Request For Proposal

John E.N. Howard Band Shell Painting

City of St. Joseph, Department of Public Works
1160 Broad Street St. Joseph, MI 49085

I. Purpose

This Request for Proposal ("RFP") is to provide interested area **painting contractors** with sufficient information to submit proposals for consideration by the City of St. Joseph ("City") in connection with its needs for exterior painting at the John E.N. Howard Band Shell, 500 Port Street, St. Joseph. MI.

Favorable pricing will be one element of the selection process, but the experience of the firm, qualifications, experience and ability of assigned staff, completeness of the level of service proposed and timeliness of service proposed by the Bidder will be significant factors in award of this contract. Final decision on selection of the Bidder for this project will be determined by the City Commission. The City reserves the right to reject any proposals or parts of proposals. The City also reserves the right to waive any irregularities, inconsistencies, or take what other action is appropriate as determined by the City to be in the best interest of the City.

A complete Request for Proposal may be viewed or downloaded at www.sjcity.com, or mailed by contacting the City Clerk.

REQUEST FOR PROPOSAL: **Painting for the John E.N. Howard Band Shell**
CLOSING DATE AND TIME: **3:00 pm, August 19th 2025.**

II. Scope of Work & Bid Specifications:

Project to be started after September 2nd 2025. Once started, project must remain ongoing until completed by June 1st 2026.

- Setting up containment around the perimeter of the roof structure
- Building scaffolding to access the ceiling of the structure
- Sandblasting the entire deck to a SSPC-SP-6 commercial blast
- Applying one primer coat of Tnemec 94-H2O zinc to the deck steel
- Applying one intermediate coat of Tnemec V69 epoxy to the deck steel
- Applying one finish coat of Tnemec 1094 polyurethane to the deck steel
- Power tool cleaning to remove any rust on the handrail, perimeter structure steel
- Spot priming the bare areas with Next bond universal metal primer
- Finish painting the steel with O'Leary DTM Acrylic painting includes the doors and door frames
- Clean up and disposal of the spent media

For materials see attached exhibits.

Successful bidder will follow all state and local codes, OSHA safety requirements, industry best practice standards and EPA regulations on this project.

Minimum warranty requirements: One year materials and labor

Issuing Officer (Point of Contact)

Questions regarding the scope of work to be accomplished may be directed to Mike Christensen, Facilities Manager at (269) 930-4408. To schedule an appointment to see the job site, contact Mike Christensen by email at: mchristensen@sjcity.com ; or by telephone at (269) 985-0310 (Office) or (269) 930-4408 (Mobile).

Addenda

In the event it becomes necessary to modify any part of this Request for Proposal, addenda will be issued to all parties who received the original RFP.

III. Instructions to Bidders

1) Sealed bids are due at the at the St. Joseph City Clerk's Office no later than **3:00pm, August 19th 2025.**

   Proposals may be mailed or delivered to the City of St. Joseph City Clerk, 700 Broad Street, St. Joseph, Michigan 49085. Sealed envelopes should be plainly marked:

   Attention: City Clerk
   Re: **John E.N. Howard Band Shell Painting**
   700 Broad Street
   St. Joseph, MI 49085

   It is the sole responsibility of the Bidder to see that its proposal is received within the required time period. The City is not responsible for any errors or irregularities with the delivery method utilized for submittal of the Proposal. Any proposals received after the closing date and time will be returned unopened.

IV. Incurring Costs

The City is not liable for any costs related to respondents' preparation of their proposal.

V. Withdrawal of Proposal

Any Bidder may withdraw its proposal in person, by facsimile, or by letter, any time prior to the scheduled closing time for receipt of proposals. Each proposal shall be considered binding and in effect for a period of Sixty (60) days after the closing date.

VI. Opening of Proposals

Proposals will be opened publicly at **3:15 pm, August 19th, 2025** in the City Hall Commission Chambers.

VII. Evaluation of Proposals

It is the intent of the City to evaluate all proposals quickly and be prepared to recommend an award at the August 25th, 2025 City Commission meeting.

VIII. Negotiations

The City reserves the right to reject any and all proposals and negotiate with any source, in any manner necessary, deemed to be in its best interest.

IX. Award of Contract / Acceptance of Proposal (Terms and Conditions)

The contents of this RFP and the respondent's proposal, as submitted and/or modified, shall become contractual obligations to be executed by the authorized contracting agents of both parties.

The successful bidder must procure and maintain the following insurance with carriers acceptable to the City and admitted to do business in the State of Michigan, and provide proof of the same to the City:

In accordance with Michigan law, all projects with a contract amount over $50,000.00 will require a performance and payment bond covering the entire amount of the contract price, which shall become binding upon the award of the contract. **No bid bond is required.**

- **Worker's Compensation Insurance**, including employers' Liability coverage, in accordance with Michigan law.
- **Commercial General Liability** Insurance on an "Occurrence Basis" with limits of liability not less than $1,000,000 per occurrence and aggregate. Coverage shall include the following extensions: A). contractual liability, B) Broad form general liability extensions or equivalent.
- **Motor Vehicle Liability** Insurance, including Michigan No-Fault coverages, with limits not less than $1,000,000 per occurrence combined single limit for bodily injury and property damage. Coverage shall include all owned vehicles, non-owned vehicles, and hired vehicles.

The Commercial General Liability Insurances shall include an endorsement naming as an additional insured the City of St. Joseph, all elected and appointed officials, employees, volunteers, boards, commissions, and/or authorities and boards, including members, employees and volunteers thereof. Bidder's insurance shall be primary and any other insurance City may have in effect shall be considered secondary and/or excess. Coverage shall be maintained throughout the term of the agreement.

All insurance shall include an endorsement that contains a 30-day advance written notice of cancellation to the City Manager, City of St. Joseph, Michigan, 700 Broad Street, St. Joseph, Michigan 49085.

X. Nondiscrimination

The successful bidder shall not discriminate in its provision of accommodations or services, nor against an employee or applicant for employment with respect to hire, tenure, terms,

conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, sexual orientation, gender identity, height, weight, marital status, or because of a disability that is unrelated to the individual's ability to perform the duties of a particular job or position. Breach of this covenant may be regarded as a material breach of the agreement.

XI. Payment Terms:

The City shall make payments to the successful bidder for actual services rendered within thirty (30) days following receipt of an acceptable invoice; or as otherwise mutually agreed.

TECHNICAL DATA SHEET

INDUSTRIAL COATINGS

EXHIBIT

3.5 VOC Universal Metal Primer

IS-1113 White **IS-1603 Red Oxide**
IS-1813 Gray **IS-1913 Black**

Product Description:

A tough, durable, corrosion resistant phenolic modified alkyd primer for use over iron and streel substrates. Can be used as a universal primer under high performance coatings containing ketones and esters. Low VOC technology provides low toxicity and compliance with environmenta regulations.

Main Properties:

Fast drying • Corrosion resistant • No HAPS • Low VOC • Non- Lifting

Recommended Usage:

Implement Equipment • Industrial Trailers • All types of fabricated steel

Application:

Application Method:	May be sprayed with conventional, airless and air assisted-airless application equipment.
Mixing Instructions:	Ready to Spray. May be reduced as needed with an active, aromatic or an aliphatic solvent.
Substrate Preparation:	The surface must be clean, dry and free of grease, oil, dirt, fingerprints and any other contamination to ensure proper adhesion. Remove any loose or peeling paint. Sand basecoat with 320-400 grit sandpaper
Application Instructions:	Mix well using a power agitator prior to application. On application, the temperature of the product, substrate and coating should be above 50 ° F. A minimum dried film thickness of 2 mils is required for maximum performance.
Coverage:	Approximately 722-818 square feet per gallon at 1 dry mil. Actual coverage may vary depending on application technique, equipment and weather conditions.
Safety/ Clean Up:	Please read MSDS and product label before using. Applications tools must be cleaned with mineral spirits after use. Dispose of any leftover coating in accordance with local, state or federal regulations
Salt Fog Results ASTM B-117	Iron Phosphate (R-36-I Q-PANEL), 1.5 mils DFT, 550 hrs: Overall rating (ASTM D 610) 7-8 < 3/16" Creepage from scribe, with very few blisters. No body blisters, < .3% surface rust.

Physical Properties

Vehicle Type	Modified alkyd
Solids by Volume	49-51 (+/- 1%)
Solids by Weight	68-70 (+/- 1%)
VOC	<3.5 lbs/gal
Flash Point	73 deg F.
Viscosity	20-25 sec. Zahn # 2
Specific Gravity	1.29-1.34

Curing/Drying Time Properties

Air Drying Time (77° F 50% humidity)	
Dust Free	10-15 minutes
To Touch	20-25 minutes
Hard	8-12 hours

Force Dry Time

Flash-off	10-15 minutes
No more than 140° f	20-30 minutes

Data provided as a guidance for reference purposes and represents our best knowledge and experience. However due to variances in all application processes, the responsibility of coatings systems rests with the user. Always test thoroughly for compatibility with complete coating systems

2935 Almeta Lane • McKinney, TX 75069 • ph: 972.384.1280 • fax: 972.837.4326 • www.ciccoatings.com

EXHIBIT 1

Resin Type:	Acrylic
Solids:	Weight - 54.8% Volume - 42.6%
Weight Per Gallon:	10.5 lbs.
Viscosity:	90 ± 5 (Krebs Units)
Flash Point:	200°F or over (TT-P-141, Method 4293)
Specular Gloss:	30 – 35 @ 60
Sag Rating:	Pass 8 mils (Lenetta)
Recommended Film Thickness:	**Tight Rust** / **Clean Metal** Wet - 7.0 to 8.0 mils / 4.0 to 5.0 mils Dry - 2.98 to 3.4 mils / 1.7 to 2.1 mils
Abrasion Resistance: **Adhesion:** **Flexibility:** **Accelerated Weathering:** **Salt Fog Resistance:**	ASTM D 4060 – 100 mg. loss after 1,000 cycles (CS-17 Wheel) ASTM D 3359 – Pass 5B ASTM D 1737 – Pass 1/8" Mandrel ASTM G 53 – 90% Gloss Retention @ 500 hours ASTM B 1117 – 1,000 hours (two coats over 360-11 Primer) Rating – 10, Rust Area – 0.00%
VOC – VOS Statement:	This product contains a maximum of 275 grams of VOC/VOS per liter of coating (2.3 lbs per gallon)

Rev. 4/23

EXHIBIT 2

O'LEARY PAINT SINCE 1891

DTM

ACRYLIC COATING SYSTEM

3182 Series; Satin

Type	Sheen	Spread Rate	Recommended Application	Thinner	Clean Up	DRY TIME		
						Tack Free	Re-coat	Cure
Acrylic	Satin	200-425 Sq. Ft. Per Gallon	Brush, Roller, or Spray	Water	Warm Soapy Water	30 Minutes	2 Hours	7 - 10 Days

PRODUCT NAME: 3182 Series; DTM Acrylic Satin	O'Leary Direct to Metal Acrylic Enamel is a high performance, rust inhibiting coating system that can be applied to bare steel, galvanized steel or a variety of other substrates. DTM Acrylic Enamel is designed for light to moderate industrial exposure and is suitable for most institutional or commercial applications. O'Leary DTM Acrylic Enamel is a low odor, low VOC coating that provides excellent adhesion, corrosion protection, gloss and color retention, as well as ease of application and clean up.
WHERE TO USE:	Interior / Exterior. DTM Acrylic Enamel is suitable for coating steel, galvanized metal, concrete, masonry, plaster, drywall, primed wood, etc., in plants, schools, warehouses, mills, hospitals, hotels and restaurants. DTM Acrylic may be applied to structural members, tanks, towers, machinery, pipes, duct work, doors, railings, siding or walls.
Surface Preparation:	The surface to be coated must be clean and free of loose rust, dirt, chalk, grease, oil, mildew, loose, flaking paint or any other contamination that could affect positive adhesion. The preferred method of preparation for steel is to abrasive blast to SSPC-SP6 Commercial Blast. This provides optimum product performance. If this method is not possible, use adequate power tool cleaning to SSPC-SP3. O'Leary DTM Acrylic Enamel may be applied to sound, tight adhering rust, but loose or severe rust must be removed. All grease, oil, blood, animal fat or dirt should be removed with a cleaner / degreaser. Follow all label instructions. Chalk residue or zinc oxidation, on galvanized metal, should be removed by power washing. Mildew should be cleaned by washing the surface with a solution of one part bleach to six parts water. Rinse thoroughly after mildew wash with clean water and allow to dry. Extremely glossy paints should be dulled by sanding, to improve adhesion. PRIMING – (New or bare surfaces) STEEL – DTM Acrylics are self-priming when applied in two coats. GALVANIZED – Product is self-priming. MASONRY – Self-priming or O'Leary 5090 Masonry Sealer. CONCRETE – Self-Priming or O'Leary 529-11 Latex Block Filler. DRYWALL – Use O'Leary 50 Block-It. PLASTER – Use O'Leary 50 Block-It. WOOD – Use O'Leary 50 Block-It. **DTM Acrylic is not recommended as a coating for exterior wood siding.** ALUMINUM – Self Priming.
Application:	Stir product thoroughly before applying. O'Leary DTM Acrylic can be applied by brush, roller, air-atomized or airless spray at up to 425 sq ft per gallon. Apply this product when material, air and surface temperatures are between 55°F and 100°F. **Do not apply this product if the air or substrate temperature are going to drop below 50°F within 12 hours.** The substrate must be at least 5°F above dew point. Relative humidity should be below 90%. For brush or roller application, thinning is normally not required. For best application results, use a quality synthetic filament brush or a short nap roller cover. Do not apply DTM Acrylic Finishes if rain is threatening. If heavy night dew is forecast, stop painting at least 6 hours before dew point is achieved. DTM Acrylics will dry to the touch in 30 minutes and may be re-coated in 2 hours. High humidity and low temperature conditions will extend normal dry and re-coat times. • **IMPORTANT NOTE:** A minimum of 6 dry mils (two coats) is required over tightly adhering rust to prevent rust staining. Should rust staining occur, apply an additional coat.
Storage:	Always store DTM Acrylics in a dry, well-ventilated area. Storage temperatures should be between 40° and 120°F. Do not let material freeze.
NOTE: Formulated without mercury or lead.	

Rev. 4/23

EXHIBIT 2

Resin Type:	Acrylic
Solids:	Weight - 54.8% Volume - 42.6%
Weight Per Gallon:	10.5 lbs.
Viscosity:	90 ± 5 (Krebs Units)
Flash Point:	200°F or over (TT-P-141, Method 4293)
Specular Gloss:	30 – 35 @ 60
Sag Rating:	Pass 8 mils (Lenetta)
Recommended Film Thickness:	**Tight Rust** / **Clean Metal** Wet - 7.0 to 8.0 mils / 4.0 to 5.0 mils Dry - 2.98 to 3.4 mils / 1.7 to 2.1 mils
Abrasion Resistance: **Adhesion:** **Flexibility:** **Accelerated Weathering:** **Salt Fog Resistance:**	ASTM D 4060 – 100 mg. loss after 1,000 cycles (CS-17 Wheel) ASTM D 3359 – Pass 5B ASTM D 1737 – Pass 1/8" Mandrel ASTM G 53 – 90% Gloss Retention @ 500 hours ASTM B 1117 – 1,000 hours (two coats over 360-11 Primer) Rating – 10, Rust Area – 0.00%
VOC – VOS Statement:	This product contains a maximum of 275 grams of VOC/VOS per liter of coating (2.3 lbs per gallon)

Rev. 4/23

EXHIBIT 2

TNEMEC

PRODUCT DATA SHEET

HYDRO-ZINC® SERIES 94-H_2O

PRODUCT PROFILE

GENERIC DESCRIPTION Aromatic Urethane, Zinc-Rich

COMMON USAGE A single-component, moisture-cured, zinc-rich primer for steel structures, including the interior and exterior of steel potable water tanks. Provides outstanding long-term corrosion resistance when used as a primer in conjunction with other Tnemec coatings. Series 94-H_2O has no maximum recoat time, cures quickly and offers rapid recoat at surface temperatures down to 35°F (2°C). **Note:** When used in conjunction with cathodic protection, anodes or impressed current systems should not provide current demand more negative than –1.05 volts relative to a copper–copper sulfate reference electrode half-cell.

COLORS Greenish-gray

ZINC PIGMENT 83% by weight in dried film

SPECIAL QUALIFICATIONS Certified (with or without 44-710 Urethane Accelerator) in accordance with **ANSI/NSF/CAN Std. 61** and the extraction requirements of **NSF/ANSI/CAN 600** and is qualified for use on interior potable water tanks of 400 gallons (1514 L) or greater. Topcoating with Std. 61 certified Tnemec coatings is required. Contact your Tnemec representative for specific recommendations. Reference Tnemec's certified product listing at www.nsf.org for details on maximum allowable DFT. Meets zinc-rich primer requirements of **AWWA D102-17** Standard for **Inside System No. 3, 5 & 6** and **Outside System No. 3, 4 & 6.** Series 94-H_2O uses a zinc pigment which meets the requirements of **ASTM D 520 Type III** and contains less than .002% lead.

Series 94-H_2O was tested in accordance with, and passed, the California Dept. of Public Health (CDPH) Standard Method v1.2 and meets the requirements of LEED v4.1 Low-Emitting Materials, Collaborative for High Performance Schools-Paints & Coatings, Living Building Challenge Materials Petal 10, and WELL Building Standard v2 X06 VOC Restrictions.

COATING SYSTEM

TOPCOATS **Interior:** Series 20, FC20, 22, FC22, L140, L140F, N140, N140F, V140, V140F, 141, 215, 406.
Exterior: Series 27WB, 66, L69, L69F, N69, N69F, 72, 73, 115, V115, 156, 161, 215, 1026, 1028, 1029, 1074, 1074U, 1075, 1075U, 1080, 1081, 1094, 1095, 1096. **Note:** Certain topcoat colors may not provide one-coat hiding depending on method of application. Contact your Tnemec representative. **Note:** Series 94-H_2O must be exterior exposed for three days prior to topcoating with Series 1028 or 1029. **Note:** Series 94-H_2O must be exterior exposed for one day prior to topcoating with Series 27WB.

SURFACE PREPARATION

Wet Interior: SSPC-SP10/NACE 2 Near-White Blast Cleaning with a minimum angular anchor profile of 1.5 mils.
Exterior or Dry Interior: SSPC-SP6/NACE 3 Commercial Blast Cleaning with a minimum angular anchor profile of 1.5 mils.

TECHNICAL DATA

VOLUME SOLIDS 62.0 ± 2.0% (mixed)

RECOMMENDED DFT 2.5 to 3.5 mils (65 to 90 microns) per coat.

CURING TIME Without 44-710

Temperature †	To Handle	To Recoat
75°F (24°C)	2 hours	8 hours
55°F (11°C)	4 hours	12 hours
35°F (2°C)	6 hours	16 hours

† 50% relative humidity. **Note:** Refer to product listings on www.nsf.org for specific potable water return to service information. Curing time will vary with surface temperature, humidity and film thickness. **Ventilation:** When used in enclosed areas, provide adequate ventilation during application and cure.
Note: For faster curing, low humidity and low-temperature applications, add No. 44-710 Urethane Accelerator (see separate product data sheet). **Note:** For cure times to immersion service, reference the specified Tnemec interior topcoat product data sheet.

VOLATILE ORGANIC COMPOUNDS
Unthinned: 0.74 lbs/gallon (89 grams/litre)
Thinned 15% (No. 49 Thinner): 0.74 lbs/gallon (89 grams/litre)
Thinned 10% (No. 3 Thinner): 1.57 lbs/gallon (188 grams/litre)
Thinned 10% (No. 2 Thinner): 1.56 lbs/gallon (187 grams/litre)

HAPS
Unthinned: 1.68 lbs/gal solids
Thinned 15% (No. 49 Thinner): 1.68 lbs/gal solids
Thinned 10% (No. 3 Thinner): 1.72 lbs/gal solids
Thinned 10% (No. 2 Thinner): 2.84 lbs/gal solids

THEORETICAL COVERAGE 996 mil sq ft/gal (24.4 m²/L at 25 microns). See APPLICATION for coverage rates.

NUMBER OF COMPONENTS One

PACKAGING 5 gallon (18.9L) pails (yielding 3 gallons) and 1 gallon (3.79L) cans.

NET WEIGHT PER GALLON 24.92 ± 0.60 lbs (11.30 ± 0.27 kg)

STORAGE TEMPERATURE Minimum 20°F (-7°C) Maximum 110°F (43°C)

TEMPERATURE RESISTANCE Dry (Continuous) 250°F (121°C) Intermittent 300°F (149°C)

SHELF LIFE 9 months at recommended storage temperature.

FLASH POINT - SETA 82°F (28°C)

EXHIBIT 2

PRODUCT DATA SHEET

HYDRO-ZINC® | SERIES 94-H_2O

HEALTH & SAFETY

Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Safety Data Sheet for important health and safety information prior to the use of this product.
Keep out of the reach of children.

APPLICATION

COVERAGE RATES

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m²/Gal)
Suggested	3.0 (75)	5.0 (125)	331 (30.8)
Minimum	2.5 (65)	4.0 (100)	398 (37.0)
Maximum	3.5 (90)	5.5 (140)	284 (26.4)

Allow for overspray and surface irregularities. Wet film thickness is rounded to the nearest 0.5 mil or 5 microns. Application of coating below minimum or above maximum recommended dry film thicknesses may adversely affect coating performance. Reference the NSF website at www.nsf.org for details on the maximum allowable DFT.

MIXING

Stir thoroughly making sure no pigment remains on the bottom of the can. Use an air-driven power mixer and keep material under constant agitation while mixing. Do not use material beyond pot life limits.

THINNING

For air spray, thin up to 15% or 1 1/4 pints (570 mL) per gallon with No. 49 Thinner or thin up to 10% or 3/4 pint (380 mL) per gallon with No. 2 or No. 3 Thinner. (Use No. 2 if ambient temperatures are below 80°F (27°C) and No. 3 if above 80°F (27°C).) For brush or roller, thin up to 5% or 1/4 pint (190 mL) per gallon with No. 49 Thinner or thin up to 10% or 3/4 pint (380 mL) per gallon with No. 2 or No. 3 Thinner. Thinning is normally not required for airless spray. **Note:** No. 49 Thinner may be used where VOC restrictions apply. **Caution: Series 94-H_2O certification is based on thinning with No. 49, No. 2 or No. 3 Thinner. Use of any other thinner voids NSF/ANSI/CAN Std. 61 certification.**

POT LIFE

8 hours at 77°F (25°C) and 50% R.H.
Caution: This product cures with moisture acting as a catalyst. Incorporation of moisture or moisture laden air (humidity) during use will shorten pot life. Avoid continual agitation at high RPM. When feasible keep containers of mixed material covered during use.

APPLICATION EQUIPMENT

Note: When intermediate and finish coats are white or light colors, best hiding of this dark color primer can be achieved by spray application; or when roller applied, by using 1/4" nap covers.

Air Spray

Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss JGA †	E	704 or 765	5/16" or 3/8" (7.9 or 9.5 mm)	3/8" or 1/2" (9.5 or 12.7 mm)	40-50 psi (2.8-3.4 bar)	10-20 psi (0.7-1.4 bar)

† (with heavy mastic spring) Low temperatures or longer hoses will require additional pressure. Use pressure pot equipped with an agitator and keep pressure pot at same level or higher than the spray gun. Compressed air must be dry.

Airless Spray

Tip Orifice	Atomizing Pressure	Mat'l Hose ID	Manifold Filter
0.015"-0.019" (380-481 microns) Reversible Tip	3000-4000 psi (207-276 bar)	1/4" or 3/8" (6.4 or 9.5 mm)	60 mesh (250 microns)

Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.
Roller: Use a 1/4" or 3/8" (6.4 mm or 9.5 mm) synthetic woven nap roller cover. Stir material frequently or keep under agitation to prevent settling.
Brush: Use high quality natural or synthetic bristle brushes.

SURFACE TEMPERATURE

Minimum 35°F (2°C) Maximum 140°F (60°C) Maximum for Brush & Roller 120°F (49°C)
The surface should be dry and at least 5°F (3°C) above the dew point. **Note:** Series 44-710 Accelerator must be used if the surface temperature is 35°F to 60°F (2°C to 16°C) and 20% to 40% relative humidity. Please reference Technical Bulletin 98-14 for more information.

AMBIENT HUMIDITY

Minimum 20% Maximum 90%

CLEANUP

Flush and clean all equipment immediately after use with the recommended thinner or xylene or, when required by SCAQMD regulations, No. 49 Thinner.

CAUTION

Series 94-H_2O, with one-component configuration, prevents the product's ability to offer "dry-fall" characteristics.

EXHIBIT 2

TNEMEC

PRODUCT DATA SHEET

HI-BUILD EPOXOLINE® II SERIES V69

PRODUCT PROFILE

GENERIC DESCRIPTION Polyamidoamine Epoxy

COMMON USAGE An advanced generation epoxy for protection and finishing of steel and concrete. It has excellent resistance to abrasion and is suitable for immersion as well as chemical contact exposure. Contact your local Tnemec representative for a list of chemicals. This product can also be used for lining storage tanks that contain demineralized, deionized or distilled water.

COLORS Refer to Tnemec Color Guide. **Note:** Epoxies chalk with extended exposure to sunlight. Lack of ventilation, incomplete mixing, miscatalyzation or the use of heaters that emit carbon dioxide and carbon monoxide during application and initial stages of curing may cause yellowing to occur.

FINISH Satin

COATING SYSTEM

SURFACER/FILLER/PATCHER 215, 217, 218

PRIMERS **Steel:** Self-priming or Series 1, 27, 27WB, 37H, 66, L69, L69F, N69, N69F, V69F, 90E-92, 90-97, H90-97, 90G-1K97, 90-98, 91-H_2O, 94-H_2O, 135, 161, 394, V530
Galvanized Steel and Non-Ferrous Metal: Self-priming or Series 66, L69, L69F, N69, N69F, V69F, 161
Concrete: Self-priming or Series 27WB, 130, 1254
CMU: Self-priming or 130, 1254

TOPCOATS Series 22, 27WB, 46H-413, 66, L69, L69F, N69, N69F, V69, V69F, 72, 73, 104, 113, 114, 118, 141, 156, 157, 161, 180, 181, 262, 265, 287, 446, 740, 750, 1026, 1028, 1029, 1070, 1070V, 1071, 1071V, 1072, 1072V, 1074, 1074U, 1075, 1075U, 1077, 1078, 1078V, 1080, 1081, 1094, 1095, 1096, 1224. **Note:** The following recoat times apply for Series V69: Immersion Service—Surface must be scarified after 60 days. Atmospheric Service—After 60 days, scarification or an epoxy tie-coat is required. When topcoating with Series 740 or 750, recoat time for V69 is 21 days for atmospheric service. Contact your Tnemec representative for specific recommendations.

SURFACE PREPARATION

STEEL **Immersion Service:** SSPC-SP10/NACE 2 Near-White Blast Cleaning or ISO Sa 2 1/2 Very Thorough Blast Cleaning with a minimum angular anchor profile of 1.5 mils.
Non-Immersion Service: SSPC-SP6/NACE 3 Commercial Blast Cleaning or ISO Sa 2 Thorough Blast Cleaning with a minimum angular anchor profile of 1.5 mils. **Note:** Commercial Blast Cleaning generally produces the best coating performance for this exposure. If conditions will not permit this, in moderate exposures Series V69 may be applied to SSPC-SP2 or SP3 Hand or Power Tool Cleaned surfaces (SSPC Rust Grade Condition C).

GALVANIZED STEEL & NON-FERROUS METAL Surface preparation recommendations will vary depending on substrate and exposure conditions. Contact your Tnemec representative or Tnemec Technical Services.

CAST/DUCTILE IRON All external surfaces of ductile iron pipe and fittings shall be delivered to the application facility without asphalt or any other protective lining on the exterior surface. All oils, small deposits of asphalt paint, grease, and soluble deposits should be removed and uniformly abrasive blasted using angular abrasive in accordance with NAPF 500-03-04: External Pipe Surface condition. When viewed without magnification, the exterior surfaces shall be free of all visible dirt, dust, loose annealing oxide, rust, mold coating and other foreign matter. Any area where rust reappears before application shall be reblasted. The surface shall contain a minimum angular anchor profile of 1.5 mils (38.1 microns) (Reference NACE RP0287 or ASTM D 4417, Method C).

CONCRETE Allow new cast-in-place concrete to cure a minimum of 28 days at 75°F (24°C). Verify concrete dryness in accordance with ASTM F 1869 "Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride" (moisture vapor transmission should not exceed three pounds per 1,000 square feet in a 24 hour period), F 2170 "Standard Test Method for Determining Relative Humidity in Concrete using in situ Probes" (relative humidity should not exceed 80%), or D 4263 "Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method" (no moisture present). Prepare concrete surfaces in accordance with NACE No. 6/SSPC-SP13 Joint Surface Preparation Standards and ICRI Technical Guidelines. Abrasive blast, shot-blast, water jet or mechanically abrade concrete surfaces to remove laitance, curing compounds, hardeners, sealers and other contaminants and to provide an ICRI-CSP 2-3 surface profile. Large cracks, voids and other surface imperfections should be filled with a recommended filler or surfacer.

CMU Allow mortar to cure for 28 days. Level protrusions and mortar spatter.

PAINTED SURFACES **Non-Immersion Service:** Ask your Tnemec representative for specific recommendations.

PRIMED SURFACES **Immersion Service:** Scarify the Series V69 prime coat surface by abrasive-blasting with a fine abrasive before topcoating if: (a) the Series V69 prime coat has been in exterior exposure for 60 days or longer and Series 66, L69, L69F, N69, N69F, V69, V69F or 161 is the specified topcoat; (b) the Series V69 prime coat has been in exterior exposure for 7 days or longer and Series 262 or 265 is the specified topcoat.

ALL SURFACES Must be clean, dry and free of oil, grease, chalk and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS 67.0 ± 2.0% (mixed) †

RECOMMENDED DFT 2.0 to 10.0 mils (50 to 255 microns) per coat. **Note:** The number of coats and thickness requirements will vary with substrate, application method and exposure. Contact your Tnemec representative.

EXHIBIT 2

PRODUCT DATA SHEET

HI-BUILD EPOXOLINE® II | SERIES V69

CURING TIME AT 5 MILS DFT

Without 44-700 Accelerator

Temperature	To Handle	To Recoat	Immersion
90°F (32°C)	5 hours	7 hours	7 days
80°F (27°C)	7 hours	9 hours	7 days
70°F (21°C)	9 hours	12 hours	7 days
60°F (16°C)	16 hours	22 hours	9 to 12 days
50°F (10°C)	24 hours	32 hours	12 to 14 days

Curing time varies with surface temperature, air movement, humidity and film thickness. **Note:** For faster curing and low-temperature applications, add No. 44-700 Epoxy Accelerator; see separate product data sheet for cure information.

VOLATILE ORGANIC COMPOUNDS

Unthinned: 1.95 lbs/gallon (234 grams/litre)
Thinned 2.5% (No. 4 Thinner): 2.08 lbs/gallon (250 grams/litre) †

HAPS

Unthinned: 2.05 lbs/gal solids
Thinned 2.5% (No. 4 Thinner): 2.30 lbs/gal solids)

THEORETICAL COVERAGE

1,074 mil sq ft/gal (26.4 m²/L at 25 microns). See APPLICATION for coverage rates. †

NUMBER OF COMPONENTS

Two: Part A (amine) and Part B (epoxy) — One (Part A) to one (Part B) by volume.

PACKAGING

	Part A	Part B	Yield (mixed)
Large Kit	5 gallon pail	5 gallon pail	10 gallons (37.9 L)
Small Kit	1 gallon can	1 gallon can	2 gallons (7.6 L)

NET WEIGHT PER GALLON

14.01 ± 0.25 lbs (6.36 ± .11 kg) (mixed) †

STORAGE TEMPERATURE

Minimum 20°F (-7°C) Maximum 110°F (43°C)

TEMPERATURE RESISTANCE

(Dry) Continuous 250°F (121°C) Intermittent 275°F (135°C)

SHELF LIFE

Part A: 24 months; Part B: 12 months at recommended storage temperature.

FLASH POINT - SETA

Part A: 82°F (28°C) Part B: 86°F (30°C)

HEALTH & SAFETY

Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Material Safety Data Sheet for important health and safety information prior to the use of this product.
Keep out of the reach of children.

APPLICATION

COVERAGE RATES

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m²/Gal)
Suggested (1)	6.0 (150)	9.0 (230)	179 (16.6)
Minimum	2.0 (50)	3.0 (75)	537 (49.9)
Maximum	10.0 (250)	15.0 (375)	107 (10.0)

Dense Concrete & Masonry: From 100 to 150 sq ft (9.3 to 13.9 m²) per gallon.
CMU: From 75 to 100 sq ft (7.0 to 9.3 m²) per gallon.
(1) Note for Steel: Roller or brush application requires two or more coats to obtain recommended film thickness. Also, Series V69 can be spray applied to an optional high-build film thickness range of 8.0 to 10.0 dry mils (205 to 255 dry microns) or 11.5 to 14.5 wet mils (209 to 370 wet microns). Allow for overspray and surface irregularities. Film thickness is rounded to the nearest 0.5 mil or 5 microns. Application of coating below minimum or above maximum recommended dry film thicknesses may adversely affect coating performance. †

MIXING

Start with equal amounts of Series V69 Parts A and B. Power mix contents of each container separately, making sure no pigment remains on the bottom. Pour a measured amount of Part B into a clean container large enough to hold both components. If Series 44-700 is not being used, proceed with mixing and add an equal volume of Part A to Part B while under agitation. Continue agitation until the two components are thoroughly mixed. **Note:** Both components must be above 50°F (10°C) prior to mixing. For optimum mixing and application properties, the material should be above 60°F (16°C).

If using Series 44-700 accelerator, slowly add four (4) fluid ounces of 44-700 per gallon to Series V69 Part A material while under agitation and proceed with adding Part B. **Note:** The use of more than the recommended amount of 44-700 will adversely affect performance.

Thin by volume and thoroughly mix. Failure to thoroughly mix the Part A and Part B components prior to thinning can affect product's gloss and performance. Do not use mixed material beyond pot life limits. **Note:** For application of the unaccelerated version to surfaces between 50°F to 60°F (10°C to 16°C) or the accelerated version to surfaces between 35°F to 50°F (2°C to 10°C), allow mixed material to stand 30 minutes and restir before using.

THINNING

A maximum of 2.5% of No. 4 Thinner may be used to comply with VOC regulations.

POT LIFE

Without 44-700: 6 hours at 50°F (10°C) 4 hours at 75°F (24°C) 1 hour at 100°F (38°C)
With 44-700: 2 hours at 50°F (10°C) 1 hour at 75°F (24°C) 30 minutes at 100°F (38°C)

SPRAY LIFE

Without 44-700: 1 hour at 75°F (24°C) With 44-700: 30 minutes at 75°F (24°C)
Note: Spray application after listed times will adversely affect ability to achieve recommended dry film thickness.

EXHIBIT 2

TNEMEC

PRODUCT DATA SHEET

ENDURA-SHIELD® SERIES 1094

PRODUCT PROFILE

GENERIC DESCRIPTION Aliphatic Acrylic Polyurethane

COMMON USAGE A user friendly, low VOC, aliphatic polyurethane coating that provides excellent color and gloss retention for exterior applications to steel, concrete and other miscellaneous substrates. Direct-to-Metal capability allows for a labor-saving, high-build, single coat application.

COLORS Refer to Tnemec Color Guide. **Note:** Certain colors may require multiple coats depending on method of application and finish coat color. When feasible, the preceding coat should be in the same color family, but noticeably different.

FINISH Gloss

SPECIAL QUALIFICATIONS Series 1094 meets the requirements of SSPC-36 (level 3) Paint Standard.

COATING SYSTEM

PRIMERS
Steel: Series 1, 27, 27WB, 66, L69, L69F, N69, N69F, V69, V69F, 90-97, 90G-1K97, 91-H_2O, 94-H_2O, 132, 133, 135, 138, L140, L140F, N140, N140F, V140, V140F, 141, 161, 394, 1224
Galvanized Steel & Non-Ferrous Metal: 27, 66, L69, L69F, N69, N69F, V69, V69F, 161
Concrete: Series 27WB, 66, L69, L69F, N69, N69F, V69, V69F, L140, L140F, N140, N140F, V140, V140F, 141, 161, 1224, 1254
CMU: Series 1254
Note: The following maximum recoat times apply; Series L69F, 132, 133, 138, L140F or 141, 14 days; Series L69 or L140, 21 days; Series 1, 27, 27WB, 66, N69, N69F, V69, V69F, 135, N140, N140F, V140, V140F, 161, 394, 1224, 1254, 30 days; Series 90-97, 91-H_2O, 90G-1K97, 94-H_2O, 60 days. Contact your Tnemec representative for specific recommendations.

SURFACE PREPARATION

ALL SURFACES Must be clean, dry and free of oil, grease, chalk and other contaminants.

TECHNICAL DATA

VOLUME SOLIDS 60.0 ± 2.0% (mixed) †

RECOMMENDED DFT
Topcoat Service: 2.0 to 5.0 mils (51 to 127 microns) per coat.
Direct-to-Metal; over Zinc or MIO-Zinc: 3.0 to 6.0 mils (76 to 154 microns).
Note: Number of coats and thickness requirements will vary with substrate, application method and exposure. For DTM or applications over zinc or MIO-zinc, consult the latest version of Tnemec Technical Bulletin 13-100 or contact your Tnemec representative.

CURING TIME

Temperature	To Touch	To Handle	To Recoat
75°F (24°C)	1-2 hours	9 hours	10-12 hours

To resist moisture: 8 hours. Curing time varies with surface temperature, air movement, humidity and film thickness. **Note:** For faster cure in temperatures down to 35°F (2°C), add No. 44-456 Urethane Accelerator, see separate product data sheet for cure information. **Note:** The use of Series 44-456 accelerator is not recommended when temperatures exceed 75°F (24°C).

VOLATILE ORGANIC COMPOUNDS
Unthinned: 2.16 lbs/gal (259 grams/litre)
Unthinned: 0.63 lbs/gal (75 grams/litre) (TBAc Exempt)
Thinned 10% (No. 10 Thinner): 2.77 lbs/gal (332 grams/litre)
Thinned 10% (No. 10 Thinner): 1.60 lbs/gal (191 grams/litre) (TBAc Exempt)
Thinned 10% (No. 46 Thinner): 2.20 lbs/gal (263 grams/litre)
Thinned 10% (No. 46 Thinner): 0.69 lbs/gal (82 grams/litre) (TBAc Exempt)

HAPS
Unthinned: 0.0 lbs/gallon solids
Thinned 10% (No. 10 Thinner): 0.03 lbs/gallon solids
Thinned 10% (No. 46 Thinner): 0.07 lbs/gallon solids

THEORETICAL COVERAGE 964 mil sq ft/gal (89.5 m^2/L at 25 microns). See APPLICATION for coverage rates. †

NUMBER OF COMPONENTS Two: Part A and Part B

MIXING RATIO By volume: Four (Part A) to one (Part B)

PACKAGING

	PART A (Partially filled)	PART B (Partially filled)	Yield (Mixed)
Large Kit	6 gallon pail	1 gallon can	5 gallons (18.9L)
Small Kit	1 gallon can	1 quart can	1 gallon (3.79L)

NET WEIGHT PER GALLON 10.86 ± 0.25 lbs (4.92 ± .11 kg) †

STORAGE TEMPERATURE Minimum 40°F (4°C) Maximum 110°F (43°C)

TEMPERATURE RESISTANCE (Dry) Continuous 250°F (121°C) Intermittent 275°F (135°C)

SHELF LIFE Part A: 12 months; Part B: 12 months at recommended storage temperature.

FLASH POINT - SETA Part A: 45°F (7°C) Part B: 40°F (4°C)

HEALTH & SAFETY Paint products contain chemical ingredients which are considered hazardous. Read container label warning and Safety Data Sheet for important health and safety information prior to the use of this product.
Keep out of the reach of children.

EXHIBIT 2

HI-BUILD EPOXOLINE® II | SERIES V69

APPLICATION EQUIPMENT

Air Spray ‡

Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss JGA	E	765 or 704	5/16" or 3/8" (7.9 or 9.5 mm)	3/8" or 1/2" (9.5 or 12.7 mm)	50-80 psi (3.4-5.5 bar)	10-20 psi (0.7-1.4 bar)

Low temperatures or longer hoses require higher pot pressure.

Airless Spray ‡

Tip Orifice	Atomizing Pressure	Mat'l Hose ID	Manifold Filter
0.015"-0.019" (380-485 microns)	3000-4800 psi (207-330 bar)	1/4" or 3/8" (6.4 or 9.5 mm)	60 mesh (250 microns)

Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.
‡ Spray application of first coat on CMU should be followed by backrolling. **Note:** Application over inorganic zinc-rich primers: Apply a wet mist coat and allow tiny bubbles to form. When bubbles disappear in 1 to 2 minutes, apply a full wet coat at specified mil thickness.
Roller: Use 3/8" or 1/2" (9.5 mm or 12.7 mm) synthetic woven nap roller cover. Use longer nap to obtain penetration on rough or porous surfaces.
Brush: Recommended for small areas only. Use high quality natural or synthetic bristle brushes.

SURFACE TEMPERATURE

Minimum 50°F (10°C) Maximum 135°F (57°C) The surface should be dry and at least 5°F (3°C) above the dew point. Coating will not cure below minimum surface temperature.

CLEANUP

Flush and clean all equipment immediately after use with the recommended thinner or MEK.
† **Values may vary with color.**

EXHIBIT 2

PRODUCT DATA SHEET

ENDURA-SHIELD® | SERIES 1094

APPLICATION

COVERAGE RATES

Topcoat Service

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m²/Gal)
Suggested	2.5 (65)	4.0 (100)	385 (35.8)
Minimum	2.0 (50)	3.5 (90)	481 (44.7)
Maximum	5.0 (125)	8.5 (215)	192 (17.9)

Direct-to-Metal; over Zinc or MIO-Zinc

	Dry Mils (Microns)	Wet Mils (Microns)	Sq Ft/Gal (m²/Gal)
Suggested	4.0 (100)	6.5 (165)	240 (22.4)
Minimum	3.0 (75)	5.0 (130)	321 (29.8)
Maximum	6.0 (150)	10 (255)	160 (14.9)

Note: Coverage rates based on unthinned material. Allow for overspray and surface irregularities. Film thickness is rounded to the nearest 0.5 mil or 5 microns. †

MIXING

Stir contents of the container marked Part A, making sure no pigment remains on the bottom. If using Series 44-456 accelerator, slowly add two (2) ounces of Series 44-456 per mixed gallon of Series 1094 while under agitation. **Note:** The use of more than the recommended amount of Series 44-456 accelerator will adversely affect performance.

Add the contents of the container marked Part B to Part A while under mechanical agitation. Continue agitation until the two components are thoroughly mixed. Do not use mixed material beyond pot life limits. **Caution: Part B is moisture-sensitive and will react with atmospheric moisture. Keep unused material tightly closed at all times. Do not reseal mixed material. An explosion hazard may be created.**

THINNING

Thinning is required for proper application. Use No. 10 Thinner. For air spray, airless spray, brush or roller, thin up to 10% or 12 ounces (354 mL) per gallon. **Note:** In areas that require lower VOC, use No. 46 Thinner.

POT LIFE

Without 44-456: 4 hours at 75°F (24°C)

With 44-456: 5 hours at 35°F (2°C) 4 hours at 55°F (13°C) 3 hours at 75°F (24°C)

APPLICATION EQUIPMENT

Air Spray

Gun	Fluid Tip	Air Cap	Air Hose ID	Mat'l Hose ID	Atomizing Pressure	Pot Pressure
DeVilbiss JGA	E	765 or 704	5/16" or 3/8" (7.9 or 9.5 mm)	3/8" or 1/2" (9.5 or 12.7 mm)	50-80 psi (3.4-5.5 bar)	10-20 psi (0.7-1.4 bar)

Low temperatures or longer hoses require higher pot pressure.

Airless Spray

Tip Orifice	Atomizing Pressure	Mat'l Hose ID	Manifold Filter
0.013"-0.017" (330-430 microns)	2700-3500 psi (186-241 bar)	1/4" or 3/8" (6.4 or 9.5 mm)	60 mesh (250 microns)

Use appropriate tip/atomizing pressure for equipment, applicator technique and weather conditions.
Roller: Use 1/4" or 3/8" (6.4 mm or 9.5 mm) high quality synthetic woven nap roller cover. Do not use medium or long nap roller covers. Two coats are required to obtain dry film thickness above 3.0 mils (75 microns).
Brush: Recommended for small areas only. Use high quality natural or synthetic bristle brushes. Two coats are required to obtain recommended film thickness.

SURFACE TEMPERATURE

Minimum 40°F (4°C) Maximum 120°F (49°C)
The surface should be dry and at least 5°F (3°C) above the dew point.
Cure time necessary to resist direct contact with moisture at a surface temperature of 75°F (24°C) is 8 hours.

CLEANUP

Flush and clean all equipment immediately after use with xylene or MEK. Use Tnemec No. 74 Thinner when needed to comply with VOC regulations.

† Values may vary with color.