



Maryland Transportation Authority

CAPITAL COMMITTEE MEETING

THURSDAY, JANUARY 4, 2024

2310 BROENING HIGHWAY
BALTIMORE, MARYLAND 21224

CAPITAL COMMITTEE MONTHLY MEETING
January 4, 2024 – 9:00 AM

This meeting will be livestreamed on the [MDTA Capital Committee Page](#)

NOTE: This is an Open Meeting being conducted via livestreaming. The public is welcomed to watch the meeting at the link listed above. *If you wish to comment on an agenda item please email your name, affiliation, and the agenda item to agibson@mdta.state.md.us no later than 3:00 p.m. on Monday, January 1, 2024. You MUST pre-register in order to comment.* Once you have pre-registered you will receive an email with all pertinent information.

AGENDA

OPEN SESSION – 9:00 a.m.

Call Meeting to Order

- | | | |
|--|---------------|---------|
| 1. <u>Approval</u> - Open Session Meeting Minutes of November 2, 2023 | Chairman | 5 mins |
| 2. <u>Update</u> – Steel Bridge Coatings overview | Nafiz Alqasem | 15 mins |

Vote to Adjourn Meeting

**MARYLAND TRANSPORTATION AUTHORITY
CAPITAL COMMITTEE MEETING
THURSDAY, NOVEMBER 2, 2023
OPEN MEETING VIA LIVESTREAMING**

OPEN SESSION

MEMBERS ATTENDING: Mario J. Gangemi – Chairman
Samuel D. Snead
William H. Cox, Jr
W. Lee Gaines

STAFF ATTENDING: Percy Dangerfield
Mary O’Keeffe
James Harkness
Sushmita Mitra
Nafiz Alqasem
Jeffrey Davis
Richard Jaramillo
Kimberly Millender
Jennifer Stump
Selena McKissick
Natalie Henson
Liz Zito-Lynch
Araya Gibson
Chantelle Green
Melissa Williams
Timothy Sheets

Member Gangemi called the meeting of the Maryland Transportation Authority (MDTA) Capital Committee to order at 9:00 a.m. The meeting was held via video conference and livestreamed on the MDTA Board Meeting web page.

APPROVAL – OPEN SESSION MEETING MINUTES OF OCTOBER 5, 2023

Upon motion by Member Cox and seconded by Member Gaines, the Open Session meeting minutes of the Capital Committee’s meeting held on October 5, 2023, were unanimously approved.

Upon motion by Member Cox and seconded by Member Gaines, the Members voted to alter the agenda to have Item No. 3 presented before Item No. 2.

APPROVAL – FY2024-2029 Final Consolidated Transportation Programs (CTP)

Ms. Stump presented this request to seek a recommended approval from the Capital Committee to for FY2024-2029 Final Consolidated Transportation Programs (CTP) to the full Board for award at its next scheduled meeting.

The six-year FY 2024-2029 budget in the proposed CTP is \$3.1 billion. The proposal CTP reflects a net increase in the six-year FY2024-2029 budget of \$393.1 million (Attachment #1 – Line 6). The net FY 2024-2029 increase is the result of the following:

- Increase in the six-year CTP budget by \$780 thousand for the Nice/Middleton Bridge (Attachment #1 – Line 1).
- Increase in the six-year CTP budget by \$4.9 million for the I-95 ETL Northern Extension (Attachment #1 – Line 2).
- Increase in the six-year CTP budget by \$177.9 million for all projects except the Nice/Middleton Bridge, I-95 ETL Northern Extension, and reserves (Attachment #1 – Line 3).
- Increase in the Allocated and Unallocated Reserves by \$209.5 million (Attachment #1 – Line 4).

FY 2023 expenditures were \$451.7 million vs. \$484.8 million in the Draft FY 2024-2029 CTP (Attachment #1 – Line 6). FY 2023 underspending was \$33.1 million and has been rolled over into the Final FY 2024-2029 CTP.

Highlights of project and reserve changes incorporated in the proposal Final FY 2024-2029 CTP are shown in Attachment #2.

Added New Projects

Added seven system preservation projects and one environmental project for an increase of \$9.3 million in the FY 2024-2029 period.

Modified Budgets to Reflect Bids Received

Adjusted one project to reflect bids received that were higher than Engineer's Estimate for a net increase of \$4.2 million.

Added Construction Phase

The construction phase of five projects was funded for a total of \$68.4 million transferred from the reserves as design reached 60% level and cost estimates were developed on fully developed scopes.

Modified Budgets to Reflect Completed Projects

Thirteen projects were completed, and two projects were deleted for a total decrease of \$100 thousand in the FY 2024-2029 period.

Modified Active Projects Due to Cost Changes and Cash Flow Adjustments

Adjusted cash flows and funding changes in engineering, right of way, and/or construction budgets for eighty-five projects for a net budget increase of \$101.8 million in the FY 2024-2029 period.

Reserve Changes

The allocated reserves increased by \$209.4 million, and the unallocated reserves increased by \$87 thousand.

Upon motion by Member Cox and seconded by Member Gaines, the Members unanimously recommended approval of Final FY 2023-2028 Consolidated Transportation Program (CTP) to the full MDTA Board for award at its next scheduled meeting.

APPROVAL – HB-3001-0000 – CLEANING AND PAINTING OF THE HATEM BRIDGE

Mr. Alqasem presented this request to seek a recommended approval from the Capital Committee for HB-3001-0000 Cleaning and Painting and Miscellaneous Structural Repairs of the US 40 Bridge over the Susquehanna River to the full MDTA Board for award at its next scheduled meeting.

The work to be performed under this Contract is located on the Thomas J. Hatem Memorial Bridge, US Route 40, over the Susquehanna River. The scope of work includes replacement of the protective coating system on the structural steel members and performing miscellaneous structural steel repairs on the bridge.

Upon motion by Member Gaines and seconded by Member Snead, the Members unanimously recommended approval of Contract No. HB-3001-0000 Cleaning and Painting and Miscellaneous Structural Repairs of the US 40 Bridge over the Susquehanna River to Blastech Enterprises, Inc. and present a recommendation for award to the Capital Committee at its next scheduled meeting.

There being no further business, the meeting of the MDTA Capital Committee was adjourned by consensus at 9:19 a.m. following a motion by Member Gaines and seconded by Member Snead.

The next meeting of the MDTA Capital Committee is scheduled for Thursday, November 30, 2023, at 9:00 a.m., this meeting will be virtual conducted via livestream.

APPROVED AND CONCURRED IN:

Mario J. Gangemi, Chairman



BRIDGE COATINGS OVERVIEW

Presentation to MDTA Capital Committee

January 4, 2024

Bridge Coatings Overview

Topics of Discussion

- Evaluation & Design Phases
- Containment & Equipment
- Surface Preparation
- Coating Application



Evaluation Phase

Testing Protocol during Field evaluation

- ▶ Corrosion – Isolated or scattered
- ▶ Adhesion – Failure between coats or substrate
- ▶ Chalking
- ▶ Brittleness of coating
- ▶ Film thickness (Destructive & Non-Destructive)
- ▶ Coating identification (Alkyd, Epoxy, Vinyl, etc.) for potential overcoat projects
- ▶ Heavy Metals (Lead, Cadmium, Chromium)
- ▶ Surrounding environment
 - Matching the right system to the environment - humidity, etc. (OZ/E/U, Moisture cured systems)



Evaluation Phase

(continued)

- ▶ Assessment of inventory for single or multiple structures
 - ▶ Identify areas that could cause issues for proper surface preparation and application (i.e., tight spaces, back-to-back angles, utilities, vegetation, etc.)
 - ▶ Access to the structure.
 - ▶ Potential layout yard for the contractor for equipment and storage.
 - ▶ Will structural repairs be required before cleaning and painting?
 - ▶ Containment levels due to location.
 - ▶ Railroads, etc.



Design Phase

- ▶ Specification Development
 - ▶ Containment
 - ▶ Surface preparation
 - ▶ Coatings application
 - ▶ **Stripe Coating (Primer & Intermediate coats)**
 - ▶ Special provision/Plan Notes – Document unique situations, hard to reach/inaccessible/limited access areas, utilities, and Railroads – How will the contract address these areas?
 - ▶ Defined Quality Control/Quality Assurance
 - ▶ Warranties – 1yr., 2yr., etc.



Design Phase

PAINT	COAT	SECTION	DRY FILM THICKNESS, mils, min - max	USAGE
SYSTEM A				
Inorganic Zinc	I	912.02.01	3.0 - 5.0	Shop Primer Coat
Acrylic	II	912.03.01	2.0 - 4.0	First Intermediate Coat
Acrylic	III	912.04.01	2.0 - 4.0	Finish Coat
SYSTEM B				
Inorganic Zinc	I	912.02.01	3.0 - 5.0	Shop Primer Coat
Epoxy Polyamide	II	912.03.02	5.0 - 8.0	Intermediate Coat
Aliphatic Urethane	III	912.04.02	2.0 - 3.0	Finish Coat
SYSTEM C				
Organic Zinc	I	912.02.03	3.0 - 5.0	Primer Coat
Epoxy Polyamide	II	912.03.02	5.0 - 8.0	Intermediate Coat
Aliphatic Urethane	III	912.04.02	2.0 - 3.0	Finish Coat
SYSTEM D				
Organic Zinc	I	912.02.03	3.0 - 5.0	Primer Coat
Acrylic	II	912.03.01	2.0 - 4.0	Intermediate Coat
Acrylic	III	912.04.01	2.0 - 4.0	Finish Coat
SYSTEM E				
Aluminum Epoxy Mastic	I	912.02.02	5.0 - 8.0	Primer Coat
Epoxy Polyamide	II	912.03.02	5.0 - 8.0	Intermediate Coat
Aliphatic Urethane	III	912.04.02	2.0 - 3.0	Finish Coat
SYSTEM F				
Zinc Rich Moisture Cured Urethane	I	912.02.04	2.0 - 3.0	Primer Coat
Polyaspartic Urethane	II	912.04.03	6.0 - 9.0	Finish Coat
SYSTEM G				
Zinc Rich Moisture Cured Urethane	I	912.02.04	2.0 - 3.0	Primer
Epoxy Polyamide	II	912.03.02	3.0 - 5.0	Intermediate Coat
Polyaspartic Urethane	III	912.04.03	6.0 - 9.0	Finish Coat
SYSTEM H				
Penetrating Sealer	I	912.02.05	1.0 - 2.0	Spot Primer/ Sealer
Aluminum Filled Epoxy Mastic	II	912.02.02	3.0 - 5.0	Spot Intermediate
Aliphatic Urethane	III	912.04.02	3.0 - 5.0	Spot Finish
SYSTEM I				
Organic Zinc	I	912.02.03	3.0 - 5.0	Primer Coat
Polyaspartic Urethane	II	912.04.03	6.0 - 9.0	Finish Coat
SYSTEM J				
Organic Zinc	I	912.02.03	3.0 - 5.0	Primer Coat
Epoxy Polyamide	II	912.03.02	3.0 - 5.0	Intermediate Coat
Polyaspartic Urethane	III	912.04.03	6.0 - 9.0	Finish Coat

Containment System

► Containment

- ❖ Power Tool Cleaning
- ❖ Pressure Washing
- ❖ Chemical Stripping
- ❖ Abrasive Blasting



Removal System

- ▶ Abrasive Blast Equipment
 - ▶ Dust Collector
 - ▶ Abrasive blaster and recycler
 - ▶ Compressor



Surface Preparation

- ❖ Hand & Power Tool Cleaning
- ❖ Pressure Washing
- ❖ Abrasive blasting



Surface Preparation

Coal Slag



Silica Sand



Steel Shot



Steel Grit



➤ Steel grit is typically used on most bridge coating rehab projects.

Surface Preparation

- ▶ Generated Waste
 - Typically hazardous on most rehab projects
 - Must be collected, stored, and disposed properly
 - Manifest are required, Certified haulers must be used, approved landfills must be used



Coatings Application

► Application

❖ Brush

❖ Roll

❖ Spray

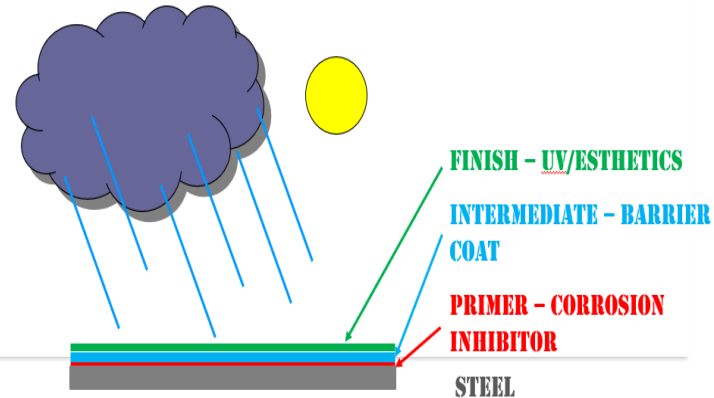


Coatings Application

► Coating Systems

- ❑ 3 Coat System: Zinc Primer, Epoxy Intermediate, Urethane topcoat (Total Removal)
- ❑ 2 Coat System: Zinc primer, Polysiloxane or Polyaspartic topcoat (Total Removal)
- ❑ Moisture Cured Urethanes System. (Total Removal)
- ❑ Penetrating Sealers, Epoxy, Urethane (Overcoating, repairs)

– The application of a number of coats, separately applied, in a pre-determined order and thickness, with suitable intervals to allow for drying or curing.



Bridge Coatings Overview

- ▶ What Does the MDTA do?
 - Containment for abrasive blasting
 - The use of recyclable steel grit
 - Collection, storage, and disposal of generated waste
 - Typically, a three-coat zinc primer, epoxy intermediate, and urethane topcoat with a specific film thickness for each applied coating

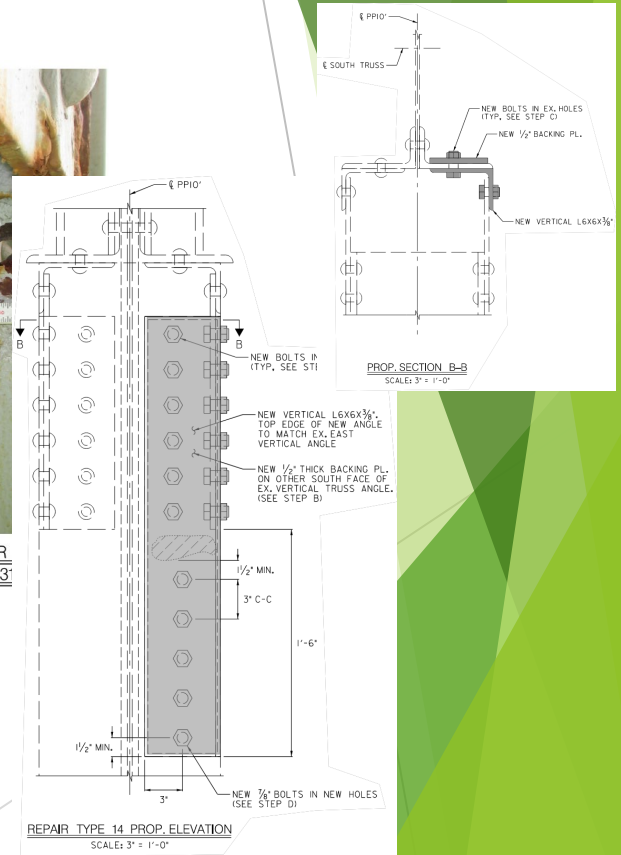
Note: The contractor has the option to choose the paint supplier as long as the product meets the specified requirements.

Bridge Coatings Overview

- ▶ Typical Steel Repairs in Cleaning and Painting Contracts
- ▶ Existing Corrosion
- ▶ Advanced section loss due to coating system failure



PHOTOGRAPH OF MDTA REPAIR
2019-H-Z040001 (S36-S38)-0003
DIRECTION: SOUTH



Questions?

