# APPENDIX D

## Middle Tennessee



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# Corridor Cut Sheets

***Figure D-1. Corridor Overview Reference Guide***




## 1 CORRIDOR

Each corridor's name is provided along with a description of its connectivity to other major roadways within the region.

## 2 TRAFFIC VOLUMES

The 2019 average annual daily traffic volume is shown for each corridor complemented by the percent of that traffic volume made up by large trucks. *Source: TDOT 2019*

## 3 PEAK CONGESTION

Average vehicle speeds during AM and PM peak periods are provided for the entire corridor. Corridor locations experiencing the worst congestion are also described and shown in teal on the map. *Source: INRIX 2019*

## 4 CHANGING CONGESTION CONDITIONS

Expressed as a percentage, the deterioration in vehicle speeds during peak periods between 2016 and 2019 is described with the most significant changes shown in orange on the map. *Source: INRIX 2016, 2019*

## 5 MAJOR BOTTLENECKS

The total number of bottlenecks that occurred along the corridor in a 5-month span are documented here. Additional details are provided for the most impactful bottleneck, which is also shown in burgundy on the map. *Source: INRIX 2019*

## 6 TRAVEL TIME RELIABILITIES

The average travel time index during AM and PM peak periods is documented for the entire corridor. The most unreliable segments, as indicated by high travel time indexes, are highlighted in dark blue on the map. *Source: INRIX 2019*

## 7 CONGESTION SNAPSHOT

The detailed data on existing congestion issues is summarized at the bottom of each page with information on vehicle speeds and the worst bottleneck along the corridor. *Source: INRIX 2019*

## 8 MULTIMODAL SNAPSHOT

The presence of fixed route and regional transit service is indicated by the route number and reported ridership for 2019. In addition, the 2020 bicycle level of service (BLOS) and pedestrian level of service (PLOS), ranked from A (the best) to F (the worst), quantify the comfort level along the corridor for these non-motorized roadway users. *Source: WeGo Transit, RTA, GNRC*

***Figure D-2. Ashland City Highway***

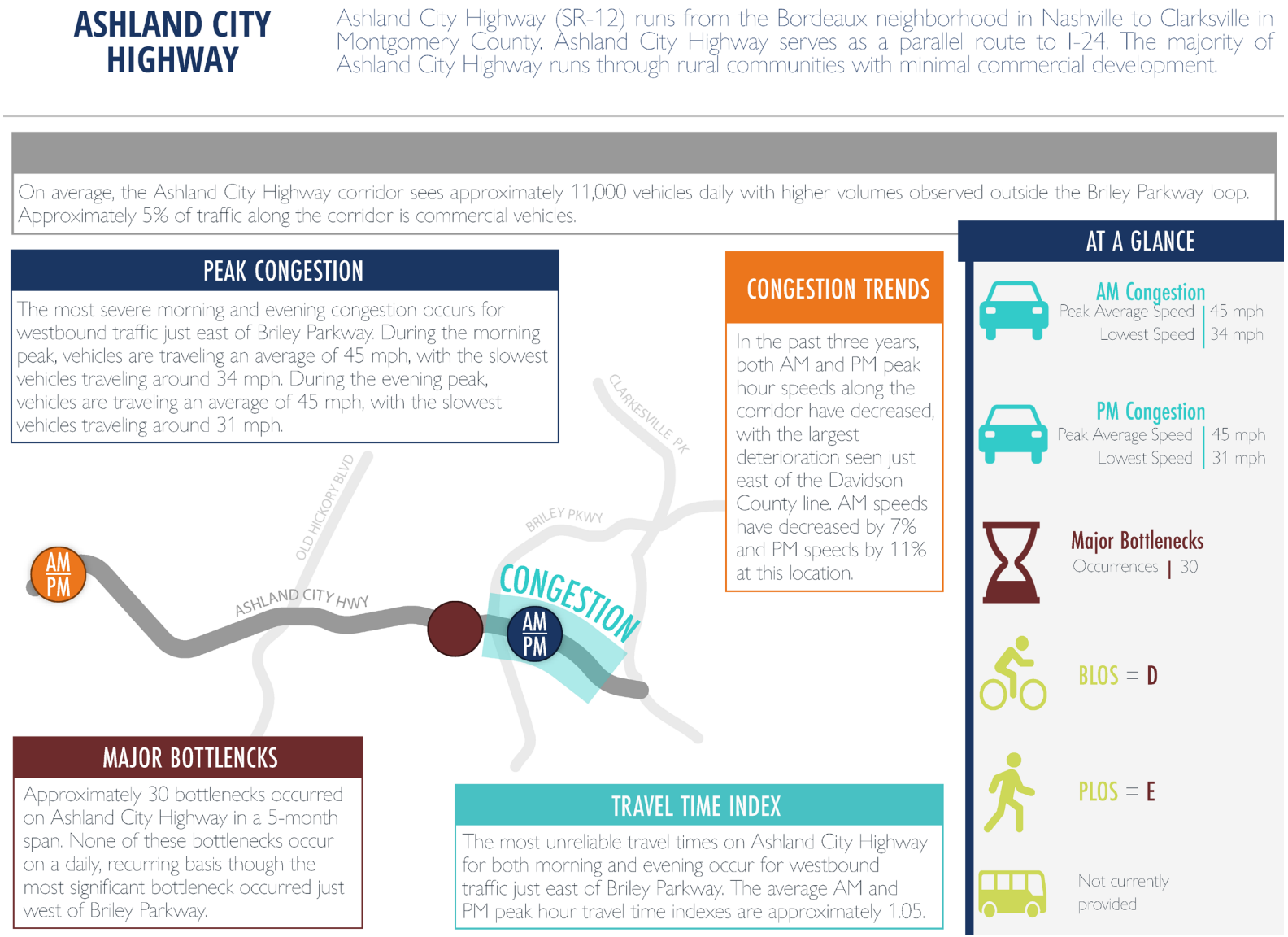


***Figure D-3. Briley Parkway***

# BRILEY PARKWAY

Briley Parkway (SR-155) is a major circumferential route that forms a belt around Nashville. It transitions from a freeway to a limited access facility on the south side of I-40 East, and then transitions into the arterials of White Bridge Pike, Woodmont Boulevard, and Thompson Lane between I-24 East and I-40 West.

## TRAFFIC VOLUMES

On average, Briley Parkway sees approximately 65,000 vehicles daily with the highest volumes observed just north of Lebanon Pike. Approximately 9% of traffic along the corridor is commercial vehicles.

## PEAK CONGESTION

During the morning peak, vehicles are traveling an average of 53 mph. Slowest traffic occurs for westbound traffic at I-24, where vehicles are traveling around 34 mph.

During the evening peak, vehicles are traveling an average of 51 mph. Slowest traffic occurs just west of I-24, where vehicles are traveling at 20 mph.

## CONGESTION TRENDS

In the past three years, the largest deterioration in AM and PM peak congestion was seen just east of I-24, where traffic speeds have decreased approxmiately 40% during both peak hours.

## MAJOR BOTTLENECKS

Nearly 630 bottlenecks occurred on Briley Parkway in a 5-month span. The most significant bottleneck on the corridor occurs south of I-40 for northbound travel. On average, the bottleneck occurs daily, affects 1.8 miles of roadway and takes approximately 57 minutes to clear.




## TRAVEL TIME INDEX

On average, the most unreliable travel times for both morning and evening peaks occur for westbound traffic at the I-24 interchange. The average AM peak hour travel time index is 1.04 and the average PM peak hour travel time index is 1.13.

## AT A GLANCE

**AM Congestion**
Peak Average Speed | 53 mph
Lowest Speed | 34 mph

**PM Congestion**
Peak Average Speed | 51 mph
Lowest Speed | 20 mph

**Major Bottleneck**
Occurrences | Daily
Time to Clear | 57 minutes
Length | 1.8 miles

**#34**
8,859 Monthly Riders
106,318 Annual Riders

**BLOS**
Bicycle level of service not available for expressways.

**PLOS**
Pedestrian level of service not available for expressways.

***Figure D-4. Charlotte Avenue***



***Figure D-5. Clarksville Pike***

# CLARKSVILLE PIKE

Clarksville Pike (SR-112) is an arterial route that runs parallel to I-24, connecting Nashville to Clarksville. Clarksville Pike, similar to Ashland City Highway, runs through low density residential areas northwest of Nashville's urban core.

## TRAFFIC VOLUMES

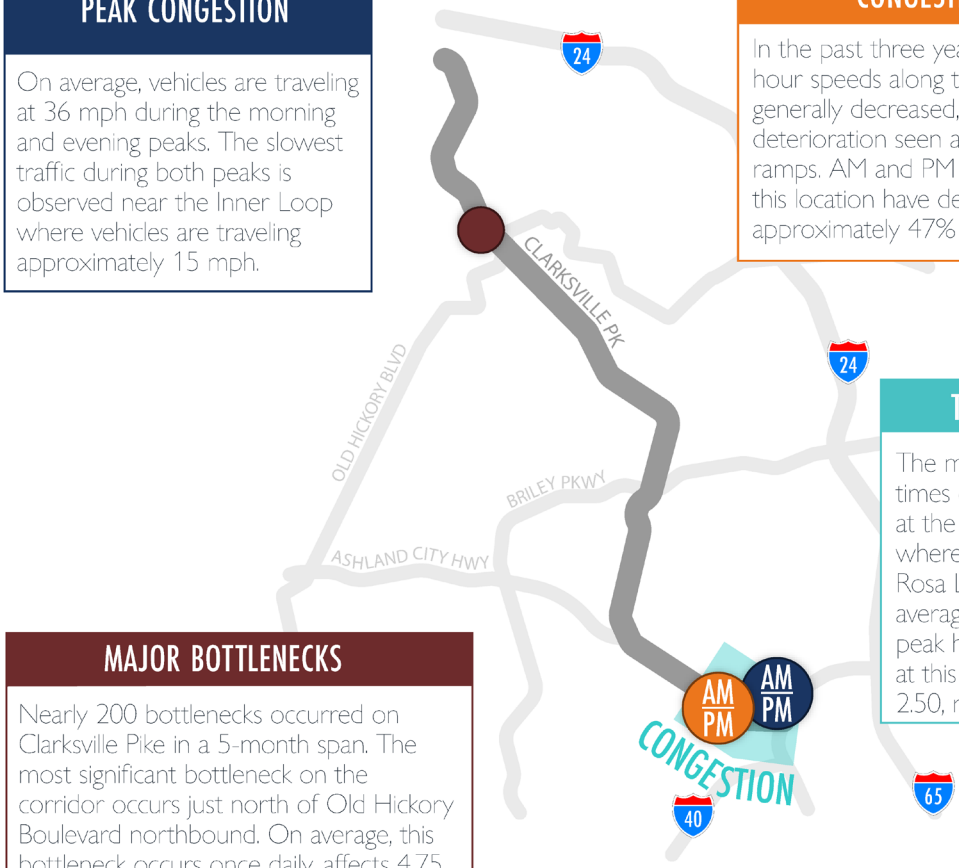
On average, Clarksville Pike sees approximately 20,300 vehicles daily with the highest volumes observed just north of the Inner Loop. Approximately 5% of traffic along the corridor is commercial vehicles.

## PEAK CONGESTION

On average, vehicles are traveling at 36 mph during the morning and evening peaks. The slowest traffic during both peaks is observed near the Inner Loop where vehicles are traveling approximately 15 mph.

## CONGESTION TRENDS

In the past three years, AM and PM peak hour speeds along the corridor have generally decreased, with the largest deterioration seen at the Inner Loop ramps. AM and PM peak hour speeds at this location have decreased by approximately 47% and 46%, respectively.




## TRAVEL TIME INDEX

The most unreliable travel times on Clarksville Pike occur at the Inner Loop ramps where the corridor is named Rosa L. Parks Blvd. On average, both the AM and PM peak hour travel time indexes at this location are 2.71 and 2.50, respectively.

## MAJOR BOTTLENECKS

Nearly 200 bottlenecks occurred on Clarksville Pike in a 5-month span. The most significant bottleneck on the corridor occurs just north of Old Hickory Boulevard northbound. On average, this bottleneck occurs once daily, affects 4.75 miles of roadway and takes approximately 52 minutes to clear.

## AT A GLANCE

**AM Congestion**
Peak Average Speed | 36 mph
Lowest Speed | 15 mph

**PM Congestion**
Peak Average Speed | 36 mph
Lowest Speed | 15 mph

**Major Bottleneck**
Occurrences | Daily
Time to Clear | 52 minutes
Length | 4.8 miles

**#22**
44,349 Monthly Riders
532,192 Annual Riders

BLOS = E

PLOS = E

***Figure D-6. Columbia Pike***

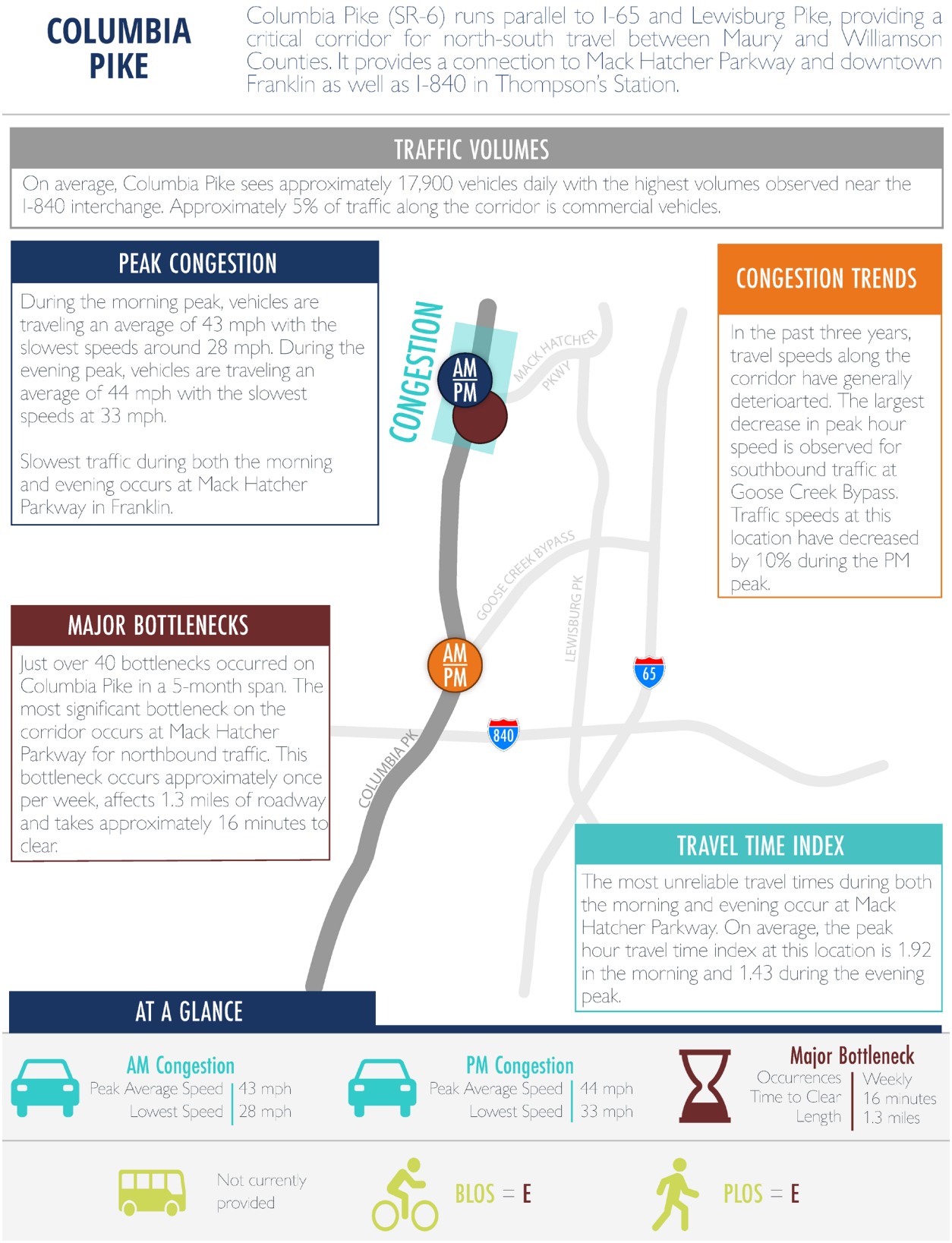


***Figure D-7. Dickerson Pike***

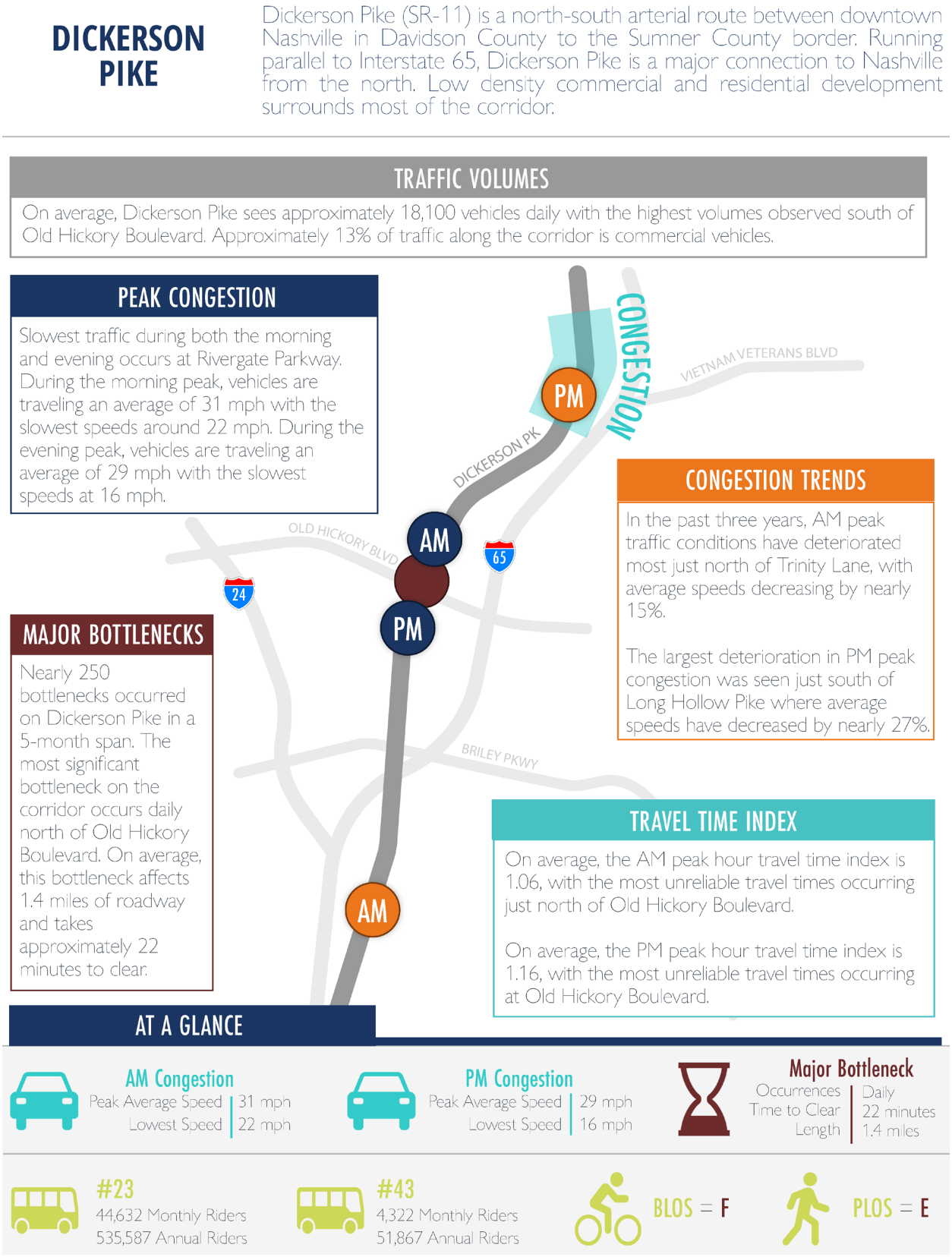


***Figure D-8. Edmondson Pike***

# EDMONDSON PIKE

Edmondson Pike is an arterial route that connects Concord Road in northern Williamson County to Nolensville Pike in Davidson County. It crosses Old Hickory Boulevard, connecting residential and commercial development.

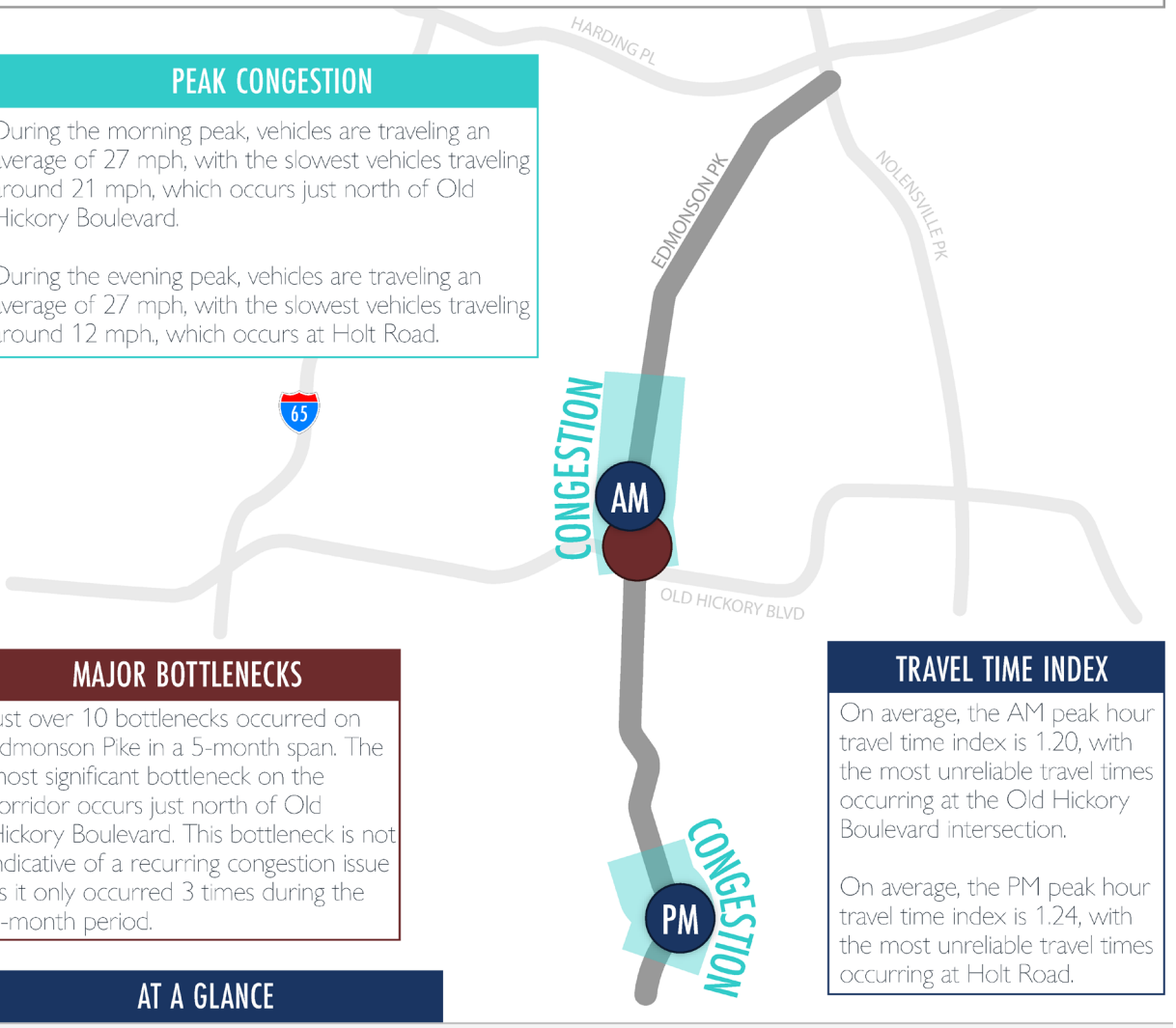
## TRAFFIC VOLUMES

On average, Edmondson Pike sees approximately 14,900 vehicles daily with the highest volumes observed north of Old Hickory Boulevard. Approximately 7% of traffic along the corridor is commercial vehicles.

## PEAK CONGESTION

During the morning peak, vehicles are traveling an average of 27 mph, with the slowest vehicles traveling around 21 mph, which occurs just north of Old Hickory Boulevard.

During the evening peak, vehicles are traveling an average of 27 mph, with the slowest vehicles traveling around 12 mph., which occurs at Holt Road.




## MAJOR BOTTLENECKS

Just over 10 bottlenecks occurred on Edmonson Pike in a 5-month span. The most significant bottleneck on the corridor occurs just north of Old Hickory Boulevard. This bottleneck is not indicative of a recurring congestion issue as it only occurred 3 times during the 5-month period.

## TRAVEL TIME INDEX

On average, the AM peak hour travel time index is 1.20, with the most unreliable travel times occurring at the Old Hickory Boulevard intersection.

On average, the PM peak hour travel time index is 1.24, with the most unreliable travel times occurring at Holt Road.

## AT A GLANCE

**AM Congestion**
Peak Average Speed | 27 mph
Lowest Speed | 21 mph

**PM Congestion**
Peak Average Speed | 27 mph
Lowest Speed | 12 mph

**Major Bottlenecks**
Occurrences | 3

**#72**
2,483 Monthly Riders
29,805 Annual Riders

BLOS = F

PLOS = D

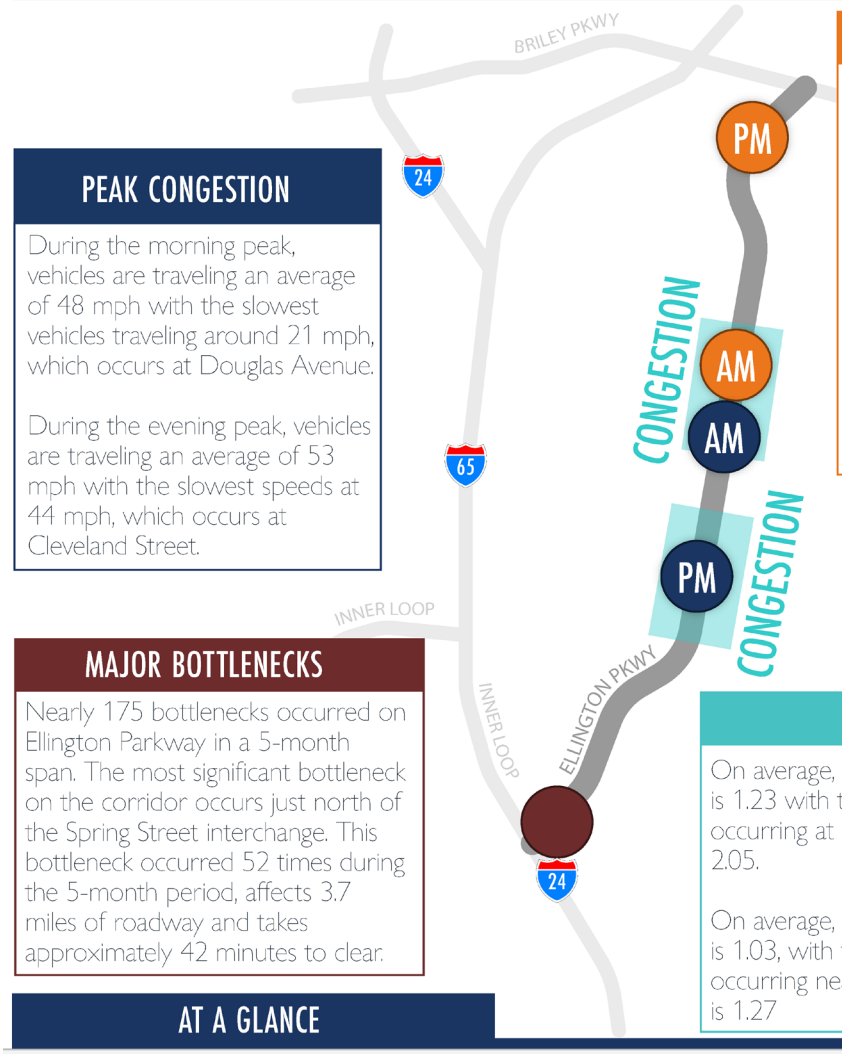
***Figure D-9. Ellington Parkway***

# ELLINGTON PARKWAY

Ellington Parkway (SR-6) is a controlled access arterial route that runs parallel to Dickerson Pike and Gallatin Pike. Ellington Parkway connects the downtown Nashville area to Briley Parkway providing access to many residential areas.

## TRAFFIC VOLUMES

On average, Ellington Parkway sees approximately 49,600 vehicles daily with the highest volumes observed between Spring Street and Cleveland Street. Approximately 4% of traffic along the corridor is commercial vehicles.




## PEAK CONGESTION

During the morning peak, vehicles are traveling an average of 48 mph with the slowest vehicles traveling around 21 mph, which occurs at Douglas Avenue.

During the evening peak, vehicles are traveling an average of 53 mph with the slowest speeds at 44 mph, which occurs at Cleveland Street.

## CONGESTION TRENDS

In the past three years, the largest deterioration in AM peak congestion was observed southbound near Douglas Avenue, where speeds have decreased by 17%.

PM peak traffic conditions have generally improved along the corridor. However, the largest deterioration in PM peak congetion was observed near Broadmoor Drive where speeds have decreased by 6%.

## MAJOR BOTTLENECKS

Nearly 175 bottlenecks occurred on Ellington Parkway in a 5-month span. The most significant bottleneck on the corridor occurs just north of the Spring Street interchange. This bottleneck occurred 52 times during the 5-month period, affects 3.7 miles of roadway and takes approximately 42 minutes to clear.

## TRAVEL TIME INDEX

On average, the AM peak hour travel time index is 1.23 with the most unreliable travel times occurring at Douglas Avenue where the index is 2.05.

On average, the PM peak hour travel time index is 1.03, with the most unreliable travel times occurring near Cleveland Street where the index is 1.27

## AT A GLANCE

**AM Congestion**
Peak Average Speed | 48 mph
Lowest Speed | 21 mph

**PM Congestion**
Peak Average Speed | 53 mph
Lowest Speed | 44 mph

**Major Bottleneck**
Occurrences | Twice weekly
Time to Clear | 42 minutes
Length | 3.7 miles

| #92 | #34 | #41 | #87 | #35 |
|---|---|---|---|---|
| 1,824 Monthly Riders | 8,859 Monthly Riders | 2,152 Monthly Riders | 1,725 Monthly Riders | 3,453 Monthly Riders |
| 21,894 Annual Riders | 106,318 Annual Riders | 25,829 Annual Riders | 20,709 Annual Riders | 41,438 Annual Riders |

**BLOS**
Bicycle level of service not available for expressways.

**PLOS**
Pedestrian level of service not available for expressways.

***Figure D-10. Franklin Road***

# FRANKLIN ROAD

Franklin Road (SR-6) serves as a major connection between Williamson and Davidson Counties, running parallel to Interstate 65. Franklin Road connects Franklin and Brentwood to Nashville's urban core.

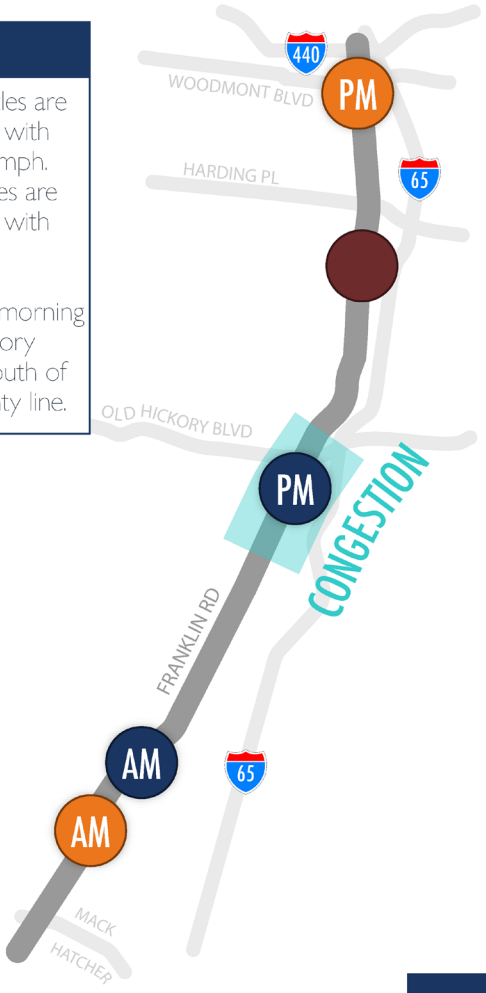
## TRAFFIC VOLUMES

On average, Franklin Road sees approximately 20,400 vehicles daily with the highest volumes observed just south of Old Hickory Boulevard. Approximately 11% of traffic along the corridor is commercial vehicles.

## PEAK CONGESTION

During the morning peak, vehicles are traveling an average of 33 mph with the slowest speeds around 19 mph. During the evening peak, vehicles are traveling an average of 31 mph with the slowest speeds at 16 mph.

Slowest traffic during both the morning and evening occurs at Old Hickory Boulevard in Brentwood just south of the Williamson-Davidson County line.




## CONGESTION TRENDS

In the past three years, the largest deterioration in AM congestion was observed just south of Moores Lane, where traffic speeds have decreased by approximately 10% during the AM peak.

During the PM peak, the most significant deterioration in congestion was observed near Woodmont Boulevard/Thompson Lane, where speeds have decreased approximately 20%.

## MAJOR BOTTLENECKS

Over 380 bottlenecks occurred on Franklin Road in a 5-month span. The most significant bottleneck on the corridor occurs at Harding Place. On average, this bottleneck occurs less than weekly, affects 1.5 miles of roadway and takes approximately 34 minutes to clear.

## TRAVEL TIME INDEX

The most unreliable travel times on Franklin Road occur at Moores Lane during the AM peak and at Old Hickory Boulevard during the PM peak. On average, the AM peak hour travel time index at Moores Lane is 2.21 and the PM peak hour travel time index at Old Hickory Boulevard is 2.31.

## AT A GLANCE

**AM Congestion**
Peak Average Speed | 33 mph
Lowest Speed | 19 mph

**PM Congestion**
Peak Average Speed | 31 mph
Lowest Speed | 16 mph

**Major Bottleneck**
Occurrences | Less than Weekly
Time to Clear | 34 minutes
Length | 1.5 miles

**#8**
16,268 Monthly Riders
195,220 Annual Riders

BLOS = F

PLOS = E

***Figure D-11. Gallatin Pike***

# GALLATIN PIKE

Gallatin Pike (SR-6) is a major arterial that connects the downtown Nashville area to Gallatin in Sumner County. Gallatin Pike serves as an alternative to I-65 and State Route 386. The corridor provides access to a mix of low density residential and commercial development through the East Nashville neighborhood, Hendersonville, and Gallatin.

## TRAFFIC VOLUMES

On average, Gallatin Pike sees approximately 26,200 vehicles daily with the highest volumes observed west of Conference Drive. Approximately 17% of traffic along the corridor is commercial vehicles.

## PEAK CONGESTION

During the morning peak, vehicles are traveling an average of 30 mph. Slowest traffic occurs near Sanders Ferry Road, where vehicles are traveling around 18 mph.

During the evening peak, vehicles are traveling an average of 27 mph along the corridor. Slowest traffic occurs near Myatt Drive, where vehicles are traveling about 12 mph.

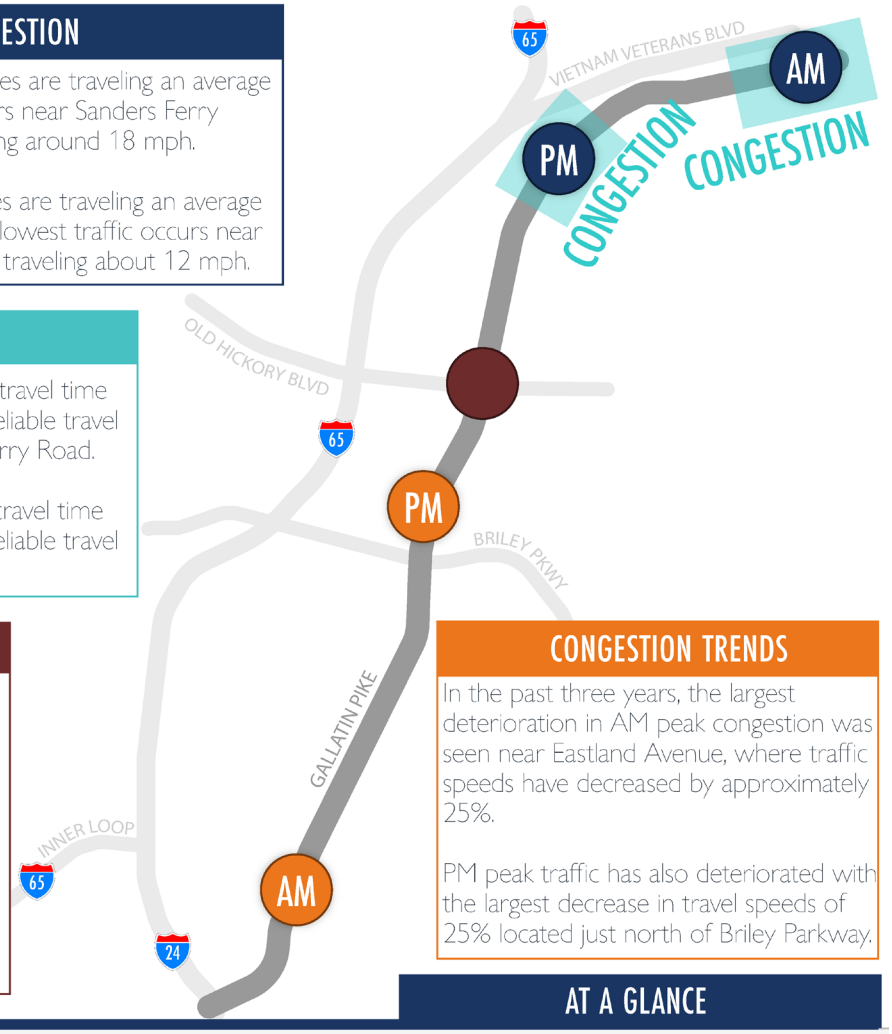
## TRAVEL TIME INDEX

On average, the AM peak hour travel time index is 1.12 with the most unreliable travel times occurring near Sanders Ferry Road.

On average, the PM peak hour travel time index is 1.27 with the most unreliable travel times occurring at Myatt Drive.

## MAJOR BOTTLENECKS

Over 980 bottlenecks occurred on Gallatin Pike in a 5-month span. The most significant bottleneck on the corridor occurs at Old Hickory Boulevard. On average, this bottleneck occurs almost daily, affects 1.6 miles of roadway and takes approximately 25 minutes to clear.




## CONGESTION TRENDS

In the past three years, the largest deterioration in AM peak congestion was seen near Eastland Avenue, where traffic speeds have decreased by approximately 25%.

PM peak traffic has also deteriorated with the largest decrease in travel speeds of 25% located just north of Briley Parkway.

## AT A GLANCE

**AM Congestion**
Peak Average Speed | 30 mph
Lowest Speed | 18 mph

**PM Congestion**
Peak Average Speed | 27 mph
Lowest Speed | 12 mph

**Major Bottleneck**
Occurrences | Daily
Time to Clear | 25 minutes
Length | 1.6 miles

**#56**
71,990 Monthly Riders
863,874 Annual Riders

BLOS = F

PLOS = D

***Figure D-12. Goose Creek Bypass***

# GOOSE CREEK BYPASS

Goose Creek Bypass (SR-248) is a relatively short arterial in Williamson County that connects I-65 to Columbia Pike. With access to Lewisburg Pike as well, it provides an alternative route to southern Williamson County and Maury County.

## TRAFFIC VOLUMES

On average, Columbia Pike sees approximately 10,800 vehicles daily with the highest volumes observed between I-65 and Lewisburg Pike. Approximately 6% of traffic along the corridor is commercial vehicles.

## PEAK CONGESTION

During the morning and evening peaks, vehicles are traveling an average of 35 mph along the corridor.

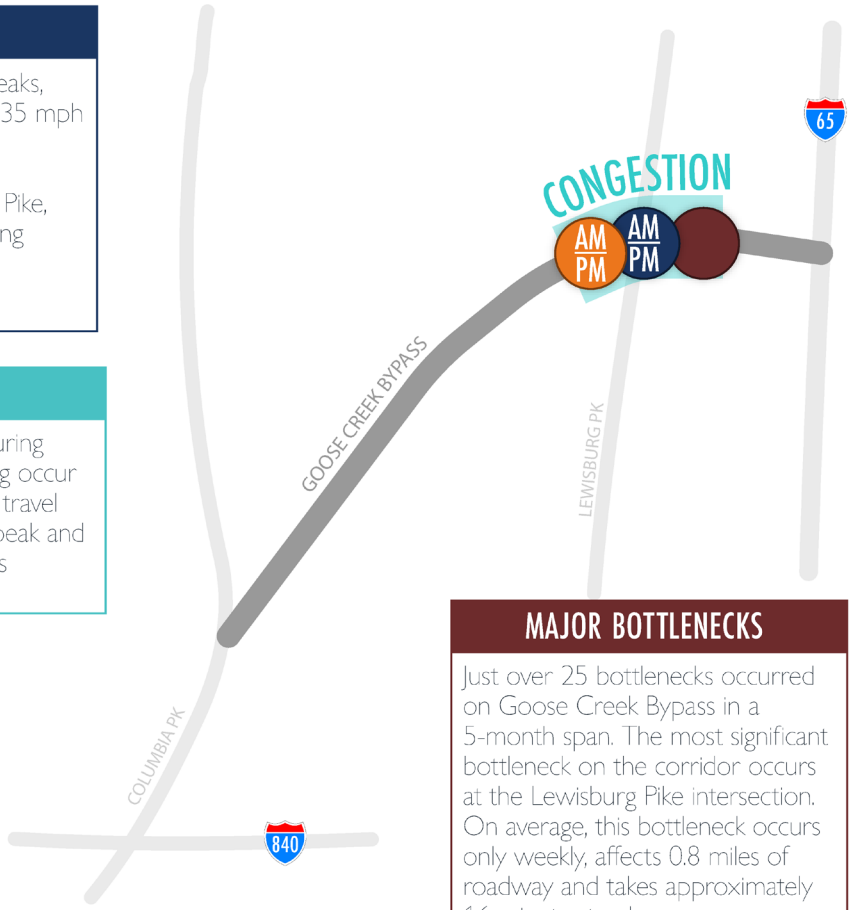
Slowest traffic occurs at Lewisburg Pike, during both the morning and evening peaks, where vehicles are traveling approximately 18 mph.

## TRAVEL TIME INDEX

The most unreliable travel times during both the morning peak and evening occur at Lewisburg Pike. On average, the travel time index is 2.33 in the morning peak and 2.12 during the evening peak at this location.

## CONGESTION TRENDS

In the past three years, the largest deterioration in AM and PM peak congestion was seen at the Lewisburg Pike intersection. Traffic speeds during both peaks have decreased by over 40% at this location.




## MAJOR BOTTLENECKS

Just over 25 bottlenecks occurred on Goose Creek Bypass in a 5-month span. The most significant bottleneck on the corridor occurs at the Lewisburg Pike intersection. On average, this bottleneck occurs only weekly, affects 0.8 miles of roadway and takes approximately 16 minutes to clear.

## AT A GLANCE

**AM Congestion**
Peak Average Speed | 35 mph
Lowest Speed | 18 mph

**PM Congestion**
Peak Average Speed | 35 mph
Lowest Speed | 18 mph

**Major Bottleneck**
Occurrences | Weekly
Time to Clear | 16 minutes
Length | 0.8 miles

BLOS = C

PLOS = D

***Figure D-13. Granny White Pike***

# GRANNY WHITE PIKE

Granny White Pike runs parallel to Hillsboro Road, Franklin Road and I-65 and connects Brentwood in Williamson County to downtown Nashville. Granny White Pike is primarily surrounded by low density development.

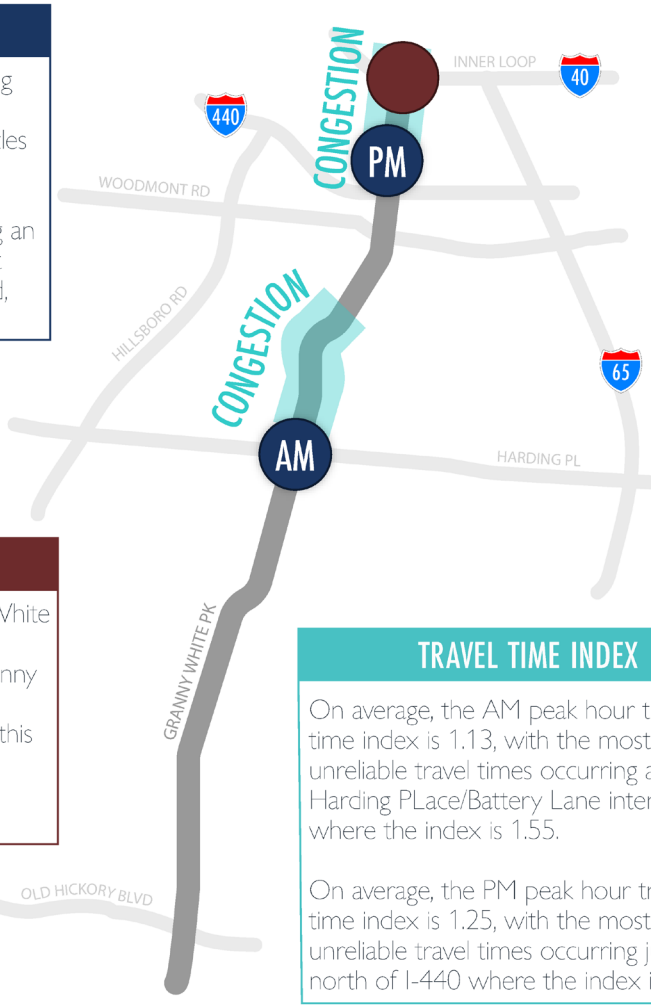
## TRAFFIC VOLUMES

On average, Granny White Pike sees approximately 10,900 vehicles daily with the highest volumes observed north of Wedgewood Avenue. Approximately 2% of traffic along the corridor is commercial vehicles.

## PEAK CONGESTION

During the morning peak, vehicles are traveling an average of 26 mph. Slowest traffic occurs near Harding Place/Battery Lane, where vehicles are traveling approximately 20 mph.

During the evening peak, vehicles are traveling an average of 24 mph. Slowest traffic occurs just north of I-440 in the 12 South neighborhood, where vehicles are traveling about 17 mph.




## MAJOR BOTTLENECKS

Nearly 60 bottlenecks occurred on Granny White Pike in a 5-month span. The most significant bottleneck on the corridor occurs where Granny White Pike provides access to downtown Nashville as 12th Avenue South. On average, this bottleneck occurs approximately 3 times per week, affects 2.7 miles of roadway and takes approximately 14 minutes to clear.

## TRAVEL TIME INDEX

On average, the AM peak hour travel time index is 1.13, with the most unreliable travel times occurring at the Harding PLace/Battery Lane intersection where the index is 1.55.

On average, the PM peak hour travel time index is 1.25, with the most unreliable travel times occurring just north of I-440 where the index is 1.76.

## AT A GLANCE

**AM Congestion**
Peak Average Speed | 26 mph
Lowest Speed | 20 mph

**PM Congestion**
Peak Average Speed | 24 mph
Lowest Speed | 17 mph

**Major Bottleneck**
Occurrences | 3 Times Weekly
Time to Clear | 14 minutes
Length | 2.7 miles

Not currently provided

BLOS = F

PLOS = E

***Figure D-14. Harding Place***

# HARDING PLACE

Harding Place (SR-255) is a circumferential arterial route around Nashville, parallel with Briley Parkway, Woodmont Boulevard and I-440. Harding Place connects I-40 on both the east and west sides of the city and crosses several main arterials, including Murfreesboro Pike, Nolensville Pike, Franklin Road, Hillsboro Pike, and Highway 100.

## TRAFFIC VOLUMES

On average, Harding Place sees approximately 26,700 vehicles daily with the highest volumes observed south of I-40 on the east side of Nashville where it turns into Donelson Pike. Approximately 12% of traffic along the corridor is commercial vehicles.

## PEAK CONGESTION

On average, vehicles are traveling at 24 mph during the morning peak. Slowest traffic occurs at Murfreesboro Pike, where vehicles are traveling around 12 mph.

On average, vehicles are traveling at 22 mph during the evening peak. Slowest traffic occurs just west of Nolensville Pike, where vehicles are traveling about 8 mph.

## CONGESTION TRENDS

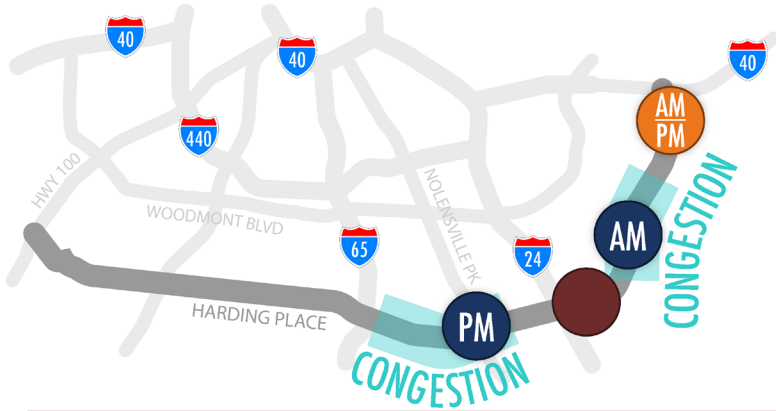
In the past three years, AM peak hour speeds along the corridor have decreased by nearly 7% while PM peak hour speeds have decreased by approximately 8%.

The largest deterioration seen along the corridor in both peak hours occurs near I-40 and the airport.

## TRAVEL TIME INDEX

On average, the AM peak hour travel time index is 1.36, with the most unreliable travel times occurring just east of Murfreesboro Pike.

On average, the PM peak hour travel time index is 1.54, with the most unreliable travel times occurring near Nolensville Pike.




## MAJOR BOTTLNECKS

Nearly 1,500 bottlenecks occurred on Harding Place in a 5-month span. The most significant bottleneck on the corridor occurs near I-24. On average, it occurs almost twice daily, affects 1.8 miles of roadway and takes approximately 28 minutes to clear.

## AT A GLANCE

**AM Congestion**
Peak Average Speed | 24 mph
Lowest Speed | 12 mph

**PM Congestion**
Peak Average Speed | 22 mph
Lowest Speed | 8 mph

**Major Bottleneck**
Occurrences | Twice Daily
Time to Clear | 28 minutes
Length | 1.8 miles

BLOS = F

PLOS = E

**#72**
2,484 Monthly Riders
29,806 Annual Riders

***Figure D-15. Hillsboro Pike***

# HILLSBORO PIKE

Hillsboro Pike (SR-106) is an arterial route that provides an alternative to both I-40 West and I-65 South as it connects Nashville's core with Williamson County.

## TRAFFIC VOLUMES

On average, Hillsboro Pike sees approximately 23,500 vehicles daily with the highest volumes observed just south of I-440. Approximately 6% of traffic along the corridor is commercial vehicles.

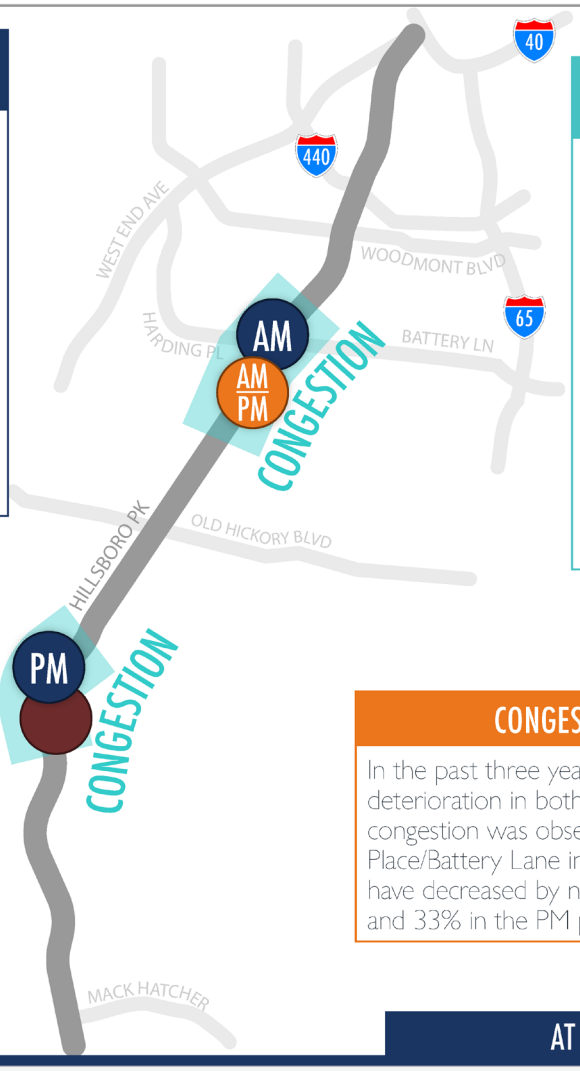
## PEAK CONGESTION

On average, vehicles are traveling at 28 mph during the morning peak. Slowest traffic occurs at the split with Old Hillsboro Road, where vehicles are traveling around 17 mph.

On average, vehicles are traveling at 24 mph during the evening peak. Slowest traffic occurs near the Harding Place/Battery Lane intersection, where vehicles are traveling at 13 mph.

## MAJOR BOTTLENECKS

Nearly 950 bottlenecks occurred on Hillsboro Pike in a 5-month span. The most significant bottleneck on the corridor occurs south of the Old Hillsboro Road intersection. On average, this bottleneck occurs almost daily, affects 2.7 miles of roadway and takes approximately 40 minutes to clear.




## TRAVEL TIME INDEX

On average, the AM peak hour travel time index is 1.17, with the most unreliable travel times occurring between Old Hickory Boulevard and Harding Place.

On average, the PM peak hour travel time index is 1.42, with the most unreliable travel times occurring south of Sneed Road.

## CONGESTION TRENDS

In the past three years, the largest deterioration in both AM and PM peak congestion was observed near the Harding Place/Battery Lane intersection. Traffic speeds have decreased by nearly 25% in the AM peak and 33% in the PM peak.

## AT A GLANCE

**AM Congestion**
Peak Average Speed | 28 mph
Lowest Speed | 17 mph

**PM Congestion**
Peak Average Speed | 24 mph
Lowest Speed | 13 mph

**Major Bottleneck**
Occurrences | Daily
Time to Clear | 40 minutes
Length | 2.7 miles

**#7**
35,616 Monthly Riders
427,394 Annual Riders

**#91**
1,419 Monthly Riders
17,026 Annual Riders

BLOS = E

PLOS = D

***Figure D-16. Highway 96***



***Figure D-17. Highway 100***

# HIGHWAY 100

Highway 100/Harding Pike/West End Avenue (SR-1/SR-100) begins in Nashville's urban core and extends westward through Fairview in Williamson County. The corridor stretches through rural and low density development to the west and more dense urban development to the east, closer to downtown..

## TRAFFIC VOLUMES

On average, Highway 100 sees approximately 29,600 vehicles daily with the highest volumes observed between I-440 and Elliston Place. Approximately 8% of traffic along the corridor is commercial vehicles.

## PEAK CONGESTION

On average, vehicles are traveling at 35 mph during the morning peak. Slowest traffic occurs west of I-440, where vehicles are traveling around 19 mph.

On average, vehicles are traveling at 32 mph during the evening peak. Slowest traffic occurs near White Bridge Road, where vehicles are traveling about 13 mph.

## TRAVEL TIME INDEX

The average AM peak hour travel time index is 1.12 and the average PM peak hour travel time index is 1.24. The most unreliable travel times on Highway 100 occur at the White Bridge Road/Woodmont Boulevard intersection.

## MAJOR BOTTLENECKS

Nearly 380 bottlenecks occurred on Highway 100 in a 5-month span. The most significant bottleneck on the corridor occurs at the White Bridge Road/Woodmont Boulevard intersection. On average, this bottleneck occurs almost daily, affects 1.4 miles of roadway and takes approximately 34 minutes to clear.




## CONGESTION TRENDS

In the past three years, the largest deterioration in both AM and PM peak hour congestion can be seen at the White Bridge Road/Woodmont Boulevard intersection. AM peak hour speeds at this location have decreased by 31% and PM peak hour speeds have decreased by 39%.

## AT A GLANCE

**AM Congestion**
Peak Average Speed | 35 mph
Lowest Speed | 19 mph

**PM Congestion**
Peak Average Speed | 32 mph
Lowest Speed | 13 mph

**Major Bottleneck**
Occurrences | Daily
Time to Clear | 34 minutes
Length | 1.4 miles

**BLOS = E**

**PLOS = F**

**#5**
27,958 Monthly Riders
335,501 Annual Riders

***Figure D-18. Highway 109***

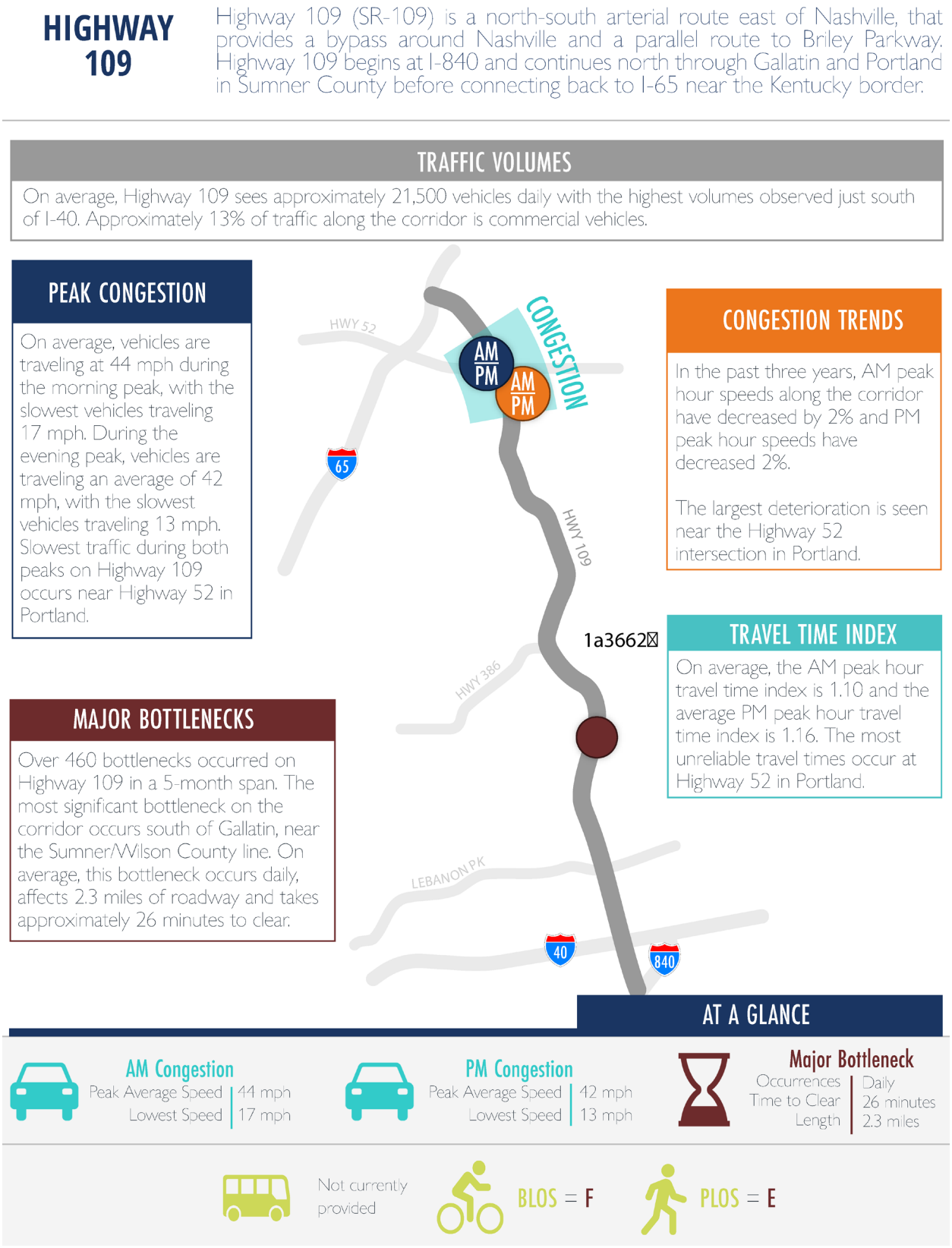


***Figure D-19. I-24 East***

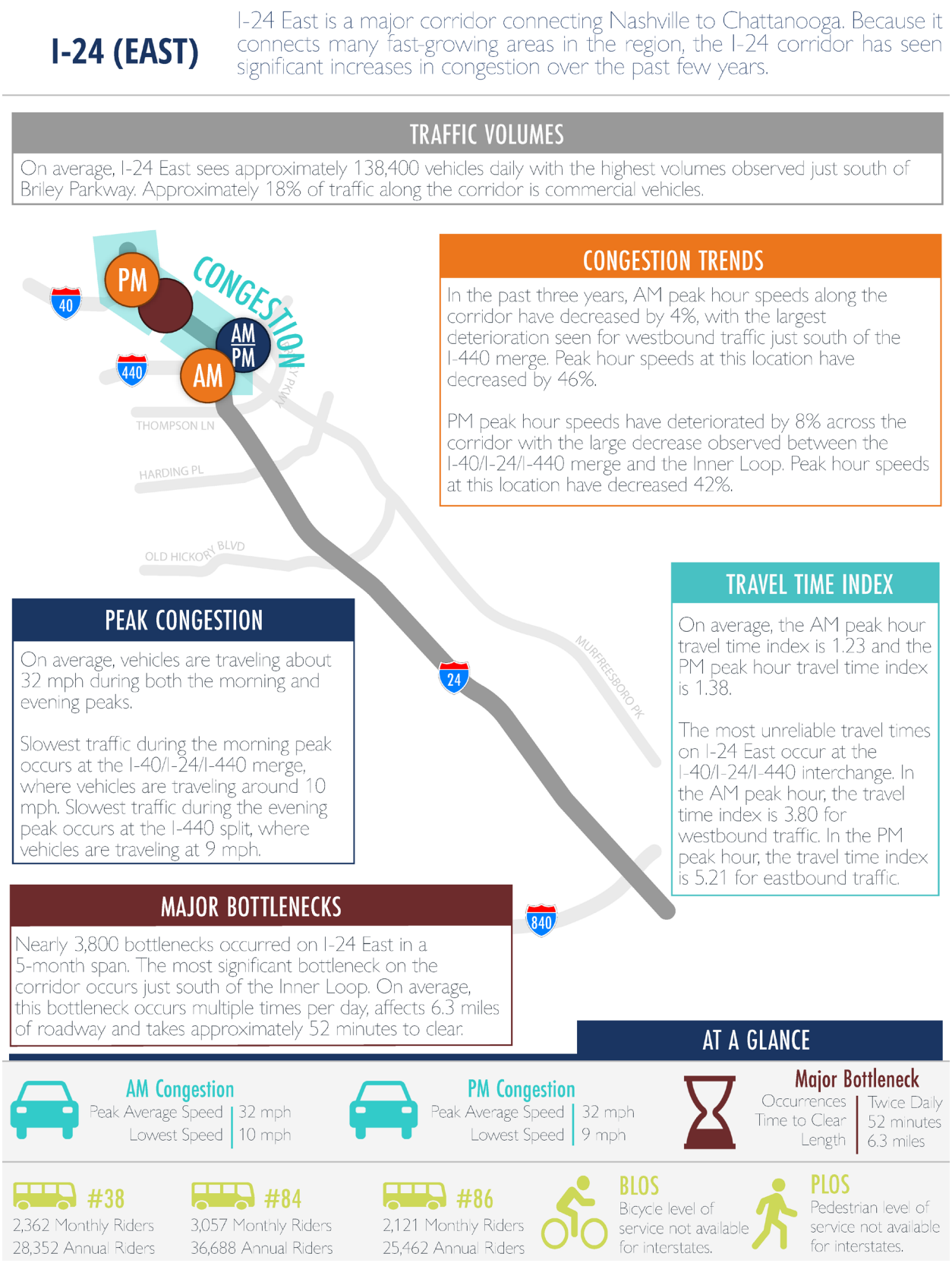


***Figure D-20. I-24 West***

# I-24 (WEST)

I-24 West extends west from Nashville, providing a connection to Clarksville before going into Kentucky. Traffic and congestion along I-24 West have historically resulted from the linkage between the Nashville and Clarksville economies and workforces.

## TRAFFIC VOLUMES

On average, I-24 West sees approximately 97,200 vehicles daily with the highest volumes observed just north of the Inner Loop. Approximately 19% of traffic along the corridor is commercial vehicles.

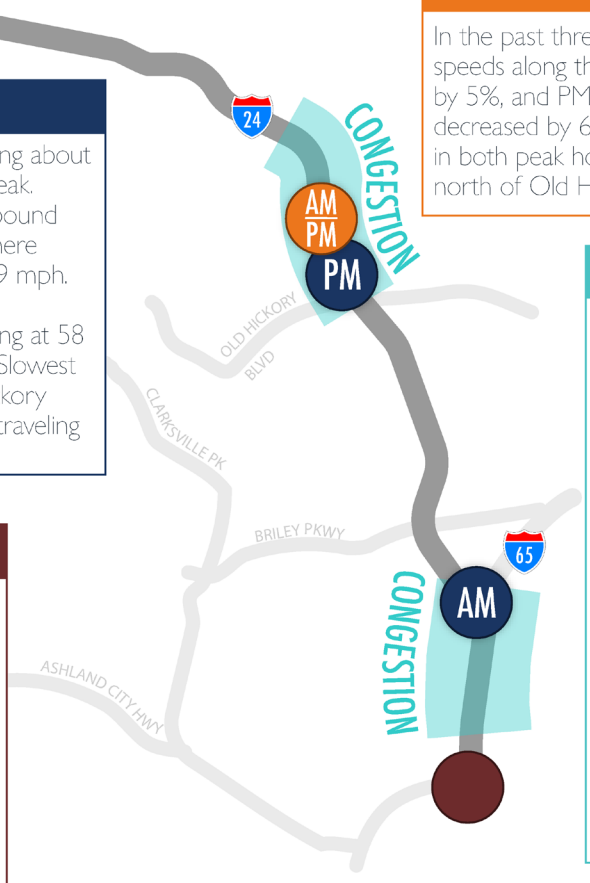
## CONGESTION TRENDS

In the past three years, AM peak hour speeds along the corridor have decreased by 5%, and PM peak hour speeds have decreased by 6%. The largest deterioration in both peak hours was observed just north of Old Hickory Boulevard.

## PEAK CONGESTION

On average, vehicles are traveling about 58 mph during the morning peak. Slowest traffic occurs for eastbound traffic near the I-65 merge, where vehicles are traveling around 19 mph.

On average, vehicles are traveling at 58 mph during the evening peak. Slowest traffic occurs north of Old Hickory Boulevard, where vehicles are traveling at 34 mph.




## TRAVEL TIME INDEX

On average, the AM peak hour travel time index is 1.25, with the most unreliable travel times occurring at the I-65 and I-24 merge for eastbound traffic. The travel time index at this location is 4.11 during the AM peak hour. On average, the PM peak hour travel time index is 1.15, with the most unreliable travel times occurring just north of Old Hickory Boulevard. The travel time index at this location is 1.88 during the PM peak hour.

## MAJOR BOTTLENECKS

Over 1,500 bottlenecks occurred on I-24 West in a 5-month span. The most significant bottleneck on the corridor occurs multiple times each day just north of the Inner Loop. On average, this bottleneck affects 4.2 miles of roadway and takes approximately 55 minutes to clear.

## AT A GLANCE

**AM Congestion**
Peak Average Speed | 58 mph
Lowest Speed | 19 mph

**PM Congestion**
Peak Average Speed | 58 mph
Lowest Speed | 34 mph

**Major Bottleneck**
Occurrences | Multiple Times Daily
Time to Clear | 55 minutes
Length | 4.2 miles

**#89**
1,314 Monthly Riders
15,770 Annual Riders

**#94**
5,901 Monthly Riders
70,812 Annual Riders

**BLOS**
Bicycle level of service not available for interstates.

**PLOS**
Pedestrian level of service not available for interstates.

***Figure D-21. I-40 East***

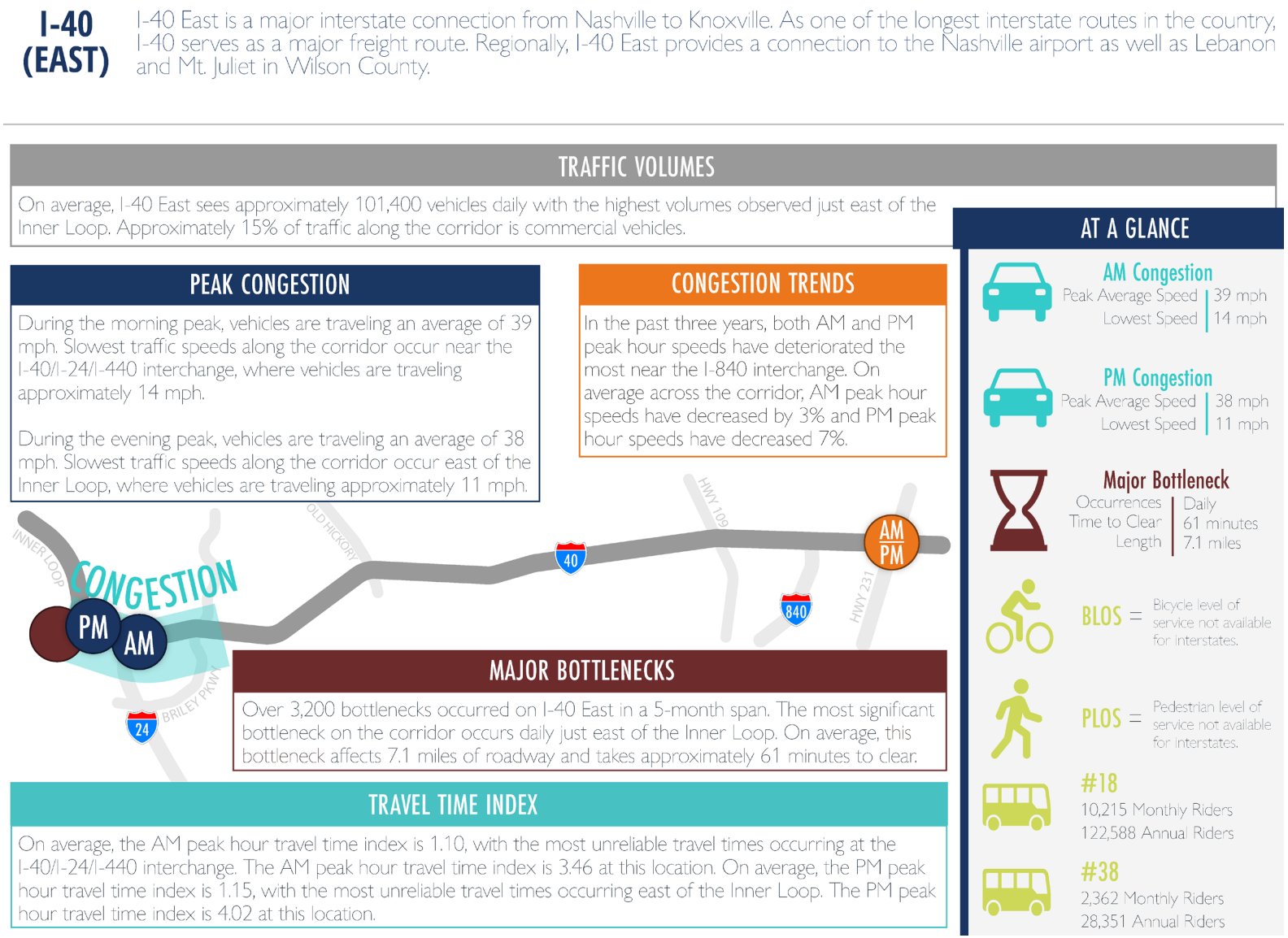


***Figure D-22. I-40 West***



***Figure D-23. I-65 North***

# I-65 (NORTH)

I-65 North runs from the downtown Nashville area to the Davidson County border crossing through Sumner County. I-65 serves both urban areas and rural areas, acting as a major connector to Nashville from the north.

## Traffic Volumes

On average, the I-65 North corridor sees approximately 139,600 vehicles daily with the highest volumes observed just north of the inner loop. Approximately 16% of traffic along the corridor is commercial vehicles.

## Morning and Evening Congestion

On average, vehicles are traveling at 58 mph during the morning peak. Slowest traffic occurs at the I-65 and I-24 merge, where vehicles are traveling around 18 mph.

On average, vehicles are traveling at 53 mph during the evening peak. Slowest traffic occurs just north of Vietnam Veterans Boulevard, where vehicles are traveling at 24 mph.

## Changing Congestion Conditions

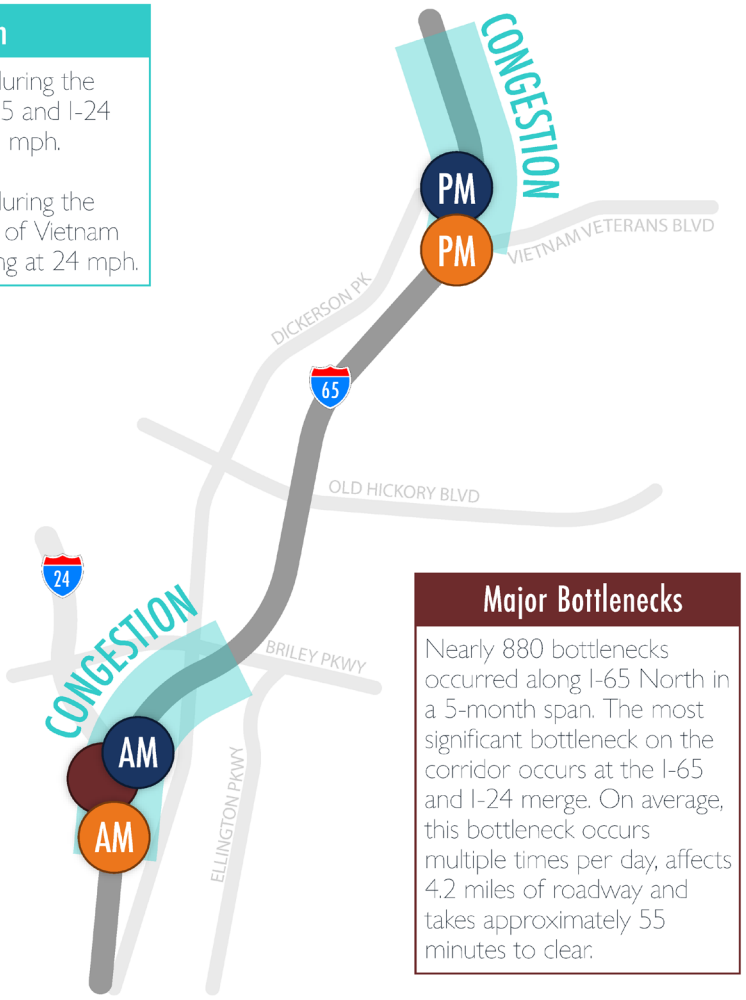
In the past three years, AM peak hour speeds have decreased by 1% and PM peak hour speeds have decreased by 3%.

The largest deterioration in AM peak speeds is seen near Trinity Lane. The largest deterioration in PM travel speeds is seen near Vietnam Veterans Boulevard.

## Travel Time Reliabilities

On average, the AM peak hour travel time index is 1.27, with the most unreliable travel times occurring at the I-65 and I-24 merge.

On average, the PM peak hour travel time index is 1.35, with the most unreliable travel times occurring just north of the I-65 and Vietnam Veterans Boulevard split.




## Major Bottlenecks

Nearly 880 bottlenecks occurred along I-65 North in a 5-month span. The most significant bottleneck on the corridor occurs at the I-65 and I-24 merge. On average, this bottleneck occurs multiple times per day, affects 4.2 miles of roadway and takes approximately 55 minutes to clear.

## At a Glance

**AM Congestion**
Peak Average Speed | 58 mph
Lowest Speed | 18 mph

**PM Congestion**
Peak Average Speed | 53 mph
Lowest Speed | 24 mph

**Major Bottleneck**
Occurrences | Multiple Times Daily
Time to Clear | 55 minutes
Length | 4.2 miles

**#35**
3,453 Monthly Riders
41,438 Annual Riders

**#87**
1,725 Monthly Riders
20,709 Annual Riders

**#92**
1,824 Monthly Riders
21,894 Annual Riders

**BLOS**
Bicycle level of service not available for interstates.

**PLOS**
Pedestrian level of service not available for interstates.

***Figure D-24. I-65 South***

# I-65 (SOUTH)

I-65 South runs from the downtown area of Nashville to the Alabama state line. I-65 South serves as a major connection to Nashville from communities in Williamson and Maury Counties.

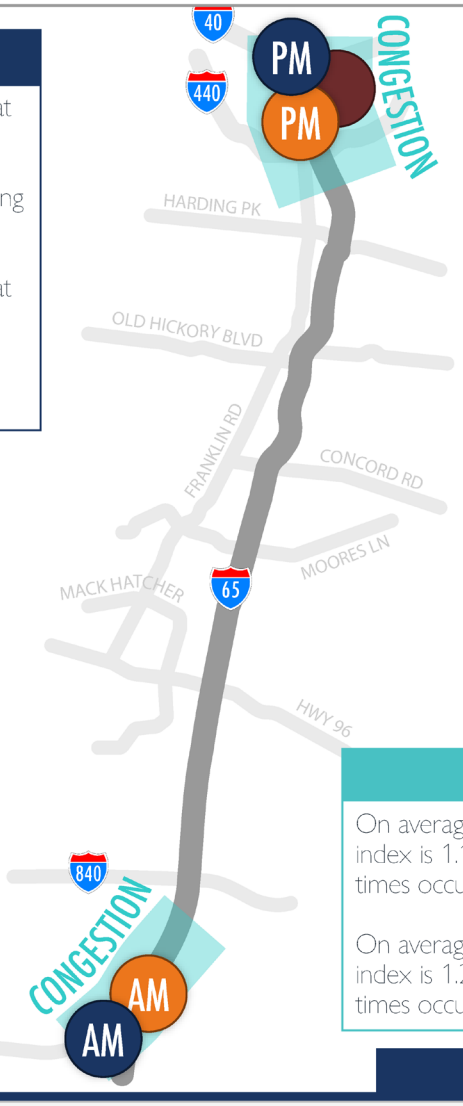
## TRAFFIC VOLUMES

On average, I-65 South sees approximately 135,800 vehicles daily with the highest volumes observed just south of I-440. Approximately 11% of traffic along the corridor is commercial vehicles.

## PEAK CONGESTION

On average, vehicles are traveling at 48 mph during the morning peak. Slowest traffic occurs near Saturn Parkway, where vehicles are traveling around 27 mph.

On average, vehicles are traveling at 47 mph during the evening peak. Slowest traffic occurs south of the Inner Loop, where vehicles are traveling at 12 mph.




## CONGESTION TRENDS

In the past three years, travel speeds in the AM peak have deteriorated by 5%. The largest deterioration in AM congestion was seen just north of Saturn Parkway, where traffic speeds have decreased by 29%.

Travel speeds in the PM peak have deteriorated by 9% on average. The largest deterioration in PM congestion was seen near Wedgewood Avenue, where traffic speeds have decreased by 45%.

## MAJOR BOTTLENECKS

Nearly 2,900 bottlenecks occurred on I-65 South in a 5-month span. The most significant bottleneck on the corridor occurs near Wedgewood Avenue. On average, it occurs multiple times per day, affects 5.0 miles of roadway and takes approximately 80 minutes to clear.

## TRAVEL TIME INDEX

On average, the AM peak hour travel time index is 1.18, with the most unreliable travel times occurring at Saturn Parkway.

On average, the PM peak hour travel time index is 1.28, with the most unreliable travel times occurring near the Inner Loop.

## AT A GLANCE

**AM Congestion**
Peak Average Speed | 48 mph
Lowest Speed | 27 mph

**PM Congestion**
Peak Average Speed | 47 mph
Lowest Speed | 12 mph

**Major Bottleneck**
Occurrences | Multiple Times Daily
Time to Clear | 80 minutes
Length | 5.0 miles

**#91**
1,418 Monthly Riders
17,026 Annual Riders

**#95**
1,297 Monthly Riders
15,575 Annual Riders

BLOS = Bicycle level of service not available for interstates.

PLOS = Pedestrian level of service not available for interstates.

***Figure D-25. I-440***

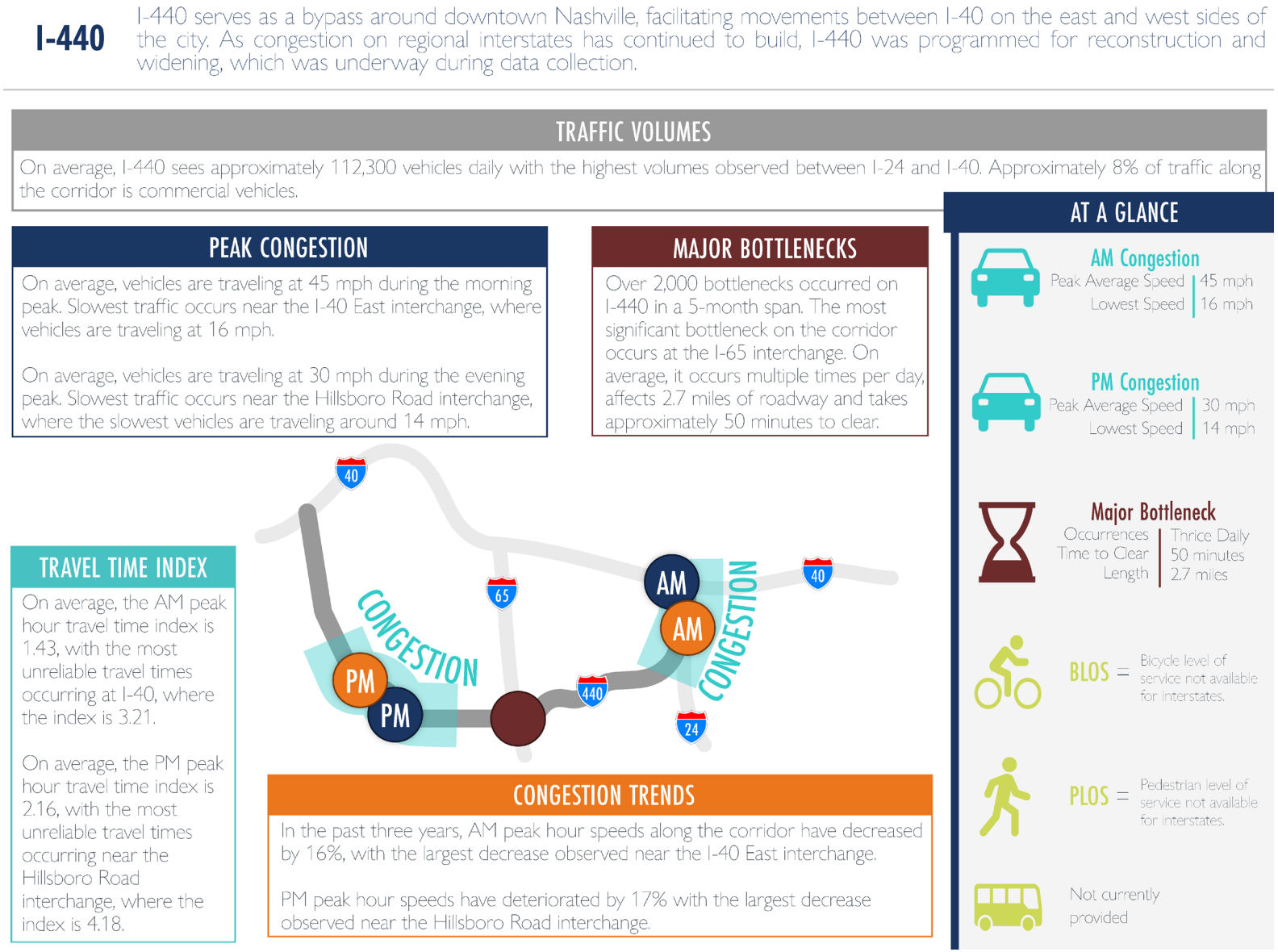


***Figure D-26. I-840***

## I-840

I-840 connects I-40 West to I-40 East along the south side of Nashville, providing a bypass around downtown. Regionally, I-840 provides a connection between Wilson, Rutherford, Williamson, and Dickson Counties, but it also serves as a key route for freight movement as its relatively low levels of traffic congestion make for efficient travel through the region.

### TRAFFIC VOLUMES

On average, I-840 sees approximately 35,400 vehicles daily with the highest volumes observed east of I-24 near Murfreesboro. Approximately 15% of traffic along the corridor is commercial vehicles.

### PEAK CONGESTION

On average, vehicles are traveling at 68 mph during the morning peak. Slowest traffic occurs for westbound traffic just east of I-65 South where vehicles are traveling about 59 mph.

On average, vehicles are traveling at 68 mph during the evening peak. Slowest travel speeds occur at the eastern terminus for vehicles merging onto I-40 East, where the vehicles are traveling around 49 mph.

### MAJOR BOTTLENECKS

Over 300 bottlenecks occurred on I-840 in a 5-month span. The most significant bottleneck on the corridor was for eastbound traffic at Almaville Road. However, this location is not representative of recurring congestion as this bottleneck only occurred twice in the time period.

### TRAVEL TIME INDEX

On average, the AM and PM peak hour travel time index is 0.97, with the most unreliable travel times occurring east of I-65 South during the AM and south of I-40 East in the PM.




### CONGESTION TRENDS

In the past three years, AM peak hour speeds along the corridor have decreased by 1%, with the largest deterioration seen for eastbound traffic near I-65 South.

PM peak hour speeds along the corridor have decreased by 2% with the largest decrease seen just south of I-40 East.

### AT A GLANCE

**AM Congestion**
Peak Average Speed | 68 mph
Lowest Speed | 59 mph

**PM Congestion**
Peak Average Speed | 68 mph
Lowest Speed | 49 mph

**Major Bottleneck**
Occurrences | 2

**BLOS** = Bicycle level of service not available for interstates.

**PLOS** = Pedestrian level of service not available for interstates.

Not currently provided

***Figure D-27. Inner Loop***

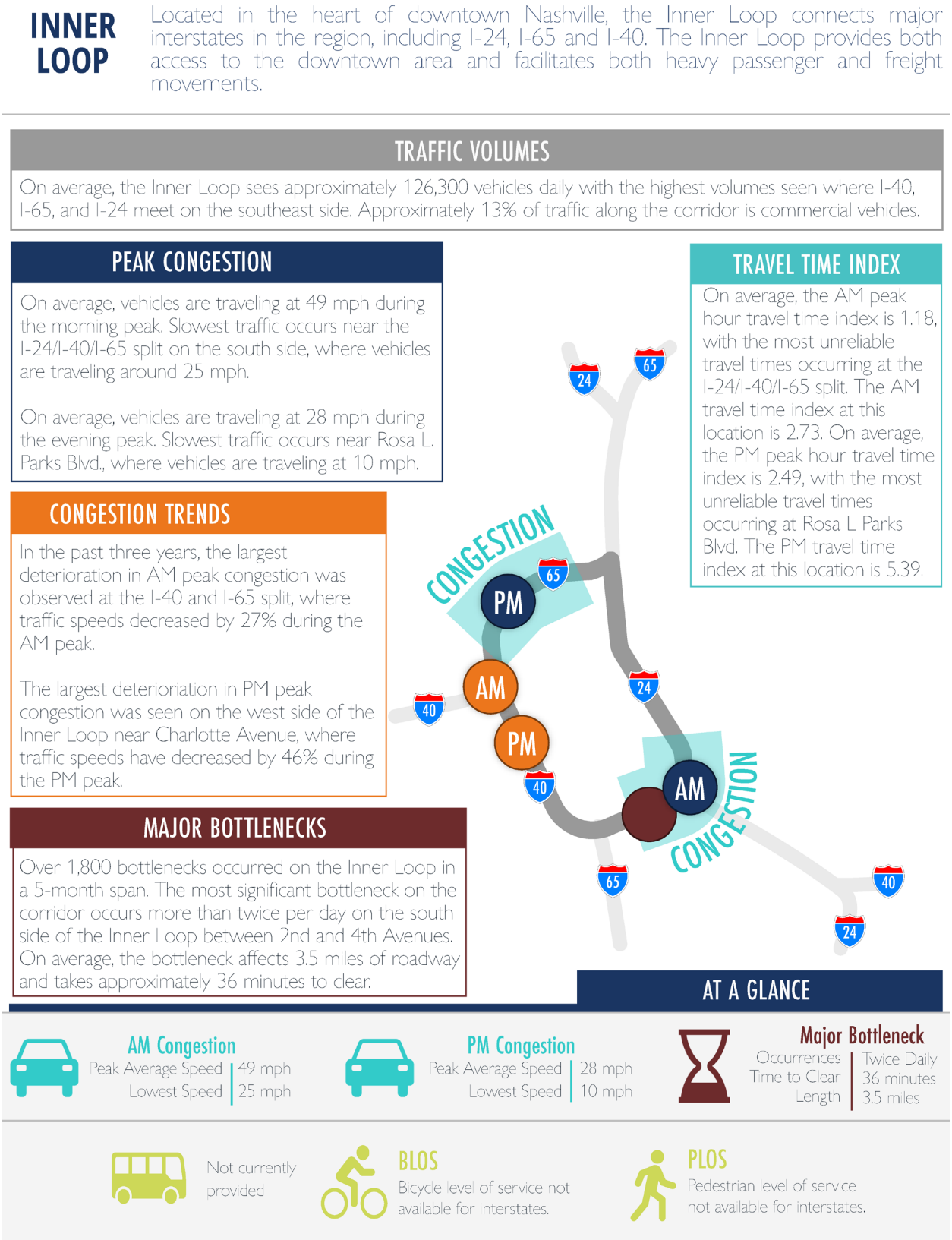


***Figure D-28. Lebanon Pike***

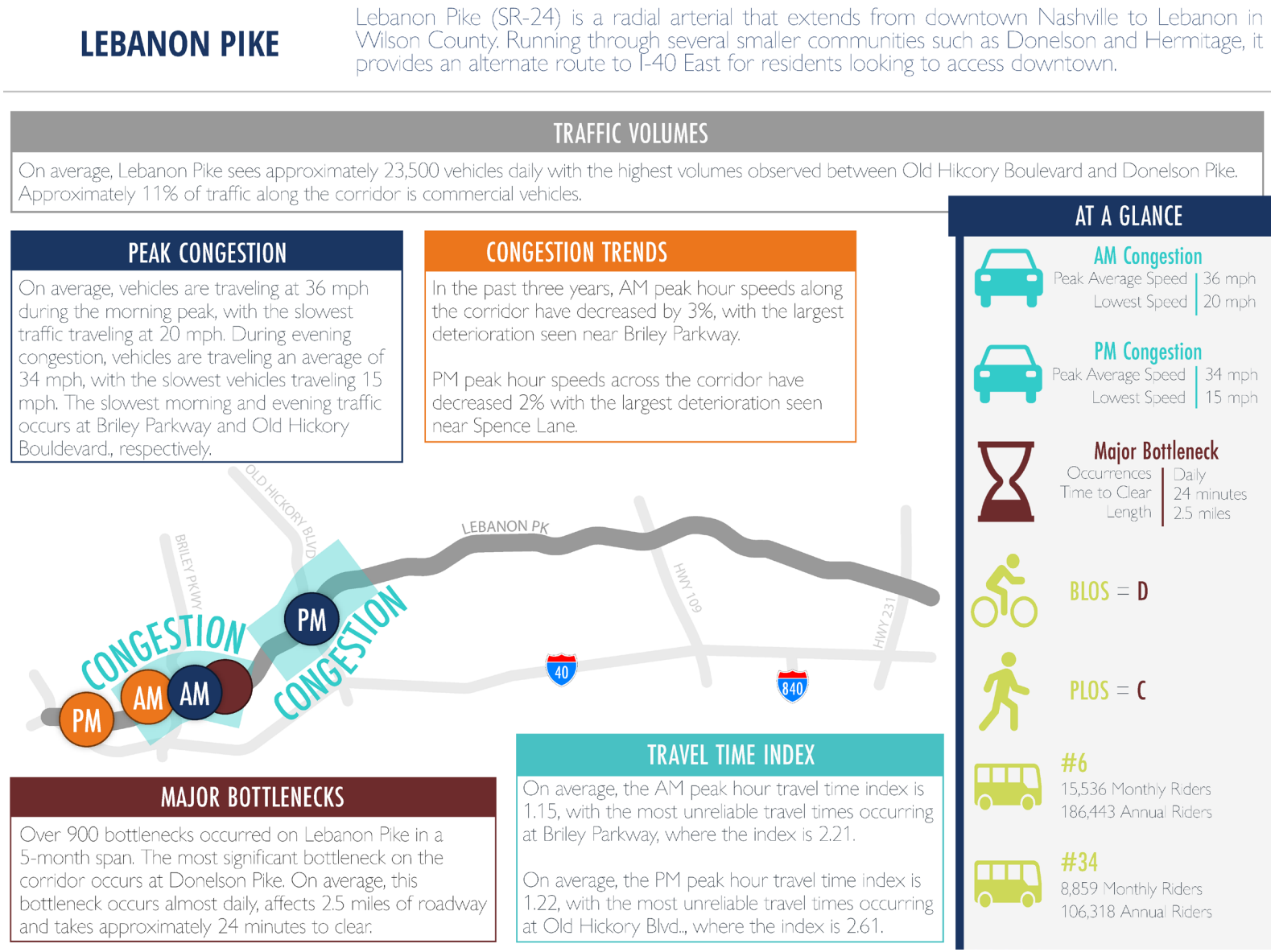


***Figure D-29. Lewisburg Pike***

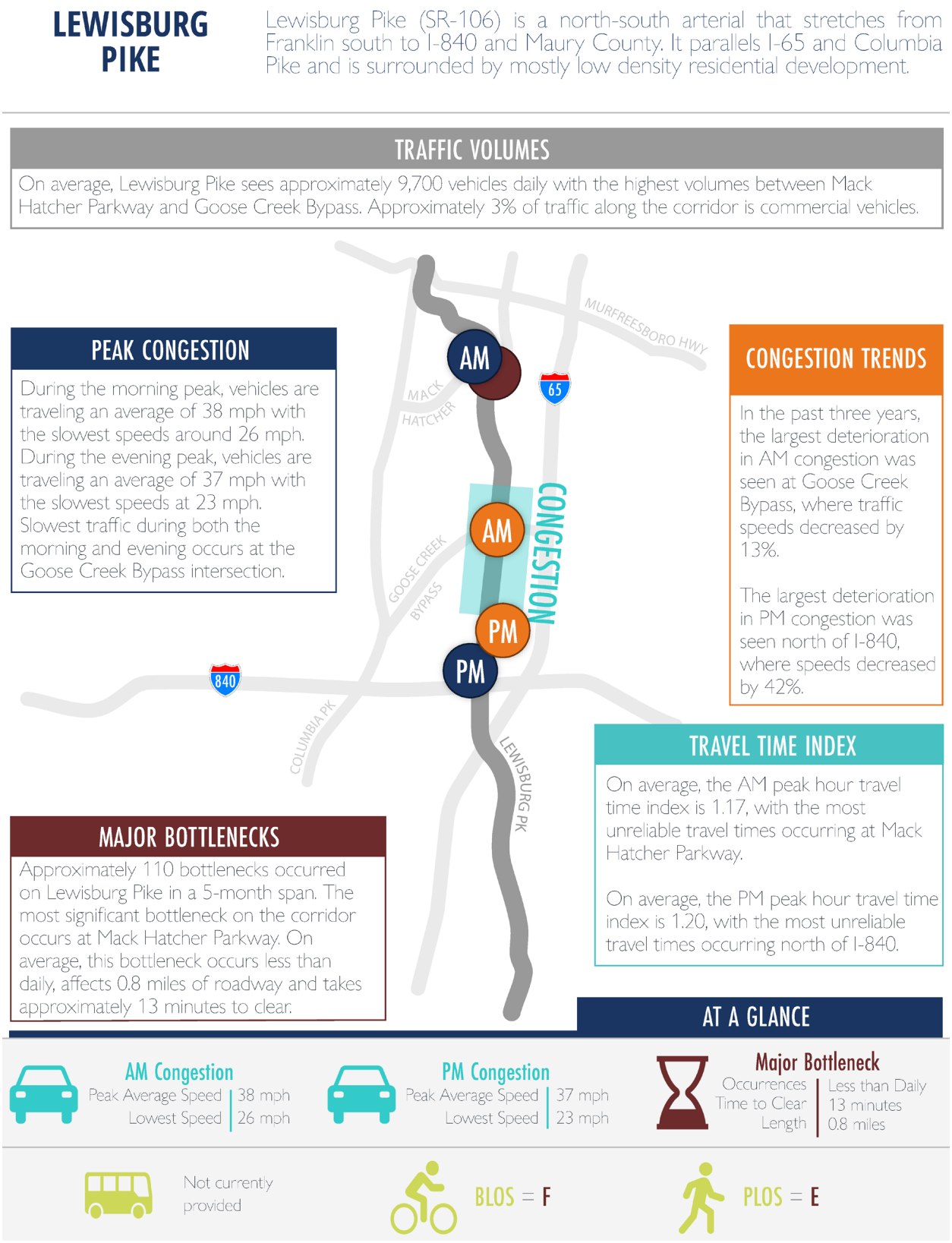


***Figure D-30. Long Hollow Pike***

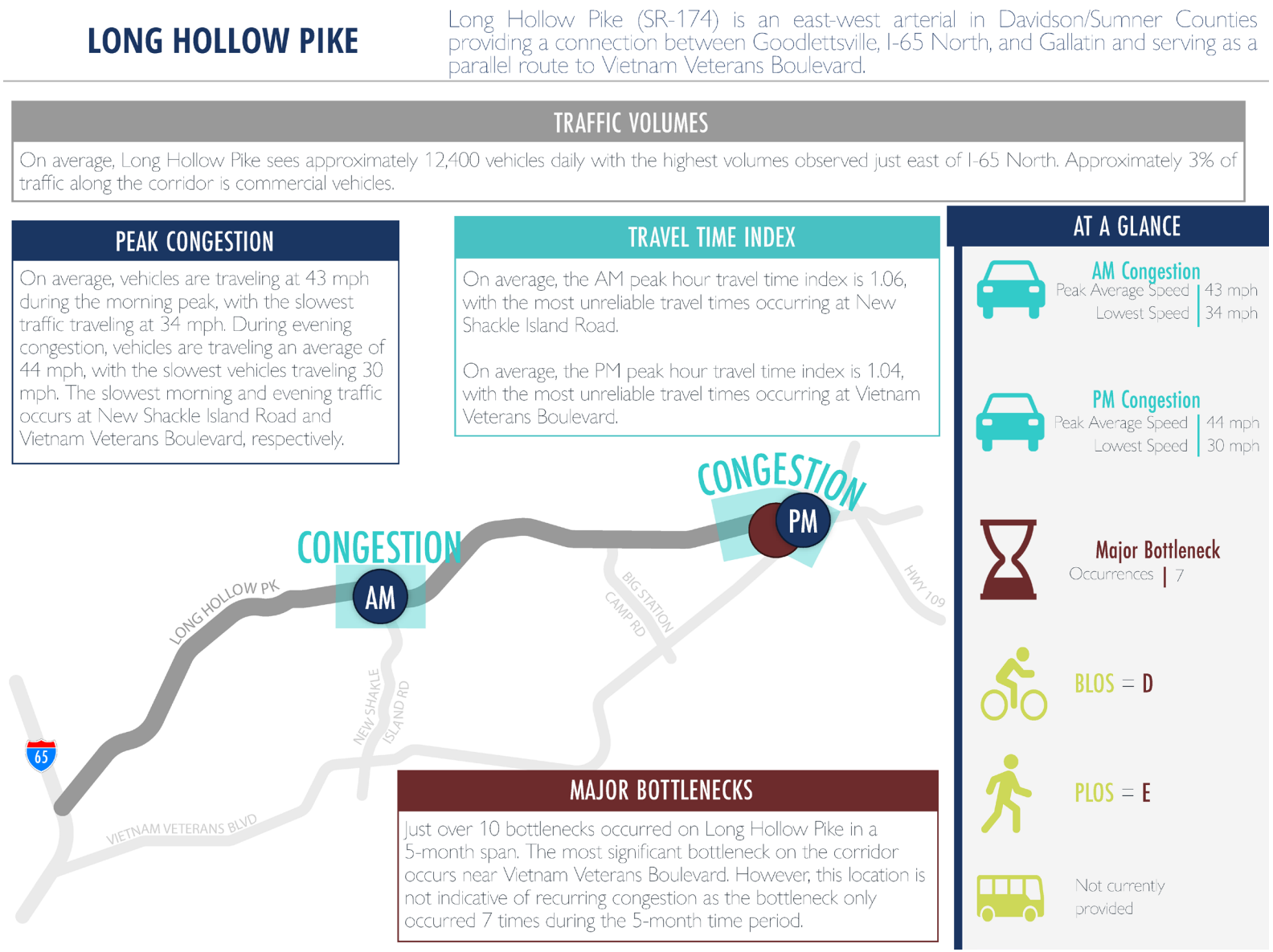


***Figure D-31. Louisville Highway***

# LOUISVILLE HIGHWAY

Louisville Highway (SR-41) is an arterial that stretches from the Davidson/Sumner County line north into Kentucky. Regionally, Louisville Highway connects Dickerson Pike and I-65 North and provides a parallel route to the interstate.

## TRAFFIC VOLUMES

On average, Louisville Highway sees approximately 11,000 vehicles daily with the highest volumes observed near I-65 North and Dickerson Pike. Approximately 2% of traffic along the corridor is commercial vehicles.

## PEAK CONGESTION

On average, vehicles are traveling at 40 mph during the morning peak, with the slowest vehicles traveling 35 mph. During the evening peak, vehicles are traveling an average of 43 mph, with the slowest vehicles traveling 42 mph. Slowest traffic on Louisville Highway occurs just north of I-65 in the AM and closer to the I-65 interchange in the PM.

## CONGESTION TRENDS

In the past three years, peak hour speeds along the corridor have largely remained consistent, with the largest deterioration in both AM and PM peak travel speeds observed near Millersville.

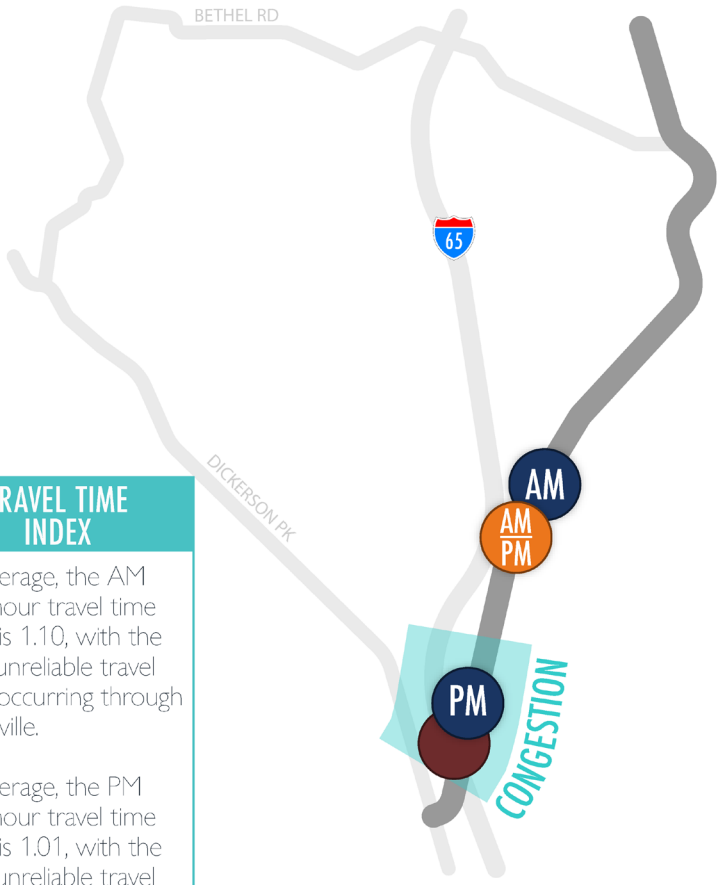
## MAJOR BOTTLENECKS

Over 30 bottlenecks occurred on Louisville Highway in a 5-month span. The most significant bottleneck on the corridor occurs near the I-65 North interchange. On average, this bottleneck occurs less than weekly, affects 2.3 miles of roadway and takes approximately 23 minutes to clear.

## TRAVEL TIME INDEX

On average, the AM peak hour travel time index is 1.10, with the most unreliable travel times occurring through Millersville.

On average, the PM peak hour travel time index is 1.01, with the most unreliable travel times occurring at the I-65 North interchange.




## AT A GLANCE

**AM Congestion**
Peak Average Speed | 40 mph
Lowest Speed | 35 mph

**PM Congestion**
Peak Average Speed | 43 mph
Lowest Speed | 42 mph

**Major Bottleneck**
Occurrences | Less than Weekly
Time to Clear | 23 minutes
Length | 2.3 miles

Not currently provided

BLOS = F

PLOS = E

***Figure D-32. Mack Hatcher Parkway***

# MACK HATCHER PARKWAY

Mack Hatcher Parkway (SR-397) is an arterial that serves as a bypass around Franklin connecting Hillsboro Road to Columbia Pike. Much of the development along the Mack Hatcher Parkway corridor is low density residential or commercial.

## TRAFFIC VOLUMES

On average, Mack Hatcher Parkway sees approximately 20,300 vehicles daily with the highest volumes observed between Highway 96 and Lewisburg Pike. Approximately 9% of traffic along the corridor is commercial vehicles.

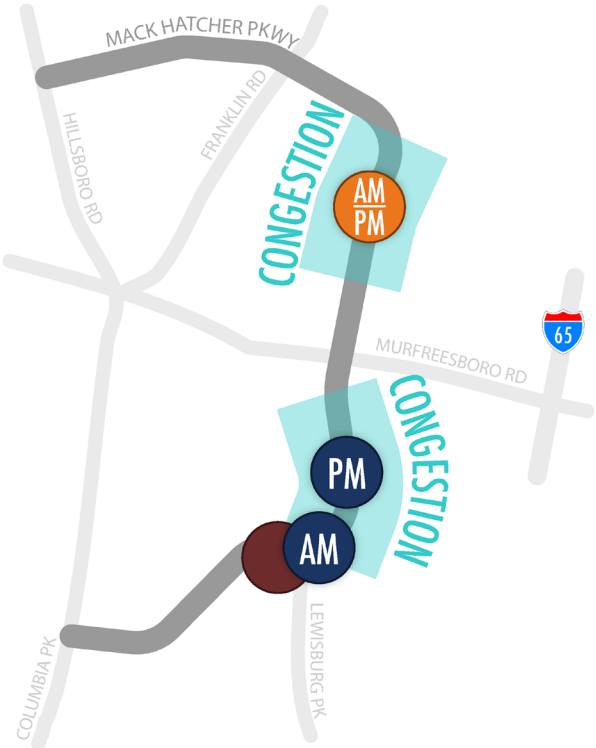
## PEAK CONGESTION

During the morning peak, vehicles are traveling an average of 35 mph with the slowest speeds around 23 mph. Slowest traffic during the morning occurs near the Cool Springs Boulevard intersection.

During the evening peak, vehicles are traveling an average of 33 mph with the slowest speeds at 17 mph. Slowest traffic during the evening occurs near the Royal Oaks Boulevard intersection.

## MAJOR BOTTLENECKS

Approximately 50 bottlenecks occurred on Mack Hatcher Parkway in a 5-month span. The most significant bottleneck on the corridor occurs west of Lewisburg Pike. On average, the bottleneck occurs less than daily, affects 1.4 miles of roadway and takes approximately 23 minutes to clear.




## CONGESTION TRENDS

In the past three years, AM peak period congestion along the corridor has deteriorated by 1%. In the PM peak period, congestion has deteriorated by 2%.

The largest deterioriation in both AM and PM peak congestion was observed near the Cool Springs Boulevard intersection, where traffic speeds decreased 40% and 42%, respectively.

## TRAVEL TIME INDEX

On average, the AM peak hour travel time index is 1.16, with the most unreliable travel times occurring just west of Lewisburg Pike where the index is 1.74.

On average, the PM peak hour travel time index is 1.27, with the most unreliable travel times occurring near Royal Oaks Boulevard where the index is 2.35.

## AT A GLANCE

**AM Congestion**
Peak Average Speed | 35 mph
Lowest Speed | 23 mph

**PM Congestion**
Peak Average Speed | 33 mph
Lowest Speed | 17 mph

**Major Bottleneck**
Occurrences | Less than Daily
Time to Clear | 23 minutes
Length | 1.4 miles

Not currently provided

BLOS = D

PLOS = E

***Figure D-33. Murfreesboro Pike***

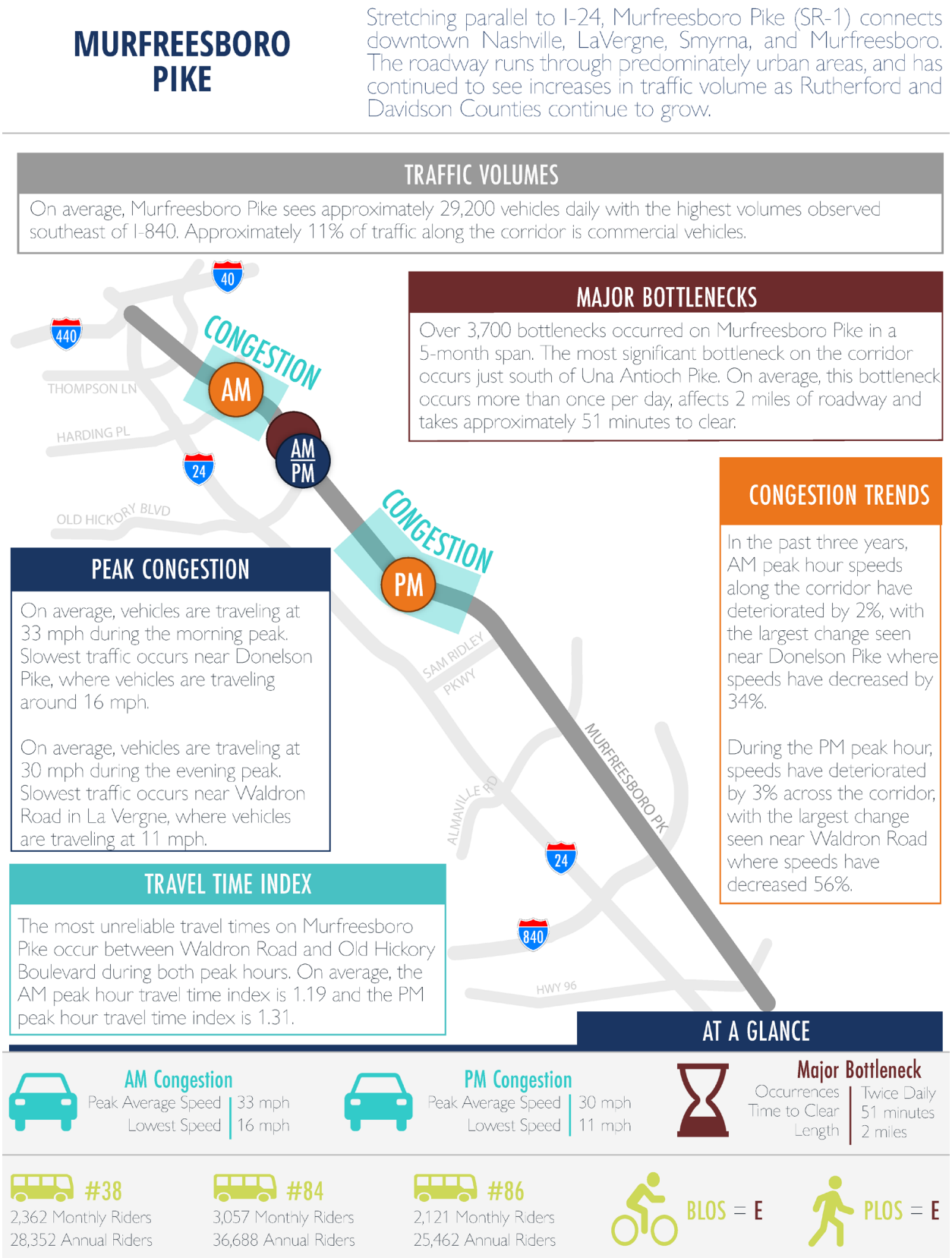


***Figure D-34. Nolensville Pike***

# NOLENSVILLE PIKE

Nolensville Pike (SR-11) is an arterial road that connects downtown Nashville to Williamson County, extending south between I-24 East and I-65 South, all the way to I-840.

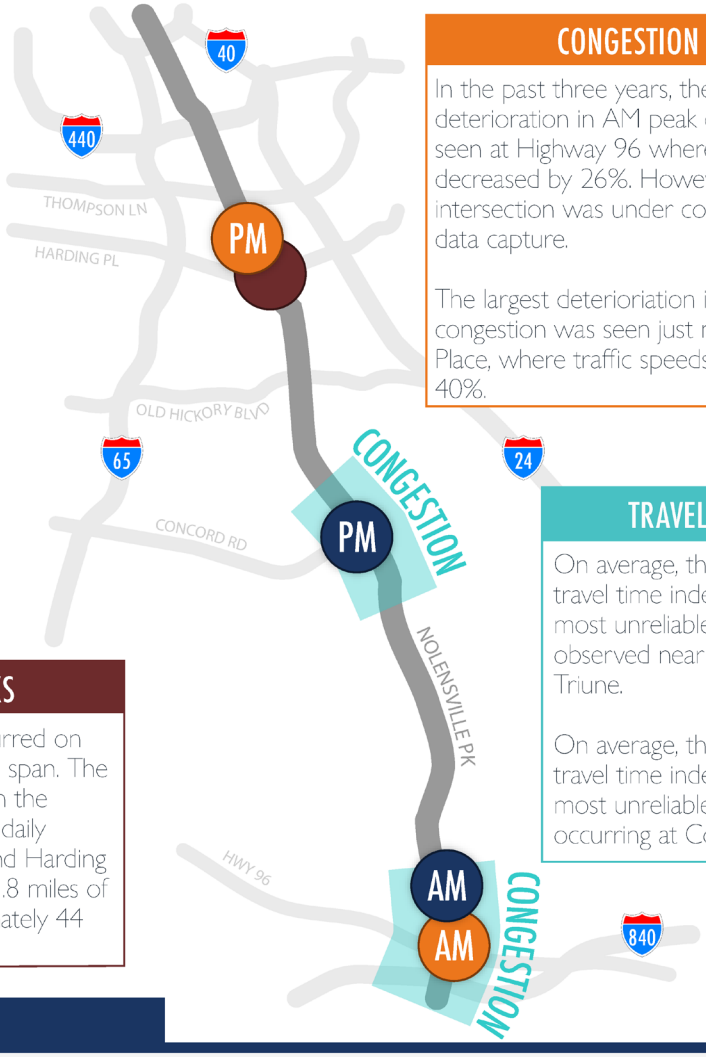
## TRAFFIC VOLUMES

On average, Nolensville Pike sees approximately 22,500 vehicles daily with the highest volumes observed south of Harding Place. Approximately 13% of traffic along the corridor is commercial vehicles.

## PEAK CONGESTION

On average, vehicles are traveling at 29 mph during the morning peak. Slowest traffic occurs near Highway 96 where vehicles are traveling around 10 mph.

On average, vehicles are traveling at 26 mph during the evening peak. Slowest traffic occurs near Concord Road, where vehicles are traveling at 13 mph.




## CONGESTION TRENDS

In the past three years, the largest deterioration in AM peak congestion was seen at Highway 96 where traffic speeds decreased by 26%. However, this intersection was under construction during data capture.

The largest deterioration in PM peak congestion was seen just north of Harding Place, where traffic speeds decreased by 40%.

## TRAVEL TIME INDEX

On average, the AM peak hour travel time index is 1.23, with the most unreliable travel times observed near Highway 96 in Triune.

On average, the PM peak hour travel time index is 1.37, with the most unreliable travel times occurring at Concord Road.

## MAJOR BOTTLENECKS

Over 3,100 bottlenecks occurred on Nolensville Pike in a 5-month span. The most significant bottleneck on the corridor occurs nearly twice daily between Edmondson Pike and Harding Place. On average, it affects 1.8 miles of roadway and takes approximately 44 minutes to clear.

## AT A GLANCE

**AM Congestion**
Peak Average Speed | 29 mph
Lowest Speed | 10 mph

**PM Congestion**
Peak Average Speed | 26 mph
Lowest Speed | 13 mph

**Major Bottleneck**
Occurrences | Twice Daily
Time to Clear | 44 minutes
Length | 1.8 miles

**#52**
65,773 Monthly Riders
789,284 Annual Riders

BLOS = E

PLOS = D

***Figure D-35. Old Hickory Boulevard***

# OLD HICKORY BOULEVARD

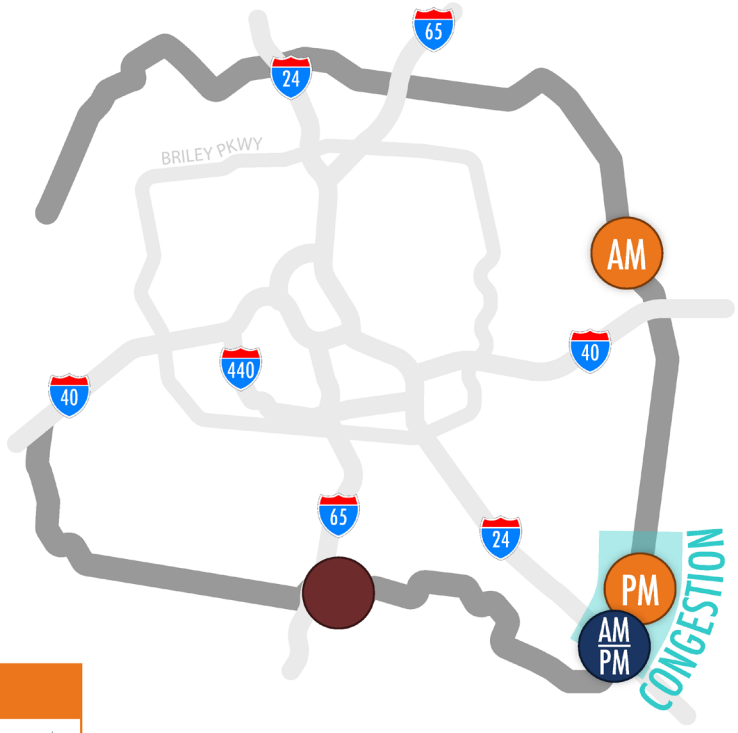
Old Hickory Boulevard (SR-254/SR-45) is a circumferential route around Nashville, running parallel to Briley Parkway, Woodmont Boulevard, and Harding Place. Old Hickory Boulevard intersects the city's three interstates, I-65, I-24, and I-40, at multiple points on the periphery of the city and becomes Bell Road south of I-40 East.

## TRAFFIC VOLUMES

On average, Old Hickory Boulevard sees approximately 24,500 vehicles daily with the highest volumes observed near the I-65 South interchange in Brentwood. Approximately 8% of traffic along the corridor is commercial vehicles.

## PEAK CONGESTION

On average, vehicles are traveling at 30 mph during the morning peak, with the slowest vehicles traveling 10 mph. During the evening peak, vehicles are traveling an average of 28 mph, with the slowest vehicles traveling 7 mph. Slowest traffic on Old Hickory Boulevard occurs at Hickory Hollow Parkway near the I-24 East ramps during both peak periods..




## MAJOR BOTTLENECKS

Nearly 2,700 bottlenecks occurred on Old Hickory Boulevard in a 5-month span. The most significant bottleneck on the corridor occurs twice each weekday just east of I-65. On average, the bottleneck affects 1.8 miles of roadway and takes approximately 28 minutes to clear.

## CONGESTION TRENDS

In the past three years, AM peak congestion along the corridor has deteriorated by 2% with the largest change in speeds seen near Central Pike, where traffic speeds decreased by 34% during the AM peak hour.

PM peak congestion along the corridor has deteriorated by 5% with the largest change seen near Hickory Hollow Pike, where traffic speeds have decreased by 59% in the PM peak hour.

## TRAVEL TIME INDEX

On average, the AM peak hour travel time index is 1.21 and the average PM peak hour travel time index is 1.33. The most unreliable travel times for both AM and PM peak hours occur at Hickory Hollow Parkway near I-24 East.

## AT A GLANCE

**AM Congestion**
Peak Average Speed | 30 mph
Lowest Speed | 10 mph

**PM Congestion**
Peak Average Speed | 28 mph
Lowest Speed | 7 mph

**Major Bottleneck**
Occurrences | Twice Daily
Time to Clear | 28 minutes
Length | 1.8 miles

**#27**
1,012 Monthly Riders
12,153 Annual Riders

**#43**
4,322 Monthly Riders
51,867 Annual Riders

BLOS = D

BLOS = C

***Figure D-36. State Route 231***

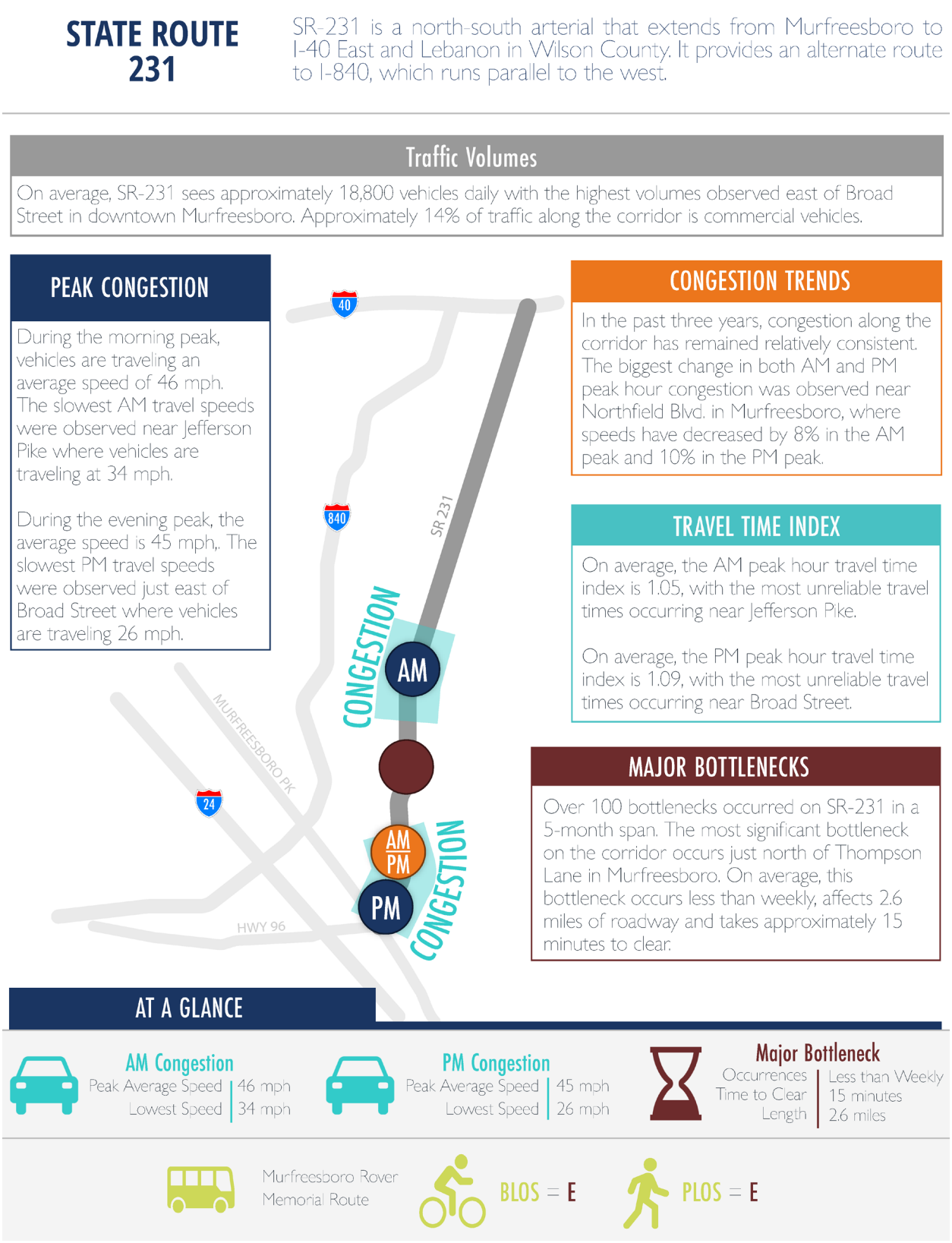


***Figure D-37. Vietnam Veterans Boulevard***

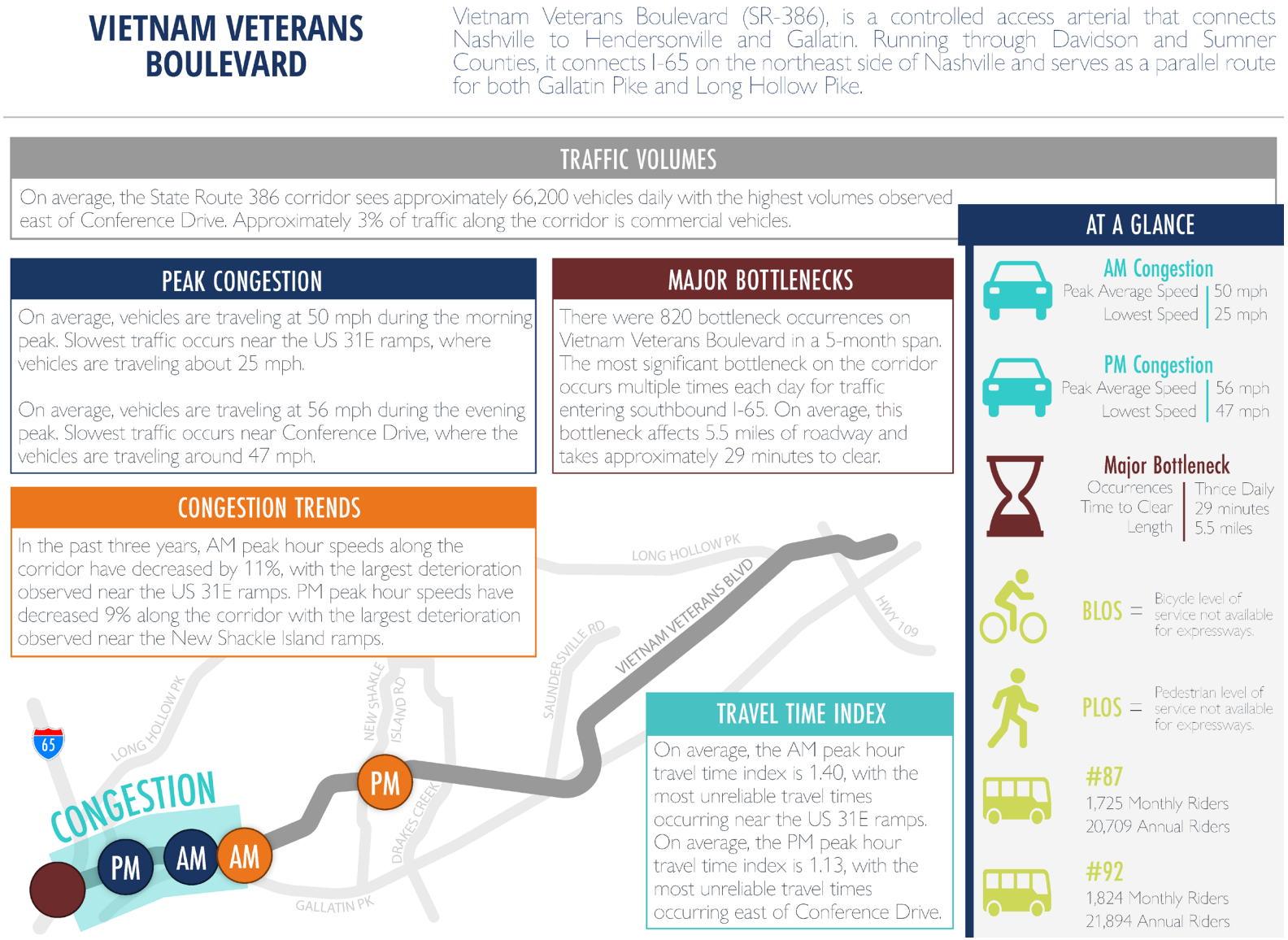


***Figure D-38. Whites Creek Pike***

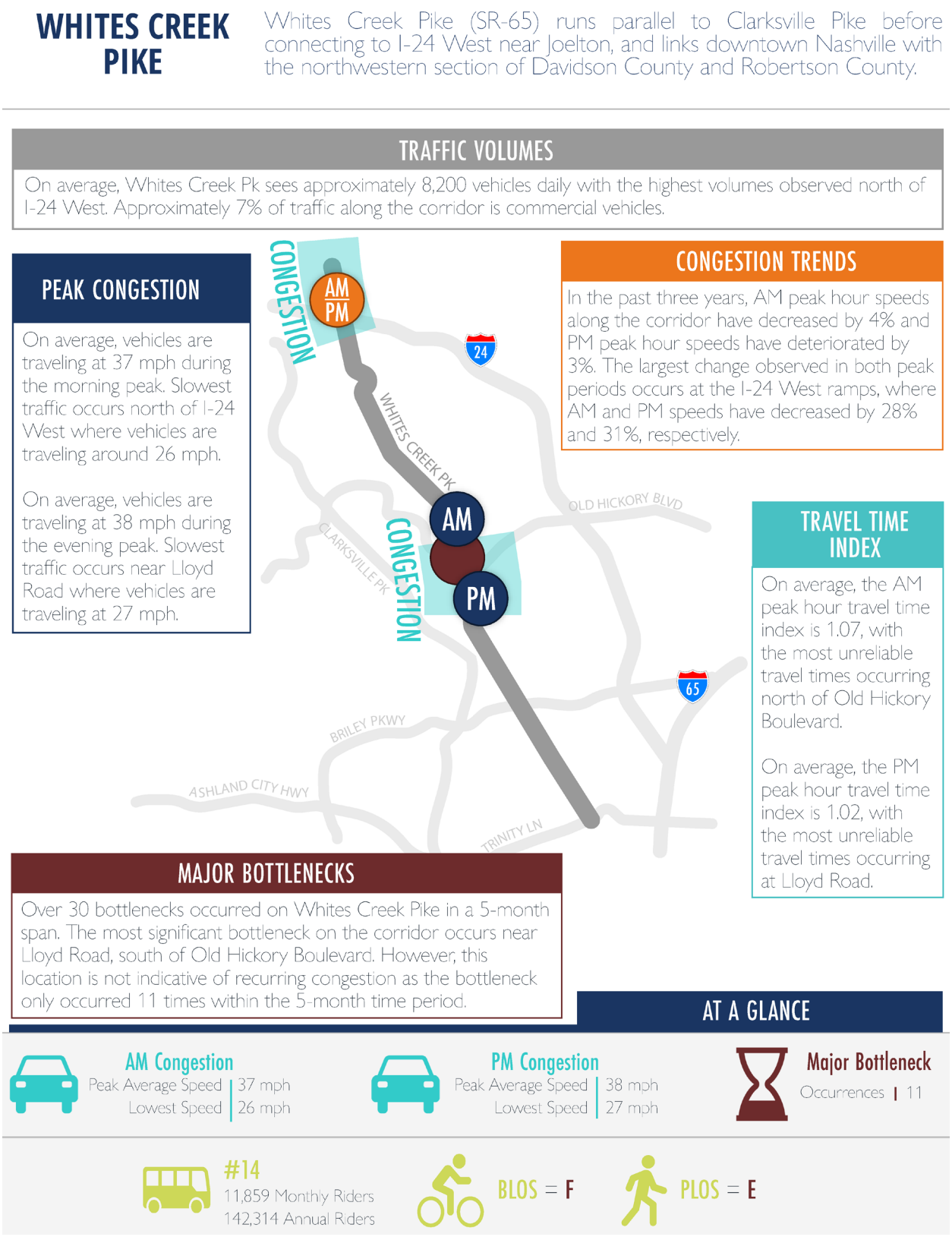


***Figure D-39. Wilson Pike***

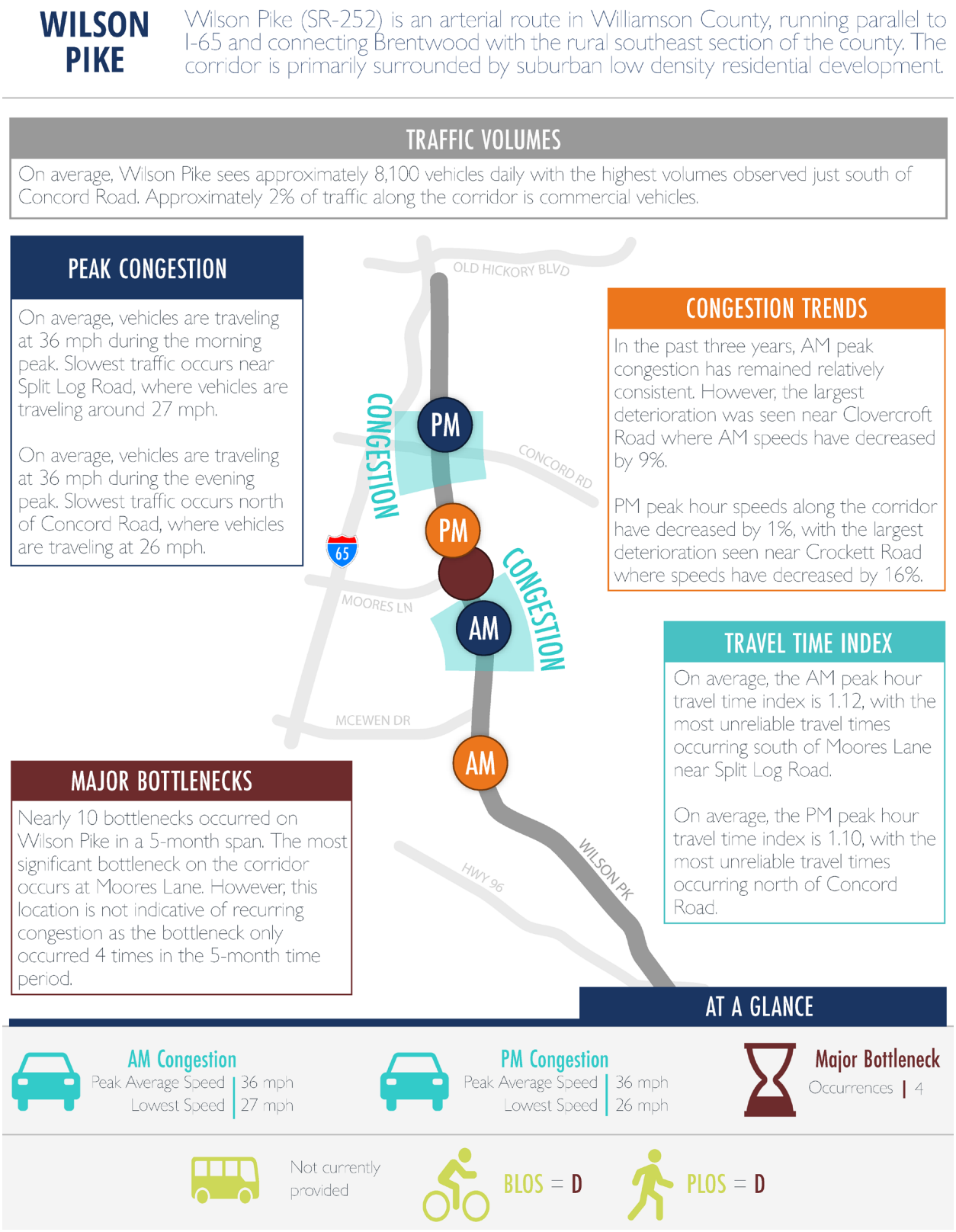
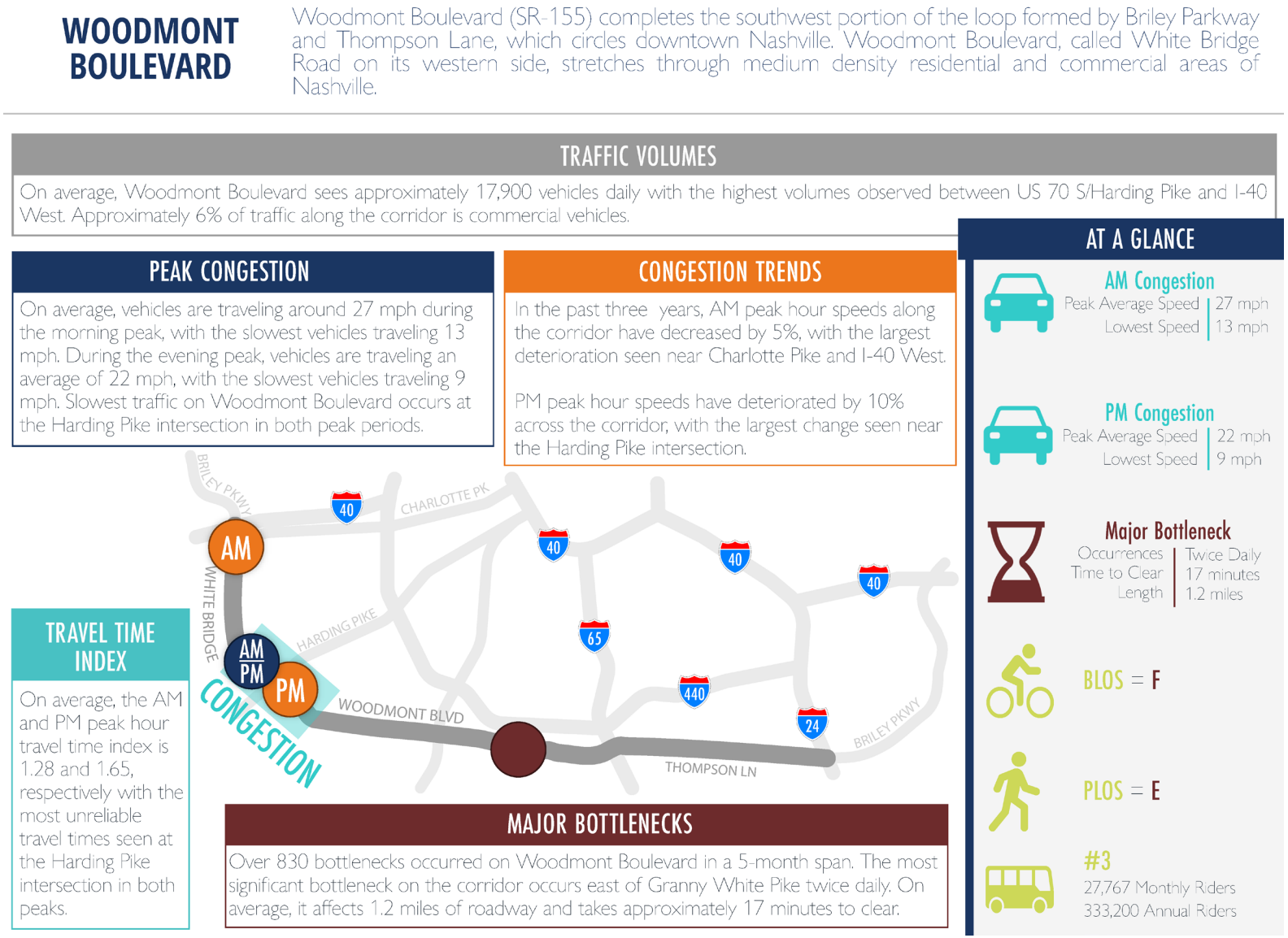


***Figure D-40. Woodmont Boulevard***



# Project List and Costs

***Table D-1. Middle Tennessee/Nashville Project List and Costs***

| Solution | Corridor | Classification | Solution Type | Project Description | Estimated Capital Cost |
|---|---|---|---|---|---|
| **Roadway** | Charlotte Ave (US 70/SR 20) and White Bridge Rd (SR 155) | Arterial | Intersection Improvement | EB/WB dual left turns; right turn lane on all approaches including channelized WB right with yield control; channelized NB/SB right turn with receiving lanes; added NB through lane with receiving lane | $16,100,000 |
| | Gallatin Pk (US 31E/SR 6) and Due West Ave | Arterial | Intersection Improvement | Adjust signal timing/phasing; add EB dual left turn, channelized SB right turn | $10,600,000 |
| | Gallatin Pk (US 31E/SR 6) and New Shackle Island Rd | Arterial | Intersection Improvement | Realign intersection; WB: add right turn; NB/SB: left, through, and right turn lanes | $5,590,000 |
| | Granny White Pk and Harding Pl | Arterial | Intersection Improvement | Add NB/SB through lane and SB right turn lane | $14,100,000 |
| | Highway 100 and Highway 70 Split | Arterial | Intersection Improvement | Remove signal and close Heady Drive access to neighborhood | $50,000 |
| | Hillsboro Pk (US 431/SR 106) and Old Hickory Blvd (SR 254) | Arterial | Intersection Improvement | Add NB left turn lane; intersection widening for Old Hickory Boulevard to add EB/WB through lane | $15,700,000 |
| | Hillsboro Pk (US 431/SR 106) and Tyne Blvd | Arterial | Intersection Improvement | Multi-lane roundabout; two NB/WB/SB lanes and one EB lane | $12,600,000 |

***Table D-1. Middle Tennessee/Nashville Project List and Costs (cont.)***

| Solution | Corridor | Classification | Solution Type | Project Description | Estimated Capital Cost |
|---|---|---|---|---|---|
| **Roadway** | Lebanon Pk (US 70/SR 24) and Old Hickory Blvd (SR 265/SR 45) | Arterial | Intersection Improvement | Convert intersection to Center Turn Overpass (CTO) design | $122,000,000 |
| | Lewisburg Pk (US 431/SR 106) and Goose Creek Bypass (SR 248) | Arterial | Intersection Improvement | Convert WB right turn to channelized WB right turn with storage and additional WB through lane | $32,200 |
| | Long Hollow Pk (SR 174) and I-65 | Arterial | Intersection Improvement | Adjust signal timing/phasing; WB dual left turn leaving approximately 150 ft of storage for EB left turn in inside lane; increase storage and stripe SB right turn; add additional lane on SB I-65 on-ramp | $2,580,000 |
| | Mack C. Hatcher Memorial Pkwy (US 31 Truck/ SR 397) and Columbia Pk (US 31/SR 6) | Arterial | Intersection Improvement | Adjust signal timing/phasing; add SB through lane | $15,700,000 |
| | Mack C. Hatcher Memorial Pkwy (US 31 Truck/ SR 397) and Lewisburg Pk (US 431/SR 106) | Arterial | Intersection Improvement | Intersection widening to add through lanes on all approaches; add WB left turn | $17,400,000 |

***Table D-1. Middle Tennessee/Nashville Project List and Costs (cont.)***

| Solution | Corridor | Classification | Solution Type | Project Description | Estimated Capital Cost |
|---|---|---|---|---|---|
| **Roadway** | Murfreesboro Pk (US 41/US 70S/ SR 1) and Fesslers Ln | Arterial | Intersection Improvement | Adjust signal timing/phasing, decrease cycle length; add EB through, WB through, SB left turn, NB right turn | $14,400,000 |
| | Murfreesboro Pk (US 41/US 70S/ SR 1) and Hobson Pk (SR 171) | Arterial | Intersection Improvement | Add NB Hobson Pike dual left turn | $2,310,000 |
| | Murfreesboro Pk (US 41/US 70S/ SR 1) and Smith Springs Rd | Arterial | Intersection Improvement | Remove split phases and adjust signal timing/phasing | $597,000 |
| | Murfreesboro Pk (US 41/US 70S/ SR 1) and George Chaney St/Madison Square Blvd | Arterial | Intersection Improvement | Adjust signal timing/phasing | $78,600 |
| | Nolensville Pk (US 31A/US 41A/ SR 11) and Edmondson Pk | Arterial | Intersection Improvement | Remove split phases and adjust signal timing/phasing | $7,300,000 |
| | Nolensville Pk (US 31A/US 41A/ SR 11) and Sunset Rd | Arterial | Intersection Improvement | Widen EB Sunset Road and reconfigure to EB left turn, EB through, and EB right turn lane; adjust signal to EB protected/permitted left turn | $545,000 |

***Table D-1. Middle Tennessee/Nashville Project List and Costs (cont.)***

| Solution | Corridor | Classification | Solution Type | Project Description | Estimated Capital Cost |
|---|---|---|---|---|---|
| **Roadway** | Nolensville Pk (US 31A/US 41A/ SR 11) and Thompson Ln (SR 155) | Arterial | Intersection Improvement | New grade-separated interchange with displaced left turns | $71,300,000 |
| | Rivergate Pkwy and Dickerson Pk (US 31W/US 41/ SR 11) | Arterial | Intersection Improvement | Adjust signal timing/phasing | $78,600 |
| | Rivergate Pkwy and Gallatin Pk (US 31E/SR 6) | Arterial | Intersection Improvement | Adjust signal timing/phasing, channelized NB right turn | $3,080,000 |
| | White Bridge Rd (SR 155) and Harding Rd (US 70S/SR 6) | Arterial | Intersection Improvement | CTO design | $129,000,000 |
| | I-24 E | Freeway | Interchange Modification | Modify interchange at Briley Parkway/Thompson Lane (SR 255) to Diverging Diamond Interchange (DDI) | $83,400,000 |
| | | | Managed Lanes | Exit 56 - Harding Place (SR 255) to Exit 81 - Shelbyville Highway (US 231/SR 10) | $71,000,000 |
| | | | Managed Lanes | Exit 56 - Harding Place (SR 255) to I-40 (Inner Loop) | $120,000,000 |
| | | | Managed Lanes | I-40 and I-65 (Inner Loop) | $60,000,000 |
| | | | Ramp Metering | Exit 54 - Briley Parkway (SR 155) to Exit 62 - Old Hickory Boulevard (SR 171) | $3,200,000 |

***Table D-1. Middle Tennessee/Nashville Project List and Costs (cont.)***

| Solution | Corridor | Classification | Solution Type | Project Description | Estimated Capital Cost |
|---|---|---|---|---|---|
| **Roadway** | I-24 E | Freeway | Ramp Metering | Exit 64 - Waldron Road to Exit 74 - I-840 | $2,100,000 |
| | I-24 W | Freeway | Managed Lanes | Davidson County Line to I-65/I-24 merge | $51,000,000 |
| | I-40 E | Freeway | Interchange Modification | Modify interchange at I-24/I-440/Murfreesboro Pike (US 41/US 70S/SR 1) to provide unobstructed connection between I-40 and I-440 and to avoid Inner Loop | $368,000,000 |
| | | | Managed Lanes | Exit 215 - Briley Parkway (SR 155) and I-24 | $26,000,000 |
| | | | Managed Lanes | Exit 232 - SR 109 and Exit 215 - Briley Parkway (SR 155) | $46,000,000 |
| | | | Ramp Metering | Exit 216 - Donelson Pike (SR 255) to Exit 221 - Old Hickory Boulevard (SR 45) | $1,900,000 |
| | I-40 W | Freeway | Managed Lanes | I-65/I-40 (Inner Loop) to Exit 53 - US 70/SR 1 | $159,000,000 |
| | I-440 | Freeway | Managed Lanes | I-24 and I-40 | $104,000,000 |
| | | | Ramp Metering | Exit 1 - West End Avenue (US 70/SR 1) to Exit 3 - 21st Avenue (US 431/SR 106) | $1,100,000 |

***Table D-1. Middle Tennessee/Nashville Project List and Costs (cont.)***

| Solution | Corridor | Classification | Solution Type | Project Description | Estimated Capital Cost |
|---|---|---|---|---|---|
| **Roadway** | I-65 N | Freeway | Interchange Modification | Modify interchange at W. Trinity Lane (US 431/SR 65) to a Single-Point Urban Interchange (SPUI) | $120,000,000 |
| | | | Managed Lanes | Davidson/Sumner County Line to Exit 95 - Vietnam Veterans Parkway (SR 386) | $40,000,000 |
| | | | Managed Lanes | Exit 95 - Vietnam Veterans Parkway (SR 386) to Exit 90 - Briley Parkway (SR 155) | $20,000,000 |
| | | | Ramp Metering | Exit 92 - Old Hickory Boulevard (SR 45) to Exit 97 - Long Hollow Pike (SR 147) | $1,600,000 |
| | I-65 S | Freeway | Interchange Modification | Modify interchange at Wedgewood Avenue to compact roundabout/teardrop design; includes new I-65 NB off-ramp to Ft. Negley Boulevard, I-65 on-ramp from Edgehill Avenue | $95,500,000 |
| | | | Interchange Modification | Modify interchange at Old Hickory Boulevard (SR 254) to DDI design with additional access points on I-65 | $116,000,000 |
| | I-65 S | Freeway | Managed Lanes | Exit 78 - Harding Place (SR 255) and Exit 61 - Peytonsville Road (SR 248) | $54,000,000 |
| | | | Managed Lanes | I-40 (Inner Loop) and Exit 78 - Harding Place (SR 255) | $124,000,000 |
| | | | Ramp Metering | Exit 78 - Harding Place (SR 255) to Exit 79 - Armory Drive | $1,100,000 |
| | | | Ramp Metering | Exit 53 - Saturn Parkway (SR 396) to Exit 71 - Concord Road (SR 253) | $3,700,000 |

***Table D-1. Middle Tennessee/Nashville Project List and Costs (cont.)***

| Solution | Corridor | Classification | Solution Type | Project Description | Estimated Capital Cost |
|---|---|---|---|---|---|
| **Roadway** | Inner Loop | Freeway | Corridor Improvement | Complete reconfiguration with closure of 2nd/4th Avenue (US 31A/US 41A) ramps | $2,054,200,000 |
| | | | Managed Lanes | I-24 and I-24 | $85,000,000 |
| | Vietnam Veterans Pkwy (SR 386) | Freeway | Managed Lanes | I-65 and Exit 7 - Indian Lake Boulevard/Drakes Creek Road | $95,000,000 |
| | | | Ramp Metering | Exit 1 - Conference Drive to Exit 8 - Saundersville Road | $3,700,000 |
| | | | | **Roadway Total Cost** | **$4,371,641,400** |
| **Transit** | 21st Ave / Hillsboro Pk (US 431/SR 106) | Arterial | Bus Rapid Transit | BRT service via existing Route 7 | $184,000,000 |
| | Broadway/ West End Ave (US 70S/SR 1) | Arterial | Bus Rapid Transit | BRT service via existing Routes 3 and 5 | $246,400,000 |
| | Charlotte Ave (US 70/SR 20) | Arterial | Bus Rapid Transit | BRT service from Music City Central to Hillwood | $284,800,000 |
| | Clarksville Pk (US 41A/SR 112) | Arterial | Bus Rapid Transit | Add express bus or BRT to Clarksville Pike (US 41A/SR 112) between Nashville and Clarksville through Pleasant View | $594,500,000 |
| | Dickerson Pk (US 41) | Arterial | Bus Rapid Transit | BRT service via existing Routes 23 and 43 | $307,200,000 |
| | Gallatin Pk (US 31E/SR 6) | Arterial | Bus Rapid Transit | BRT service from Downtown to Walmart in Hendersonville | $380,800,000 |
| | Murfreesboro Pk (US 41/US 70S/ SR 1) | Arterial | Bus Rapid Transit | BRT service from Downtown to Airport via Route 55 | $422,400,000 |

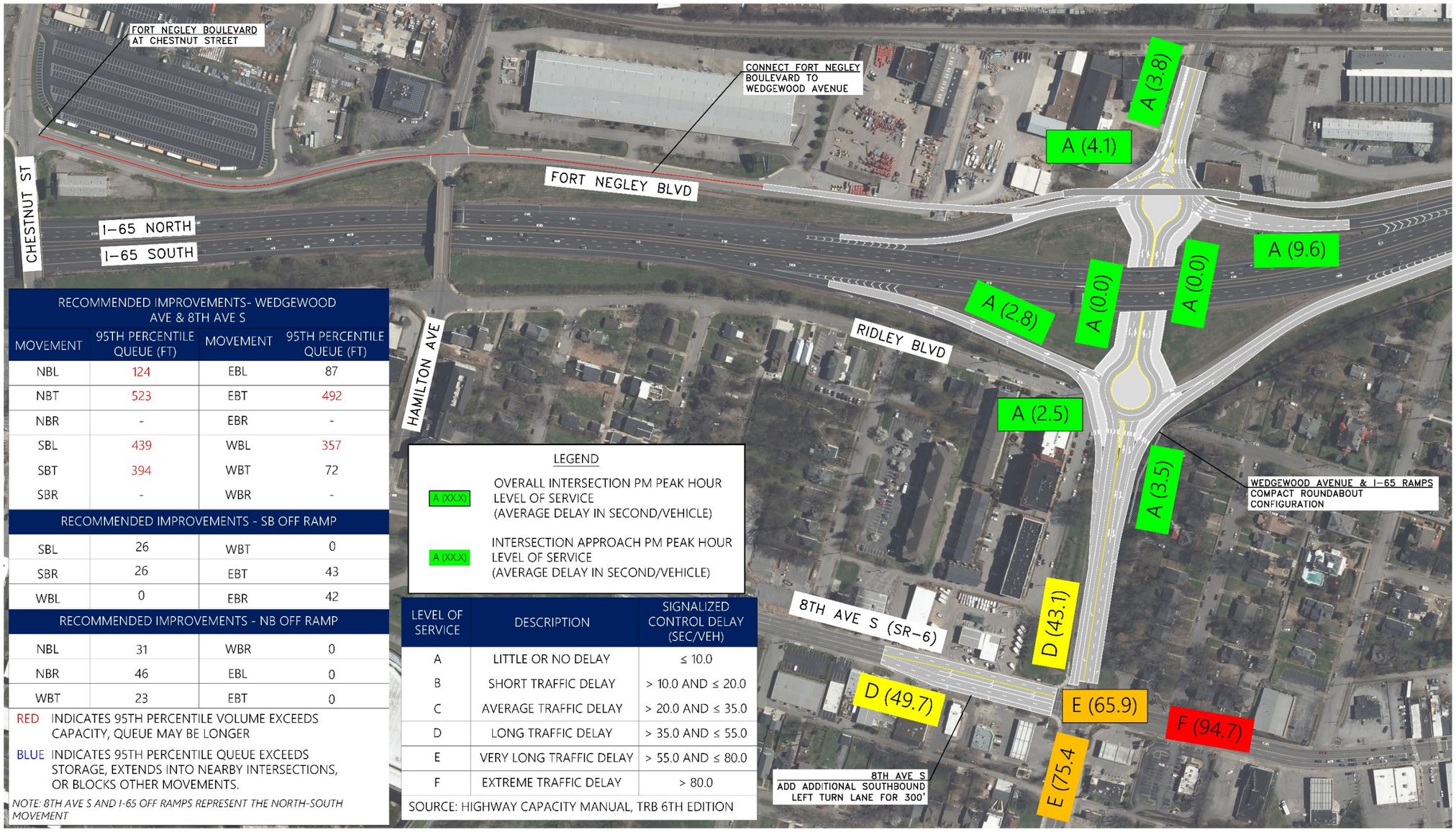
***Table D-1. Middle Tennessee/Nashville Project List and Costs (cont.)***

| Solution | Corridor | Classification | Solution Type | Project Description | Estimated Capital Cost |
|---|---|---|---|---|---|
| **Transit** | Nolensville Pk (US 31A/US 41A/ SR 11) | Arterial | Bus Rapid Transit | BRT service from Nolensville to Nashville | $496,000,000 |
| | I-24 E | Freeway | Express Transit | Service from Murfreesboro to Smyrna and Nashville in managed lane | $4,500,000 |
| | I-24 W | Freeway | Express Transit | Service from Springfield and Clarksville to Nashville in managed lane | $4,500,000 |
| | I-40 W | Freeway | Express Transit | Service from Dickson and Bellevue to Nashville in managed lane | $2,250,000 |
| | I-65 N/ Vietnam Veterans Pkwy (SR 386) | Freeway | Express Transit | Service from Gallatin to Nashville in managed lane | $2,300,000 |
| | I-65 South | Freeway | Express Transit | Service from Columbia, Spring Hill, Franklin, Cool Springs to Nashville in managed lane | $6,750,000 |
| | | | | **Transit Total Cost** | **$2,936,400,000** |
| | | | | **Total Cost** | **$7,308,041,400** |

# Project Concept Figures

***Figure D-41. 8th Avenue South (US 31/SR 6), Wedgewood Avenue, Fort Negley Boulevard, and I-65***






| RECOMMENDED IMPROVEMENTS- WEDGEWOOD AVE & 8TH AVE S | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | 124 | EBL | 87 |
| NBT | 523 | EBT | 492 |
| NBR | - | EBR | - |
| SBL | 439 | WBL | 357 |
| SBT | 394 | WBT | 72 |
| SBR | - | WBR | - |
| **RECOMMENDED IMPROVEMENTS - SB OFF RAMP** | | | |
| SBL | 26 | WBT | 0 |
| SBR | 26 | EBT | 43 |
| WBL | 0 | EBR | 42 |
| **RECOMMENDED IMPROVEMENTS - NB OFF RAMP** | | | |
| NBL | 31 | WBR | 0 |
| NBR | 46 | EBL | 0 |
| WBT | 23 | EBT | 0 |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: 8TH AVE S AND I-65 OFF RAMPS REPRESENT THE NORTH-SOUTH MOVEMENT*

| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |

SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION

Intersection #33 - 8th Avenue S (SR-6), Wedgewood Avenue, Fort Negley Boulevard and Interstate 65 Recommended Improvements

GRAPHIC SCALE 0' 150' 300'

Figure 33A.

***Figure D-42. 8th Avenue South (US 31/SR 6), Wedgewood Avenue, Fort Negley Boulevard, and I-65 Inset***






Intersection #33 - 8th Avenue S (SR-6), Wedgewood Avenue, Fort Negley Boulevard and Interstate 65 Recommended Improvements

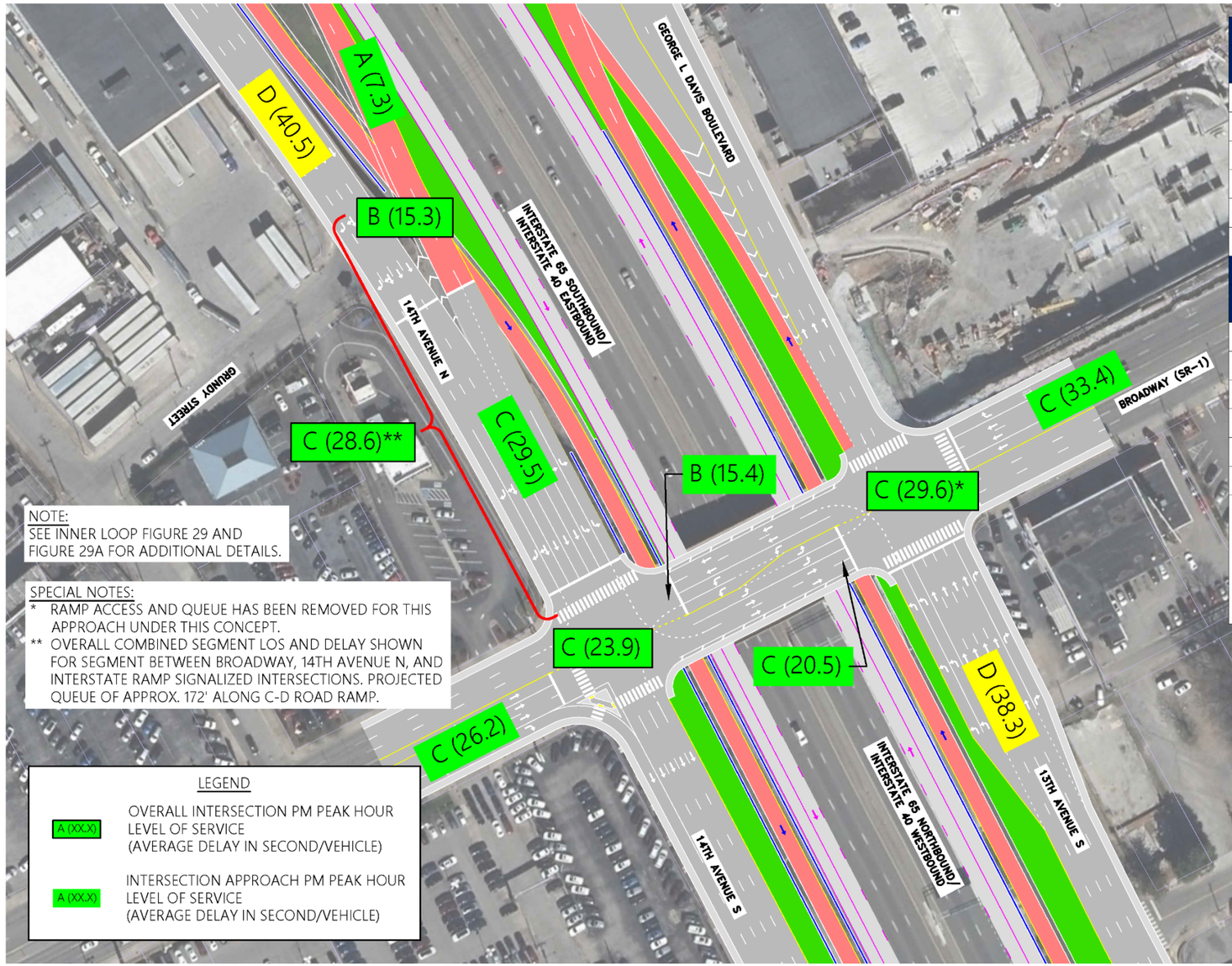
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GRAPHIC SCALE
0' 150' 300'

Figure 33B.

***Figure D-43. Broadway (US 70S/US 431/SR 1) and 13th Avenue South/George L. Davis Boulevard/14th Avenue South (US 70)***






| BROADWAY & 13TH AVENUE S/GEORGE L DAVIS BOULEVARD RECOMMENDED IMPROVEMENETS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | 115 | EBL | 196 |
| NBT | 60 | EBT | 12 |
| NBR | 36 | EBR | - |
| SBL | - | WBL | - |
| SBT | - | WBT | 222 |
| SBR | - | WBR | 224 |

| BROADWAY & 14TH AVENUE N RECOMMENDED IMPROVEMENTS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | - | EBL | - |
| NBT | - | EBT | 278 |
| NBR | - | EBR | 327 |
| SBL | 107 | WBL | 152 |
| SBT | 186 | WBT | 8 |
| SBR | 154 | WBR | - |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: 13TH AVENUE/14TH AVENUE REPRESENT THE NORTH-SOUTH DIRECTION*

| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |

SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION

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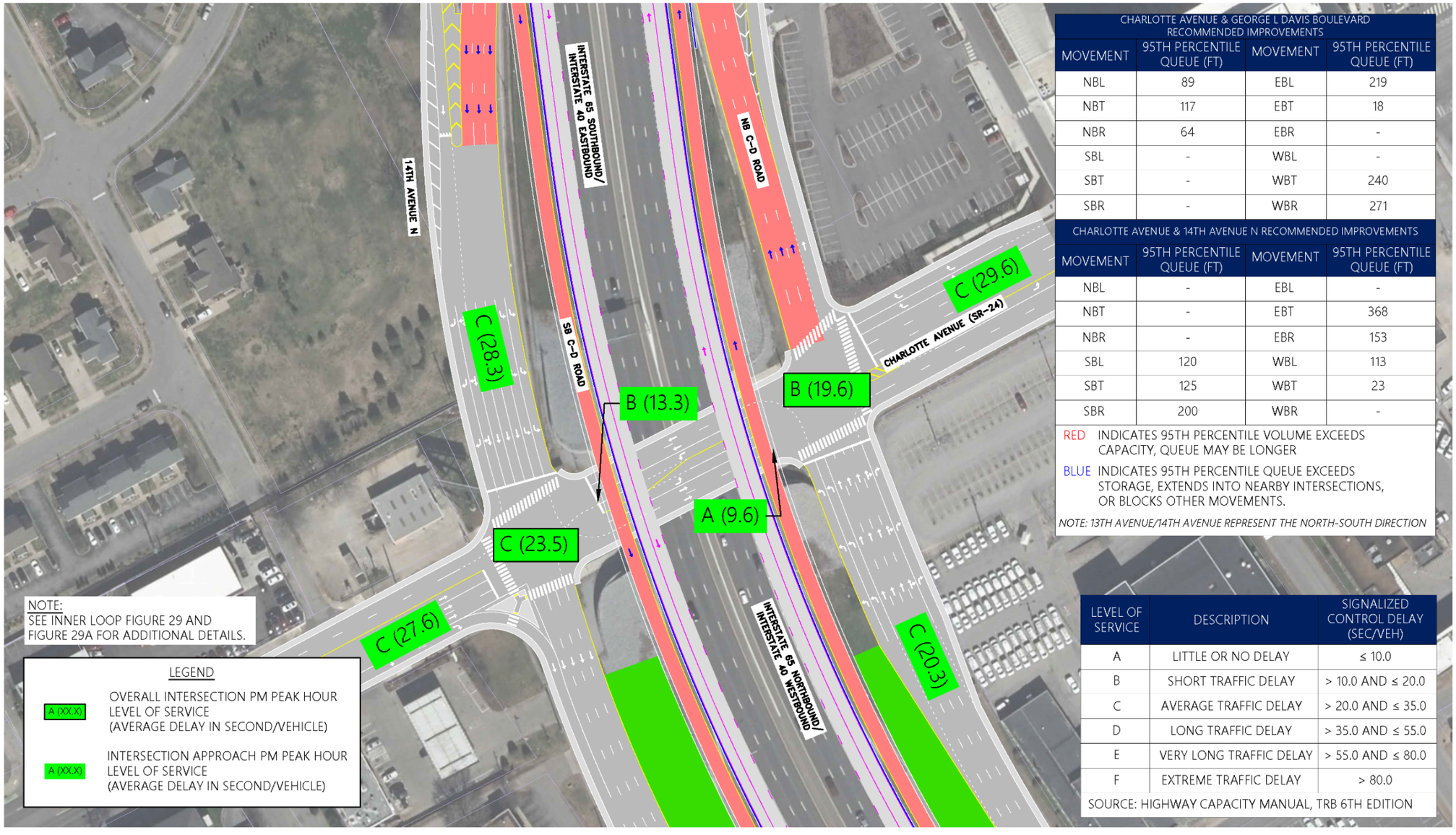
GRAPHIC SCALE
0' 100' 200'

Intersections #31 & #32 - Broadway (SR-1) and 13th Avenue S / George L Davis Boulevard / 14th Avenue S Recommended Improvements

Figure 29E.

***Figure D-44. Charlotte Avenue (US 70/SR 24) and George L. Davis Boulevard/14th Avenue North (US 70)***






| CHARLOTTE AVENUE & GEORGE L DAVIS BOULEVARD RECOMMENDED IMPROVEMENTS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | 89 | EBL | 219 |
| NBT | 117 | EBT | 18 |
| NBR | 64 | EBR | - |
| SBL | - | WBL | - |
| SBT | - | WBT | 240 |
| SBR | - | WBR | 271 |

| CHARLOTTE AVENUE & 14TH AVENUE N RECOMMENDED IMPROVEMENTS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | - | EBL | - |
| NBT | - | EBT | 368 |
| NBR | - | EBR | 153 |
| SBL | 120 | WBL | 113 |
| SBT | 125 | WBT | 23 |
| SBR | 200 | WBR | - |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: 13TH AVENUE/14TH AVENUE REPRESENT THE NORTH-SOUTH DIRECTION*

| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |

SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION

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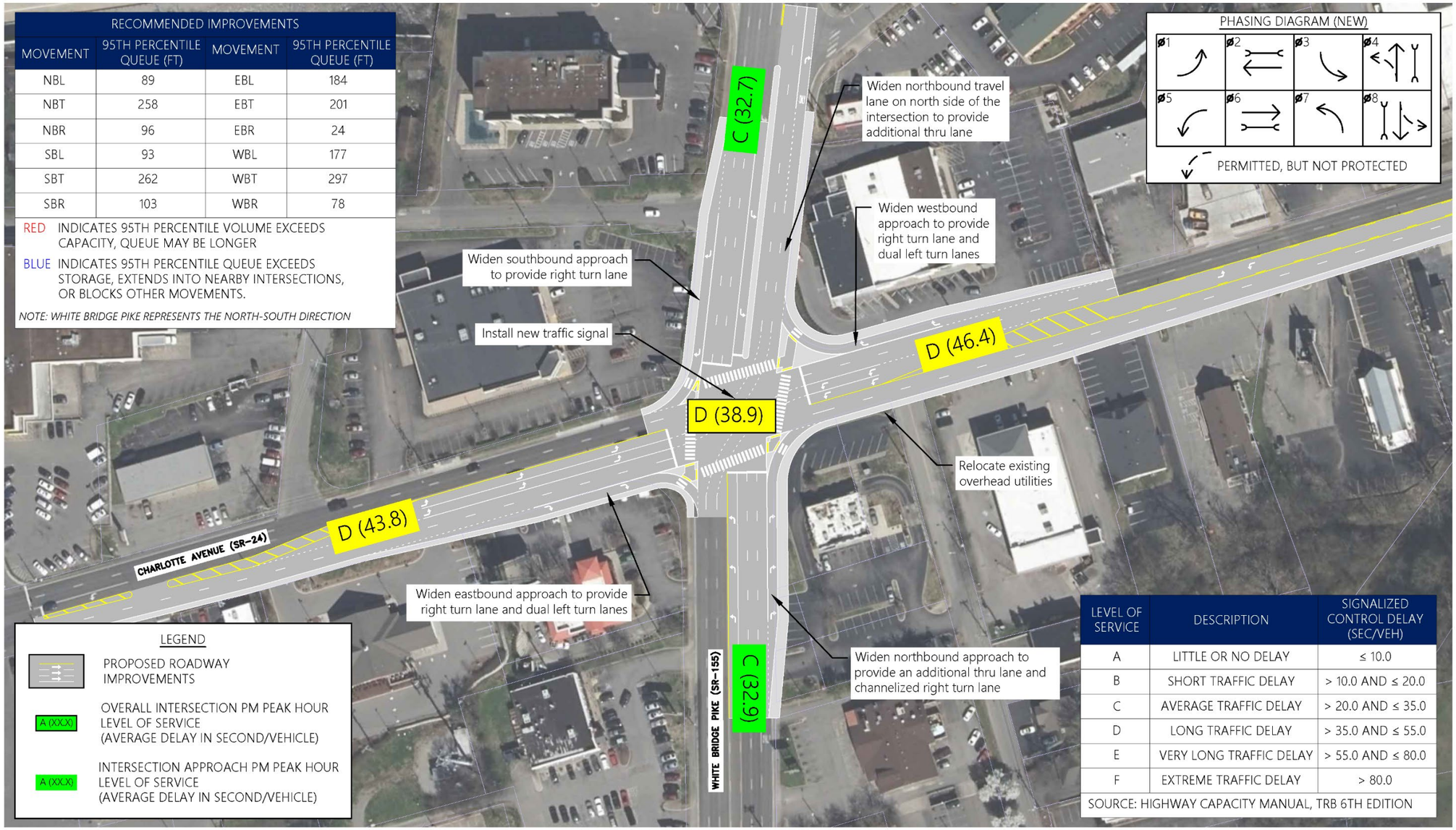
GRAPHIC SCALE
0' 100' 200'

Intersections #35 & #36 - Charlotte Avenue (SR-24) and George L Davis Boulevard / 14th Avenue N Recommended Improvements

Figure 29I.

***Figure D-45. Charlotte Avenue (US 70/SR 24) and White Bridge Pike (SR 155)***



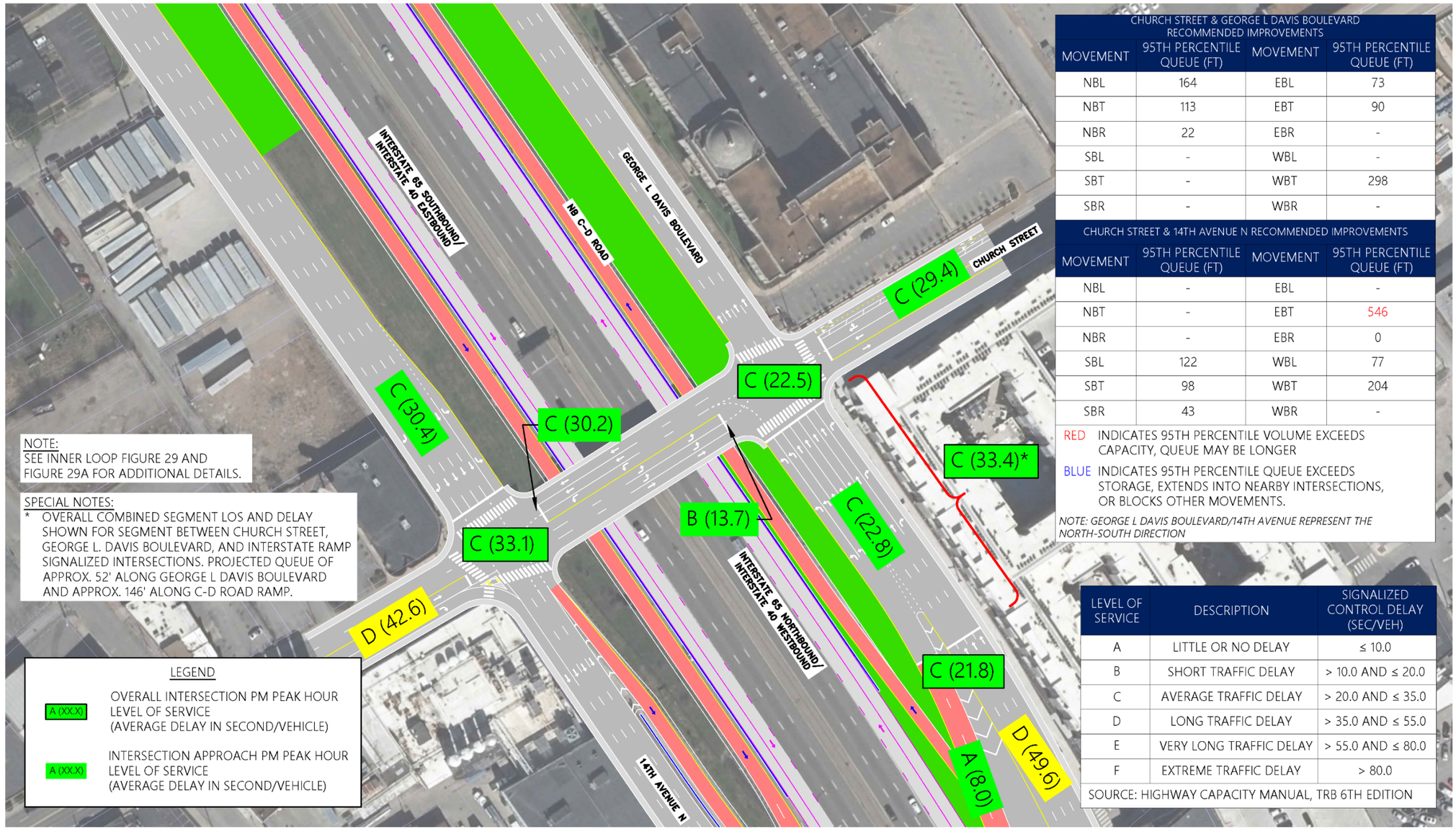



Intersection #16 - Charlotte Avenue (SR-24) and White Bridge Pike (SR-155) Recommended Improvements

Figure 16A.

***Figure D-46. Church Street and George L. Davis Boulevard/14th Avenue South (US 70)***






| CHURCH STREET & GEORGE L DAVIS BOULEVARD RECOMMENDED IMPROVEMENTS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | 164 | EBL | 73 |
| NBT | 113 | EBT | 90 |
| NBR | 22 | EBR | - |
| SBL | - | WBL | - |
| SBT | - | WBT | 298 |
| SBR | - | WBR | - |

| CHURCH STREET & 14TH AVENUE N RECOMMENDED IMPROVEMENTS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | - | EBL | - |
| NBT | - | EBT | 546 |
| NBR | - | EBR | 0 |
| SBL | 122 | WBL | 77 |
| SBT | 98 | WBT | 204 |
| SBR | 43 | WBR | - |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: GEORGE L DAVIS BOULEVARD/14TH AVENUE REPRESENT THE NORTH-SOUTH DIRECTION*

| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |

SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION

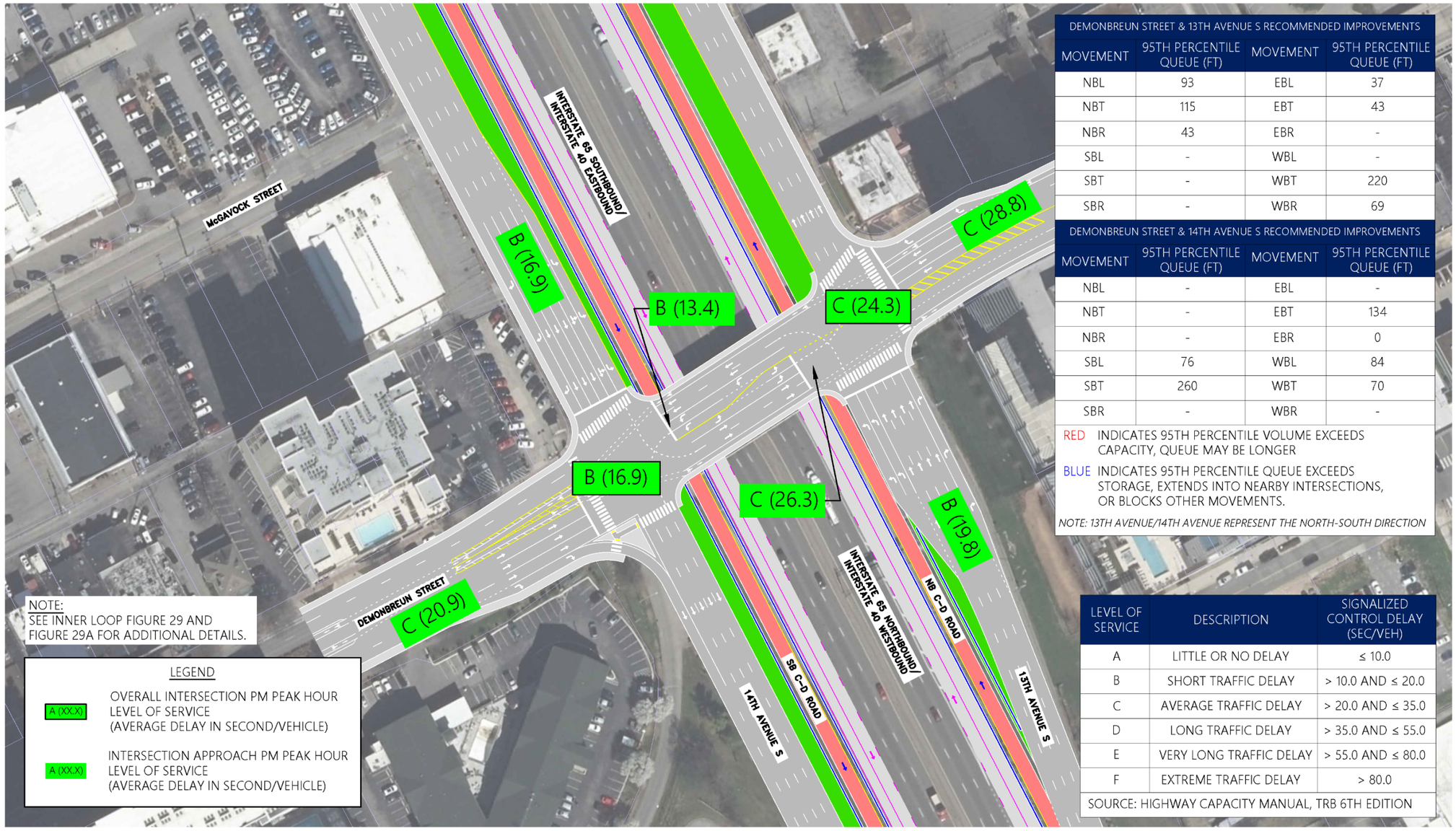
Intersections #33 & #34 - Church Street and George L Davis Boulevard / 14th Avenue S Recommended Improvements

GRAPHIC SCALE 0' 100' 200'

Figure 29G.

***Figure D-47. Demonbreun Street and 13th Avenue South/14th Avenue South***






| DEMONBREUN STREET & 13TH AVENUE S RECOMMENDED IMPROVEMENTS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | 93 | EBL | 37 |
| NBT | 115 | EBT | 43 |
| NBR | 43 | EBR | - |
| SBL | - | WBL | - |
| SBT | - | WBT | 220 |
| SBR | - | WBR | 69 |

| DEMONBREUN STREET & 14TH AVENUE S RECOMMENDED IMPROVEMENTS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | - | EBL | - |
| NBT | - | EBT | 134 |
| NBR | - | EBR | 0 |
| SBL | 76 | WBL | 84 |
| SBT | 260 | WBT | 70 |
| SBR | - | WBR | - |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: 13TH AVENUE/14TH AVENUE REPRESENT THE NORTH-SOUTH DIRECTION*

| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |
| SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION | | |

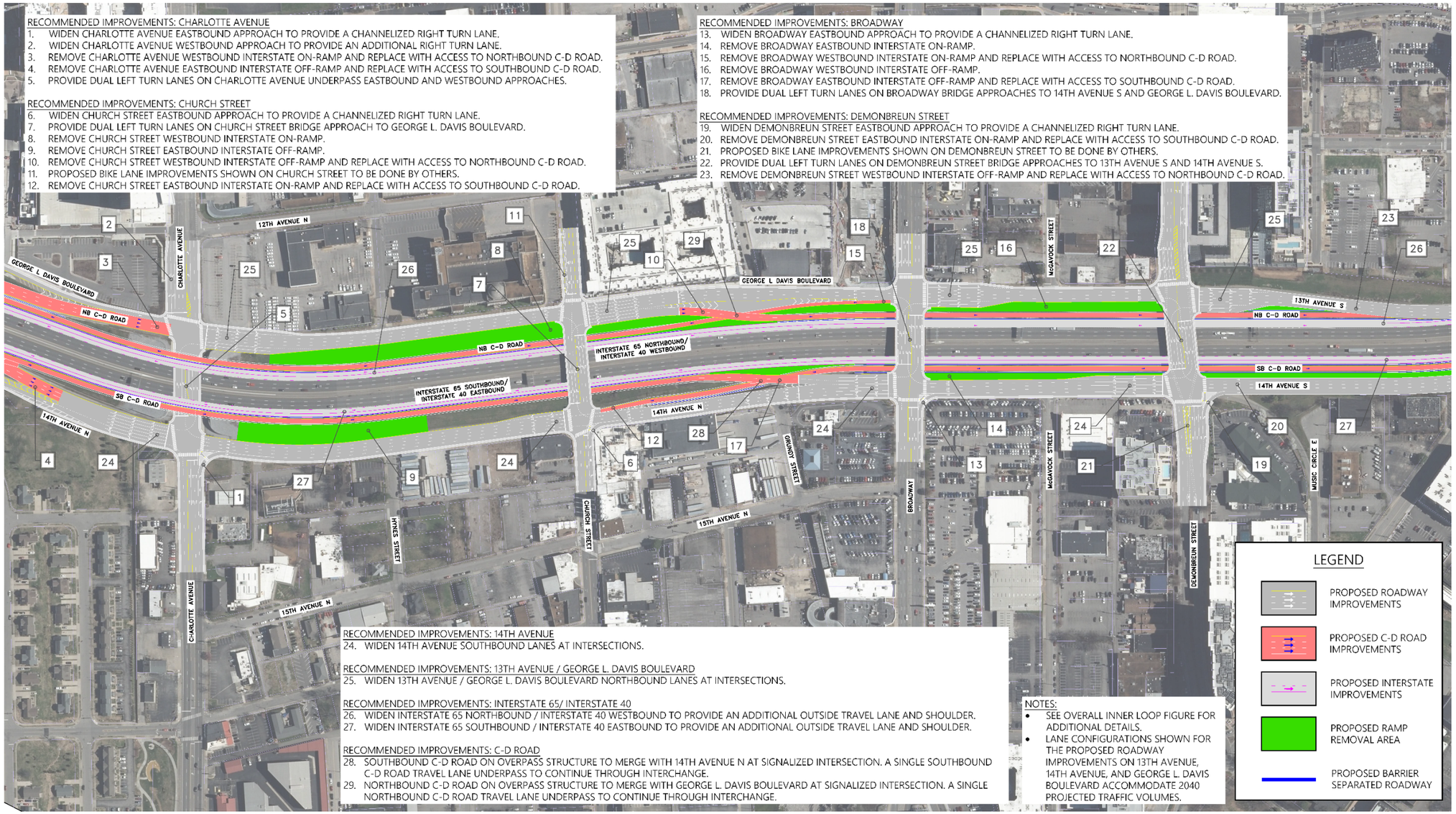
Intersections #29 & #30 - Demonbreun Street and 13th Avenue S / 14th Avenue S Recommended Improvements

GRAPHIC SCALE
0' 100' 200'

Figure 29C.

***Figure D-48. Demonbreun Street, Broadway (US 70S/US 431), Church Street, and Charlotte Avenue (US 70/SR 24) at 13th Avenue/14th Avenue/George L. Davis Boulevard (US 70)***



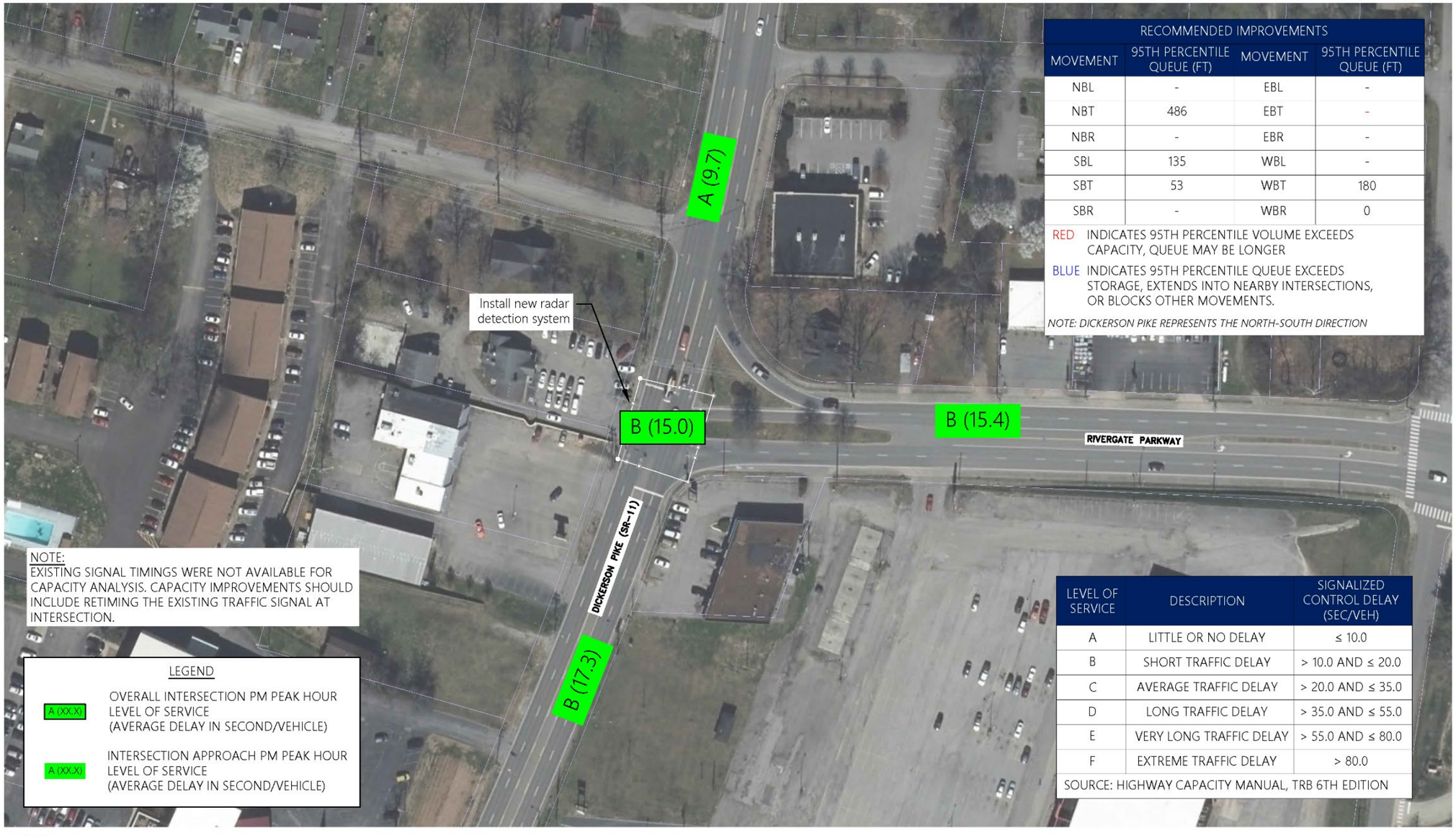



Demonbreun Street, Broadway, Church Street, and Charlotte Avenue at 13th Avenue, 14th Avenue, and George L. Davis Boulevard
Overall Inner Loop Corridor Recommended Improvements

Figure 29A.

***Figure D-49. Dickerson Pike (US 31W/US 41/SR 11) and Rivergate Parkway***






| RECOMMENDED IMPROVEMENTS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | - | EBL | - |
| NBT | 486 | EBT | - |
| NBR | - | EBR | - |
| SBL | 135 | WBL | - |
| SBT | 53 | WBT | 180 |
| SBR | - | WBR | 0 |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: DICKERSON PIKE REPRESENTS THE NORTH-SOUTH DIRECTION*

| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |
| SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION | | |

Intersection #5 - Dickerson Pike (SR-11) and Rivergate Parkway Recommended Improvements

Figure 5.

***Figure D-50. Gallatin Pike (US 31E/SR 6) and Due West Avenue***






RECOMMENDED IMPROVEMENTS

| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
|---|---|---|---|
| NBL | 59 | EBL | 251 |
| NBT | 601 | EBT | 328 |
| NBR | - | EBR | 0 |
| SBL | 23 | WBL | 72 |
| SBT | 472 | WBT | 153 |
| SBR | 88 | WBR | - |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: GALLATIN PIKE REPRESENTS THE NORTH-SOUTH DIRECTION*

| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |
| SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION | | |

N

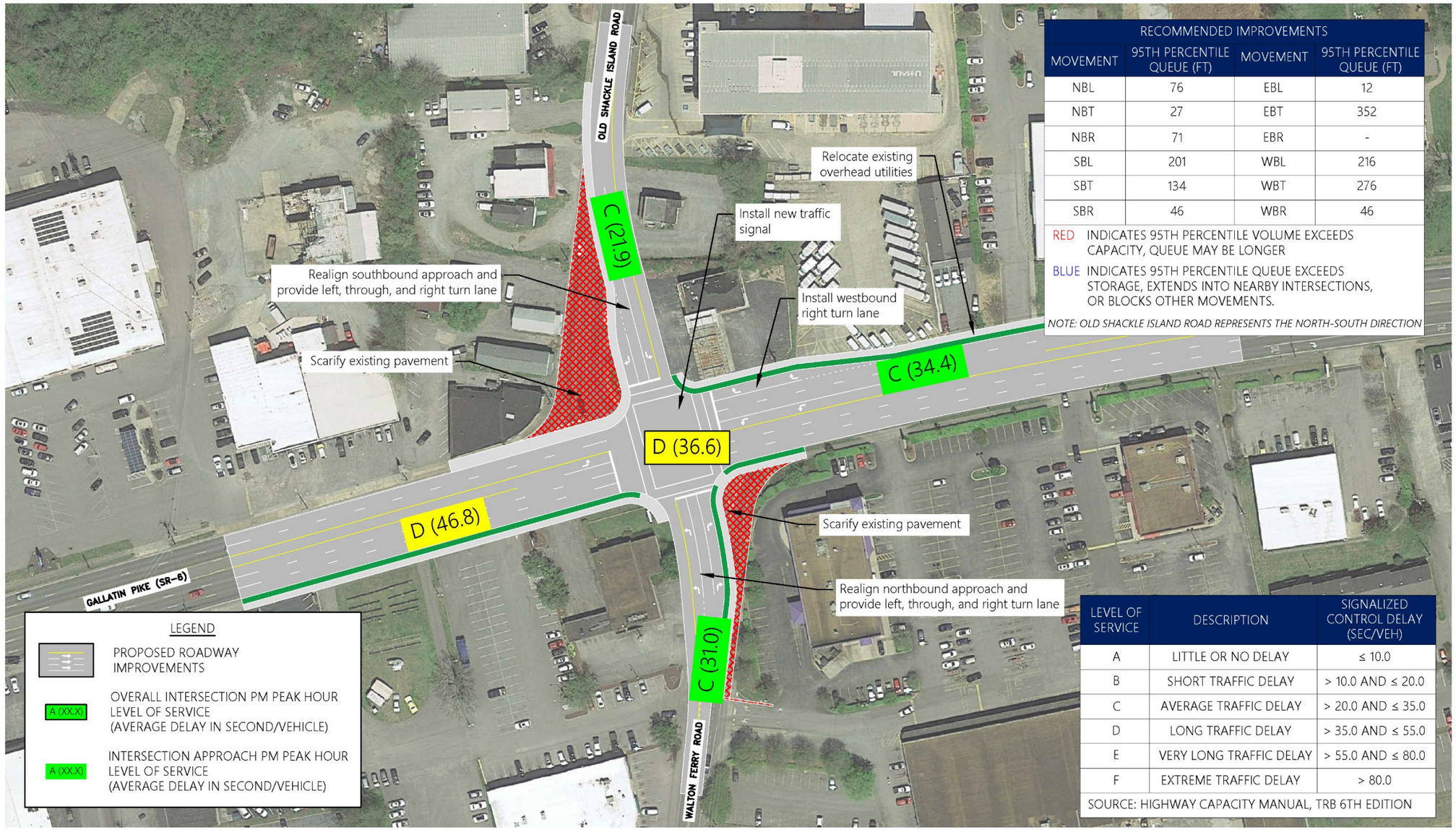
Intersection #3 - Gallatin Pike (SR-6) and Due West Avenue Recommended Improvements

GRAPHIC SCALE
0' 100' 200'

Figure 3A.

***Figure D-51. Gallatin Pike (US 11E/SR 6) and Old Shackle Island Road***






RECOMMENDED IMPROVEMENTS

| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
|---|---|---|---|
| NBL | 76 | EBL | 12 |
| NBT | 27 | EBT | 352 |
| NBR | 71 | EBR | - |
| SBL | 201 | WBL | 216 |
| SBT | 134 | WBT | 276 |
| SBR | 46 | WBR | 46 |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: OLD SHACKLE ISLAND ROAD REPRESENTS THE NORTH-SOUTH DIRECTION*

| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |

SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION

N

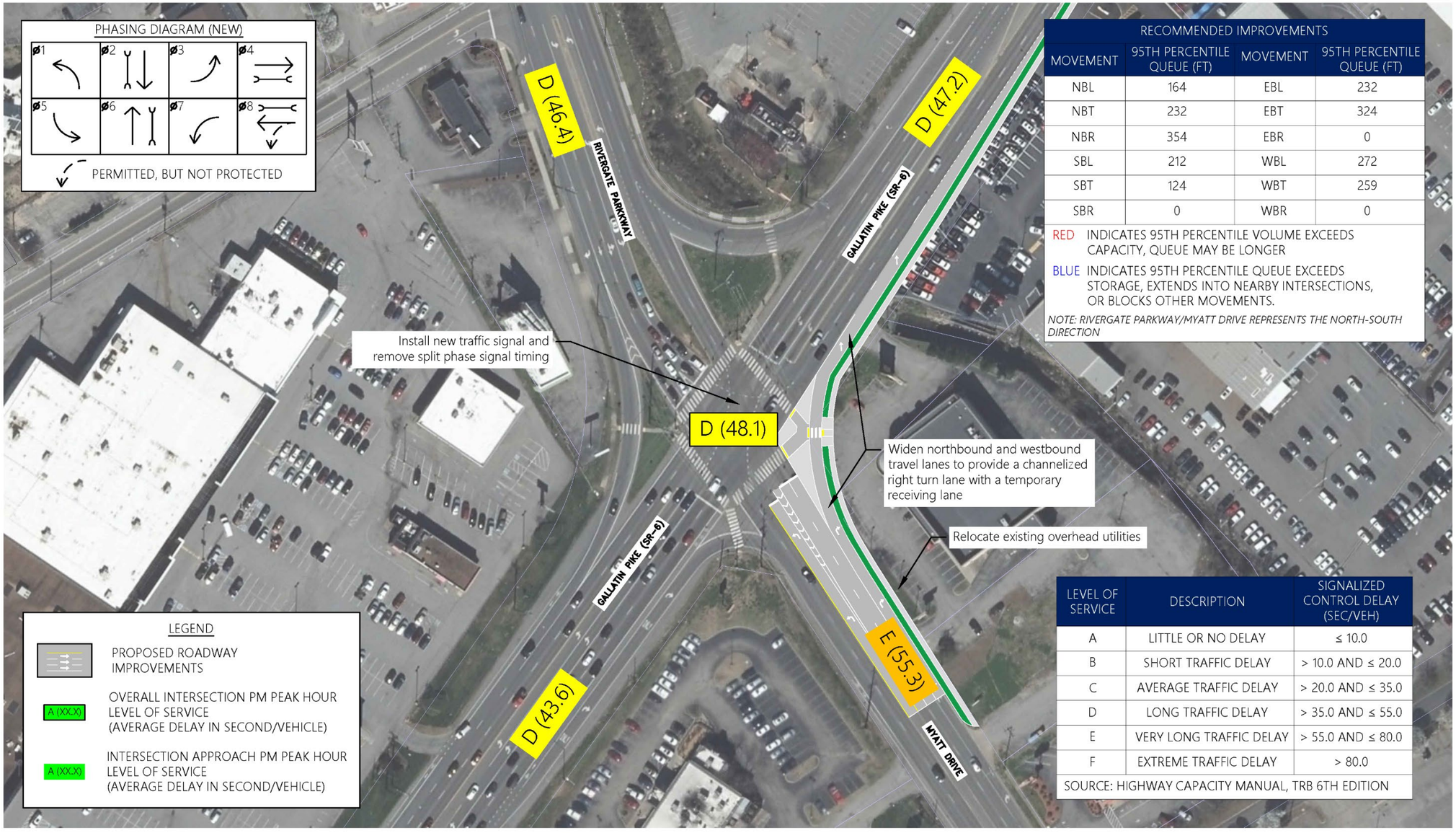
Intersection #7 - Gallatin Pike (SR-6) and Old Shackle Island Road Recommended Improvements

GRAPHIC SCALE
0' 100' 200'

Figure 7A.

***Figure D-52. Gallatin Pike (US 31E/SR 6) and Rivergate Parkway***






| RECOMMENDED IMPROVEMENTS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | 164 | EBL | 232 |
| NBT | 232 | EBT | 324 |
| NBR | 354 | EBR | 0 |
| SBL | 212 | WBL | 272 |
| SBT | 124 | WBT | 259 |
| SBR | 0 | WBR | 0 |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: RIVERGATE PARKWAY/MYATT DRIVE REPRESENTS THE NORTH-SOUTH DIRECTION*

| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |
| SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION | | |

N

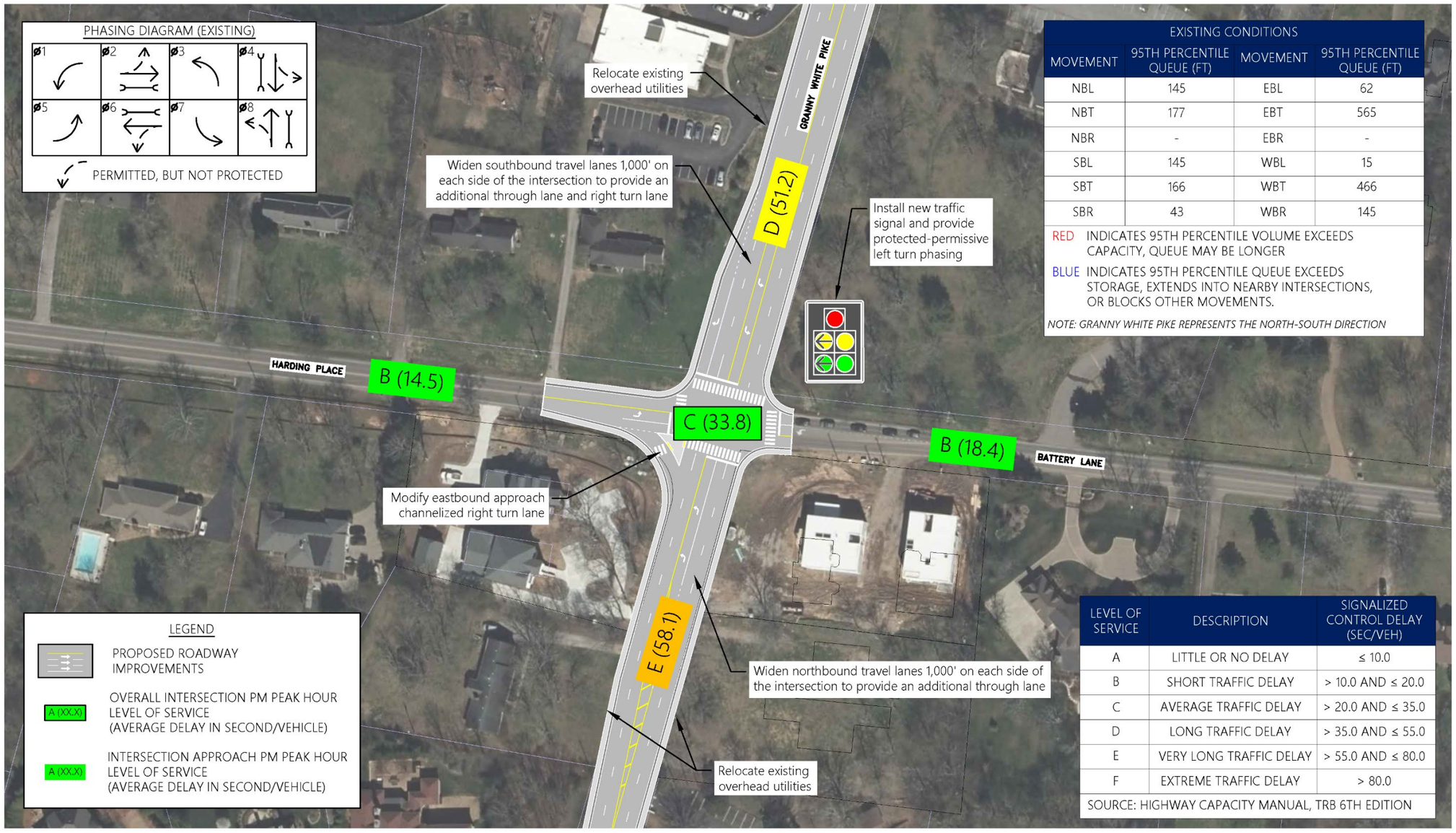
Intersection #4 - Gallatin Pike (SR-6) and Rivergate Parkway Recommended Improvements

GRAPHIC SCALE
0' 100' 200'

Figure 4A.

***Figure D-53. Granny White Pike and Harding Place***






| EXISTING CONDITIONS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | 145 | EBL | 62 |
| NBT | 177 | EBT | 565 |
| NBR | - | EBR | - |
| SBL | 145 | WBL | 15 |
| SBT | 166 | WBT | 466 |
| SBR | 43 | WBR | 145 |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: GRANNY WHITE PIKE REPRESENTS THE NORTH-SOUTH DIRECTION*

| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |

SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION

Intersection #19 - Granny White Pike and Harding Place Recommended Improvements

Figure 19A.

***Figure D-54. Hermitage Avenue (SR 24) and I-40/I-24***



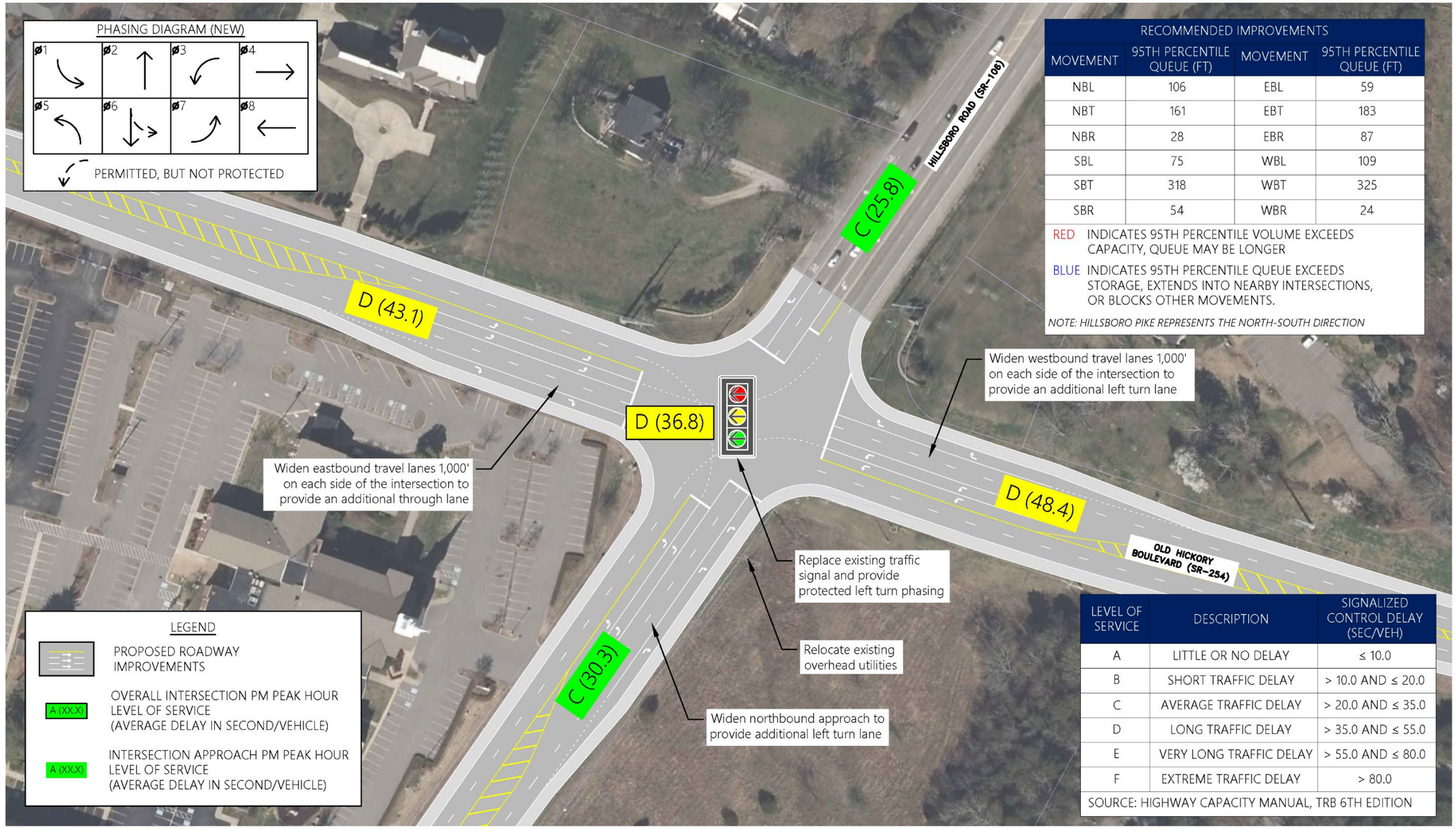



Intersection #35 - Hermitage Avenue (SR-24) and Interstate 40, Interstate 24 Recommended Improvements

Figure 35.

***Figure D-55. Hillsboro Pike (US 431/SR 106) and Old Hickory Boulevard (SR 254)***






| RECOMMENDED IMPROVEMENTS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | 106 | EBL | 59 |
| NBT | 161 | EBT | 183 |
| NBR | 28 | EBR | 87 |
| SBL | 75 | WBL | 109 |
| SBT | 318 | WBT | 325 |
| SBR | 54 | WBR | 24 |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: HILLSBORO PIKE REPRESENTS THE NORTH-SOUTH DIRECTION*

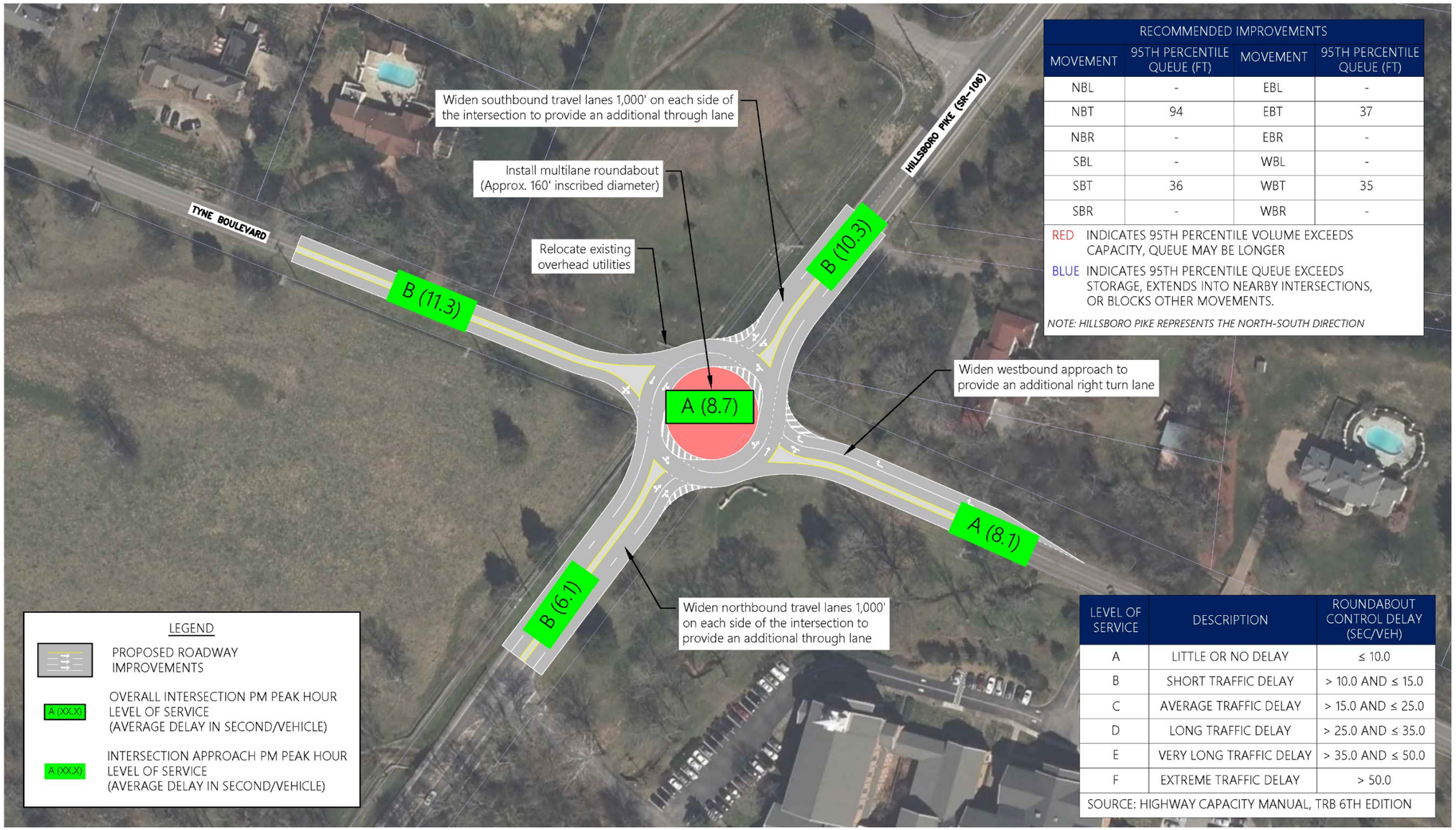
| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |
| SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION | | |

Intersection #21 - Hillsboro Pike (SR-106) and Old Hickory Boulevard (SR-254) Recommended Improvements

Figure 21A.

***Figure D-56. Hillsboro Pike (US 431/SR 106) and Tyne Boulevard***






| RECOMMENDED IMPROVEMENTS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | - | EBL | - |
| NBT | 94 | EBT | 37 |
| NBR | - | EBR | - |
| SBL | - | WBL | - |
| SBT | 36 | WBT | 35 |
| SBR | - | WBR | - |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: HILLSBORO PIKE REPRESENTS THE NORTH-SOUTH DIRECTION*

| LEVEL OF SERVICE | DESCRIPTION | ROUNDABOUT CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 15.0 |
| C | AVERAGE TRAFFIC DELAY | > 15.0 AND ≤ 25.0 |
| D | LONG TRAFFIC DELAY | > 25.0 AND ≤ 35.0 |
| E | VERY LONG TRAFFIC DELAY | > 35.0 AND ≤ 50.0 |
| F | EXTREME TRAFFIC DELAY | > 50.0 |
| SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION | | |

N

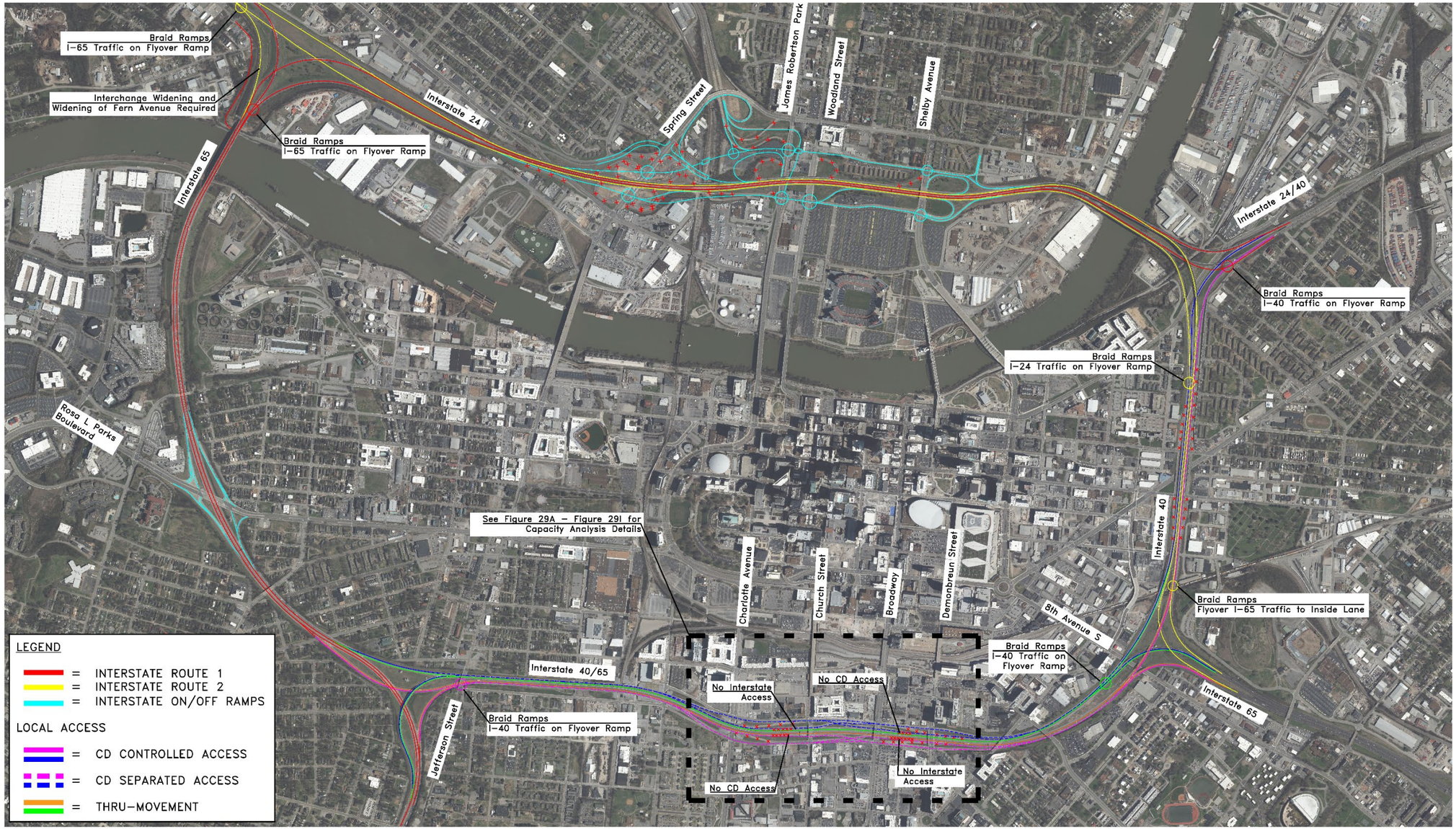
GRAPHIC SCALE
0' 100' 200'

Intersection #20 - Hillsboro Pike (SR-106) and Tyne Boulevard Recommended Improvements

Figure 20A.

***Figure D-57. Inner Loop***





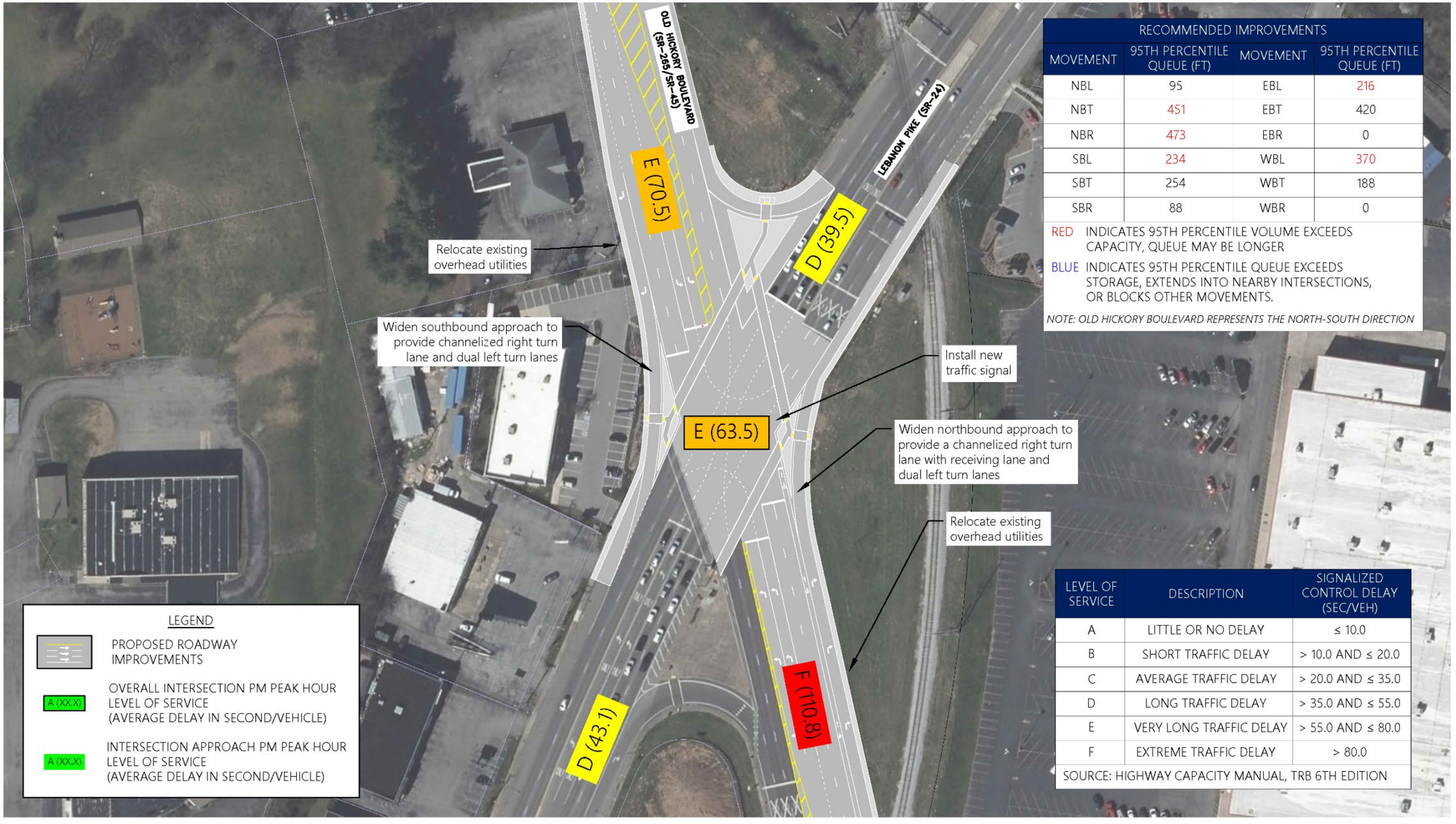

Inner Loop (Interstate 24, Interstate 40, Interstate 65) Recommended Improvements

GRAPHIC SCALE
0' 1500' 3000'

Figure 29.

***Figure D-58. Lebanon Pike (US 70/SR 24) and Old Hickory Boulevard (SR 265/SR 45)***






RECOMMENDED IMPROVEMENTS

| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
|---|---|---|---|
| NBL | 95 | EBL | 216 |
| NBT | 451 | EBT | 420 |
| NBR | 473 | EBR | 0 |
| SBL | 234 | WBL | 370 |
| SBT | 254 | WBT | 188 |
| SBR | 88 | WBR | 0 |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: OLD HICKORY BOULEVARD REPRESENTS THE NORTH-SOUTH DIRECTION*

| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |

SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION

Intersection #2 - Lebanon Pike (SR-24) and Old Hickory Boulevard (SR-265/SR-45) Recommended Improvements

Figure 2A.

***Figure D-59. Lebanon Pike (US 70/SR 24) and Old Hickory Boulevard (SR 265/SR 45)***



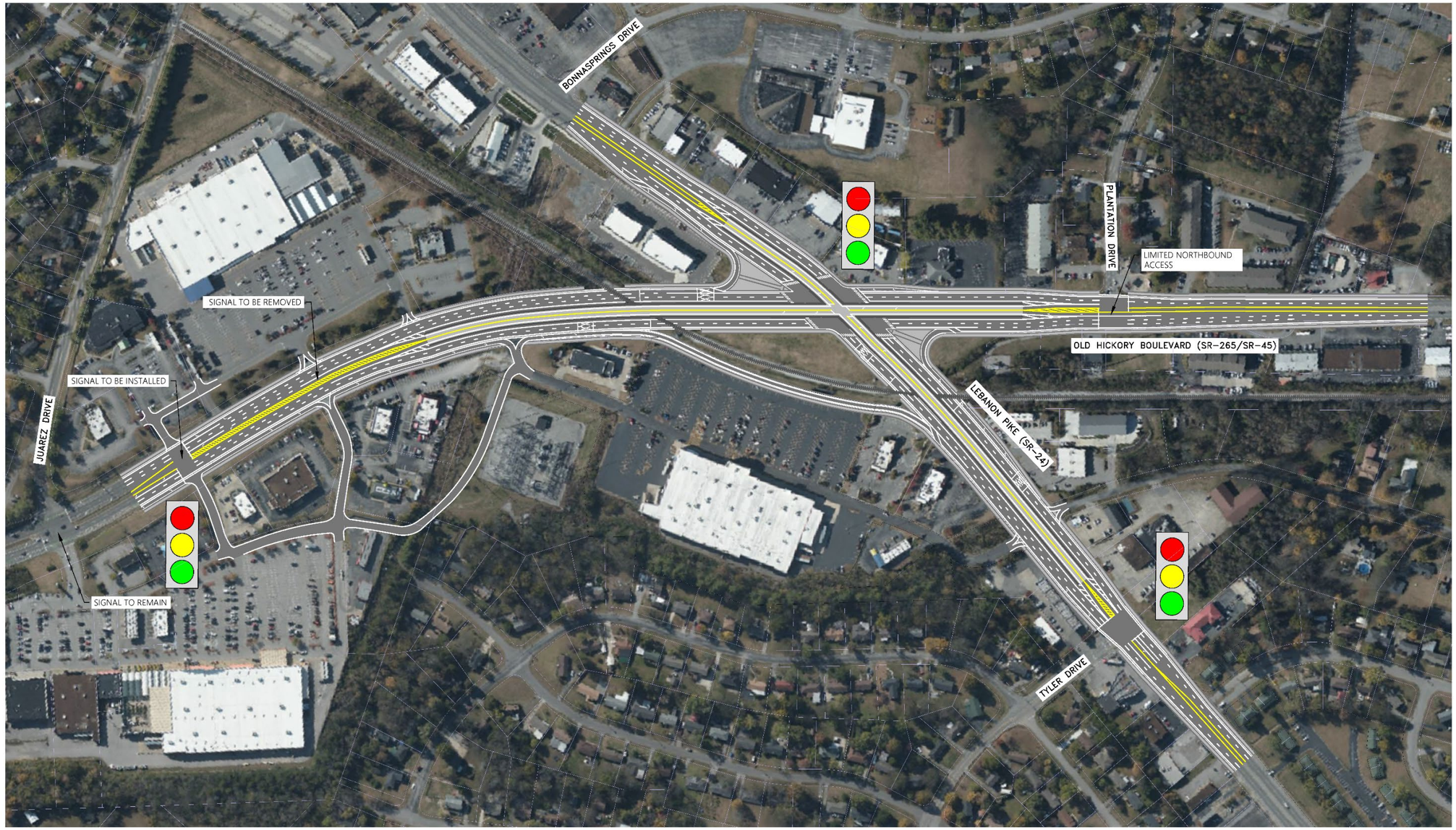



Intersection #2 - Lebanon Pike ( SR-24) and Old Hickory Boulevard (SR-265/SR-45) Recommended Improvements

Figure 2B.

***Figure D-60. Lebanon Pike (US 70/SR 24) and Old Hickory Boulevard (SR 265/SR 45)***






Intersection #2 - Lebanon Pike ( SR-24) and Old Hickory Boulevard (SR-265/SR-45) Recommended Improvements - Overall Concept

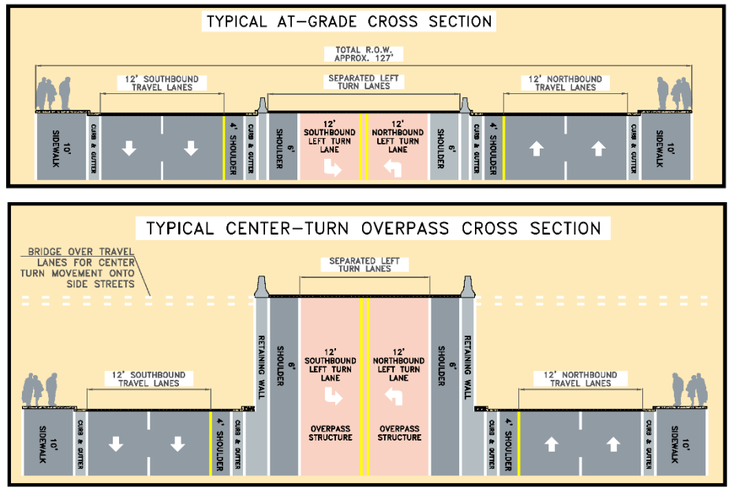
GRAPHIC SCALE
0' 200' 400'

Figure 2C.

***Figure D-61. Lebanon Pike (US 70/SR 24) and Old Hickory Boulevard (SR 265/SR 45) – Typical Sections***







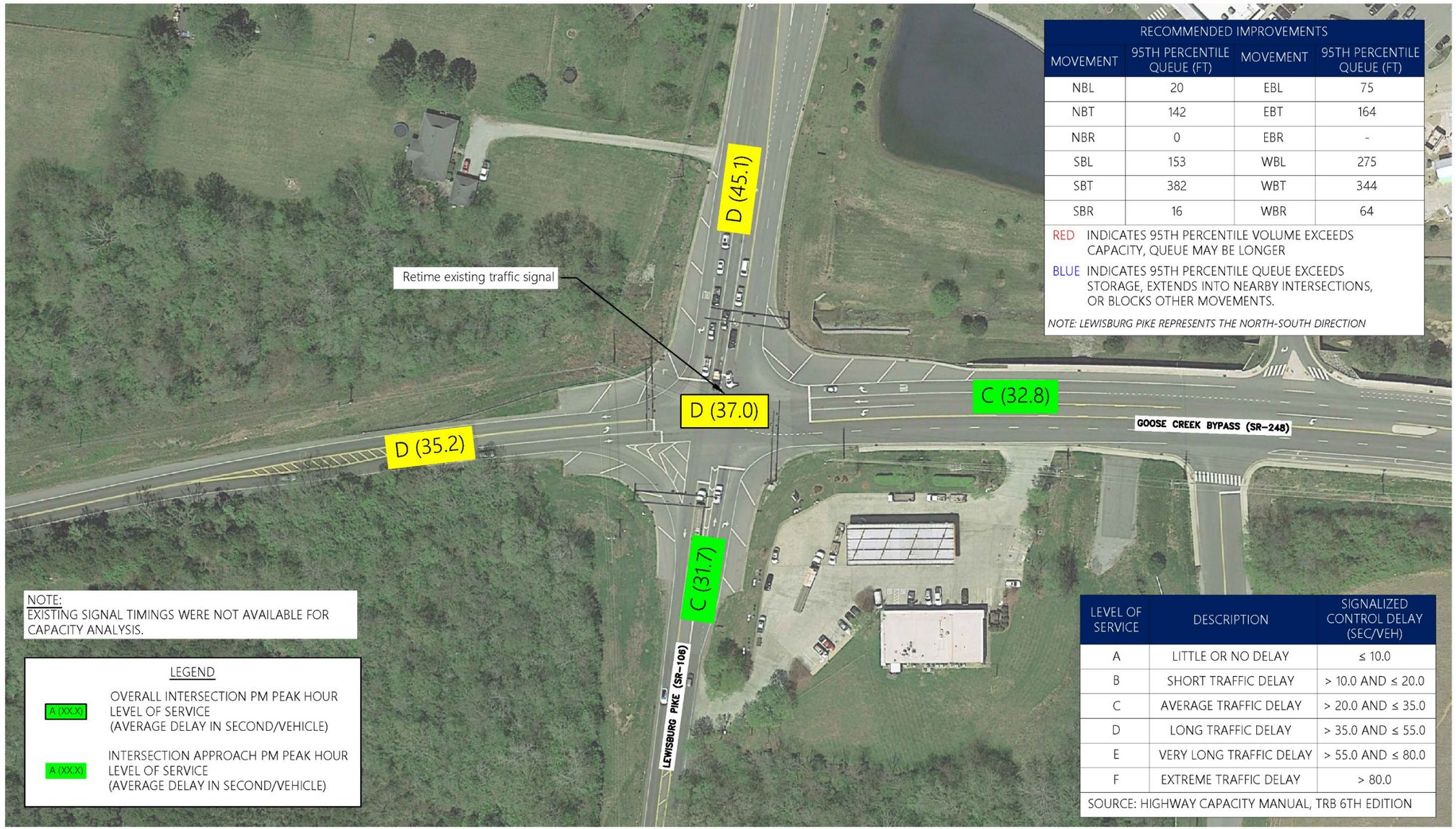


Intersection #2 - Lebanon Pike ( SR-24) and Old Hickory Boulevard (SR-265/SR-45) Recommended Improvements - Typical Sections

Figure 2D.

***Figure D-62. Lewisburg Pike (SR 106) and Goose Creek Bypass (SR 248)***






| RECOMMENDED IMPROVEMENTS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | 20 | EBL | 75 |
| NBT | 142 | EBT | 164 |
| NBR | 0 | EBR | - |
| SBL | 153 | WBL | 275 |
| SBT | 382 | WBT | 344 |
| SBR | 16 | WBR | 64 |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: LEWISBURG PIKE REPRESENTS THE NORTH-SOUTH DIRECTION*

| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |
| SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION | | |

Intersection #24 - Lewisburg Pike (SR-106) and Goose Creek Bypass (SR-248) Recommended Improvements

Figure 24.

***Figure D-63. Long Hollow Pike (SR 174) and I-65***



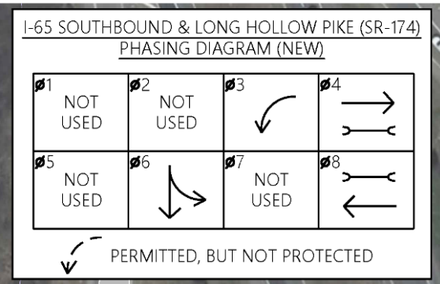
| I-65 SOUTHBOUND & LONG HOLLOW PIKE RECOMMENDED IMPROVEMENTS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | - | EBL | - |
| NBT | - | EBT | 297 |
| NBR | - | EBR | 79 |
| SBL | 322 | WBL | 260 |
| SBT | - | WBT | 67 |
| SBR | 0 | WBR | - |

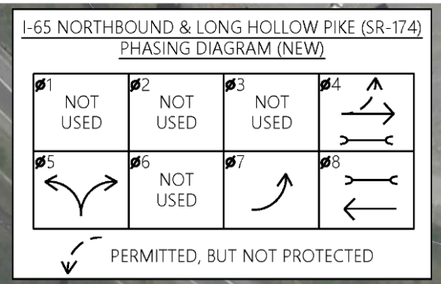
| I-65 NORTHBOUND & LONG HOLLOW PIKE RECOMMENDED IMPROVEMENTS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | 178 | EBL | 10 |
| NBT | - | EBT | 230 |
| NBR | 41 | EBR | - |
| SBL | - | WBL | - |
| SBT | - | WBT | 502 |
| SBR | - | WBR | - |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: INTERSTATE 65 REPRESENTS THE NORTH-SOUTH DIRECTION*




NOTE:
AM PEAK HOUR SHOWN. EXISTING SIGNAL TIMINGS WERE NOT AVAILABLE FOR CAPACITY ANALYSIS. CAPACITY IMPROVEMENTS SHOULD INCLUDE RETIMING THE EXISTING TRAFFIC SIGNAL AT INTERSECTION IN ADDITION TO THE RECOMMENDED IMPROVEMENTS SHOWN ON THIS FIGURE.




| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |

SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION

N

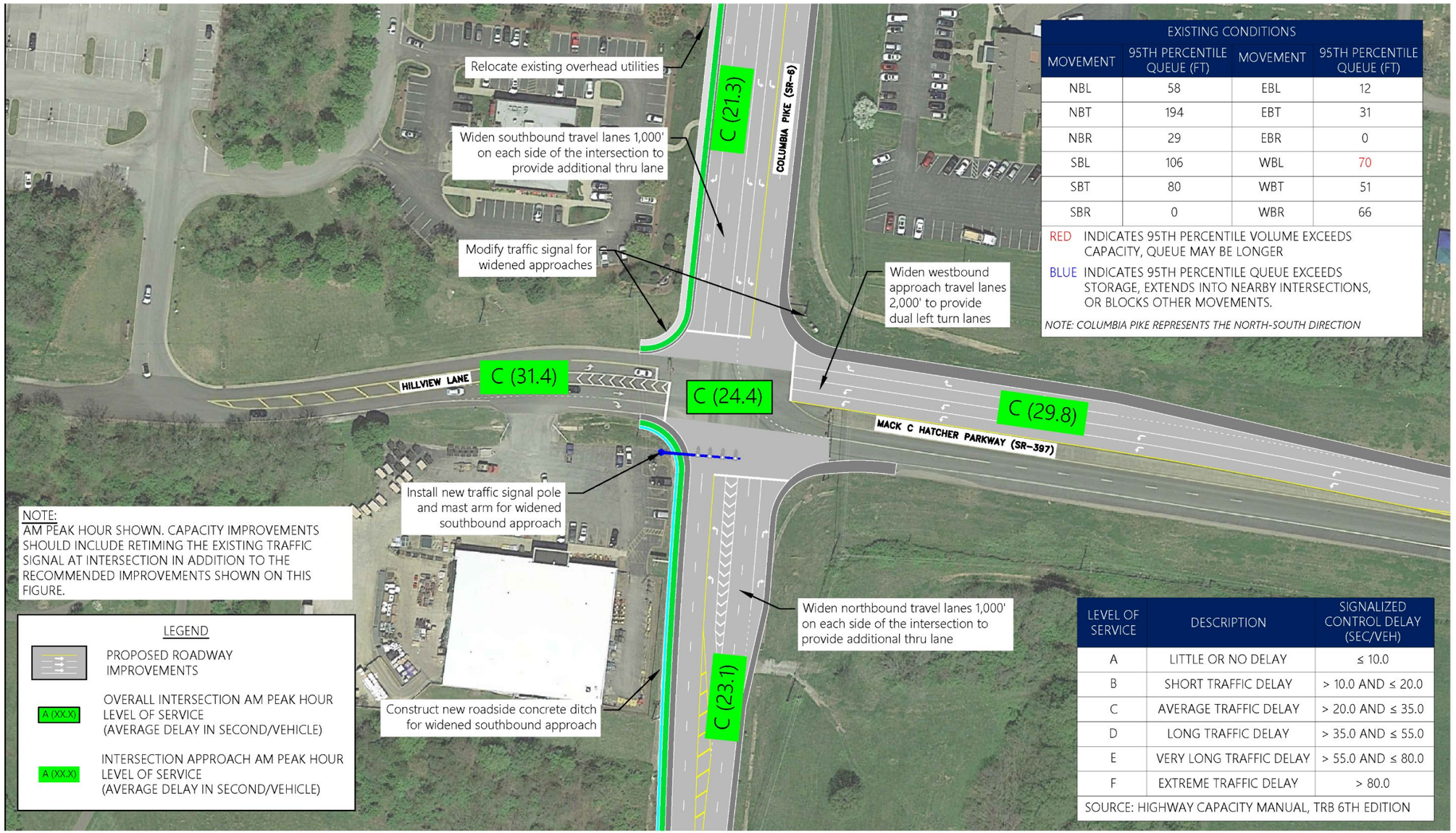
GRAPHIC SCALE
0' 100' 200'

Intersection #6 - Long Hollow Pike (SR-174) and Interstate 65 Recommended Improvements

Figure 6A.

***Figure D-64. Mack C. Hatcher Memorial Parkway (US 31 Truck/SR 397) and Columbia Pike (US 31/SR 6)***






| EXISTING CONDITIONS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | 58 | EBL | 12 |
| NBT | 194 | EBT | 31 |
| NBR | 29 | EBR | 0 |
| SBL | 106 | WBL | 70 |
| SBT | 80 | WBT | 51 |
| SBR | 0 | WBR | 66 |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: COLUMBIA PIKE REPRESENTS THE NORTH-SOUTH DIRECTION*

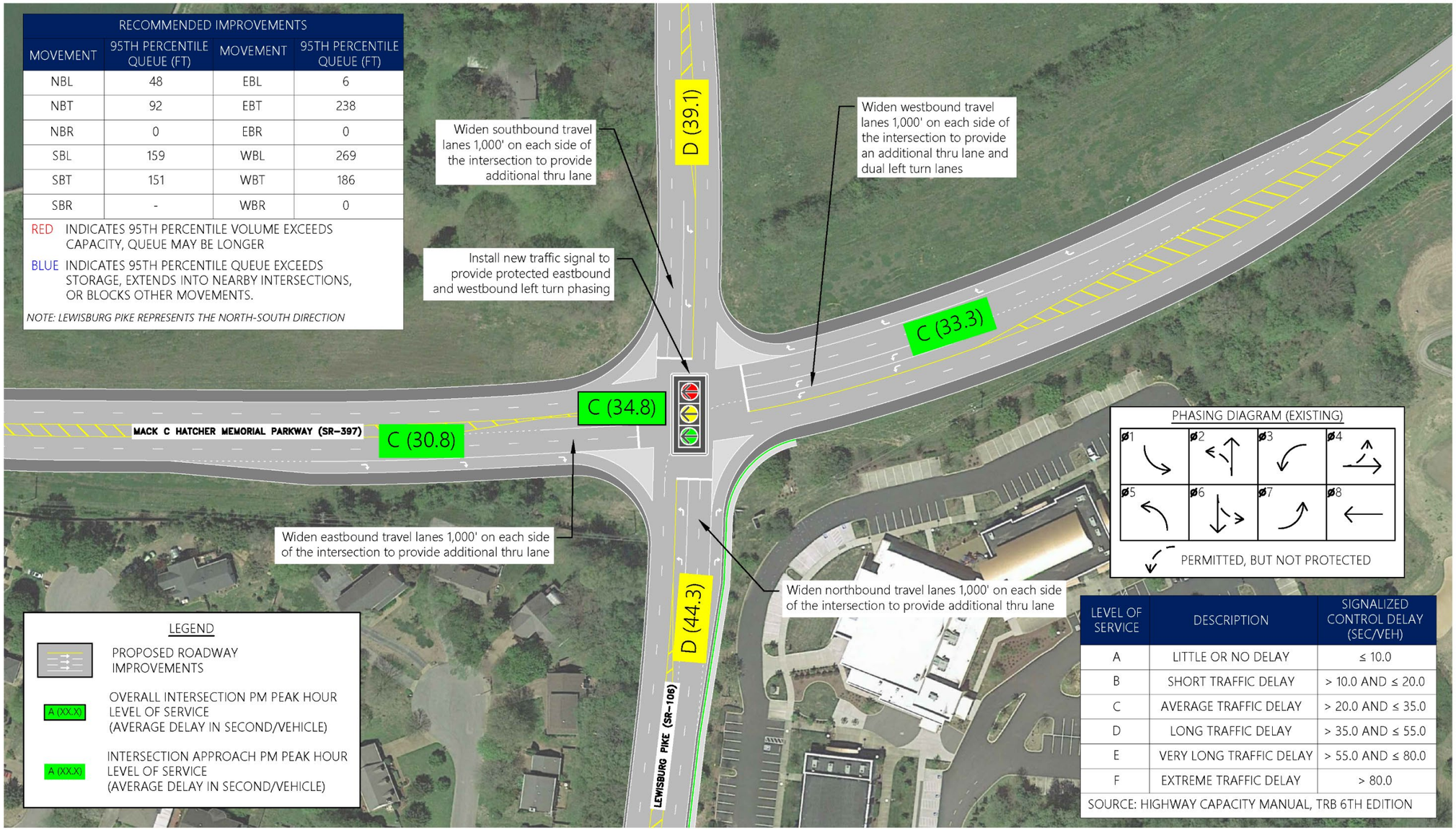
| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |
| SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION | | |

Intersection #23 - Mack C. Hatcher Memorial Parkway (SR-397) and Columbia Pike (SR-6) Recommended Improvements

Figure 23A.

***Figure D-65. Mack C. Hatcher Memorial Parkway (US 31 Truck/SR 397) and Lewisburg Pike (US 431/SR 106)***



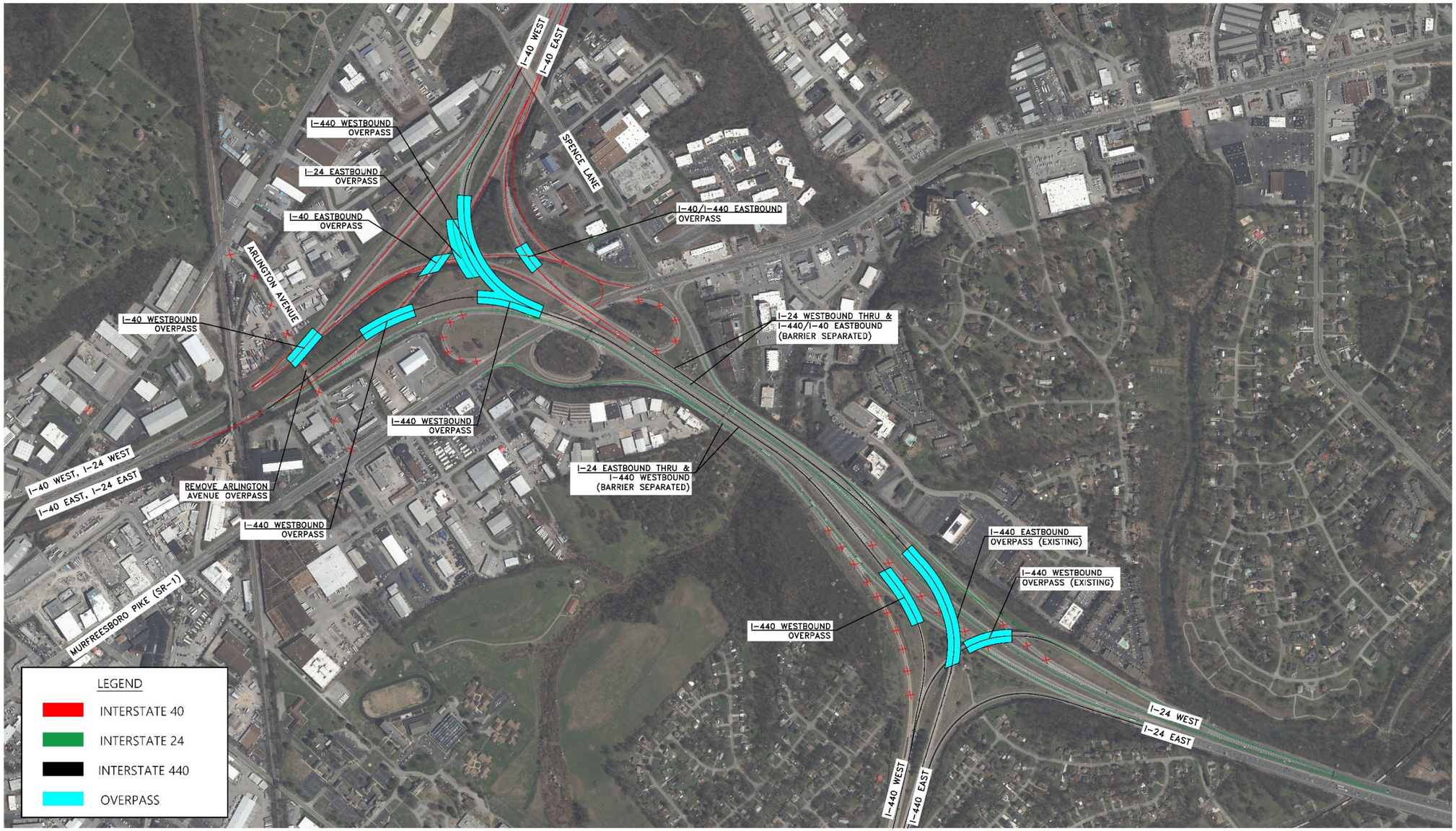



Intersection #22 - Mack C. Hatcher Memorial Parkway (SR-397) and Lewisburg Pike (SR-106) Recommended Improvements

Figure 22A.

***Figure D-66. Murfreesboro Pike (US 41/US 70S/SR 1) and I-40/I-24/I-440***






Intersection #32 - Murfreesboro Pike (SR-1) and Interstate 40, Interstate 24, Interstate 440 Recommended Improvements

GRAPHIC SCALE
0' 750' 1500'

Figure 32A.

***Figure D-67. Murfreesboro Pike (US 41/US 70S/SR 1) and Fesslers Lane***






| RECOMMENDED IMPROVEMENTS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | 51 | EBL | 74 |
| NBT | 204 | EBT | 278 |
| NBR | 24 | EBR | - |
| SBL | 138 | WBL | 44 |
| SBT | 81 | WBT | 128 |
| SBR | - | WBR | 95 |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: FESSLERS LANE REPRESENTS THE NORTH-SOUTH DIRECTION*

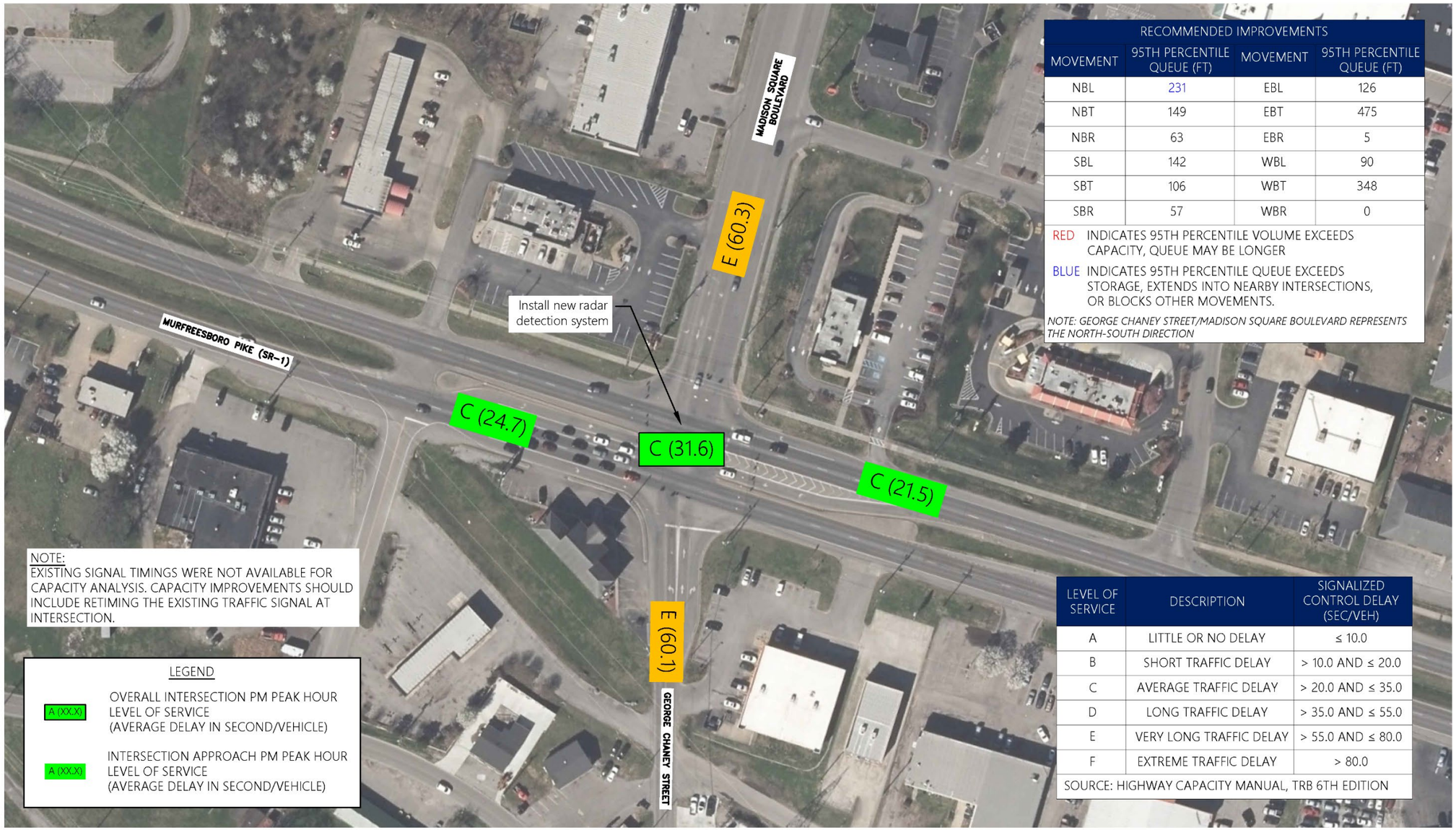
| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |
| SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION | | |

Intersection #8 - Murfreesboro Pike (SR-1) and Fesslers Lane Recommended Improvements

Figure 8A.

***Figure D-68. Murfreesboro Pike (US 41/US 70S/SR 1) and George Chaney Street/Madison Square Boulevard***






RECOMMENDED IMPROVEMENTS

| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
|---|---|---|---|
| NBL | 231 | EBL | 126 |
| NBT | 149 | EBT | 475 |
| NBR | 63 | EBR | 5 |
| SBL | 142 | WBL | 90 |
| SBT | 106 | WBT | 348 |
| SBR | 57 | WBR | 0 |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: GEORGE CHANEY STREET/MADISON SQUARE BOULEVARD REPRESENTS THE NORTH-SOUTH DIRECTION*

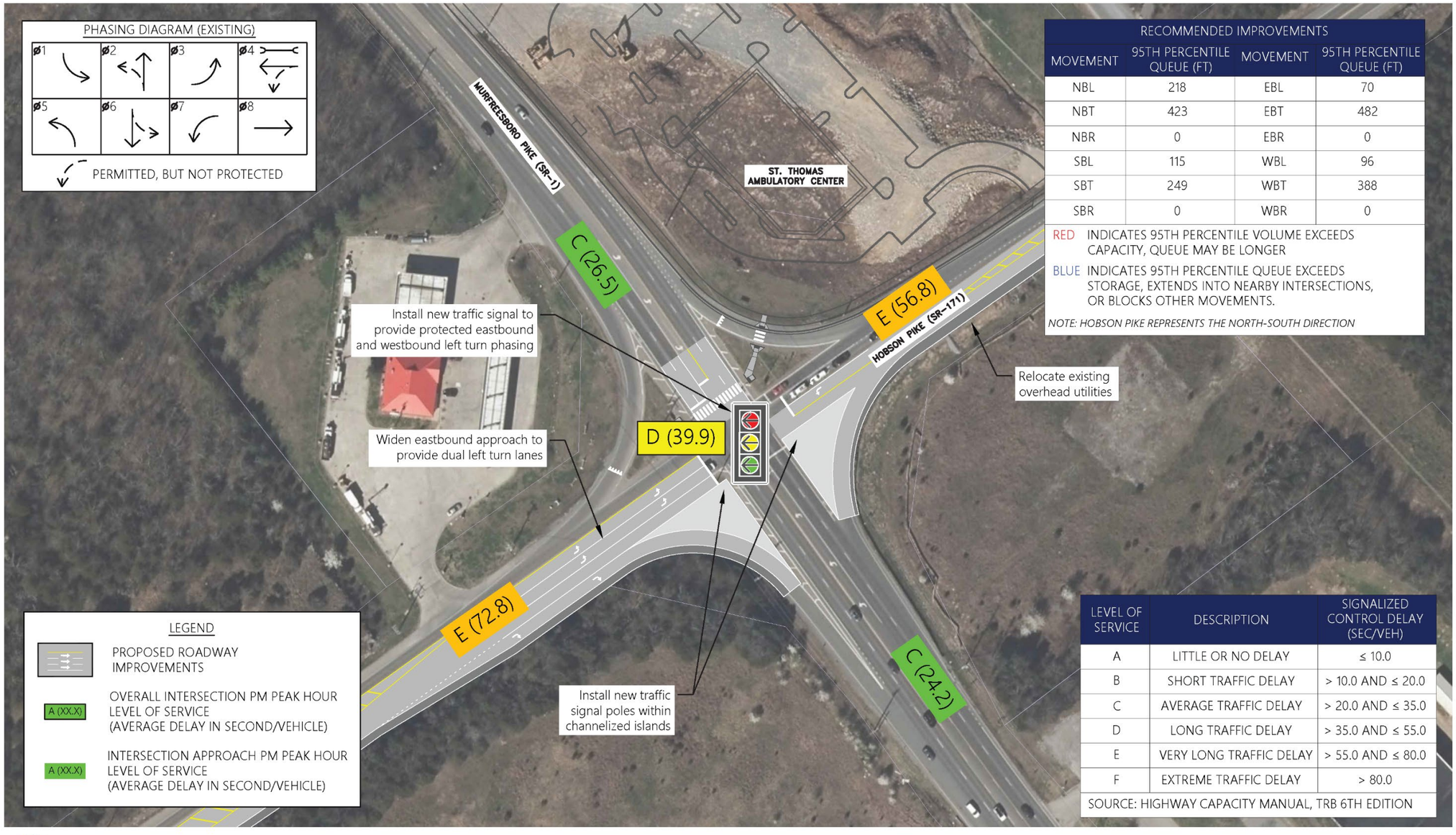
| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |
| SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION | | |

Intersection #14 - Murfreesboro Pike (SR-1) and George Chaney Street/Madison Square Boulevard Recommended Improvements

Figure 14.

***Figure D-69. Murfreesboro Pike (US 41/US 70S/SR 1) and Hobson Pike (SR 171)***






| RECOMMENDED IMPROVEMENTS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | 218 | EBL | 70 |
| NBT | 423 | EBT | 482 |
| NBR | 0 | EBR | 0 |
| SBL | 115 | WBL | 96 |
| SBT | 249 | WBT | 388 |
| SBR | 0 | WBR | 0 |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: HOBSON PIKE REPRESENTS THE NORTH-SOUTH DIRECTION*

| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |

SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION

N

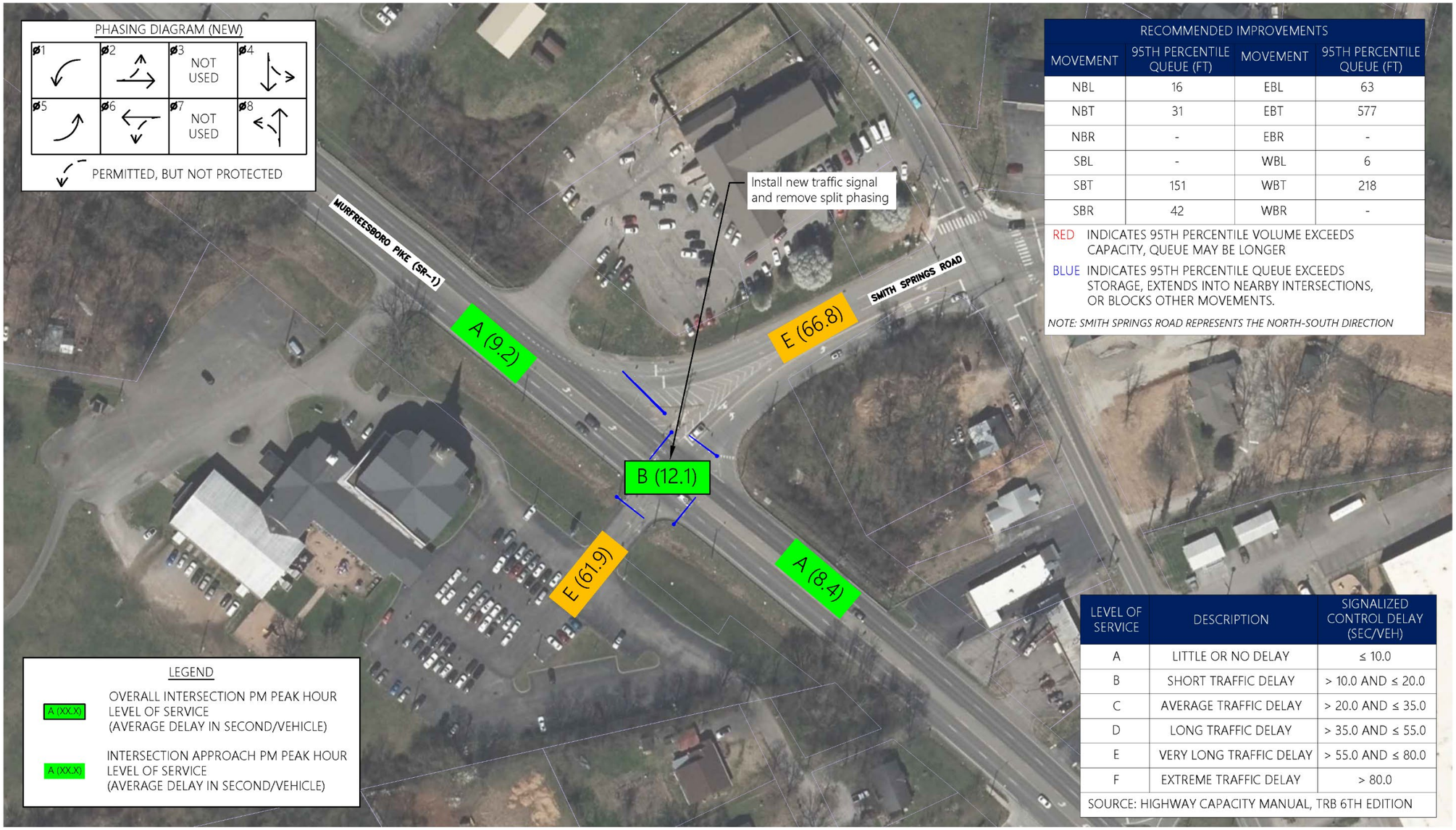
GRAPHIC SCALE
0' 100' 200'

Intersection #13 - Murfreesboro Pike (SR-1) and Hobson Pike (SR-171) Recommended Improvements

Figure 13A.

***Figure D-70. Murfreesboro Pike (US 41/US 70S/SR 1) and Smith Springs Road***






RECOMMENDED IMPROVEMENTS

| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
|---|---|---|---|
| NBL | 16 | EBL | 63 |
| NBT | 31 | EBT | 577 |
| NBR | - | EBR | - |
| SBL | - | WBL | 6 |
| SBT | 151 | WBT | 218 |
| SBR | 42 | WBR | - |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: SMITH SPRINGS ROAD REPRESENTS THE NORTH-SOUTH DIRECTION*

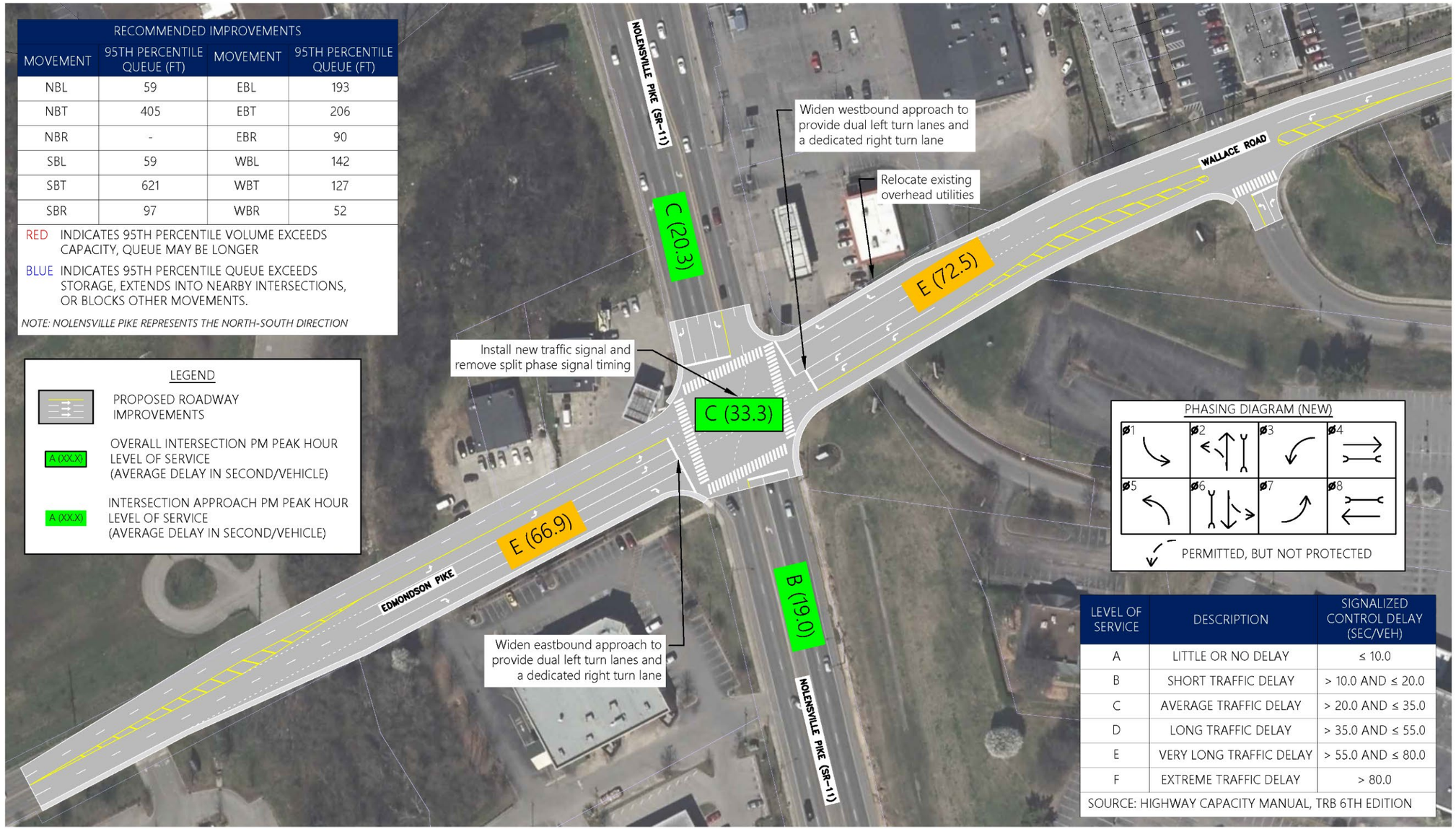
| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |
| SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION | | |

Intersection #10 - Murfreesboro Pike (SR-1) and Smith Springs Road Recommended Improvements

Figure 10A.

***Figure D-71. Nolensville Pike (US 31A/US 41A/SR 11) and Edmondson Pike/Wallace Road***






| RECOMMENDED IMPROVEMENTS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | 59 | EBL | 193 |
| NBT | 405 | EBT | 206 |
| NBR | - | EBR | 90 |
| SBL | 59 | WBL | 142 |
| SBT | 621 | WBT | 127 |
| SBR | 97 | WBR | 52 |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: NOLENSVILLE PIKE REPRESENTS THE NORTH-SOUTH DIRECTION*

| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |
| SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION | | |

N

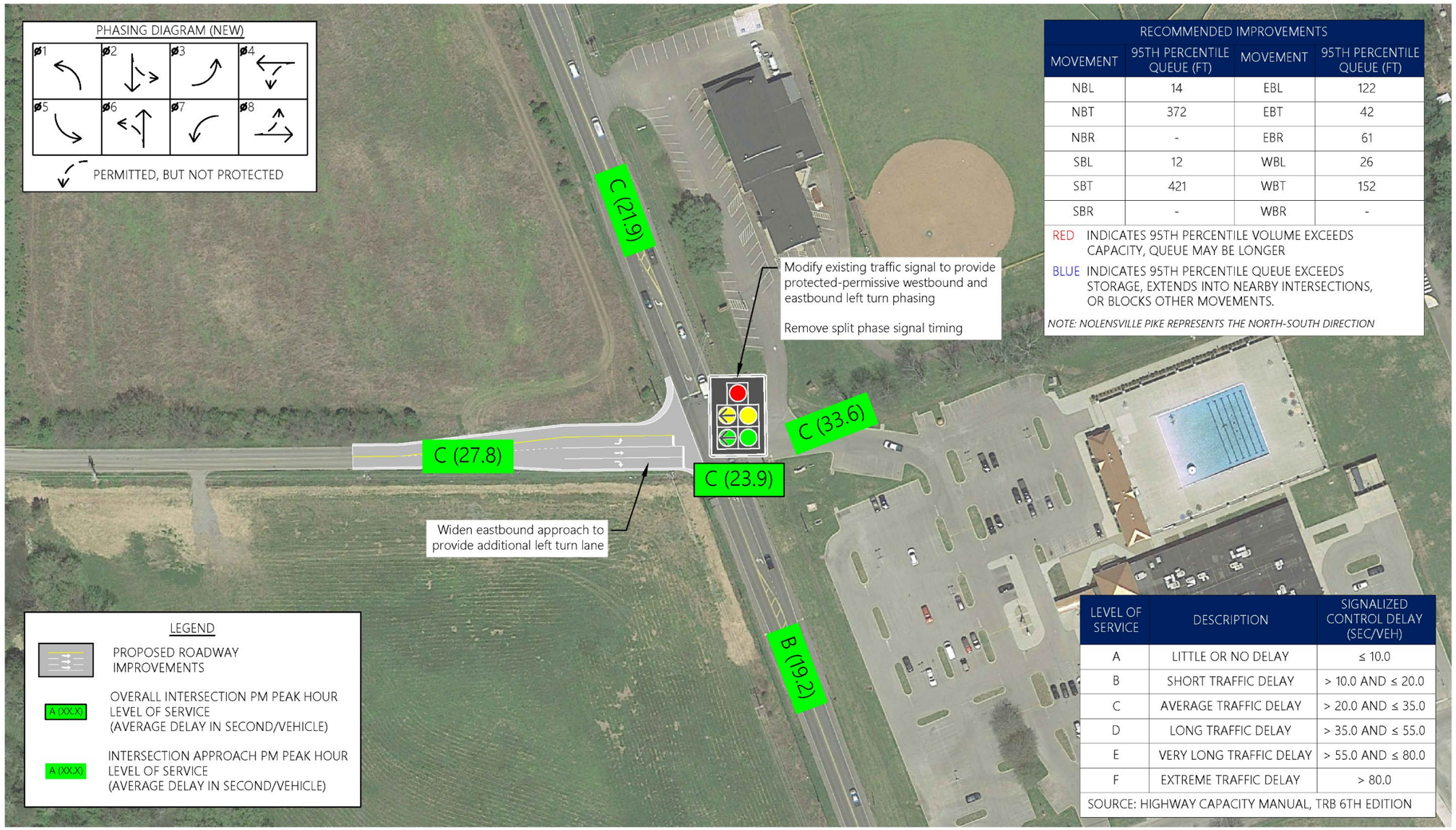
GRAPHIC SCALE
0' 100' 200'

Intersection #12 - Nolensville Pike (SR-11) and Edmondson Pike/Wallace Road Recommended Improvements

Figure 12A.

***Figure D-72. Nolensville Pike (US 31A/US 41A/SR 11) and Sunset Road***






| RECOMMENDED IMPROVEMENTS | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | 14 | EBL | 122 |
| NBT | 372 | EBT | 42 |
| NBR | - | EBR | 61 |
| SBL | 12 | WBL | 26 |
| SBT | 421 | WBT | 152 |
| SBR | - | WBR | - |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: NOLENSVILLE PIKE REPRESENTS THE NORTH-SOUTH DIRECTION*

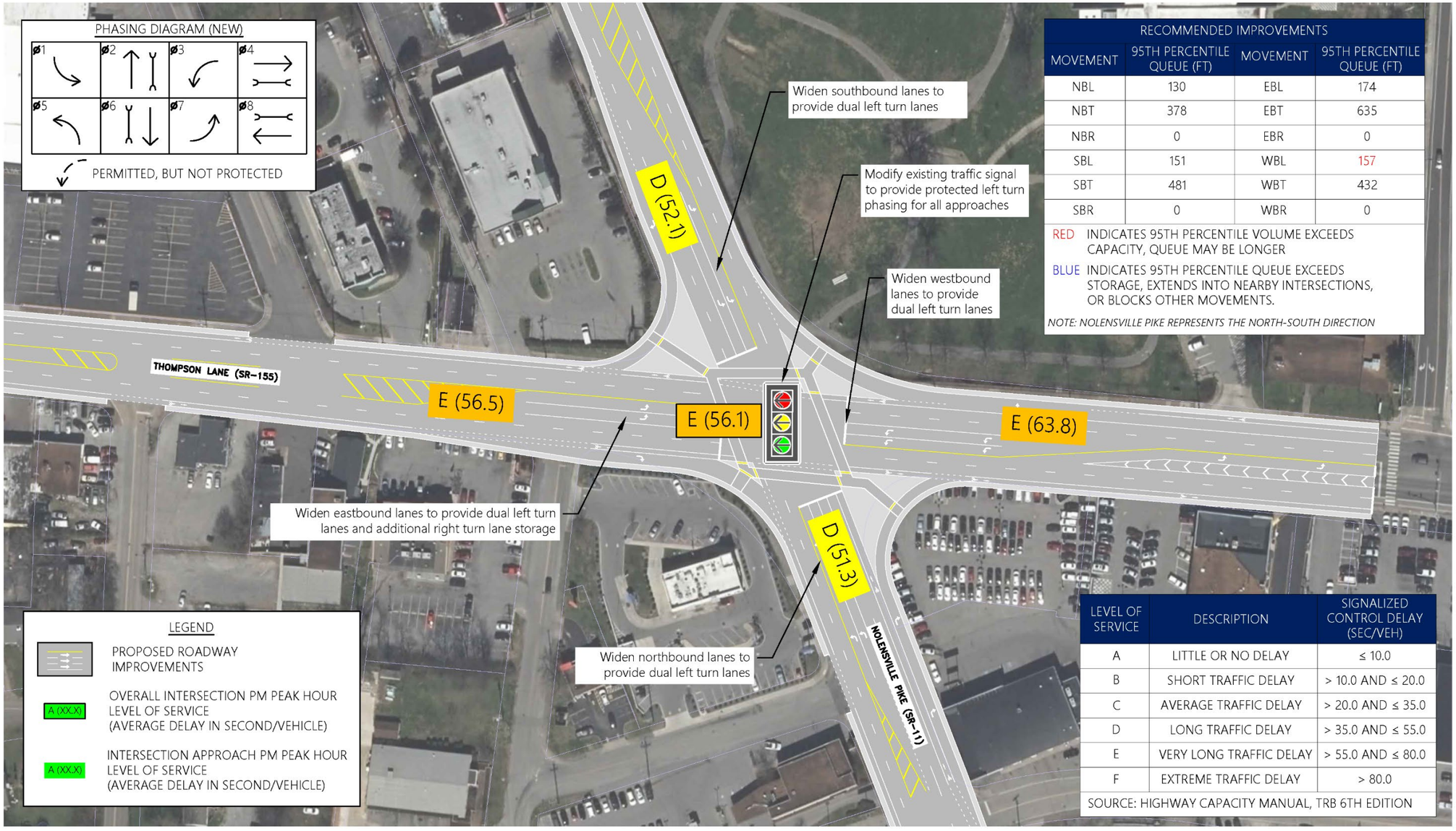
| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |
| SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION | | |

Intersection #15 - Nolensville Pike (SR-11) and Sunset Road Recommended Improvements

Figure 15A.

***Figure D-73. Nolensville Pike (US 31A/US 41A/SR 11) and Thompson Lane (SR 155)***






RECOMMENDED IMPROVEMENTS

| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
|---|---|---|---|
| NBL | 130 | EBL | 174 |
| NBT | 378 | EBT | 635 |
| NBR | 0 | EBR | 0 |
| SBL | 151 | WBL | 157 |
| SBT | 481 | WBT | 432 |
| SBR | 0 | WBR | 0 |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: NOLENSVILLE PIKE REPRESENTS THE NORTH-SOUTH DIRECTION*

| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |

SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION

Intersection #9 - Nolensville Pike (SR-11) and Thompson Lane (SR-155) Recommended Improvements

GRAPHIC SCALE
0' 100' 200'

Figure 9A.

***Figure D-74. Nolensville Pike (US 31A/US 41A/SR 11) and Thompson Lane (SR 155)***






Intersection #9 - Nolensville Pike (SR-11) and Thompson Lane (SR-155) Recommended Improvements

Figure 9B.

***Figure D-75. Nolensville Pike (US 31A/US 41A/SR 11) and Thompson Lane (SR 155) – Typical Sections***





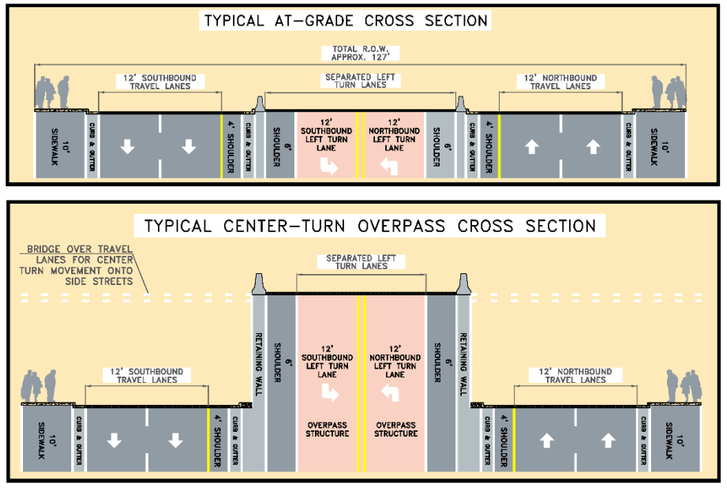
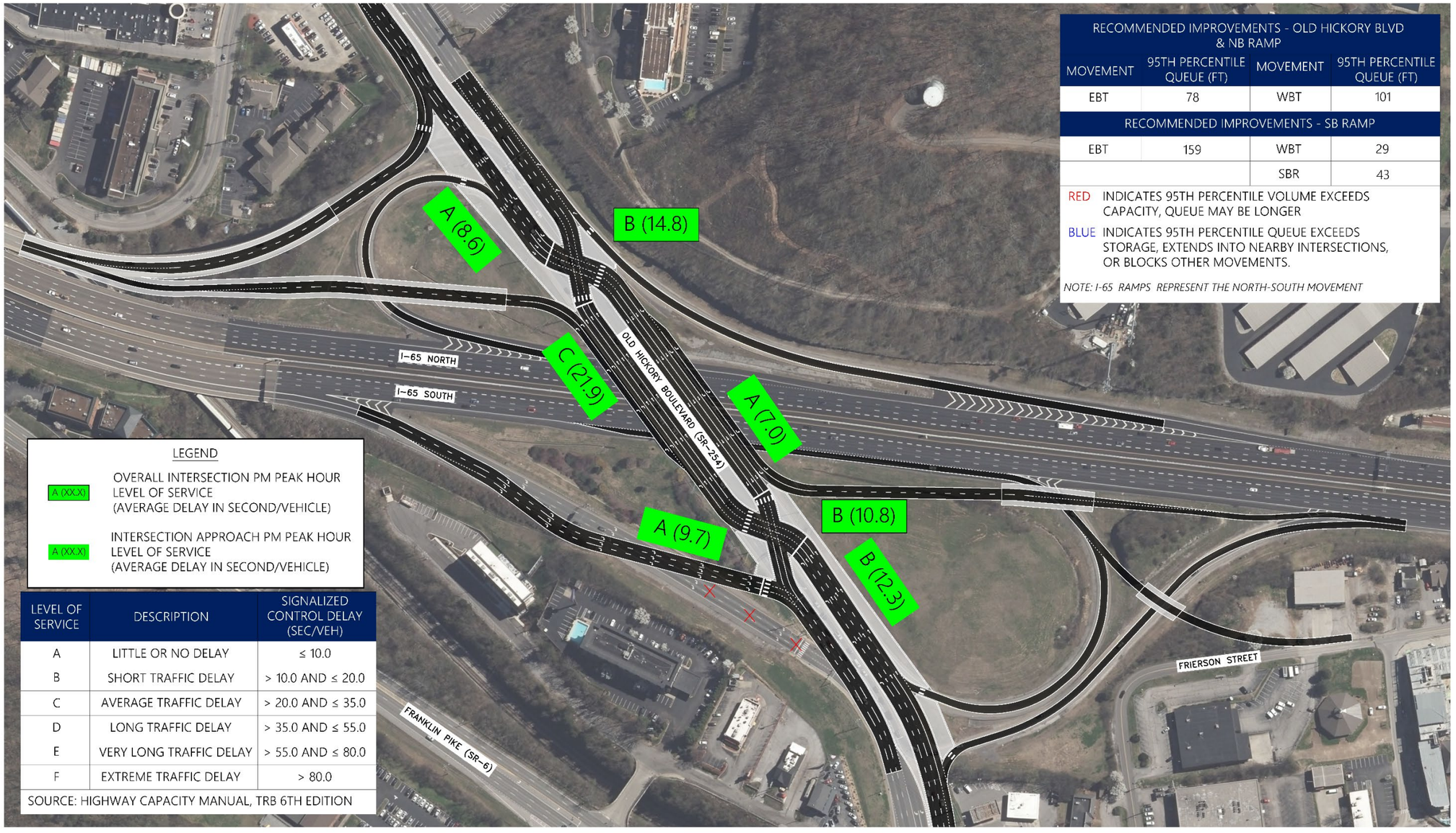



***Figure D-76. Old Hickory Boulevard (SR 254) and I-65***






| RECOMMENDED IMPROVEMENTS - OLD HICKORY BLVD & NB RAMP | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| EBT | 78 | WBT | 101 |
| RECOMMENDED IMPROVEMENTS - SB RAMP | | | |
| EBT | 159 | WBT | 29 |
| | | SBR | 43 |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: I-65 RAMPS REPRESENT THE NORTH-SOUTH MOVEMENT*

| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |

SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION

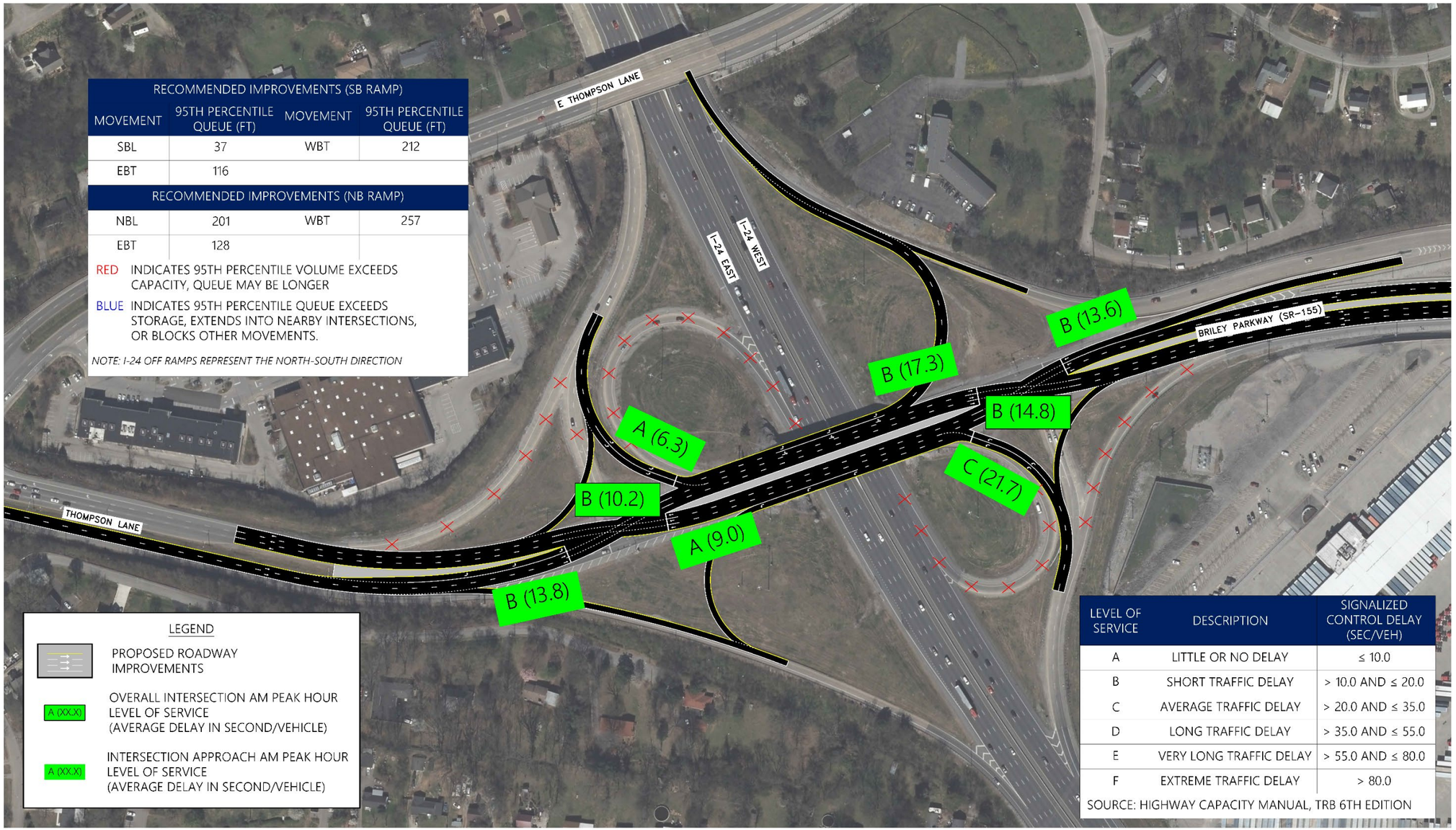
Intersection #34 - Old Hickory Boulevard (SR-254) and Interstate 65 Recommended Improvements

GRAPHIC SCALE 0' 200' 400'

Figure 34A.

***Figure D-77. Thompson Lane/Briley Parkway (SR 155) and I-24***






| RECOMMENDED IMPROVEMENTS (SB RAMP) | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| SBL | 37 | WBT | 212 |
| EBT | 116 | | |
| **RECOMMENDED IMPROVEMENTS (NB RAMP)** | | | |
| NBL | 201 | WBT | 257 |
| EBT | 128 | | |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: I-24 OFF RAMPS REPRESENT THE NORTH-SOUTH DIRECTION*

LEGEND

PROPOSED ROADWAY IMPROVEMENTS

A (XX.X) OVERALL INTERSECTION AM PEAK HOUR LEVEL OF SERVICE (AVERAGE DELAY IN SECOND/VEHICLE)

A (XX.X) INTERSECTION APPROACH AM PEAK HOUR LEVEL OF SERVICE (AVERAGE DELAY IN SECOND/VEHICLE)

| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |

SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION

N

GRAPHIC SCALE
0' 200' 400'

Intersection #30 - Thompson Lane / Briley Parkway (SR-155) and Interstate 24 Recommended Improvements

Figure 30A.

***Figure D-78. W. Trinity Lane (SR 65) and I-65***

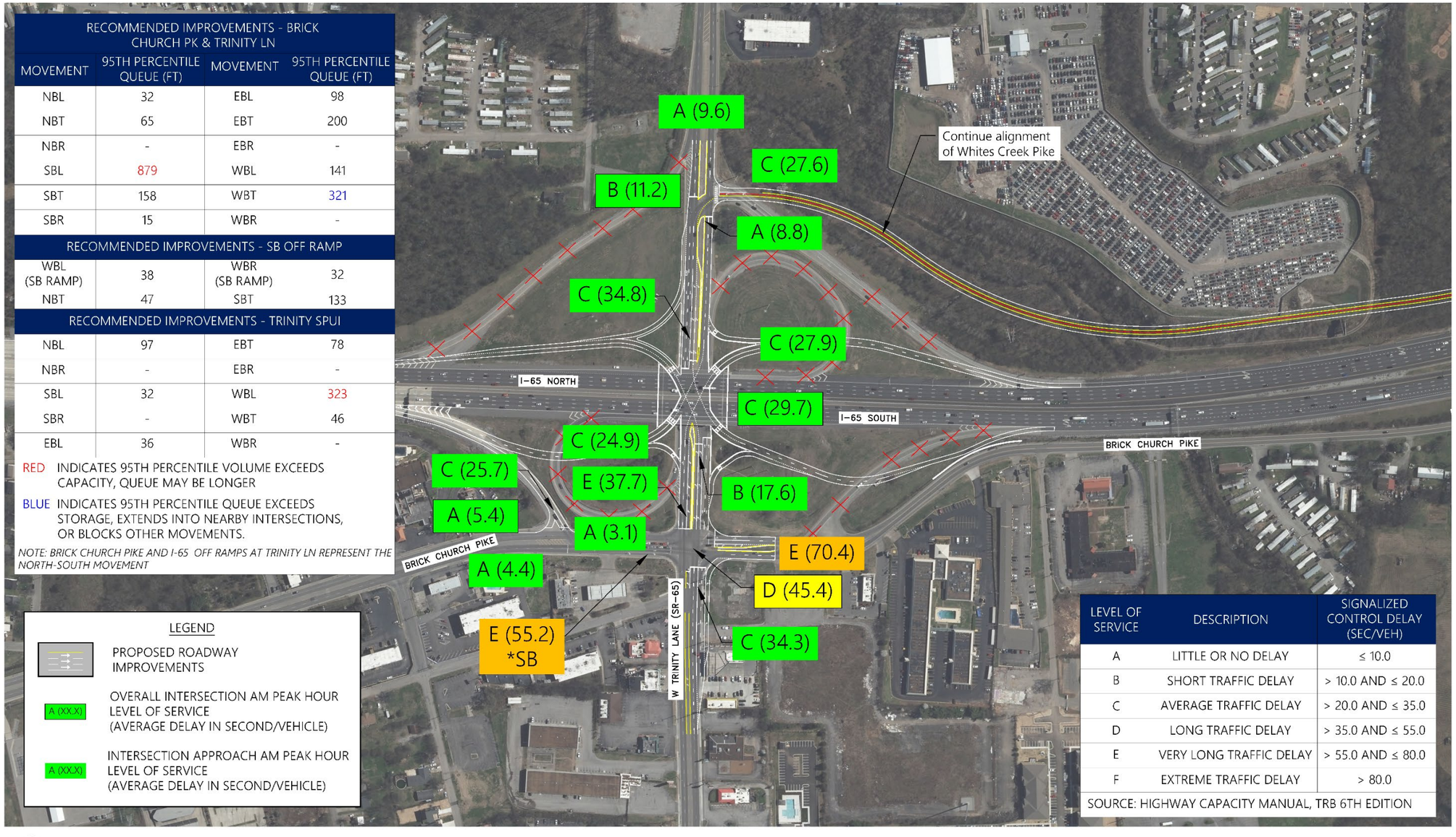


| RECOMMENDED IMPROVEMENTS - BRICK CHURCH PK & TRINITY LN | | | |
|---|---|---|---|
| MOVEMENT | 95TH PERCENTILE QUEUE (FT) | MOVEMENT | 95TH PERCENTILE QUEUE (FT) |
| NBL | 32 | EBL | 98 |
| NBT | 65 | EBT | 200 |
| NBR | - | EBR | - |
| SBL | 879 | WBL | 141 |
| SBT | 158 | WBT | 321 |
| SBR | 15 | WBR | - |
| **RECOMMENDED IMPROVEMENTS - SB OFF RAMP** | | | |
| WBL (SB RAMP) | 38 | WBR (SB RAMP) | 32 |
| NBT | 47 | SBT | 133 |
| **RECOMMENDED IMPROVEMENTS - TRINITY SPUI** | | | |
| NBL | 97 | EBT | 78 |
| NBR | - | EBR | - |
| SBL | 32 | WBL | 323 |
| SBR | - | WBT | 46 |
| EBL | 36 | WBR | - |

RED INDICATES 95TH PERCENTILE VOLUME EXCEEDS CAPACITY, QUEUE MAY BE LONGER

BLUE INDICATES 95TH PERCENTILE QUEUE EXCEEDS STORAGE, EXTENDS INTO NEARBY INTERSECTIONS, OR BLOCKS OTHER MOVEMENTS.

*NOTE: BRICK CHURCH PIKE AND I-65 OFF RAMPS AT TRINITY LN REPRESENT THE NORTH-SOUTH MOVEMENT*




| LEVEL OF SERVICE | DESCRIPTION | SIGNALIZED CONTROL DELAY (SEC/VEH) |
|---|---|---|
| A | LITTLE OR NO DELAY | ≤ 10.0 |
| B | SHORT TRAFFIC DELAY | > 10.0 AND ≤ 20.0 |
| C | AVERAGE TRAFFIC DELAY | > 20.0 AND ≤ 35.0 |
| D | LONG TRAFFIC DELAY | > 35.0 AND ≤ 55.0 |
| E | VERY LONG TRAFFIC DELAY | > 55.0 AND ≤ 80.0 |
| F | EXTREME TRAFFIC DELAY | > 80.0 |

SOURCE: HIGHWAY CAPACITY MANUAL, TRB 6TH EDITION

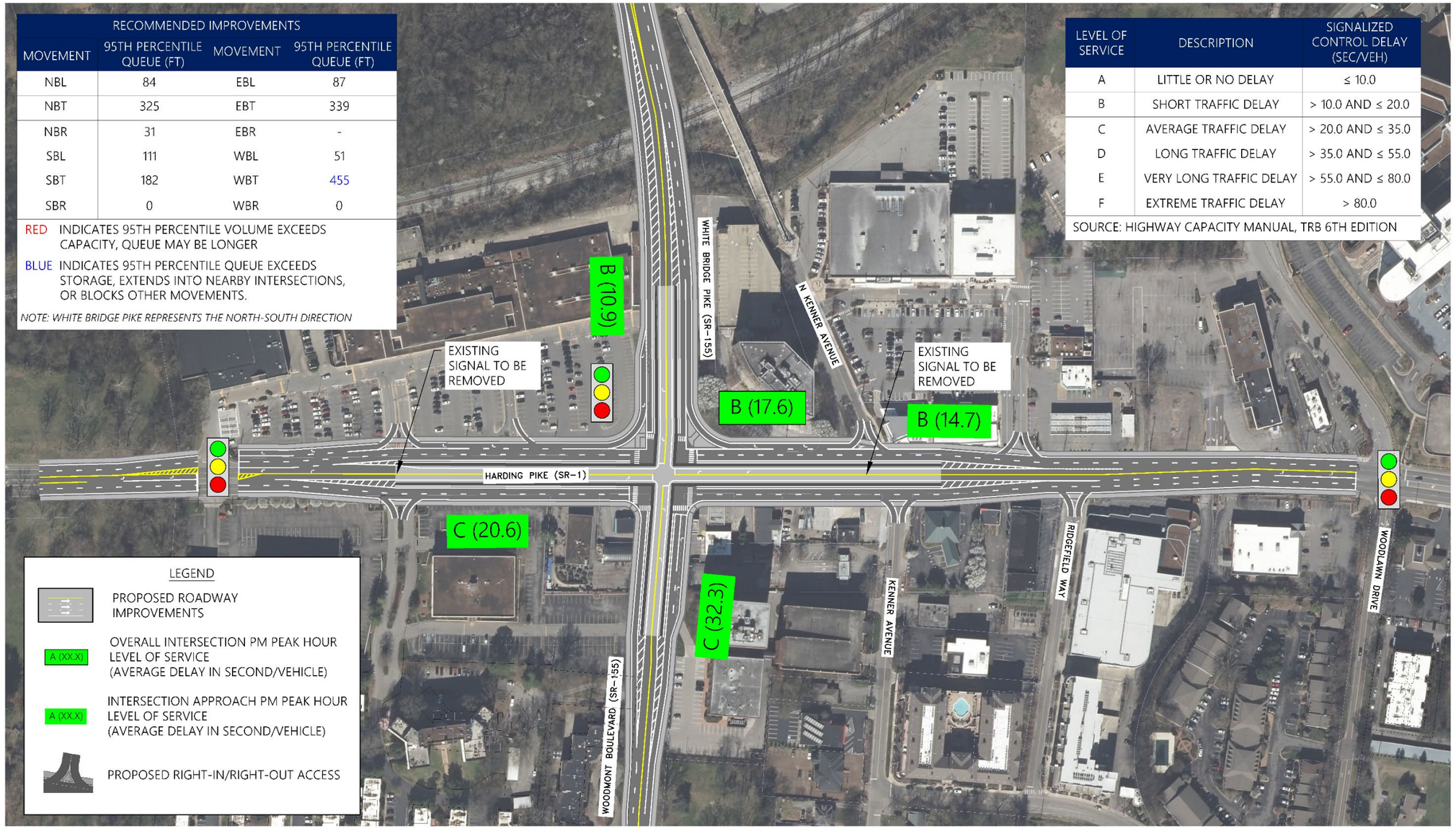
Intersection #31 - West Trinity Lane (SR-65) and Interstate 65 Recommended Improvements

GRAPHIC SCALE 0' 300' 600'

Figure 31A.

***Figure D-79. White Bridge Pike/Woodmont Boulevard (SR 155) and Harding Pike (US 70S/SR 1)***






Intersection #17 - White Bridge Pike ( SR-155) / Woodmont Boulevard (SR-155) and Harding Pike (SR-1) Recommended Improvements

Figure 17A.