

## **Models of Pathway Impacts on WG Road Traffic**

This section will describe the potential impact of increased bike traffic on various areas of Washington Grove as people travel through town due to activity related to the shared use path.

The highest concentration of impact within town will be in the areas closest to the connector. However, other parts of Washington Grove may see increased concentrations of bicycle traffic as people from surrounding communities travel through town as they access or exit the connector. This section will describe where those areas of concentrated impact are likeliest to be found. Other Evaluation Criteria sections will discuss issues such as safety and mitigation measures; the Town Council may wish to consider those Evaluation Criteria in relation to all of the areas of the town most likely to be impacted by the connector, and not just the areas immediately adjacent to them.

A data point that would be most helpful, but which the Task Force does not believe exists in a reliable form, would be a 10-year projection of bike path usage. For this reason, this section is more of a qualitative than quantitative discussion of the bike path's impact on various areas of town.

A relevant indicator that the town may not experience significant increases in regular bike traffic from areas neighboring Washington Grove is the absence of commitments from Gaithersburg or Montgomery County to build dedicated bike paths from East Gaithersburg (such as the Diamond Ave. corridor) to Washington Grove. As the roads bordering the eastern end of Washington Grove tend to be narrow and highly used by cars, bicycle traffic from the eastern neighboring communities may be naturally suppressed for the foreseeable future.

With the exception of the "no build" option, the construction of a possible second bike path, connecting Amity Drive to Crabbs Branch Way through the lower meadow, would reduce the number of people entering Washington Grove from the neighborhoods neighboring lower Ridge Road (Picea View Court, Amity Drive, etc) in order to access the shared use path. Each discussion of a potential shared use connector will consider the impact of a second potential bike path connecting Crabbs Branch Way and Amity Drive.

The likeliest points of entry into/exit from Washington Grove by cyclists who use the shared use path are the following:

- The northern end of Ridge Road, pending the planning, design, and construction of a potential future bike path that would connect Amity Drive to Crabbs Branch Way, via the lower meadow. With the construction of an Amity-Crabbs Branch path, riders from the western neighboring community would no longer need to travel through Washington Grove to access the shared use path.
- The southern end of Ridge Road, which connects to Railroad St.
- The commercial corner at Hickory Road and Brown St.
- Washington Grove Lane and McCauley St.

Please refer to the Appendix for a set of maps that visualize the potential impact of the various connectors. The following is a summary of each map's impact description.

### **Railroad St.**

- Traffic entering WG from McCauley St. and the Post Office corner would traverse the town via a series of roads, including Brown St, Chestnut Rd, Center St, and Ridge Rd. The traffic would converge along Ridge Rd. in between Brown St. and Railroad St, which may present some safety challenges. 500 block of Brown St. would remain a cul-de-sac with no bicycle traffic.

### **Meadow 2A**

- Much of the traffic flow patterns from the Railroad St. connector option are true for Meadow 2A, with the exception that Meadow 2A would remove the bottleneck on Ridge Rd. in between Brown St. and Railroad St. 500 block of Brown St. would remain a cul-de-sac with no bicycle traffic.

### **Brown St.**

- Much of the traffic flow patterns from the Meadow 2A connector is true for the Brown St. connection, with the exception that the 500 block of Brown St. would no longer be a cul-de-sac with respect to bicycle traffic.

### **Meadow 2B**

- Traffic entering WG from McCauley St. and the Post Office corner would traverse the town via a series of roads, including Hickory Rd, Brown St, Chestnut Rd, Center St, and Ridge Rd. The possibility of Montgomery County building a second bike path between Amity Dr. and Crabbs Branch Way across the lower meadow would mean that this scenario could result in introducing bicycle traffic into both the upper and lower meadows. 500 block of Brown St. would remain a cul-de-sac with no bicycle traffic.

### **Railroad St. Expansion**

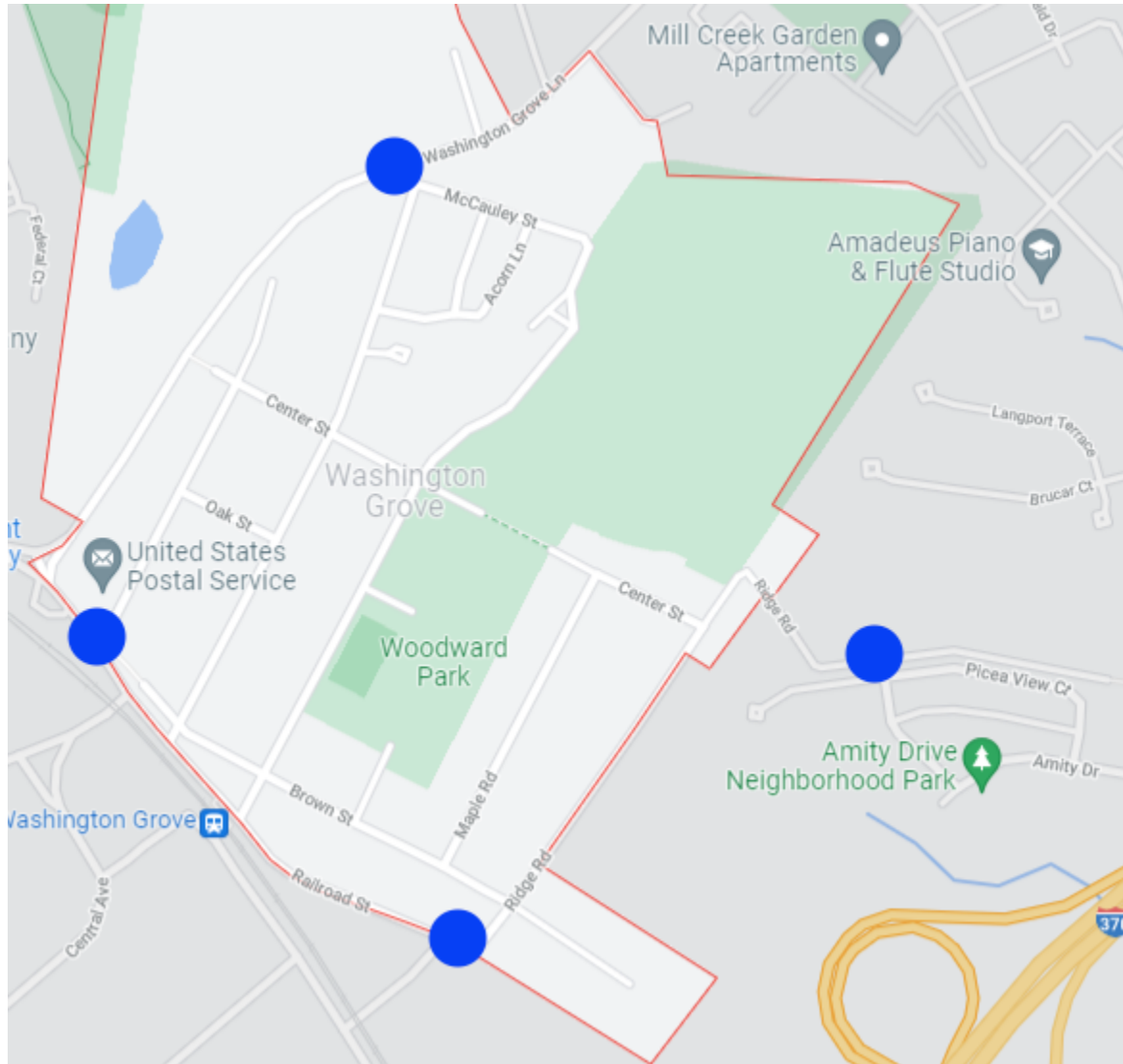
- Much of the traffic flow patterns from the Railroad St. connector option remain true for the expansion option, including the bottleneck on Ridge Rd. in between Brown St. and Railroad St. 500 block of Brown St. would remain a cul-de-sac with no bicycle traffic.

### **No Option**

- The traffic implication of choosing not to continue with any connector option depends on Montgomery County's decision to build a bike path connecting Amity Dr. and Crabbs Branch Way across the lower meadow. If that were to happen, traffic entering WG at McCauley St. and the Post Office corner would traverse the town via a series of roads, including Hickory Rd, Brown St, Chestnut Rd, Center St, and Ridge Rd. Traffic would converge along the northeastern stretch of Railroad St in order to enter the Picea/Amity neighborhood in order to access the bike path along the lower meadow. The only way to preserve the status quo, with respect to the absence of any increased bike traffic due to a path to Crabbs Branch, would be if Washington Grove decided against any connectors and if Montgomery County decided not to plan, design, and build the second path connecting Amity Dr. and Crabbs Branch Way. 500 block of Brown St. would remain a cul-de-sac with no bicycle traffic.

## Appendix

### Significant Bicycle Entry/Exit Points Between Washington Grove and Surrounding Communities



The selection of a bike path connector will impact which entry points into Washington Grove may be more utilized by users originating in surrounding communities, as well as the streets within the town that will experience higher concentrations of bike traffic.

On the accompanying set of maps, routes are colored according to the following points of entry and exit:

- Green routes correspond to traffic entering Washington Grove from the northern neighboring communities, entering Town via McCauley St. and Washington Grove Ln.
- Blue routes correspond to traffic entering Washington Grove from the western neighboring communities, entering Town via Hickory Rd. and Brown St.
- Orange routes correspond to traffic entering Washington Grove from the Picea Ct/Amity Dr. community.

- Purple routes correspond to traffic entering Washington Grove via the shared use path.

### **Option 1**

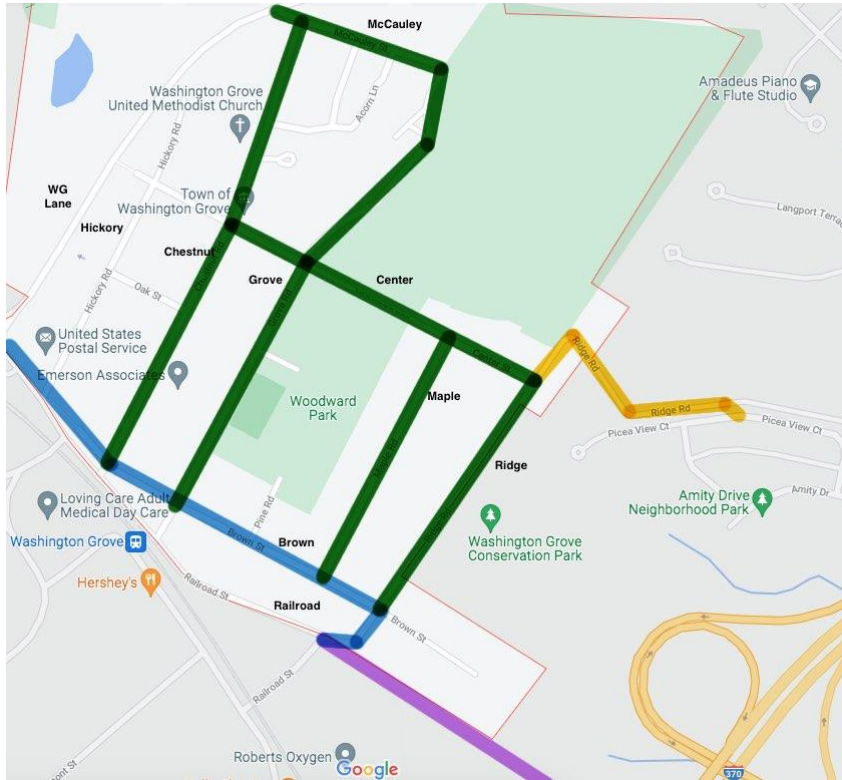
#### **Railroad St. Connector**

A connector that ends at the Railroad St. & Ridge Rd. intersection may have the following impacts on town roads:

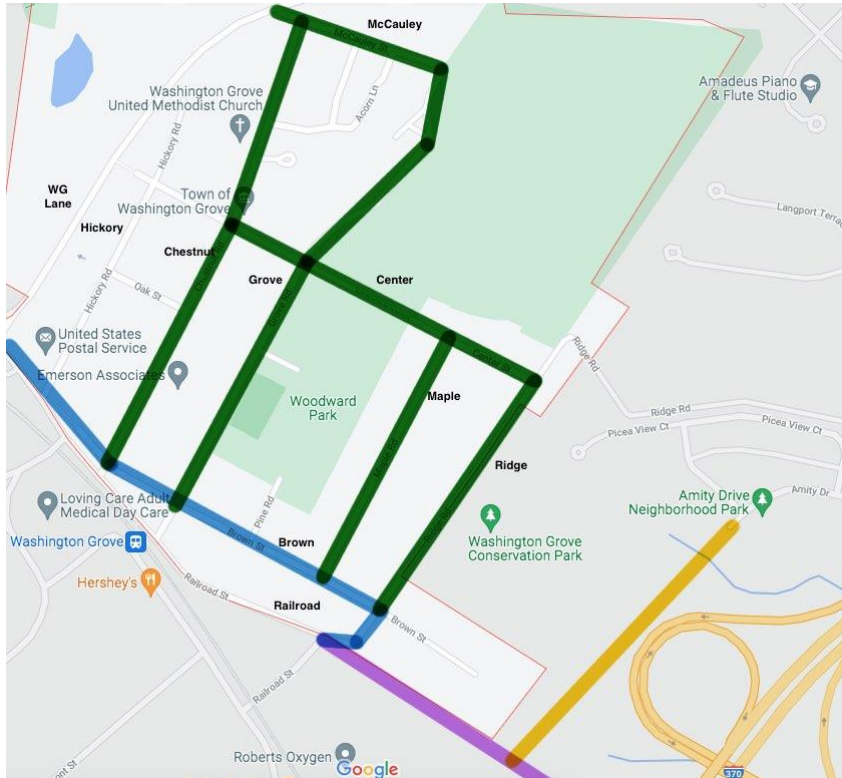
- Traffic entering from McCauley St. and Washington Grove Ln. may travel through town via a variety of options, which may be affected by the direction of their travel. At some point, riders will need to traverse Washington Grove on an east-west path, which would likely be Center St or Brown St. In the event that riders choose Center St, the Town would need to consider mitigation measures for the stretch of Center which is currently designated Pedestrian Only.
- Traffic entering from the Post Office corner would likely opt to ride along Brown St. rather than risk biking through the heavily trafficked Railroad St.
- Traffic from the Picea/Amity community would travel through town via Ridge Rd, pending the possible construction of an Amity-Crabbs Branch path.
- It would preserve the cul-de-sac nature of lower Brown St.

Any increase in bike traffic would converge with vehicular traffic along the short stretch of Ridge Road between Brown St. and Railroad St, which features a sharp turn. Any potential gridlock in traffic in this area could potentially spill into Railroad St, which would impact northbound traffic on Railroad St, which has no stop sign.

### Railroad St. Connector with No Amity Path



### Railroad St. Connector with Amity Path



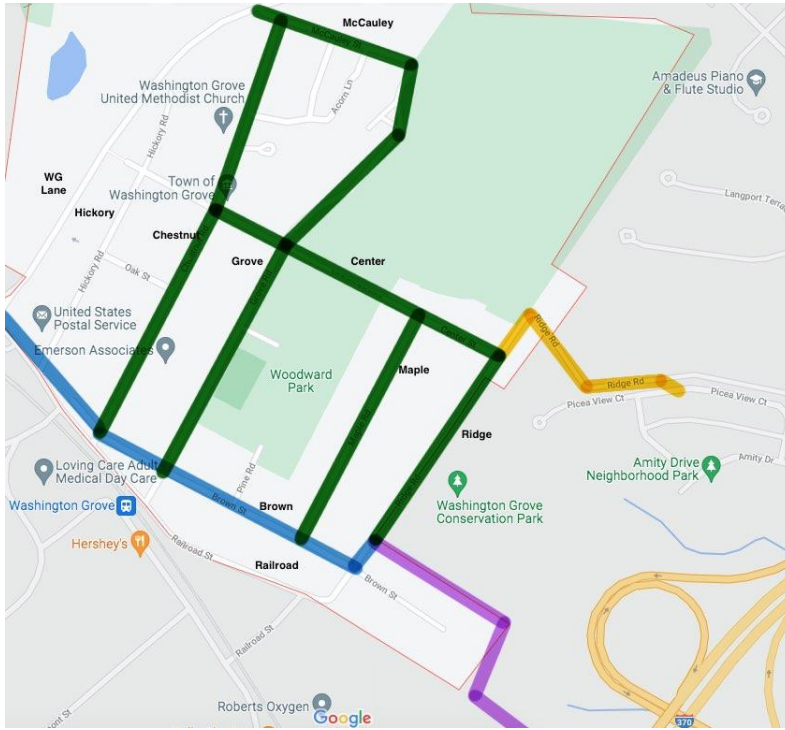
## **Option 2**

### Meadow 2A (behind lower Brown St.)

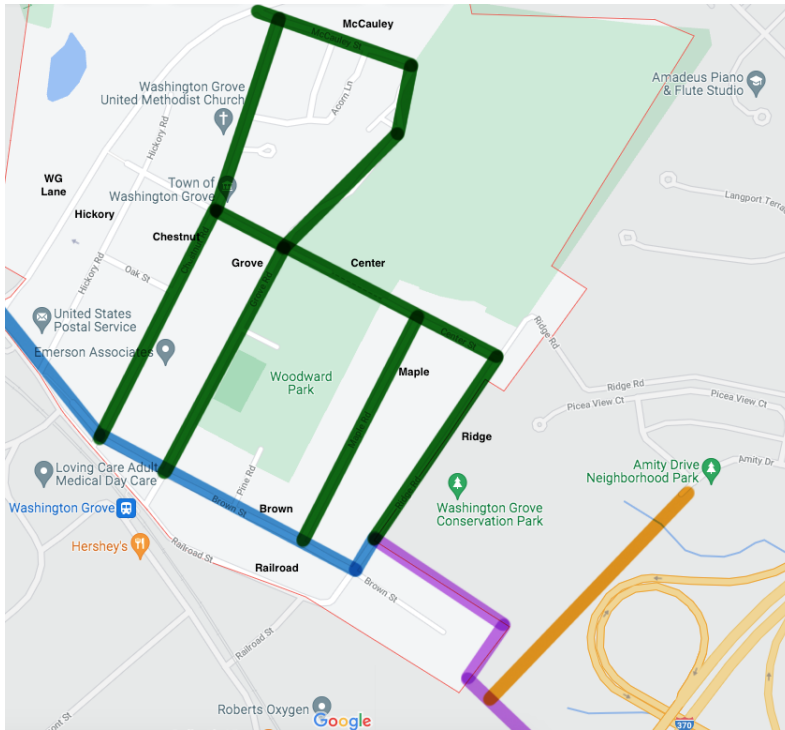
A connector that stretches behind lower Brown St. and ends at Ridge Rd. may have the following impacts on town roads:

- Traffic entering from McCauley St. and Washington Grove Ln. may travel through town via a variety of options, which may be affected by the direction of their travel. At some point, riders will need to traverse Washington Grove on an east-west path, which would likely be Center St or Brown St. In the event that riders choose Center St, the Town would need to consider mitigation measures for the stretch of Center which is currently designated Pedestrian Only.
- Traffic entering from the Post Office corner would likely opt to ride along Brown St. rather than risk biking through the heavily trafficked Railroad St.
- Traffic from the Picea/Amity community would travel through town via Ridge Rd, pending the possible construction of an Amity-Crabbs Branch path.
- It would remove the potential concentration of traffic near the turn by the Railroad St. & Ridge Rd. intersection.
- It would preserve the cul-de-sac nature of lower Brown St.

## Meadow 2A Connector with No Amity Path



## Meadow 2A Connector with Amity Path



### **Option 3**

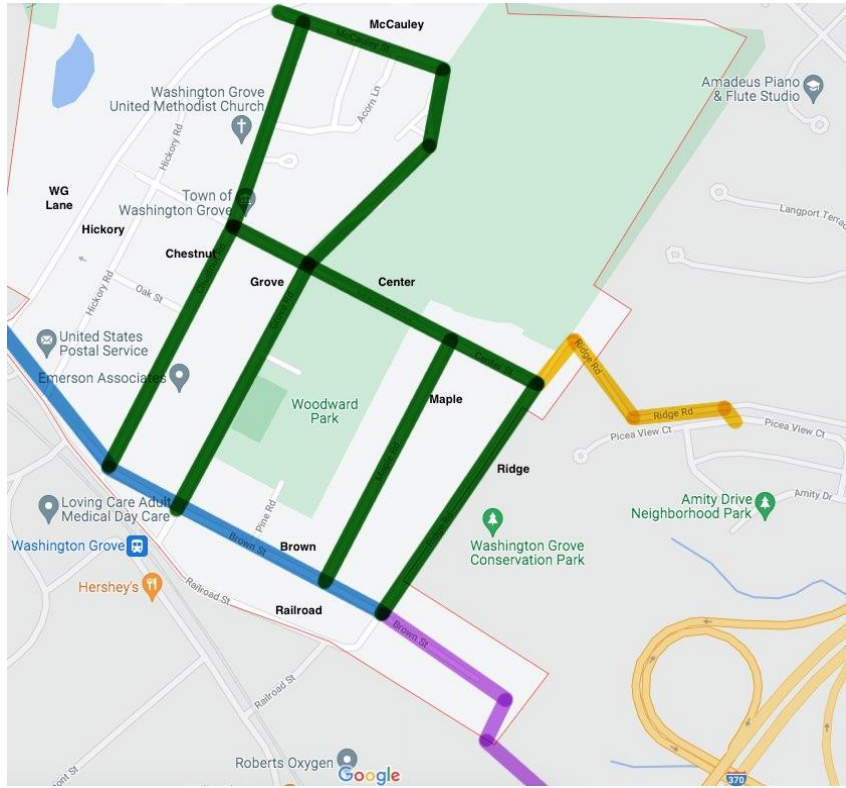
#### **Brown St**

A connector that ends at the bottom of the 500 block of Brown St. may have the following impacts on town roads:

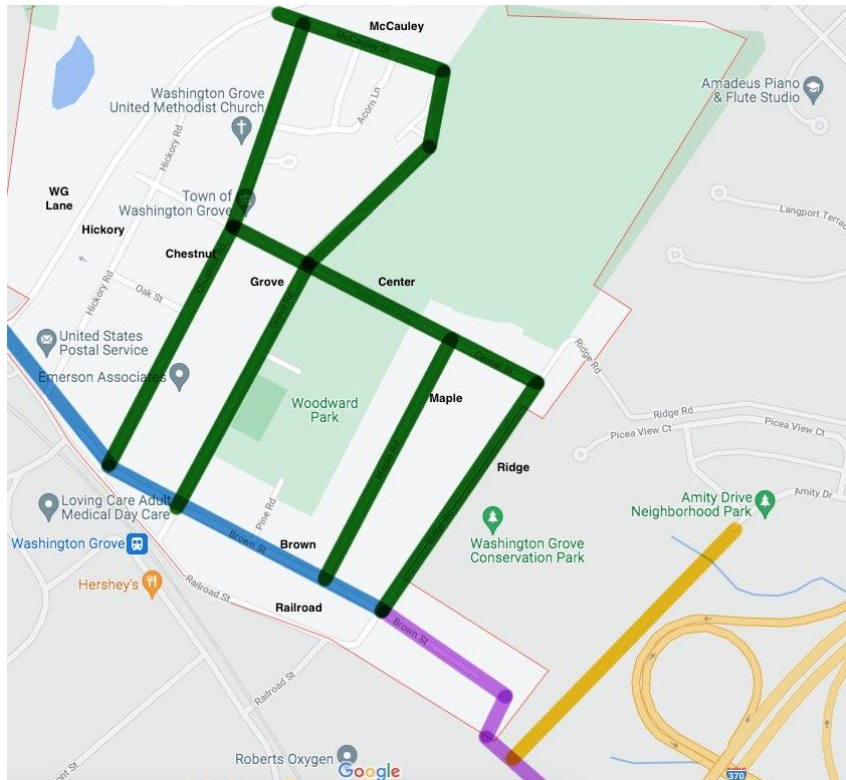
- Traffic entering from McCauley St. and Washington Grove Ln. may travel through town via a variety of options, which may be affected by the direction of their travel. At some point, riders will need to traverse Washington Grove on an east-west path, which would likely be Center St or Brown St. In the event that riders choose Center St, the Town would need to consider mitigation measures for the stretch of Center which is currently designated Pedestrian Only.
- Traffic entering from the Post Office corner would likely opt to ride along Brown St. rather than risk biking through the heavily trafficked Railroad St.
- Traffic from the Picea/Amity community would travel through town via Ridge Rd, pending the possible construction of an Amity-Crabbs Branch path.
- It would remove the potential concentration of traffic near the turn by the Railroad St. & Ridge Rd. intersection.
- Any increased ridership passing through town along a variety of roads would eventually converge along the 500 block of Brown St. With respect to bicycle traffic, the end of this road would no longer be a cul-de-sac.



### Brown St. Connector with No Amity Path



### Brown St. Connector with Amity Path



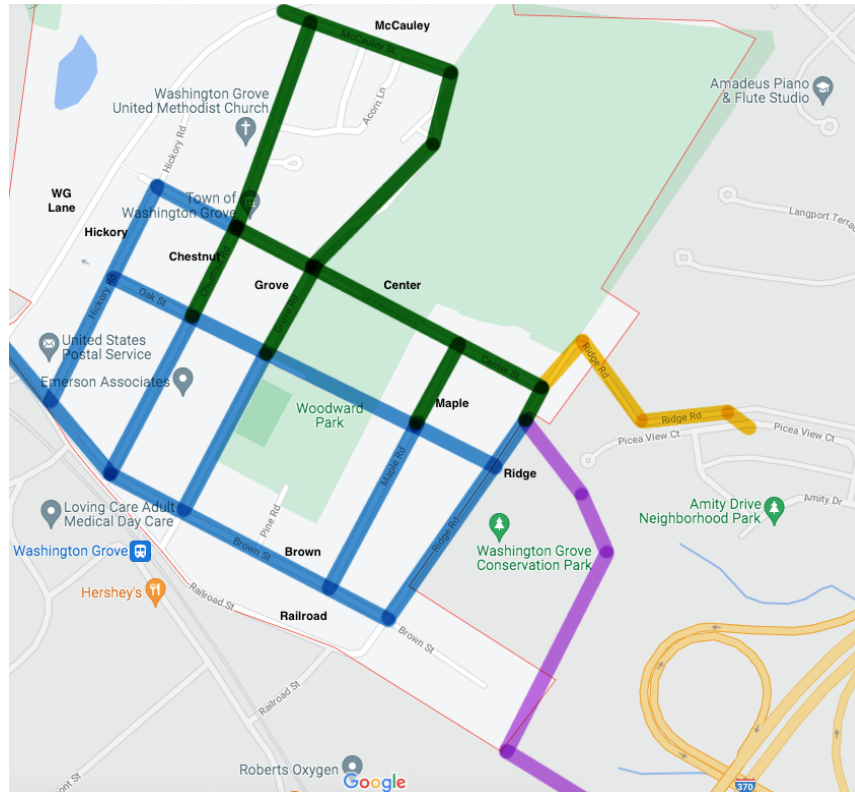
#### **Option 4**

Meadow 2B (along the northern border of the upper meadow, ending near Picea Ct.)

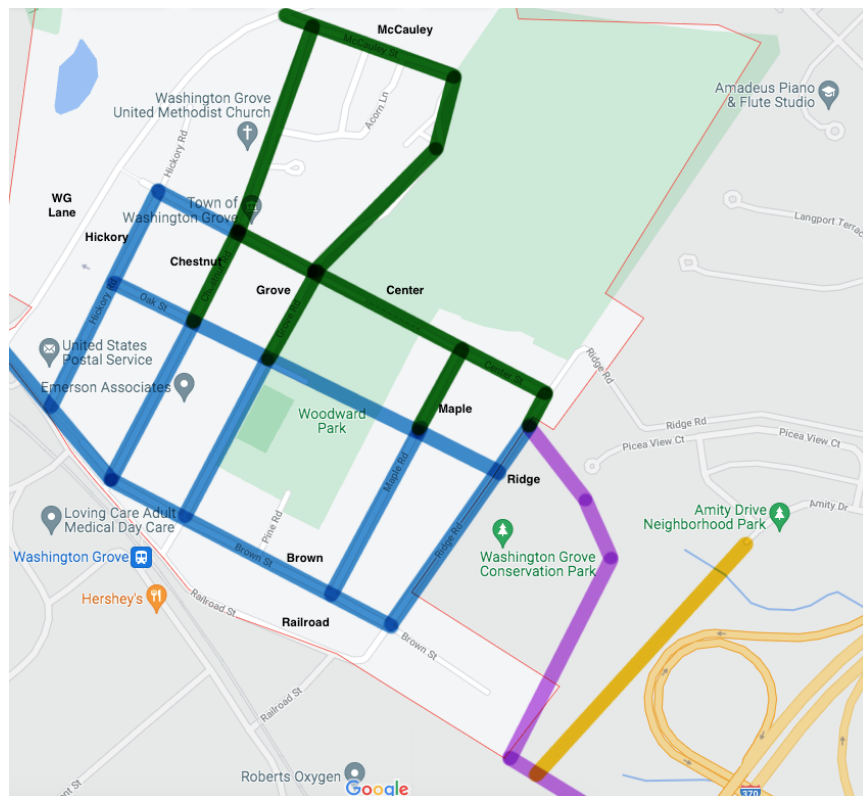
A connector that travels along the boundary of the upper and lower meadows, passes near Picea Ct, and ends at Ridge Rd may have the following impacts on town roads:

- Traffic entering from McCauley St. and Washington Grove Ln. may travel through town via a variety of options, which may be affected by the direction of their travel. At some point, riders will need to traverse Washington Grove on an east-west path, which would most likely be Center St. In this case, the Town would need to consider mitigation measures for the stretch of Center which is currently designated Pedestrian Only. There is also the possibility that riders entering Washington Grove from the connector could be tempted to ride into the pedestrian-only Oak St. grass path. In this case, the Town may need to consider mitigation strategies like cyclist-related signage.
- Traffic entering from the Post Office corner would have more than one option to traverse the town on an east-west path, with Hickory-to-Oak being as viable as Brown-to-Ridge as routes to the connector. The Town may need to consider signage to discourage Oak St. grass path usage for cyclists.
- Traffic from the Picea/Amity community would travel through town briefly via Ridge Rd, pending the possible construction of an Amity-Crabbs Branch path.
- If the Amity-Crabbs Branch path is constructed in concert with this shared use path connector, there would be two bike paths that cross into the meadows, both the upper and lower.
- It would preserve the cul-de-sac nature of lower Brown St.

## Meadow 2B Connector with No Amity Path



## Meadow 2B Connector with Amity Path



### Option 5

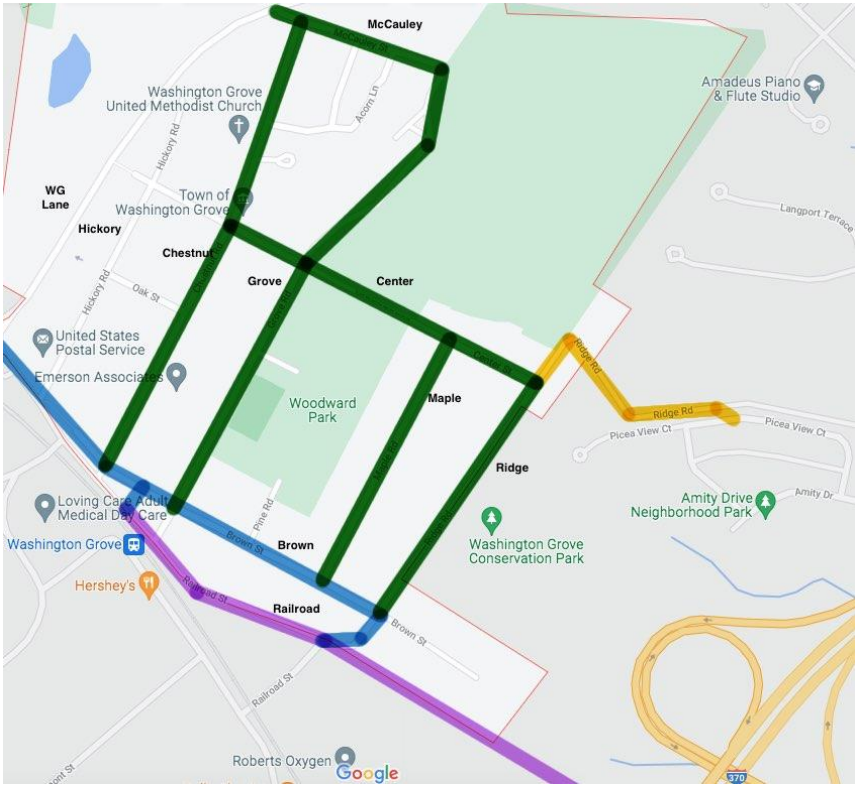
Railroad St. expansion and extension to Grove Ave.

A connector that continues onto Railroad St. and ends at Grove Ave. may have the following impacts on town roads:

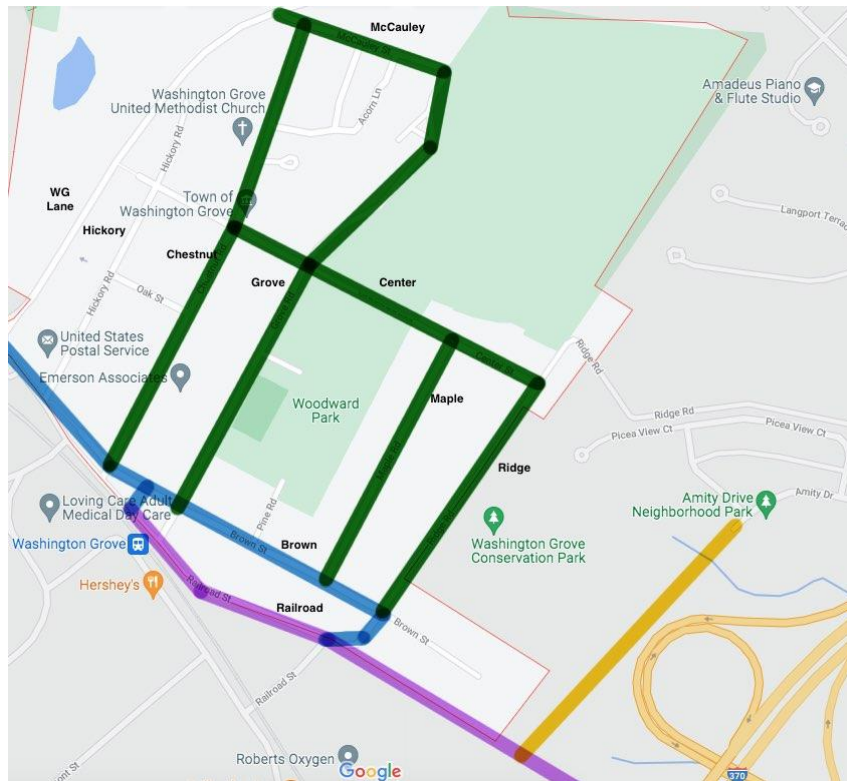
- Traffic entering from McCauley St. and Washington Grove Ln. may travel through town via a variety of options, which may be affected by the direction of their travel. At some point, riders will need to traverse Washington Grove on an east-west path, which would likely be Center St or Brown St. In the event that riders choose Center St, the Town would need to consider mitigation measures for the stretch of Center which is currently designated Pedestrian Only. Cyclists may still opt to enter the shared use path near the Ridge Rd. & Railroad St. intersection.
- Traffic entering from the Post Office corner would still have the option to ride along Brown St. rather than risk biking over the Railroad St. bridge in order to access the beginning of the shared use path at Grove Ave. Those cyclists may still opt to enter the shared use path near the Ridge Rd. & Railroad St. intersection.
- Traffic from the Picea/Amity community would travel through town via Ridge Rd, pending the possible construction of an Amity-Crabbs Branch path.

- It would preserve the cul-de-sac nature of lower Brown St.

**Railroad St. Expansion Connector with No Amity Path**



**Railroad St. Expansion Connector with Amity Path**



## Option 6

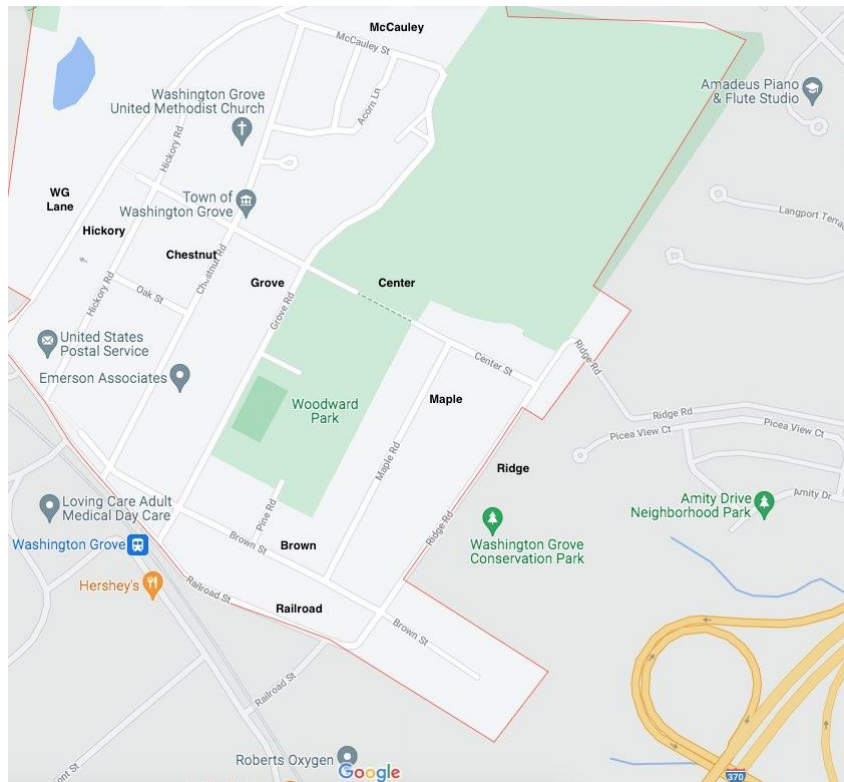
A "Zero Option" -- no connection at all.

The impact of a "Zero Option/No Connector" scenario would depend on the construction of a potential Amity-Crabbs Branch Way path through the lower meadow. If there is no construction of an Amity-Crabbs Branch way path, the status quo remains. If an Amity-Crabbs Branch Way path is eventually constructed, it may have the following impacts on town roads:

- Traffic entering from McCauley St. and Washington Grove Ln. would likely traverse Washington Grove along Center St. and Ridge Rd. In this case, the Town would need to consider mitigation measures for the stretch of Center which is currently designated Pedestrian Only.
- Traffic entering from the Post Office corner would have the option of traversing Washington Grove along Brown St. and Ridge Rd, or Hickory Rd. and Center St.
- Traffic would converge on lower Ridge Rd. in order to access the bike path or to exit the bike path and enter Washington Grove.
- It would preserve the cul-de-sac nature of lower Brown St.



### “Zero Option” with No Amity Path



# “Zero Option” with Amity Path

