and humidity   | Beginning of work and then every 4 hours   |
| Concrete Surface temperature to be surfaced  | Beginning of work and then every 4 hours   |
| Two spray applied coats per spec   | Every ½ hour of application time or more as defined by the Engineer (if out of compliance document take a reading every 10 minutes until in compliance)  |
| Visual inspection  | 100 percent  |
| <b>Surface Preparation Prior to Coating</b>  |  |
| Formed Surfaces (2401.3.F.2.a and/or 2401.3.F.2.b):<br>Pre-clean (grind, sand blast, water blast, vapor blast) | Each component to receive an Ordinary Surface Finish coating. Visually inspect 100 percent of concrete area that will receive SSF and ensure that all applied release agents and curing compounds are completely removed |
| Un-Formed Surfaces (2401.3.F.3):<br>Pre-clean (water wash if necessary)  | Visually inspect 100 percent (for what)  |
| <b>Finish Coat: (Premixed Single Coat System)</b>  |  |
| Batch/Lot number   | Every container  |
| Verification of surface cleanliness  | Examine visually within 1 hour before application  |
| Temperature of mixed product   | Just before application  |
| Complete mixing of all components (document the proportions of each component required)                        | Examine visually every container (NO residual components left in containers)   |
| Coating evaluation and repair  | Visual, 100 percent  |
| Recoat time  | As recommended by the manufacturer   |
| Coating system final evaluation and repair   | Visual, 100 percent  |

Provide written documentation of the observed and document results of the requirements contained in table 2 to the QAI or to the Engineer within 5 working days from when each SSF application shift was completed and all testing results in their entirety at the completion of the job. All SSF QCP results are required to be submitted to the Engineer, **prior to receiving either partial or full payment for SSF application.** The QAI or the Engineer will reject the coating system or reduce payment if the Contractor did not adhere to the approved QCP or provided inadequate documentation of adherence to the QCP.

#### **D. Application Requirements**

Do not start **any** SSF coating application until the Engineer has written confirmation from the Department's Lab Director that the product complies with initial color requirements.



Cure concrete as required by 2401.3.G and the SSF manufacturer prior to applying the surface coating. Prepare concrete that is older than 24 hours by power washing using a minimum of 3500 psi. Remove all efflorescence, flaking coatings, oil, curing compounds, release agents and other deleterious contaminants from the concrete surface prior to the application of the coating. Curing compound and release agent must be completely removed and may require additional means beyond 3500 psi pressure washing, grinding, or blasting as approved by the Engineer.

SSF may **NOT** be applied over "green" or damp concrete.

- (1) Department's preferred SSF application method: begin surface finishing operations only when it is possible to perform the work continuously from beginning to completion on any one structure element.
- (2) Department's alternative SSF application method: if continuous application cannot be accomplished then select coverage zones that will not produce an obvious start/stop delineation line.
- (3) For cooler times of the year concrete surface finishing operations **cannot** start when the temperature of the substrate, coating, or ambient air temperature is outside the manufacturer's recommended range. If no recommendation is given, use a minimum of at least 40° F and rising ambient air temperature. Suspend surface finishing operations if the ambient air temperature falls to 45° F and is dropping. Avoid application in direct sunlight to minimize premature dry-out condition.

Multi-component coatings require the products to be thoroughly mixed, then remixed as necessary or as recommended by the manufacturer to keep components in suspension. Mix the coating system as required by the manufacturer. When SSF is packaged in containers less than 30 gallons, thoroughly mix all the components. Then completely empty all the contents into a larger container maintaining not less than 30 gallons of uniformly mixed product at all times. Equip the large container with an agitator during spraying. Provide an agitator or stirring rod capable of reaching within 2 inches of the bottom of the 30 gallon container to keep the product thoroughly mixed during application.

Supply a manufactured SSF product that doesn't require thinning. Thinning of SSF product is **not** allowed and the Engineer will reject all thinned SSF product. Any SSF product thinned and then applied will be required to be completely removed and replaced, at no cost to the Department.

The Engineer will require the complete removal of all SSF from concrete that is adversely affected by moisture within the first 24 hours after SSF placement. Once all SSF is removed, recoat concrete with SSF to original specified requirements referenced above, at no cost to the Department.

Apply a minimum of two coats (if sagging is experienced adjust application) of the mixture by **spray application only**, as recommended by the manufacturer. Use manufacturer's coverage rate from the manufacturer's literature. Runs, sags, excessive build-up, or overlap of texture that will cause non-uniform appearance will be removed and replaced following section 3.a, at no cost to the Department.

Perform surface finishing that produces a uniform color and texture in the dried surface, without evidence of laps or breaks in continuity. Perform corrective work on unaccepted finished areas coated with SSF as directed by the Engineer, at no additional cost to the Department.

Apply a top coat (3<sup>rd</sup> coat) of 100% acrylic paint 3584, "Exterior Masonry Acrylic Emulsion Paint," in the color specified.

Protect non-coated surfaces from overspray. If the Engineer determines that the overspray damage is non-conforming the Engineer will direct that the overspray be removed, at no additional cost to the Department.

**1. Exposed Concrete Surfaces receiving a surface finish**

Apply a SSF on the exposed areas as defined in the SSF II section above.

**2. Finishing Roadway Faces, Tops and Backs of Barriers**

Apply an Acrylic paint on the exposed concrete surfaces as designated for Bridge No.(s). [REDACTED].

1. Finish conventionally formed roadway faces, tops of barriers, and outside surface of barrier as per 2401.3.F.2.d, "Curb, Sidewalk, and Median Finish," and the following:

(a) Plan and execute concrete placement, form removal, and finishing operations so that the surface finishing can be started immediately after forms are removed. Remove the forms as soon as the concrete can retain its molded shape. In no case shall the elapsed time between concrete placement and initial surface finishing exceed 12 hours.

**DESIGNER NOTE: For the next paragraph, select a color and color # to be specified by the Department Architectural Specialist (Melissa Schultz, 651.366.4465). An acrylic paint finish is the standard.**

(b) After completion of the required curing period, paint the roadway faces, tops and backs of the barriers with an approved acrylic paint conforming to 3584, "Exterior Masonry Acrylic Emulsion Paint". Supply a color of the acrylic paint shall conform to [MnDOT standard color "Gray-Modified" on file in the MnDOT Chemical Laboratory (651-366-5548)] [AMS-STD-595A Color No. 26622 (pearl gray), or ( [REDACTED] )]. Apply the paint at a rate of 300 ft<sup>2</sup> per gallon or per manufacturer's recommendations. Commence or suspend the painting operation when the air and concrete surface temperature meet or exceed the manufacturer's recommendations.

2. Finish slipformed roadway faces, tops and backs of barriers, in accordance with the following:

(a) Lightly broom in a texture on the barrier surface immediately after passage of the slipformer.

(b) Coat the roadway face, top and back of the barrier as described in D.2.1.a of this special provision for the conventionally formed barrier.

**DESIGNER NOTE: For the following section, use when PCB are included in the plan.**

**E. Finishing Precast Concrete Girders**

Apply two sprayed coats of 100% acrylic paint 3584, "Exterior Masonry Acrylic Emulsion Paint," on the exposed concrete surfaces as designated below for Bridge No.(s). [REDACTED]

**DESIGNER NOTE: Refer to attached "Designer Guide for Surface Finish Requirements," then create a list of the surfaces to be coated.**

- Outside face of fascia girder;
- Bottom of bottom flange of fascia girder;
- All faces of all girders; and
- Bottom of bottom flange of all girders.



Provide a finish color for acrylic paint matching [MnDOT standard color "Gray-Modified" on file in the MnDOT Chemical Laboratory (651-366-5548)] [AMS-STD-595A Color No. 26622 (pearl gray), or ( )].

Apply the paint at a rate of 300 ft<sup>2</sup> per gallon or per manufacturer's recommendations. Commence or suspend the painting operation when the air and concrete surface temperature meet or exceed the manufacturer's recommendations.

***DESIGNER NOTE: This Basis of Payment is the same for the SSF II and the SSF.***

**F. Basis of Payment**

Finishing of concrete surfaces, except as otherwise provided in these special provisions, are considered an incidental expense to the respective concrete mixes for this construction, and no additional compensation will be made for this work.