

**Project Prospectus – Dorsey Mill Road Bridge over I-270**

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**Completed: 04/21/2015**

**Summary**

The Montgomery County Department of Transportation (MCDOT) has recently initiated work on the design of the Dorsey Mill Road Bridge over I-270. This master planned completion of Dorsey Mill Road will connect Century Boulevard on the west side I-270 with Observation Drive on the east side of I-270. The bridge will be designed to eventually accommodate the Corridor Cities Transitway (CCT) in the median. A vicinity map depicting the eventual connection and the surrounding zoning is shown in Figure 1 below.

**Figure 1 – Dorsey Mill Road Bridge Vicinity Map**





## **Planning Board Action**

This is a briefing on the Project Prospectus. The purpose of the briefing is to introduce the project to the Planning Board and afford the Planning Board an opportunity to ask questions of the MCDOT Project team and staff. The balance of this staff memo is intended to provide additional background and context for the Planning Board and public in advance of the eventual submittal of a Mandatory Referral this fall. **Staff recommends the Planning Board endorse the general initial design concept developed by MCDOT as presented in this staff memo with the following comments:**

1. We are concerned that a phased construction of the bridge, with the roadway spans being constructed before the CCT, could result in an unnecessarily wide bridge that would be more costly but less attractive.
2. Consider reducing the three-foot width of the shoulders next to the parapets to one foot; eliminating the outside shoulders; and reducing the distance between the sidewalk/shared use path and the right-of-way line to two feet. This space could be used to increase the width of buffer between the travel lanes and the cycle track and/or to provide space for planter boxes on the bridge, either between the cycle track and roadway or on the outsides of the bridge, similar to the 23<sup>rd</sup> Street Bridge over E Street NW in the District, with the landscaping helping knit the two sides of Germantown together.
3. The cycle track should be at the same level as the top of curb adjacent to the travel lane so as to not trap stormwater runoff. The curb between the cycle track and the sidewalk should be mountable.

## **Project Schedule / Funding**

Current major schedule milestones for the Dorsey Mill Road Bridge include the following:

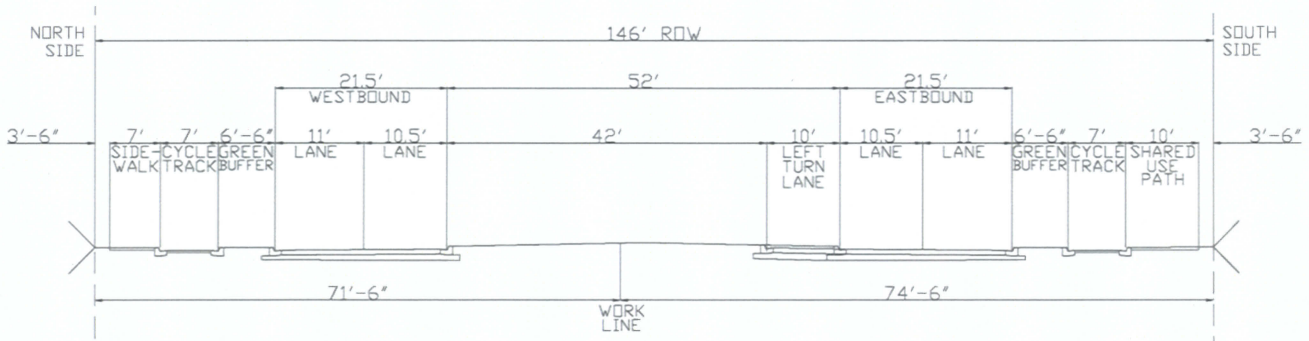
- April 2015 – Planning Board Briefing on Project Prospectus
- October 2015 - Mandatory Referral (approximately 30% design completion)
- May 2016 – Final Design Complete

Construction funding has not been included in the County's FY15 - FY20 Capital Improvements Program at this time.

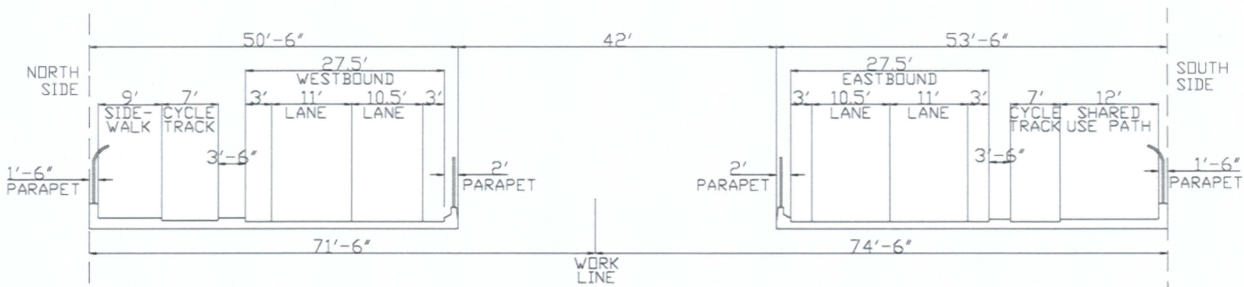
## **Project Typical Section**

The typical section will vary slightly over three distinct roadway segments as shown in the following figures.

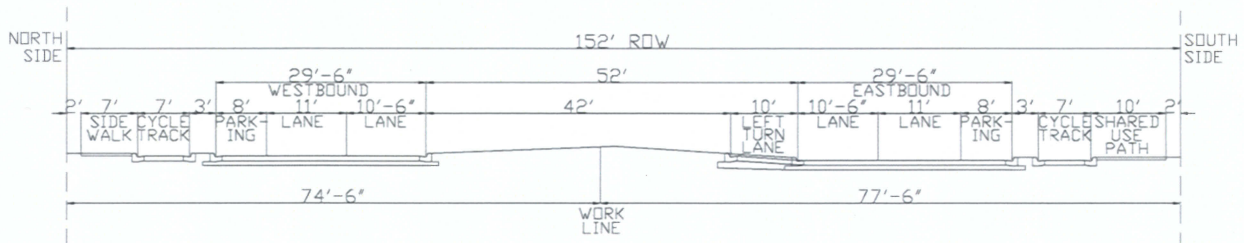
**Figure 2 – Proposed Roadway Typical Section – Century Boulevard to Milestone Center Drive**



**Figure 3 – Proposed Bridge Typical Section over I-270**



**Figure 4 – Proposed Roadway Typical Section – Milestone Center Drive to Observation Drive**



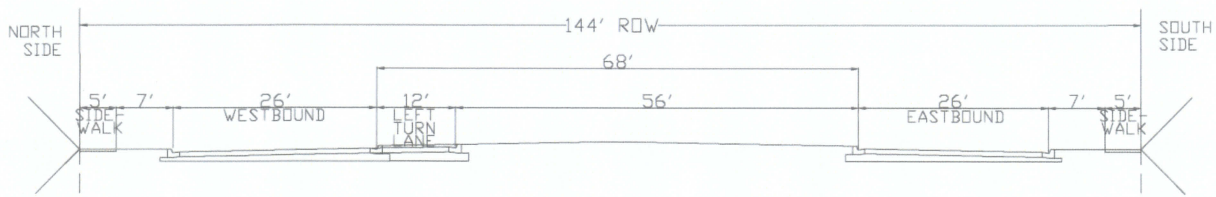
For comparison, the existing typical roadway section from Milestone Center Drive to Observation Drive is shown in Figure 5.

Key features of the project as depicted in Figures 2-4 above include the following:

- Two travel lanes in each direction – the widest being the 11’ lane adjacent to the curb
- 10’ wide left turn lanes
- 10’ shared use path on the eastbound (or south) side
- 7’ – 9’ foot sidewalk on the westbound (or north) side
- 7’ directional cycle track
- 6.5’ wide green buffer between the travel lane and the cycle track on each side of the roadway section from Century Boulevard to Milestone Center Drive



**Figure 5 – Existing Roadway Typical Section – Milestone Center Drive to Observation Drive**



### Corridor Cities Transitway (CCT)

This initial construction of the Dorsey Mill Road Bridge over I-270 will consist of one eastbound span and one westbound span. **As currently envisioned, while the substructure of the entire bridge would be constructed with these two spans to carry the roadway, the middle span that will eventually carry the CCT over I-270 would only be constructed in the future as part of the CCT Phase Two (Metropolitan Grove to Clarksburg) project.** The CCT Phase Two project is master planned but no detailed project or facility planning efforts have been programmed at this time. The Maryland Transit Administration (MTA) is currently conducting Preliminary Engineering (30% design) of the CCT Phase One (Shady Grove Metro to Metropolitan Grove) project, which is currently scheduled for completion late this summer.

While no detailed planning has been done for CCT Phase 2, MCDOT and MTA have coordinated on concept design elements of the Dorsey Mill Road Bridge project to insure overall compatibility.

### Master Plan Guidance and Project Conformity

The Germantown Employment Area Sector Plan (Adopted 2009) includes the following relevant guidance on the area (North End District) where the bridge project is located as well as the project itself:

- Re-classify Dorsey Mill Road from an Industrial Road to a Business District Street to reflect (its) commercial and mixed-use character and function (pages 38 and 86 of the Plan).<sup>1</sup>
- Regarding the urban form in the North End District (page 64)...
  - For the west side of I-270, permit building heights of 143 feet, clustered at the transit station and along I-270.
  - For the east side of I-270, permit buildings up to 125 feet along I-270. Throughout the district, provide a three to four story base and set back upper floors.
- Provide a dedicated street crossing of I-270, an extension of Dorsey Mill Road connecting the east and west sides of I-270 with four travel lanes and the CCT (pages 65 and 86).
- Provide a transit station in the Century Boulevard median near Dorsey Mill Road. Park and ride facilities should be supplied on both the west and east sides of I-270 near the Manekin and Dorsey Mill stations with at least 250 public spaces at each station incorporated into private development projects (page 65).

<sup>1</sup> The Sector Plan recommends a 150' foot right of way that includes the CCT. The Sector Plan does not recommend a specific street design standard for Dorsey Mill Road.



- Incorporate direct access to the Dorsey Mill (CCT) station to and from north I-270. This access can be provided by either direct access ramps at the Dorsey Mill Road interchange or a revision to the Father Hurley Boulevard interchange (page 65).
- Include a shared use path along Dorsey Mill Road from Crystal Rock Drive to Observation Drive (page 86).
- Regarding implementation of the plan vision ...
  - Establish an Urban Service District (page 92)
  - Parking policy should encourage transit ridership, require fewer parking spaces, and take advantage of shared parking (page 93).

A concept of the vision for the North End District as shown in the Germantown Plan is shown in Figure 2 below.

**Figure 2 – North End District Concept from Germantown Employment District Sector Plan (2009)**



In general, the Plan vision is for a transition from a more industrial / office campus setting to relatively dense mixed use Transit Oriented Development (TOD) in those areas immediately adjacent to I-270.



The Dorsey Mill Road Bridge and associated roadway segments, as initially developed by MCDOT and included in Figures 2-4, support the overall vision in the Germantown Employment Area Sector Plan by providing the Business District Street connection over I-270 while accommodating a future CCT in the median.

Other aspects of the project consistent with the vision for the North End District specifically include features like the wider sidewalks, directional cycle track, green buffer, and on street parking that improve functionality and overall aesthetics for pedestrians, transit users, and cyclists.

#### **Context Sensitive Road Design Standards Guidance and Project Conformity**

As previously noted, the Germantown Employment Area Sector Plan did not recommend a specific design standard. The Plan did recommend a Business District Street with a minimum 150 foot right of way within which the CCT (in the median) and a shared use path were to be accommodated.

**MCDOT staff requested early Planning Department staff input on the design components of the project and the concept sections shown reflect the general consensus between the two agencies at the staff level.**

The following design components were the major focus of the discussions between MCDOT and Planning Department staff in arriving at the preferred typical sections for going forward with more detailed design:

- Reduction in lane width to 10.5' for one travel lane in each direction and 10' for the turn lanes in response to the planned urban context of the project setting. The North End District is not a designated Road Code Urban Area but is adjacent to the Cloverleaf District which was designated a Road Code Urban Area after the adoption of the Germantown Employment Area Sector Plan. Staff anticipates bringing a future recommendation to the Board to expand the Road Code Urban Area to the east side of I-270 to better align with the boundaries of the proposed urban service district shown on Map 45 on page 92 of the Germantown Master Plan.
- Inclusion of both a shared use path and a directional cycle track to better reflect the County's approach to providing a higher degree of separation for cyclists in and near TOD areas.
- Locating the shared use path on the south side (eastbound) of the project to mitigate conflicts with the potential introduction of access ramps to and from I-270 north.

The resulting recommended typical sections for the roadway and bridge are consistent with the guidance in the Road Code Design Standards regarding (1) the application of the standards, (2) key principals, and (3) consensus about design intent.

#### **Implementation**

**Staff does not at this time support the bridge construction being accomplished in two phases as proposed – the roadway spans before the CCT is constructed and the middle span constructed later as part of the CCT project.** The concern is that this phasing approach may ultimately result in a wider than necessary bridge in order to provide the necessary inside barriers on each of the two spans in the first phase. A wider than necessary bridge may also provide poor aesthetics by having unnecessary “dead space” in the bridge. Staff



acknowledges that there are different funding programs, sources, and timing issues that support the approach recommended by MCDOT but we think the issue deserves further review during the Mandatory Referral process.

### **Mandatory Referral**

The Mandatory Referral for the Dorsey Mill Road Bridge is anticipated this fall. More detail related to the project design and other factors will be available at that time. Staff recommends that MCDOT as the project sponsor conduct the public outreach for the Mandatory Referral early in the process with a focus on stakeholders in the immediate project vicinity on both sides of I-270. Continued on-going coordination with MTA and the State Highway Administration (SHA) prior to the submittal is also encouraged.

As noted above (see Master Plan Guidance and Project Conformance) the Master Plan recommends eventually providing direct access from I-270 to the Dorsey Mill CCT station. Two potential alternatives – one a set of ramps to and from I-270 North and the other involving modifications to the I-270 / Father Hurley Boulevard interchange – are mentioned. The Mandatory Referral should include information on how these recommended alternatives for direct access to and from I-270 to the CCT station could potentially be accommodated by the recommended bridge and roadway design.