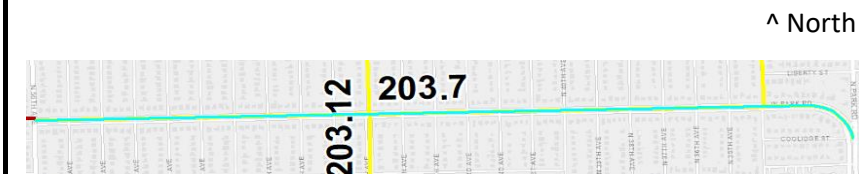


SEGMENT DESCRIPTION

Page 1 of 13

Date: 4/21/2023 (Rev. 02/18/24)	Segment ID No.: 3.7	Speed Limit: 30 mph	Directional Split: 48/52 EB/WB Split
STREET: W. Park Road	Traffic Count ID No.: 3.7.1 - 8	Posted: Yes	
From: N. 56th Avenue	Jurisdiction: City	Existing Daily Volume: 1,762/1,750/1,878/2,063/ (EB and WB Volumes) 2,506/2,667/2,436/2,648 mph	EB+WB Volume: 3,512 to 5,173
	Functional Class: Collector	85th %ile Speed (Avg): 34/40/43/43/45/42/40/40 (40.9) mph	Average Speed (Avg): 29/34/36/36/38/36/34/35 (34.8) mph
To: N. Park Road	Existing TC Devices: ESFB Signs (4)		
Length: 8,235 feet	Warrant Score: 7/13/15/16/18/18/16/16		

Segment Map:



Existing Intersection Controls:

Traffic signal at N. 46th Ave. and a school crossing signals near N. 37th Ave. and N. 50th Ave.

Stop signs at west end, N. 56th Ave., and N. 40th St.



Existing Traffic Calming Devices:

Electronic Speed Feedback (ESFB) signs (4)

Typical Segment Image:

Looking east at midblock between N. 54th Ave. and N. 53rd Ave.



TRAFFIC CALMING ANALYSIS NOTES

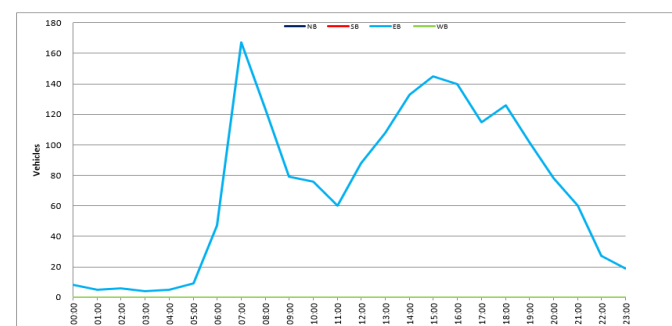
- Citizen expressed concern of vehicles speeding along W. Park Road and recommended a four-way stop controlled intersection be implemented at N. 34th Avenue.
- Crash history (2017-2022): 128 crashes - 102 (80%) at 6 locations. 65 of these were right angle (50%) with another 13 (10%) as left or right turn crashes. Thus 60% of crashes involved right-of-way issues. It is considered that these are likely due to the divided roadway and its wide median, complicating maneuvers through the cross street intersections, and aggravated by excessive speeds on West Park Rd. as discussed below. Other crashes were spread over 17 of the 24 segment intersections and consisted of a variety of types and patterns that did not appear to be actionable. Crash summaries of the 6 leading locations follow below:
 - N. 56th Ave.: 18 crashes dominated by right angle or turn crashes (10) and 4 rearend crashes.
 - N. 53rd Ave.: 11 crashes all of which were right angle or turn.
 - N. 46th Ave. (signal): 29 crashes - 18 right angle or turn crashes, rest are scattered in type.
 - N. 40th Ave.: 13 crashes with 9 right angle crashes.
 - N. 37th Ave.: 14 crashes led by 12 right angle, with one fatality.
 - North Park Rd.: 17 crashes, with 5 right angle or turn, 4 other, 3 rearend, and 5 other types.
- Travel Speeds:

Prior Segment Review: In March 2021, Atkins completed a review of the West Park Road segment in relation to the opportunity to install Electronic Speed Feedback (ESFB) signs. As part of that work, a field review of existing travel speeds was performed and are provided at the top of the next page. Vehicles were observed with the intent of obtaining operating speeds away from traffic flow interruptors. As detailed, the average vehicle speed was 37.5 mph and the 85th-%ile speed was 43 mph under low-volume early-mid-afternoon conditions. The well-posted speed limit is 30 mph. It was noted that the 15th-%ile speed was 30 mph.

The same speed observation exercise was performed for the two school speed zones during the early afternoon school zone period. It was found that the average speed through the active school zones was 24-26.7 mph, about 10 mph over the posted 15 mph speed limit. Further, the 85th-%ile speed was about 30 mph, with no vehicles observed operating within the 15 mph speed limit. While no school children were observed using the crossings, it is seen that speed limit compliance in the corridor under all conditions was relatively poor.

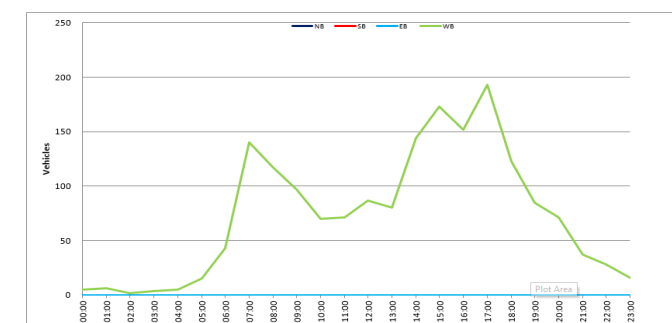
Summaries of the field speed surveys are presented on page 2.

Project #: FL21_140170_071	City: Hollywood
Location: W Park Rd (EB) W/O N 52nd Ave	Date: 5/24/2022



Eastbound

Project #: FL21_140170_072	City: Hollywood
Location: W Park Rd (WB) W/O N 53rd Ave	Date: 5/24/2022



Westbound

SEGMENT DESCRIPTION

Page 2 of 13

Date:	4/21/2023 (Rev. 02/18/24)	Segment ID No.:	3.7	Speed Limit:	30 mph	Directional Split:	
		Traffic Count ID No.:	3.7.1 - 8	Posted:	Yes		48/52 EB/WB Split
STREET:	W. Park Road	Jurisdiction:	City	Existing Daily Volume:	1,762/1,750/1,878/2,063/	EB+WB Volume:	
From:	N. 56th Avenue			(EB and WB Volumes)	2,506/2,667/2,436/2,648 mph		3,512 to 5,173
		Functional Class:	Collector	85th %ile Speed (Avg):		Average Speed (Avg):	
To:	N. Park Road	Existing TC Devices:	ESFB Signs (4)		34/40/43/43/45/42/40/40 (40.9) mph		29/34/36/36/38/36/34/35 (34.8) mph
Length:	8,235 feet	Warrant Score:	7/13/15/16/18/18/16/16				

TRAFFIC CALMING ANALYSIS NOTES (Continued)

Field Visit Observations – Vehicle Speeds

- Traffic volumes were light during field visit.
- “Car following” was used to gauge the approximate speed profile.
 - 40 cars were followed in 30 MPH Speed Limit sections away from flow interruptions (traffic signal and two 4-WAY STOPs).
 - Approximate speed profile:

45 mph	5 vehicles	12.5%
40 mph	13 vehicles	32.5%
37-38 mph	7 vehicles	17.5%
35 mph	9 vehicles	22.5%
30 mph	6 vehicles	15.0%
Under 30 mph	0 vehicles	0.0%
 - 15th %ile speed (not the 85th %ile speed) was 30 mph. Average was 37.5 mph.
 - Estimated 85th %ile speed is about 43 mph.
 - Speed distribution is “upside down” from expected for a 30 MPH Speed Limit.
 - Speeding occurred across the length of the corridor.

Field Visit Observations – Speeds in School Zones

- The two School Zones, both posted for 15 MPH Speed Limit were visited between 2:00 and 2:30 pm. No children were observed at either site.
- “Car following” was used to gauge approximate speed profile and compliance with the 15 MPH Speed Limit postings.
 - 15 cars were observed at each school zone.
 - Approximate speed profiles:

	North 37 th Avenue	North 50 th Avenue
35 mph	2 vehicles 13%	3 vehicles 20%
30 mph	3 vehicles 20%	4 vehicles 27%
25 mph	3 vehicles 20%	4 vehicles 27%
20 mph	4 vehicles 27%	3 vehicles 20%
15 mph	3 vehicles 20%	1 vehicles 6%
Average speed	24.0 mph	Average speed 26.7 mph

Note: EB only, WB flasher not working
 - No vehicles observed below the 15 mph limit.
 - Average speeds were about 10 mph over posted speed limit.
 - 85th %ile speeds were about 30 mph vs. 15 mph nominal school zone speed limit.

Traffic Count Data Results: Four pairs of directional traffic counts were taken across the segment and summarized in the below table.

Key observations are summarized below:

- Average weekday daily traffic (Tuesday to Thursday) ranges from 3,512 at the west end to 5,172 vehicles towards the east. Directional volumes are fairly balanced in both directions of travel. The working capacity of the roadway exceeds the existing traffic demand by a factor of about 3.
- The 85th-%ile speeds were 40 mph or more (except for the eastbound movement at the west end which was 34 mph), and otherwise 40 to 45 mph depending on subsegment and direction of travel versus the posted speed limit of 30 mph. As a result, the average speed is well over the speed limit except for one directional subsegment.
- For all but the one count location, the percent of traffic at or over 30 mph ranged from 80 to 89 %, with over half at 35 mph or higher. Nearly a quarter exceeded 40 mph, and 10% exceeded 45 mph with speeds reported up to the 55-59 mph range.
- Stop signs and the N. 46th Ave. traffic signal provide some breaks to uninterrupted traffic flow but between these constraints, where the counts were taken, excessive speeding is clearly occurring. Subsegment lengths from east to west are 1,340 ft., 2,010 ft., 1,955 ft., and 2,930 ft. Since vehicles can attain 30 mph from a Stop sign in 200-300 feet depending on the degree of driver aggressiveness, these subsegments are clearly long enough that many motorists accelerate to speeds above the speed limit until the next flow interruption. This speeding behavior carries over to the speeds through the school speed zones when they are active.
- It is considered that the speed profile along West Park Road is contributing to the angle crashes as vehicles on side streets attempt to judge gaps in traffic to make turns and/or travel across the median roadway.

West Park Road (N. 56th Ave. to North Park Road)										
TRAFFIC COUNT AND SPEED DATA SUMMARY										
COUNT PAIR		Average Daily Traffic	85th-%ile Speed	Average Speed	% Over 30 mph	% Over 35 mph	% Over 40 mph	% Over 45 mph	% Over 50 mph	% Over 55 mph
1 EB	SW 53rd Ave. - SW 54th Ave.	1,762	34	29	43	8	3	0	0	0
2 WB	SW 53rd Ave. - SW 54th Ave.	1,750	40	34	80	44	12	4	0	0
Average		3,512	37	32	62	26	8	2	0	0
3 EB	SW 48th Ave. - SW 49th Ave.	1,878	44	36	80	54	27	7	3	1
4 WB	SW 48th Ave. - SW 49th Ave.	2,063	43	36	86	58	27	8	2	1
Average		3,941	44	36	83	56	27	8	3	1
5 EB	SW 42nd Ave. - SW 43rd Ave.	2,505	45	38	92	72	39	15	3	1
6 WB	SW 42nd Ave. - SW 43rd Ave.	2,667	42	36	85	54	19	4	1	0
Average		5,172	44	37	89	63	29	10	2	1
7 EB	SW 36th Ave. - SW 37th Ave.	2,436	40	34	92	72	39	15	3	1
8 WB	SW 36th Ave. - SW 37th Ave.	2,648	40	35	83	48	16	3	0	0
Average		5,084	40	35	88	60	28	9	2	1
All Eastbound Data (Average)		2,145	41	34	77	52	27	9	2	1
All Westbound Data (Average)		2,282	41	35	84	51	19	5	1	0
Total		4,427	41	35	80	51	23	7	2	1

SEGMENT DESCRIPTION

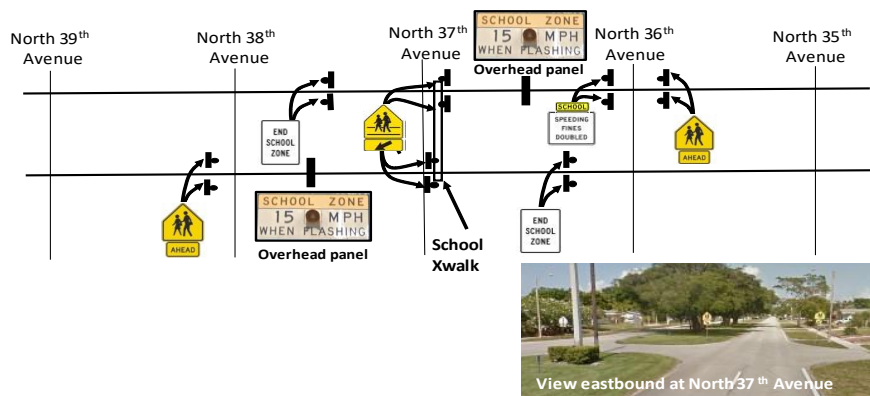
Page 3 of 13

Date: 4/21/2023 (Rev. 02/18/24)	Segment ID No.: 3.7	Speed Limit: 30 mph	Directional Split: 48/52 EB/WB Split
STREET: W. Park Road	Traffic Count ID No.: 3.7.1 - 8	Posted: Yes	
From: N. 56th Avenue	Jurisdiction: City	Existing Daily Volume: 1,762/1,750/1,878/2,063/ (EB and WB Volumes) 2,506/2,667/2,436/2,648 mph	EB+WB Volume: 3,512 to 5,173
To: N. Park Road	Functional Class: Collector	85th %ile Speed (Avg): 34/40/43/43/45/42/40/40 (40.9) mph	Average Speed (Avg): 29/34/36/36/38/36/34/35 (34.8) mph
Length: 8,235 feet	Existing TC Devices: ESFB Signs (4)		
	Warrant Score: 7/13/15/16/18/18/16/16		

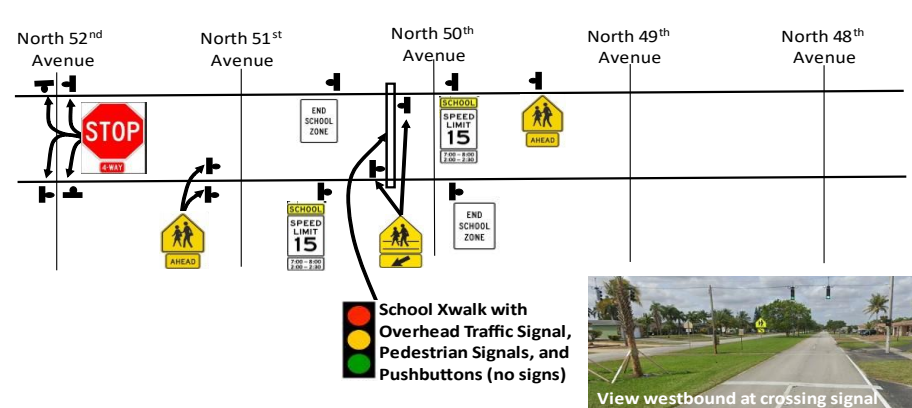
TRAFFIC CALMING ANALYSIS NOTES (Continued)

School Zones: There are two school zones with signalized pedestrian crossings - at North 37th Ave. and North 50th Ave. These two zones should be considered in relation to possible traffic calming actions. It is noted that both of the 15 MPH school zones are not uniformly controlled, nor are the designated crossings. The traffic signing and signals for these two locations are shown below:

North 37th Avenue School Zone Layout



North 50th Avenue School Zone Layout



Bicycle Network Considerations: The City has prepared the Bicycle Mobility Plan, exhibits from which are presented on this page. The plan shows that West Park Road is designated for a "separated bicycle lane" which has a degree of separation from the street roadway. Three examples of separation are shown below: one is a bicycle lane set back from the roadway adjacent to the sidewalk. The other two examples are a bidirectional bicycle way (sometimes called a "cycle track") on one side of the street. There are other possible options. The plan also shows a similar proposed treatment for North Park Road. With a narrower right-of-way, it is likely that the bike path next to the sidewalk will be adopted for this roadway. The plan also shows a buffered bicycle lane along N. 56th Ave. which has been constructed. The plan also calls for a multipurpose path along N. 46th Ave., and a neighborhood greenway on N. 50th Ave., intersecting with West Park Road.

The bicycle network planning vision needs to be coordinated with proposed West Park Road traffic calming strategies.

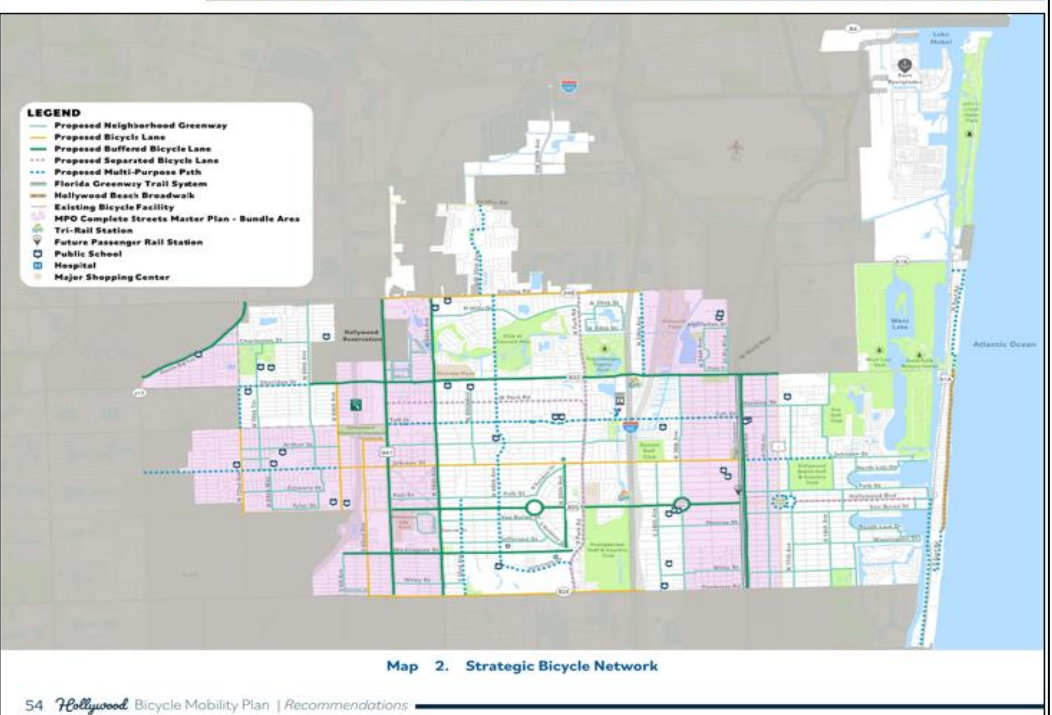


Hollywood Bicycle Mobility Plan



(Table 1 Continued)

Facility Name	Project Limits	Facility Type
N 8th Avenue	North Lake Drive to Johnson Street	Neighborhood Greenway
Charleston Street	Davie Road Extension to N 66th Avenue	Neighborhood Greenway
N 50th Avenue	Johnson Street to Thomas Street	Neighborhood Greenway
N Rainbow Drive	N Circle Drive to N 35th Avenue	Neighborhood Greenway
N 66th Avenue	SW 60th Street to Sheridan Street	Neighborhood Greenway
S Rainbow Drive	S Circle Drive to S 35th Avenue	Neighborhood Greenway
S Highland Court	S Highland Drive to S Rainbow Drive	Neighborhood Greenway
S Circle Drive	Van Buren Street to S Rainbow Drive	Neighborhood Greenway
Lakes of Emerald Hills Loop	Lakes of Emerald Hills Neighborhood	Neighborhood Greenway
N 65th Terrace	Fillmore Street to Tyler Street	Neighborhood Greenway
N Circle Drive	Polk Street to N Rainbow Drive	Neighborhood Greenway
W Park Road	SR-7 to N Park Road	Raised Separated Bike Lane
N Park Road	Johnson Street to Taft Street	Raised Separated Bike Lane
N Park Road	Taft Street to Stirling Road	Raised Separated Bike Lane
Hollywood Boulevard	Young Circle to 8th Avenue	Separated Bike Lane
Park Road	Pembroke Road to Johnson Street	Separated Bike Lane



SEGMENT DESCRIPTION

Page 4 of 13

Date:	4/21/2023 (Rev. 02/18/24)	Segment ID No.:	3.7	Speed Limit:	30 mph	Directional Split:	48/52 EB/WB Split
STREET:	W. Park Road	Traffic Count ID No.:	3.7.1 - 8	Posted:	Yes	EB+WB Volume:	
From:	N. 56th Avenue	Jurisdiction:	City	Existing Daily Volume:	1,762/1,750/1,878/2,063/	EB+WB Volume:	3,512 to 5,173
				(EB and WB Volumes)	2,506/2,667/2,436/2,648 mph		
		Functional Class:	Collector	85th %ile Speed (Avg):		Average Speed (Avg):	
To:	N. Park Road	Existing TC Devices:	ESFB Signs (4)	34/40/43/43/45/42/40/40 (40.9) mph	29/34/36/36/38/36/34/35 (34.8) mph		
Length:	8,235 feet	Warrant Score:	7/13/15/16/18/18/16/16				

TRAFFIC CALMING ANALYSIS NOTES (Continued)

Existing Traffic Calming: Prior to this traffic calming analysis, the City had the opportunity to install Electronic Speed Feedback (ESFB) solar-powered signs in this corridor based on the preliminary information on speeding in the corridor. An advance analysis was done by the consultant and locations for four ESFB signs were identified. Detailed field review led to slight adjustments in the positioning of the four ESFB signs which have been installed. They are included in the existing condition graphic provided later in this worksheet. There are no other existing traffic calming devices. As this segment is classified as a collector street, traffic calming options should not include vertical traffic calming such as speed tables.



RECOMMENDATIONS

There are five priority considerations for traffic calming actions for this segment: (1) clearly excessive motorist speeds, including for the two school speed zones; (2) excess roadway capacity - one travel lane in each direction would be sufficient for demand; (3) the designation of the corridor for a "separated bicycle lane"; (4) the high extent of angle crashes at segment intersections; and (5) the segment designation as a collector street indicating avoidance of vertical traffic calming devices.

After consideration of a variety of traffic calming options compatible with the five planning priorities, it is proposed to implement the following traffic calming actions, as detailed on subsequent pages of this worksheet. The actions are described as occurring in two phases for the purpose of accelerating implementation of Phase 1, and for deferring the higher capital costs of Phase 2. This approach would allow for further traffic volume/speed counts after Phase 1 is implemented to assess its impacts on traffic speeds and the urgency of implementing Phase 2. Alternatively, Phase 1 and selected parts of Phase 2 could be implemented initially.

These actions are summarized below and explained in further detail and graphics in the following pages of the worksheet:

- Phase 1 - Separated Bicycle Lane Installation:** Convert the right lane of each directional roadway to a bicycle lane with a wide separation buffer of 4 feet from the leftmost travel lane. Elements of this action include the following:
 - Install required pavement markings for the bicycle lane and buffer, as well as bicycle lane signing.
 - At intersecting side streets, install bicycle lane crossing markings. Install adjacent pedestrian crosswalks and adjust sidewalk connections as needed. Relocate the side street Stop bar and Stop sign where applicable.
 - At N. 56th Ave., tie into the existing buffered bicycle lane. Consider cross-section for planned extension of the separated bicycle lane treatment of West Park Road west of N. 56th Ave. per the Bicycle Mobility Plan.
 - At N. 46th Ave., in laying out crosswalk details, consider the future cross-section for the planned multipurpose lane along that street.
 - At North Park Road, in laying out the eastern terminus of the West Park Road separated bicycle lanes, consider the future cross-section of the separated bicycle lanes planned for North Park Road, per the Bicycle Mobility Plan.
- Phase 2 - Intersection Traffic Calming Actions:** Phase 2 actions consists of proposed intersection modifications which have a higher capital cost. These proposed actions include the following physical intersection modifications:
 - N. 56th Ave.:** Construct an eastbound roadway in the median connecting the west leg of West Park Road to the east leg, with an island to define the northbound-to-eastbound right turn. The intent of this action is to better define the intersection and to reduce the occurrence of angle crashes.
 - N. 46th Ave.:** Construct offset left turn lanes in the median to simplify yielding left turn movements by aligning them with a better view of the opposing through traffic, with the intent of reducing angle crash occurrence.
 - N. Park Road:** Improve the inside radius of the southbound-to-southbound movement and align it as the leftmost added lane, rather than as an unsigned yield movement from the median area into one of two southbound lanes. The leftmost single through lane on eastbound West Park Road would transition to the north of the North Park Road intersection to the rightmost lane position. These modifications assist with the connectivity between the added bicycle lanes on West Park Road and the proposed bicycle lanes on North Park Road. It is also recommended to close the median opening at the east leg of Coolidge St. to simplify the turning options just south of the West Park Road/North Park Road intersection.
 - Compressed Intersections at Subsegment Midpoints:** Construct four compressed intersection projects at corridor subsegment midpoints. These improvements are intended to assist in reducing intersection angle crashes and mitigate traffic speeds along West Park Road by introducing roadway alignment shifts toward the roadway centerline.
 - Remaining Intersection Median Opening Treatments:** At the remaining 15 local side street intersections and one isolated median opening, implement one of two median opening improvements: either entirely close the median opening and/or construct pairs of U-turn roadways. The intent of these action are to reduce or eliminate turning conflicts at the minor intersections, and do require the rerouting of certain travel movements.

Schematics for these two sets of phased traffic calming actions along West Park Road are presented in the following pages of the worksheet.

SEGMENT DESCRIPTION

Date: 4/21/2023 (Rev. 02/18/24)	Segment ID No.: 3.7	Speed Limit: 30 mph	Directional Split: 48/52 EB/WB Split
STREET: W. Park Road	Traffic Count ID No.: 3.7.1 - 8	Posted: Yes	EB+WB Volume: 3,512 to 5,173
From: N. 56th Avenue	Jurisdiction: City	Existing Daily Volume: 1,762/1,750/1,878/2,063/ (EB and WB Volumes) 2,506/2,667/2,436/2,648 mph	
	Functional Class: Collector	85th %ile Speed (Avg): 34/40/43/43/45/42/40/40 (40.9) mph	Average Speed (Avg): 29/34/36/36/38/36/34/35 (34.8) mph
To: N. Park Road	Existing TC Devices: ESFB Signs (4)		
Length: 8,235 feet	Warrant Score: 7/13/15/16/18/18/16/16		

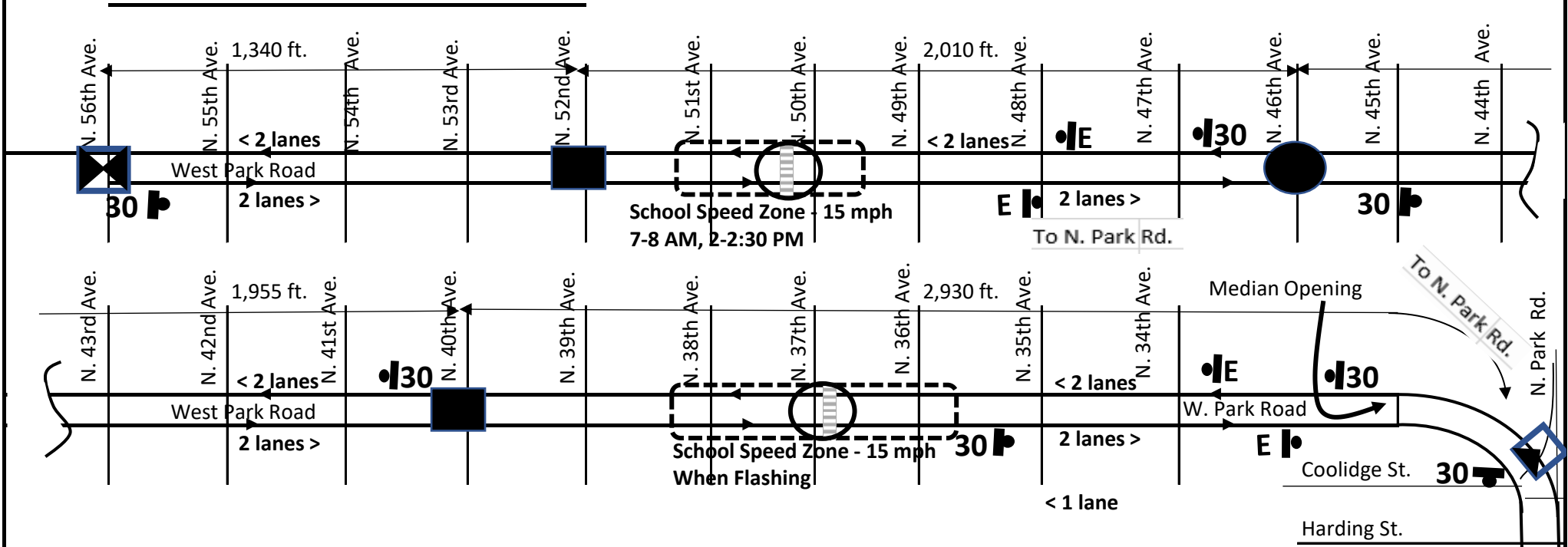
RECOMMENDED ACTION (Continued)

1. Phase 1 - Separated Bicycle Lane Installation:

Existing corridor conditions are summarized schematically in the Existing Conditions graphic shown below.
Below that, the Proposed Conditions for Phase 1 - Separated Bicycle Lane installation are depicted schematically.

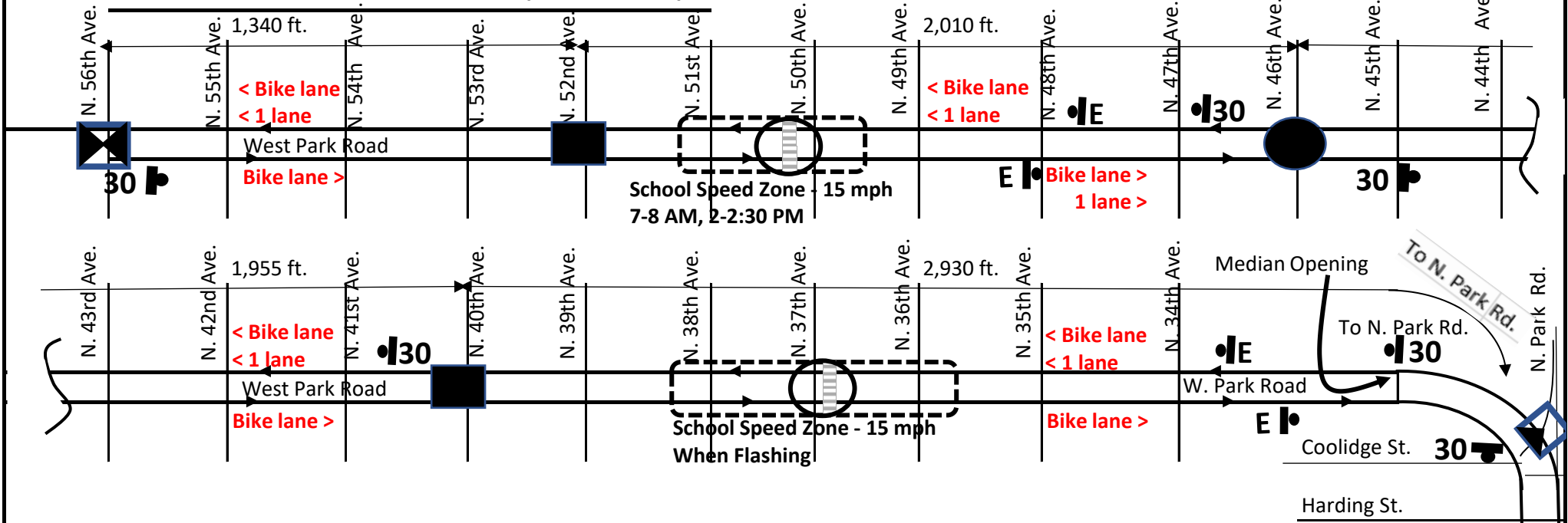
Phase 1 focuses on converting the right lane of each directional roadway to a bicycle lane with a wide separating buffer of 4 feet from the leftmost travel lane. This option was developed after consideration of other approaches to integrating traffic calming and bicycle network objectives.

EXISTING CONDITIONS (Not to Scale)



Intersection controls not noted are Stop signs on the approach to West Park Rd.

PROPOSED CONDITIONS - Phase 1 (Not to Scale)



Intersection controls not noted are Stop signs on the approach to West Park Rd.

LEGEND

	Traffic Signal		2-Way Stop (East-West)
	School Xing Signal		Electronic Speed Feedback (ESFB) Sign
	4-Way Stop		30 MPH Speed Limit Sign
	Directional Stop Sign		30 MPH (Proposed)

SEGMENT DESCRIPTION

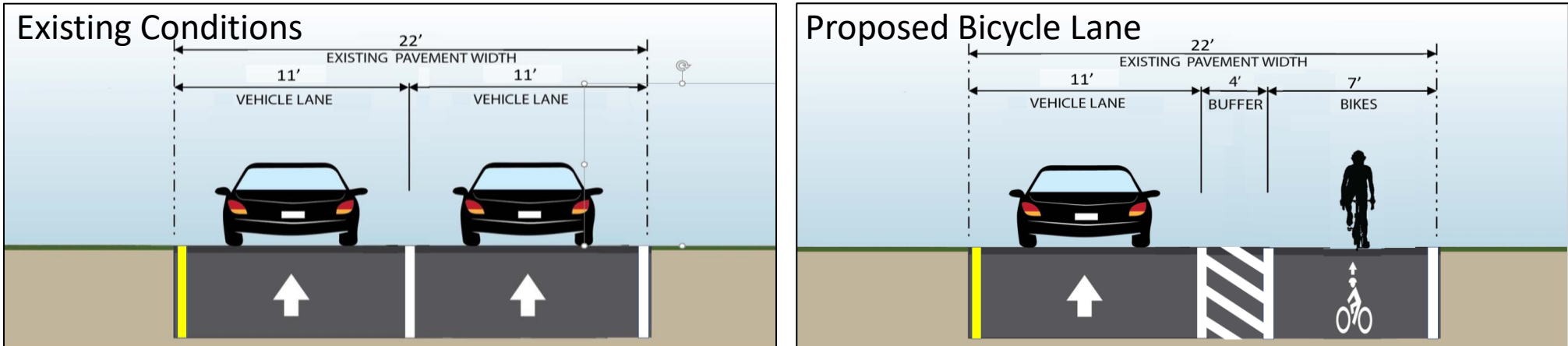
Date:	4/21/2023 (Rev. 02/18/24)	Segment ID No.:	3.7	Speed Limit:	30 mph	Directional Split:	48/52 EB/WB Split
STREET:	W. Park Road	Traffic Count ID No.:	3.7.1 - 8	Posted:	Yes	Existing Daily Volume:	1,762/1,750/1,878/2,063/
From:	N. 56th Avenue	Jurisdiction:	City	(EB and WB Volumes)	2,506/2,667/2,436/2,648 mph	EB+WB Volume:	3,512 to 5,173
To:	N. Park Road	Functional Class:	Collector	85th %ile Speed (Avg):	34/40/43/43/45/42/40/40 (40.9) mph	Average Speed (Avg):	29/34/36/36/38/36/34/35 (34.8) mph
Length:	8,235 feet	Existing TC Devices:	ESFB Signs (4)	Warrant Score:	7/13/15/16/18/18/16/16		

RECOMMENDED ACTION (Continued)

There are five priority considerations for traffic calming actions for this segment:

- (1) clearly excessive motorist speeds, including for the two school speed zones;
- (2) excess roadway capacity - one travel lane in each direction would be sufficient for demand;
- (3) the designation of the corridor for a "separated bicycle lane";
- (4) the high extent of angle crashes at segment intersections; and
- (5) the segment designation as a collector street indicating avoidance of vertical traffic calming devices.

After considering a variety of options, including using the median area, the leftmost of two existing travel lanes, and a separate pathway near the sidewalks on either side of the street, it was determined to convert the existing right travel lane to a buffered bicycle lane. This option was selected as it was noted that the existing and anticipated roadway traffic could be accommodated within a single through travel lane. The designation then of the right travel lane as the bicycle lane provides a very economical approach for deploying the bicycle lanes in this corridor per the Bicycle Mobility Plan. The bicycle lane or the grassed median would serve as a bypass should the travel lane be blocked. The existing and proposed roadway cross-sections are shown below:



it is proposed to have a 7-foot wide bicycle lane with a 4-foot wide buffer separating the bicycle lane from traffic. While this buffer could be a raised island treatment, that is costly, and there are dozens of driveway access points which must be maintained. Residents would access their driveways going across the bike lanes, as is the case for typical buffered and unbuffered bicycle lanes on city streets.

Below is a schematic of a typical midblock length showing the existing condition and the proposed condition with the bicycle lane and buffer treatment.

The other schematic is an inset of an intersection showing the existing condition and the proposed bicycle lane, sidewalk adjustments, and crossings.



SEGMENT DESCRIPTION

Page 7 of 13

Date:	4/21/2023 (Rev. 02/18/24)	Segment ID No.:	3.7	Speed Limit:	30 mph	Directional Split:	
		Traffic Count ID No.:	3.7.1 - 8	Posted:	Yes		48/52 EB/WB Split
STREET:	W. Park Road	Jurisdiction:	City	Existing Daily Volume:	1,762/1,750/1,878/2,063/	EB+WB Volume:	
From:	N. 56th Avenue			(EB and WB Volumes)	2,506/2,667/2,436/2,648 mph		3,512 to 5,173
		Functional Class:	Collector	85th %ile Speed (Avg):		Average Speed (Avg):	
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Length:	8,235 feet	Warrant Score:	7/13/15/16/18/18/16/16				


RECOMMENDED ACTION (Continued)

The focus of Phase 1 is the conversion of the right travel lanes of the directional roadways to the bicycle lane element. This would include necessary pavement markings and traffic signing. It should also include sidewalk and bicycle lane connections at minor and major intersections as needed, along with pedestrian and bicycle markings across the side street approaches. The installation layout should also provide efficient tie-ins to existing (1) and proposed (3) north-south bicycle facilities. The elements of Phase 1 are restated as follows:

- Install required pavement markings for the bicycle lane and buffer, as well as bicycle lane signing.
- At intersecting side streets, install bicycle lane crossing markings. Install adjacent pedestrian crosswalks and adjust sidewalk connections as needed. Relocate the side street Stop bar and Stop sign were applicable.
- At N. 56th Ave., tie into the existing buffered bicycle lane. Consider cross-section for planned extension of the separated bicycle lane treatment of West Park Road west of N. 56th Ave. per the Bicycle Mobility Plan.
- At N. 46th Ave., in laying out crosswalk details, consider the future cross-section for the planned multipurpose lane along that street.
- At North Park Road, in laying out the eastern terminus of the West Park Road separated bicycle lanes, consider the future cross-section of the separated bicycle lanes planned for North Park Road, per the Bicycle Mobility Plan.


2. Phase 2 - Intersection Traffic Calming Actions:

Phase 2 actions consists of proposed intersection modifications which have a higher capital cost. These proposed actions include the following physical intersection modifications:

- Intersection Modifications:** Minor intersection modifications are proposed at five intersections across the segment as follows:
 - N. 56th Ave.:** Construct an eastbound roadway in the median connecting the west leg of West Park Road to the east leg, with an island to define the northbound-to-eastbound right turn. The intent of this action is to better define the intersection and to reduce the occurrence of angle crashes.
 - N. 46th Ave.:** The original proposal consisted of constructing offset left turn lanes in the median to simplify yielding left turn movements by aligning them with a better view  the opposing through traffic, with the intent of reducing angle crash occurrence. **However, with a road diet proposed for N. 46th Ave., a roundabout is is geometrically feasible and is now proposed for this intersection.**
 - N. Park Road:** Improve the inside radius of the southbound-to-southbound movement and align it as the leftmost added lane, rather than as an unsigned yield movement from the median area into one of two southbound lanes. The leftmost single through lane on eastbound West Park Road would transition to the north of the North Park Road intersection to the rightmost lane position. These modifications assist with the connectivity between the added bicycle lanes on West Park Road and the proposed bicycle lanes on North Park Road. It is also recommended to close the median opening at the east leg of Coolidge St. to simplify the turning options just south of the West Park Road/North Park Road intersection.
- Standard Intersections at Subsegment Midpoints:**
 - Construct four "standard" intersection projects at corridor subsegment midpoints, adding left turn lanes. These improvements are intended to assist in reducing intersection angle crashes and mitigate traffic speeds. Locations for this treatment are:
 - > N. 37th Ave.
 - > N. 43rd Ave.
 - > N. 49th Ave.
 - > N. 54th Ave.














NOTE: N. 37th Ave. intersection is identified for an optional roundabout treatment.
 - N. 52nd Ave.:** At this 4-Way Stop control, construct left turn lanes for West Park Road as depicted on Page 11 of this worksheet.

NOTE: This location is identified for an optional roundabout treatment.
 - N. 40th Ave.:** At this 4-Way Stop control, construct left turn lanes for West Park Road as depicted on Page 11 of this worksheet.

NOTE: This location is identified for an optional roundabout treatment.
- Remaining Intersection Median Opening Treatments:** At the remaining 16 local side street intersections, implement one of two median opening  improvements: either entirely close the median opening and/or construct pairs of U-turn roadways. The intent of these action are to reduce or eliminate turning conflicts at the minor intersections, forcing rerouting of trips. The proposed actions for these intersections are noted below:

o Median opening east of N. 34th Ave. U-turn lanes	o N. 41st Ave. U-turn lanes	o N. 48th Ave. Median closure
o N. 34th Ave. Median closure	o N. 42nd Ave. Median closure	o N. 50th Ave. Median closure
o N. 35th Ave. U-turn lanes	o N. 44th Ave. Median closure	o N. 51st Ave. U-turn lanes
o N. 36th Ave. Median closure	o N. 45th Ave. U-turn lanes	o N. 53rd Ave. U-turn lanes
o N. 38th Ave. Median closure	o N. 47th Ave. U-turn lanes	o N. 55th Ave. U-turn lanes
o N. 39th Ave. U-turn lanes		

Schematics depicting these intersection modifications are provided on page 12 of the worksheet.

- | | | | |
|---|---------------------------|---|---------------------------------------|
|  | Traffic Signal |  | 2-Way Stop (East-West) |
|  | School Xing Signal |  | Electronic Speed Feedback (ESFB) Sign |
|  | 4-Way Stop |  | 30 MPH Speed Limit Sign |
|  | Directional Stop Sign |  | 30 MPH (Proposed) |
|  | Standard Intersection |  | Median U-Turns |
|  | Intersection Modification |  | Median Closure |
| | |  | Roundabout |

TRAFFIC CALMING ANALYSIS WORKSHEET

Phase 2 Segments

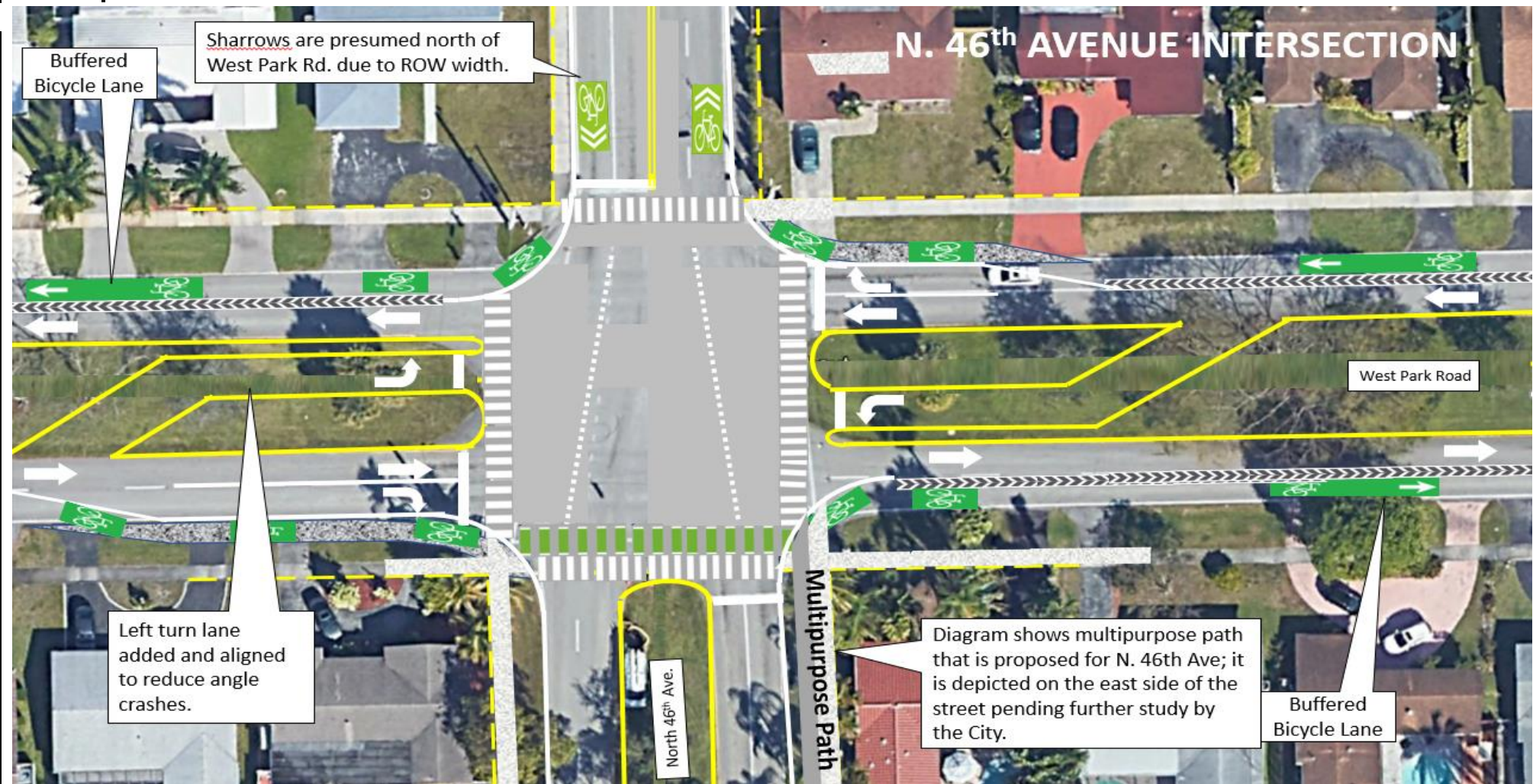
SEGMENT DESCRIPTION					Page 9 of 13
Date:	4/21/2023 (Rev. 02/18/24)	Segment ID No.:	3.7	Speed Limit:	30 mph
STREET:	W. Park Road	Traffic Count ID No.:	3.7.1 - 8	Posted:	Yes
From:	N. 56th Avenue	Jurisdiction:	City	Existing Daily Volume:	1,762/1,750/1,878/2,063/ (EB and WB Volumes) 2,506/2,667/2,436/2,648 mph
To:	N. Park Road	Functional Class:	Collector	85th %ile Speed (Avg):	Average Speed (Avg):
Length:	8,235 feet	Existing TC Devices:	ESFB Signs (4)	34/40/43/43/45/42/40/40 (40.9) mph	29/34/36/36/38/36/34/35 (34.8) mph
		Warrant Score:	7/13/15/16/18/18/16/16		

RECOMMENDED ACTION (Continued)

Phase 2 - Intersection Traffic Calming Actions:

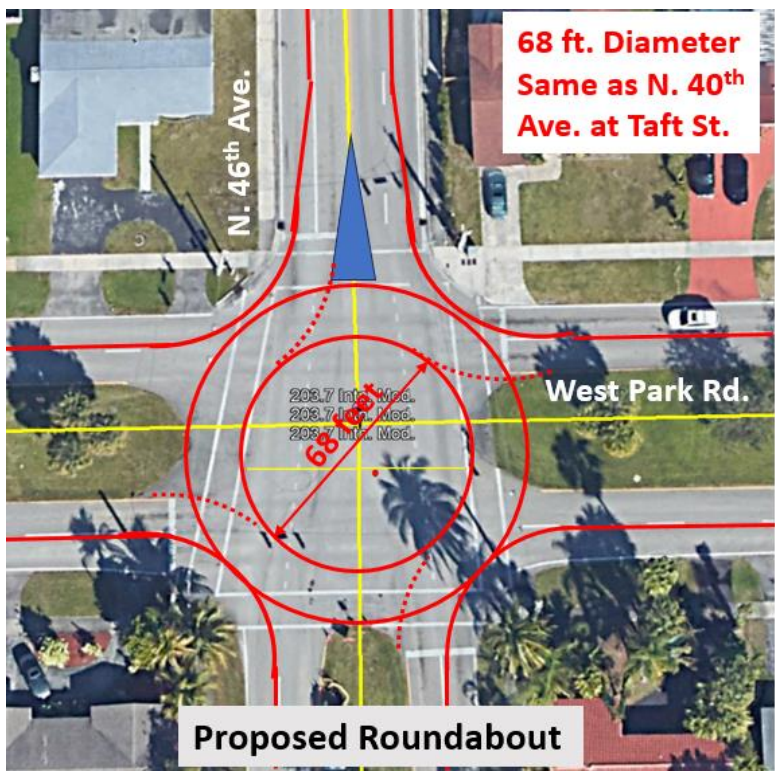
A. Intersection Modifications (Continued)

North 46th Avenue at West Park Road (traffic signal)



A roundabout was also considered for this intersection. Using the existing roundabout at Taft St. and N. 40th Ave with an interior diameter of 68 feet including the 10-foot apron, as the the minimum size roundabout, a study was made at the subject intersection. It was found difficult to suitably fit in the template with an allowance for the four lanes on N. 40th Ave. given the 60-foot ROW on the north leg, despite the 100-foot ROW on the south leg and the 120-foot ROW on the east and west legs. These geometries require the roundabout template to be shifted asymmetrically to the south. This shift complicated 90-degree turn geometry at the corners along with the future bicycle facility along N. 40th Ave. Also, there was no room within the north leg ROW for a roundabout splitter island for both pedestrian and bicycle crossings. However, based on selection of a road diet for N. 46th Ave. (Phase 2 - Segment 3.12), a one-lane roundabout is workable despite the noted constraints, and room is available for a splitter island on the north leg. Layout of bicycle and pedestrian crossings are shown on Page 13.

The roundabout is recommended for this location, perhaps on a phased basis.



TRAFFIC CALMING ANALYSIS WORKSHEET

Phase 2 Segments

Page 10 of 13

SEGMENT DESCRIPTION

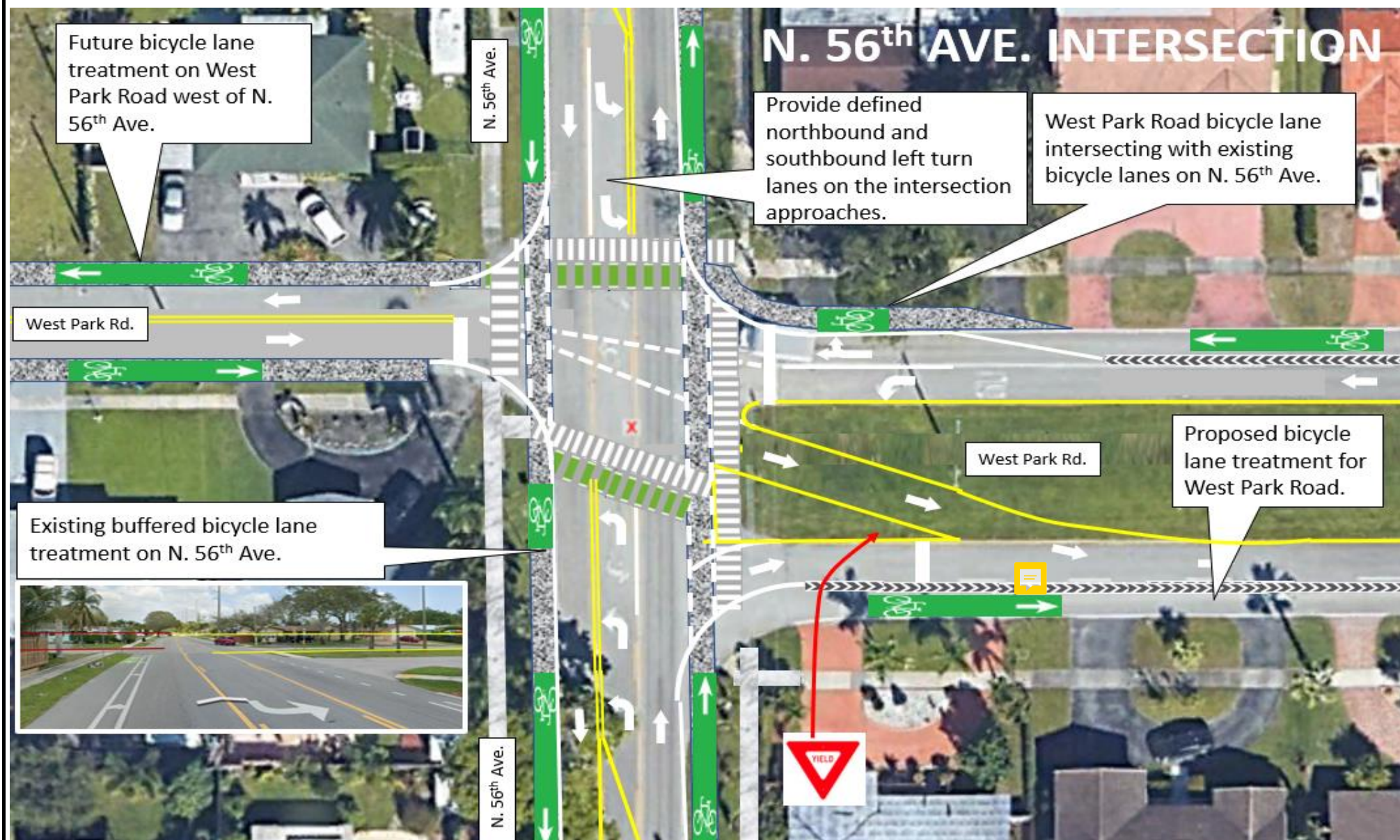
Date: 4/21/2023 (Rev. 02/18/24)	Segment ID No.: 3.7	Speed Limit: 30 mph	Directional Split: 48/52 EB/WB Split
STREET: W. Park Road	Traffic Count ID No.: 3.7.1 - 8	Posted: Yes	
From: N. 56th Avenue	Jurisdiction: City	Existing Daily Volume: 1,762/1,750/1,878/2,063/ (EB and WB Volumes) 2,506/2,667/2,436/2,648 mph	EB+WB Volume: 3,512 to 5,173
	Functional Class: Collector	85th %ile Speed (Avg): 34/40/43/43/45/42/40/40 (40.9) mph	Average Speed (Avg): 29/34/36/36/38/36/34/35 (34.8) mph
To: N. Park Road	Existing TC Devices: ESFB Signs (4)		
Length: 8,235 feet	Warrant Score: 7/13/15/16/18/18/16/16		

RECOMMENDED ACTION (Continued)

Phase 2 - Intersection Traffic Calming Actions:

A. Intersection Modifications (Continued)

North 56th Avenue at West Park Road (Two-Way Stop Control - Eastbound/Westbound)



TRAFFIC CALMING ANALYSIS WORKSHEET

Phase 2 Segments

SEGMENT DESCRIPTION					Page 11 of 13
Date:	4/21/2023 (Rev. 02/18/24)	Segment ID No.:	3.7	Speed Limit:	30 mph
		Traffic Count ID No.:	3.7.1 - 8	Posted:	Yes
STREET:	W. Park Road	Jurisdiction:	City	Existing Daily Volume:	1,762/1,750/1,878/2,063/
From:	N. 56th Avenue			(EB and WB Volumes)	2,506/2,667/2,436/2,648 mph
		Functional Class:	Collector	85th %ile Speed (Avg):	Average Speed (Avg):
To:	N. Park Road	Existing TC Devices:	ESFB Signs (4)	34/40/43/43/45/42/40/40 (40.9) mph	29/34/36/36/38/36/34/35 (34.8) mph
Length:	8,235 feet	Warrant Score:	7/13/15/16/18/18/16/16		

RECOMMENDED ACTION (Continued)

Phase 2 - Intersection Traffic Calming Actions:

B. Standard Intersection Modifications

This intersection modification template modifies the intersection by adding left turn lanes on West Park Road, and applies to these intersections:

- North 37th Avenue at West Park Road

(Two-Way Stop northbound-southbound, with school crosswalk)
- NOTE: This location identified for an optional roundabout treatment.**
- North 43rd Avenue at West Park Road

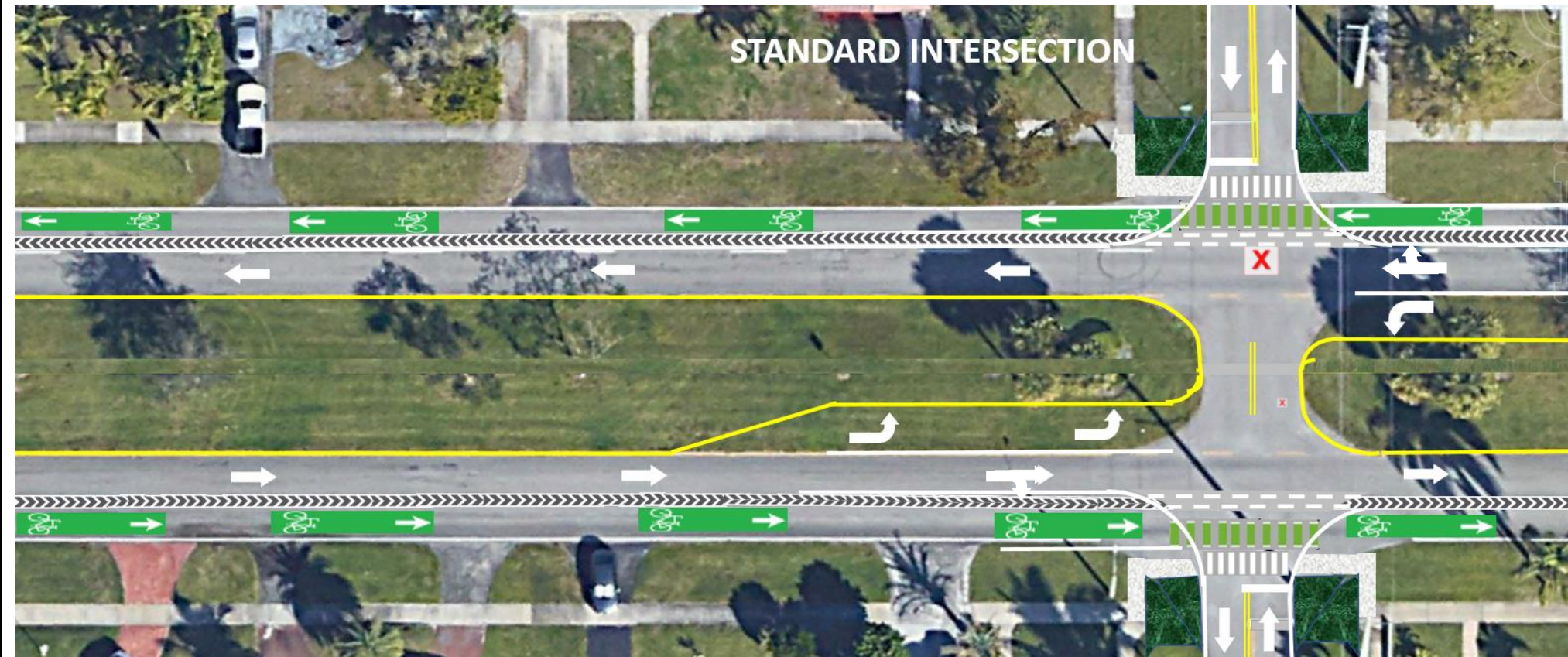
(Two-Way Stop northbound-southbound)
- North 49th Avenue at West Park Road

(Two-Way Stop northbound-southbound)
- North 54th Avenue at West Park Road

(Two-Way Stop northbound-southbound)

The four intersections with this treatment are at the midpoints of the four subsections defined by 4-Way Stop controlled intersections at NW 52nd Ave. and N. 40th Ave., the traffic signal at N. 46th Ave., and the segment endpoints at N. 56th Ave. and North Park Road.

NOTE: See the "Standard Intersection Treatment" schematic on Page 11.



SEGMENT DESCRIPTION

Date:	4/21/2023 (Rev. 02/18/24)	Segment ID No.:	3.7	Speed Limit:	30 mph	Directional Split:	48/52 EB/WB Split
STREET:	W. Park Road	Traffic Count ID No.:	3.7.1 - 8	Posted:	Yes	Existing Daily Volume:	1,762/1,750/1,878/2,063/
From:	N. 56th Avenue	Jurisdiction:	City	(EB and WB Volumes)	2,506/2,667/2,436/2,648 mph	EB+WB Volume:	3,512 to 5,173
To:	N. Park Road	Functional Class:	Collector	85th %ile Speed (Avg):	34/40/43/43/45/42/40/40 (40.9) mph	Average Speed (Avg):	29/34/36/36/38/36/34/35 (34.8) mph
Length:	8,235 feet	Existing TC Devices:	ESFB Signs (4)	Warrant Score:	7/13/15/16/18/18/16/16		

RECOMMENDED ACTION (Continued)

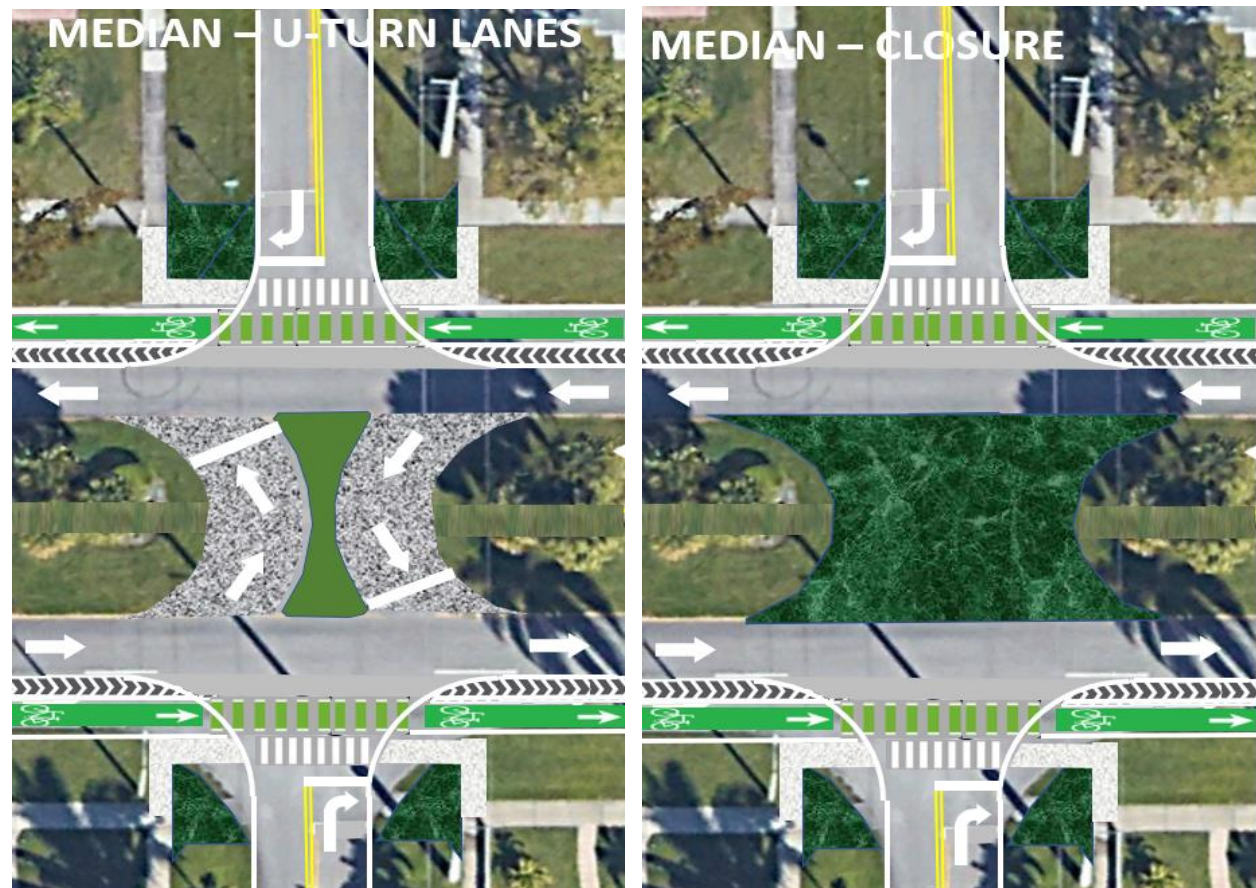
Phase 2 - Intersection Traffic Calming Actions:

C. Remaining Intersection Median Opening Treatments

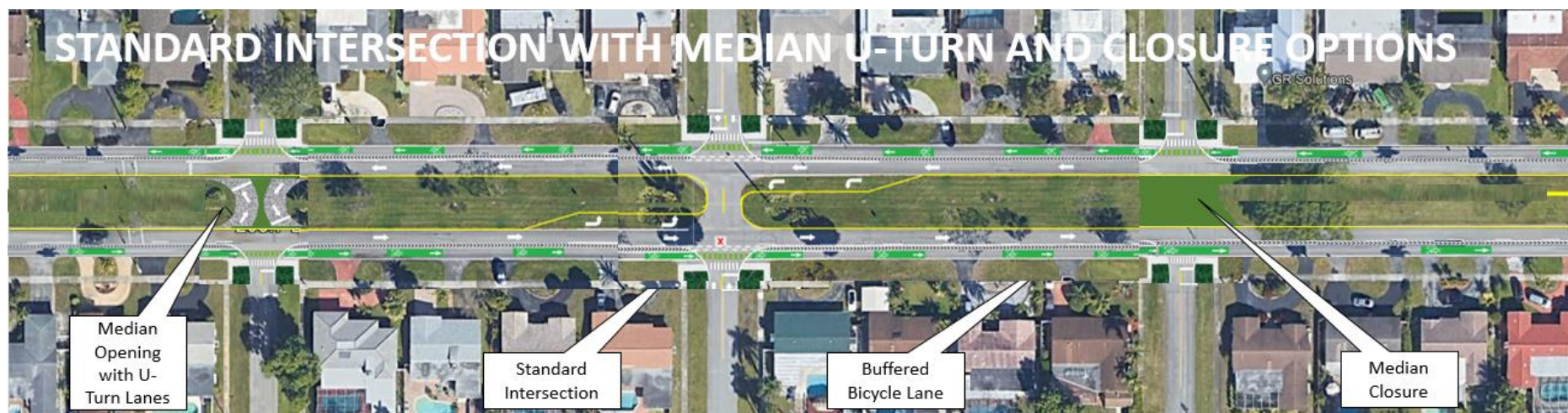
These 16 median opening treatments are intended to reduce or eliminate turning conflicts at the remaining intersections. Affected movements are still possible. For example, where an eastbound-to-northbound left turn is no longer possible, the motorist can proceed downstream to the first U-turn lane treatment, proceed westbound and make a right turn at the target street. A similar movement is possible for left turns off the side streets. Similarly, a northbound through movement can be made by turning right, proceeding to the first U-turn lane, proceeding back west to the target street and making a right turn. The combination of these changes should provide a further calming of traffic along West Park Road.

The proposed actions for these intersections are noted below:

- | | | |
|---|--------------------------------------|--------------------------------------|
| o Median opening east of N. 34th Ave. U-turn lanes | o N. 41st Ave. U-turn lanes | o N. 48th Ave. Median closure |
| o N. 34th Ave. Median closure | o N. 42nd Ave. Median closure | o N. 50th Ave. Median closure |
| o N. 35th Ave. U-turn lanes | o N. 44th Ave. Median closure | o N. 51st Ave. U-turn lanes |
| o N. 36th Ave. Median closure | o N. 45th Ave. U-turn lanes | o N. 53rd Ave. U-turn lanes |
| o N. 38th Ave. Median closure | o N. 47th Ave. U-turn lanes | o N. 55th Ave. U-turn lanes |
| o N. 39th Ave. U-turn lanes | | |



The schematic below shows a proposed compressed intersection with a median closure at the next street to the east, and a median U-turn lanes treatment at the next street to the west.



SEGMENT DESCRIPTION

Date:	4/21/2023 (Rev. 02/18/24)	Segment ID No.:	3.7	Speed Limit:	30 mph	Directional Split:	48/52 EB/WB Split
STREET:	W. Park Road	Traffic Count ID No.:	3.7.1 - 8	Posted:	Yes	EB+WB Volume:	3,512 to 5,173
From:	N. 56th Avenue	Jurisdiction:	City	Existing Daily Volume:	1,762/1,750/1,878/2,063/ (EB and WB Volumes)		
		Functional Class:	Collector	85th %ile Speed (Avg):	2,506/2,667/2,436/2,648 mph	Average Speed (Avg):	29/34/36/36/38/36/34/35 (34.8) mph
To:	N. Park Road	Existing TC Devices:	ESFB Signs (4)				
Length:	8,235 feet	Warrant Score:	7/13/15/16/18/18/16/16				

RECOMMENDED ACTION (Continued)

Phase 2 - Intersection Traffic Calming Actions:

D. Example Roundabout Treatments

Roundabouts are also proposed on Phase 2 - Segment 3.12: N. 46th Ave. (Hollywood Blvd. to Sheridan St.) at Arthur Street and Fillmore Street. Concept schematics for these two locations are shown below as examples of how the buffered bicycle lanes and pedestrian sidewalks would be connected across the roundabout intersection. These same treatments would apply to the geometric layout of the roundabout at West Park Road and N. 46th Ave. as shown on Page 9 of this worksheet. In addition, similar treatments would apply to potential roundabouts at the intersections of West Park Road at N. 37th Ave., N. 40th Ave., and N. 52nd Ave.

