

# MD 355 (Frederick Road)

Hyattstown Mill Road to Montgomery/Frederick County Line

## *Sidewalk Feasibility Study*

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**Prepared for:**

Maryland Department of Transportation  
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# MD 355 Sidewalk Feasibility Study

## Hyattstown, Maryland

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### INTRODUCTION

This report contains the results of a preliminary feasibility study for sidewalk installation along MD 355 (Frederick Road) in historic Hyattstown. The study limits are from Hyattstown Mill Road to the Montgomery/Frederick County line ( $\pm 2,300'$ ).

Within the study area, MD 355 is classified as a Rural Major Collector. The typical section consists of two-12 foot travel lanes. Shoulders are primarily open section (i.e no curb), varying from zero to six feet wide. The roadway is not bicycle compatible. There is an existing asphalt sidewalk along portions of both sides of the roadway. The land use along the study corridor is primarily residential with commercial at the ends.

This study evaluates sidewalk installation along both sides of MD 355. The evaluation is based on a five foot wide concrete sidewalk placed adjacent to new concrete curb and gutter located within one foot of the existing edge of road. Given the historic characteristics of the corridor and the significant impacts associated with the new curb section, alternates were developed for each side that followed the existing asphalt sidewalk alignment and supplemented as necessary to construct a continuous sidewalk along either side.

For purposes of this study, we have assumed that the SHA right-of-way line is located at the existing utility pole line. Utility poles are approximately five feet from the existing edge of pavement along the west side of MD 355 and vary from five to ten feet from the existing edge of pavement along the east side.

The project has been broken into several sections along each side of the roadway to better summarize the findings. A Location Plan is attached to identify these sections and summarize the level of impacts associated with sidewalk installation.

### ROUTE ASSESSMENT

Both the east and west sides of MD 355 (Frederick Road) were assessed for sidewalk installation. The southern limit of the project is at Hyattstown Mill Road. South of Hyattstown Mill Road, there is a bridge structure crossing Bennett Creek that would prohibit extending the sidewalk further south without widening the existing bridge structure (see **Photos 1 & 2**). There is a park located behind the existing parking lot on the southeast corner of MD 355 and Hyattstown Mill Road. There is no sidewalk along Hyattstown Mill Road to access the park (see **Photo 3**).

The northern west side limit of the project is at the entrance to the Hyattstown/Food Center shopping plaza (see **Photo 4**). The east side northern limit is at the "Ride On" bus stop ("Discharge Only") (see **Photo 5**).

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### West Side

**Section A** – This section would begin across from the MD 355 intersection with Hyattstown Mill Road and continue north for approximately 370 feet to MD 109 (Old Hundred Road). The southern portion of this section is open section allowing access to a barn and parking area (see **Photo 6**). The northern portion of this section consists of a bituminous curb located 4 feet from the existing white edge line (see **Photo 7**). There are two driveway curb cuts for the two residences located south of MD 109. There is one utility pole within this section but it is set back far enough to clear the new sidewalk. There is an existing signal pole and drainage inlet located on the southwest corner at MD 109 that will impact the placement of the handicap ramp. Overall, conditions are favorable to sidewalk installation in this section, resulting in relatively minor impacts.

**Section B** – This section would begin at MD 109 and extend north for approximately 440 feet (near 25914). At the northwest corner of the intersection with MD 109, there is an existing signal pedestal pole that is set back far enough to allow a new sidewalk be constructed in front. However, there is an inlet located in front of the signal pole that will need to be modified to accommodate the new curb (see **Photo 8**). A new inlet will need to be installed north of the intersection and the existing inlet will need to be converted to a junction box. North of the intersection, the roadway is open section with variable width shoulder. There are portions of a three to four foot wide asphalt sidewalk that is in poor condition (see **Photos 9 & 10**). There are several residential driveways along this section and an inlet that would need to be modified to accommodate new curb and sidewalk. The existing shoulder could be used to construct new concrete curb and sidewalk. The new sidewalk could be placed with relatively minor grading and impact to the adjacent properties. Although at 25914, it appears that the area in front of this residence is used for parking (see **Photo 11**). Constructing curb and sidewalk in the shoulder area would disallow parallel parking at this location.

**Section C** – This section extends from Section B north approximately 230 feet (near 26000). A steep cut slope begins to develop just past 25914. As the slope develops, the existing asphalt sidewalk transitions to the top of this slope (see **Photo 12**) where it continues to 26000. The sidewalk is in poor condition, covered with vegetation overgrowth. At 26000, the sidewalk runs directly in front of the front porch (see **Photo 13**). Installing sidewalk adjacent to the roadway will be difficult in this section. Curb and gutter will need to be installed at the existing white edge line. The sidewalk would be installed adjacent to the curb and would require installation of a retaining wall at the back of the sidewalk. The wall height would vary from three to six feet. Here again, parking may be an issue as the parking for 26000 appears to be parallel to MD 355, just north of the residence (see **Photo 14**).

**Section D** - This section extends from Section C north approximately 440 feet (just north of “Davis House”). The southern portion of this section contains an existing three foot wide asphalt sidewalk, separated from the roadway by a six to eight foot green space (see **Photo 15**). Within the green space, there are two old and one young tree. Constructing sidewalk adjacent to the roadway in this portion would require removal of these trees. If the property owners are willing to grant a right of entry, sidewalk could be constructed behind the trees, in place of the old

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asphalt walk. This asphalt walk continues to the entrance to the Hyattstown Christian Church (26012). Beyond this entrance, the sidewalk ends but the section is favorable to sidewalk installation. North of the gravel drive at 26016, there is a path along the roadside, indicating pedestrian use (see **Photo 16**). This portion is also favorable to sidewalk installation. The northern portion of this section is at the “Davis House”. The “Davis House” is a historic structure that will require special attention and coordination with the Maryland Historic Trust. There is a large, old tree, located five feet from the edge of road (see **Photo 17**). An arborist will need to evaluate whether constructing sidewalk adjacent to this tree will have any impact.

**Section E** - This section extends from Section D north approximately 160 feet (north of 26030). The section transitions to a cut section with a roadside slope approximately two to three feet from the white edge line (see **Photo 19**). Residential houses are located at the top of the slope. Constructing sidewalk in this section would require installing curb and gutter at the existing white edge line. Sidewalk would be installed adjacent to the curb and would require the installation of a retaining wall at the back of the sidewalk to retain the slope. It would be possible to install the sidewalk adjacent to the roadway and cut back the slope (i.e. no retaining wall), but this would put the new cut slope directly in front of the existing houses.

**Section F** - This section extends from Section E north approximately 470 feet (north of 26112). This section is relatively favorable to sidewalk installation. The roadside has a wide graded area that would accommodate new curb and sidewalk (see **Photo 20**). However, as shown in **Photo 20**, a portion of the existing shoulder is used for parallel parking. If curb is installed at the existing edge line, parallel parking would be eliminated. There is an existing inlet located within this section that outfalls across MD 355. This pipe crossing would facilitate the extension of the storm drain. North of 26112, there is an undeveloped, wooded lot that would require some clearing for sidewalk installation (see **Photo 21**).

**Section G** - This section extends from Section F north approximately 190 feet to the northern project limit (entrance to the shopping plaza). This section consists of a cut slope from the edge of road. The property owners are constructing a retaining wall that will facilitate sidewalk installation (see **Photo 22 & 23**). The limits of the new retaining wall were not clear at the time of the site visits. Sidewalk installation in this section would likely require the extension of the wall, matching the material and construction methods.

### **East Side**

**Section H** – This section begins at Hyattstown Mill Road and continues north for approximately 370 feet to MD 109. The southern portion of this section is fronted by the Hyattstown Volunteer Fire Department (see **Photo 24**). The northern portion is fronted by a spa/bath business (see **Photo 25**). The roadside is paved open section that provides access and parking to these two operations/facilities. Sidewalk installation in this section would be difficult given the functionality of the roadside. The numerous entrances and location of parking would complicate roadside access and circulation. Since this section is paved and wide enough for pedestrian access, we recommend that nothing be done in this section. Although not the most desirable, in

## MD 355 Sidewalk Feasibility Study Hyattstown, Maryland

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order to minimize impacts, the existing paved surface can be used by pedestrians to access the southern limits of the study area.

**Section I** – This section extends from MD 109 north for approximately 140 feet. The section is fronted by the Hyattstown Deli Restaurant and New Tech Computer businesses. Parking is located in the front of these businesses (see **Photo 26**). The parking is separated from the roadway by a nine foot wide landscaped area (see **Photo 27**). The new sidewalk would need to occupy the landscaped area. The landscaped area can not be relocated along the building frontage since the remaining space on the lot is needed for parking. The drainage structure located at the northern entrance would need to be incorporated into the sidewalk design.

**Section J** - This section extends from Section I north for approximately 280 feet (south of 25925). Sidewalk installation in this section will be difficult. The roadway shoulder consists of a cut slope, immediately adjacent to the edge of road (see **Photo 28**). This slope is heavily vegetated. There is an old residential structure located at the top of the slope. Constructing sidewalk along this section will require installing curb and gutter at the existing white edge line. The sidewalk would be installed adjacent to the curb and would require installation of a retaining wall at the back of the sidewalk to retain the side slope. The wall would need to be approximately six feet high.

**Section K** - This section extends from Section J north for approximately 160 feet (north of 25925). The roadside section consists of a narrow (two to three foot) shoulder with a low cut slope. The top of the cut slope is about two to three feet above the roadway (see **Photo 29**). Sidewalk installation could be accommodated in this section by grading the slope back or installing a low retaining wall behind the sidewalk.

**Section L** - This section extends from Section K north for approximately 300 feet (north of 26005). Sidewalk installation in this section will be difficult. The roadway slopes up to several homes that are relatively close to the roadway. There are several sets of steps in front of the homes that would need to be incorporated into the design (see **Photos 30, 31 & 32**). The bottoms of steps are four to five feet from the existing edge of road. Two sets of steps will be difficult to replace due to the close proximity to the houses. At 26005, there is a short cinder block retaining wall that is located approximately four and a half feet from white edge line (see **Photo 33**). This wall would have to be pushed back to accommodate a roadside sidewalk. Installing sidewalk in this section will impact several young and old trees.

**Section M** - This section extends from Section K north for approximately 950 feet (to the northern study limit). Along much of this section there is an existing three to four foot wide asphalt sidewalk that runs parallel to the roadway. The walk is offset approximately 4 to 6 feet from the existing edge of road (see **Photo 34**). At 26025, sidewalk installation will be extremely difficult. The driveway for this property is parallel to MD 355. It slopes up to the south side of the house (see **Photo 35**). An asphalt sidewalk runs along the front porch to the north side of the house, then wraps around the house to a set of steps at the adjacent gravel driveway. Where the walk wraps around the house, the slope drops off to the gravel driveway (see **Photo 36**). Sidewalk installation in this portion will be extremely difficult due to the vertical difference and

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close proximity of the roadway and house. A retaining wall would need to be constructed directly in front of the front porch to accommodate an ADA compatible sidewalk. North of 26025, the existing asphalt walk is separated from the roadway (see **Photos 37 & 38**). There is a short area where the sidewalk has either deteriorated or is overgrown (see **Photo 39**). But north of that point, the asphalt sidewalk is more prevalent as it continues in front of the Hyattstown Methodist Church (see **Photo 40**) and the cemetery (see **Photo 41**). The existing sidewalk asphalt surface is in generally poor condition due to surface cracking, deterioration and tree root impacts. The sidewalk ends north of the cemetery (see **Photo 42**) at a gravel lot. North of the gravel lot, near the County Line is the Ride On bus stop (see **Photo 5**).

With the exception of that described in front of 26025, the least impacting sidewalk installation would be to follow the existing asphalt sidewalk alignment. This would require entry agreements from the adjacent property owners for the construction, including minor grading and pruning of branches and tree roots. Alternatively, placing the new sidewalk adjacent to the existing edge of road would require the removal of several young and old trees.

### **SUMMARY**

Overall, a continuous sidewalk along either side of MD 355 in Hyattstown from Hyattstown Mill Road to the Montgomery/Frederick County Line would be difficult. There are some areas that are suitable for sidewalk installation, but there are other areas where a new sidewalk would result in significant impacts to the adjacent properties.

The roadway is currently not bicycle compatible and due to the narrow setback at several houses, achieving bicycle compatibility with sidewalk installation is not feasible.

A number of options exist along this section of MD 355 for sidewalk installation. First, the location of the new sidewalk needs to be identified. A “typical” sidewalk installation can be achieved by placing the sidewalk adjacent to the roadway, but this will result in significant impacts to existing roadside features. This would also likely require extending the existing storm drain system to collect the curbed runoff. The alternative is to construct a new sidewalk along the existing asphalt sidewalk alignment and supplement in those areas where no sidewalk currently exists. This would result in the least impacts and require minor changes to the existing storm drain system. Given the historic characteristics of the town, an asphalt sidewalk should also be considered.

Regardless of the selected option, right of entry agreements, easements and/or right of way will be required for sidewalk, retaining wall and/or drainage improvements. A MDE stormwater management permit and a DNR roadside tree permit will also be required for this work. Coordination with Maryland Historical Trust will be necessary, which may result in historic impact mitigation.

As a part of the analysis, preliminary construction cost estimates for sidewalk installation along both sides of MD 355 were developed. The costs include survey, geotechnical evaluation, engineering design, utility relocation, construction and SHA administrative costs. As an

**MD 355 Sidewalk Feasibility Study  
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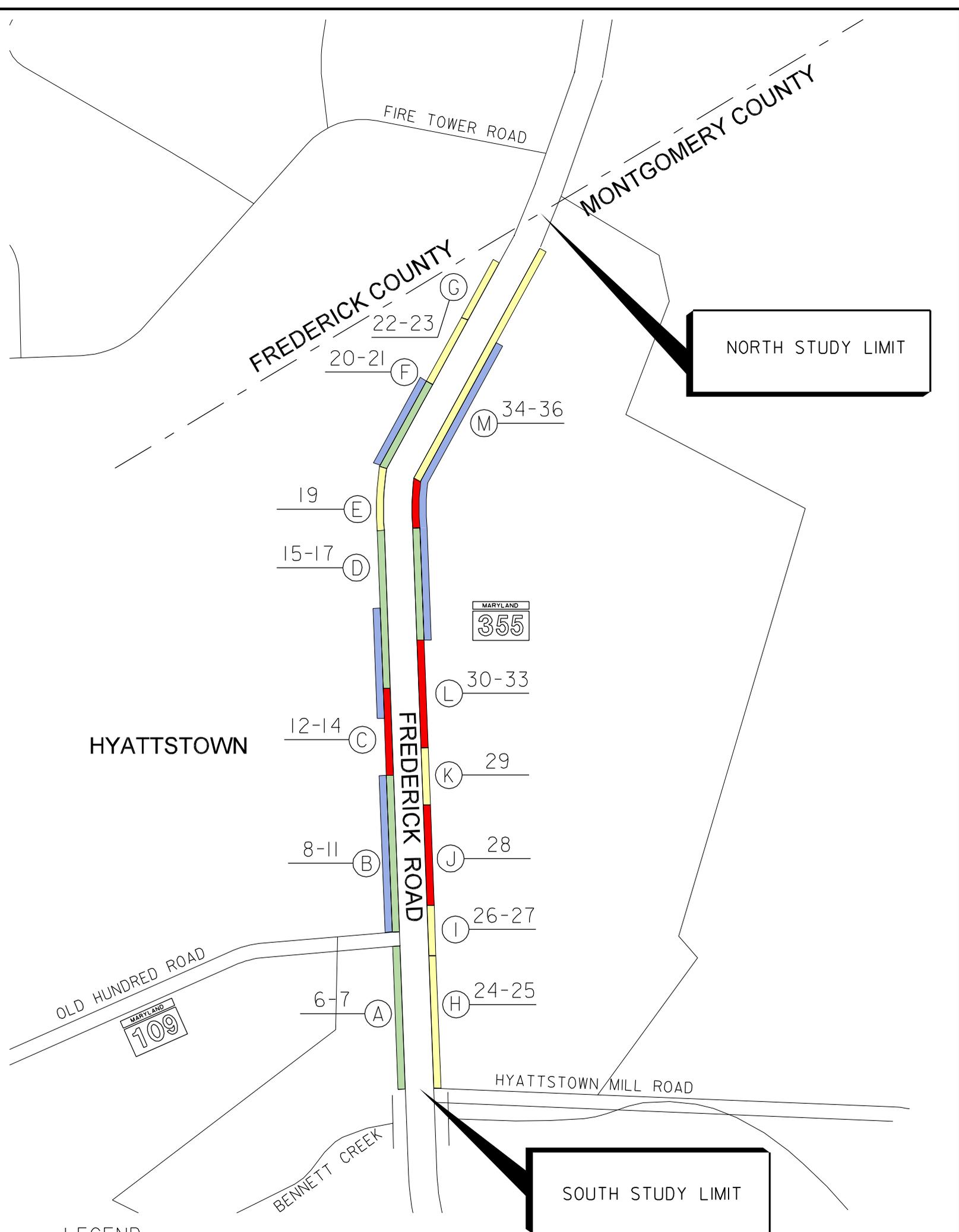
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alternate to the sidewalk being placed adjacent to the roadway, “low impact” alternates were developed that utilize the existing sidewalk alignment. A summary of costs is shown below.

<b>Option</b>	<b>Construction/ Utility Relocation Cost</b>	<b>*Design/Survey/ Geotechnical Exploration/SHA Administration Cost</b>	<b>Total Project Cost</b>
West Side	\$650,000	\$280,000	<b>\$930,000</b>
West Side (Low Impact)	\$255,000	\$110,000	<b>\$365,000</b>
East Side	\$770,000	\$330,000	<b>\$1,100,000</b>
East Side (Low Impact)	\$335,000	\$145,000	<b>\$480,000</b>

\*Historic Mitigation Costs not included

Major items of work included in the construction cost estimates include concrete sidewalk, curb and gutter, drainage improvements and retaining walls.



NORTH STUDY LIMIT

SOUTH STUDY LIMIT

HYATTSTOWN

FREDERICK COUNTY

MONTGOMERY COUNTY

FREDERICK ROAD

OLD HUNDRED ROAD

FIRE TOWER ROAD

HYATTSTOWN MILL ROAD

BENNETT CREEK

MARYLAND  
355

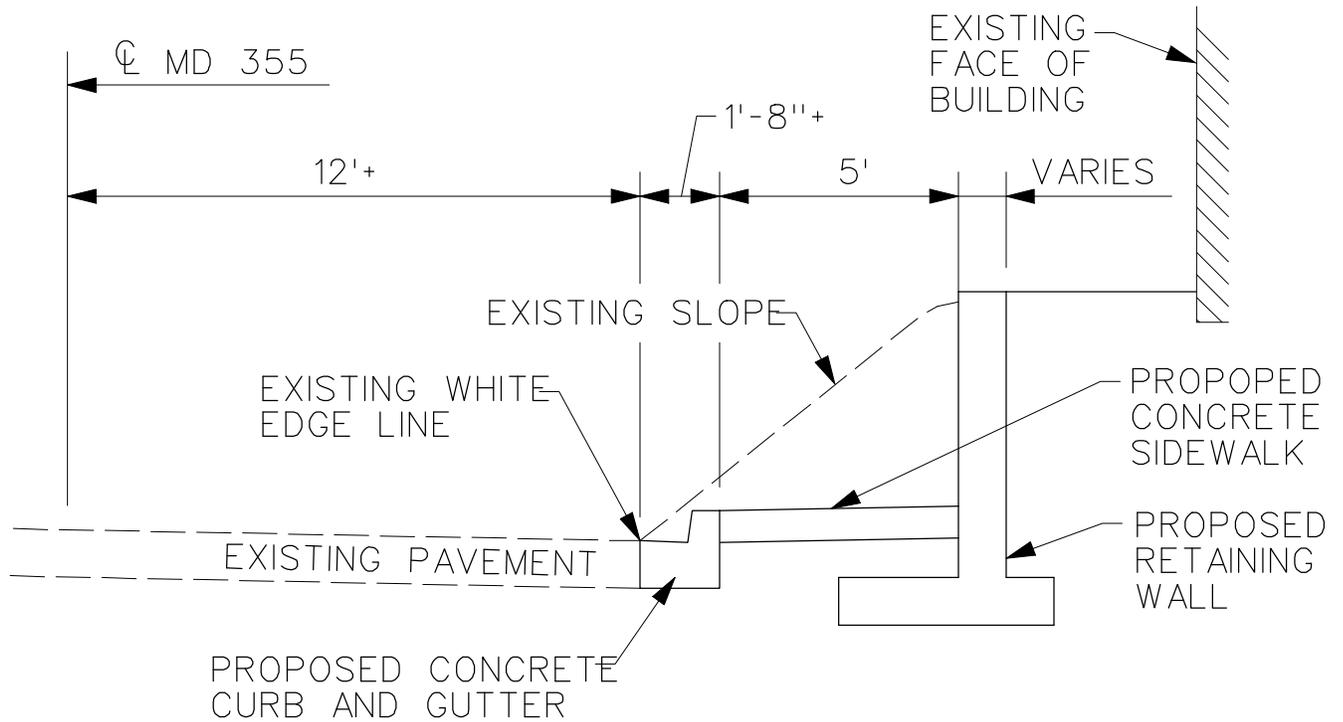
MARYLAND  
109

LEGEND

- EXISTING SIDEWALK
- DIFFICULT/MAJOR IMPACT
- MEDIUM IMPACT
- MINOR/NO IMPACT

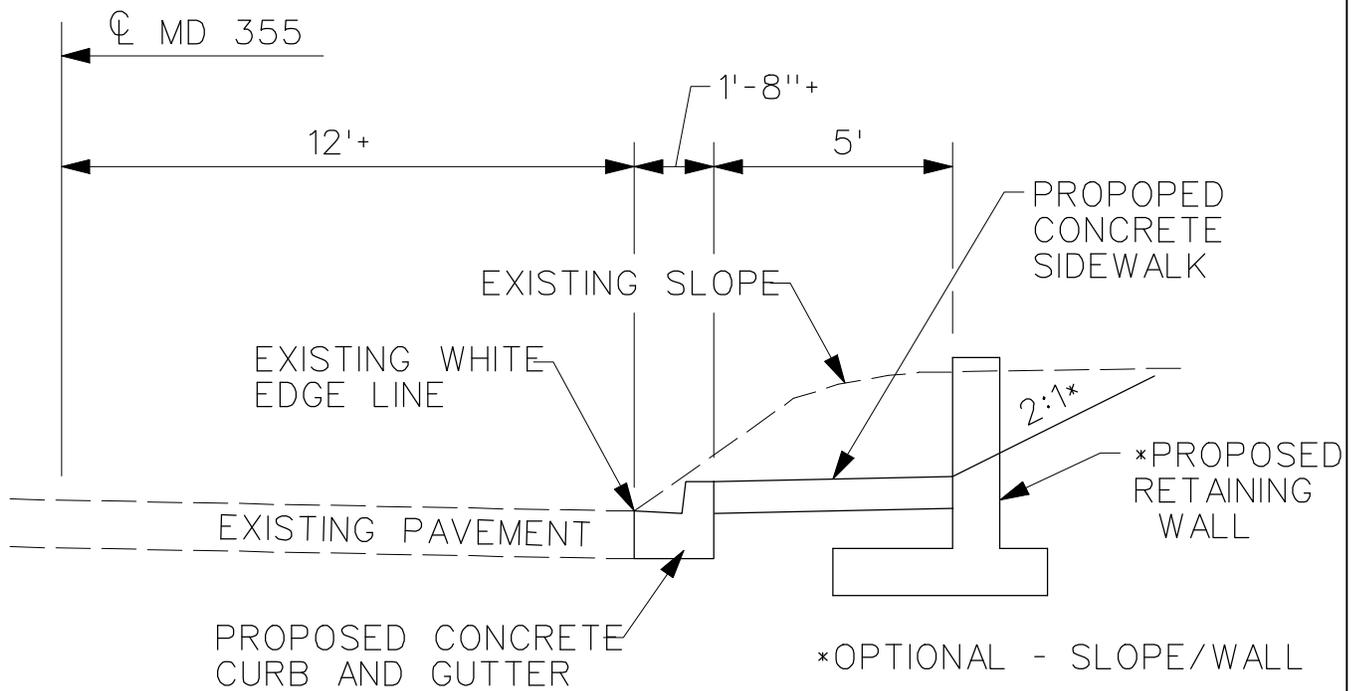
(H) 24-25 SECTION PHOTO#

**LOCATION PLAN**  
N.T.S.



**TYPICAL SECTION MD 355  
SIDEWALK INSTALLATION - HIGH WALL**

N.T.S.

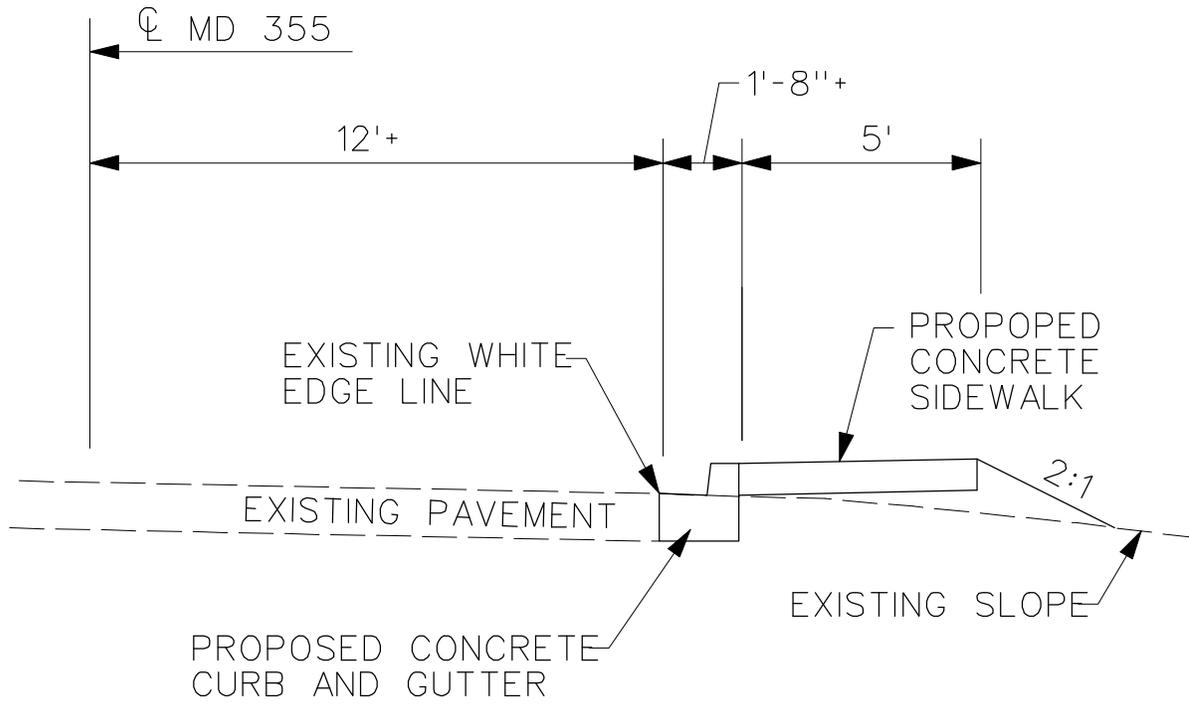


**TYPICAL SECTION MD 355  
SIDEWALK INSTALLATION  
LOW WALL / SLOPE**

N.T.S.

**TYPICAL SECTION**

N.T.S.



**TYPICAL SECTION MD 355**  
**SIDEWALK INSTALLATION - USING SHOULDER**

N.T.S.

**TYPICAL SECTION**  
 N.T.S.

MD 355 (Frederick Road) – Hyattstown – Photo Log



**Photo 1 - Looking south along west side of MD 355 (southern study limit)**



**Photo 2 - Looking south along east side of MD 355 (southern study limit)**

MD 355 (Frederick Road) – Hyattstown – Photo Log



Photo 3 - Looking east along Hyattstown Mill Road



Photo 4 - Looking south along west side of MD 355 (northern study limit)

MD 355 (Frederick Road) – Hyattstown – Photo Log



Photo 5 - Looking north along east side of MD 355 (northern study limit)



Photo 6 - Looking north along west side of MD 355 from Hyattstown Mill Road

MD 355 (Frederick Road) – Hyattstown – Photo Log



Photo 7 - Looking north along west side of MD 355 at intersection with MD 109



Photo 8 - Looking north along west side of MD 355 at northwest corner of intersection with MD 109

MD 355 (Frederick Road) – Hyattstown – Photo Log



Photo 9 - Looking north along west side of MD 355 north of MD 109



Photo 10 - Looking north along west side of MD 355 at 25908

MD 355 (Frederick Road) – Hyattstown – Photo Log



**Photo 11- Looking north along west side of MD 355 at 25914**



**Photo 12 - Looking north along west side of MD 355, just north of 25914**

MD 355 (Frederick Road) – Hyattstown – Photo Log



**Photo 13 - Looking south along west side of MD 355 at 26000**



**Photo 14 - Looking north along west side of MD 355, just north of 26000**

MD 355 (Frederick Road) – Hyattstown – Photo Log



Photo 15 - Looking north along west side of MD 355 at 26008



Photo 16 - Looking north along west side of MD 355, just north of Hyattstown Christian Church



Photo 17 - Looking north along west side of MD 355 at "Davis House"



Photo 18 - "Davis House"

MD 355 (Frederick Road) – Hyattstown – Photo Log

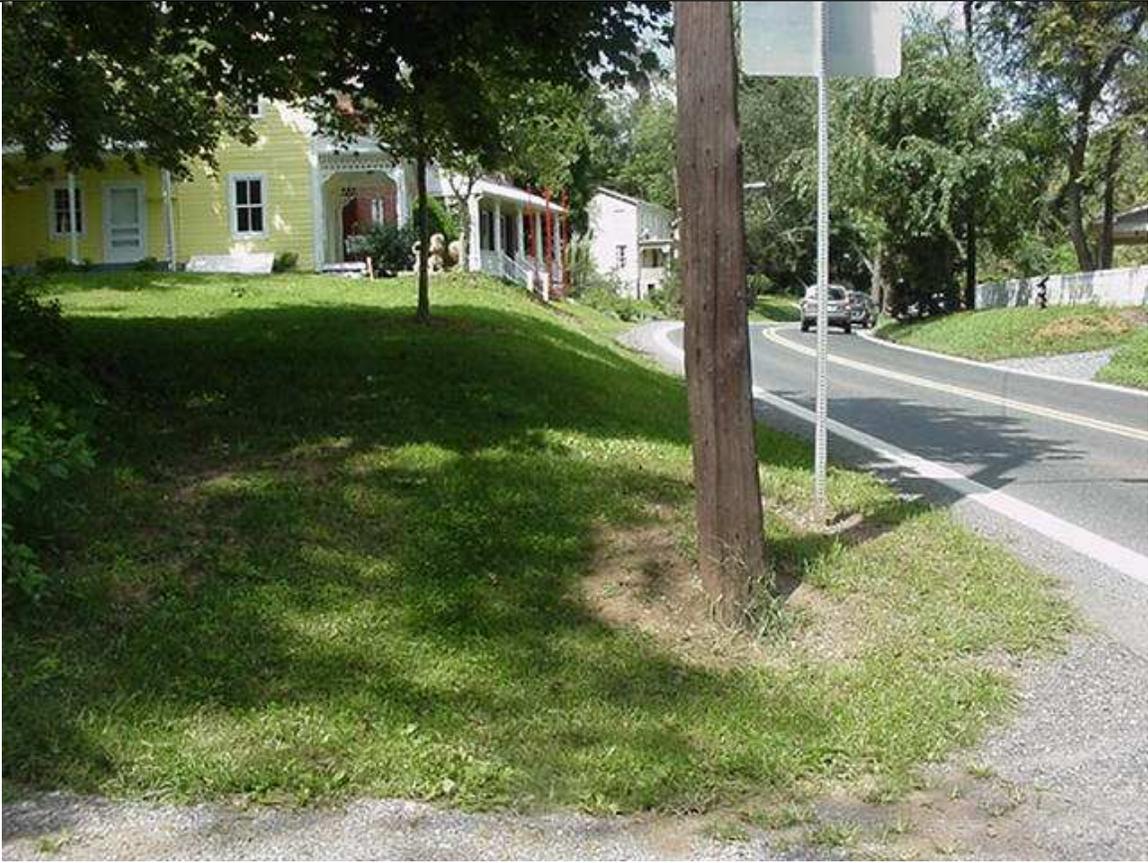


Photo 19 - Looking north along west side of MD 355 south of 26030



Photo 20 - Looking north along west side of MD 355 at 26038

MD 355 (Frederick Road) – Hyattstown – Photo Log



Photo 21 - Looking south along west side of MD 355, north of 26112



Photo 22 - Looking south along west side of MD 355 at 26200

MD 355 (Frederick Road) – Hyattstown – Photo Log



Photo 23 - Looking south along west side of MD 355, north of 26200



Photo 24 - Looking north along east side of MD 355 at Hyattstown Fire Department

MD 355 (Frederick Road) – Hyattstown – Photo Log



Photo 25 - Looking north along east side of MD 355, north of Hyattstown Fire Department



Photo 26 - Looking north along east side of MD 355 at Hyattstown Deli Restaurant

MD 355 (Frederick Road) – Hyattstown – Photo Log



Photo 27 - Looking north along east side of MD 355 at Hyattstown Deli Restaurant



Photo 28 - Looking north along east side of MD 355, north of MD 109

MD 355 (Frederick Road) – Hyattstown – Photo Log



Photo 29 - Looking north along east side of MD 355 at 25925



Photo 30 - Looking north along east side of MD 355 at 25929

MD 355 (Frederick Road) – Hyattstown – Photo Log



Photo 31 - Looking east at east side of MD 355 at 25929



Photo 32 - Looking southeast at east side of MD 355 at 26001

MD 355 (Frederick Road) – Hyattstown – Photo Log



Photo 33- Looking north along east side of MD 355 at 26005



Photo 34 - Looking north along east side of MD 355 north of 26011

MD 355 (Frederick Road) – Hyattstown – Photo Log



Photo 35 - Looking north along east side of MD 355 at 26025



Photo 36 - Looking south along east side of MD 355 at 26005

MD 355 (Frederick Road) – Hyattstown – Photo Log



**Photo 37 - Looking south along east side of MD 355 north of 26005**



**Photo 38 - Looking north along east side of MD 355 north of 26005**

MD 355 (Frederick Road) – Hyattstown – Photo Log



**Photo 39 - Looking north along east side of MD 355 at deteriorated sidewalk**



**Photo 40 - Looking north along east side of MD 355 at residences south of Methodist Church**



**Photo 41- Looking north along east side of MD 355 at sidewalk along Methodist Cemetery**



**Photo 42- Looking south along east side of MD 355 at end of asphalt walk at cemetery**