

# WISCONSIN AVENUE EXTENSION TRAFFIC IMPACTS

Village of Elm Grove

August 14, 2017

# HISTORIC DAILY TRAFFIC

|                    | <b>Pilgrim Parkway</b>               | <b>Bluemound Road</b>                 | <b>Watertown Plank Road</b>           |
|--------------------|--------------------------------------|---------------------------------------|---------------------------------------|
| <b><u>Year</u></b> | <b><u>South of Gebhardt Road</u></b> | <b><u>East of Pilgrim Parkway</u></b> | <b><u>East of Pilgrim Parkway</u></b> |
| 2000               | 10,400                               | 41,500                                | 6,200                                 |
| 2003               | 14,700                               | 38,700                                | 6,000                                 |
| 2006               | 14,750                               | 36,800                                | 5,500                                 |
| 2009               | 14,700                               | 48,300                                | 6,300                                 |
| 2012               | 14,800                               | 33,300                                | 6,300                                 |
| 2015               | 12,000                               | 34,000                                | 5,600                                 |



# TRAFFIC PROJECTION SCENARIOS

- A** Existing Conditions without any roadway changes
- B** Extend Wisconsin Avenue to Pilgrim Parkway without any changes to Watertown Plank Road
- C** Extend Wisconsin Avenue to Pilgrim Parkway and relocate Watertown Plank Road north side of Ace Hardware. (This scenario restricts existing Watertown Plank Road and North Shore Bank driveway access to right turns to/from Pilgrim Parkway).
- D** Same as Scenario C except Terrace Drive would be cul-de-saced at its intersection with Bluemound Road

Note: all scenarios assume Pilgrim Parkway remains a 2-lane roadway

# RELOCATED WATERTOWN PLANK ROAD CONCEPT



# YEAR 2017 WATERTOWN PLANK ROAD TRAFFIC PROJECTIONS

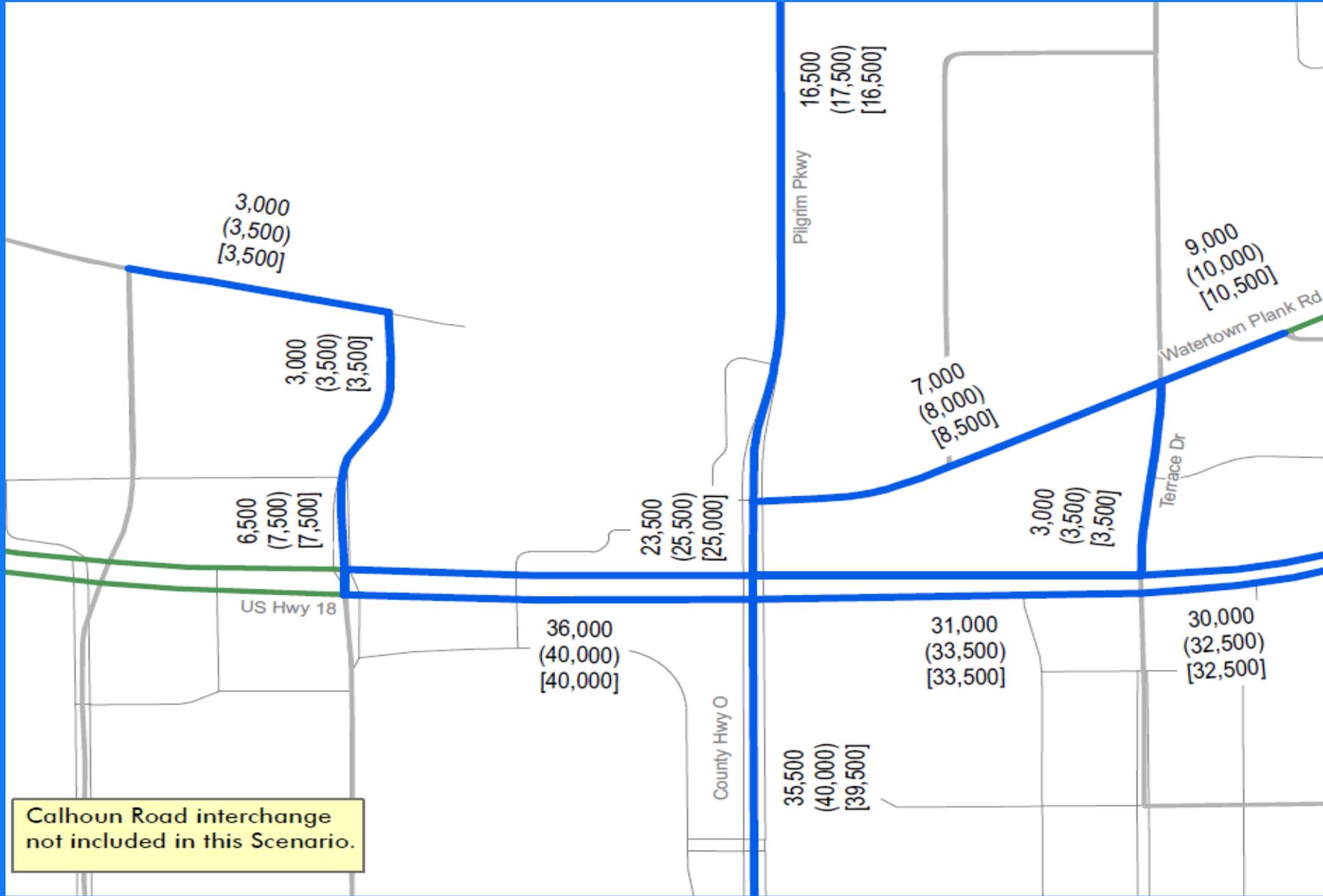
| <u>Road Segment</u>               | <u>A-Existing<br/>Condition</u> | <u>B-Extension<br/>Only</u> | <u>C-Extension &amp;<br/>Relocate WPR</u> | <u>D-Extension &amp;<br/>Close Terrace</u> |
|-----------------------------------|---------------------------------|-----------------------------|---|--|
| <b>Watertown Plank Road (WPR)</b> |                                 |                             |   |  |
| - existing WPR                    | 7,000                           | 7,000                       | 2,000                                     | 3,000                                      |
| - relocated WPR                   | --                              | --                          | 4,000*                                    | 6,000                                      |
| <b>Wisconsin Avenue</b>           |                                 |                             |   |  |
| -west of Pilgrim Pkwy             | --                              | 3,000                       | 4,000                                     | 5,000                                      |
| -west of Main Street              | 3,000                           | 4,500                       | 5,000                                     | 6,000                                      |
| <b>Terrace Drive</b>              | 3,000                           | 3,000                       | 4,000*                                    | --   |
| <b>Pilgrim Parkway</b>            |                                 |                             |   |  |
| -north on WPR                     | 16,500                          | 17,500                      | 17,500                                    | 17,500                                     |
| <b>Bluemound Road</b>             |                                 |                             |   |  |
| -east of Pilgrim Pkwy             | 31,000                          | 30,500                      | 31,500                                    | 28,500*                                    |
| -west of Pilgrim Pkwy             | 36,000                          | 33,000                      | 32,500                                    | 31,500                                     |

Notes: \* sensitive to Terrace Drive traffic diversion

# YEAR 2050 WATERTOWN PLANK ROAD TRAFFIC PROJECTIONS

| <b>Road Segment</b>         | <b>A- Existing Condition</b> | <b>B-Extension Only</b> | <b>C-Extension &amp; Relocate WPR</b> | <b>D-Extension &amp; Close Terrace</b> |
|-----------------------------|------------------------------|-------------------------|---------------------------------------|--|
| <b>Watertown Plank Road</b> |                              |                         |                                       |  |
| - existing WPR              | 8,500                        | 8,500                   | 2,500                                 | 3,500                                  |
| - relocated WPR             | --                           | --                      | 4,500*                                | 7,500                                  |
| - east of Terrace           | 10,500                       | 10,500                  | 10,500                                | 11,500                                 |
| <b>Wisconsin Avenue</b>     |                              |                         |                                       |  |
| -west of Pilgrim            | --                           | 3,500                   | 4,500                                 | 5,500                                  |
| -west of Main               | 3,500                        | 5,500                   | 6,000                                 | 7,000                                  |
| <b>Terrace Drive</b>        | 3,500                        | 3,500                   | 5,000*                                | --                                     |
| <b>Pilgrim Parkway</b>      |                              |                         |                                       |  |
| -north on WPR               | 16,500                       | 17,000                  | 17,000                                | 17,000                                 |
| <b>Bluemound Road</b>       |                              |                         |                                       |  |
| -east of Pilgrim            | 33,500                       | 29,500                  | 31,000                                | 27,000*                                |
| -west of Pilgrim            | 40,000**                     | 30,500                  | 30,000                                | 29,000                                 |

Notes: \* sensitive to Terrace Drive traffic diversion  
 \*\* reflects absence of a Calhoun Road interchange  
 assumes Pilgrim Parkway remains 2-lanes

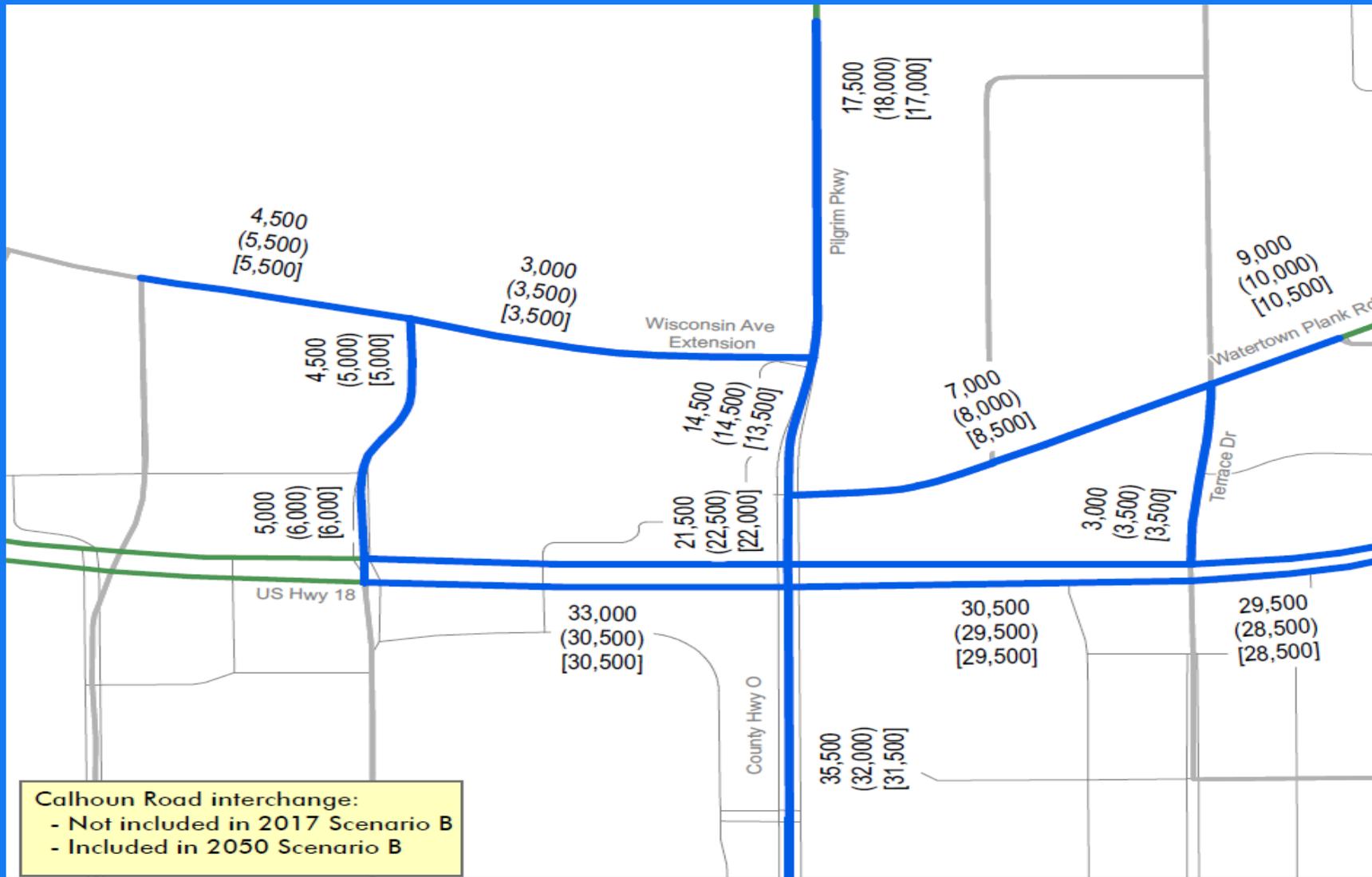


Calhoun Road interchange not included in this Scenario.

Legend

- xxxx = 2017
- (xxxx) = 2050 – 4 lane
- [yyy] = 2050 – 2 lane

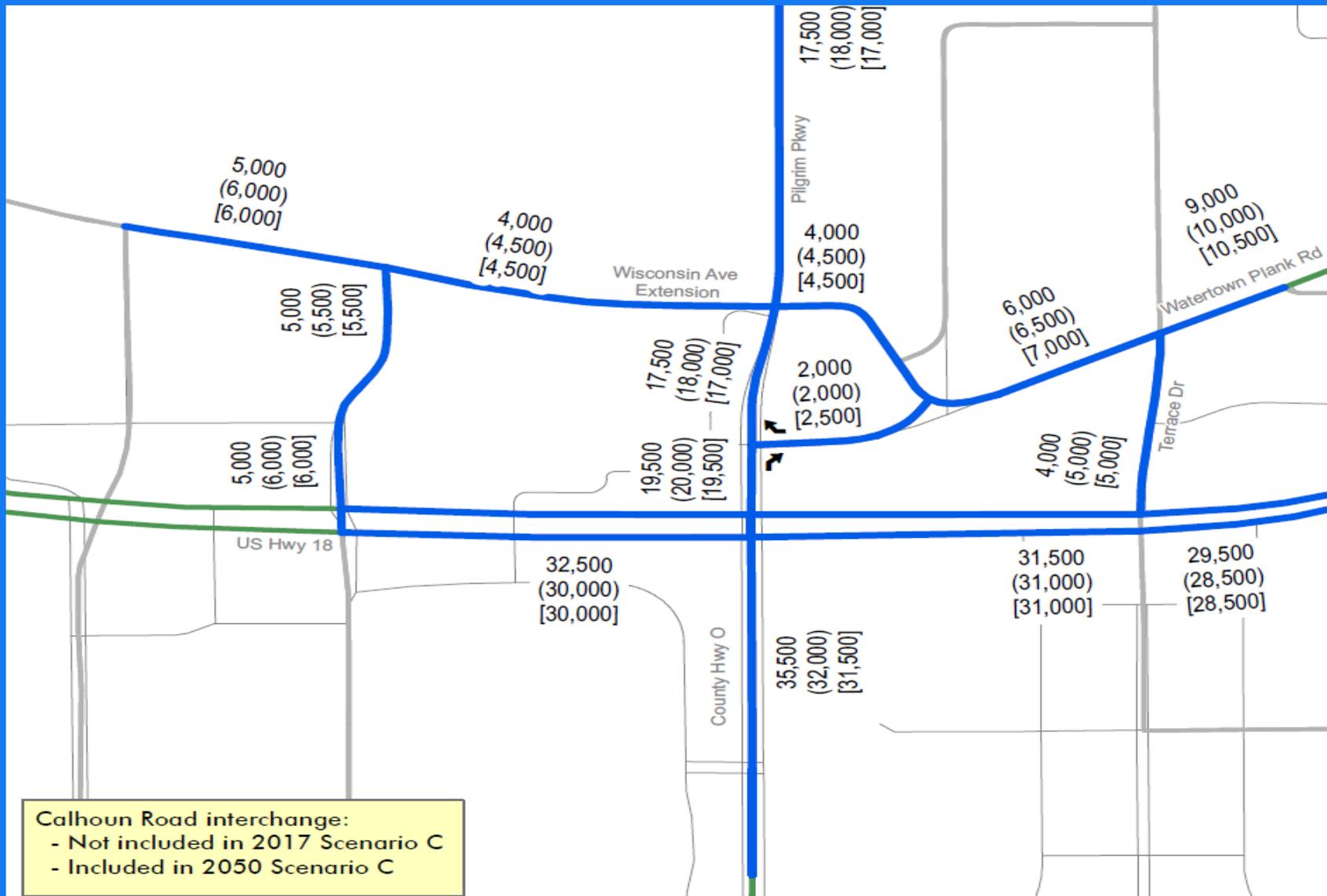
**‘NO BUILD’ TRAFFIC PROJECTION**



Calhoun Road interchange:  
 - Not included in 2017 Scenario B  
 - Included in 2050 Scenario B

Legend  
 xxxx = 2017  
 (xxxx) = 2050 – 4 lane  
 (yyy) = 2050 – 2 lane

# WISCONSIN AVENUE EXTENSION ONLY TRAFFIC PROJECTION



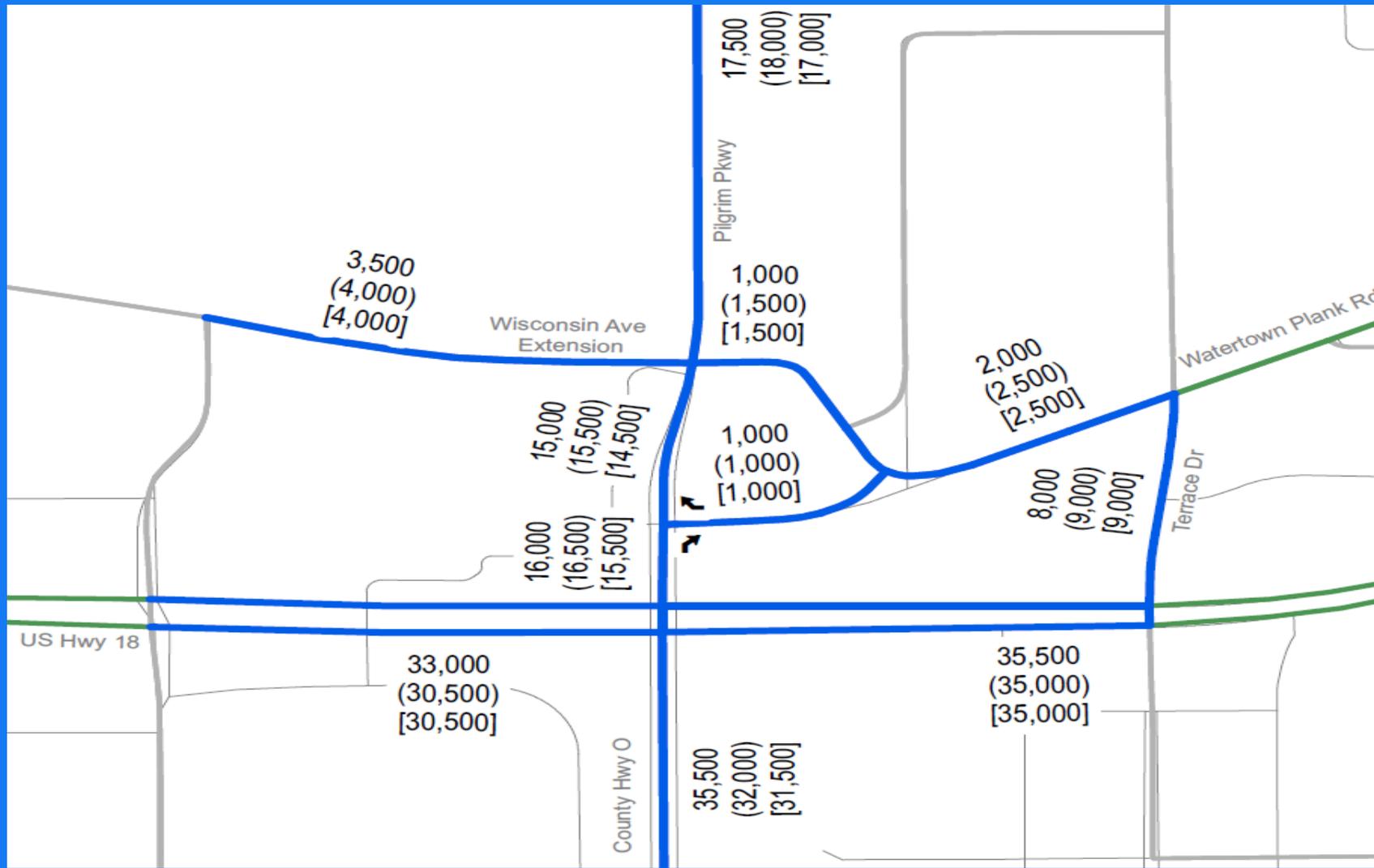
### Legend

xxxx = 2017

(xxxx) = 2050 – 4 lane

(yyy) = 2050 – 2 lane

# RELOCATE WATERTOWN PLANK ROAD TRAFFIC PROJECTION



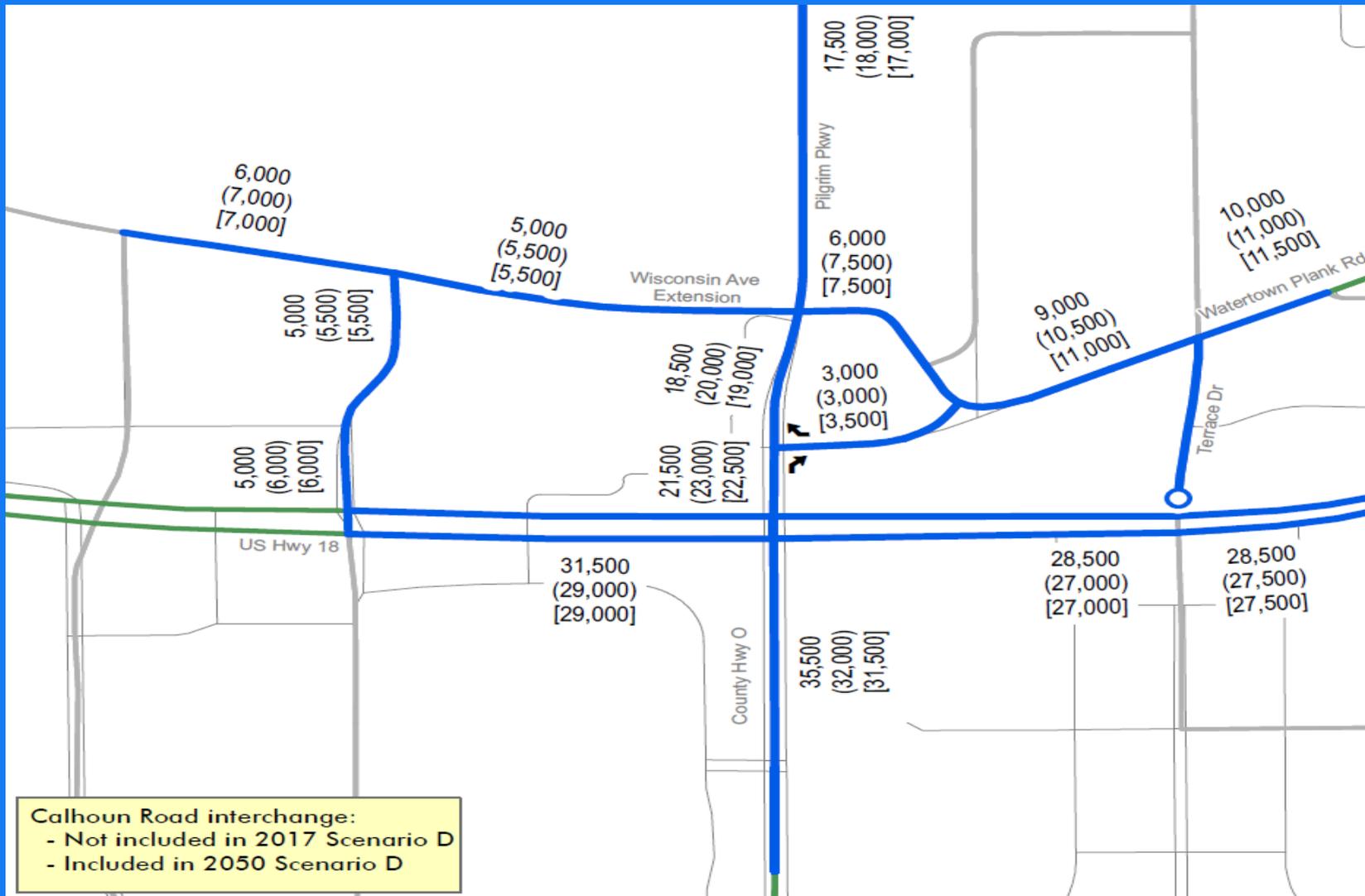
### Legend

xxxx = 2017

(xxxx) = 2050 – 4 lane

(yyy) = 2050 – 2 lane

**RELOCATE WATERTOWN PLANK ROAD WITH MINIMAL DELAY AT TERRACE DRIVE TRAFFIC PROJECTION**

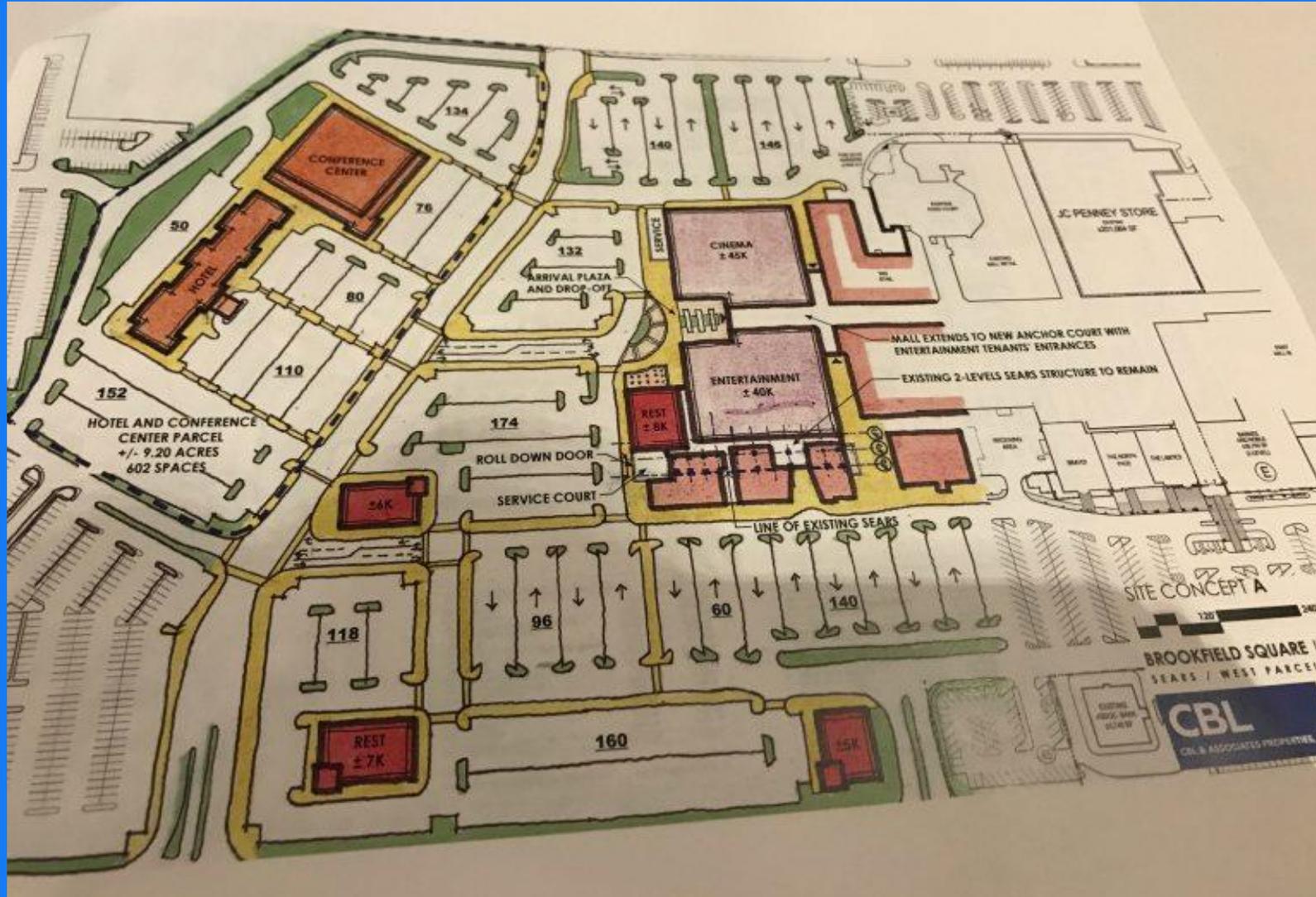


### Legend

- xxxx = 2017
- (xxxx) = 2050 – 4 lane
- (yyy) = 2050 – 2 lane

# CUL\_DE\_SAC TERRACE DRIVE AT BLUEMOUND TRAFFIC PROJECTION

# BROOKFIELD CONFERENCE CENTER PROPOSAL



April/May 2017

# BROOKFIELD CONFERENCE CENTER PROPOSAL

## Conference Center

- ▶ 15,000 to 18,000 sf ballroom
- ▶ 6,000 sf junior ballroom
- ▶ Multiple meeting rooms
- ▶ Maximum capacity
  - ▶ 2,000 persons with 'theater seating'
  - ▶ 1,500 persons with 'banquet seating'

## Hotel

- ▶ 150 to 175 rooms

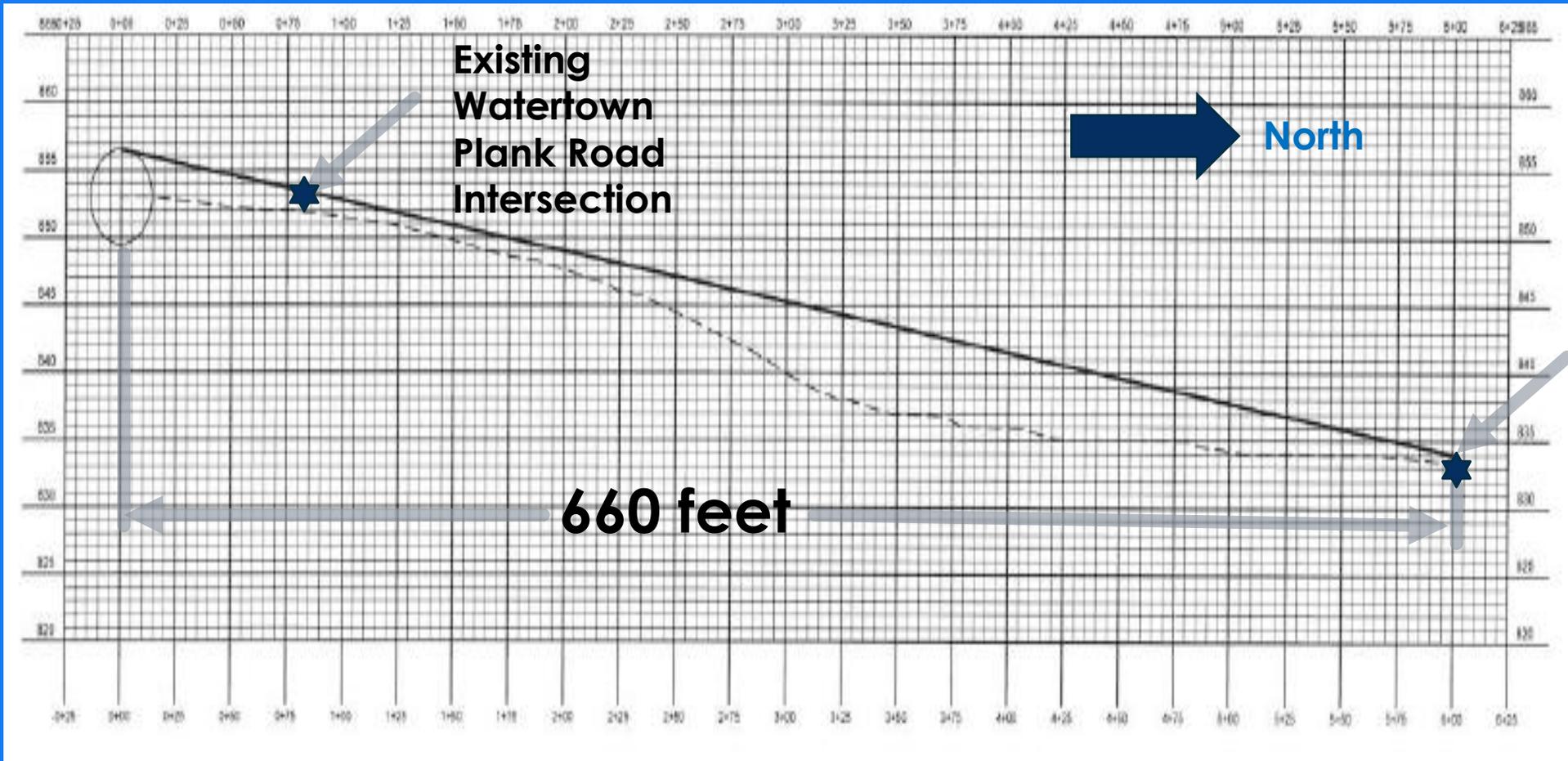
# EVENT TRIP DISTRIBUTION FOR A BROOKFIELD SQUARE CONFERENCE/HOTEL PROPOSAL

## Event Traffic Generation

1,000 to 1,300 cars

## Traffic Distribution

| <u>Street Segment</u>                   | <u>Percent Trips</u> | <u>New Traffic</u> |
|---|----------------------|--------------------|
| Pilgrim Parkway North of Bluemound Road | 3.8                  | 50                 |
| Bluemound Road east of Pilgrim Parkway  | 9.2                  | 120                |
| Bluemound Road west of Pilgrim Parkway  | 9.2                  | 120                |
| Moorland Road south of I-94             | 11.8                 | 150                |
| I-94 east of Moorland Road              | 33.6                 | 440                |
| I-94 west of Moorland Road              | 32.4                 | 420                |
| Total                                   | 100.0                | 1,300              |



Realigned  
Watertown  
Plank Road  
Intersection

# PILGRIM PARKWAY STOPPING SIGHT DISTANCE

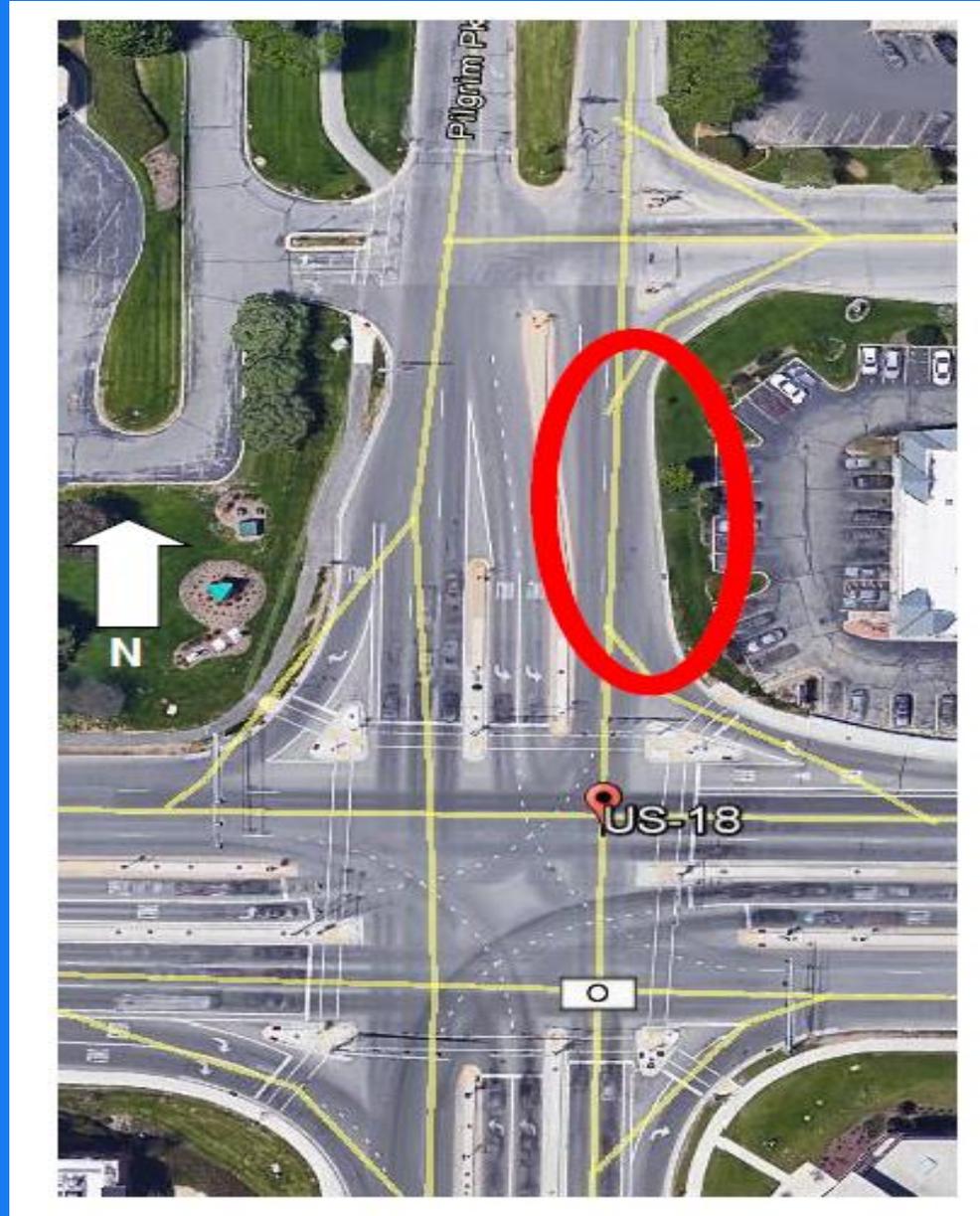
# 5-YEAR INTERSECTION CRASH HISTORY

| Intersection              | Severity   |           |          | Frequency |           |           |           |           |           | Total      |
|---------------------------|------------|-----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
|                           | PDO        | Injury    | Fatality | 2011      | 2012      | 2013      | 2014      | 2015      | 2016      |            |
| Bluemound & Pilgrim       | 99         | 70        | 0        | 36        | 31        | 28        | 30        | 23        | 21        | 169        |
| Pilgrim & Watertown Plank | 36         | 6         | 0        | 8         | 7         | 4         | 10        | 9         | 4         | 42         |
| Bluemound & Terrace       | 3          | 2         | 0        | 2         | 0         | 1         | 1         | 1         | 0         | 5          |
| <b>Total</b>              | <b>138</b> | <b>78</b> | <b>0</b> | <b>46</b> | <b>38</b> | <b>33</b> | <b>41</b> | <b>33</b> | <b>25</b> | <b>216</b> |

# 5-YEAR INTERSECTION CRASH TYPES

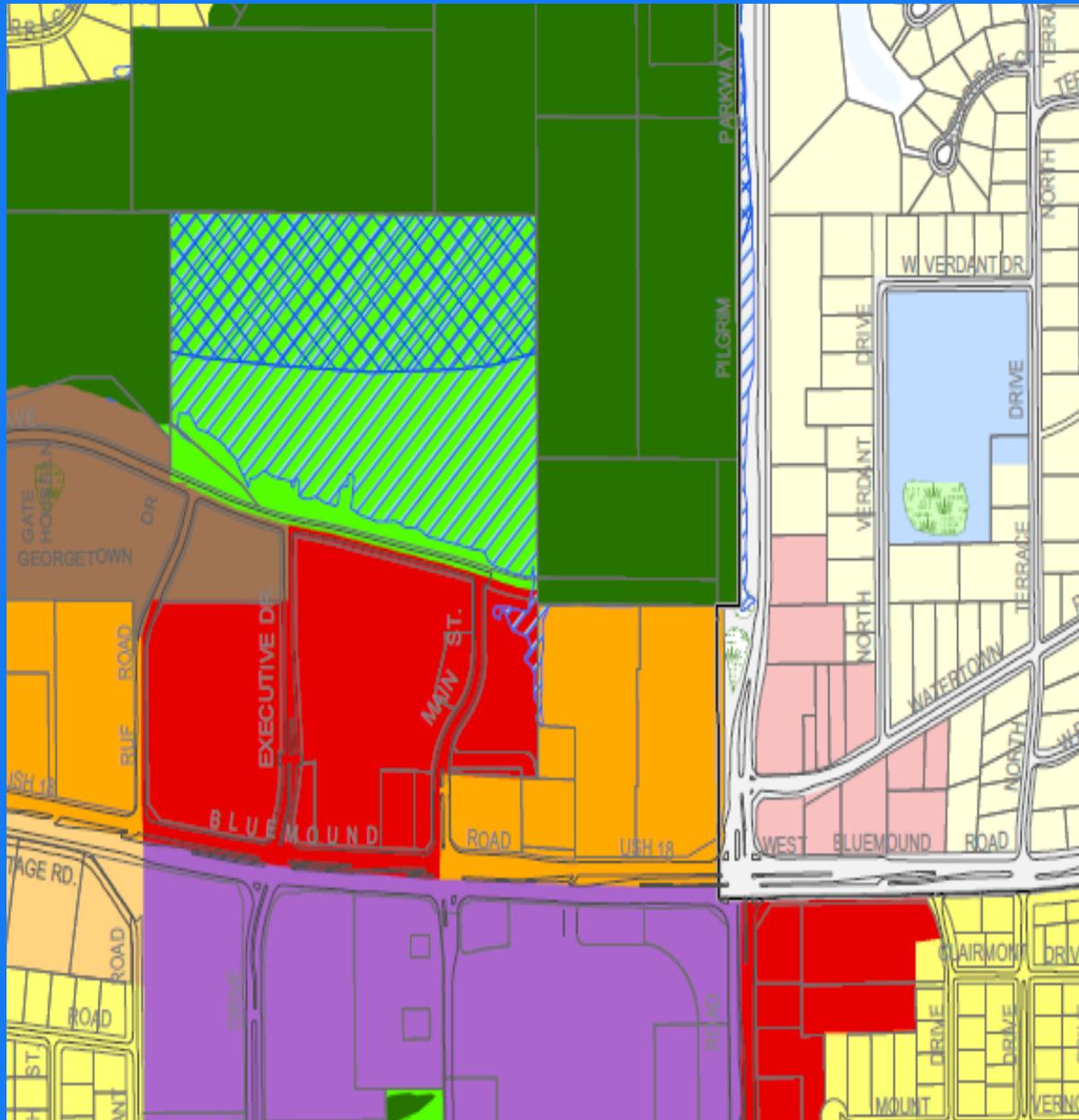
| Intersection              | Collision Pattern |            |           |              |          |          | Total      |
|---------------------------|-------------------|------------|-----------|--------------|----------|----------|------------|
|                           | Angle             | Rear-End   | Sideswipe | Fixed Object | Head-On  | Bike/Ped |            |
| Bluemound & Pilgrim       | 28                | 122        | 7         | 11           | 0        | 1        | 169        |
| Pilgrim & Watertown Plank | 25                | 7          | 8         | 1            | 1        | 0        | 42         |
| Bluemound & Terrace       | 2                 | 1          | 2         | 0            | 0        | 0        | 5          |
| <b>Total</b>              | <b>55</b>         | <b>130</b> | <b>17</b> | <b>12</b>    | <b>1</b> | <b>1</b> | <b>216</b> |

# PILGRIM PARKWAY TRAFFIC WEAVING CONFLICT AREA



# NORTH SHORE BANK ACCESS





## Future Land Use Map

City of Brookfield  
Waukesha County  
Wisconsin

### TO THE USER

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### LEGEND

#### Future Land Use Categories

##### Housing Focused

- Lower Density 
- Medium Density 
- Higher Density 

##### Shopping/Services Focused

- Lower Density 
- Higher Density 

##### Employment Focused

- Lower Density 
- Higher Density 

##### Mixed Use

- Lower Density 
- Higher Density 

##### Nature, Recreation, and Community Facilities

- Conservancy/Wetland 
- Parks & Recreation 
- Community Facility 

##### Flood Overlay

- FF Flood Fringe 
- FW Floodway 

##### Wetland Overlay

- 2005 Wetland 