

February
2021



Bozeman

Parking
Assessment

On-Street

framework

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Project Purpose + Findings

Downtown Bozeman is growing consistent with the vision and goals identified in City planning documents. Like many communities experiencing growth, there are continued discussions about impacts on its impact on parking availability and how best to manage a limited supply of parking. The City adopted a Downtown Parking Strategic Management Plan in 2016 and is continuing to work on implementation and has re-engaged the community in discussions about parking in and around Downtown. However, the City does not have a detailed set of data for both the on- and off-street system to guide City decision-making with a few exceptions such as the Bridger Garage which continues to show available capacity. From May to November the garage was on average 32% occupied. The lack of data, particularly on-street, has made it difficult to verify community perceptions around parking and the notion that new higher-density development projects are negatively impacting the availability of parking particularly in residential neighborhoods.

Homebase Partners has developed several projects in and around Downtown Bozeman that are primarily multi-family residential. Two recent Downtown projects include One11 and Black Olive which are both multi-family apartments surrounded by mostly free and unregulated on-street parking. This study was undertaken for the following purposes:

1. To determine at a high-level the parking situation in the three study areas using a data-driven methodology.

Data indicates there is on-street parking available in all three study areas at any given time.

2. To understand if new multi-family residential projects are making it hard to find parking in the study areas.

It does not appear, based on the data, that there would be difficulty finding on-street parking in any of the study areas during the times observed.

3. To develop a set of baseline data within and around the North Central Master Plan to inform development of the project and the management of parking.

Data collected in the North Central study area always showed hundreds of free and unregulated parking stalls available during the collection period and does not indicate current parking demand challenges in the neighborhood.

Project Findings

On-Street parking was available in the study areas at all times observed. On the days that data was collected there was parking available within the study areas at all times with the highest occupancies observed in the One11 study area on weekdays.

The North Central/One11 Study Area shows demand on weekdays from employees and visitors. In the One11 study the increased demand in the daytime is likely due to employees and visitors as residential demand typically decreases during the day as people commute to work. Less people may be commuting during COVID resulting in more resident vehicles remaining throughout the day. Similarly, there could be less employee and visitor demand during the day due to COVID but there is still a pronounced increase in the daytime from non-residents in the One11 and North Central study area. During non-business hours (early morning, evenings, and on Saturday) the parking occupancies are significantly lower in the One11 and North Central study areas.

Parking occupancy observed does not meet the thresholds for permit districts established by the City. The City of Bozeman recently adopted an ordinance establishing a parking district program around Downtown. No parking districts have been established to date. Parking districts are intended to address neighborhood parking impacts in the areas adjacent to Downtown and outside the B-3 Zoning District. The program does not include strict criteria for establishing a parking district, but the guidance used by the City states that parking occupancy should be observed to be above 85% for several hours and that 25% of the vehicles must be registered outside of neighborhood. The areas observed for this study would not meet the 85% occupancy threshold. This study did not collect data on vehicle license plates or assess where vehicles observed are registered.

Demand on Saturday in the North Central/One11 study area was significantly lower than during the weekdays. The North Central/One11 study showed increased demand for on-street parking on weekdays particularly in the middle of the day whereas the Black Olive study area had relatively consistent parking demand on weekdays and on Saturday indicating lower demand from non-residents.

Demand was consistent on weekdays and Saturday in the Black Olive Study area. The Black Olive study area had relatively low parking occupancies throughout the three days when data was collected. Occupancy peaked at 63.5% at 2pm on Wednesday where 73 stalls were still available within the study area.

About Framework

Framework was hired by Homebase Partners to conduct the parking study and prepare this report. Data was collected in the field by staff from Stahly Engineering. Framework is an interdisciplinary planning and urban design firm based in Seattle, WA with a leading practice in the Northwest on downtown parking planning and management. Framework has led many downtown parking studies for many cities in Washington and advised on projects for cities around the country including Columbus, OH, Charleston, SC, and Oklahoma City, OK in the last three years. Framework brings expertise in assessing parking conditions and developing innovative strategies that are implemented with strong public support. In addition to parking Framework's practice includes street and public space design, downtown planning and urban design, arts and culture planning, architecture, programming and activation of public space, and public engagement.

Figure 1. Framework Parking Qualifications

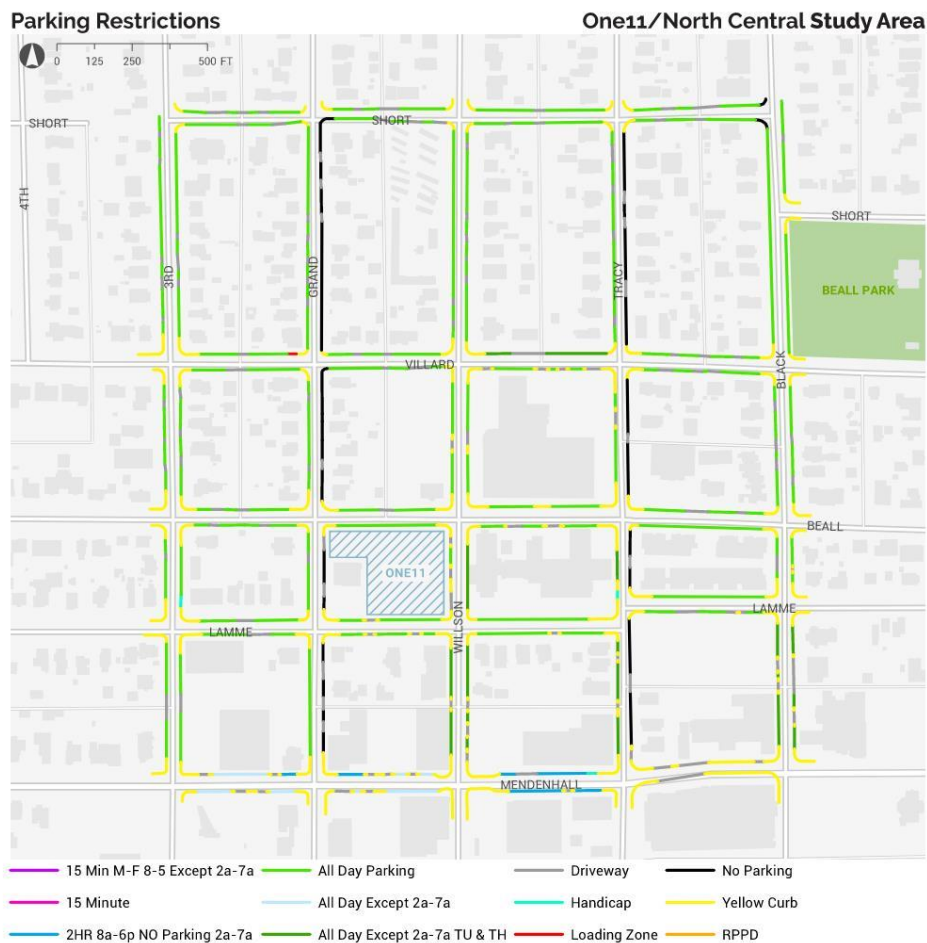
PROJECT	DOWNTOWN + NEIGHBORHOODS	DATA COLLECTION + ANALYSIS	PUBLIC OUTREACH	ENFORCEMENT	MANAGEMENT STRATEGIES	FINANCIAL ANALYSIS	PARKING CODE STANDARDS	PERMIT PROGRAMS	MOBILITY
Downtown Parking Strategy City of Olympia, WA	●	●	●	●	●	●	●	●	●
Downtown Parking Strategy City of Bainbridge Island, WA	●	●	●	●	●	●	●	●	●
Downtown Parking Plan City of Redmond, WA	●	●	●	●	●	●	●	●	●
Park and Ride Data and Reporting - King County, WA	●	●	●	●	●	●	●	●	●
Parking Study City of Bremerton, WA*	●	●	●	●	●	●	●	●	●
Town Center Parking Study City of Mercer Island, WA*	●	●	●	●	●	●	●	●	●
Access to Transit Study City of Mercer Island, WA*	●	●	●	●	●	●	●	●	●
SR 28 Parking Management Plan Tahoe Transportation District, NV	●	●	●	●	●	●	●	●	●
Peninsula Parking Study City of Charleston, SC	●	●	●	●	●	●	●	●	●
Downtown Parking Plan City of Columbus, OH	●	●	●	●	●	●	●	●	●
Downtown Parking Strategy Oklahoma City, OK	●	●	●	●	●	●	●	●	●
Downtown Parking Study* City of Wenatchee, WA	●	●	●	●	●	●	●	●	●
Downtown Parking Study City of Leavenworth, WA	●	●	●	●	●	●	●	●	●
Restricted Parking Zones Policy Review* City of Seattle, WA	●	●	●	●	●	●	●	●	●
Parking Strategies Project* City of Redmond, WA	●	●	●	●	●	●	●	●	●
Residential Permit Program City of Seatac, WA	●	●	●	●	●	●	●	●	●
Right-Size Parking Project* King County, WA	●	●	●	●	●	●	●	●	●

Study Areas + Parking Inventory

Study Areas

Data was collected in the two study areas shown in Figure 2 and Figure 3. The North Central/One11 study area included six days of data collection counts. The first round was focused on the blocks around the One11 project, and the second round included all the block faces shown in Figure 2. Most of the on-street parking in both study areas is unmanaged with all-day parking allowed with no time limits.

Figure 2. North Central/One11 Study Areas + Parking Restrictions



City of Bozeman, Framework, 2021

Figure 3. Black Olive Study Area + Parking Restrictions



City of Bozeman, Framework, 2021

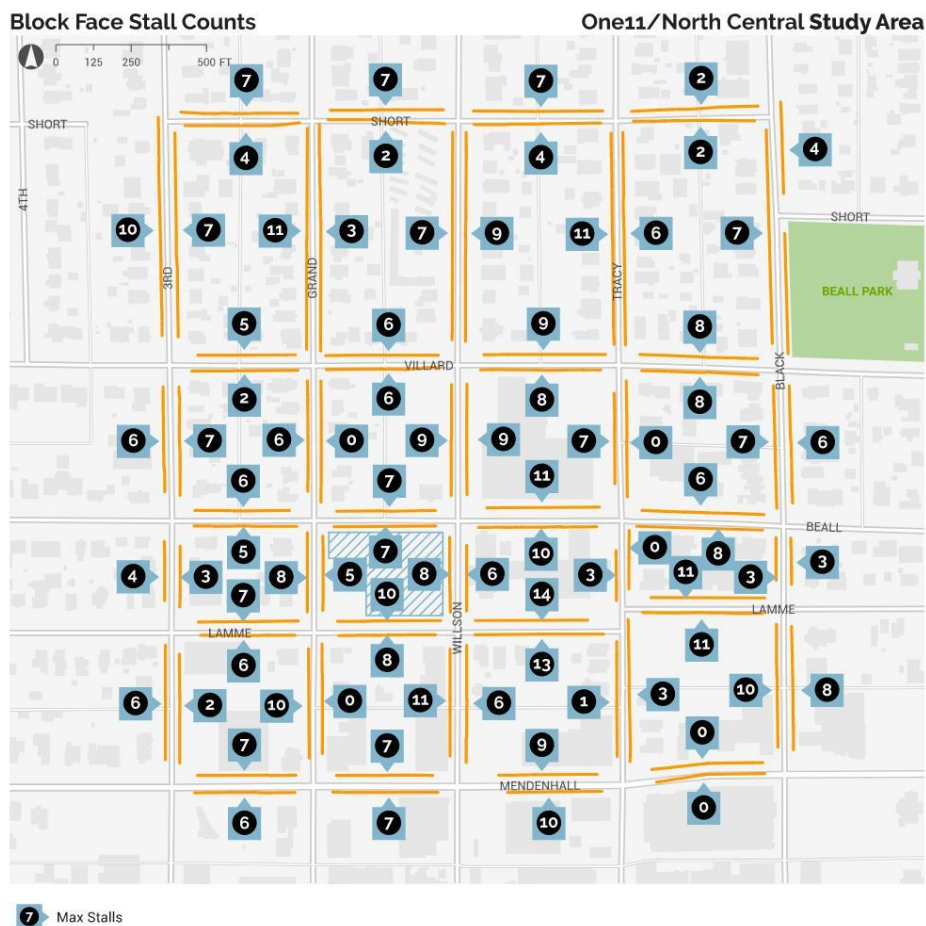
Parking Inventory

The City of Bozeman maintains an inventory of on-street parking stalls that was used as the basis for the parking inventory used in this study. However, the City uses 24' for each parking stalls and because the stalls are not striped or marked there are instances where the number of vehicles observed exceeded the City's parking inventory. Therefore, for the parking inventory we used either the City's parking inventory or the number of vehicles observed, whichever was higher.

North Central/One11 Study Area

The North Central study area has 718 on-street parking stalls whereas the City's inventory lists 650 stalls (See Figure 4). Several block faces were observed to have more legally vehicles parked than the City's inventory.

Figure 4. North Central/One11 Study Area Parking Inventory



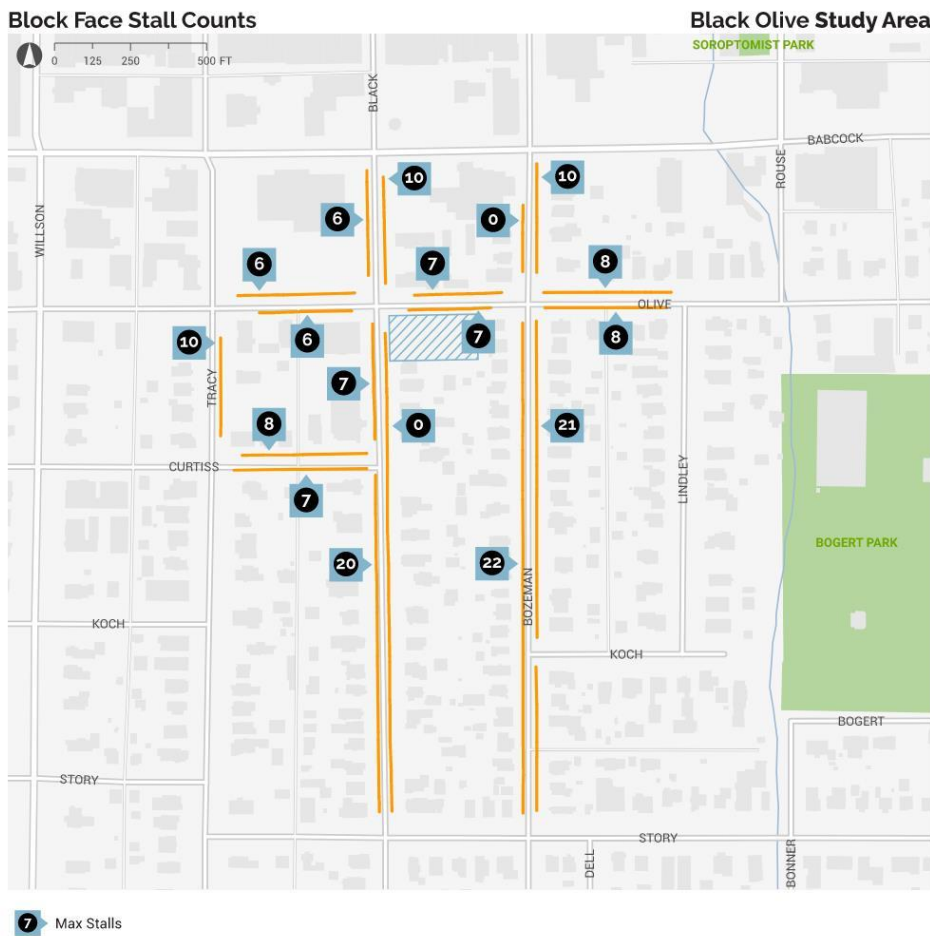
City of Bozeman, Framework, 2021

Black Olive

The Black Olive study area has 200 on-street parking stalls whereas the City's inventory lists 191 parking stalls (See

Figure 5).

Figure 5. Black Olive Study Area Parking Inventory



Framework, Stahly Engineering, 2021

Data Collection Methods

Data was collected based on the schedule shown in Figure 6. A total of nine hours of counts were completed in each study area on the dates shown to capture data in the morning, mid-day, and afternoon/evening. The amount of data is consistent with, and in many cases exceeds, the data that is typically collected to inform a public parking study in a downtown or neighborhood. In Framework's experience leading City parking studies, it is common the study to include a few days of data collection with a mix of on- and off-street facilities. Three days of data collection was completed in each of the three study areas and some blocks in the North Central Master Plan have six days of counts due to the overlap between the North Central and One11 study areas. The City of Bozeman's 2016 Strategic Parking Management Plan did not include any data collection. Data was collected in 2017 but predated several downtown development projects and was not of a sufficient quality to be particularly useful for planning purposes. The City is actively pursuing the capacity to be able to collect data in the future which will help improve decision-making.

Data collectors were in the field to observe and record the number of vehicles parked on each block face in the study areas. Each count was completed within an hour and counts were generally conducted in the same order each hour to maintain consistency. The data was compiled in an excel spreadsheet and compared to the parking stall inventory to develop parking occupancy results (*parking occupancy % = # of vehicles observed/parking stall inventory*).

Figure 6. Data Collection Periods

Study Area	Date	Count Times	Stall Inventory
One11	■ Wednesday 1/20/21	■ 8am-10am	181
	■ Thursday 1/22/21	■ 12pm-2pm	
	■ Saturday 1/24/21	■ 4pm-6pm	
Black Olive	■ Wednesday 1/20/21	■ 8am-10am	200
	■ Thursday 1/22/21	■ 12pm-2pm	
	■ Saturday 1/24/21	■ 4pm-6pm	
North Central	■ Wednesday 2/11/21	■ 8am-10am	718
	■ Thursday 2/12/21	■ 12pm-2pm	
	■ Saturday 2/6/21	■ 4pm-6pm	

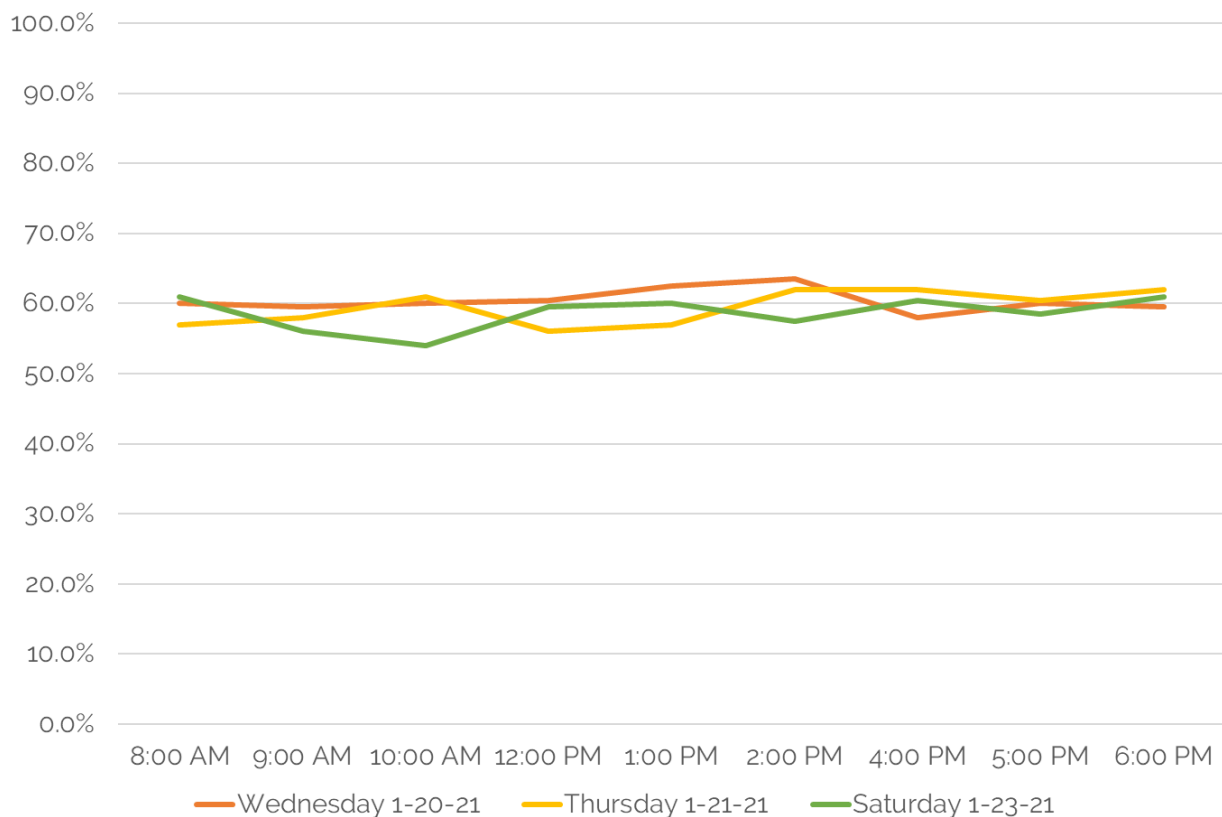
Framework, Stahly Engineering, 2021

Data Collection Results

Black Olive Study Area

Parking occupancies remained consistent on all three days where data was collected and throughout the day (See Figure 7). Occupancies were consistently in the 55 to 65% range with a peak occupancy of 63.5% at 2pm on Wednesday. The lack of change in parking demand throughout the day indicates low demand from non-residents and may show that fewer resident vehicles are leaving during the day due to COVID. Regardless the data shows that parking was always available and is not constrained even with any temporary increases in daytime demand from residents.

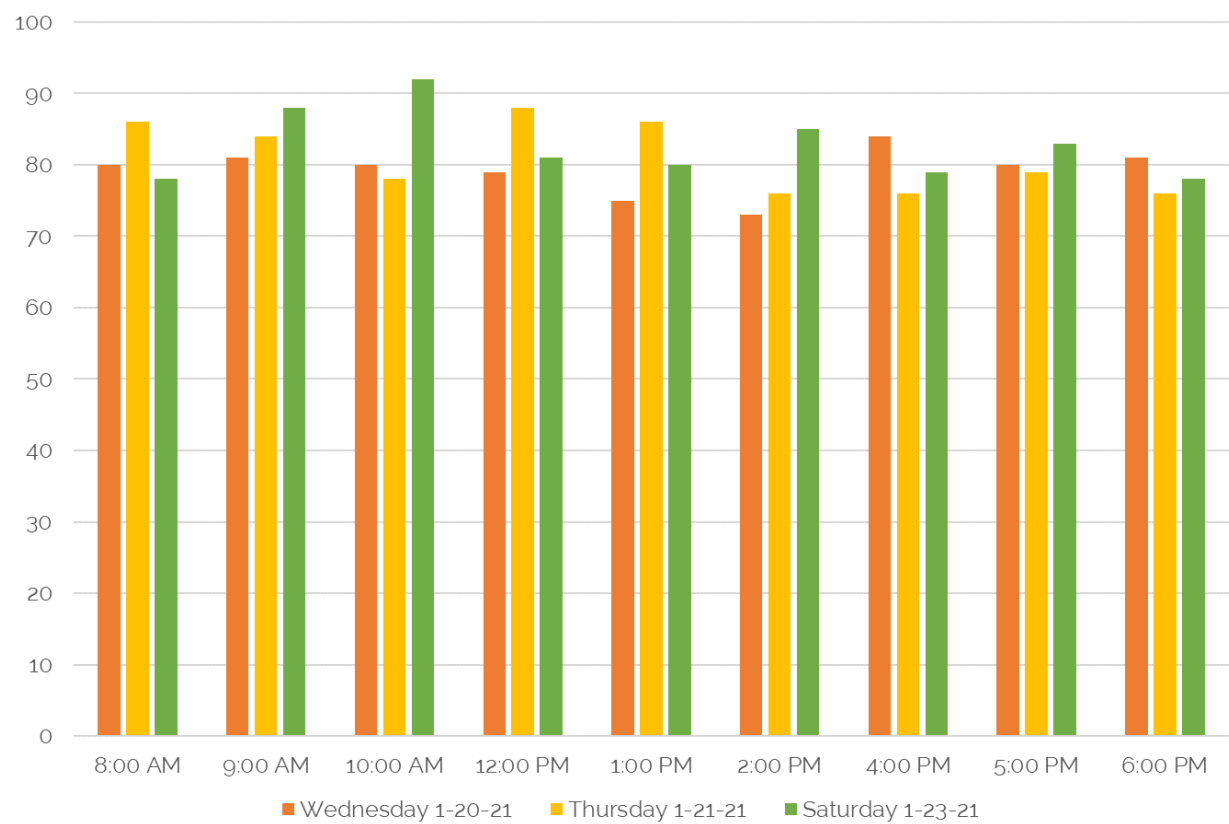
Figure 7. Black Olive Study Area Parking Occupancy Trends



Framework, Stahly Engineering, 2021

Figure 8 shows the number of vacant or available on-street stalls in the Black Olive study area during the three days data was collected. The number of stalls available ranged from a low of about 70 to a high above 90 stalls.

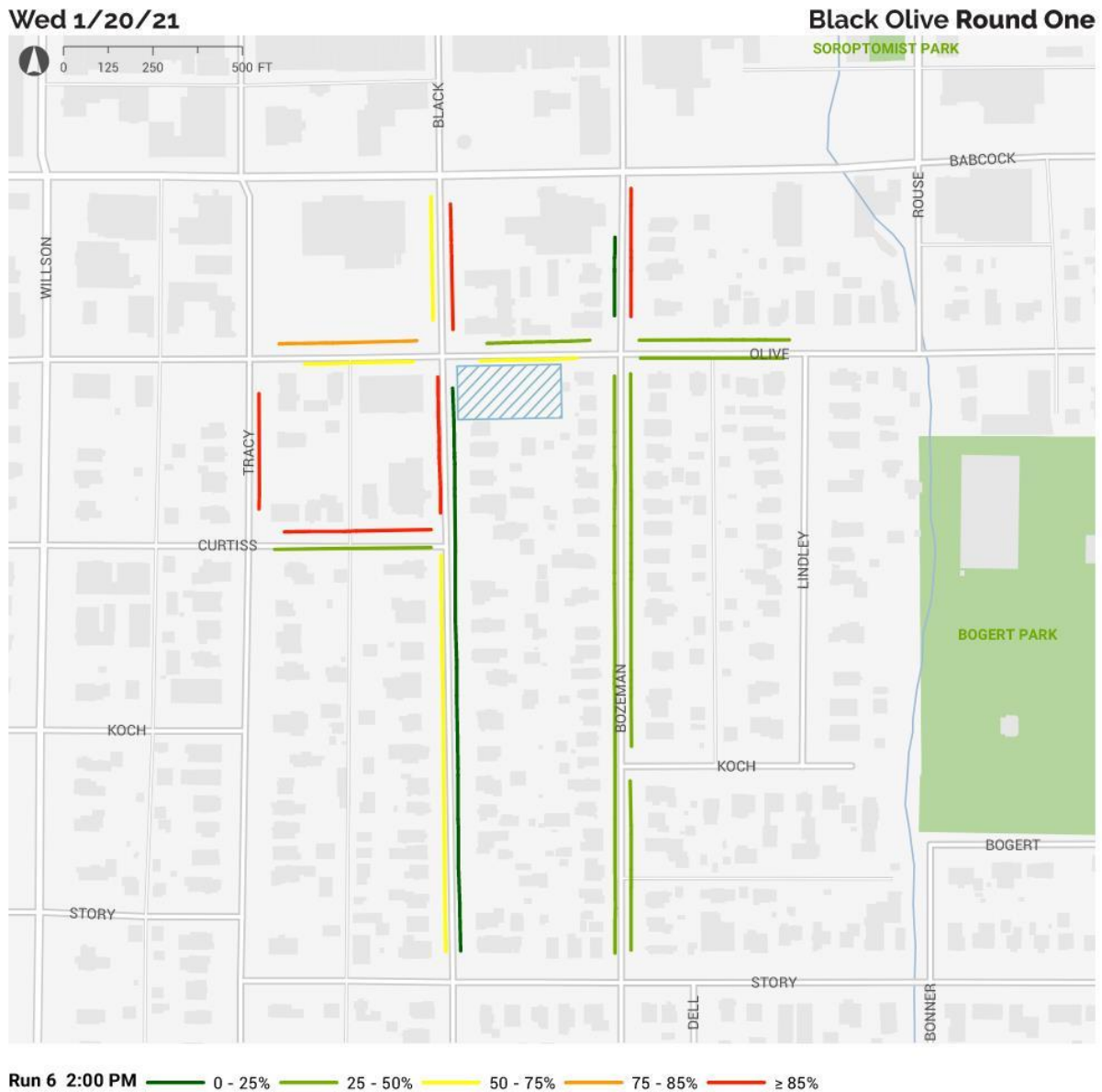
Figure 8. Black Olive Vacant Stalls



Framework, Stahly Engineering, 2021

Figure 9 shows the peak occupancy observed in the Black Olive study area at 2pm on Wednesday. At all other times there were less vehicles parked in the study area during the data collection period. Some blocks showed occupancies above 85% but overall occupancy remained relatively low at 63.5%.

Figure 9. Black Olive Peak Occupancy

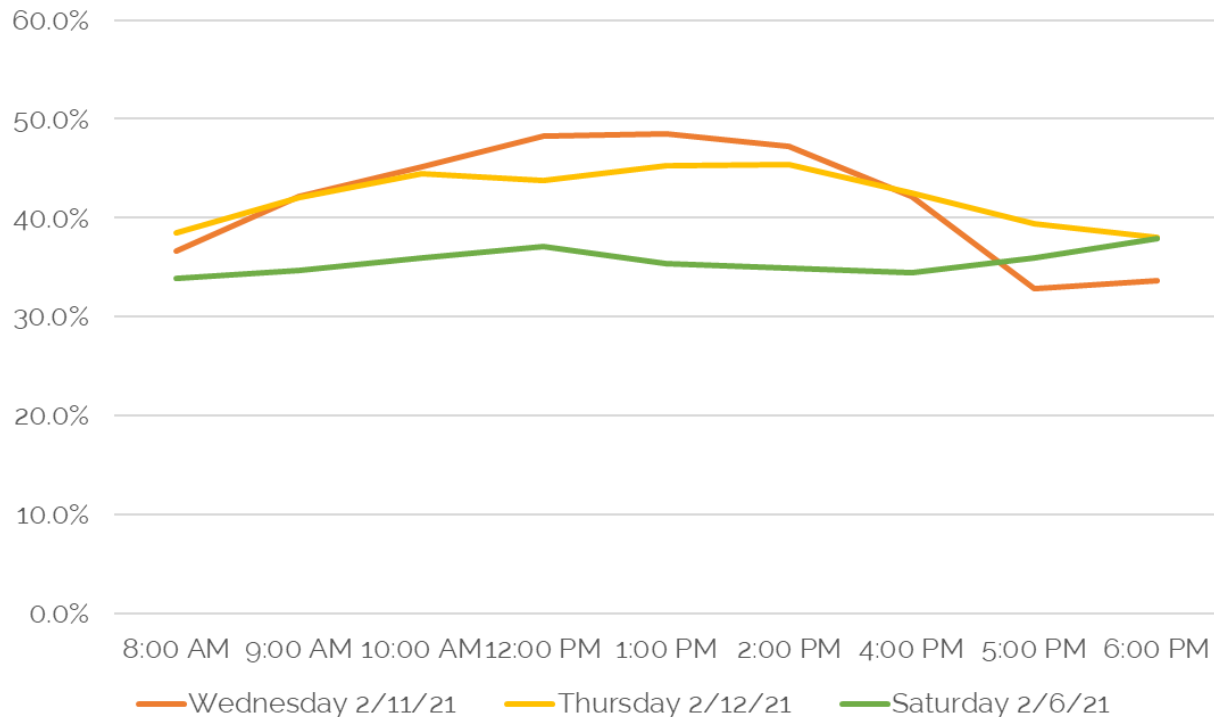


Framework, Stahly Engineering, 2021

North Central Study Area

The North Central Study area had overall low occupancies throughout the day with a slight peak during the mid-day on weekdays (See Figure 10). The blocks closer to the Main Street exhibited higher occupancies than those further away with most residential use. Appendix A has a complete set of data collection maps that show parking occupancies for each hour of collection by block face.

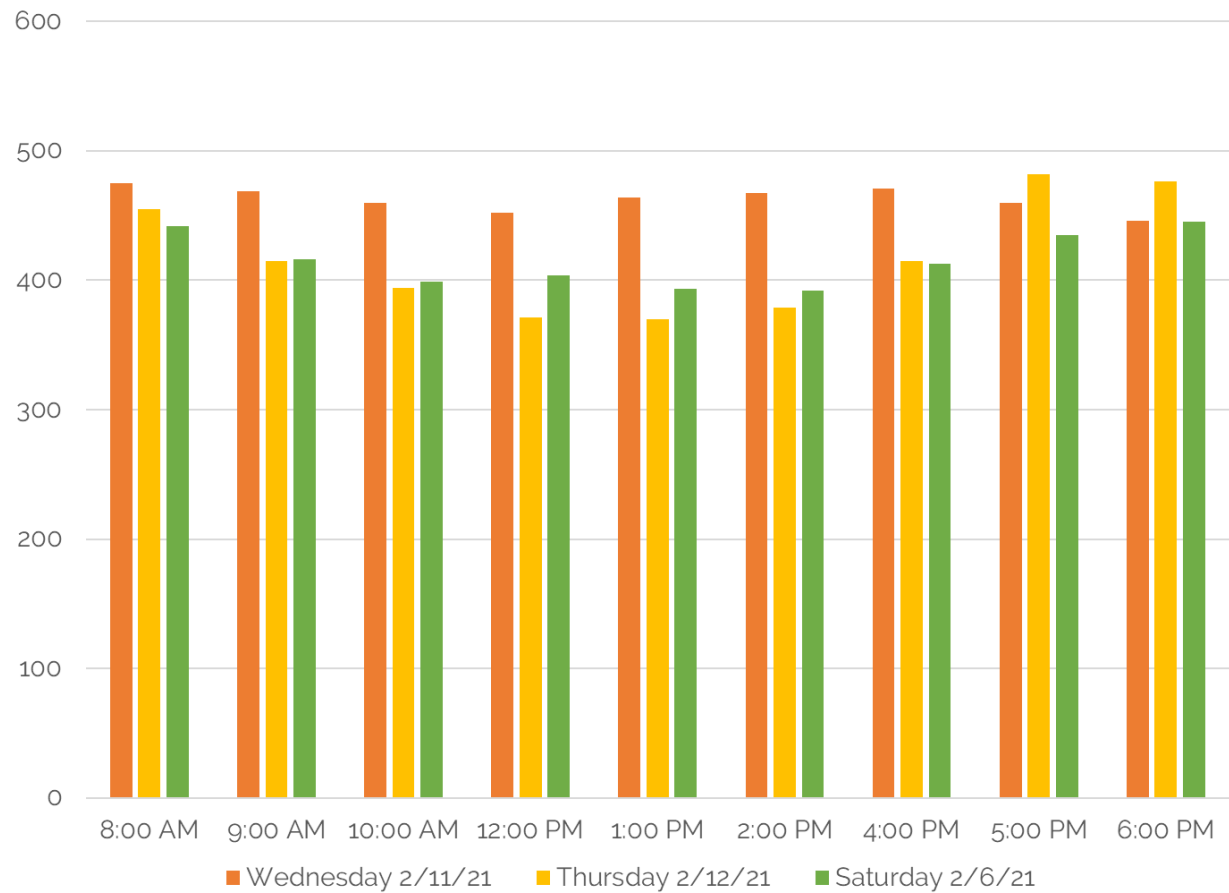
Figure 10. North Central Study Area Parking Occupancy Trends



Framework, Stahly Engineering, 2021

Figure 11 shows the number of vacant stalls during the collection period. The number of vacant stalls ranged from less than 400 to over 450 stalls.

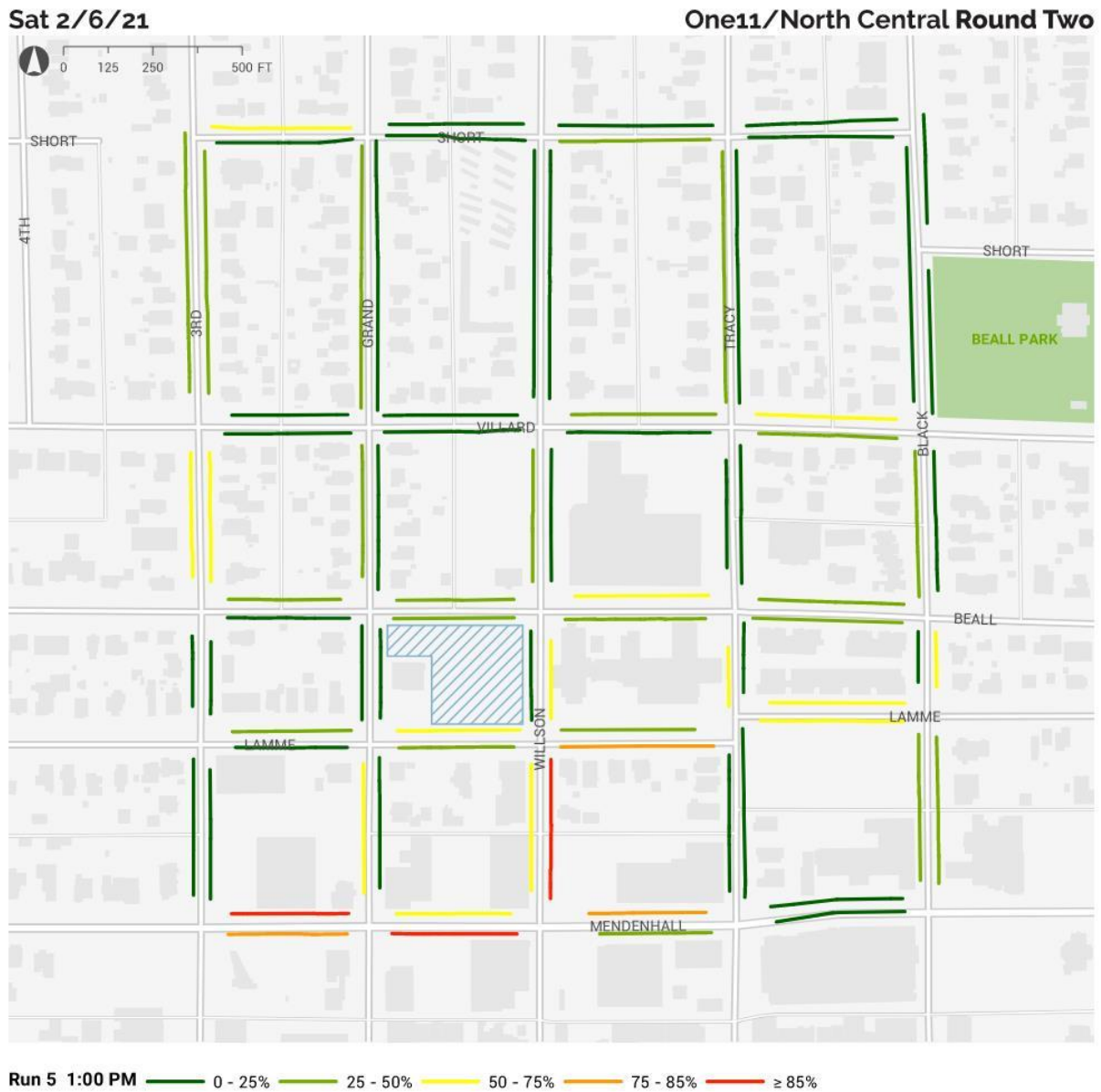
Figure 11. North Central Vacant Stalls



Framework, Stahly Engineering, 2021

Figure 12 shows the peak occupancy observed at 1pm on Wednesday of 48.5%. Several of the blocks had occupancies above 85% but overall parking was always available throughout the study area.

Figure 12. North Central Peak Occupancy Map

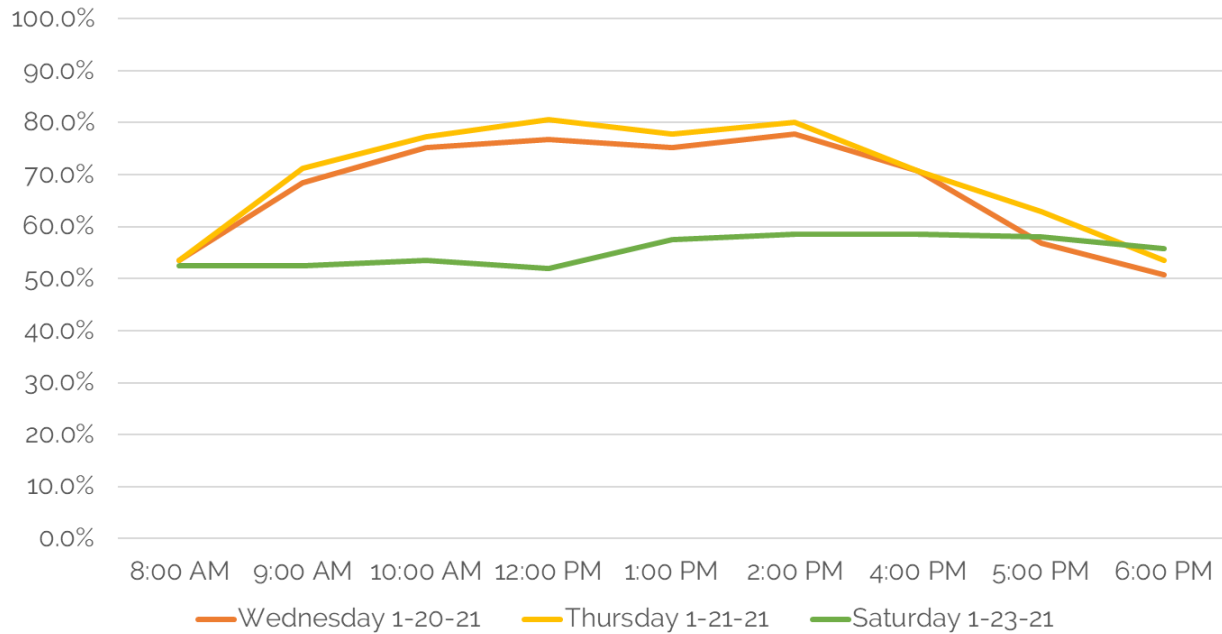


Framework, Stahly Engineering, 2021

One11 Study Area

The One11 study area showed a distinct increase in demand during the day likely from non-residents (See Figure 13). Since the One11 study area is smaller than the larger North Central study area and is focused on blocks closer to Main Street with more non-residential uses the demand is higher on weekdays than on Saturday.

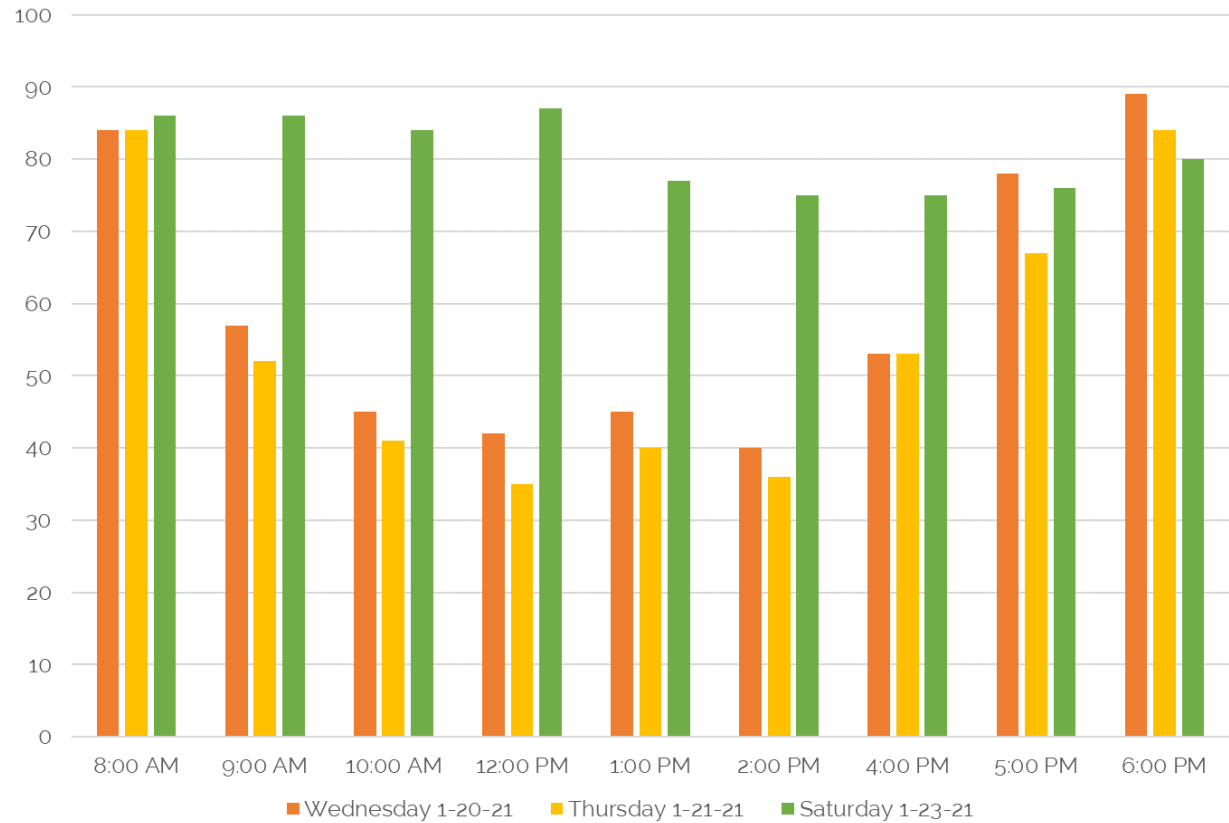
Figure 13. One11 Study Area Occupancy Trends



Framework, Stahly Engineering, 2021

Figure 14 shows the number of vacant or available stalls in the One11 study area. The number of stalls available varied significantly between weekdays and Saturday. Overall, the number of vacant stalls ranged from a low of just under 40 to almost 90 stalls. Overall, there was always parking available in the study and the overall occupancy of the study area did not exceed 85%

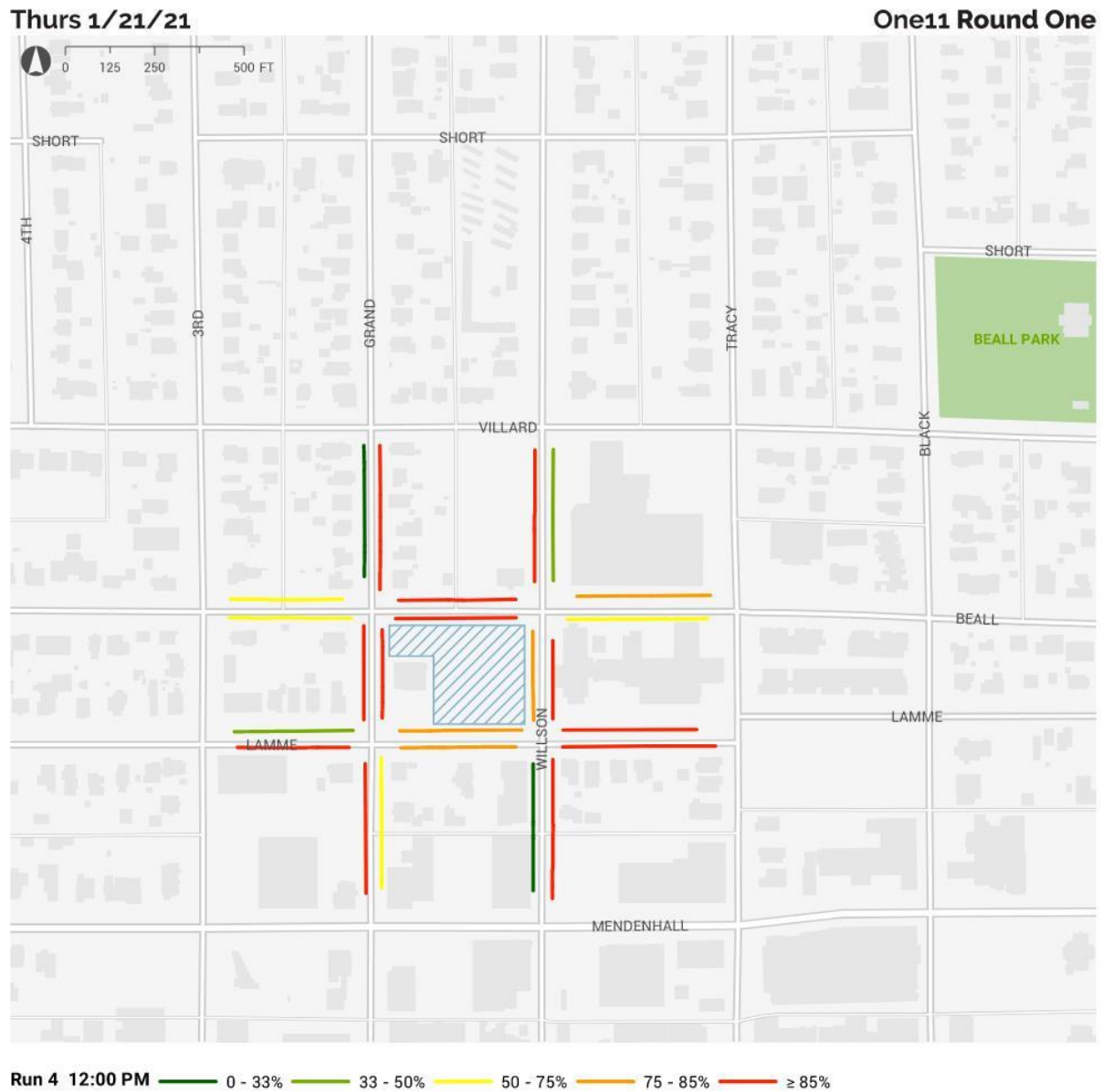
Figure 14. One 11 Vacant Stalls



Framework, Stahly Engineering, 2021

Figure 15 shows the peak occupancy observed in the One11 study area at 12pm on Thursday at 80.7%. Several block faces had occupancies above 85% while others were 75% or less occupied. Overall, there was parking available in the study throughout the collection period.

Figure 15. One11 Peak Occupancy Map

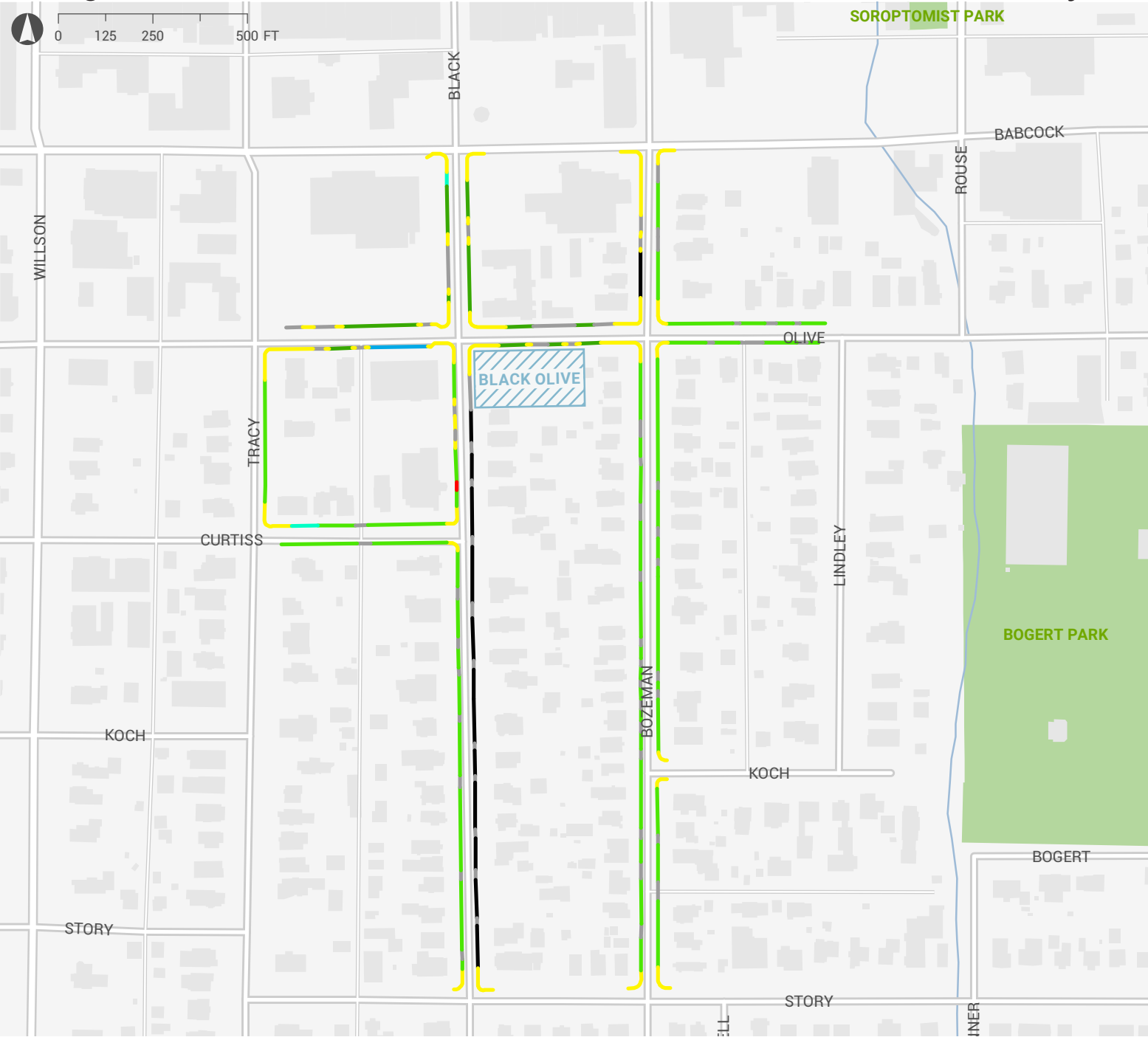


Framework, Stahly Engineering, 2021

Appendix A: Data Collection Maps

Parking Restrictions

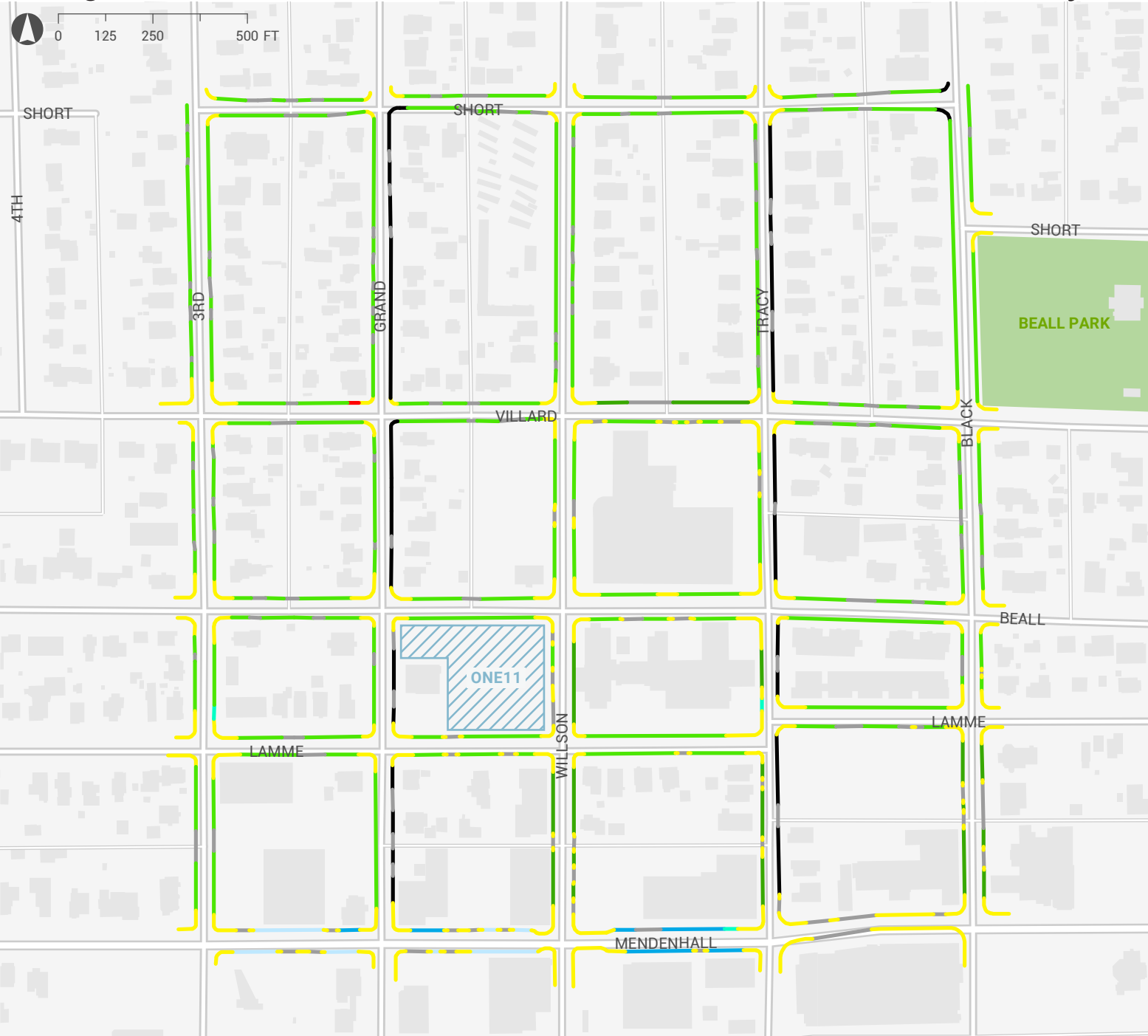
Black Olive Study Area



- 15 Min M-F 8-5 Except 2a-7a
- 15 Minute
- 2HR 8a-6p NO Parking 2a-7a
- All Day Parking
- All Day Except 2a-7a
- All Day Except 2a-7a TU & TH
- Driveway
- No Parking
- Handicap
- Loading Zone
- Yellow Curb
- RPPD

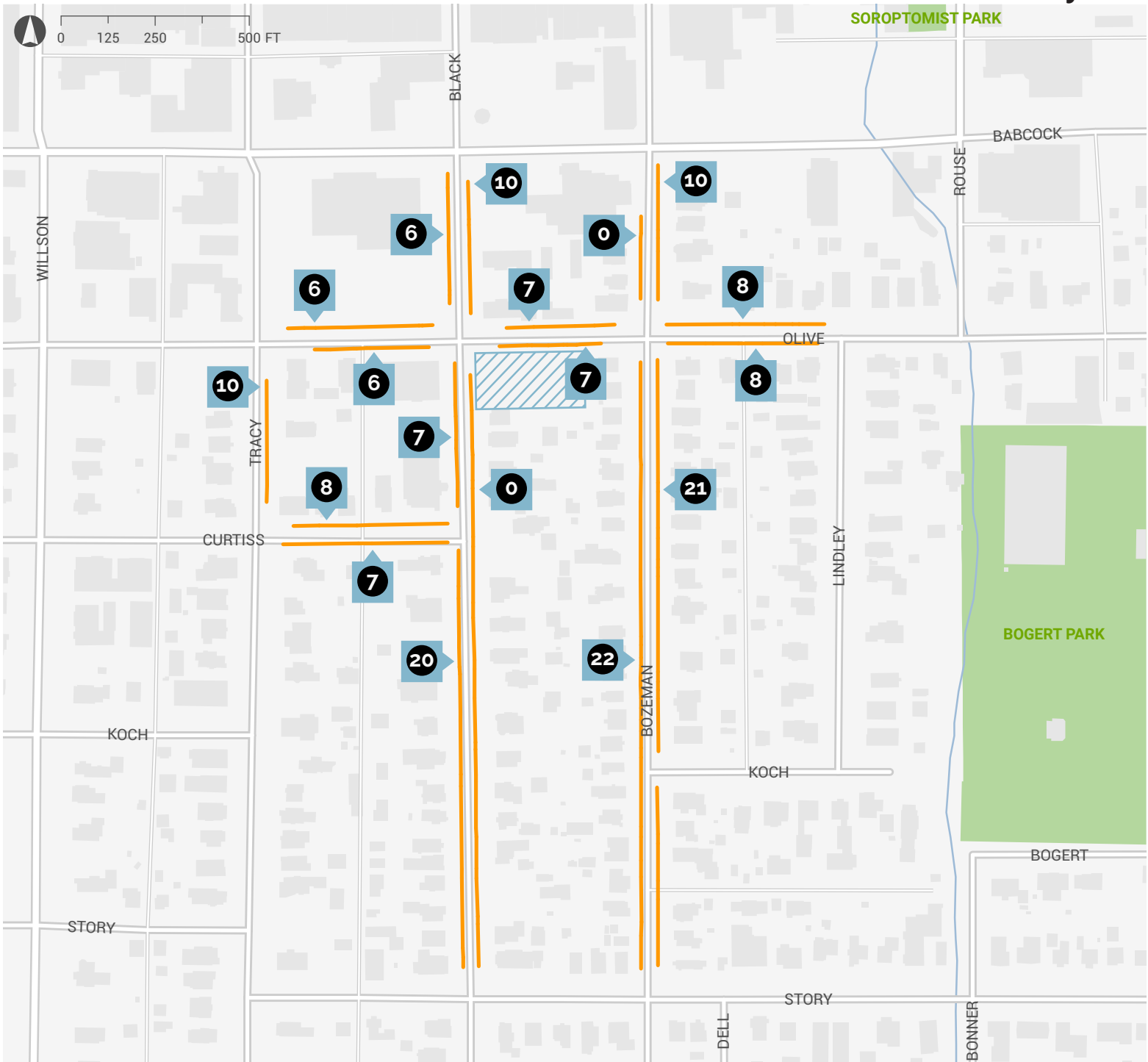
Parking Restrictions

One11/North Central Study Area



- | | | | |
|-----------------------------|------------------------------|--------------|-------------|
| 15 Min M-F 8-5 Except 2a-7a | All Day Parking | Driveway | No Parking |
| 15 Minute | All Day Except 2a-7a | Handicap | Yellow Curb |
| 2HR 8a-6p NO Parking 2a-7a | All Day Except 2a-7a TU & TH | Loading Zone | RPPD |

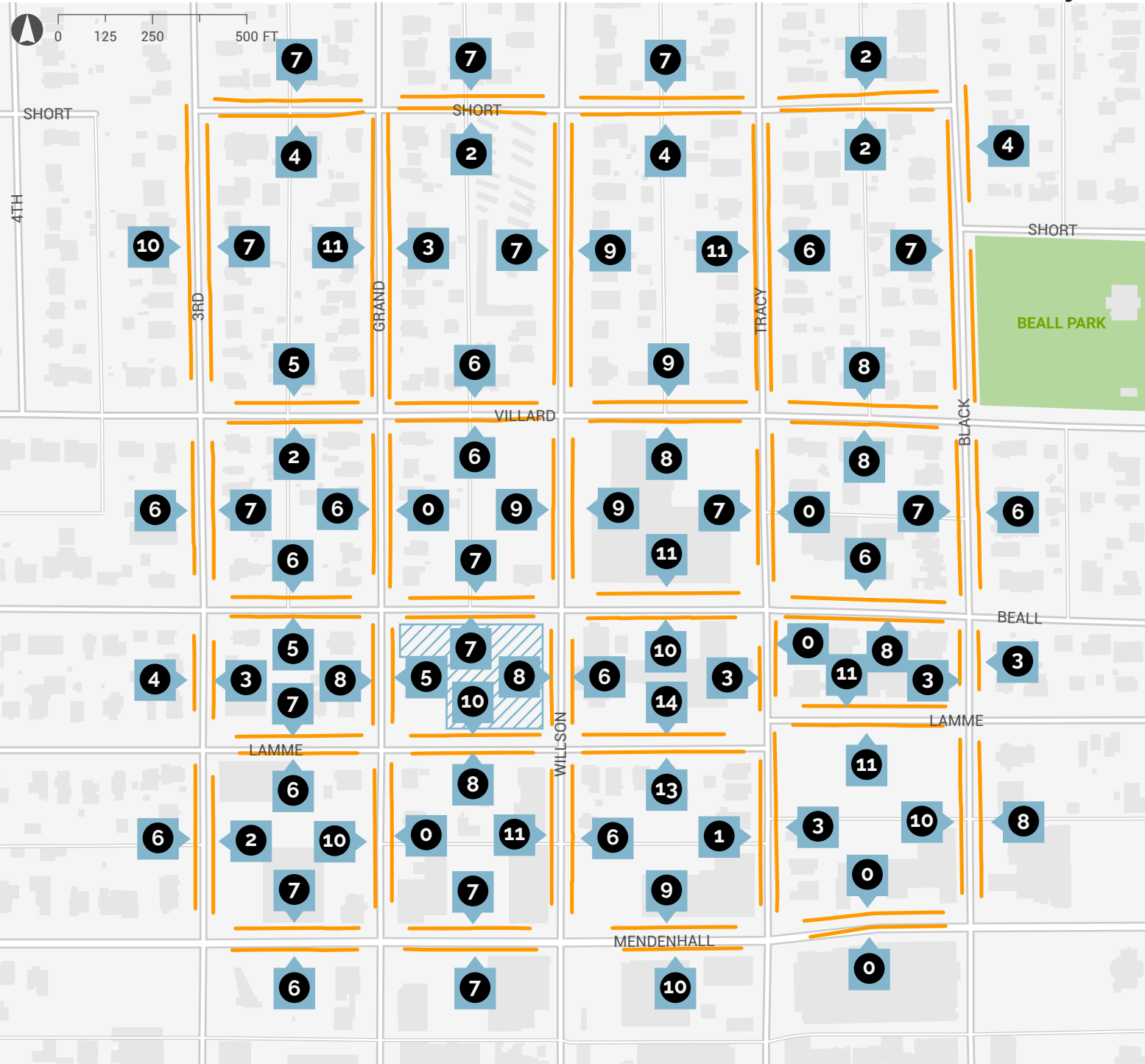
Block Face Stall Counts



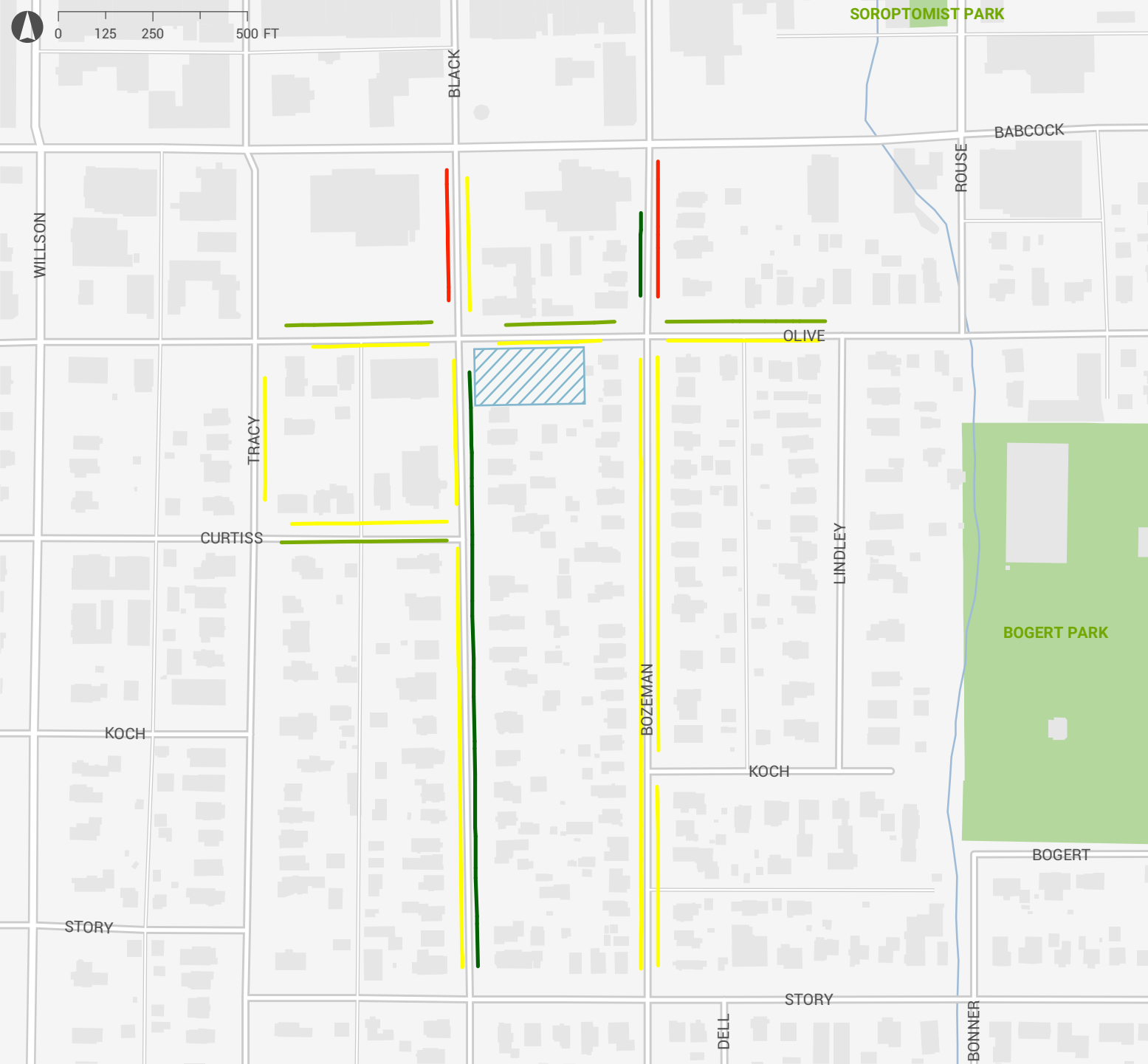
7 Max Stalls

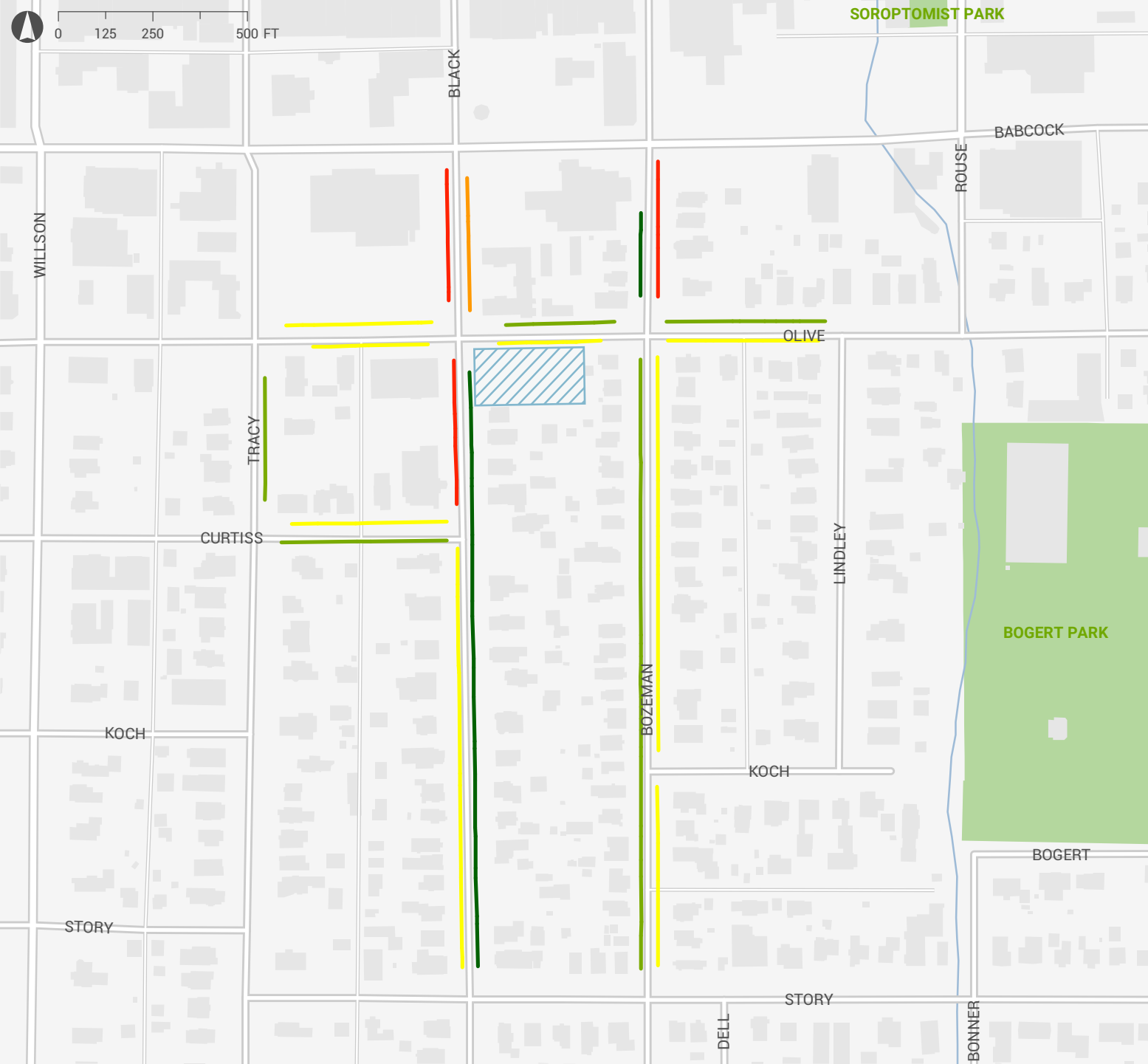
Block Face Stall Counts

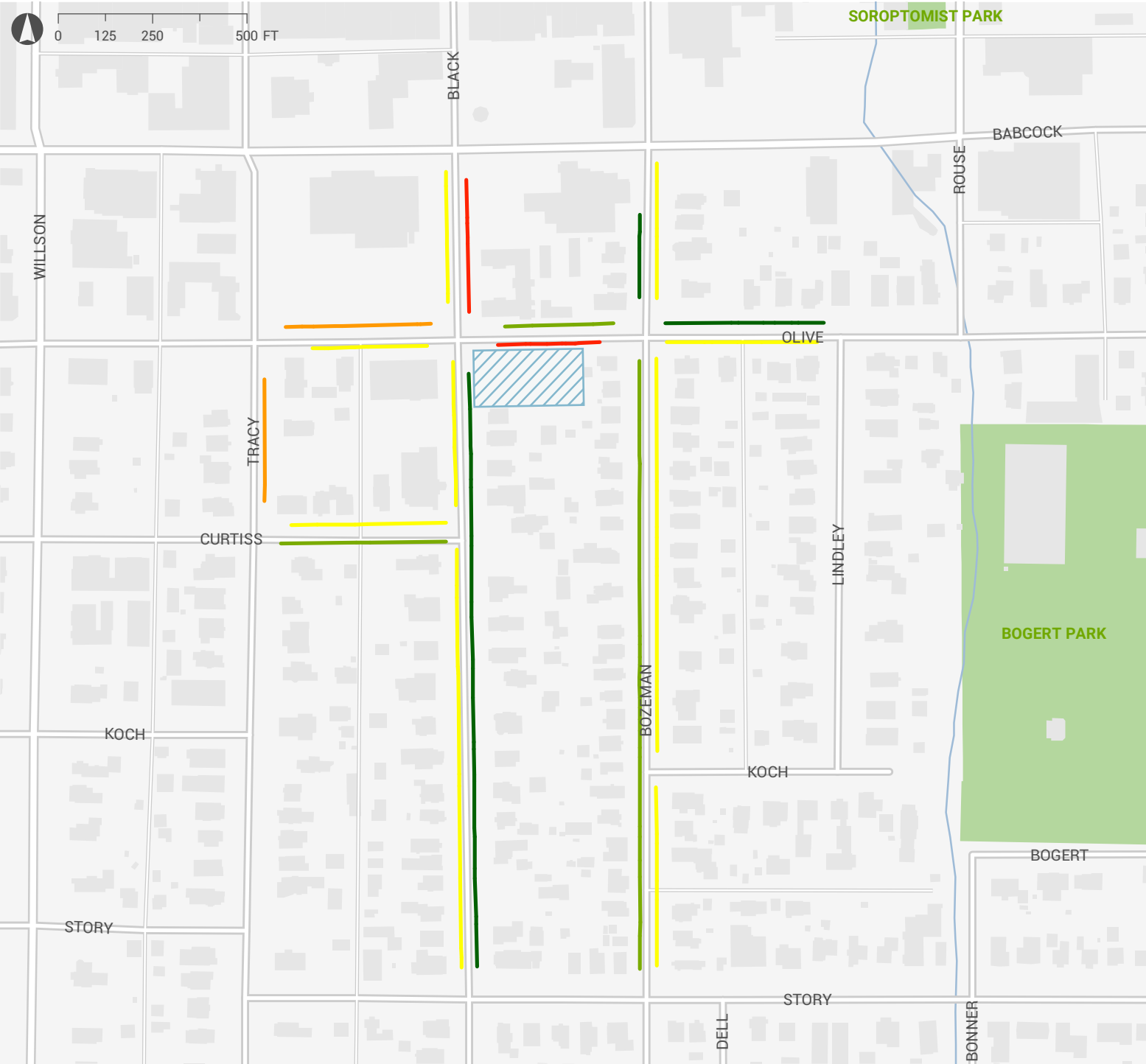
One11/North Central Study Area

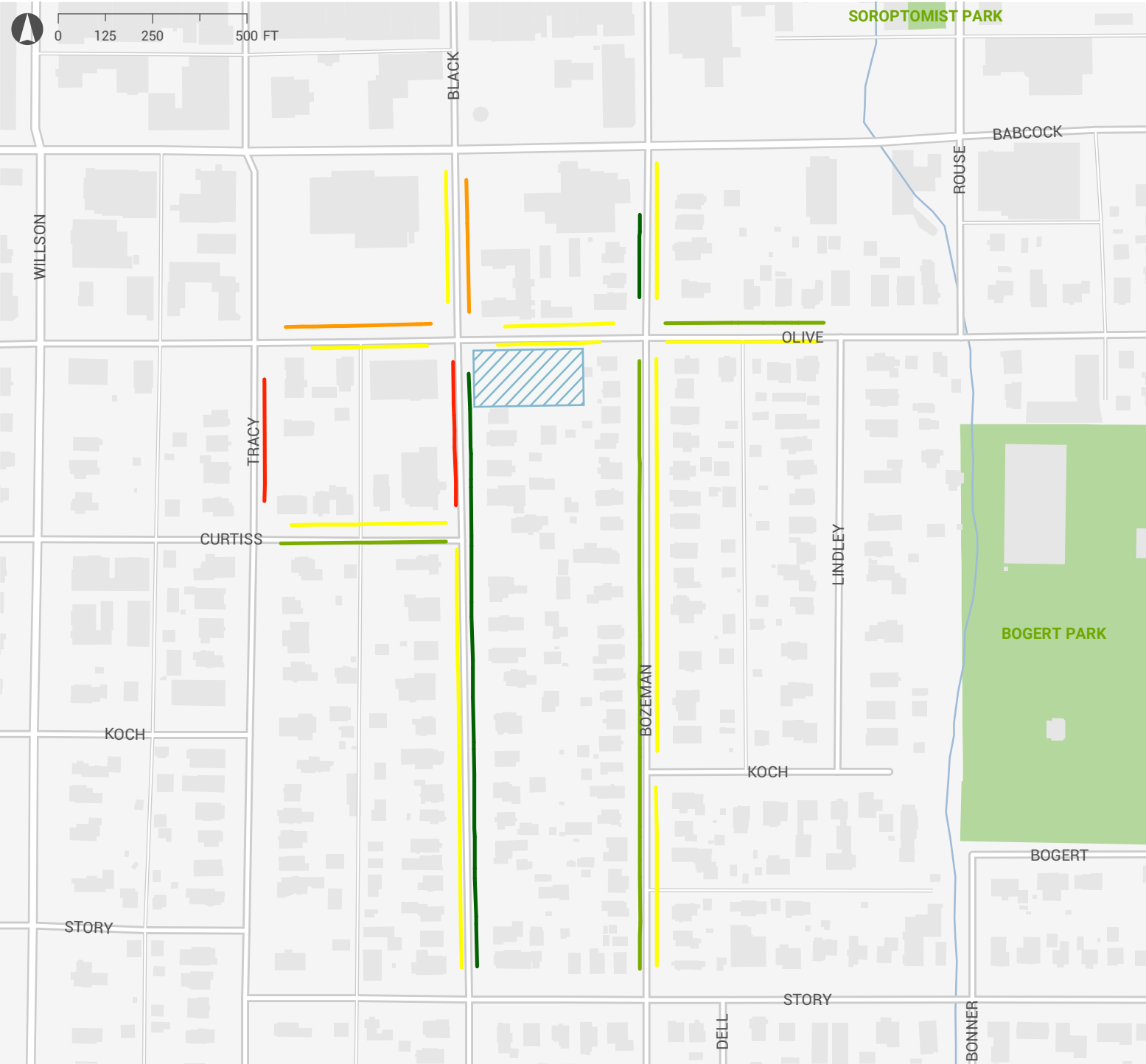


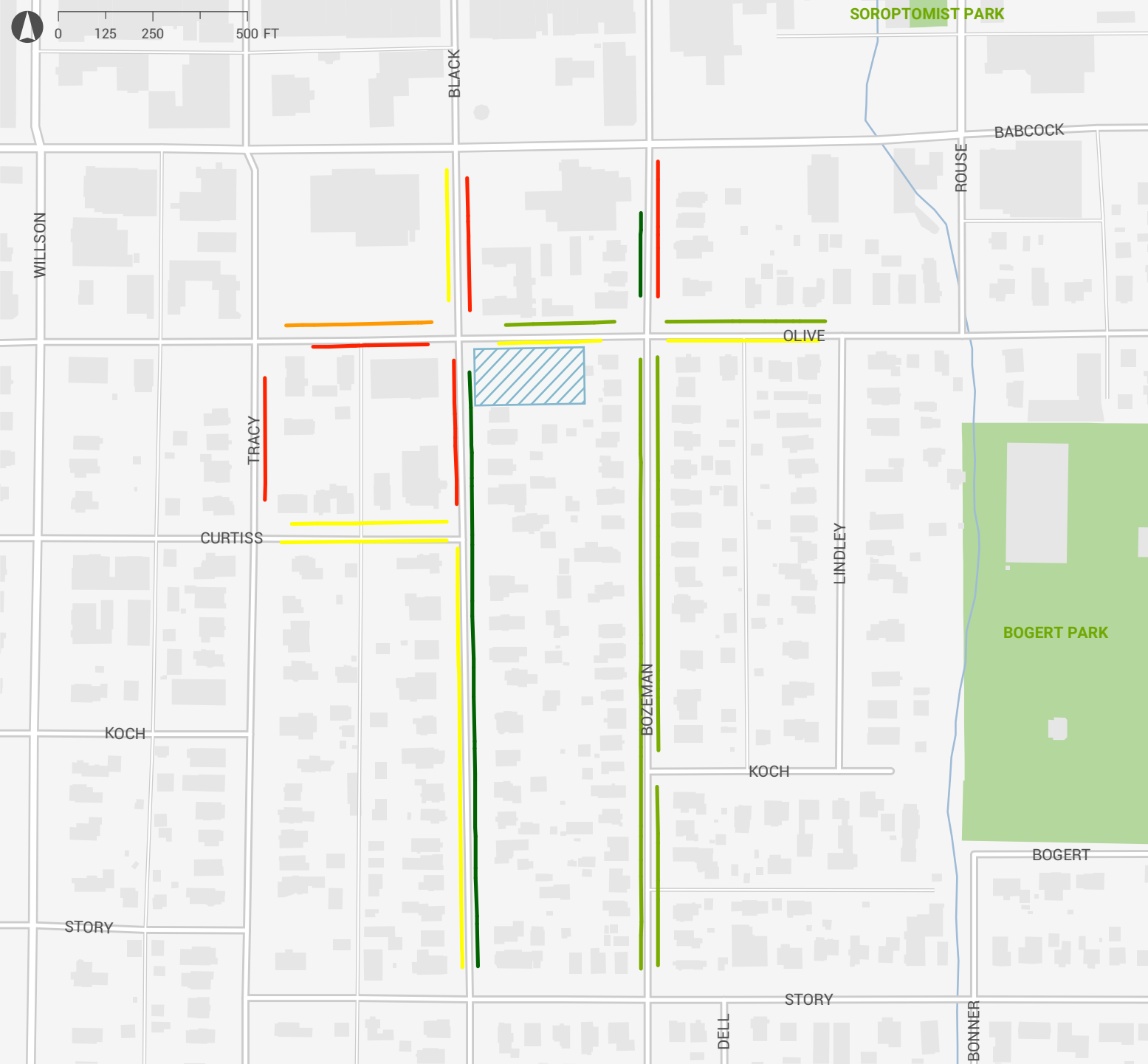
7 Max Stalls

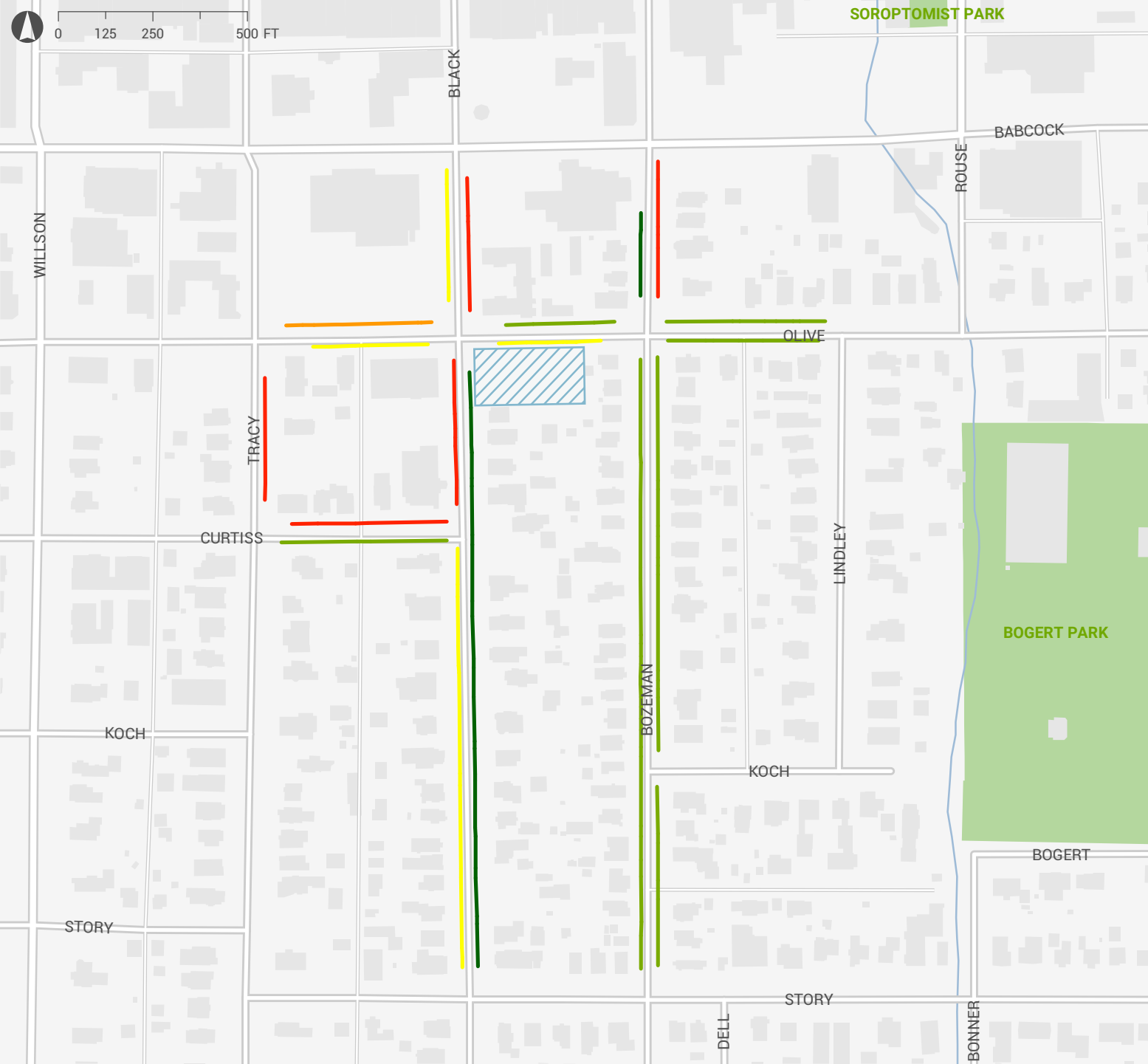


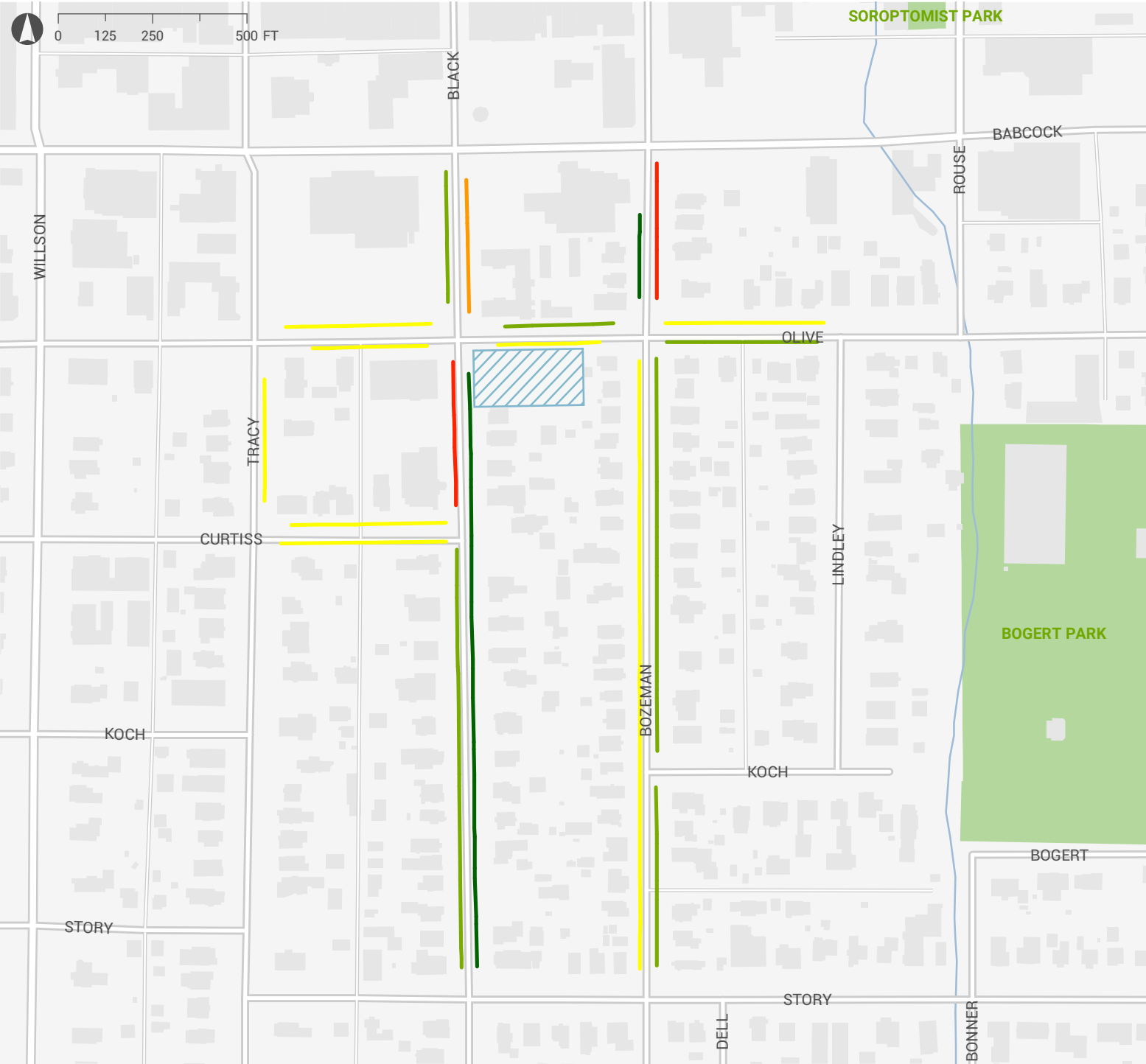


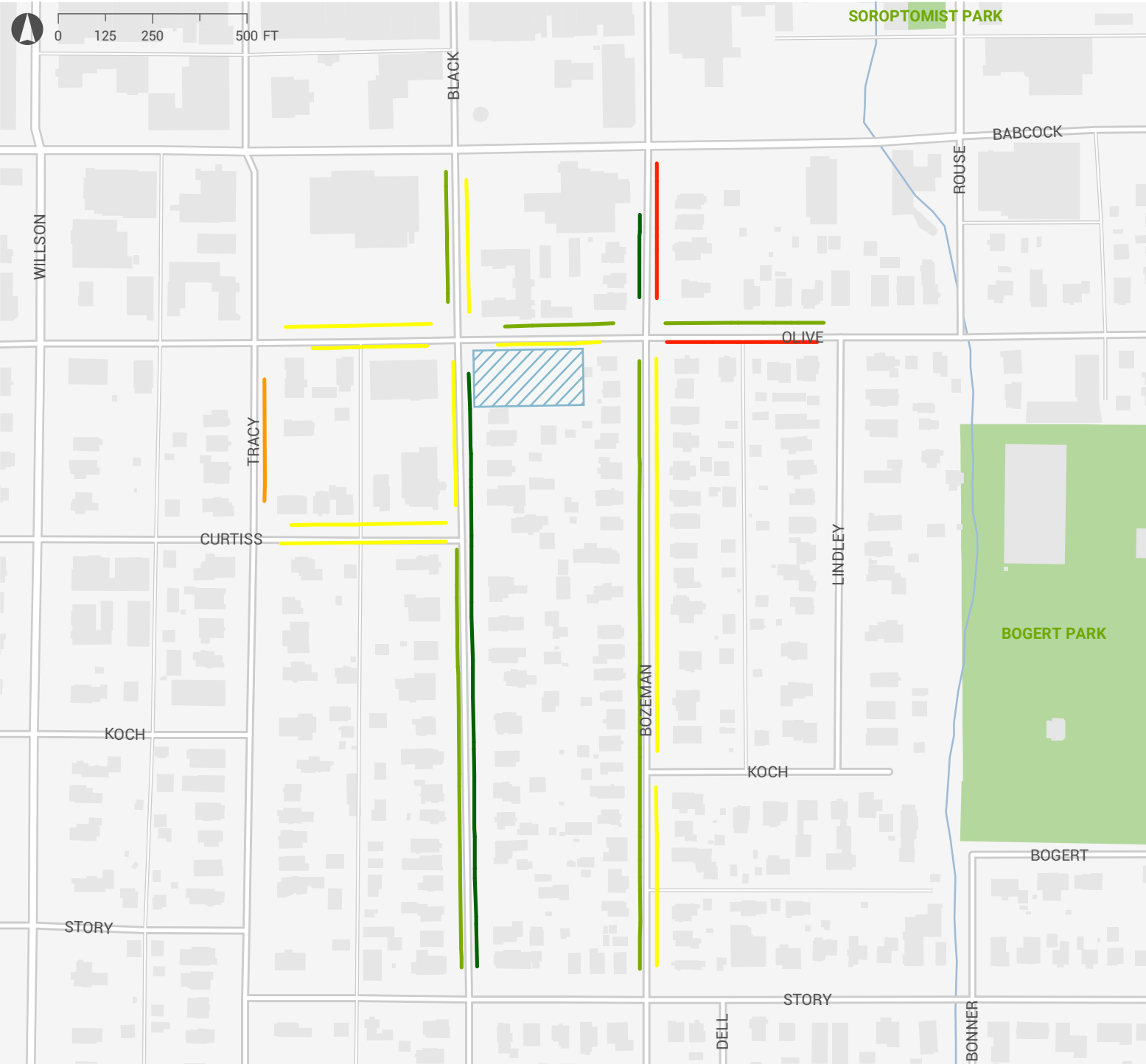


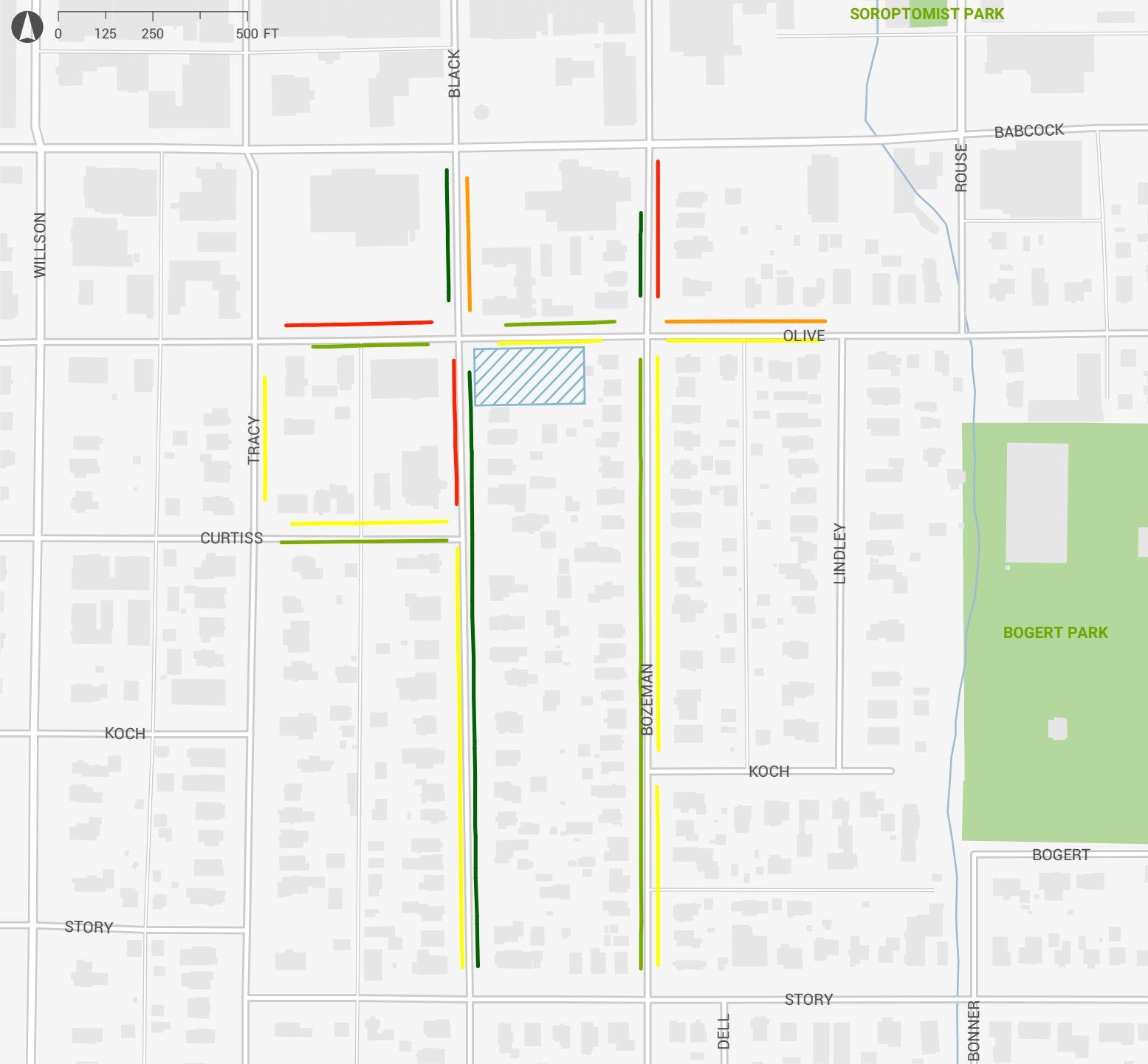


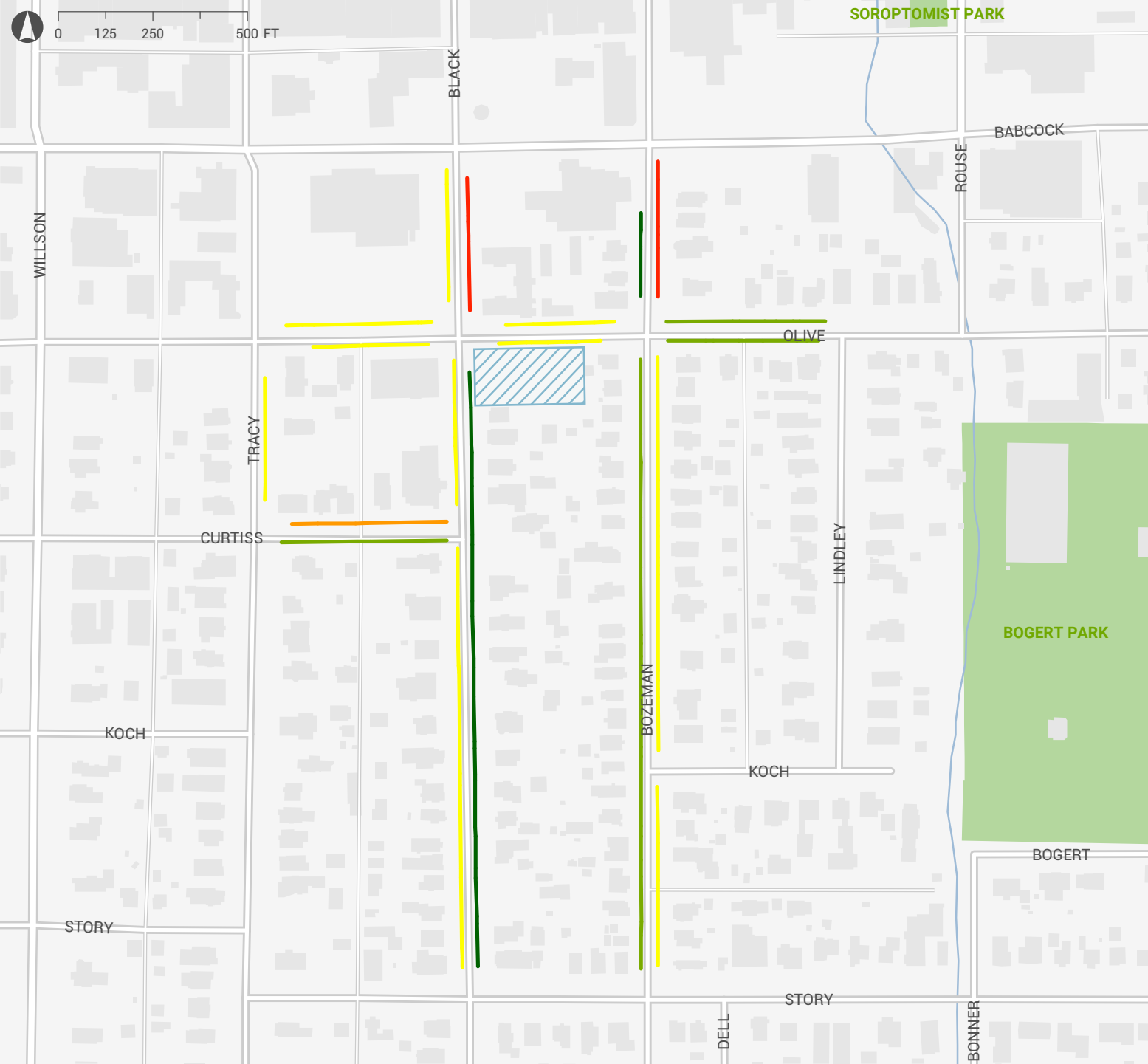


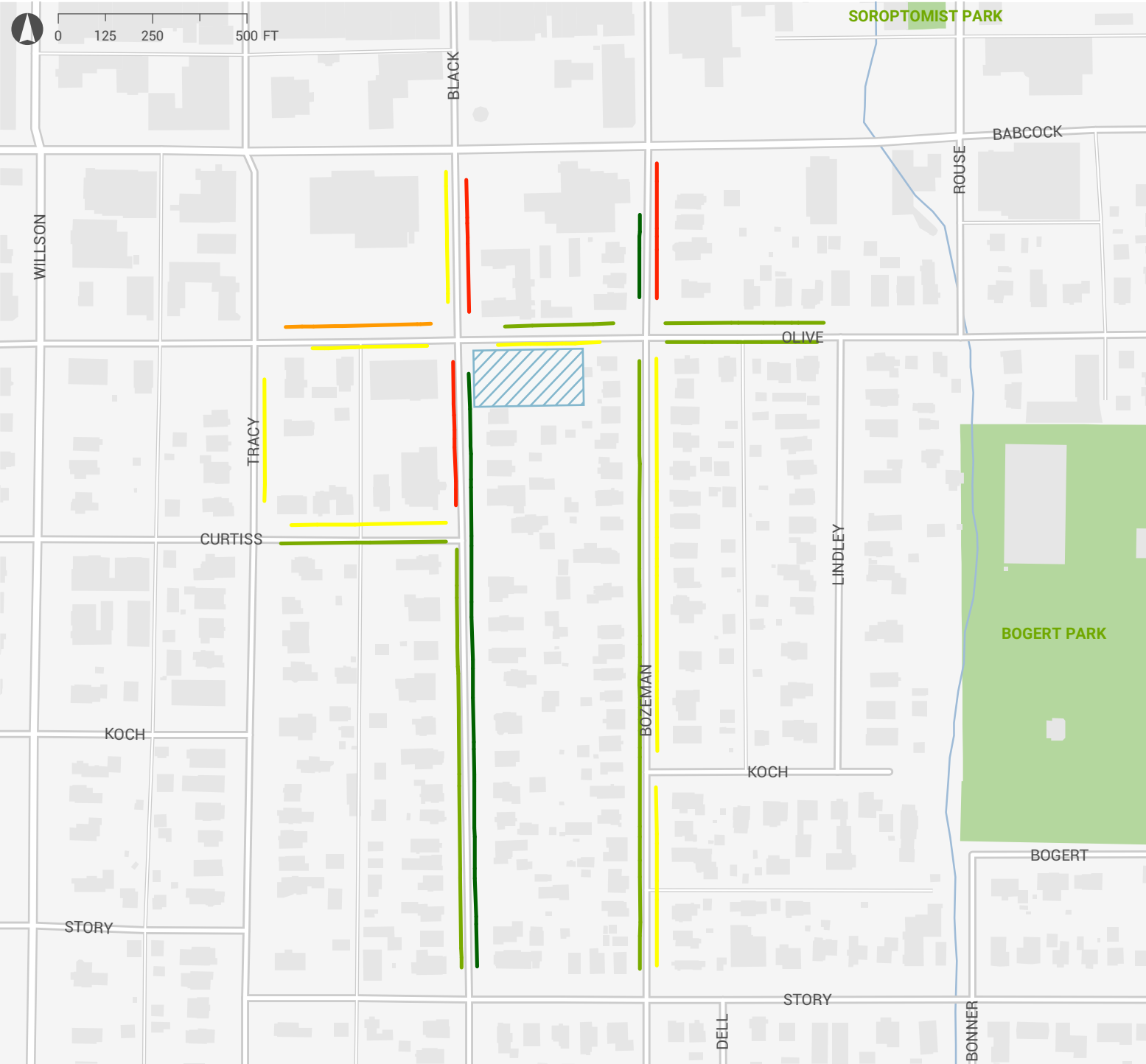


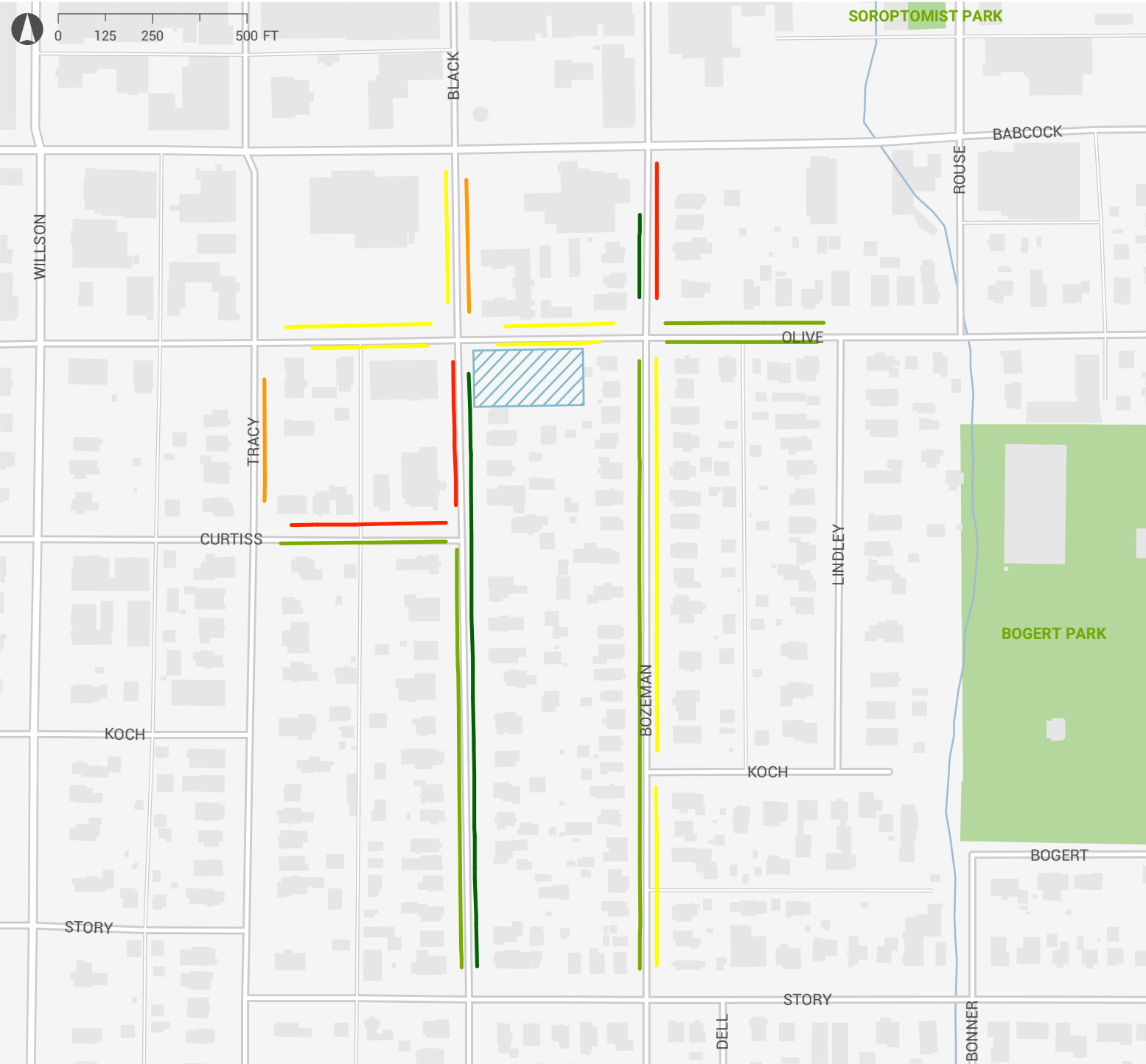


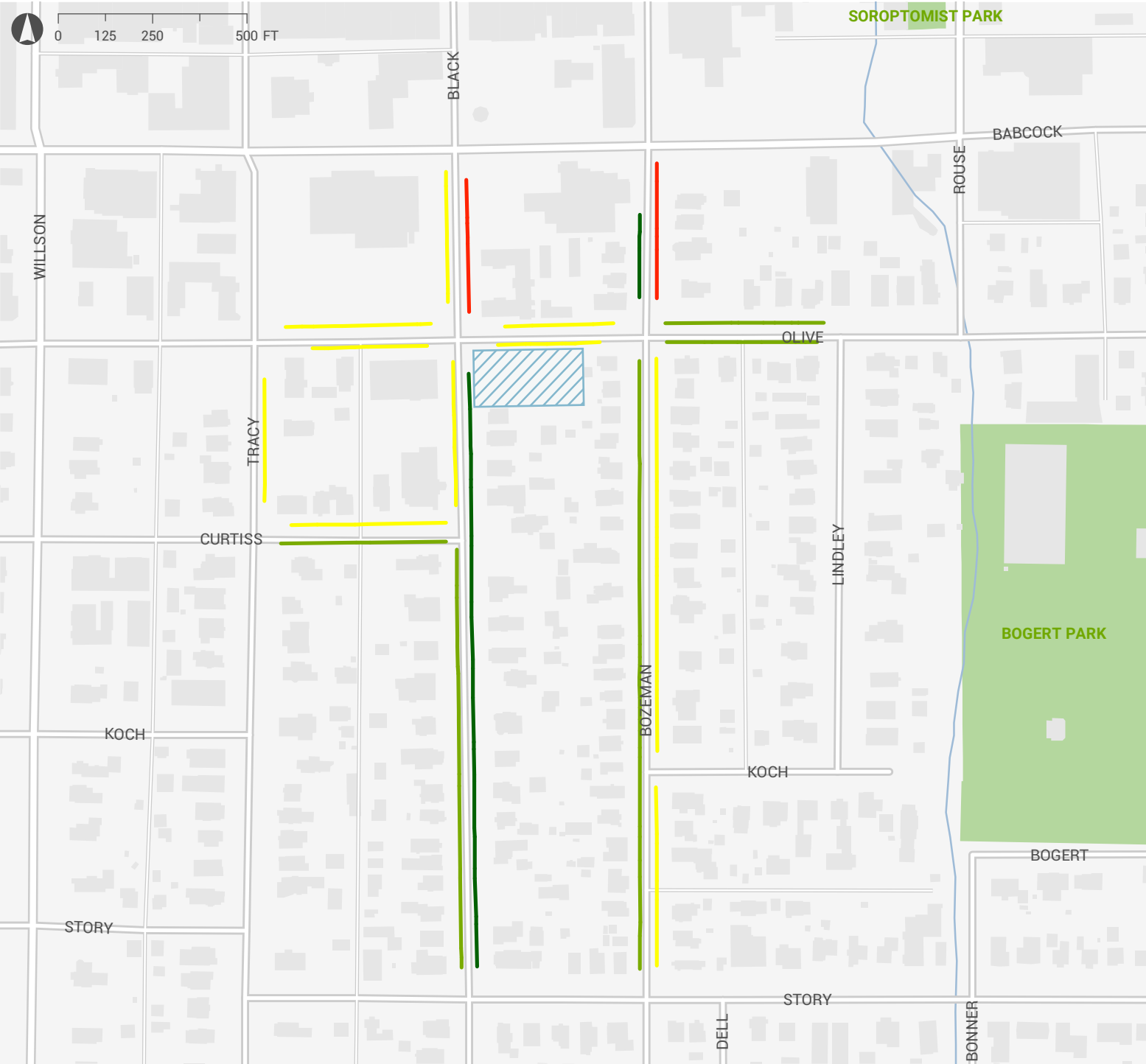


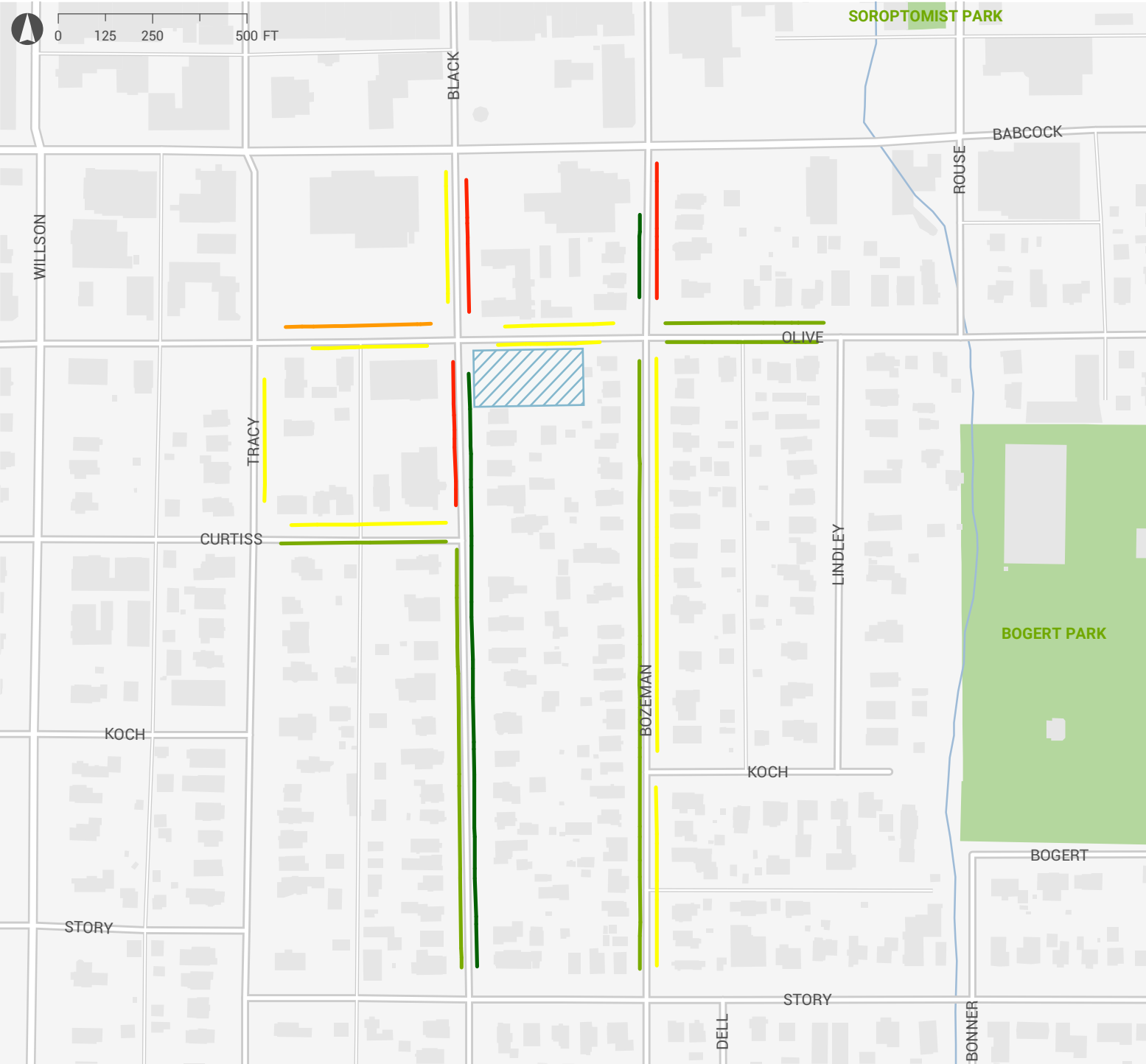


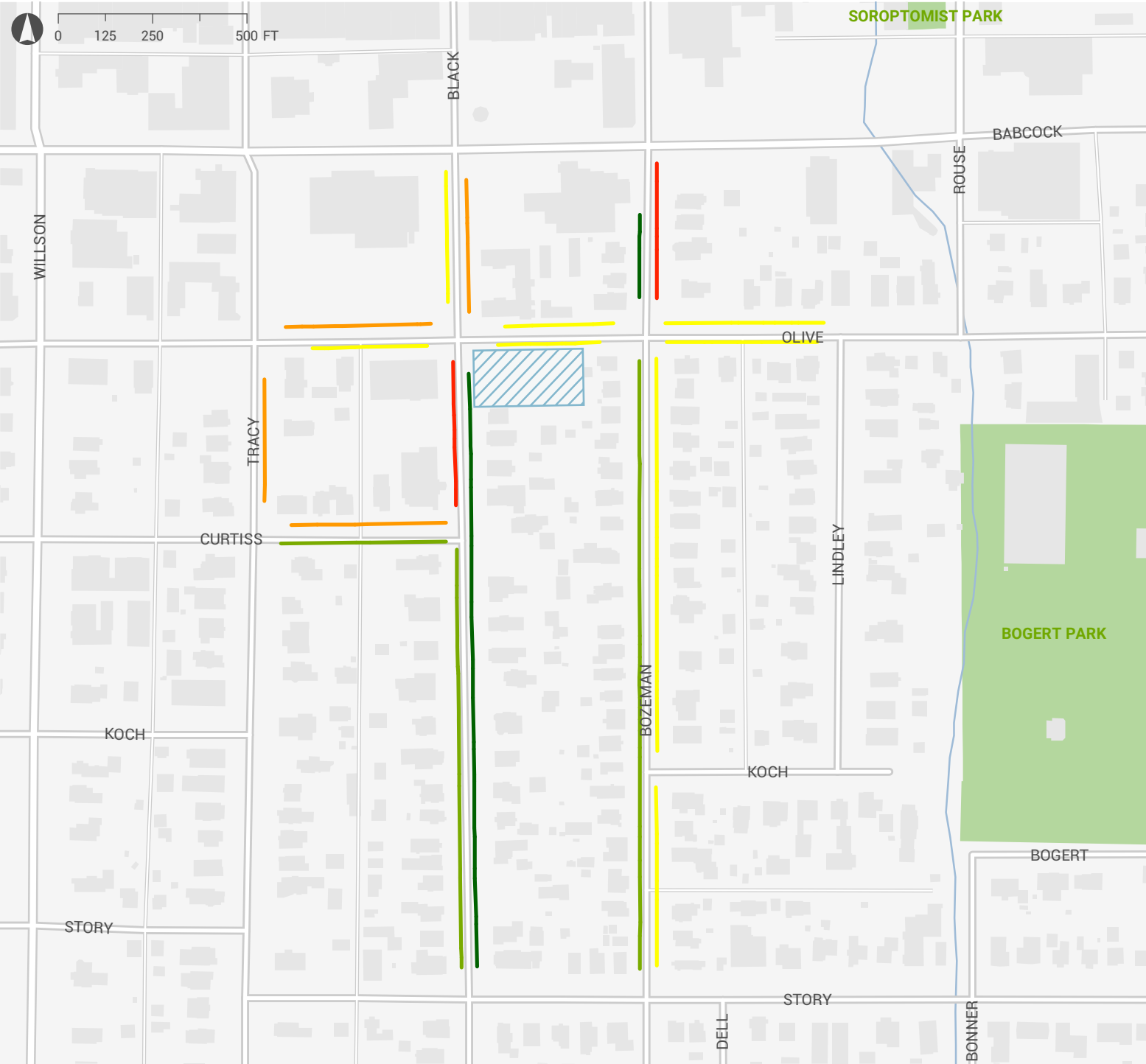


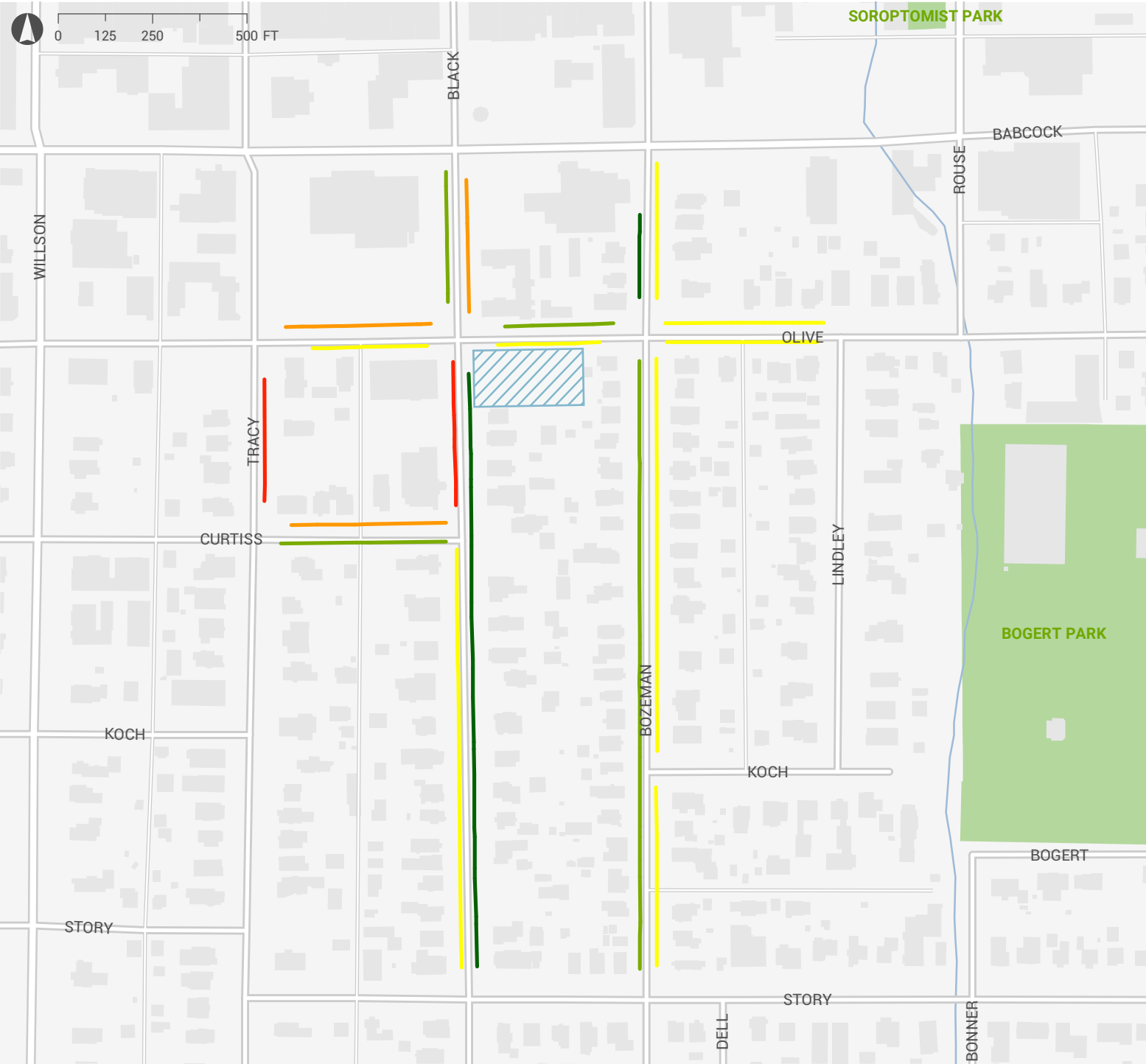


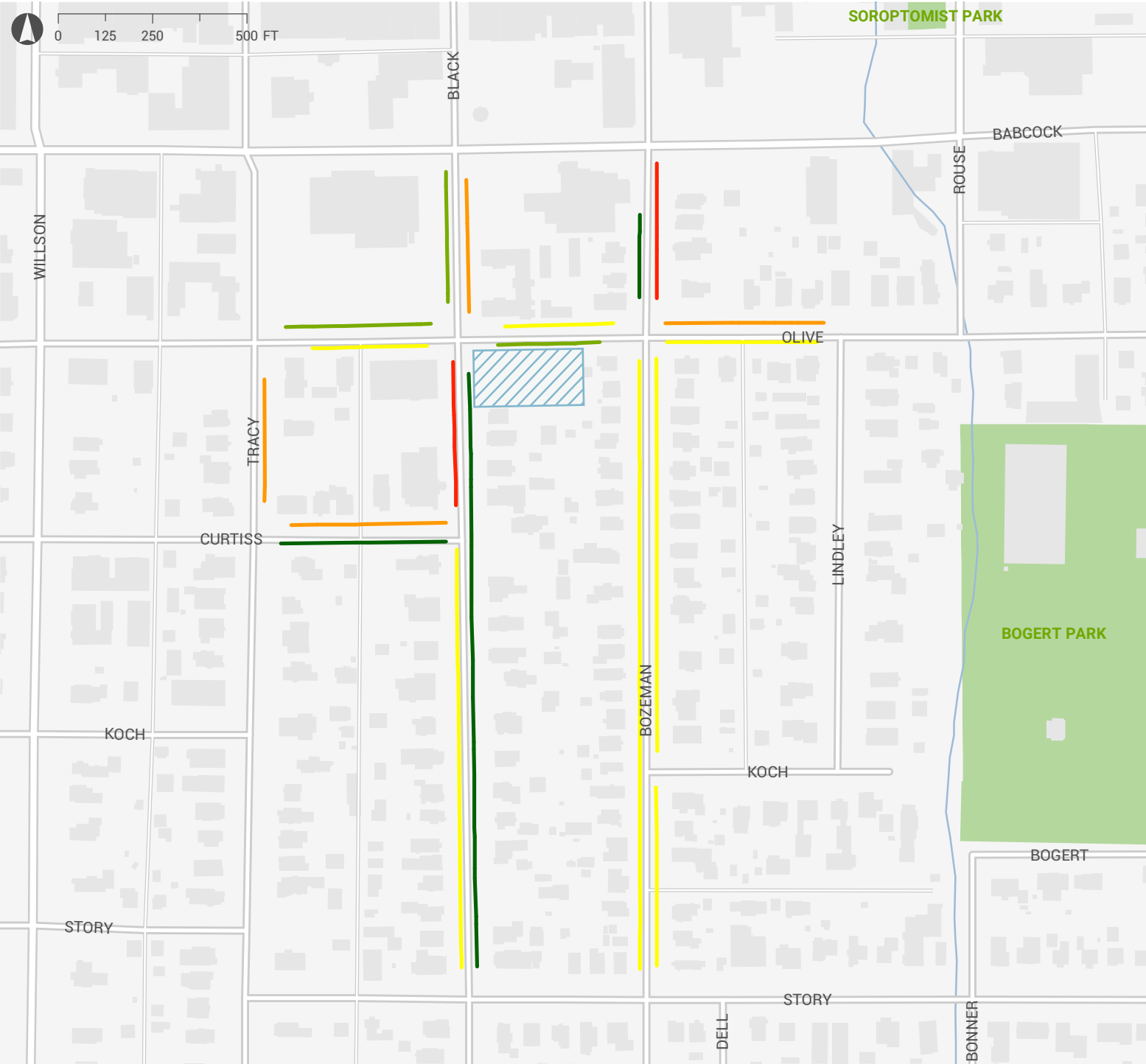


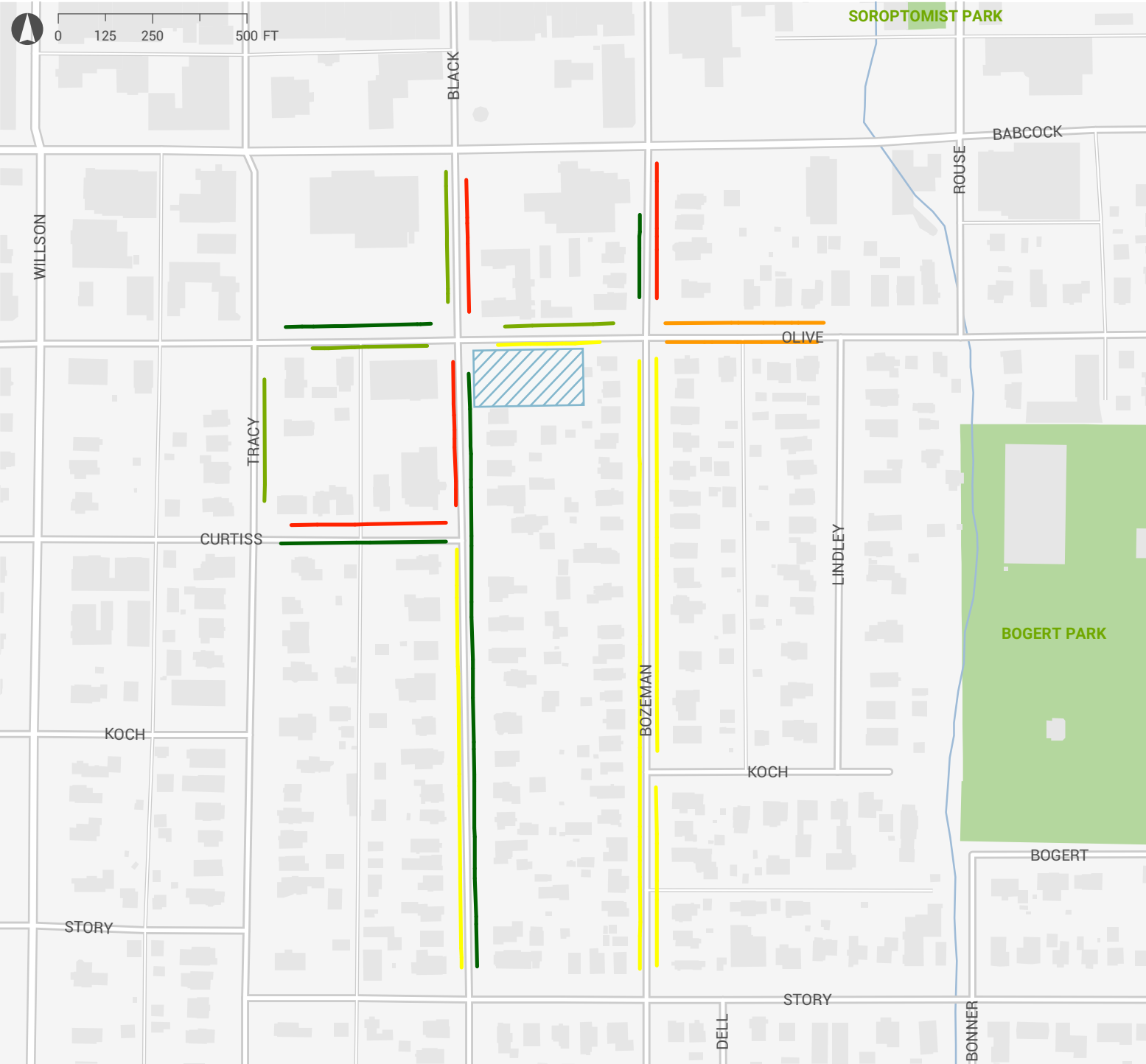






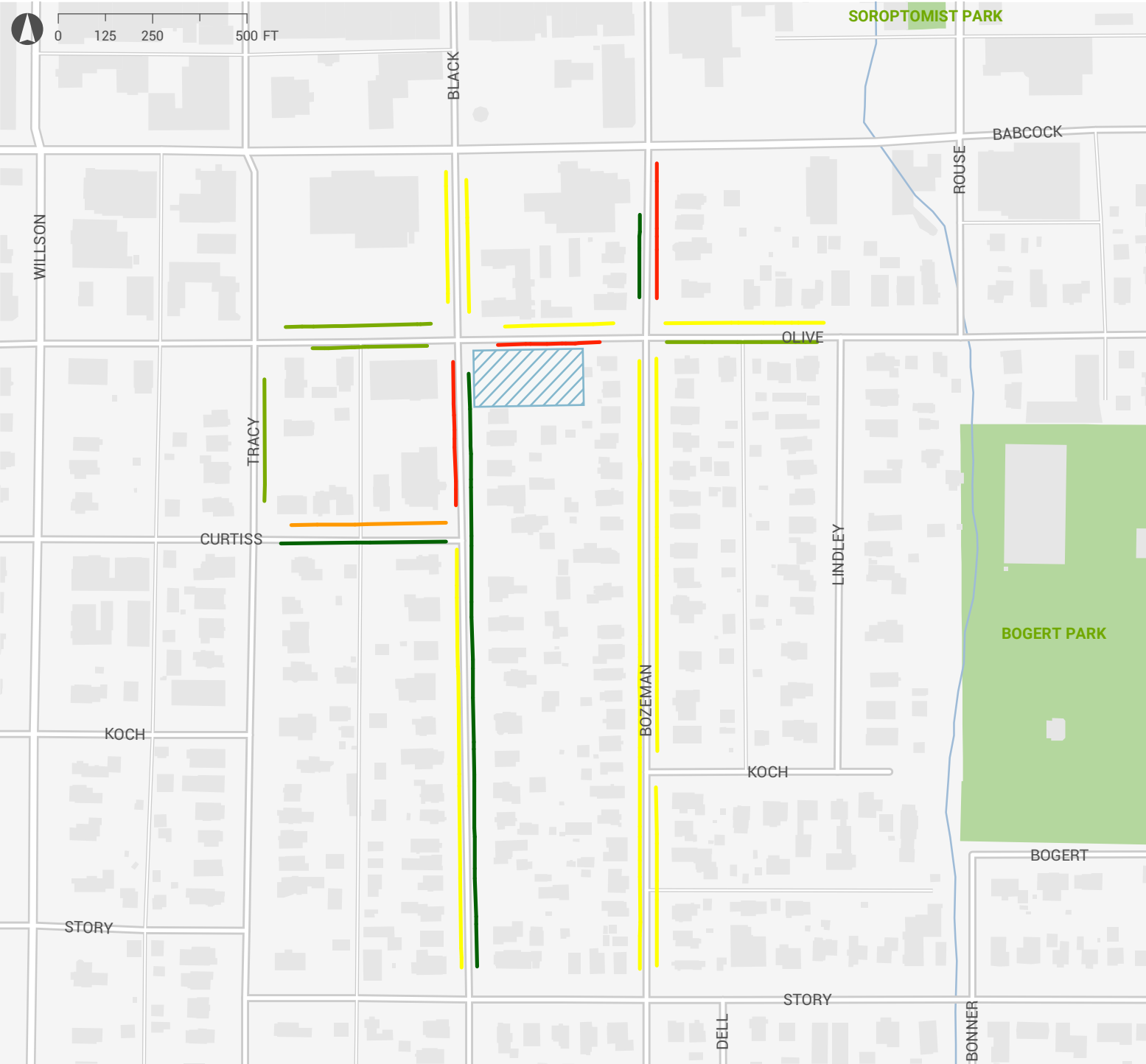






Sat 1/23/21

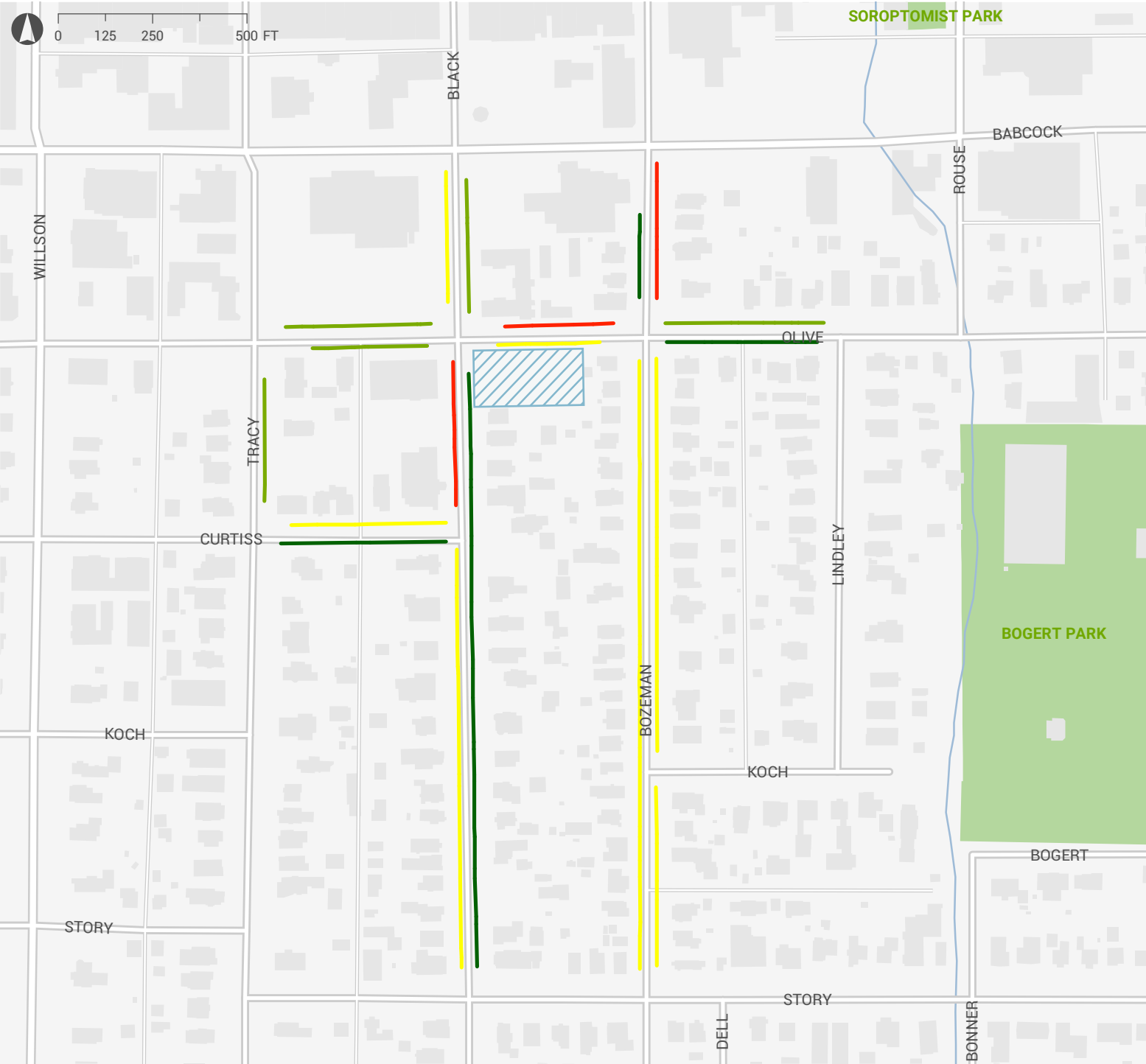
Black Olive Round One



Run 1 8:00 AM 0 - 25% 25 - 50% 50 - 75% 75 - 85% ≥ 85%

Sat 1/23/21

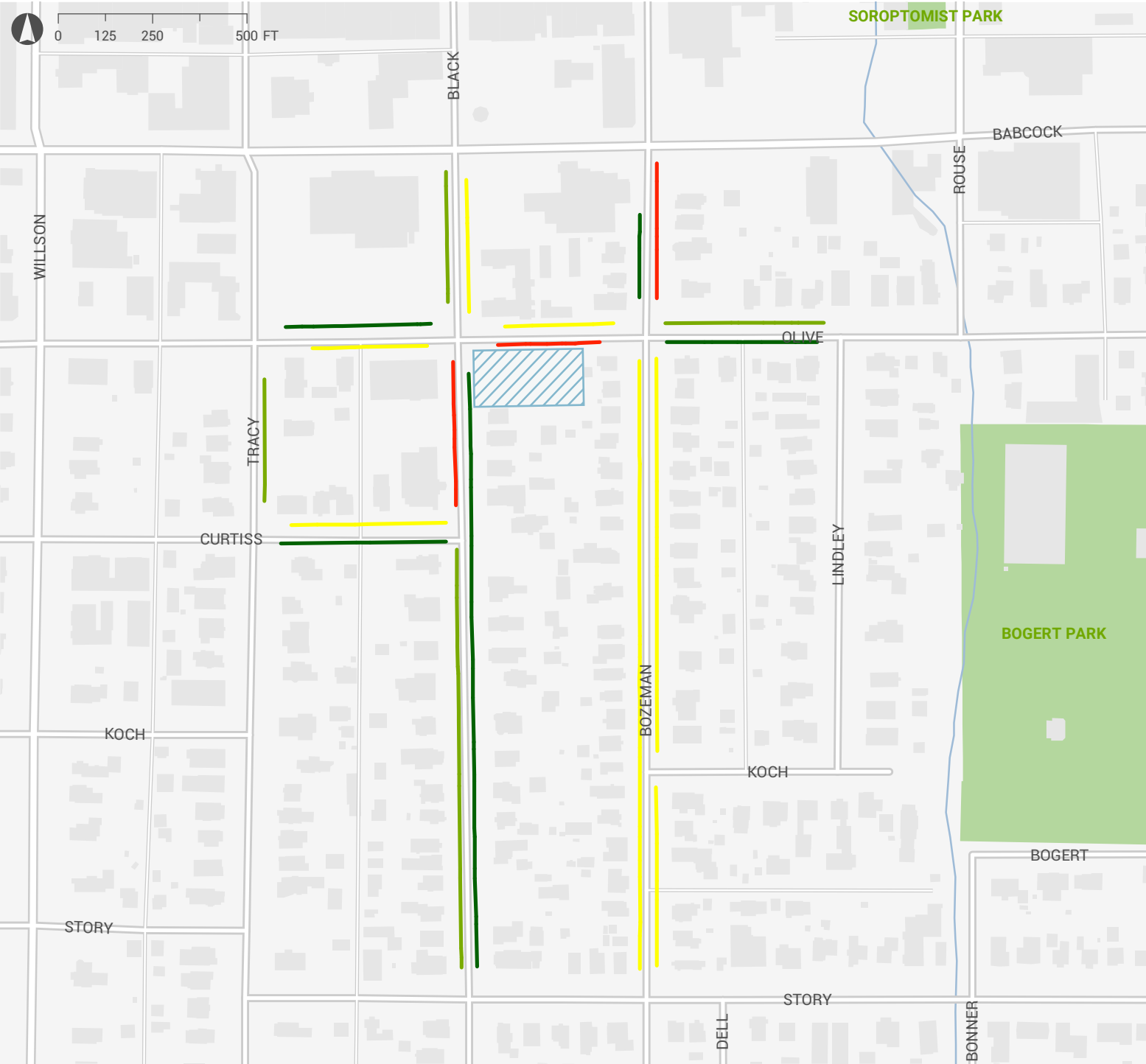
Black Olive Round One



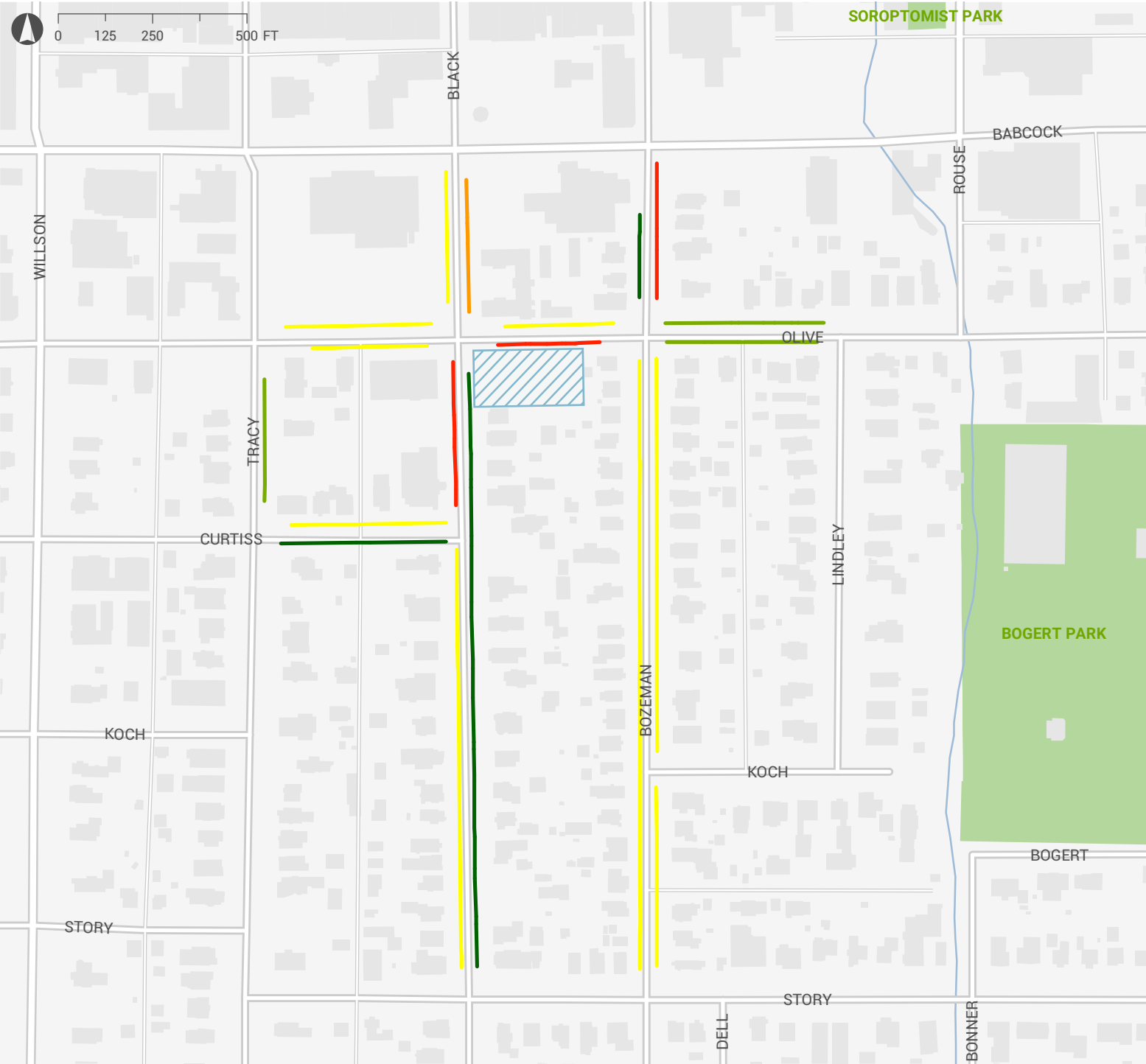
Run 2 9:00 AM 0 - 25% 25 - 50% 50 - 75% 75 - 85% ≥ 85%

Sat 1/23/21

Black Olive Round One

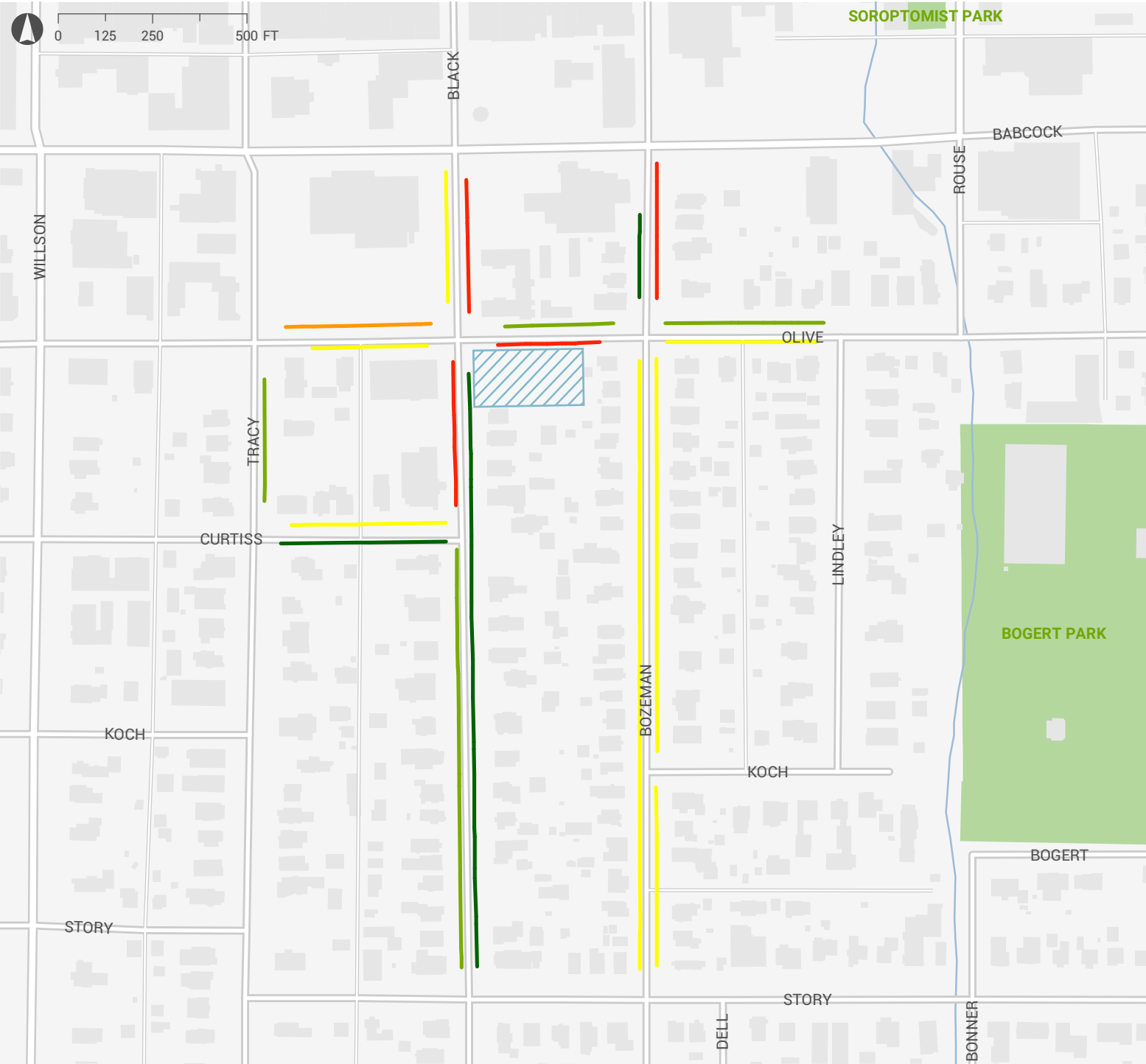


Run 3 10:00 AM 0 - 25% 25 - 50% 50 - 75% 75 - 85% ≥ 85%

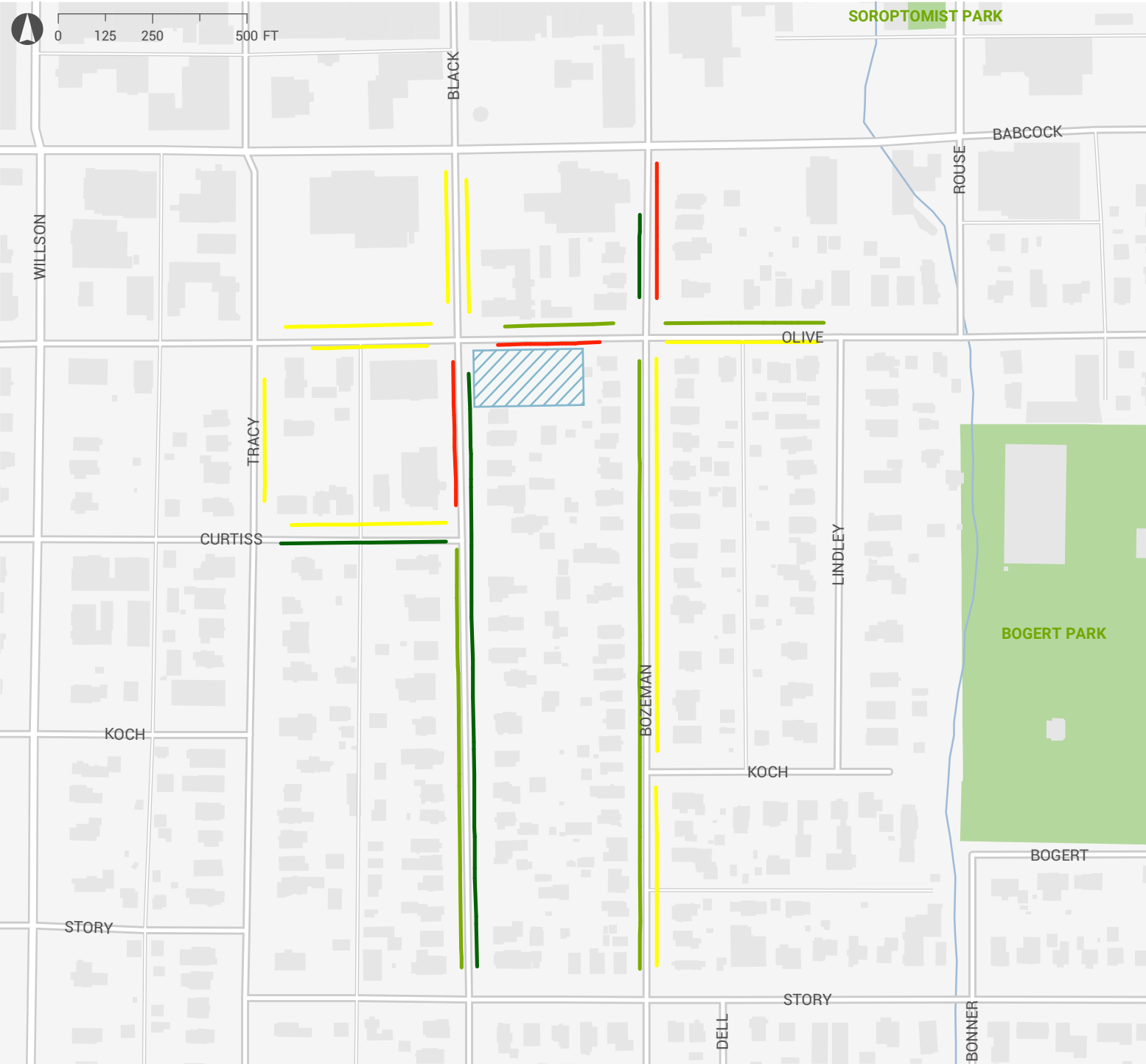


Sat 1/23/21

Black Olive Round One

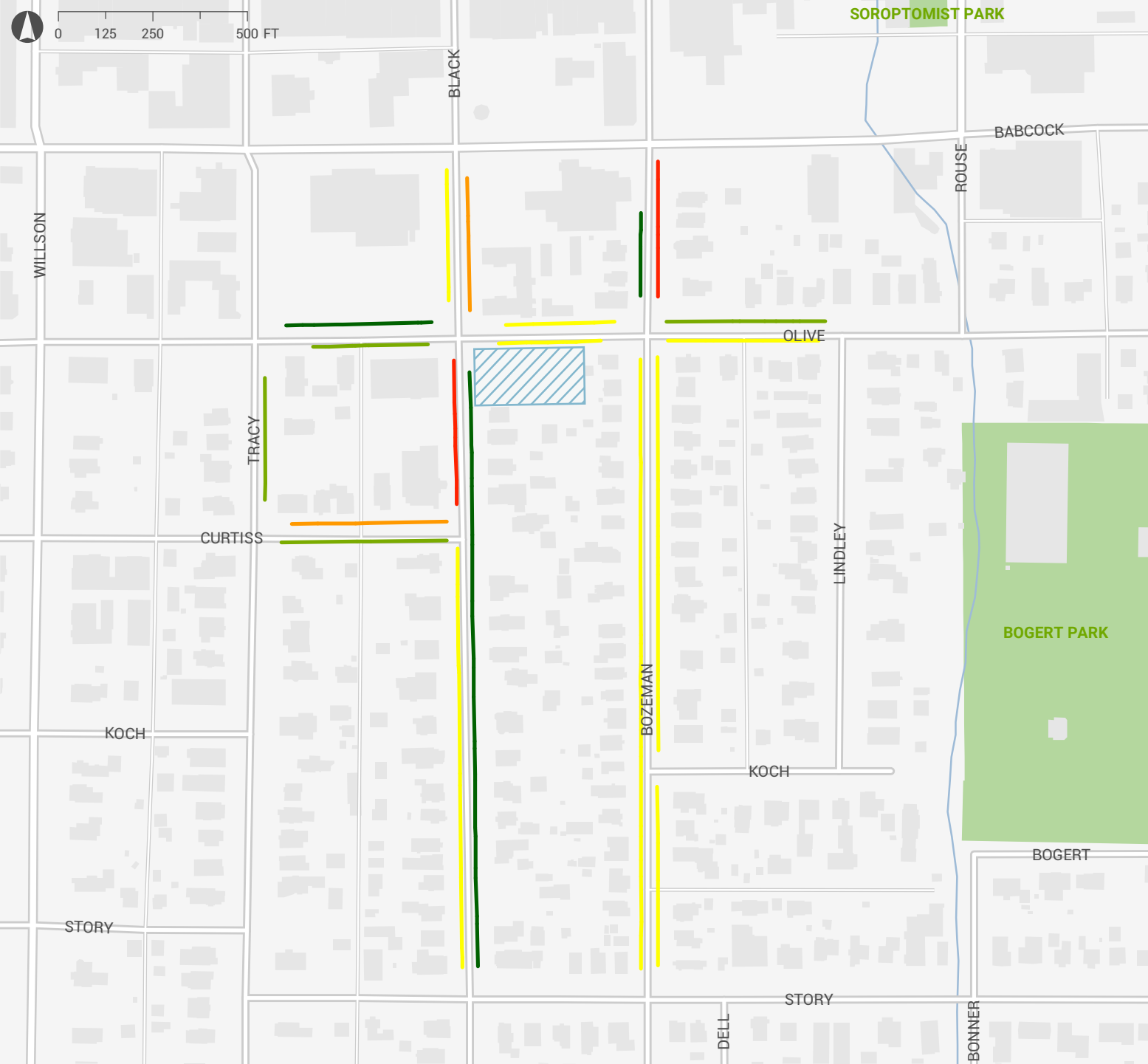


Run 5 1:00 PM 0 - 25% 25 - 50% 50 - 75% 75 - 85% ≥ 85%

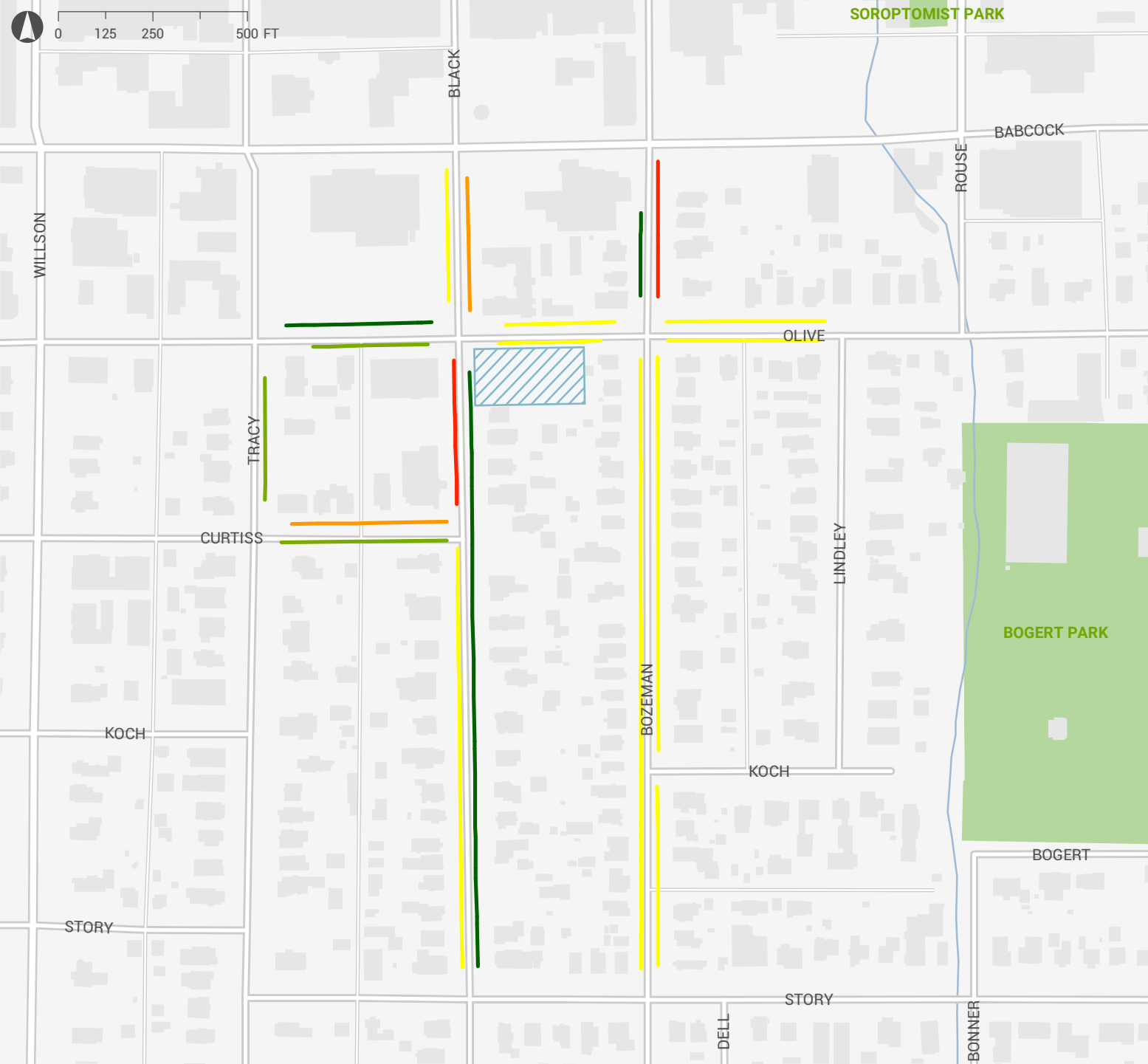


Sat 1/23/21

Black Olive Round One

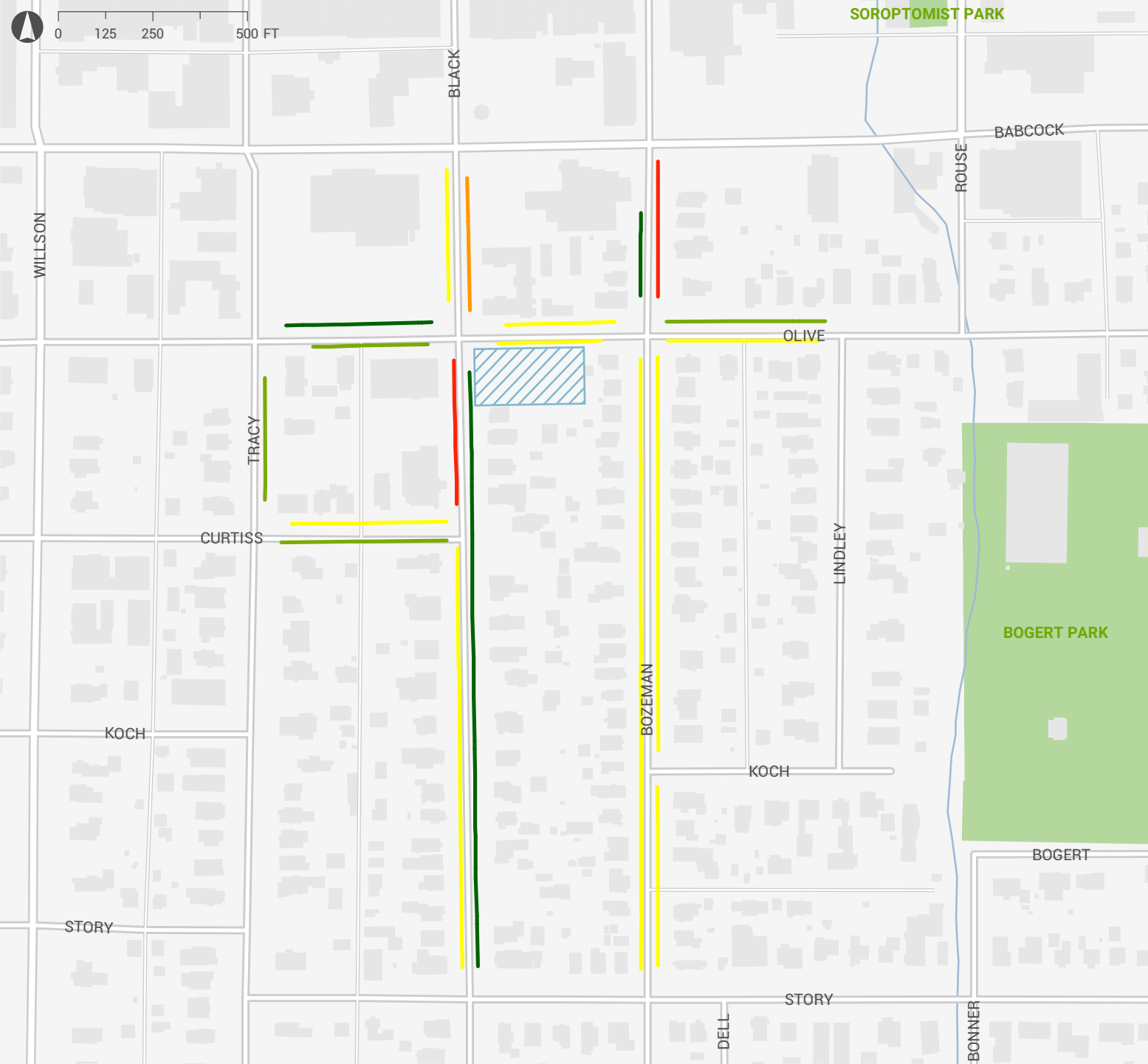


Run 7 4:00 PM 0 - 25% 25 - 50% 50 - 75% 75 - 85% ≥ 85%

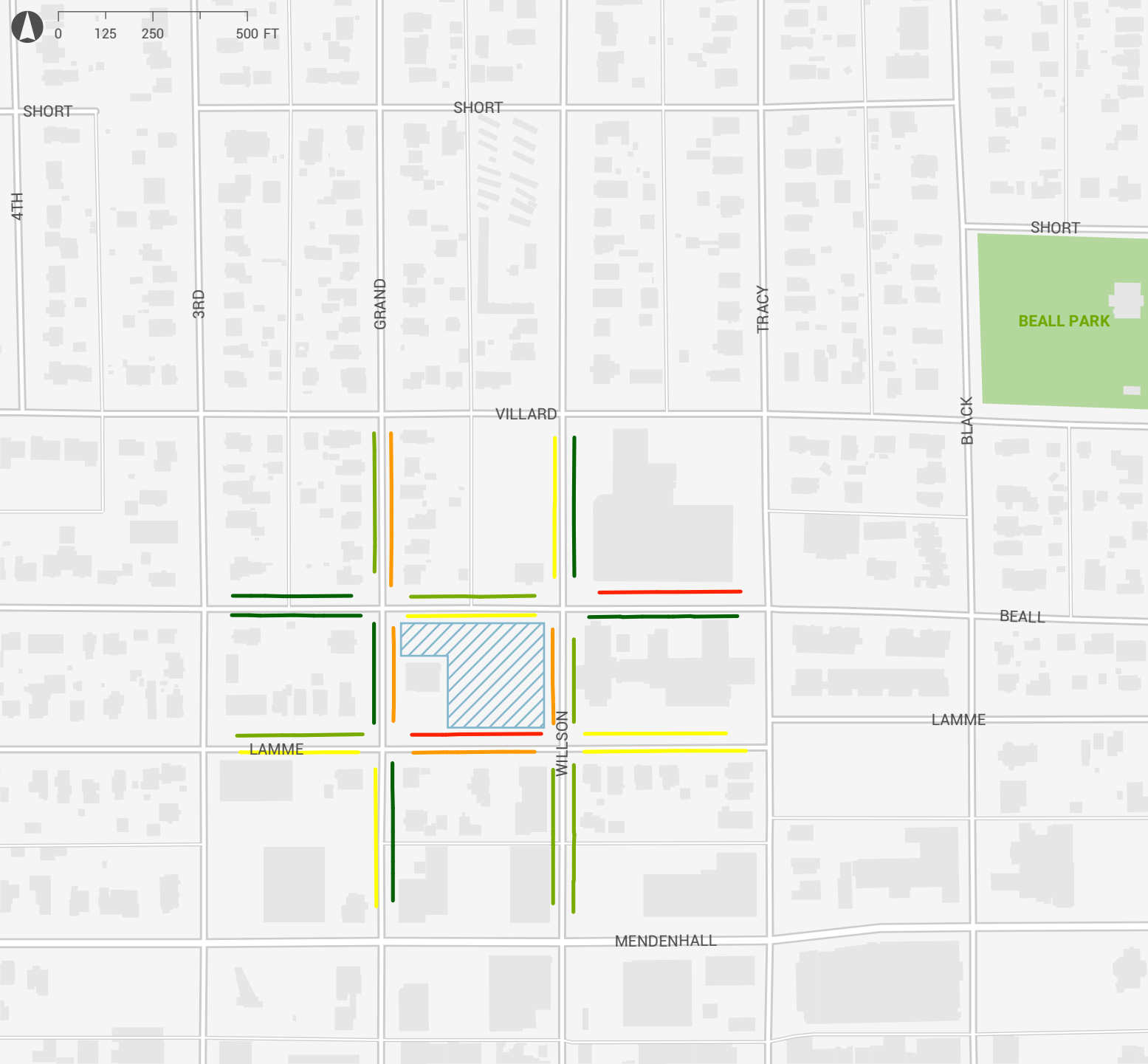


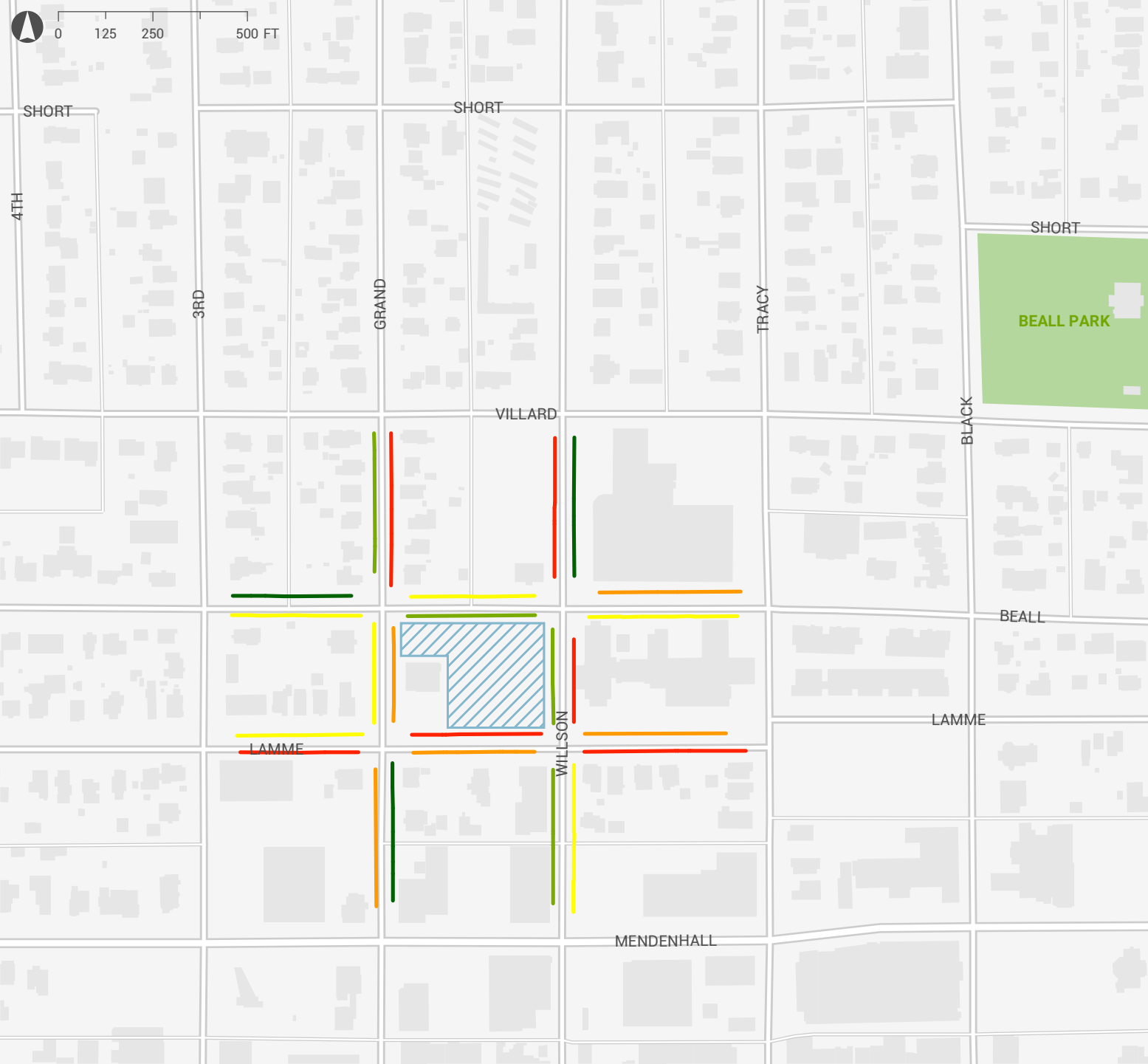
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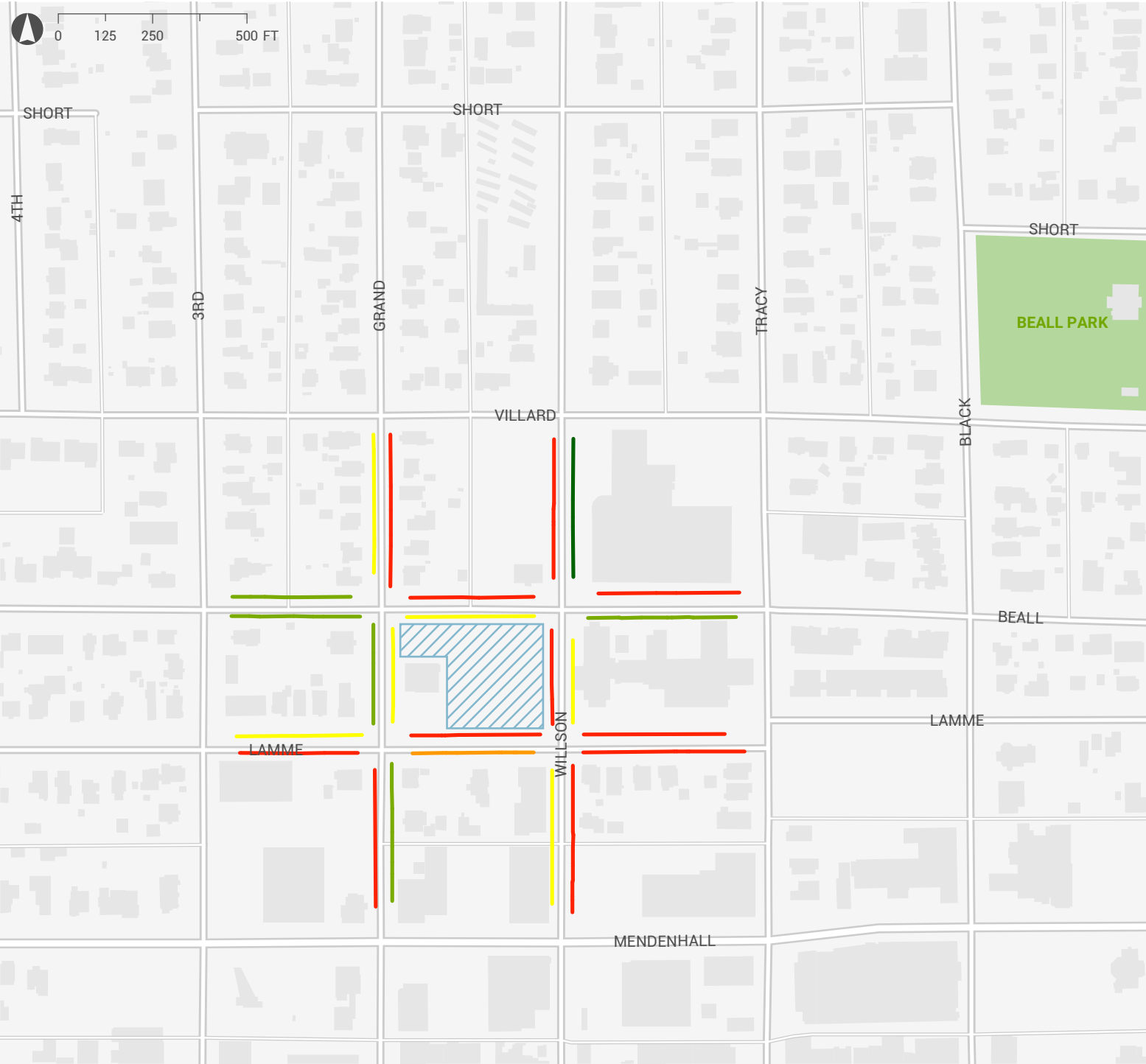
Black Olive Round One

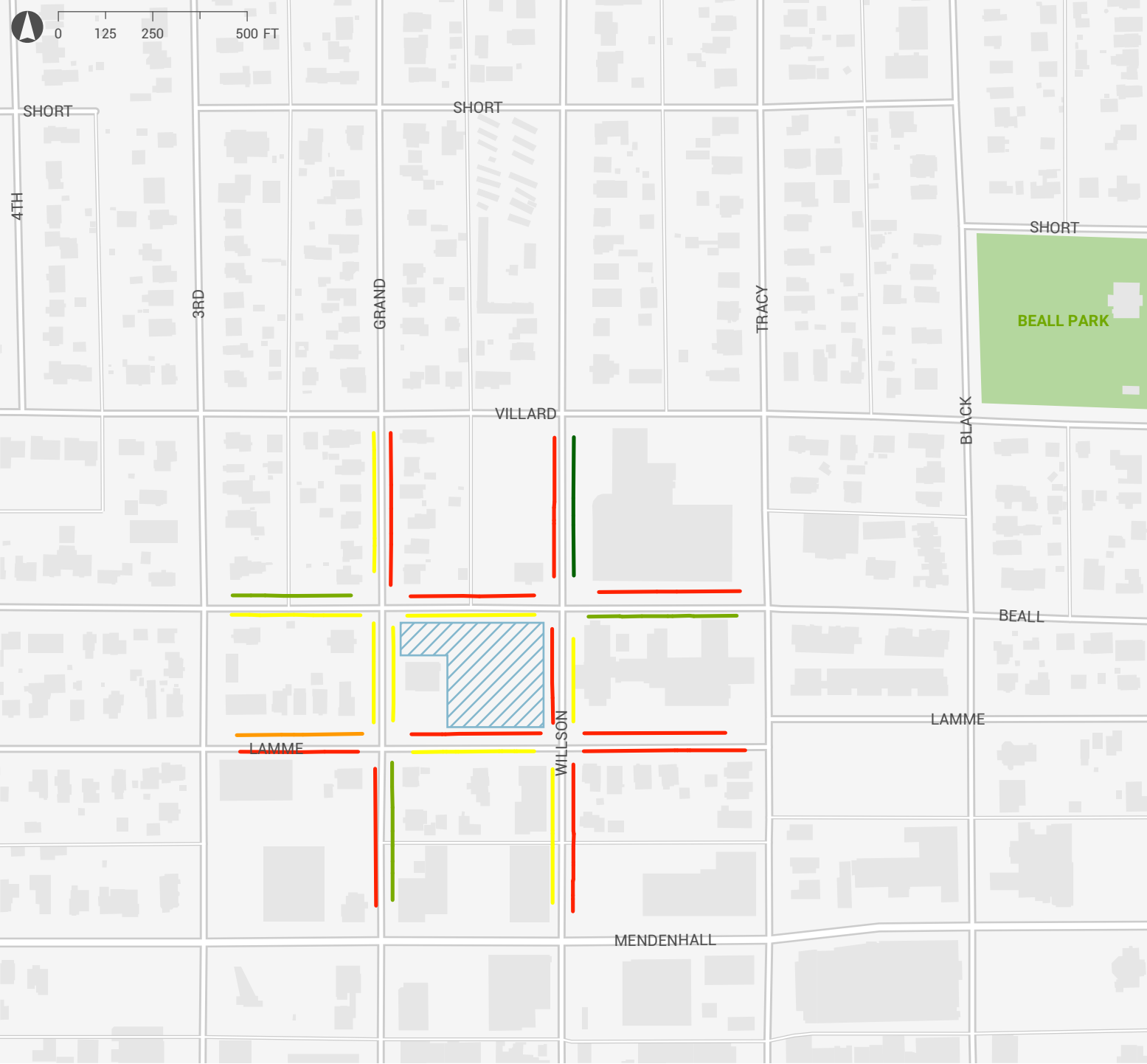


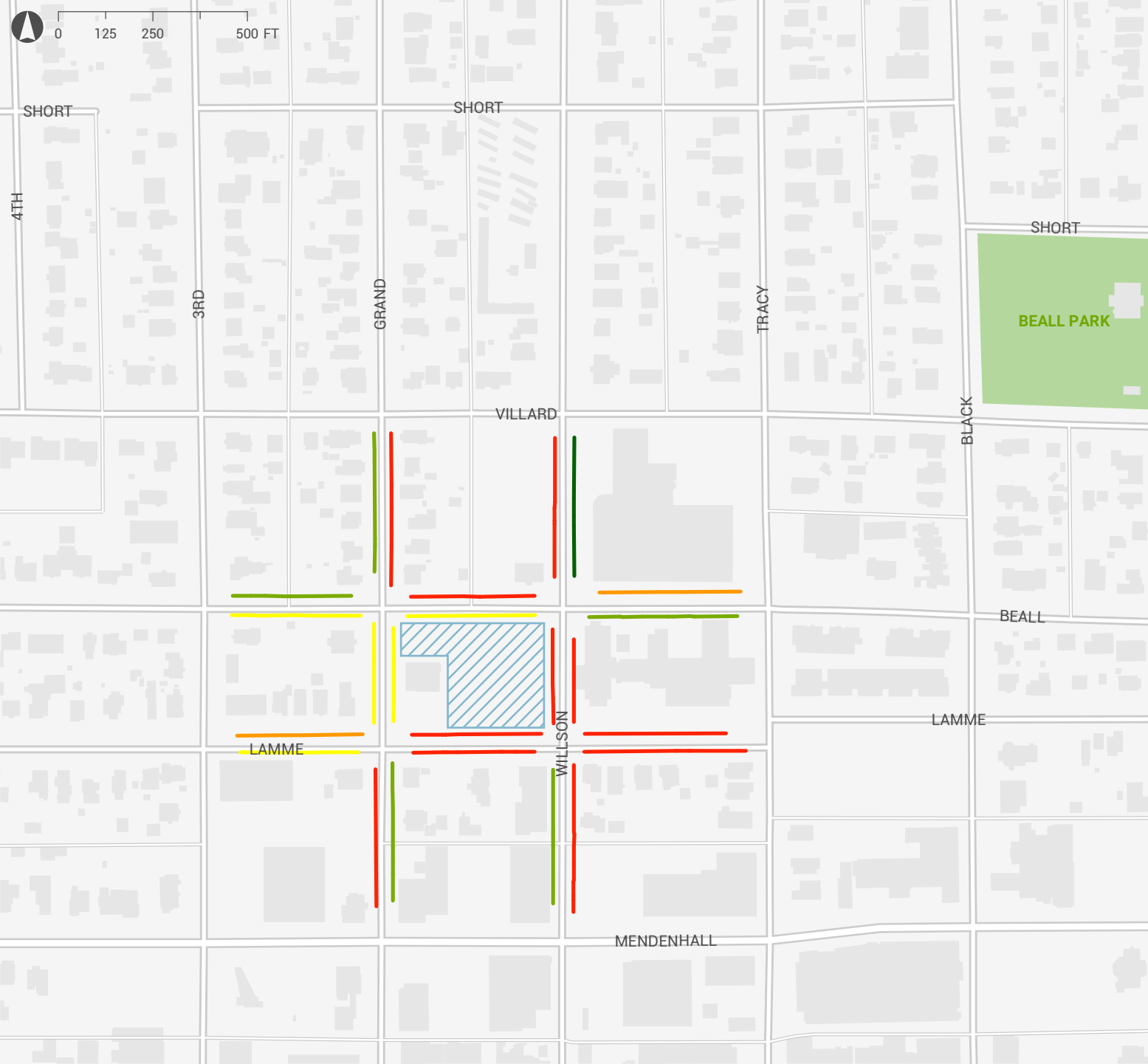
Run 9 6:00 PM 0 - 25% 25 - 50% 50 - 75% 75 - 85% ≥ 85%

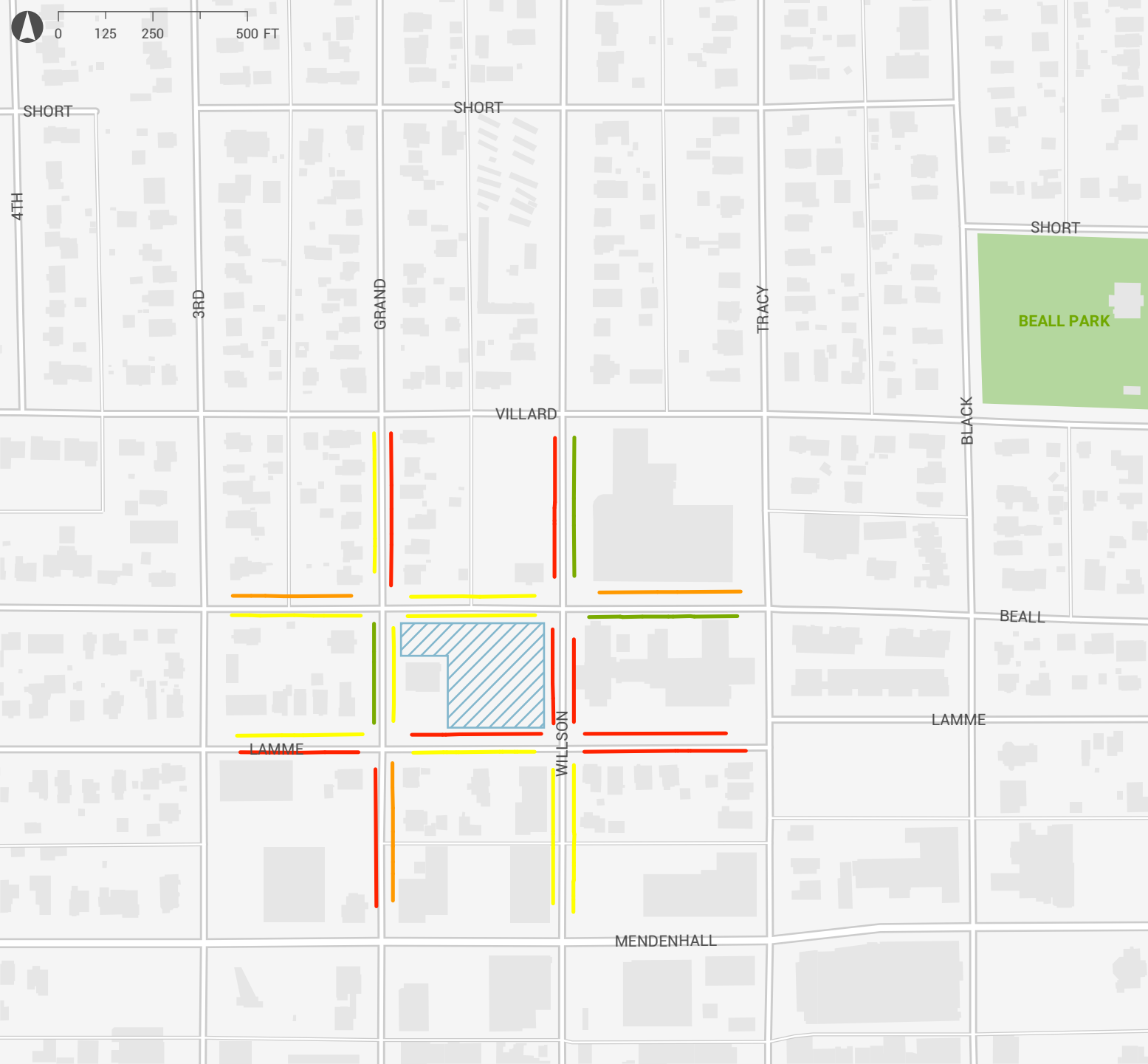


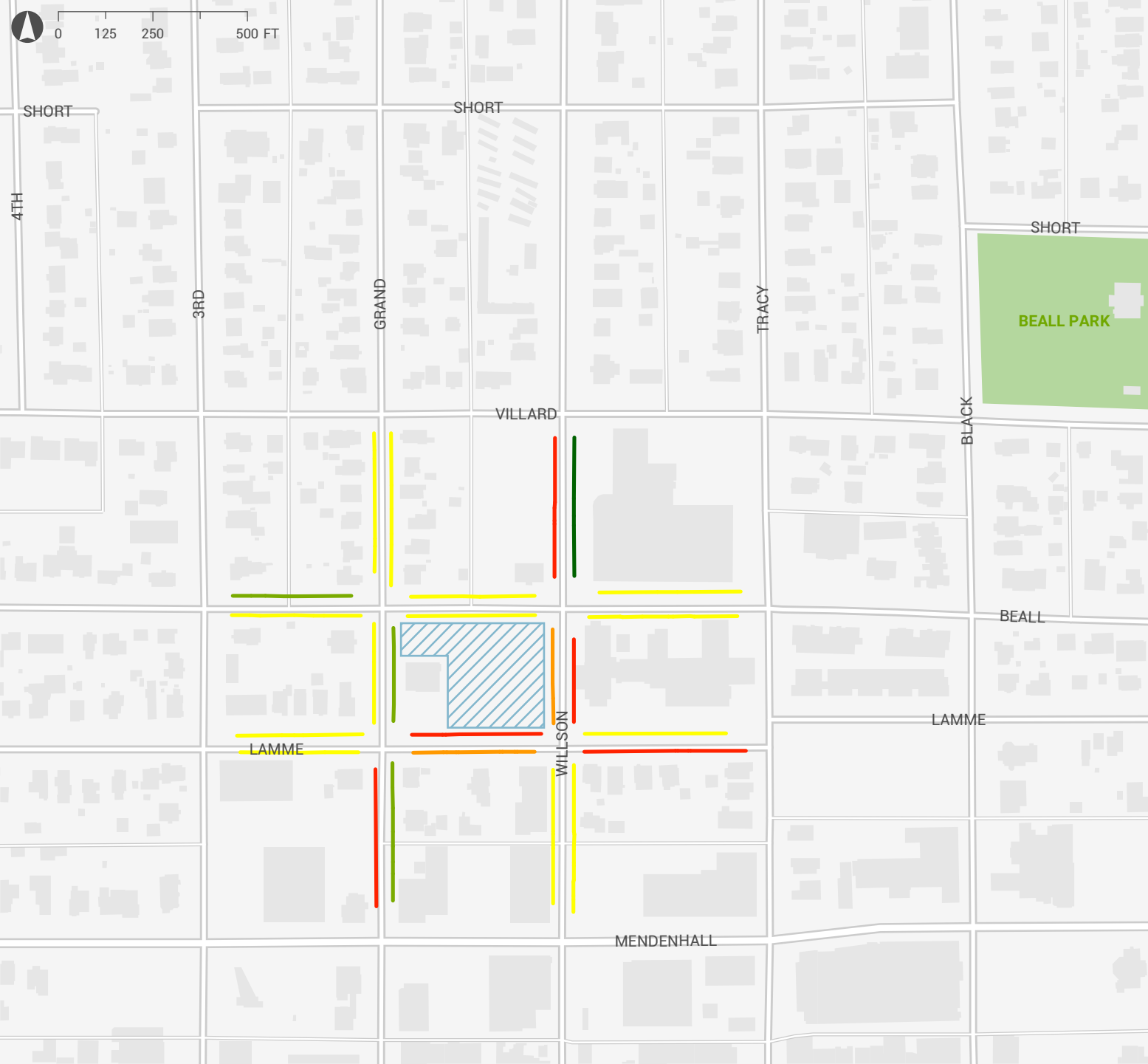


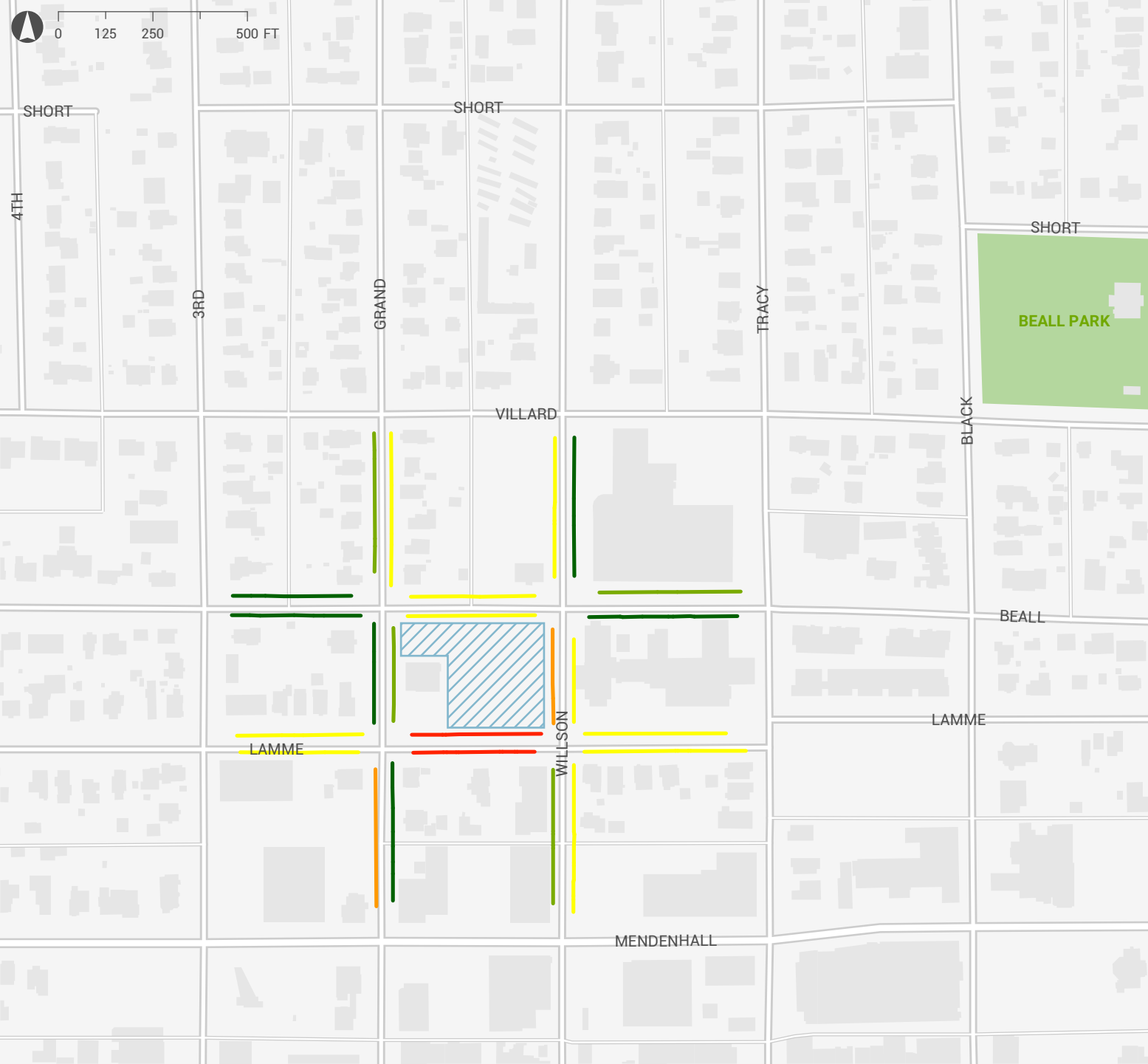


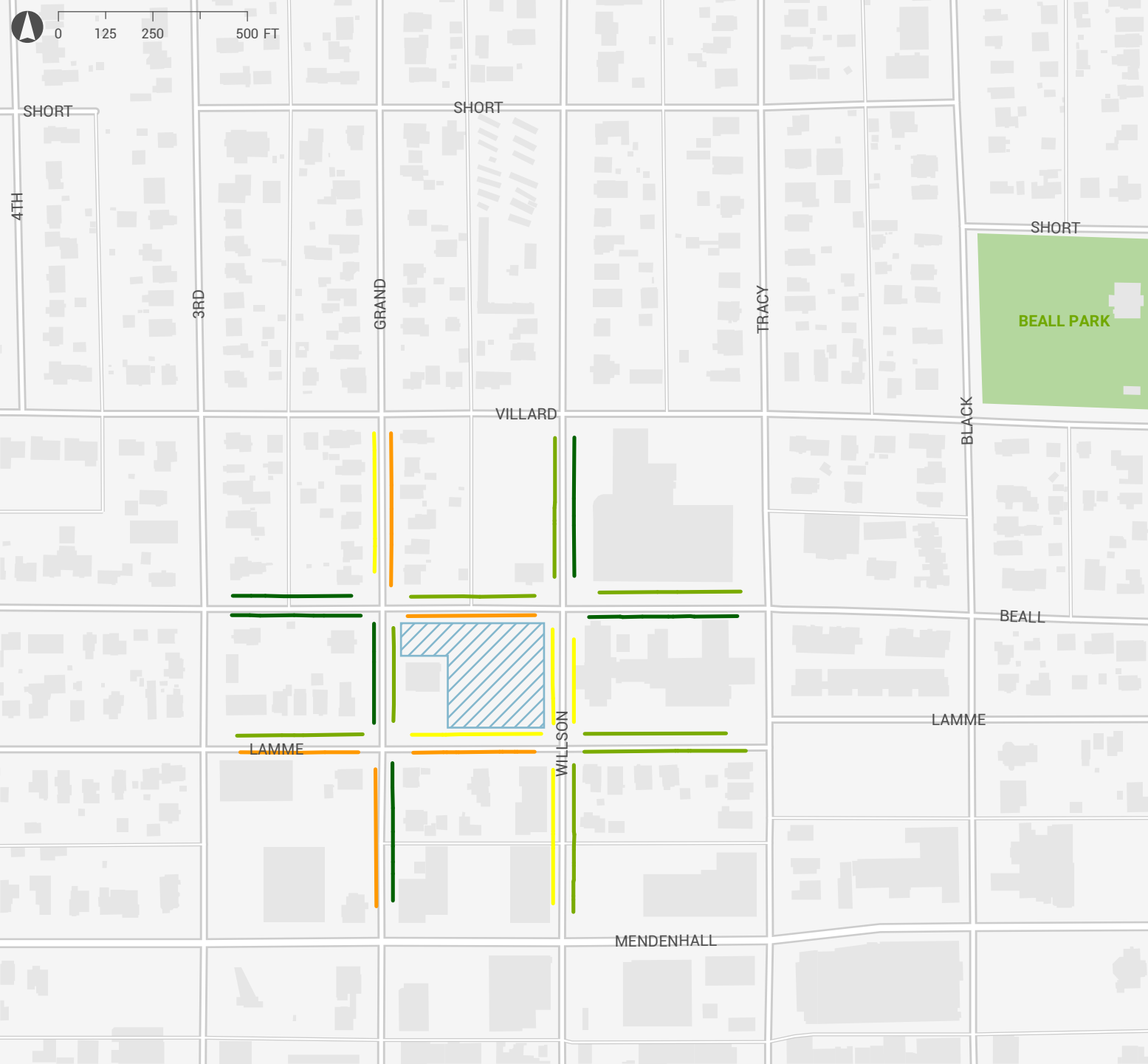


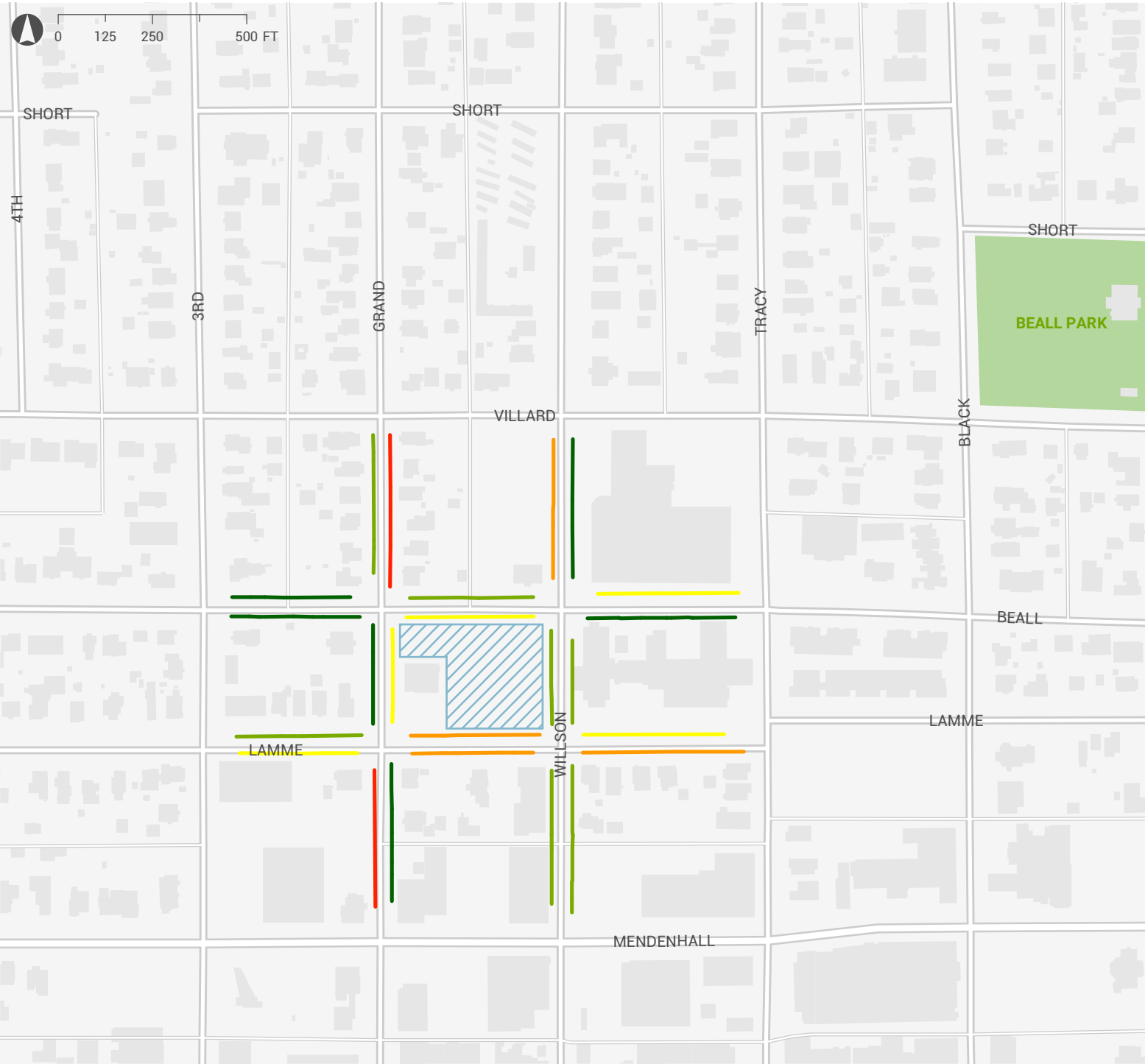


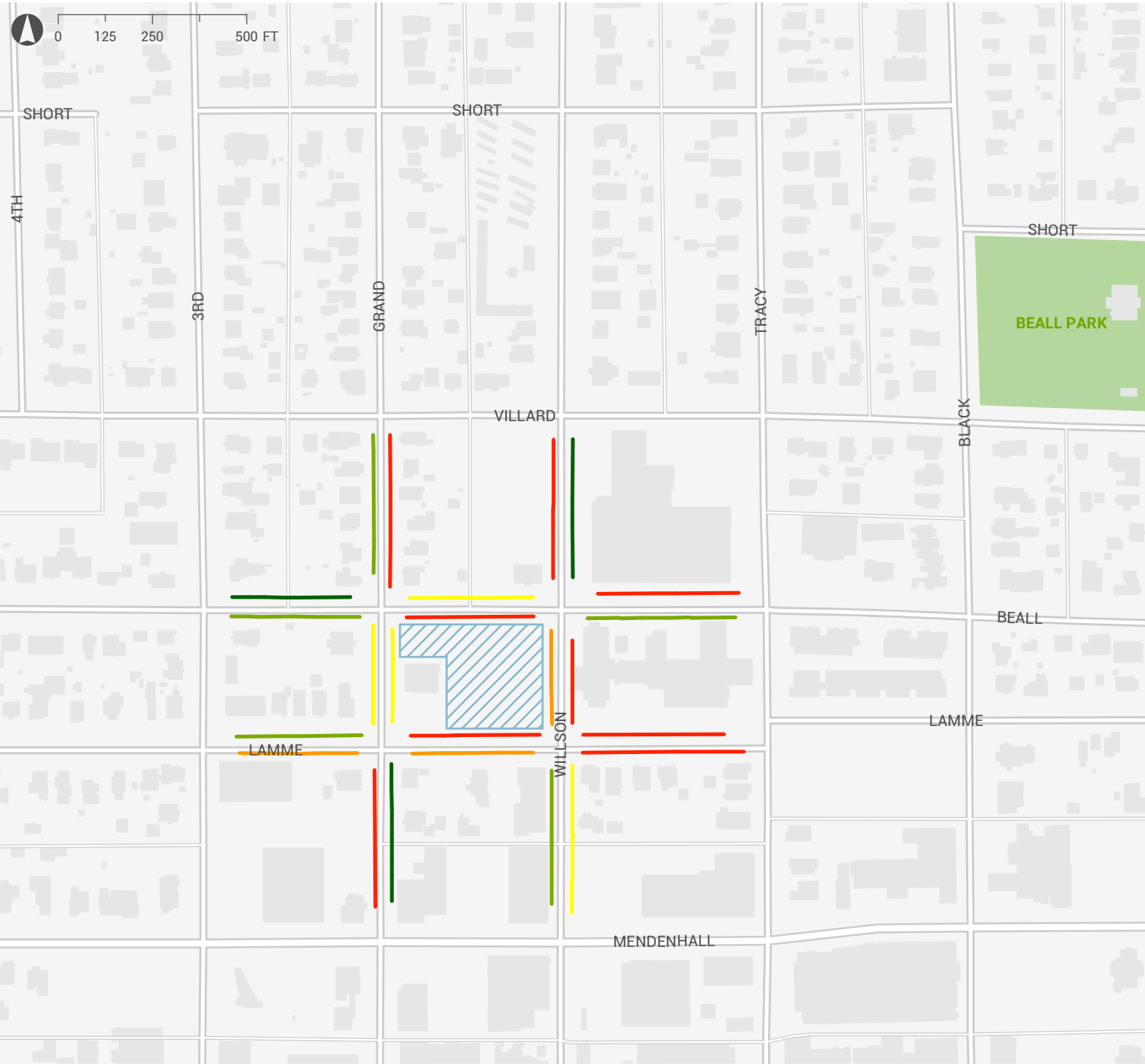


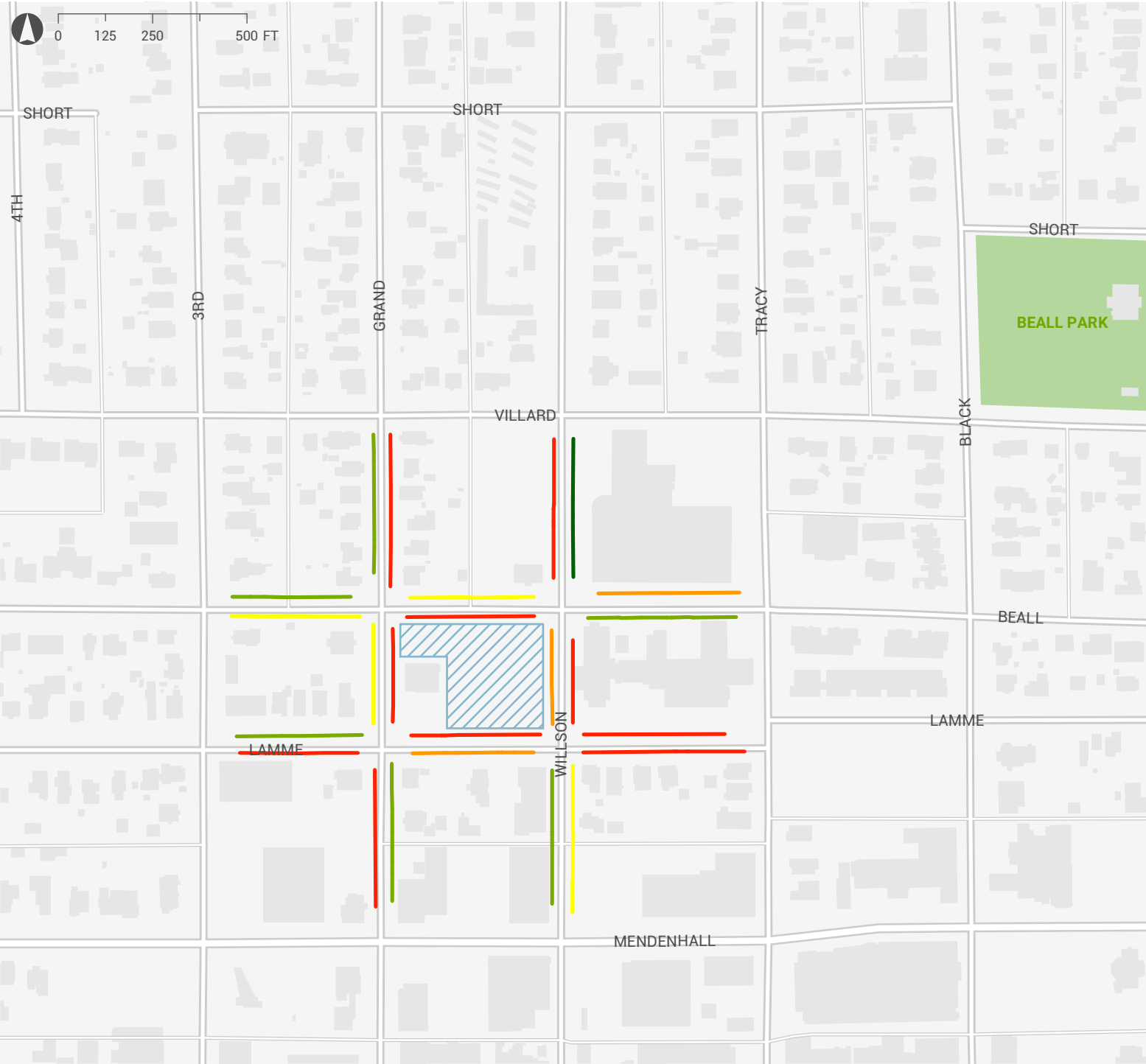


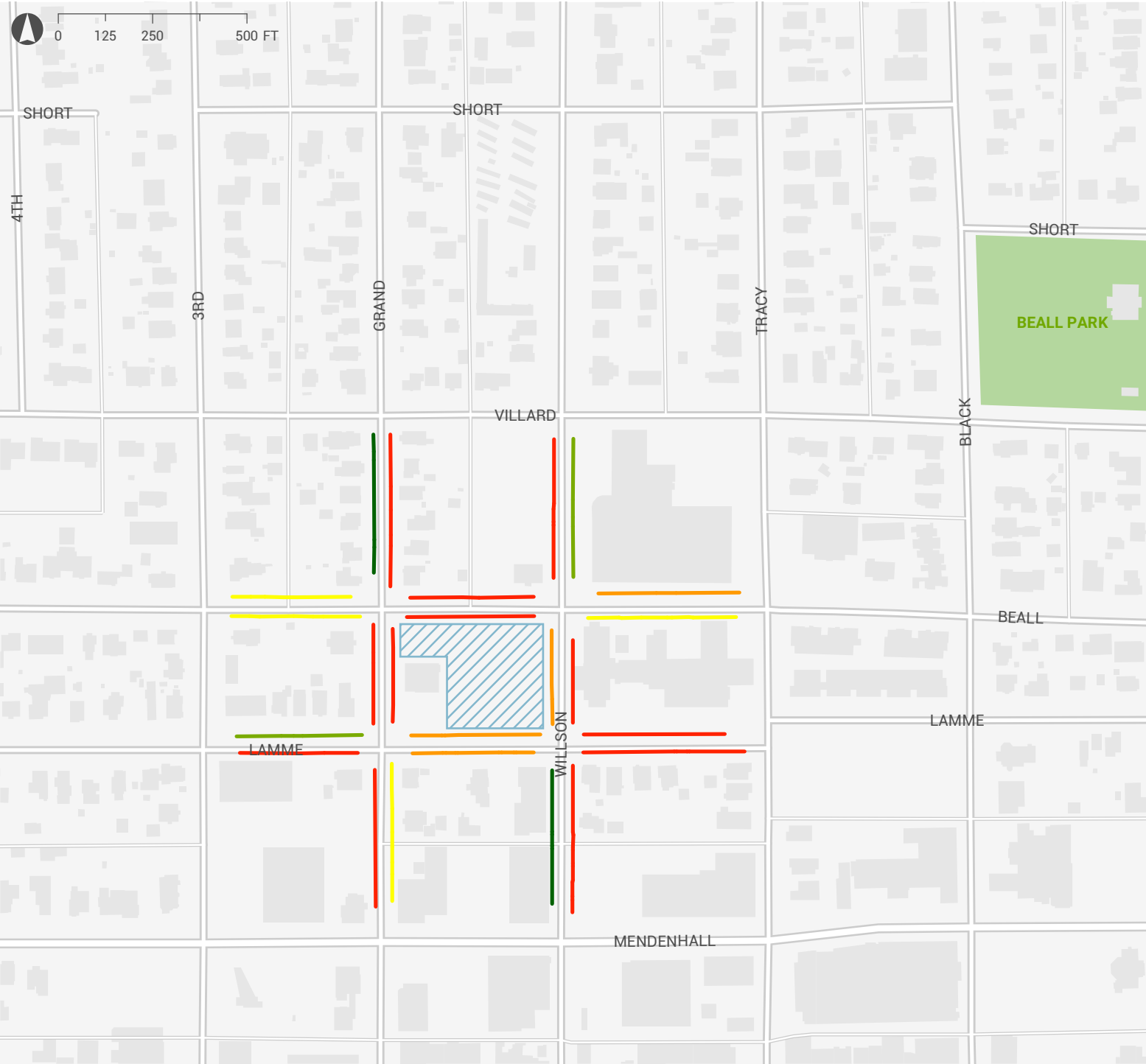


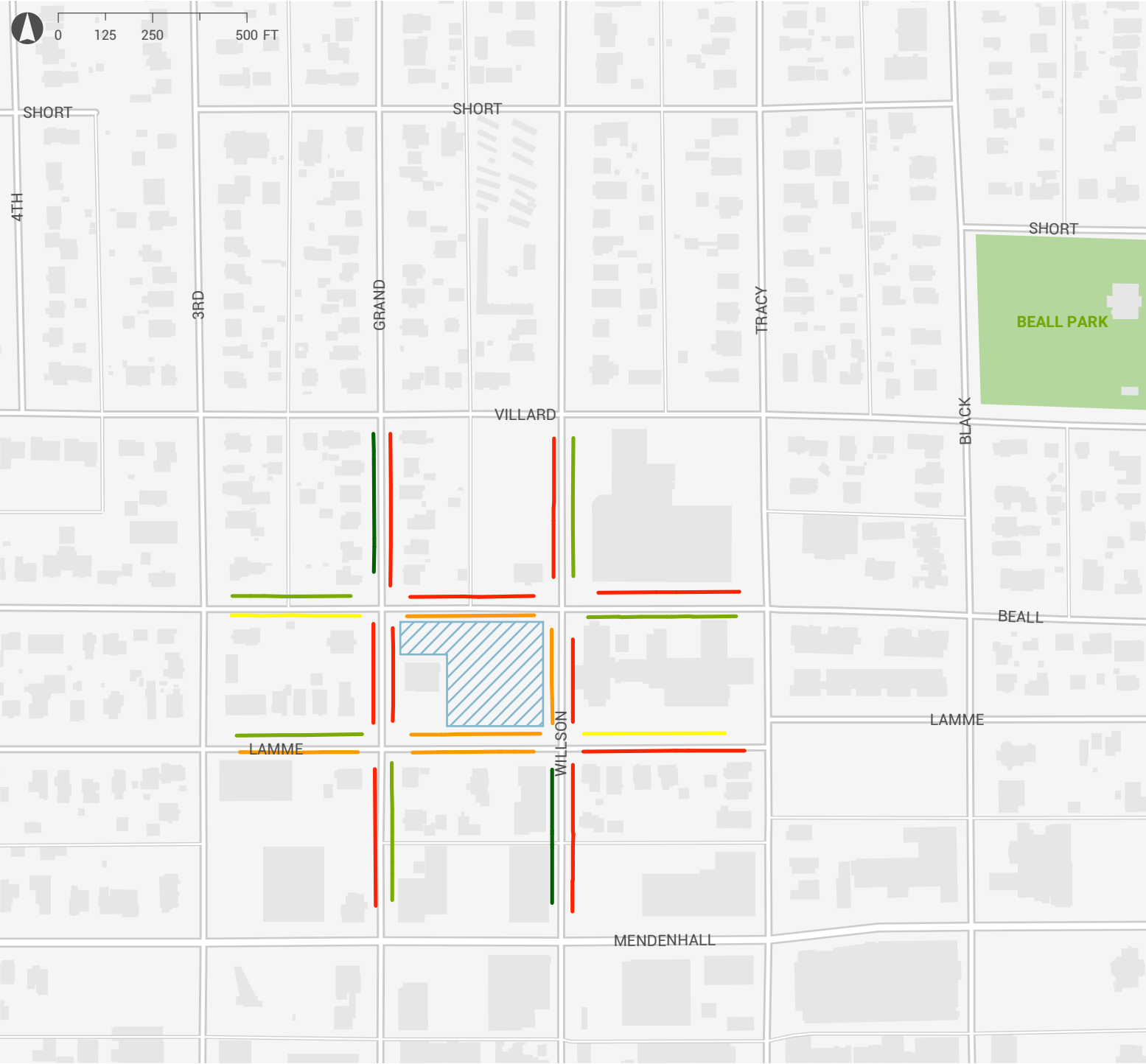


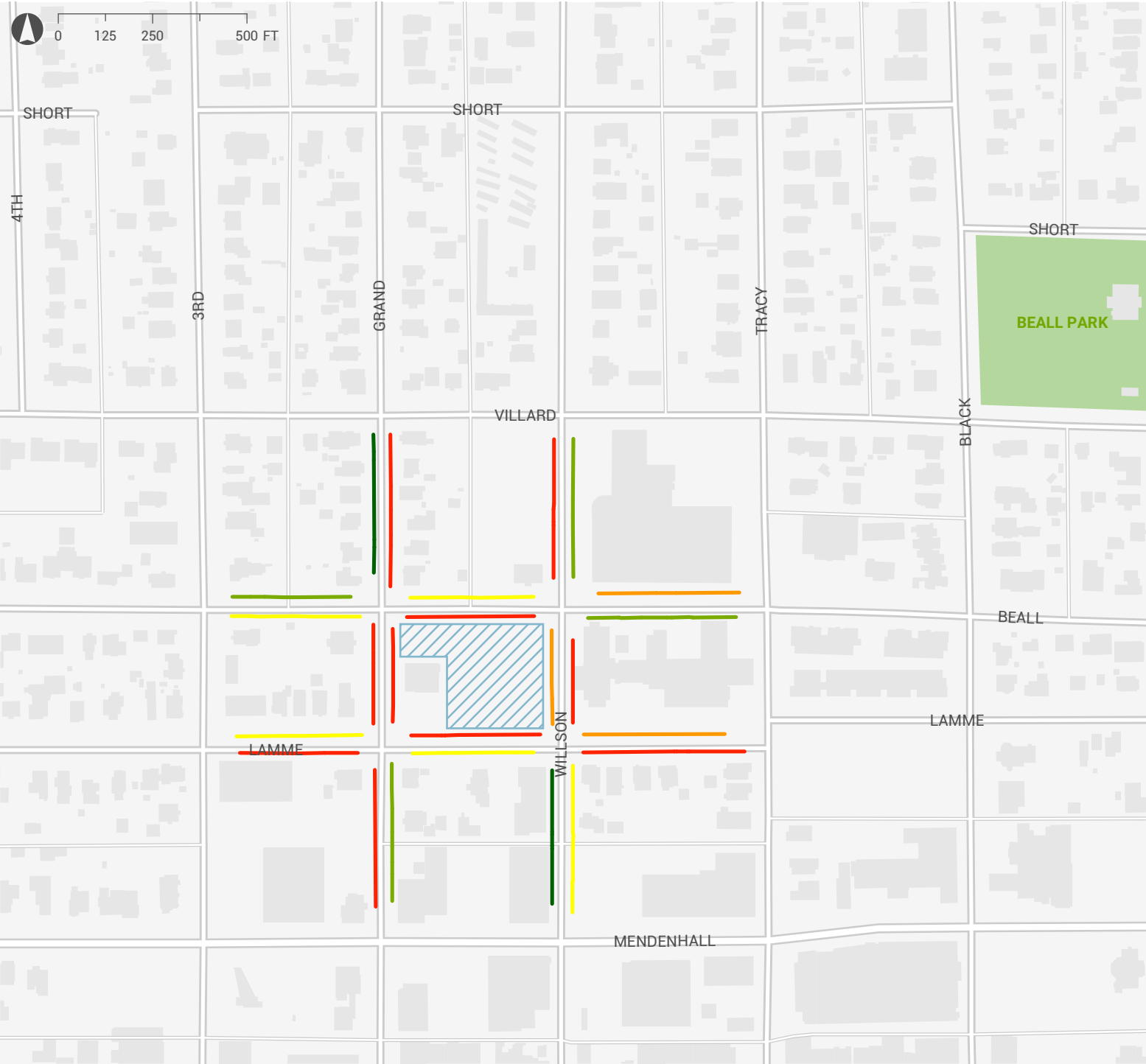


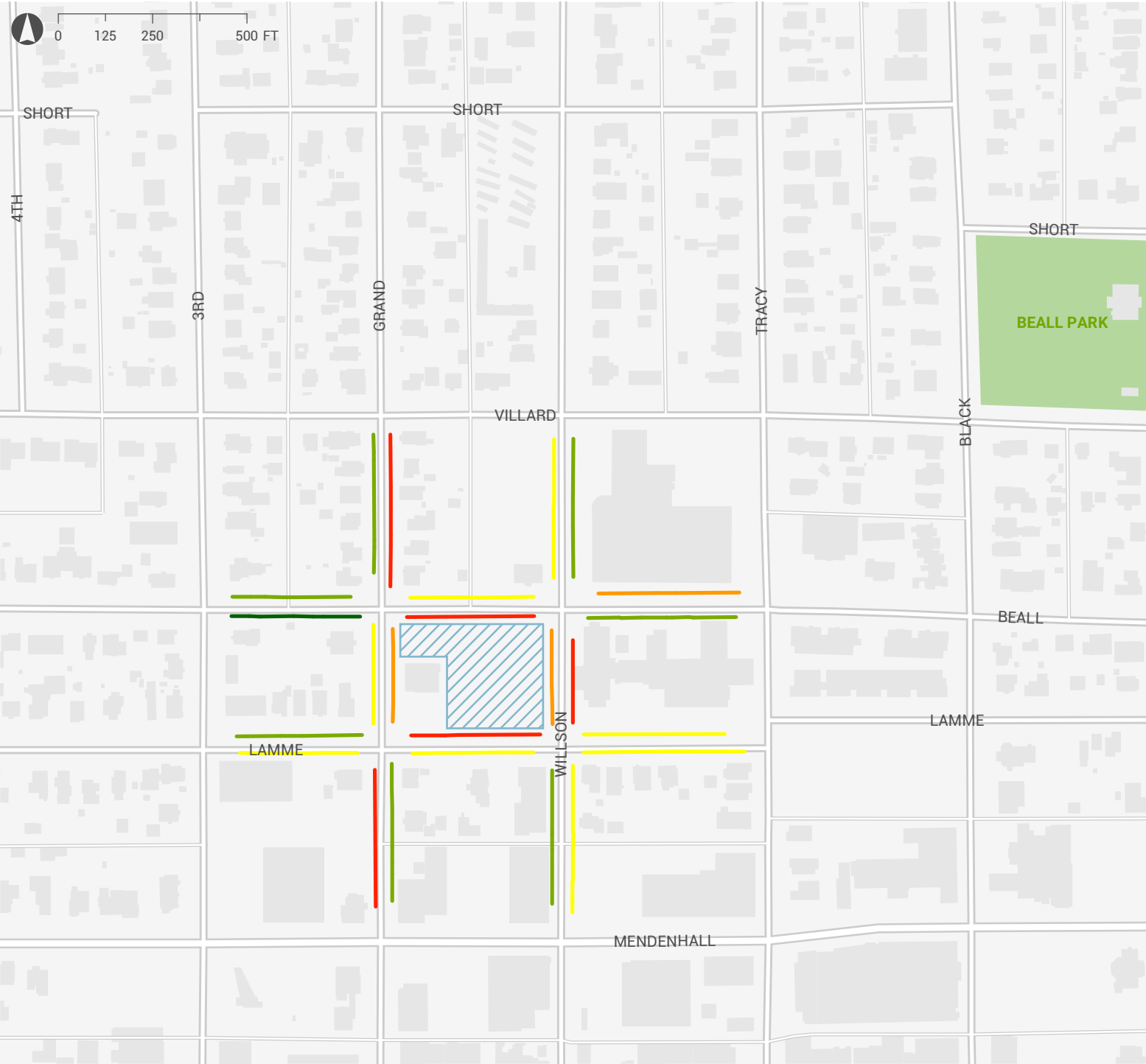


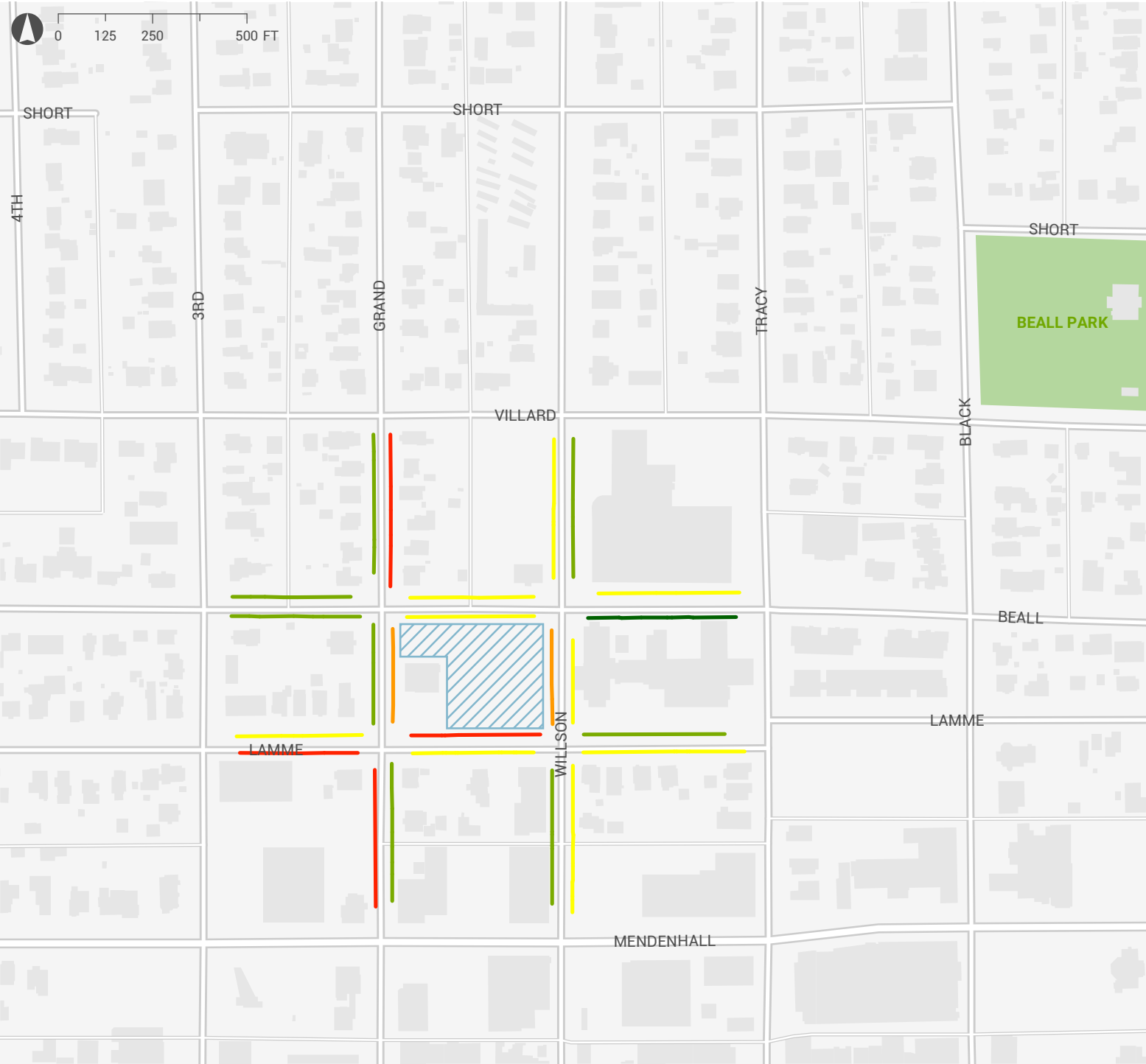


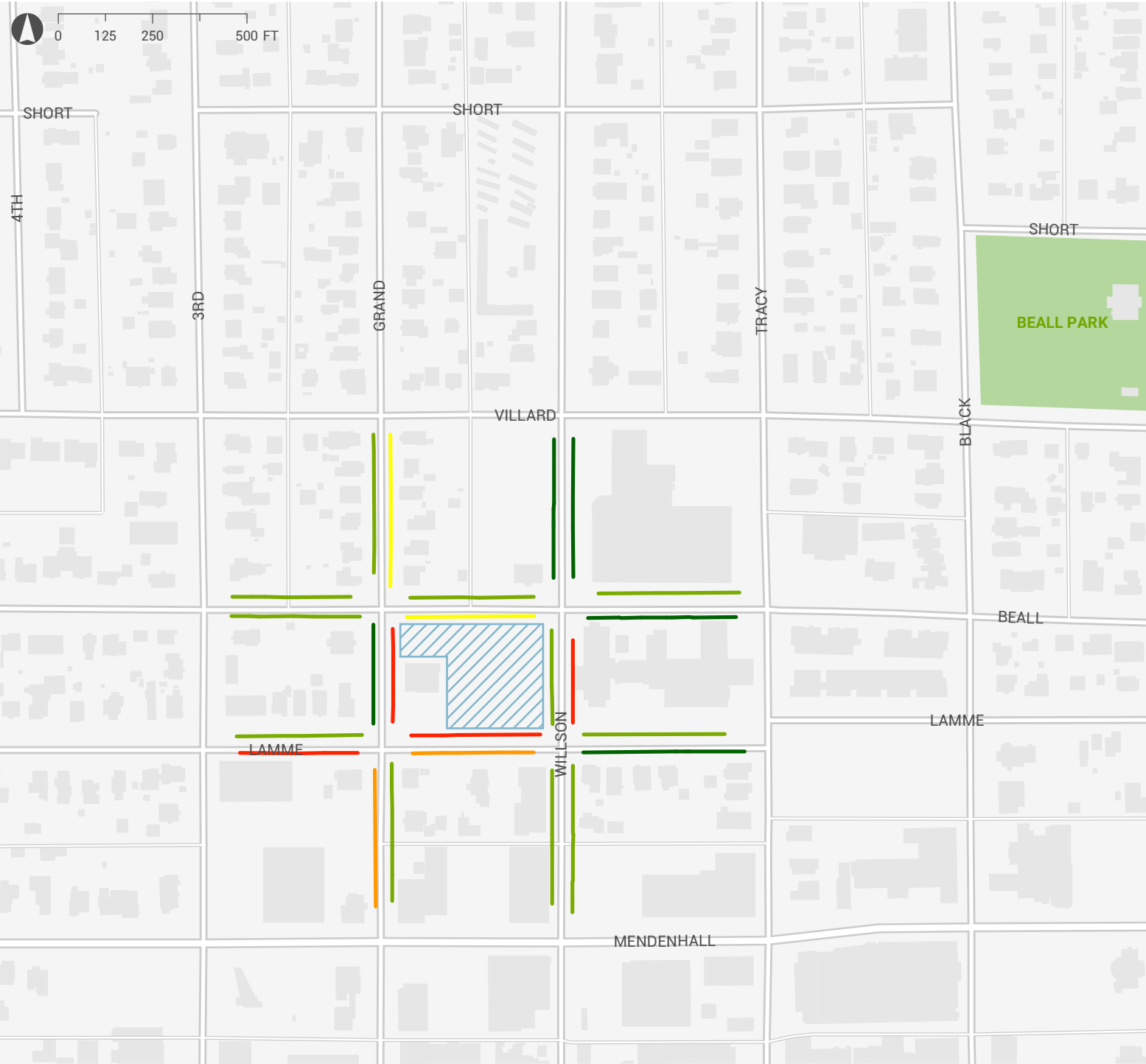


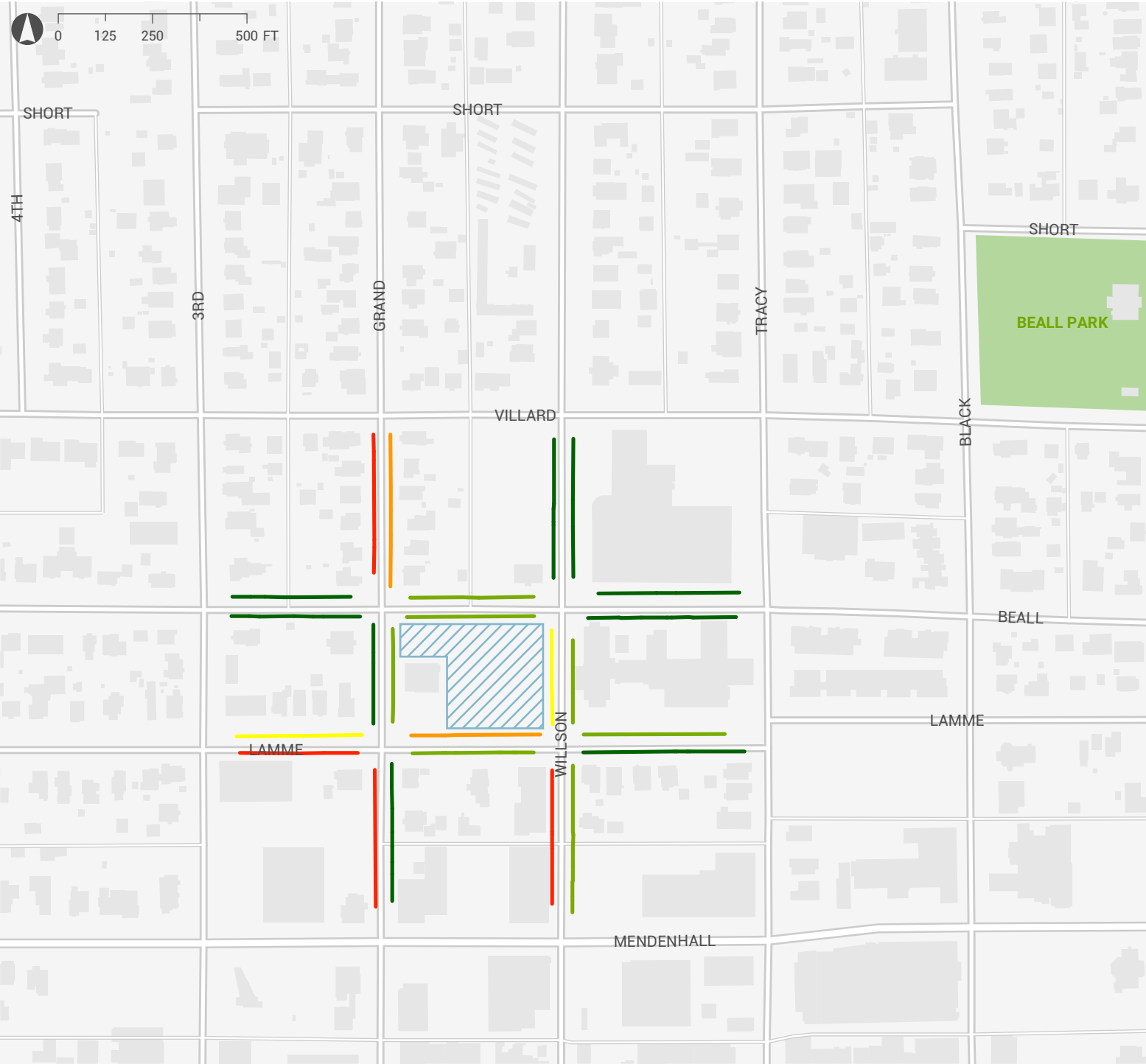


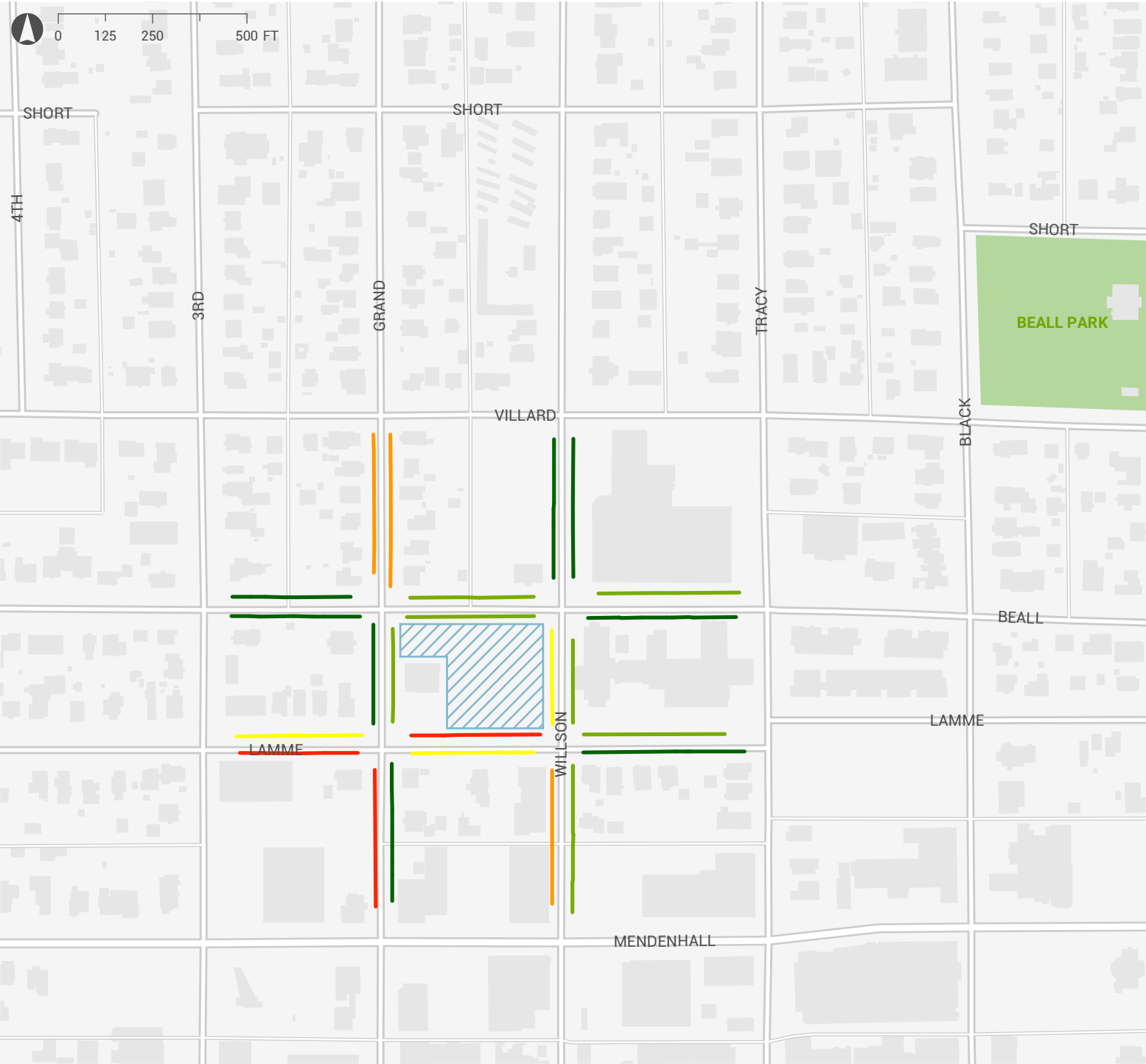


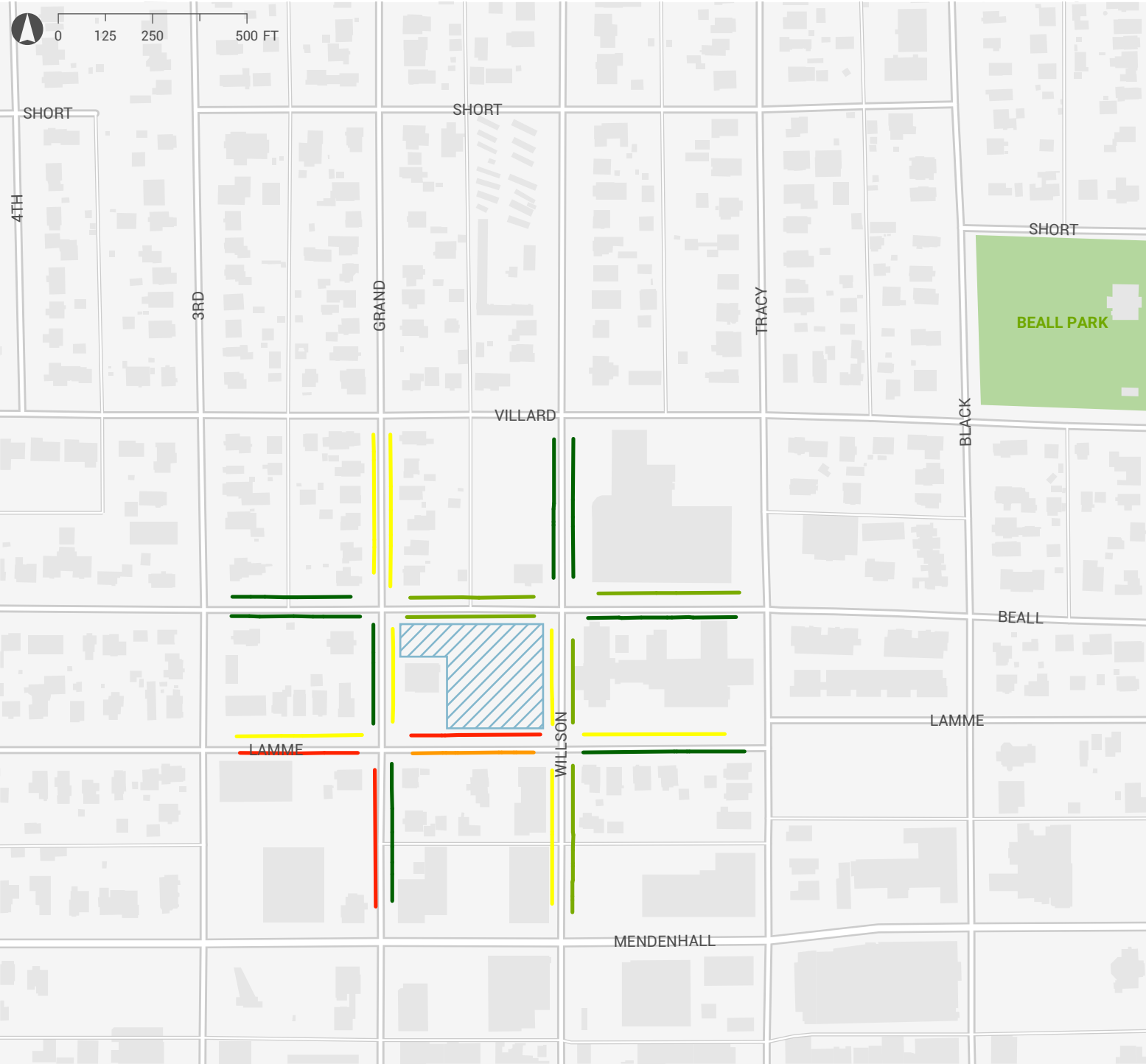


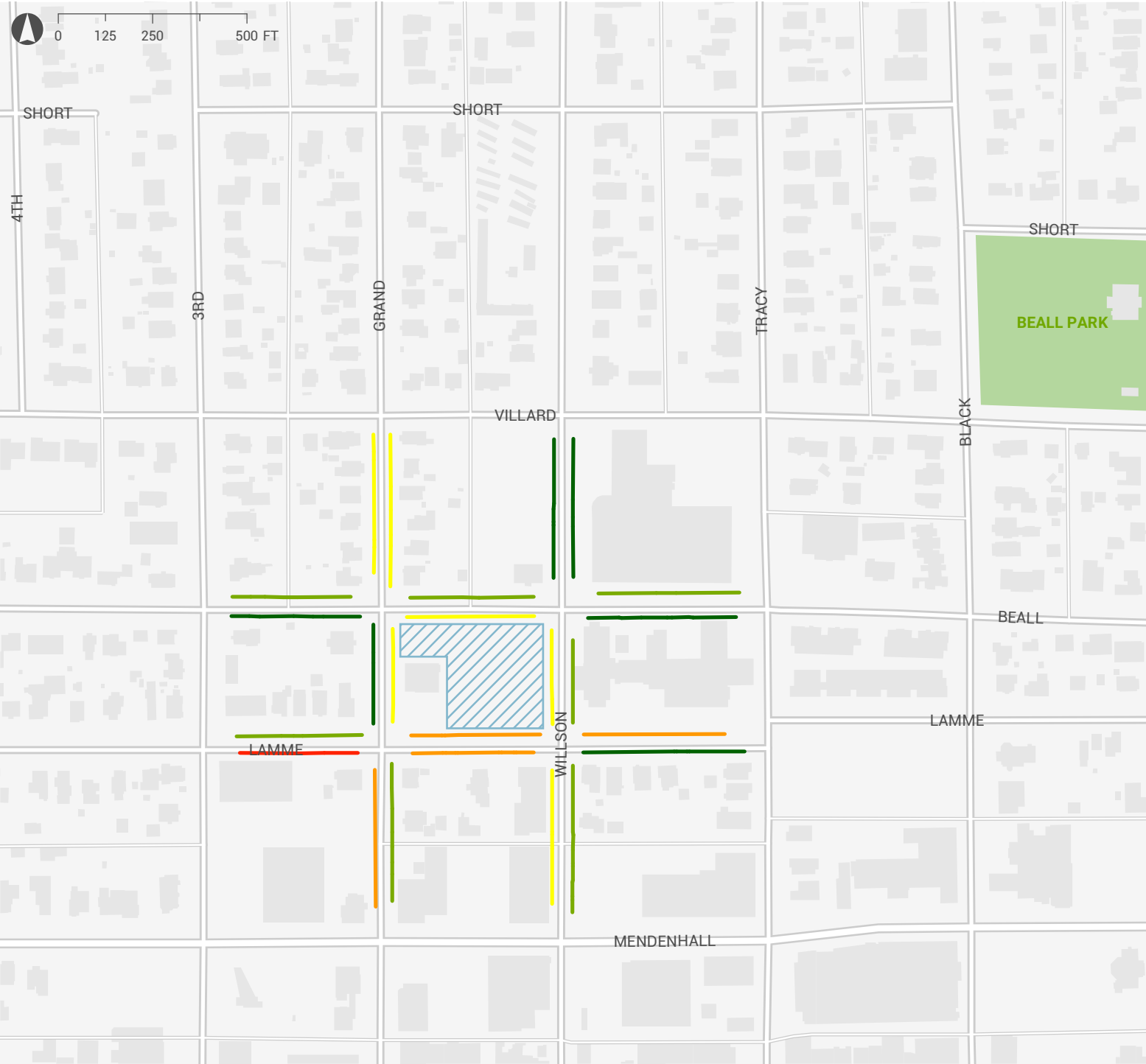


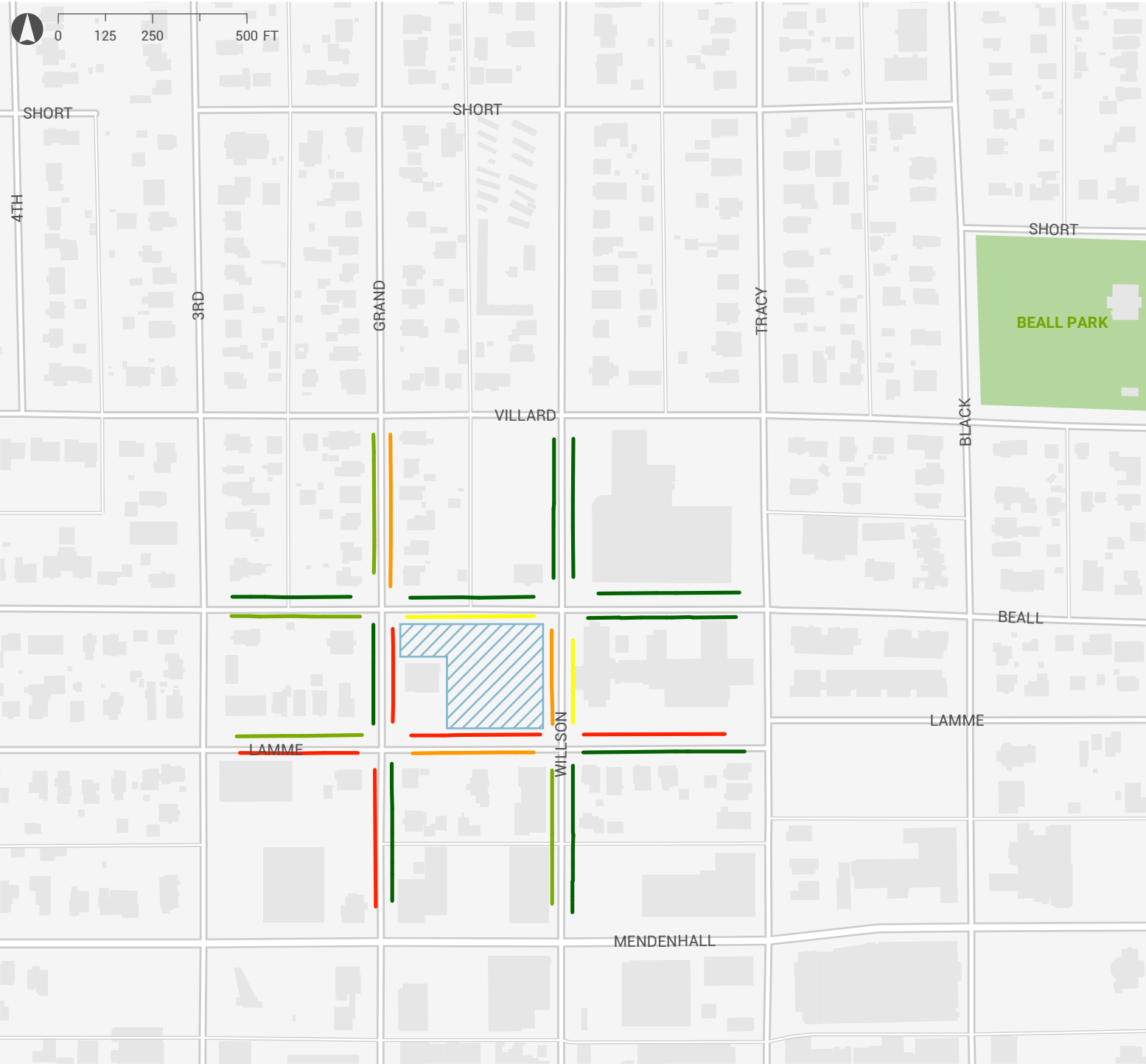


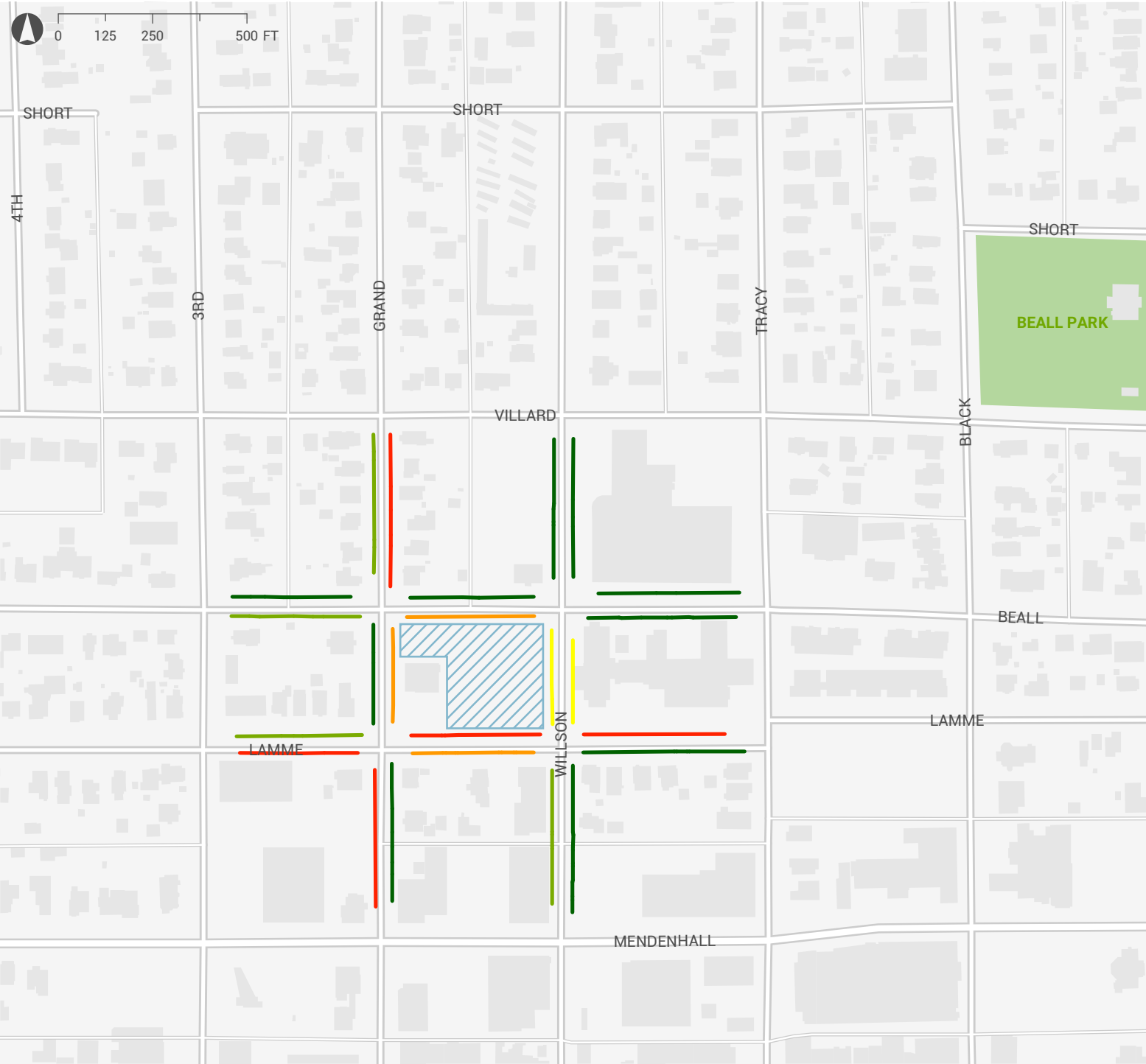


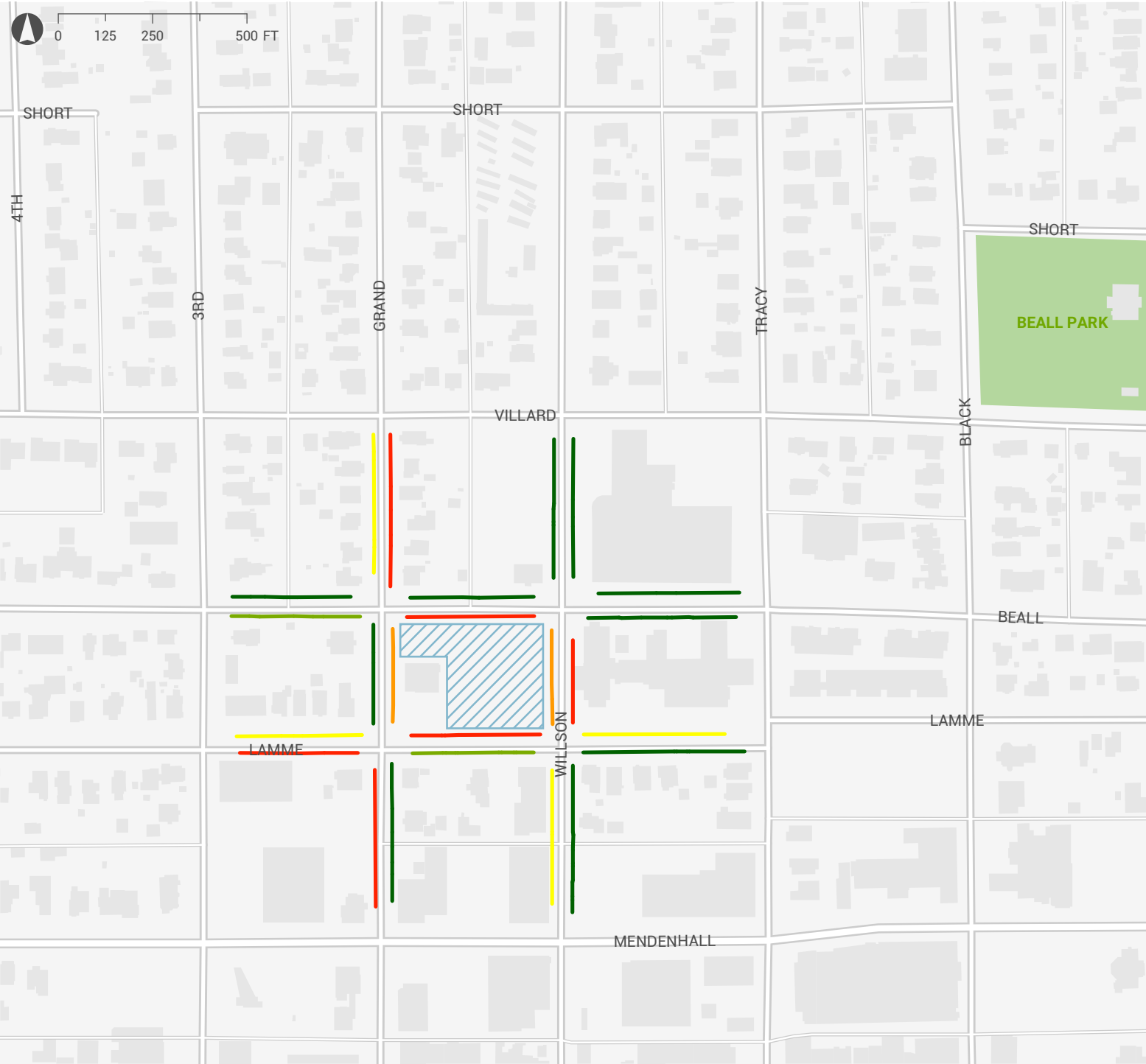


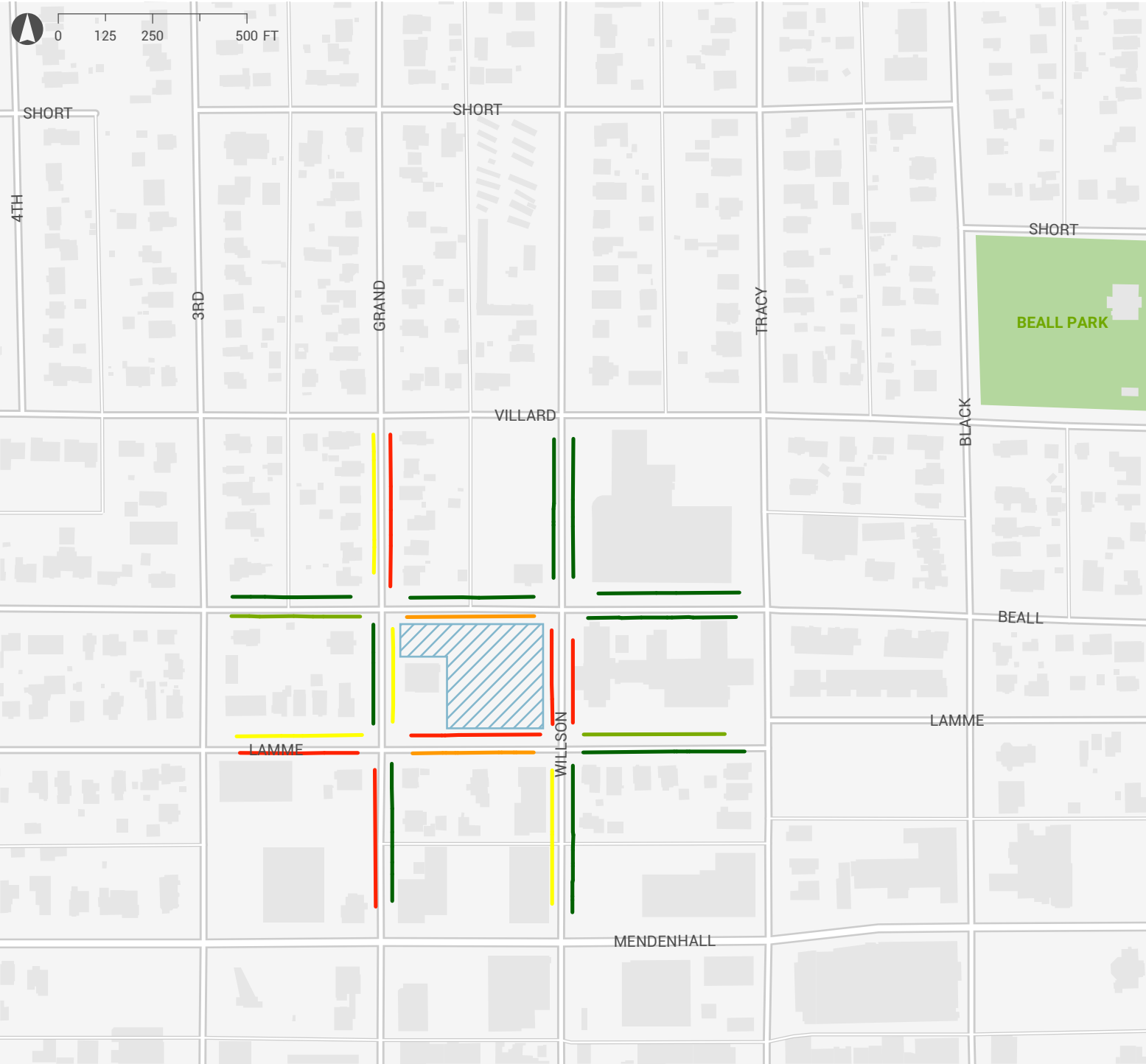


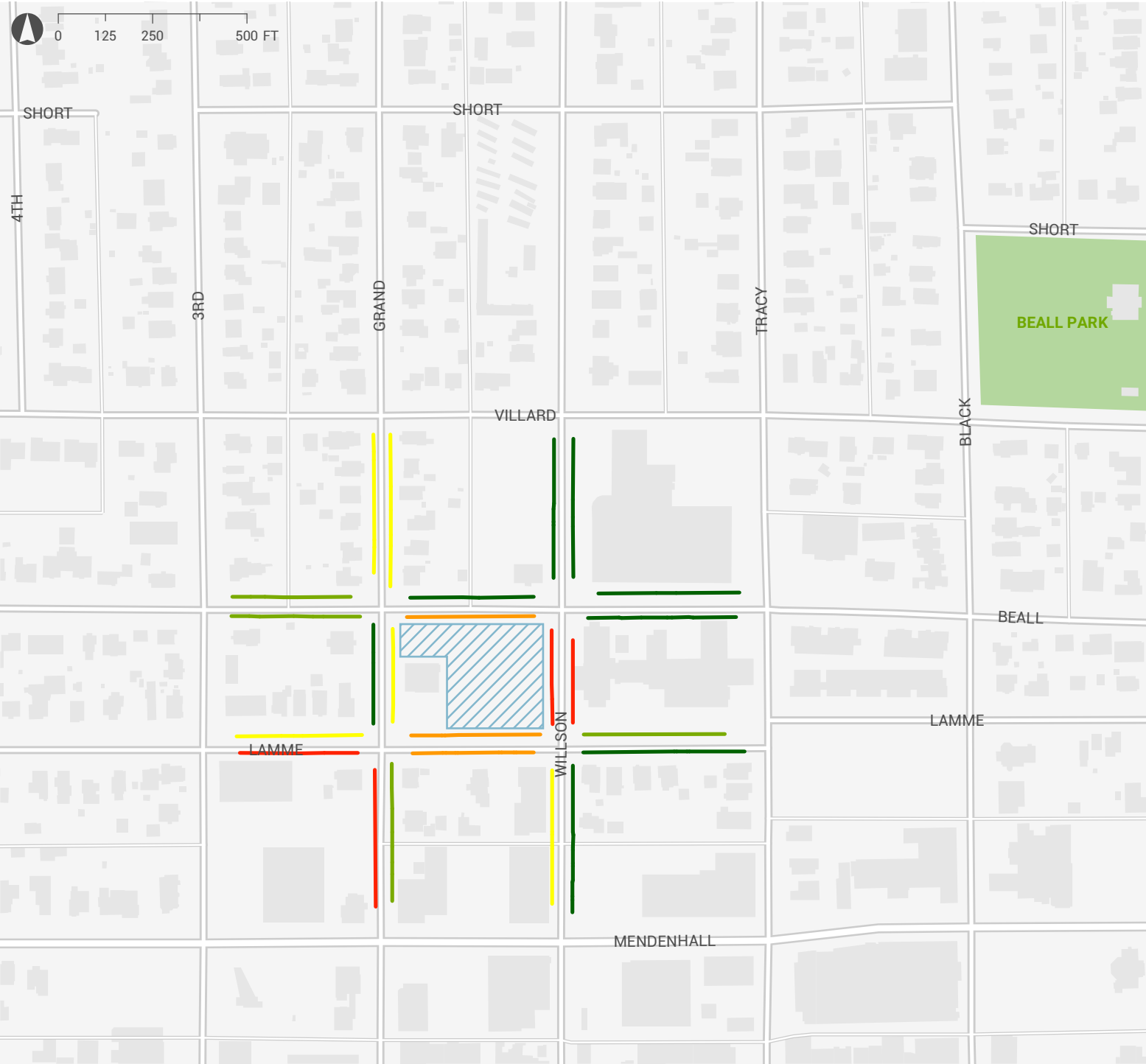


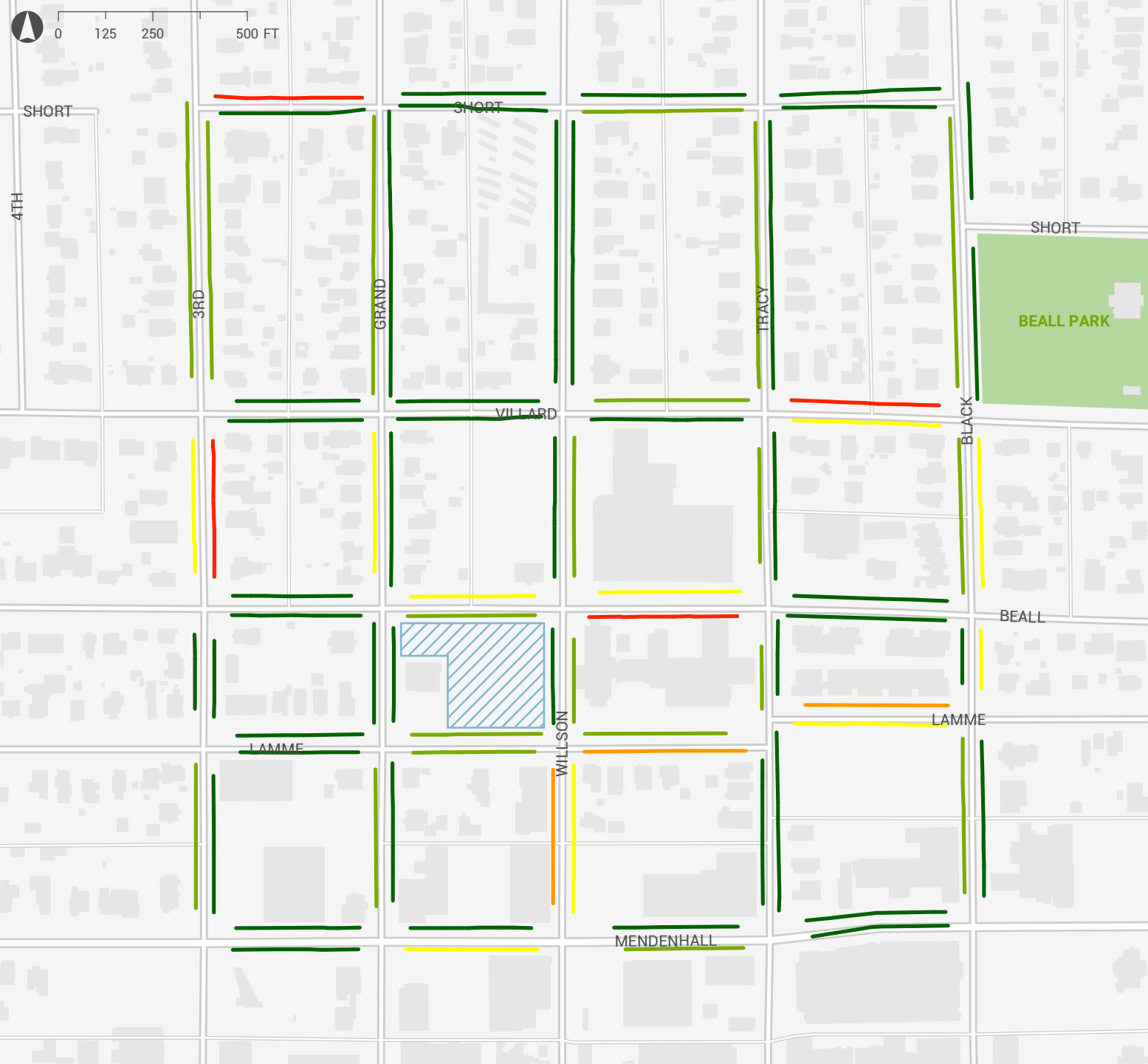


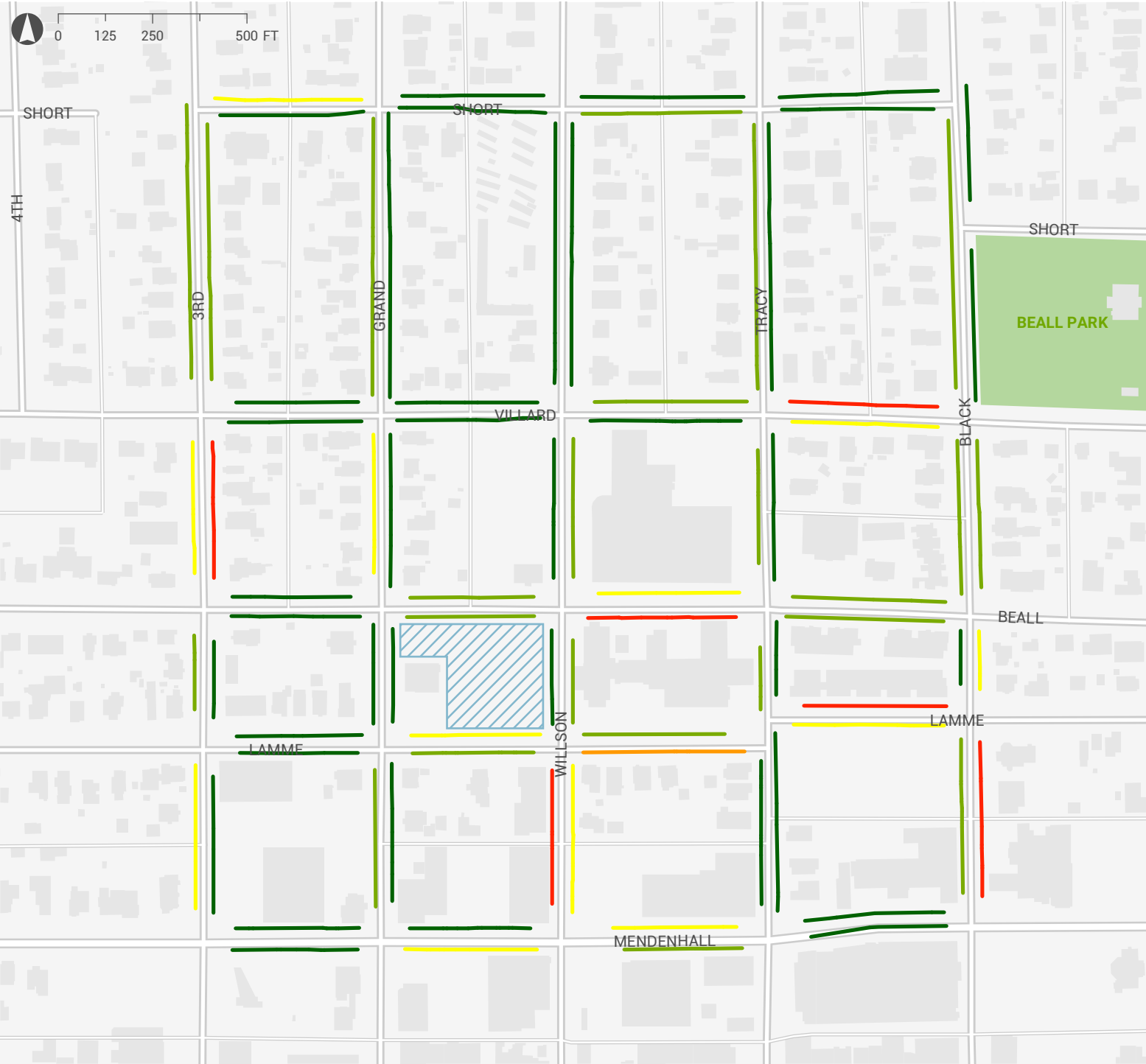


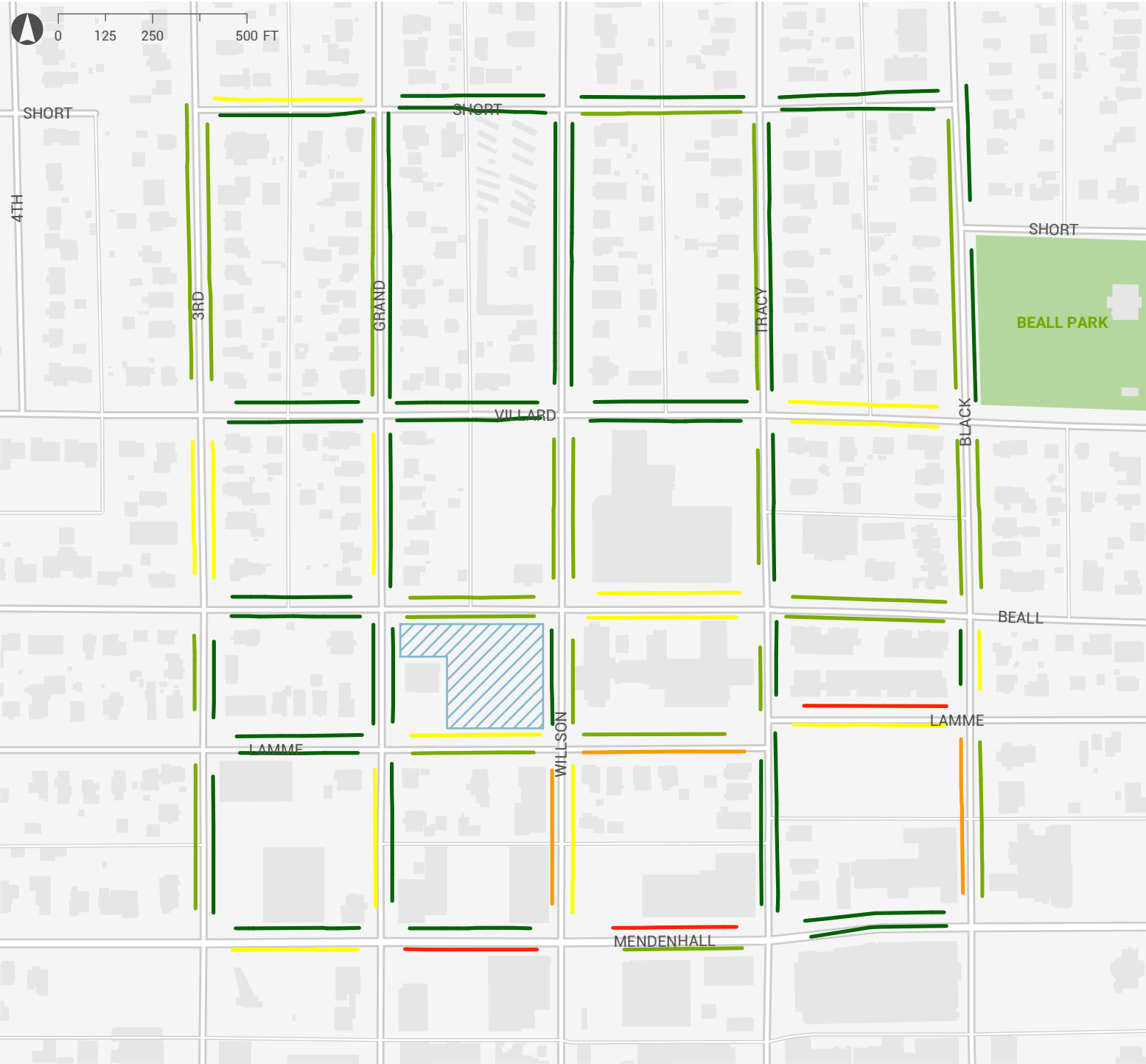


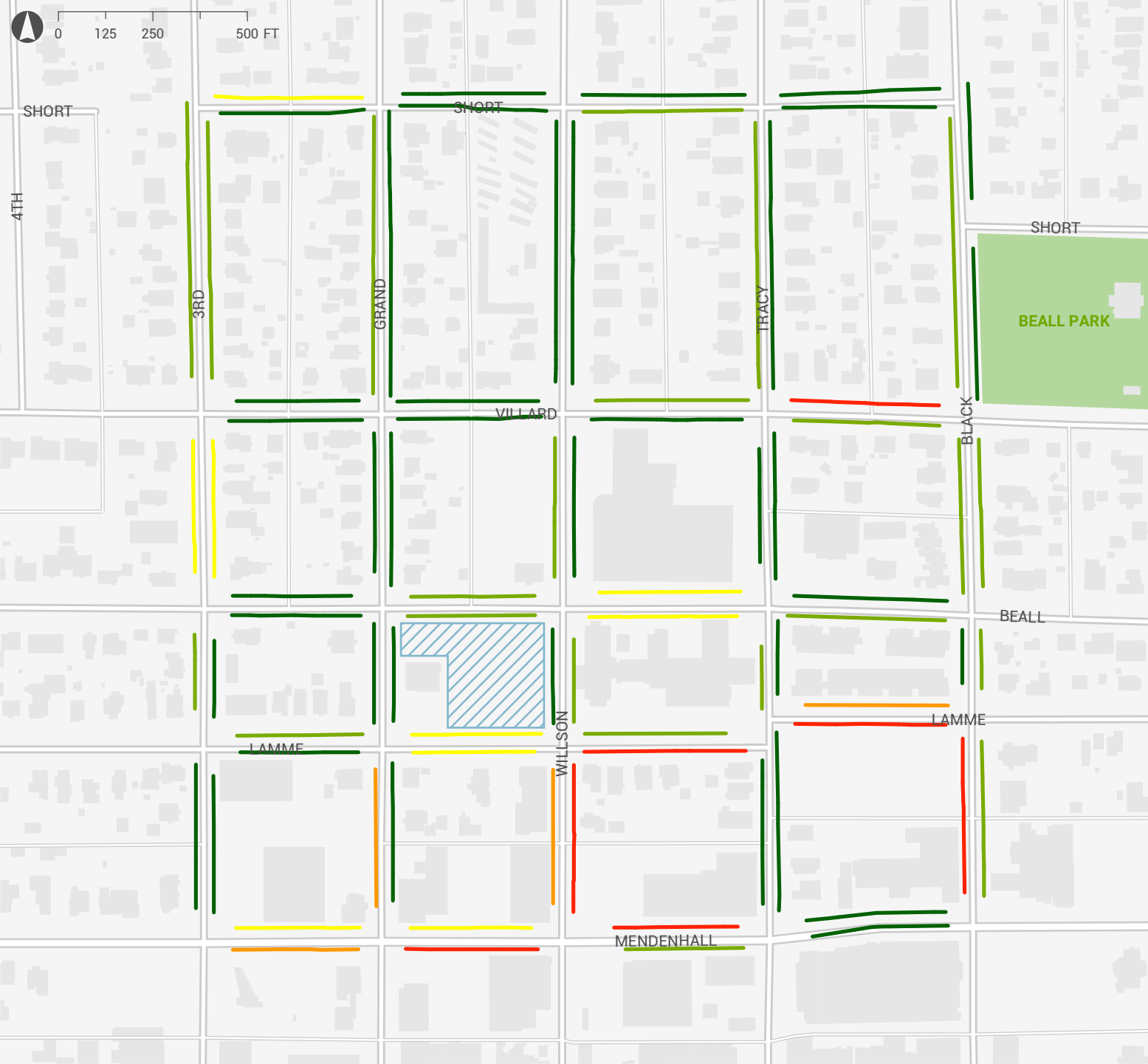


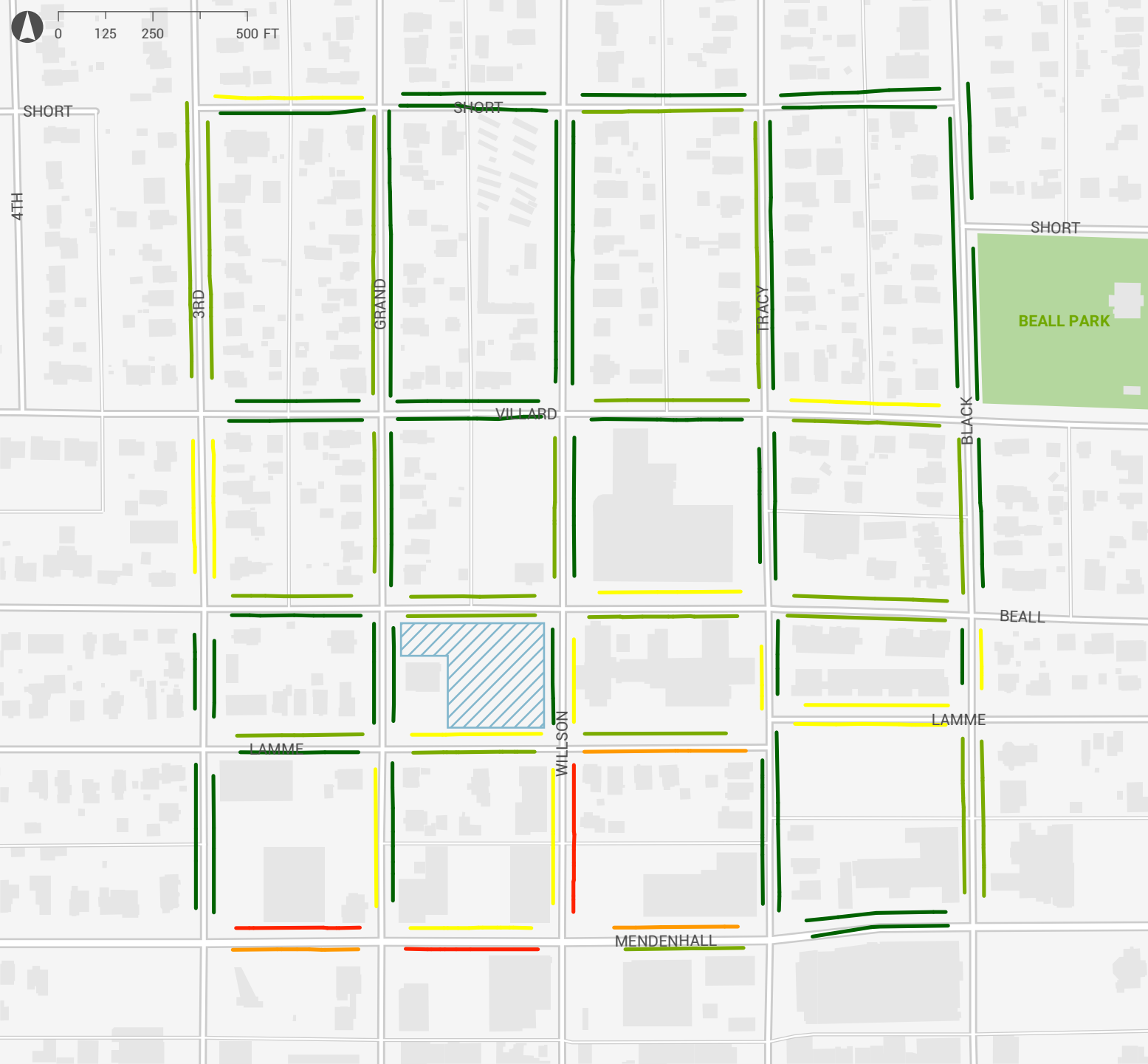


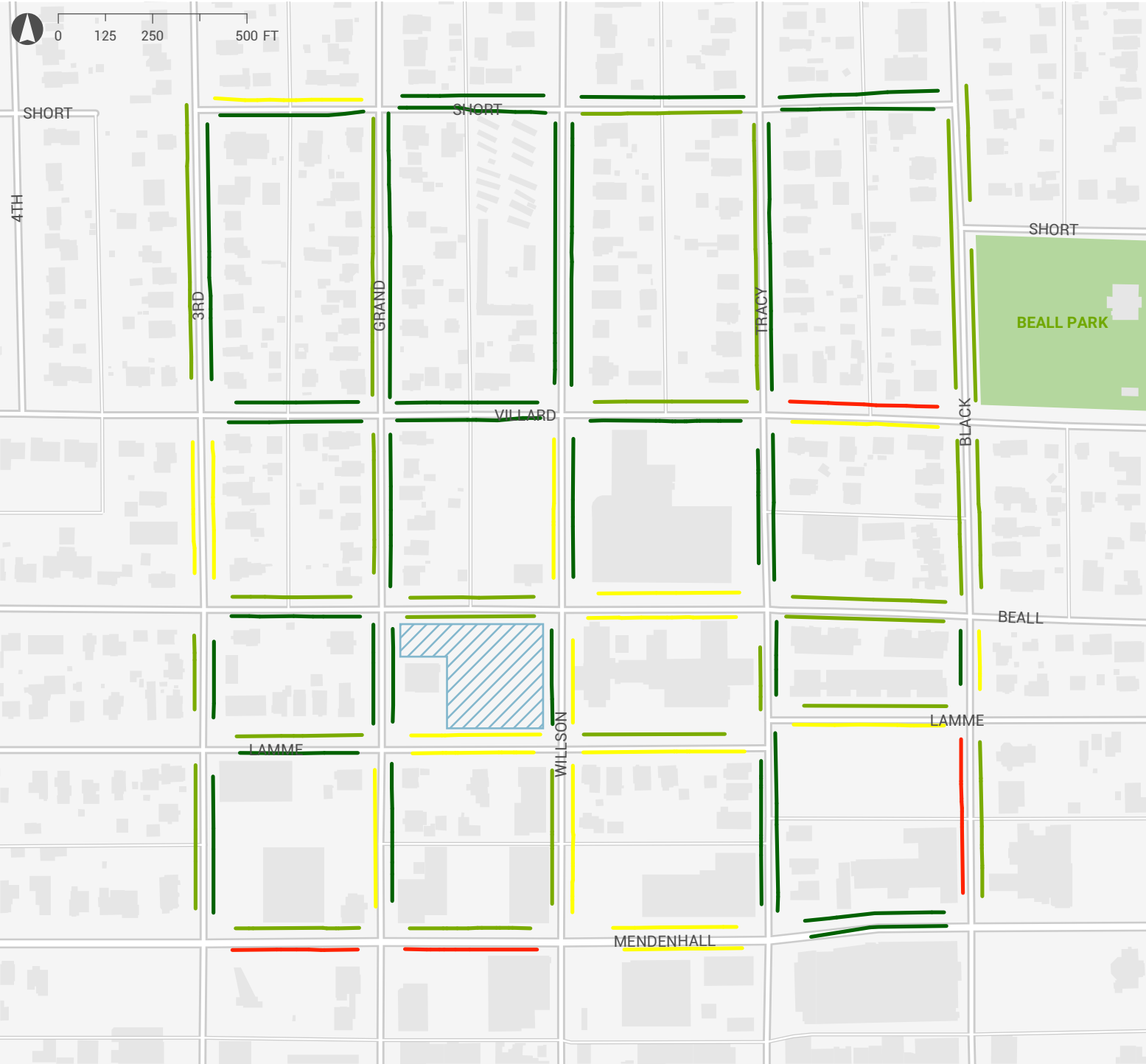


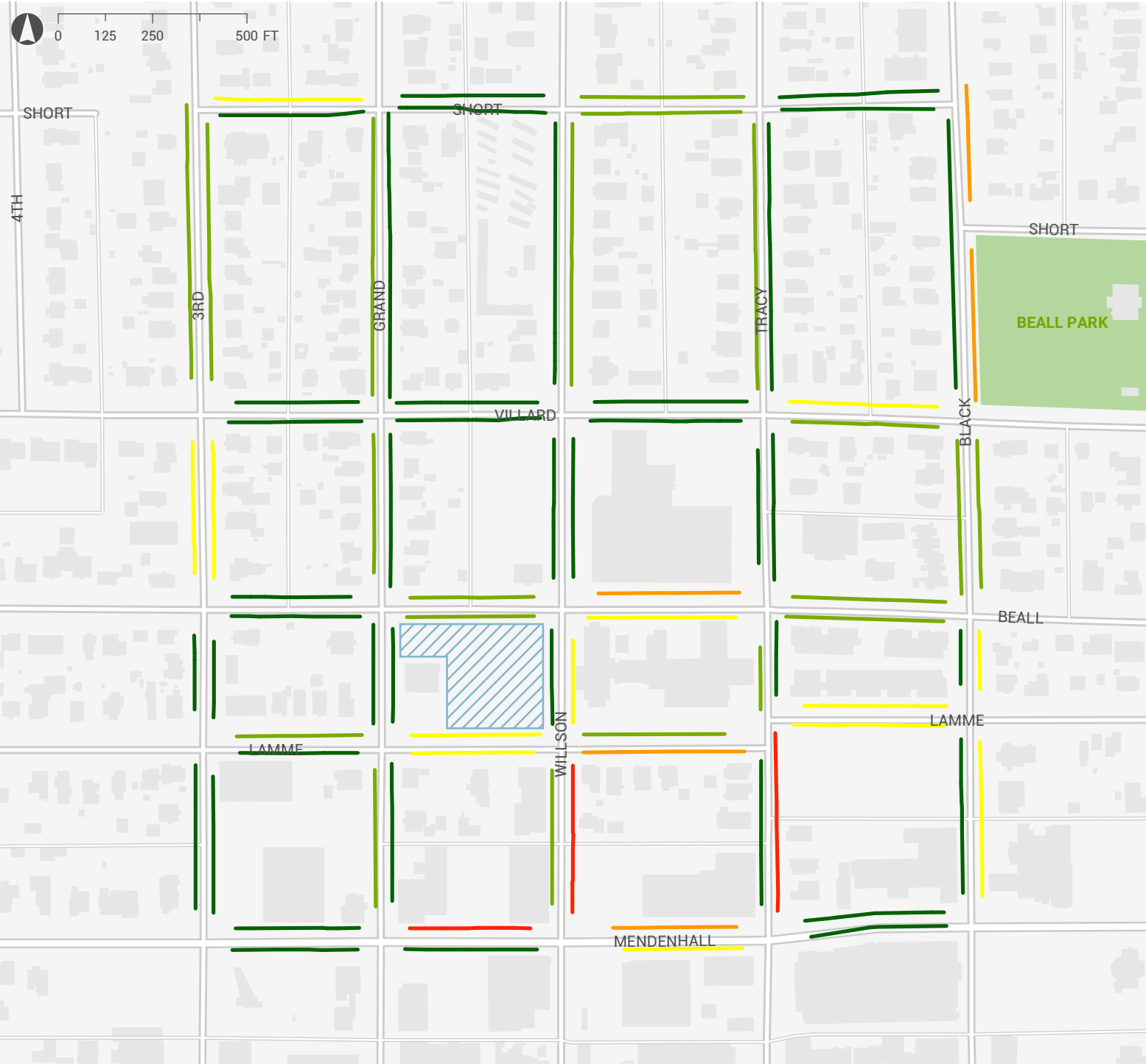


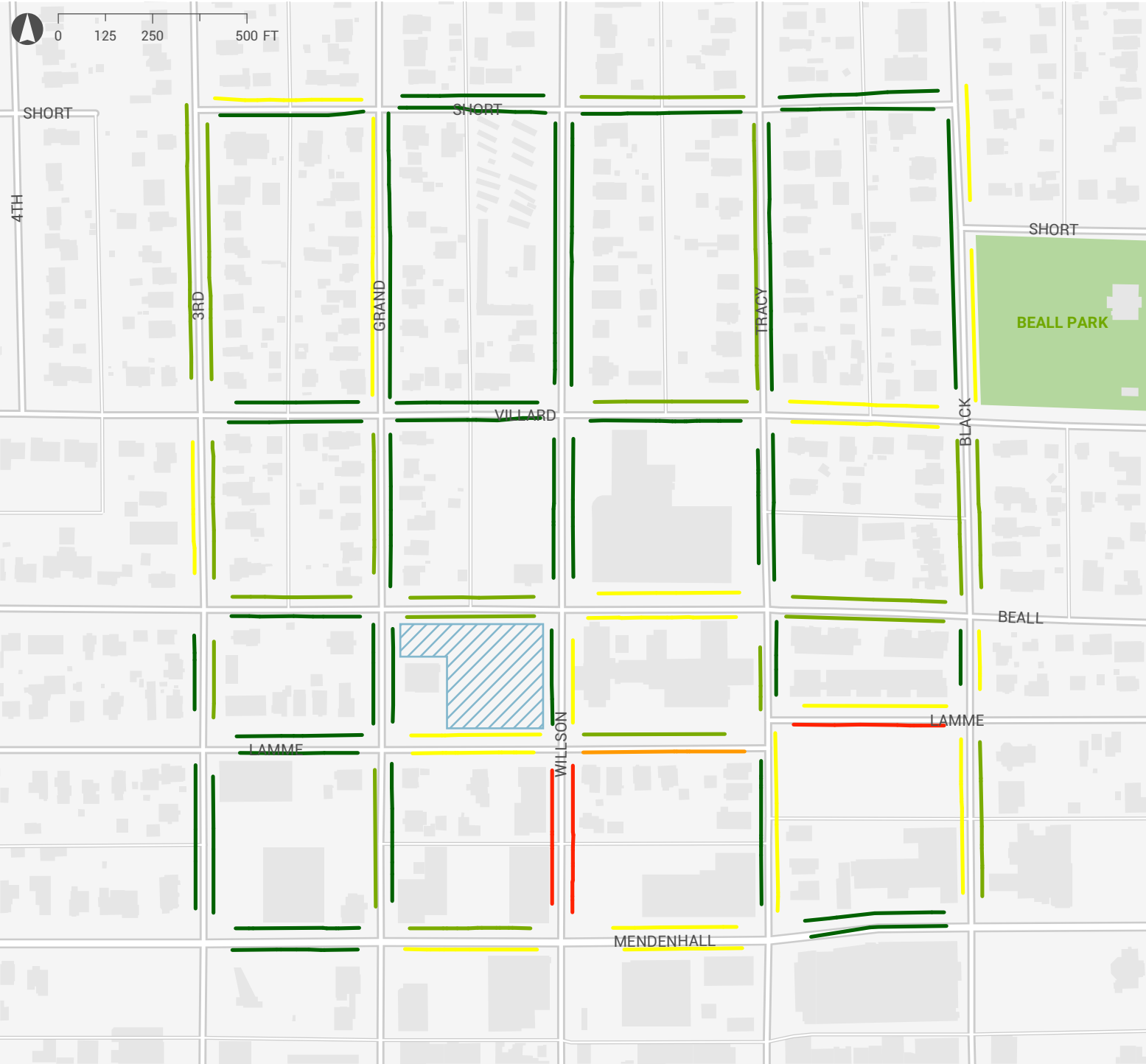


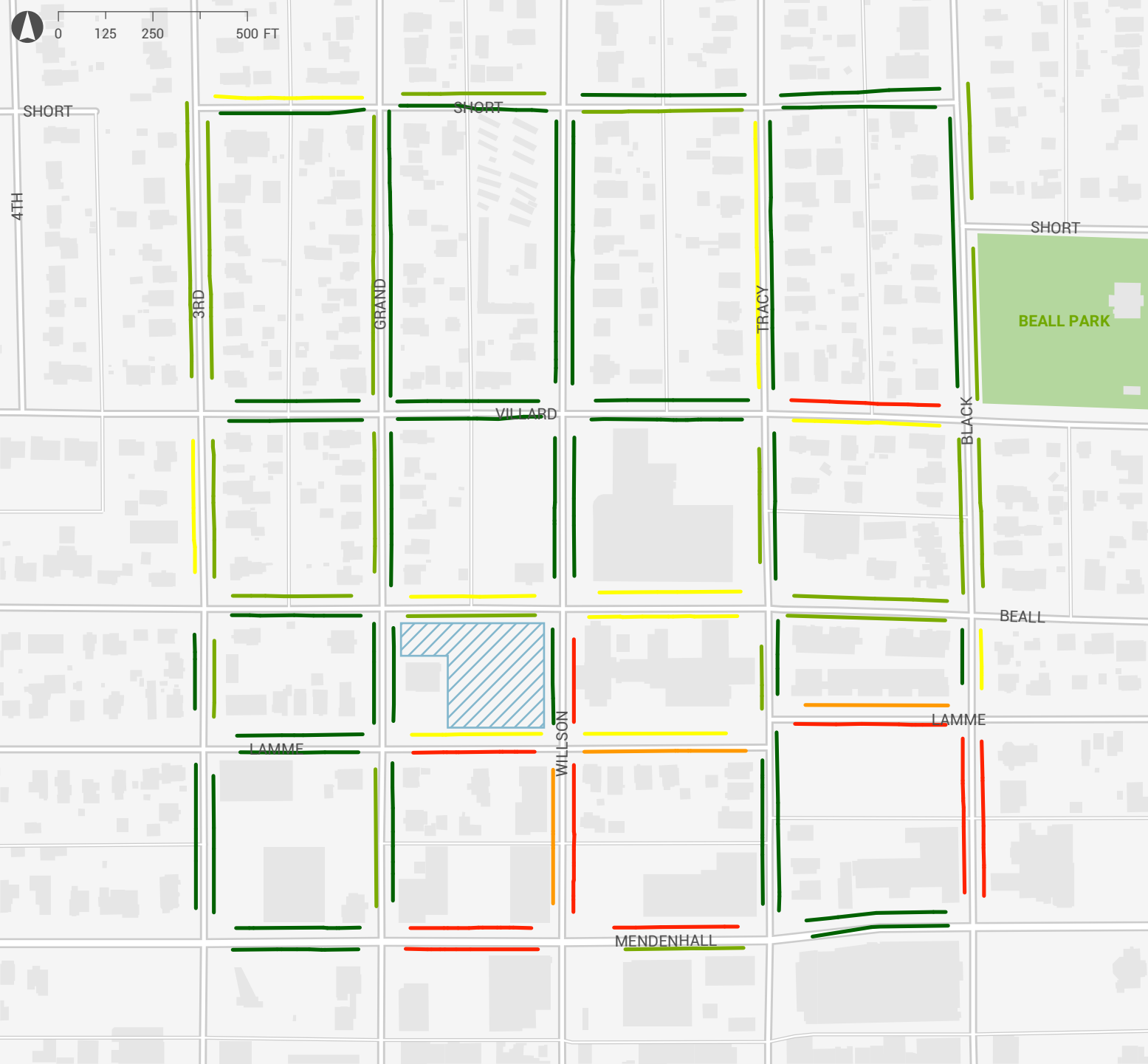


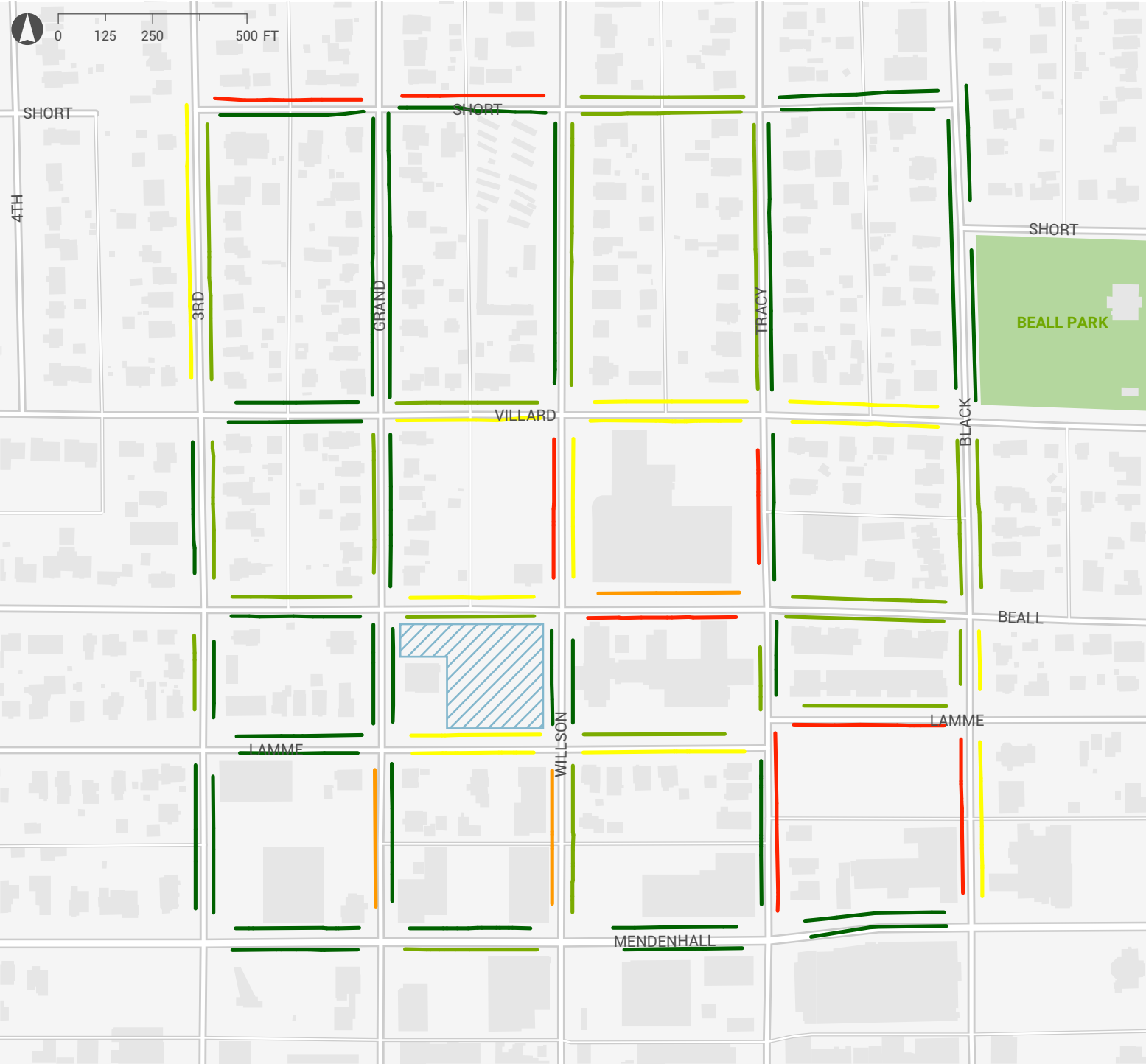


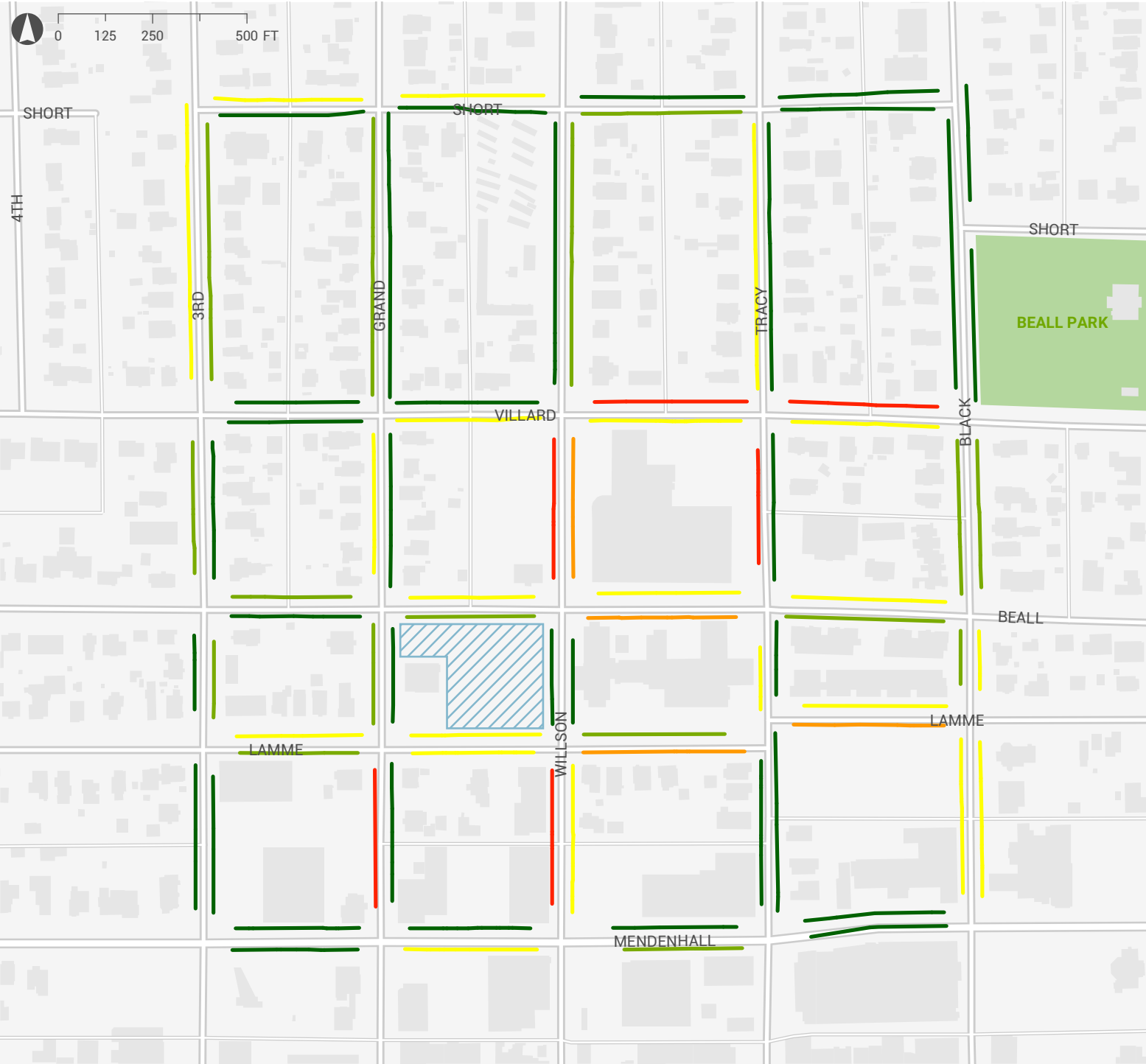


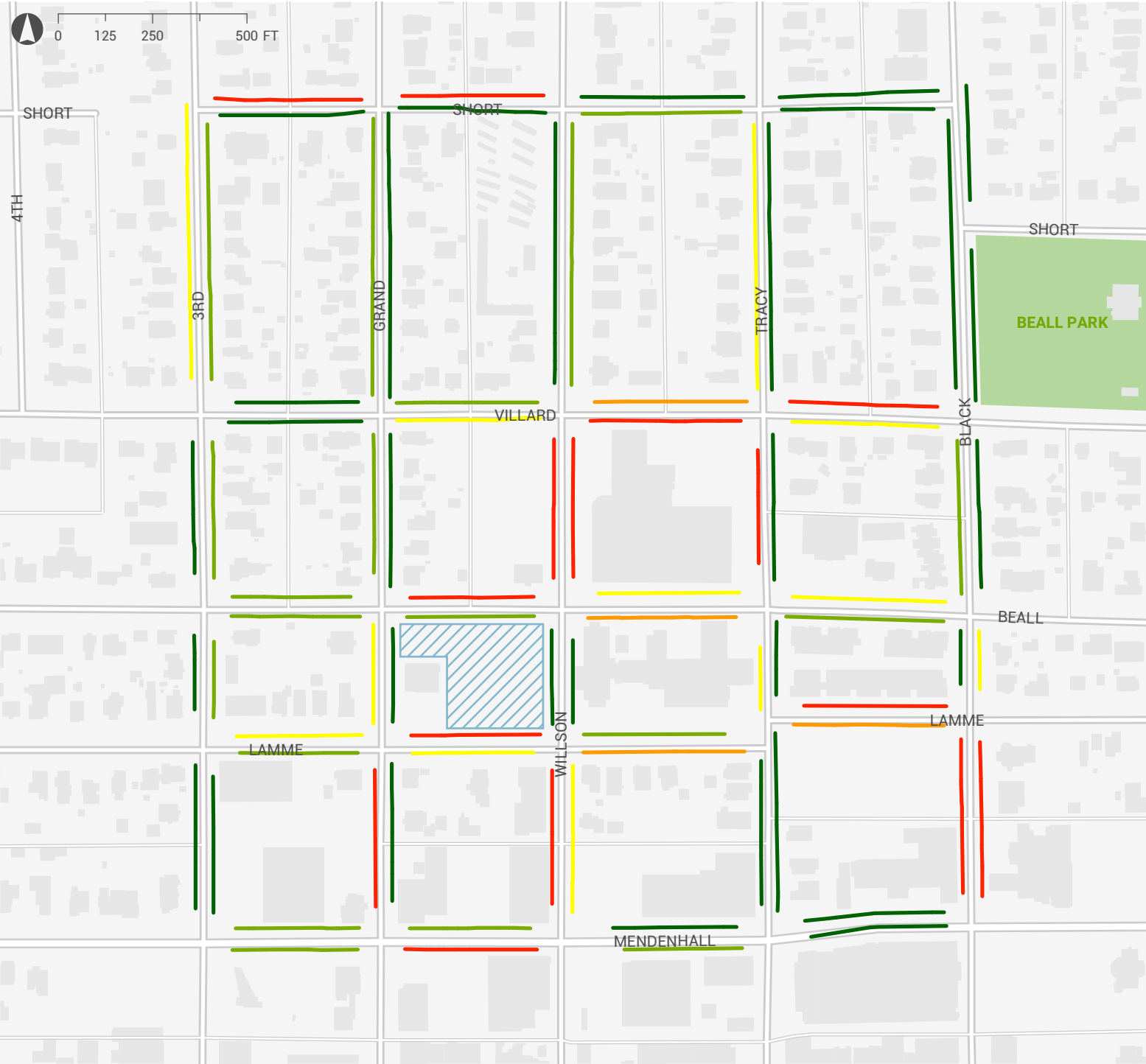


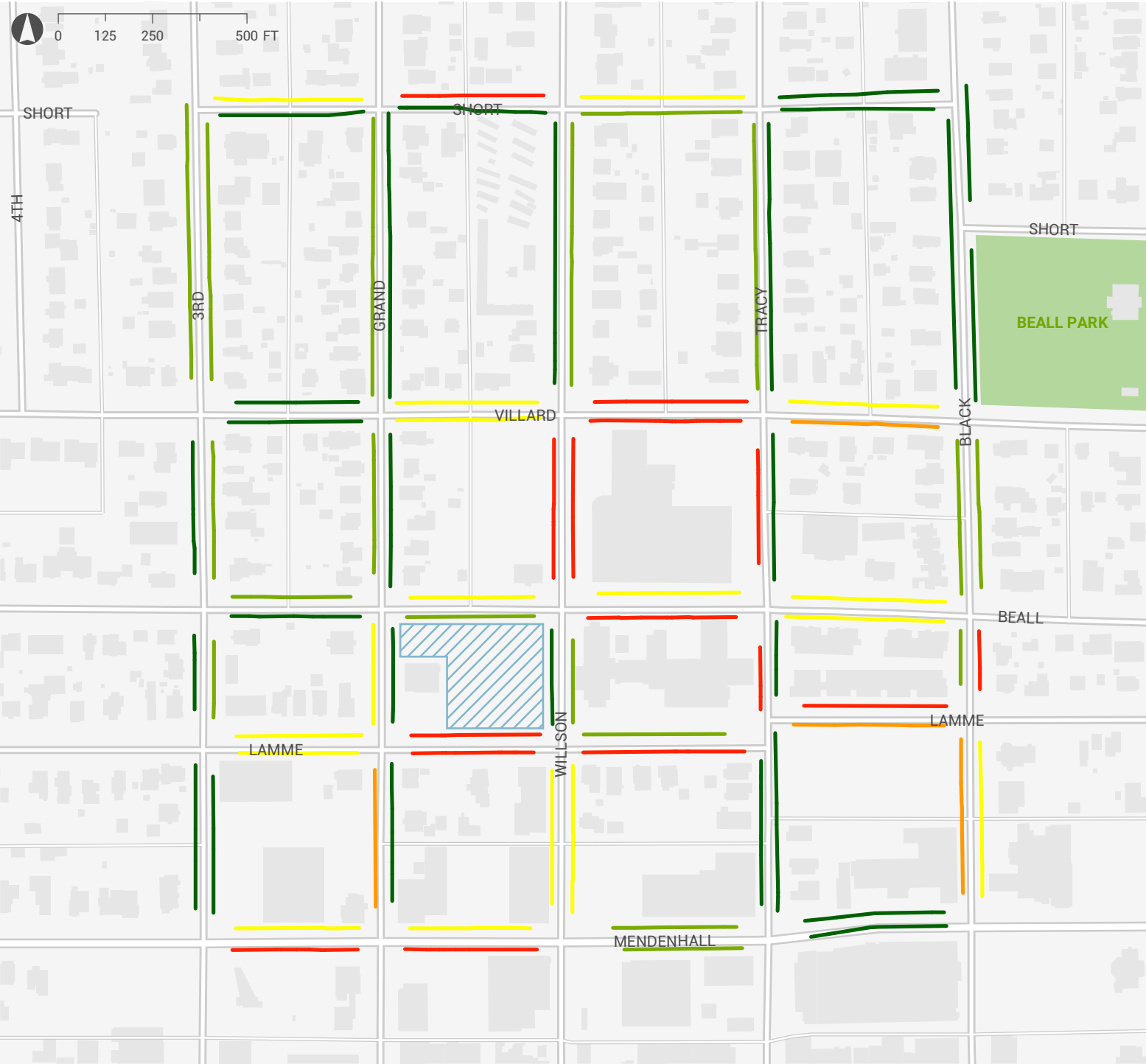


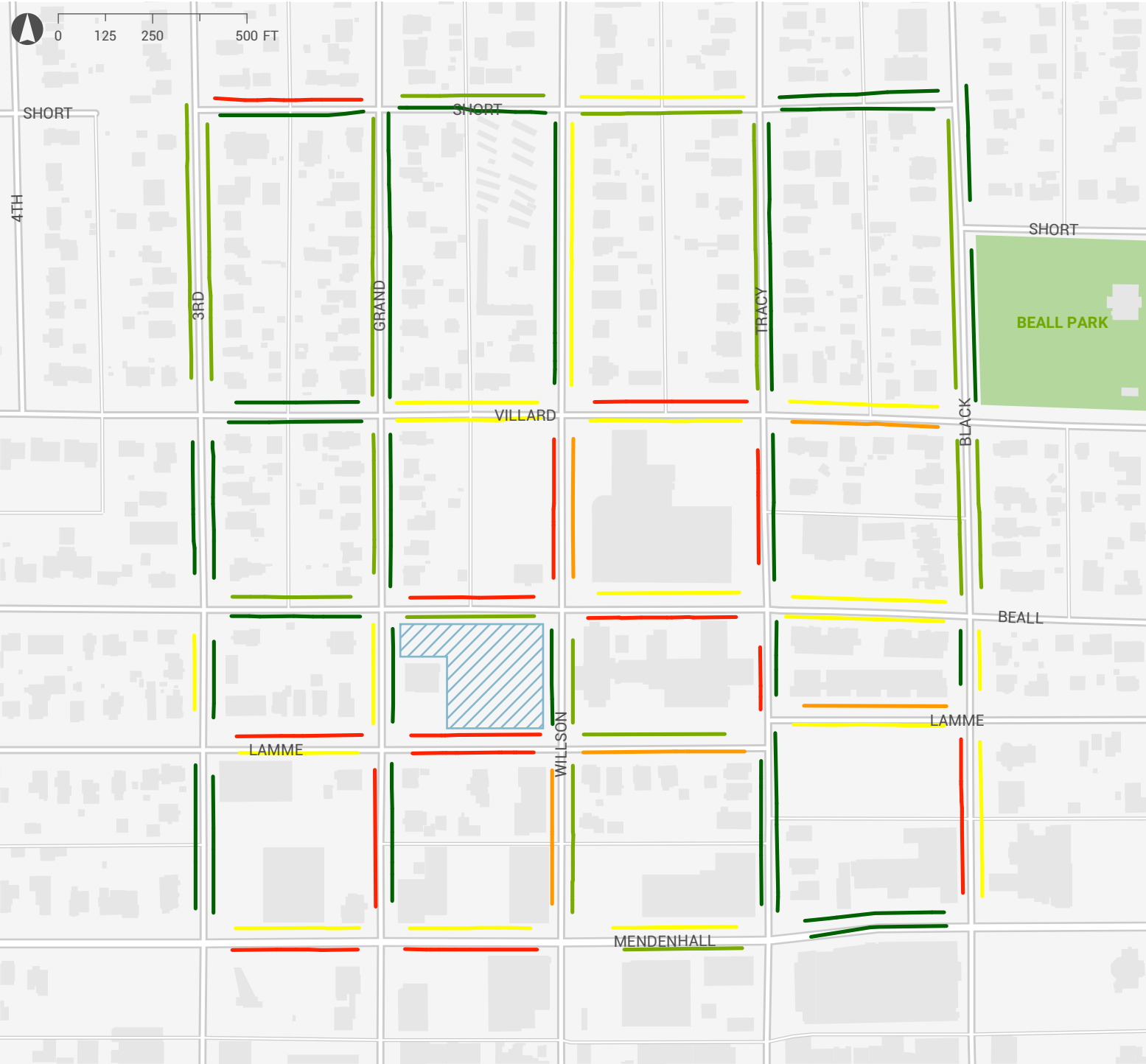


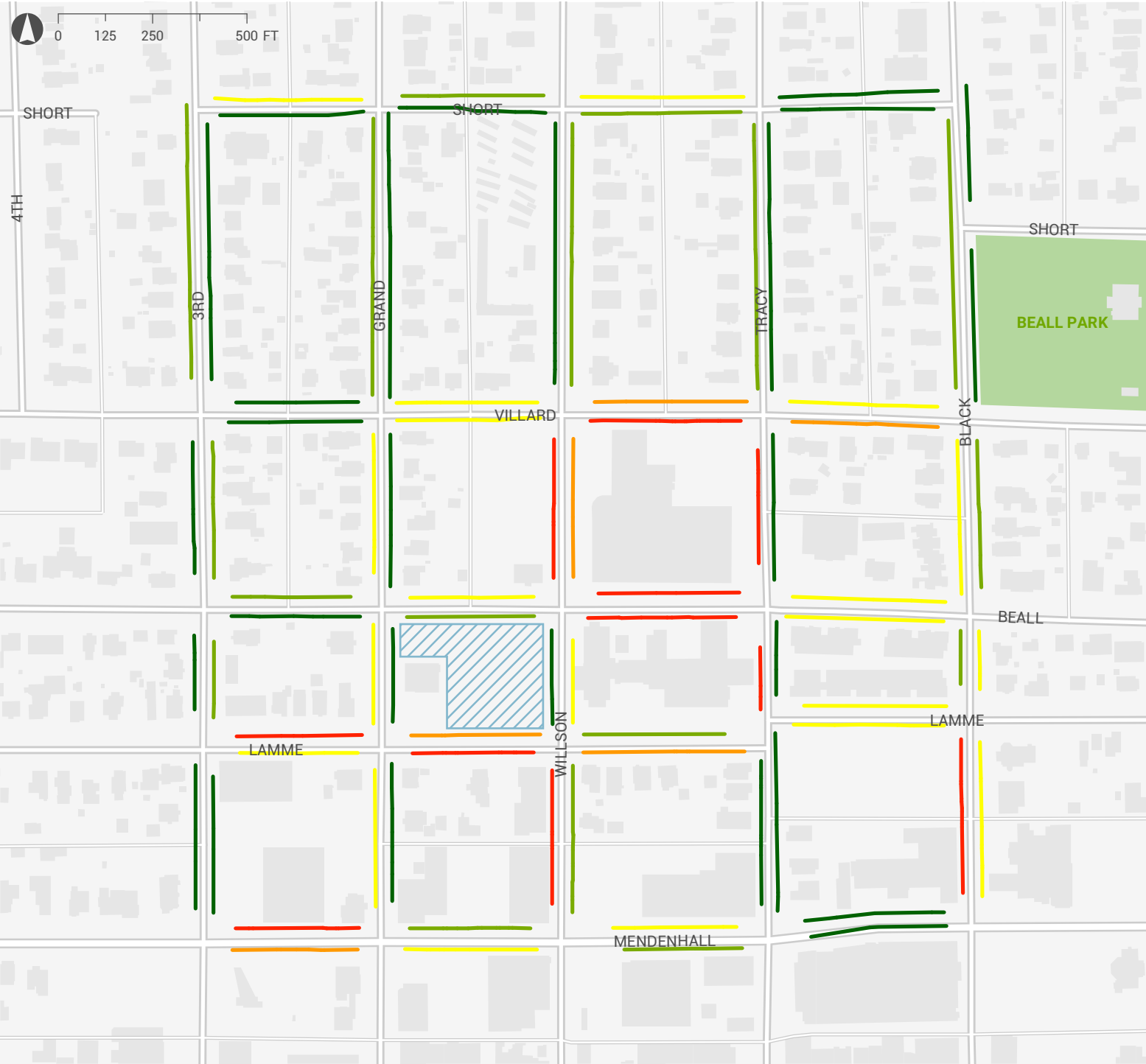


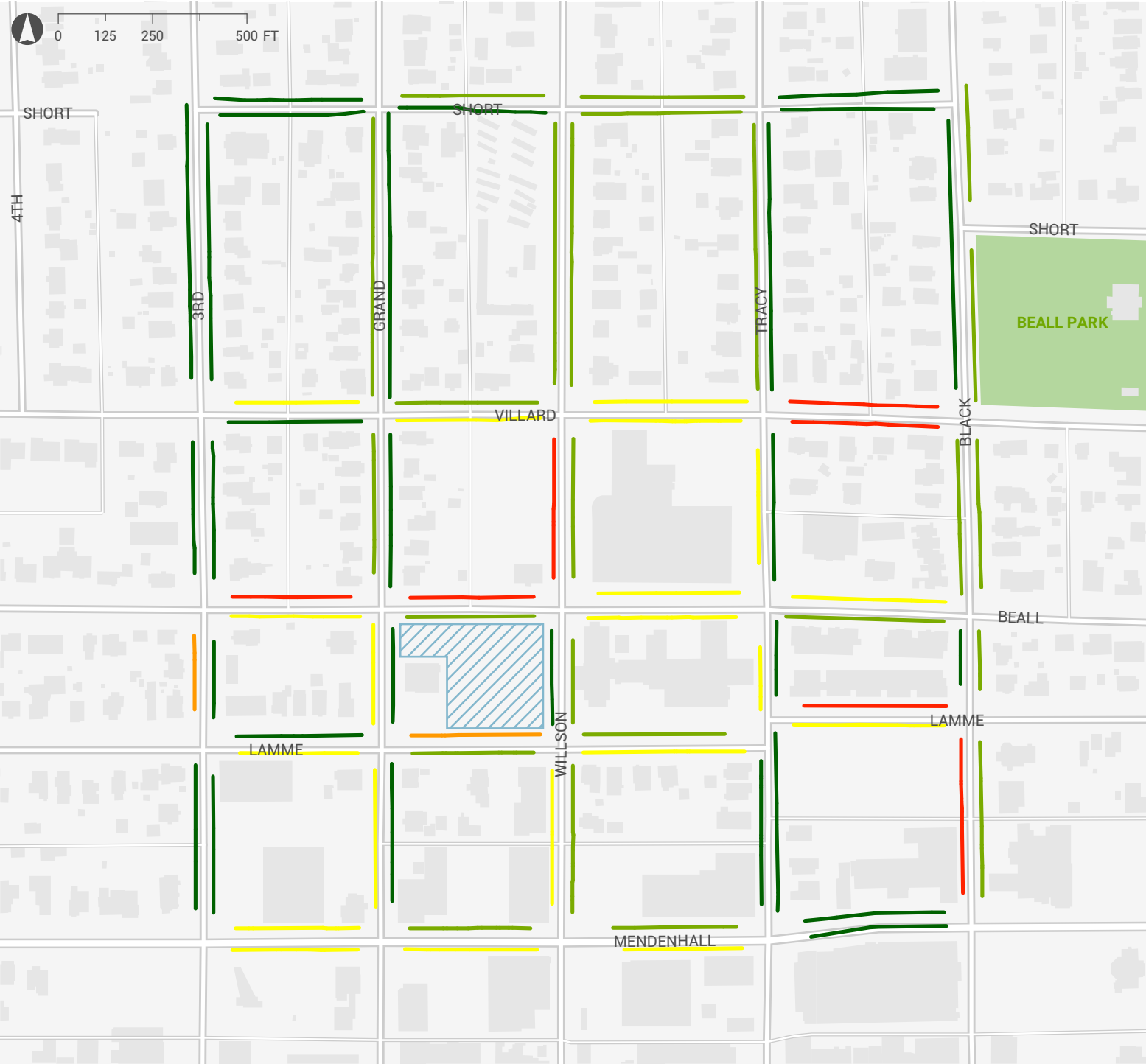


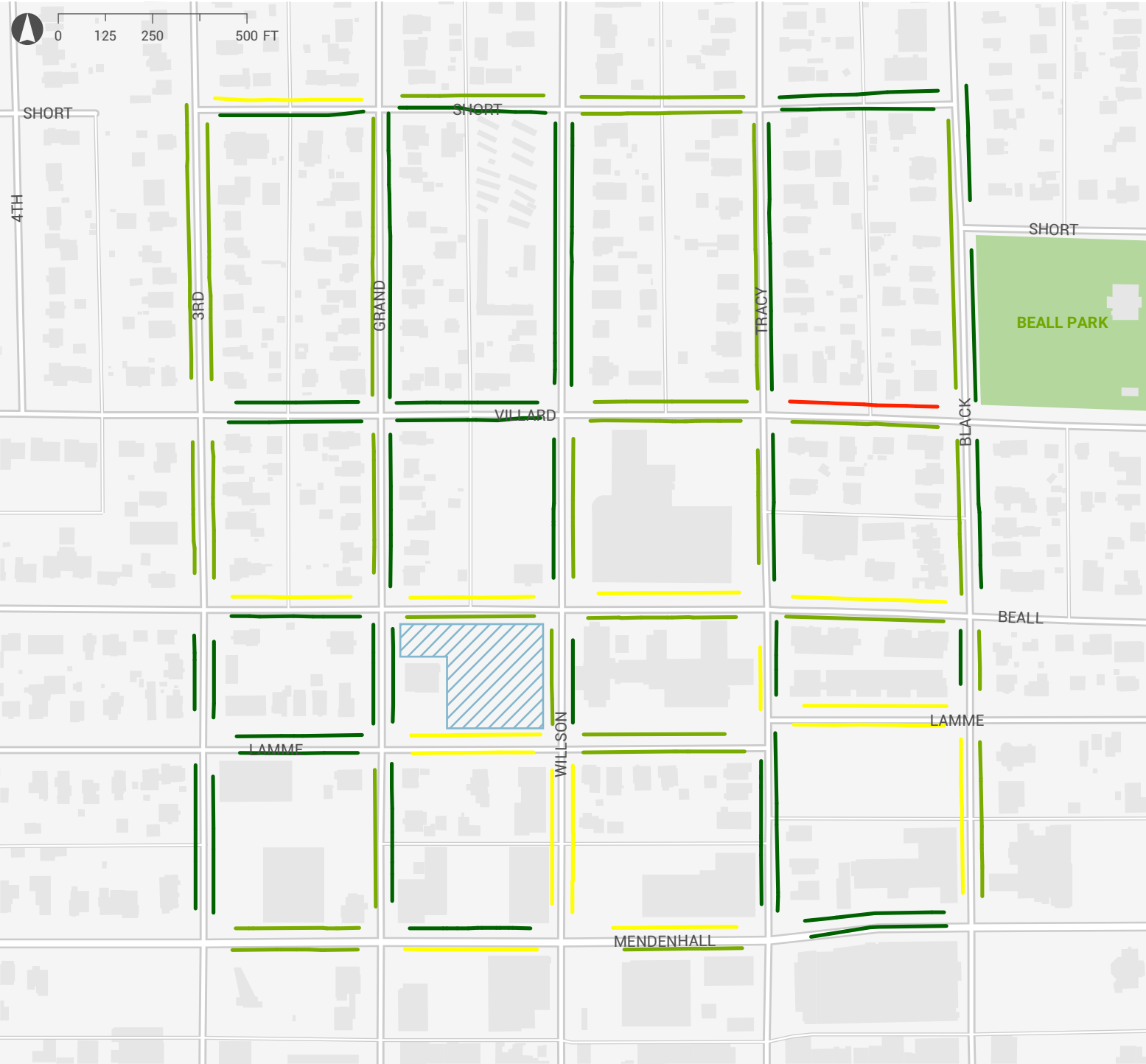


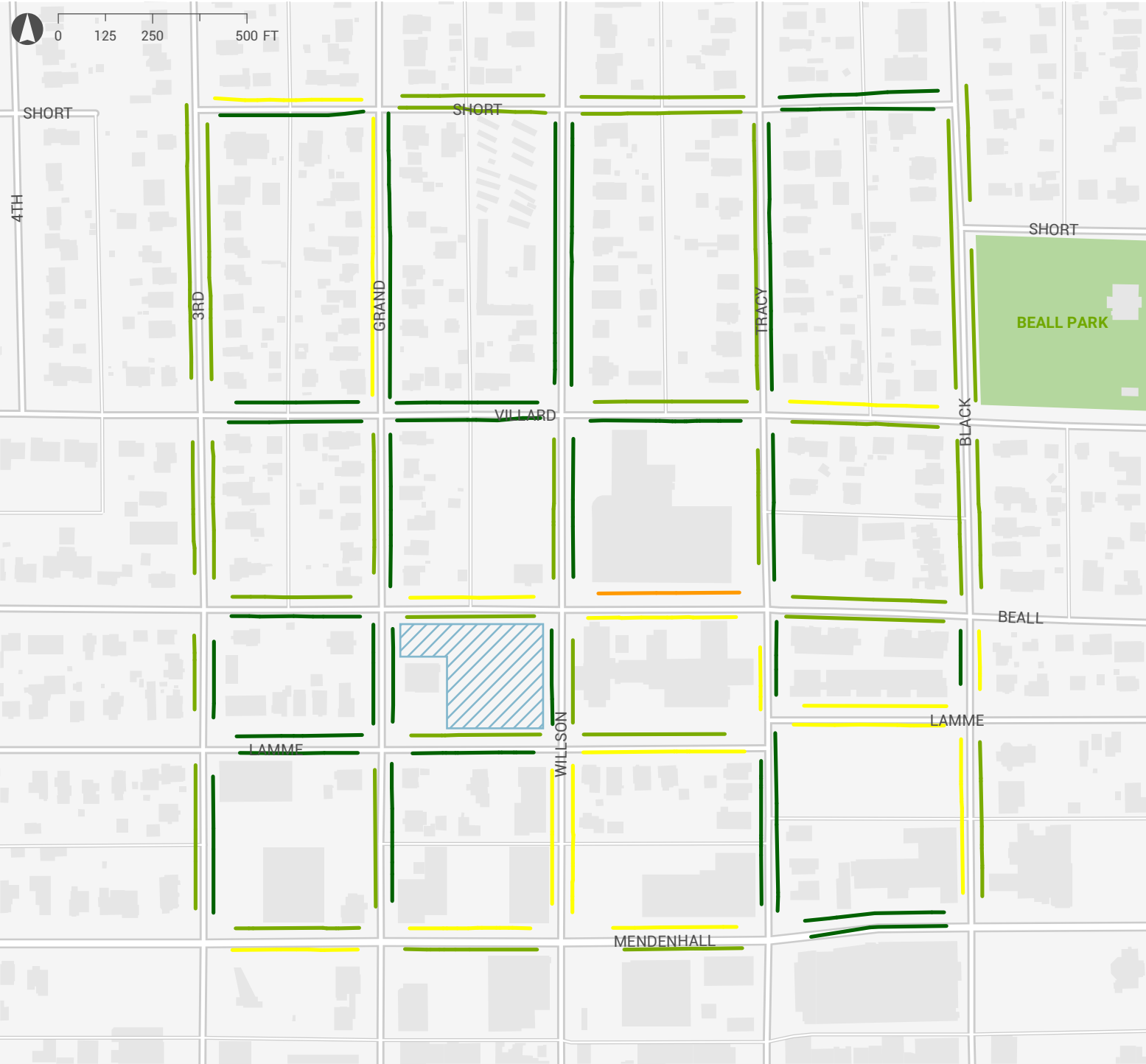


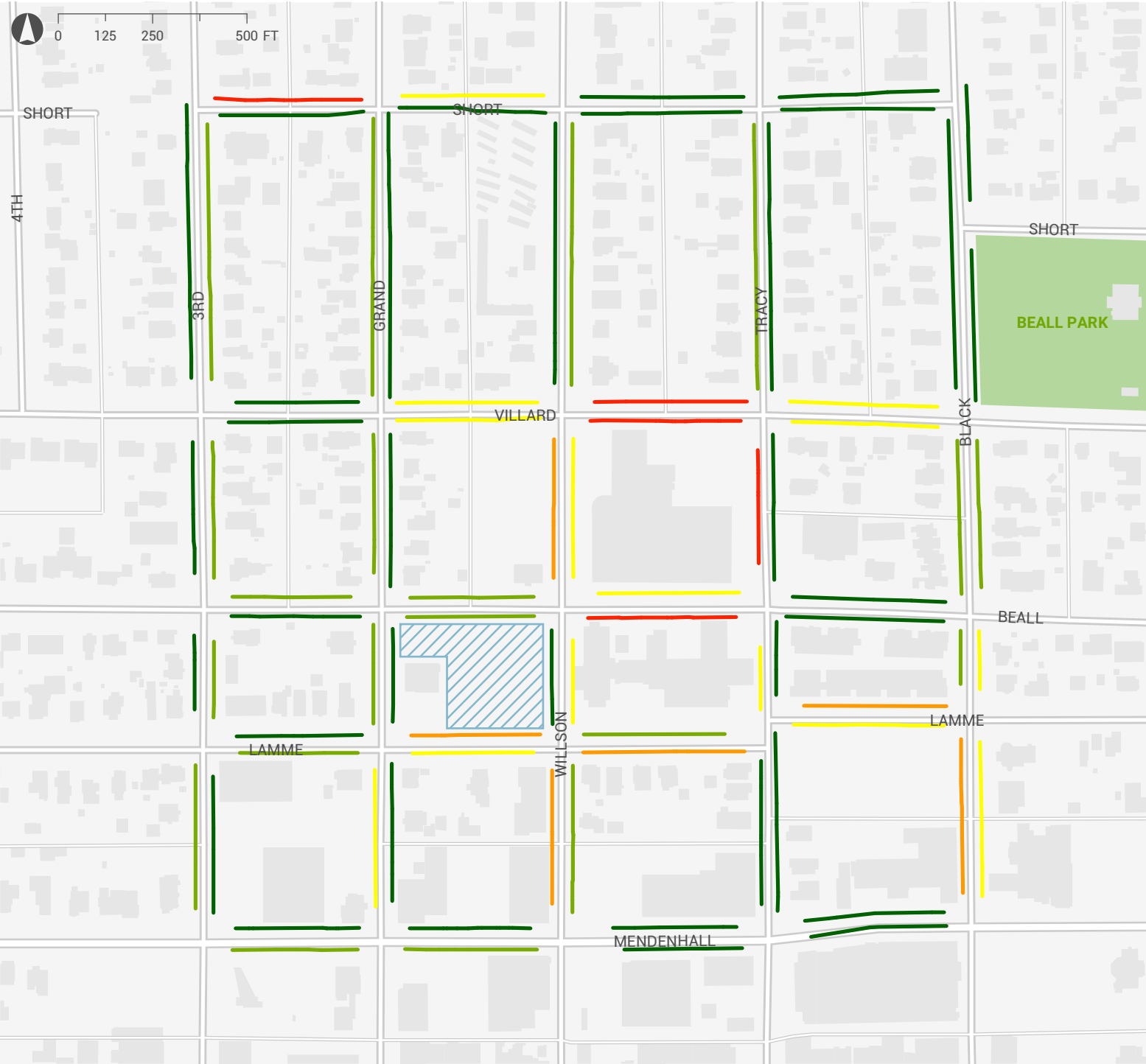


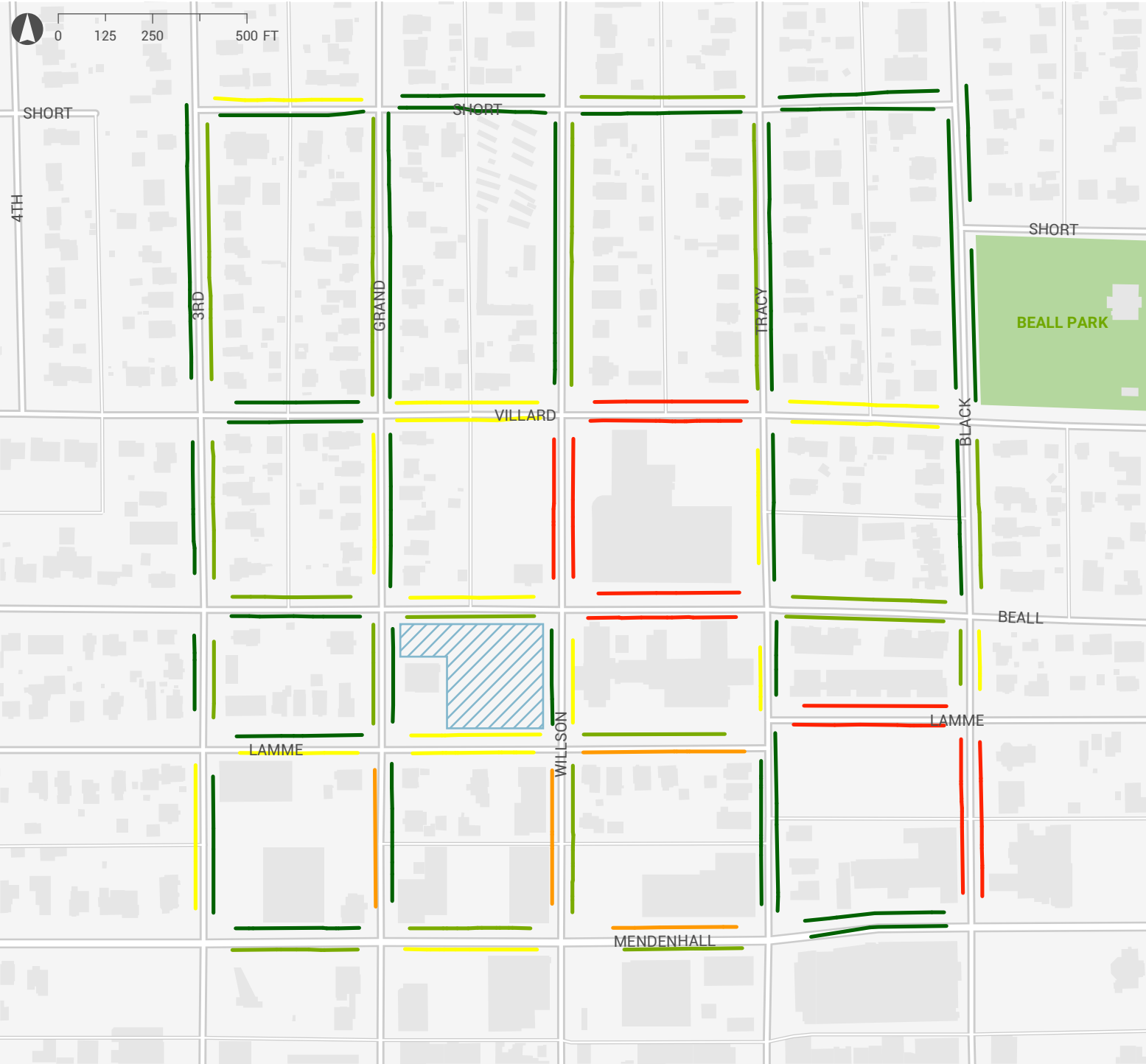


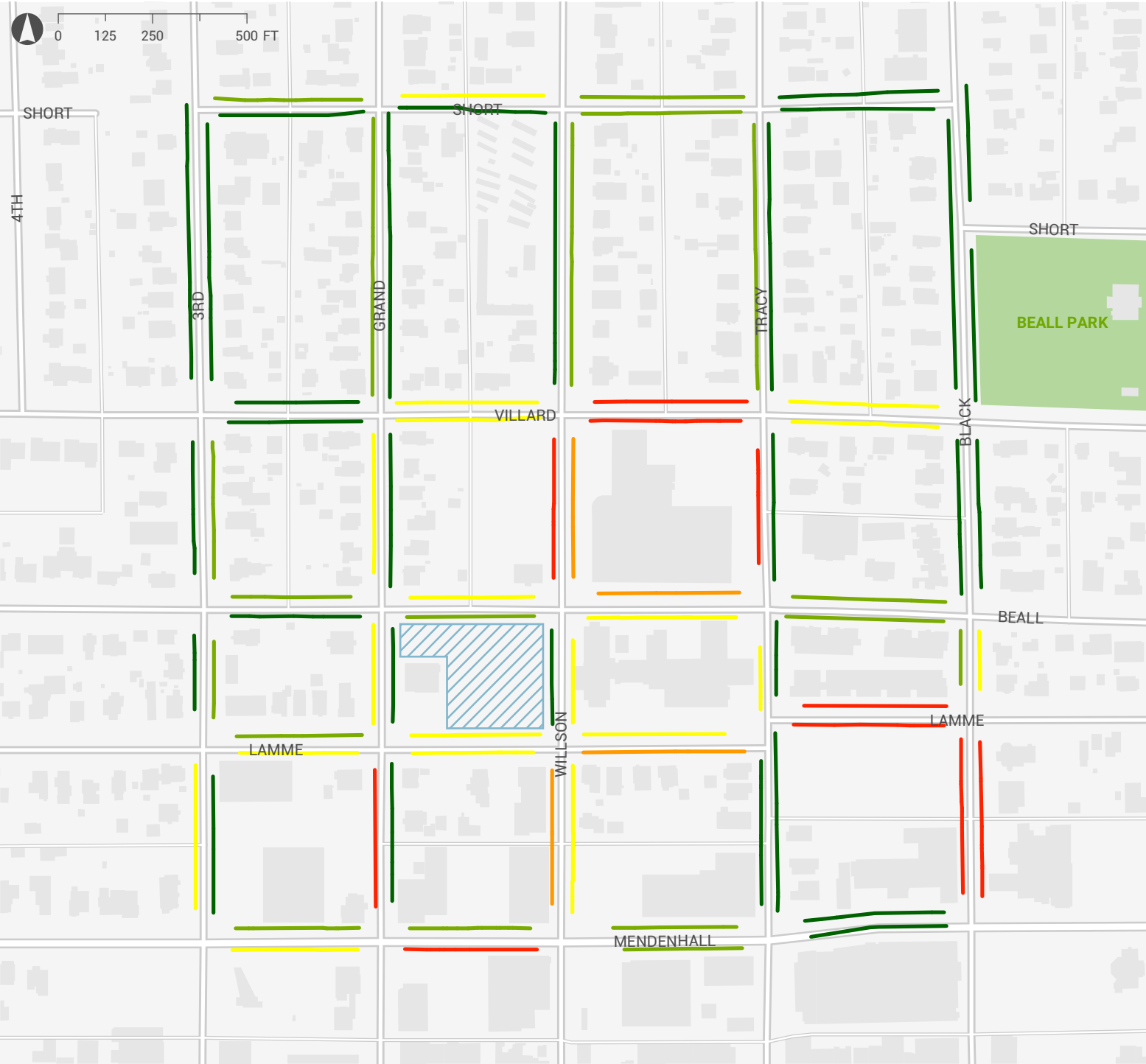


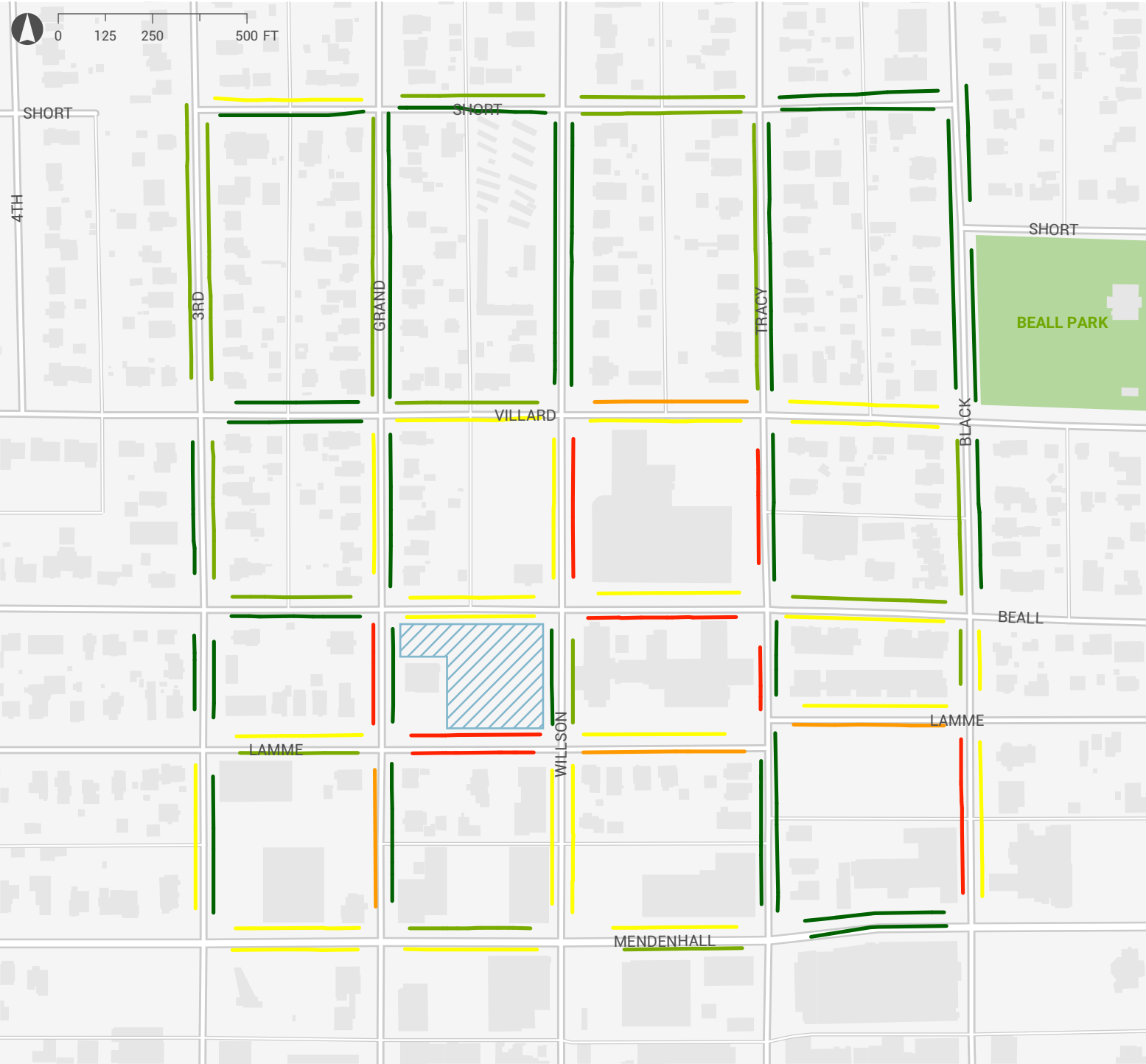


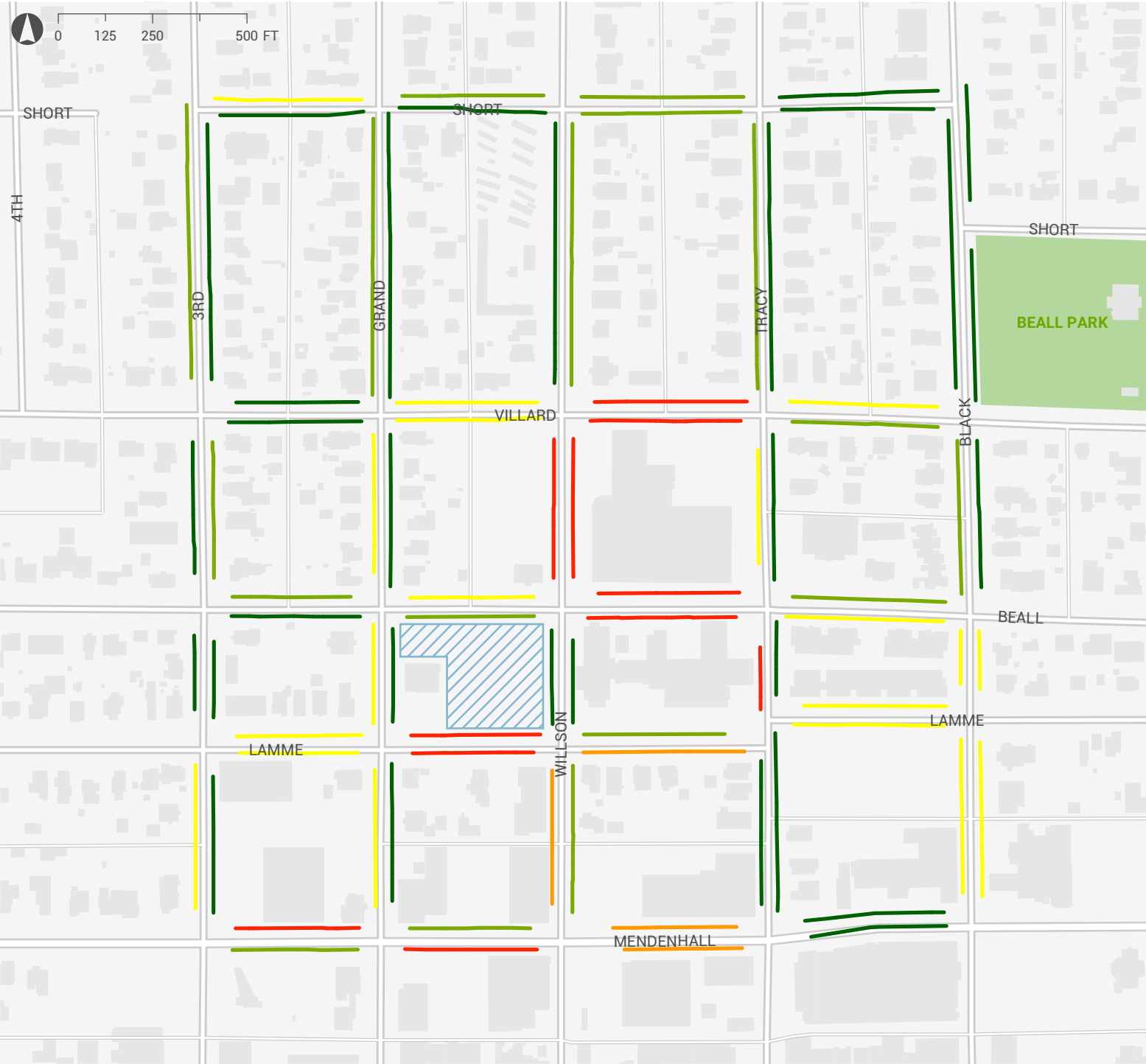


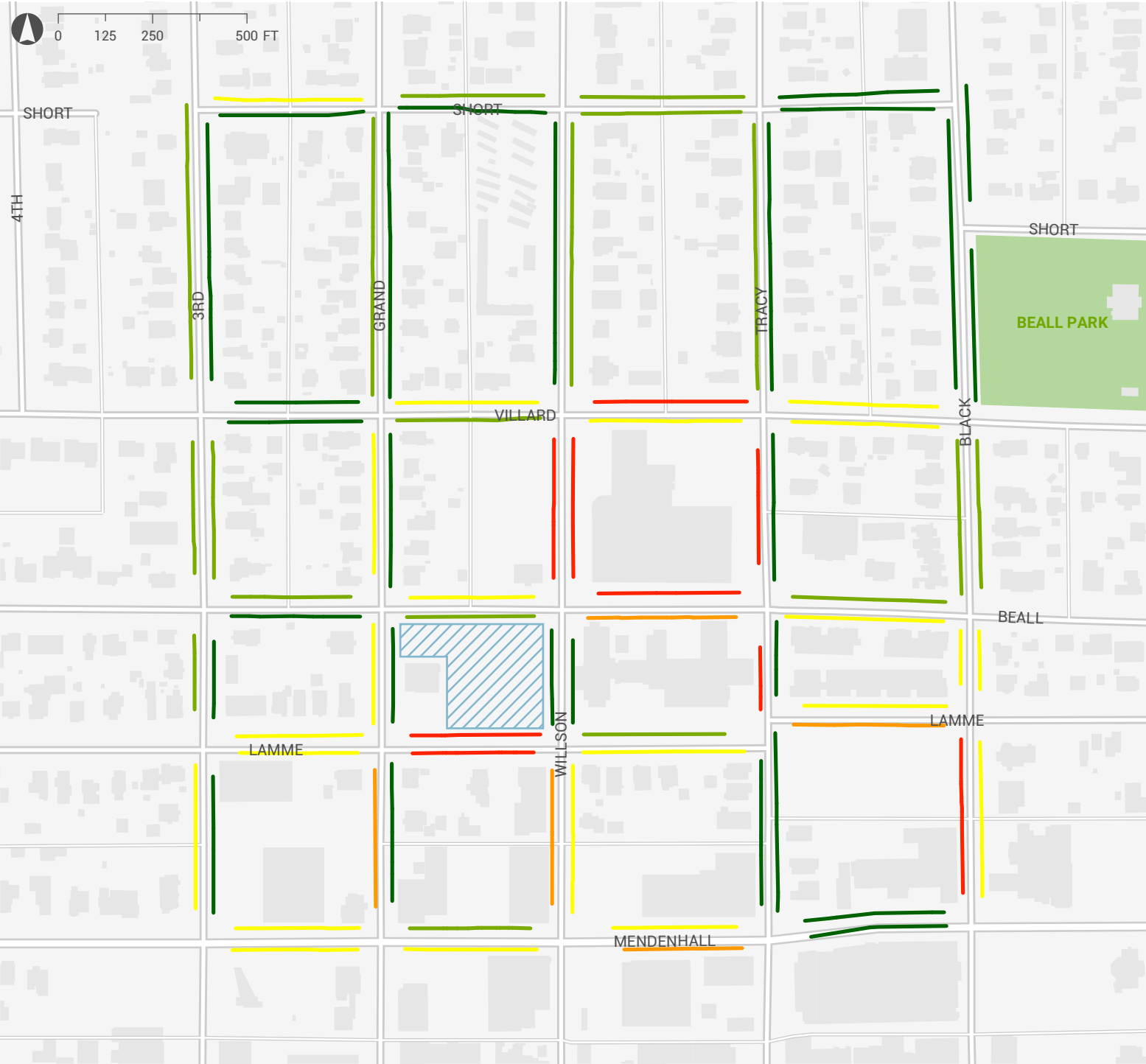


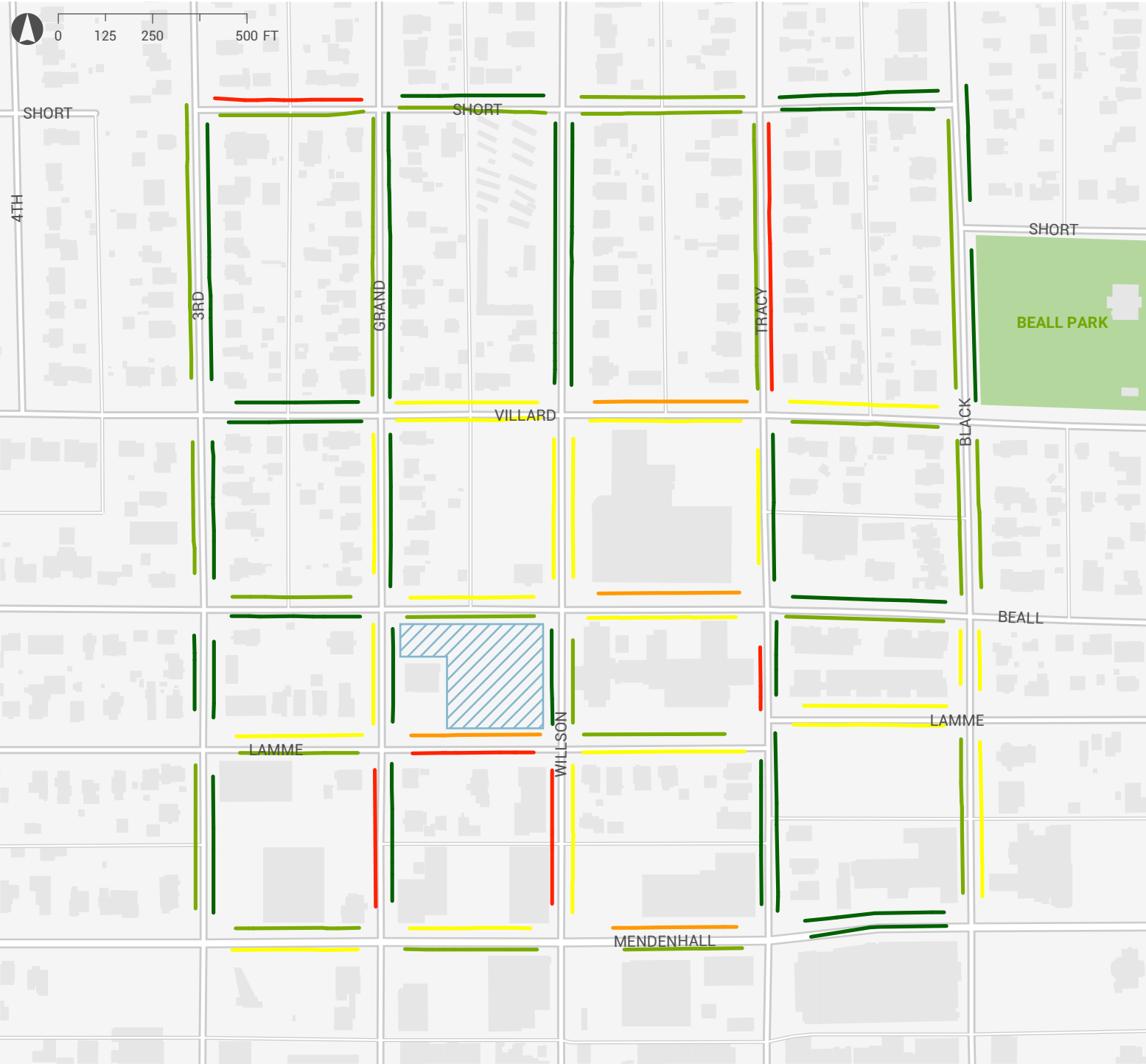


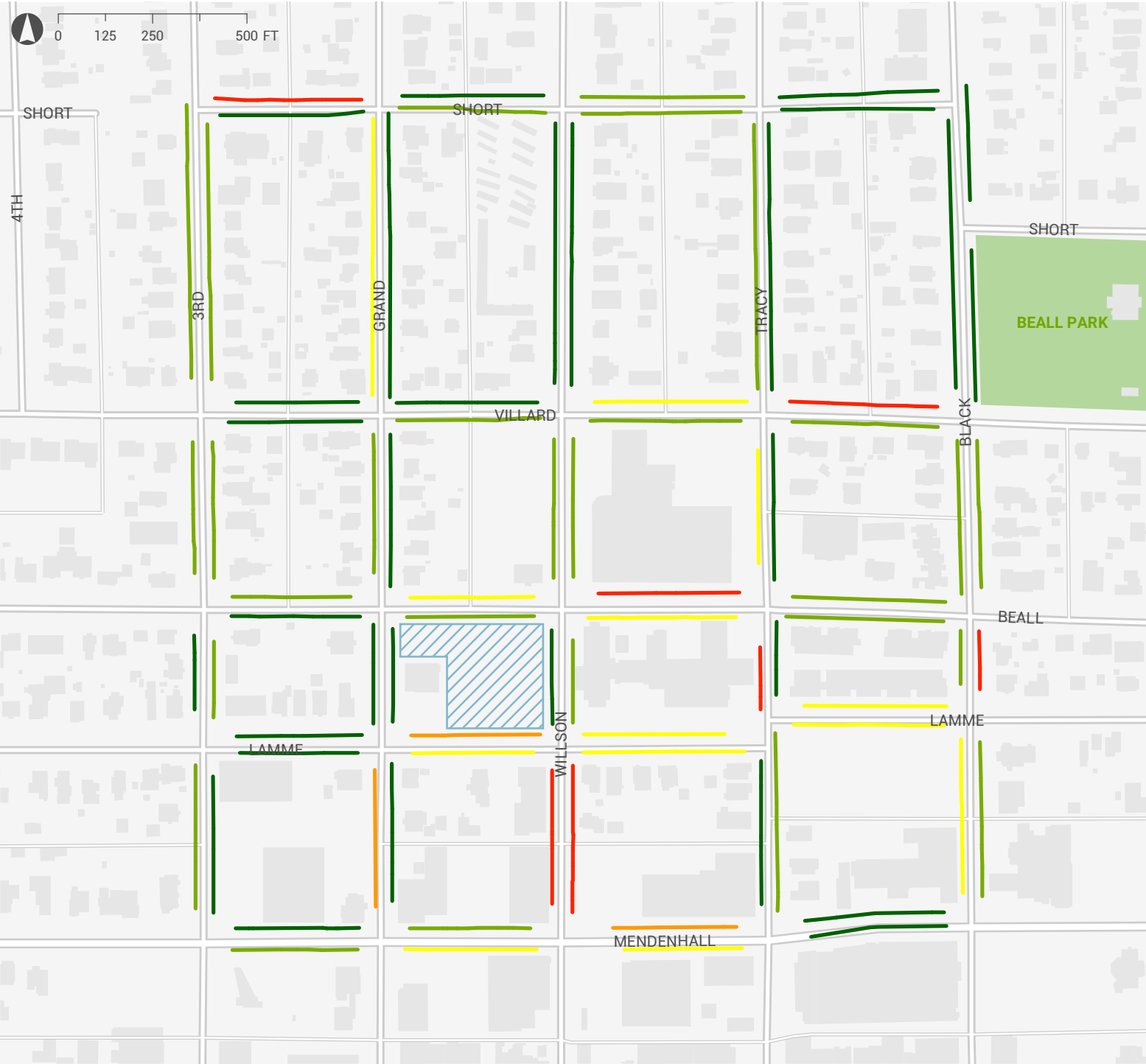


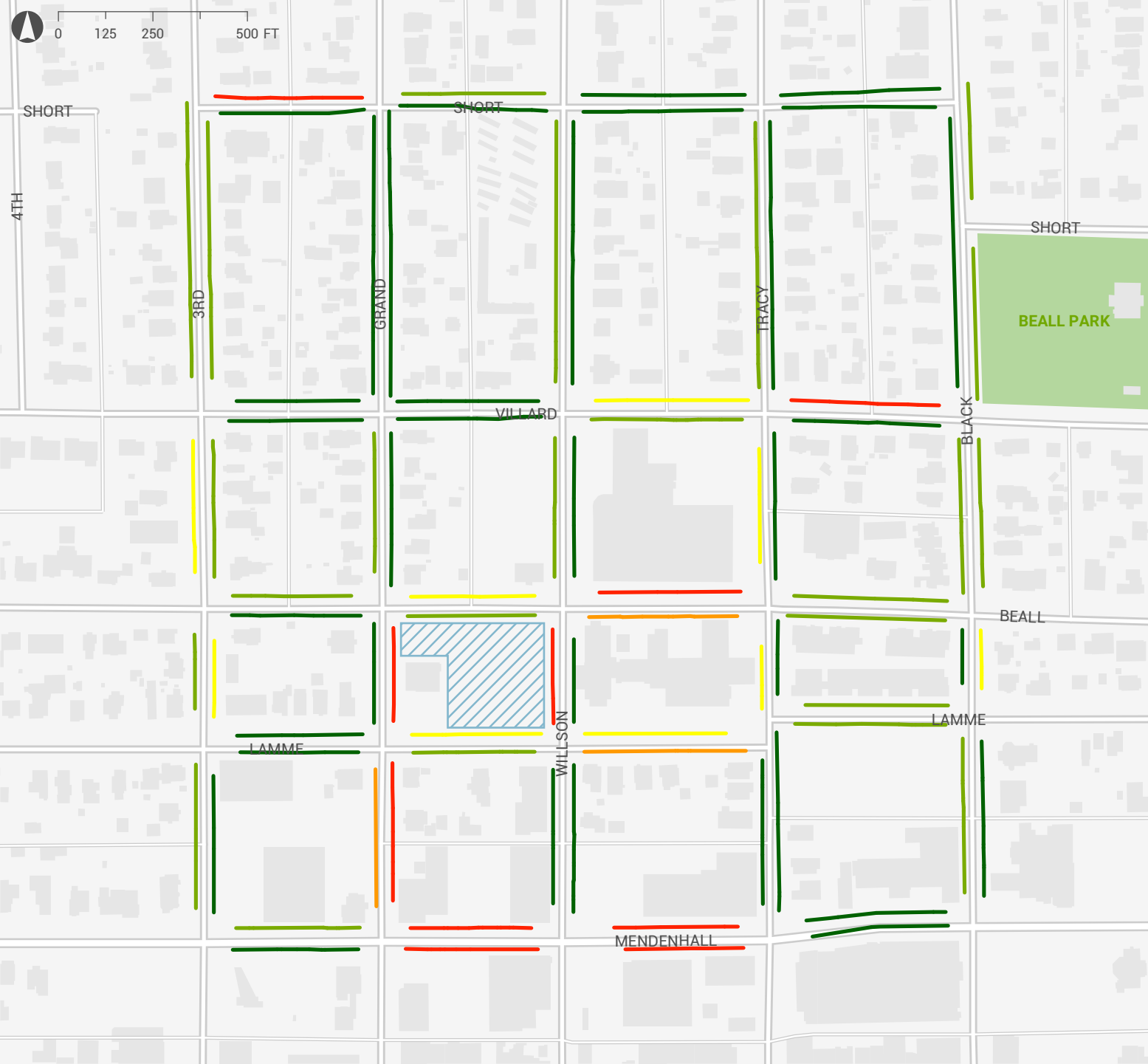












Bozeman On-Street

Parking
Assessment

