

LEGEND

- INSTALL NEW CONCRETE SIDEWALK PER COS STD PLAN F-102B
- INSTALL CURB RAMP PER COS STD PLAN F-105
- PROPERTY LINE

CONSTRUCTION NOTES

- 1 INSTALL NEW CATCH BASIN TYPE 1 AND 8" DIAM. PIPE AS NECESSARY. CONNECT TO EXISTING MANHOLE WHERE SHOWN.

RIGHT OF WAY LINES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY

Plotted On: May 15, 2023 - 4:12pm

DATE	BY	PROJ	DESCRIPTION	DATE	BY	PROJ	E.F.N.	U.S.N.	FROM	TO	COUNCIL ACCEPT DATE	FROM	TO	ORD. NO.	DATE	FILE NO.
REVISIONS																
AS BUILT																
GRADE ORDINANCE LIST																

NAVDB8 = (OLD CBM ELEV.) - (13.13) AS OF JANUARY, 2000 USE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVDB8)	BENCH MARK LOCATION	NONE GIVEN	CURRENT C.O.S. DESIGN STANDARDS ADOPTED FEB. 2007
NAVDB8 ELE	NONE GIVEN	BAR IS ONE INCH ON ORIGINAL DRAWING	HORIZONTAL PLAN/PROFILE 1" = 20'
CBM NO.	NONE GIVEN	IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	VERTICAL PROFILE ONLY N/A
NAVDB8 DATUM			SCALE



CITY OF SPOKANE, WASHINGTON
 DEPARTMENT OF ENGINEERING SERVICES
 808 WEST SPOKANE FALLS BLVD.
 SPOKANE, WASHINGTON 99201-3343
 (509) 625-6700

**PRELIMINARY
 NOT FOR CONSTRUCTION**

1
 OF 6

PROJECT NAME: SPOKANE TRAFFIC CALMING MASTER PLAN	TYPE OF IMPROVEMENT: TRAFFIC
SEGMENT LIMITS: FREYA STREET AND 44TH AVENUE	CITY PROJECT NUMBER: CITY PLAN NUMBER
PROJECT LIMITS: SOUTHGATE NEIGHBORHOOD	DATE: 03/2023




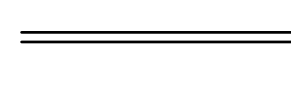
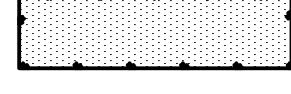

MATCH "SG-R2" 15+88



MATCH "SG-R2" 15+88

MATCH "SG-R2" 21+76

LEGEND

-  INSTALL NEW CONCRETE SIDEWALK PER COS STD PLAN F-102B
-  INSTALL NEW EXTRUDED CURB PER WSDOT STD PLAN F-10.42-00
-  PROPOSED NEW ASPHALT PAVEMENT
-  PROPERTY LINE

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DATE	BY	PROJ	DESCRIPTION	DATE	BY	PROJ	E.F.N.	U.S.N.	FROM	TO	COUNCIL ACCEPT DATE	FROM	TO	ORD. NO.	DATE	FILE NO.
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NAV88 = (OLD CBM ELEV.) - (13.13) AS OF JANUARY, 2000 USE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAV88)	
BENCH MARK LOCATION	NONE GIVEN
NAV88 ELE	NONE GIVEN
CBM NO.	NONE GIVEN
NAV88 DATUM	IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY
HORIZONTAL PLAN/PROFILE	1" = 20'
VERTICAL PROFILE ONLY	N/A
SCALE	

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2
 2 OF 6

PROJECT NAME:	SPOKANE TRAFFIC CALMING MASTER PLAN	
SEGMENT LIMITS:	FREYA STREET 46TH COURT TO PALOUSE HWY	
PROJECT LIMITS:	SOUTHGATE NEIGHBORHOOD	
TYPE OF IMPROVEMENT:	TRAFFIC	
CITY PROJECT NUMBER	CITY PLAN NUMBER	

Plotted On: May 15, 2023 - 4:12pm

MATCH "SG-R2" 21+76


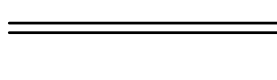
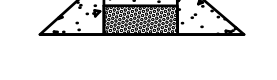



MATCH "SG-R2" 27+66

MATCH "SG-R2" 27+66



LEGEND

-  INSTALL NEW CONCRETE SIDEWALK PER COS STD PLAN F-102B
-  INSTALL NEW CURB PER COS STD PLAN F-106B
-  INSTALL CURB RAMP PER COS STD PLAN F-105
-  PROPERTY LINE

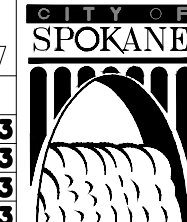
CONSTRUCTION NOTES

- 1 INSTALL NEW CATCH BASIN TYPE 1 AND 8" DIAM. PIPE TO EXISTING MANHOLE AS NECESSARY.

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BENCH MARK LOCATION: NONE GIVEN	BY: KL 03/2023
NAV88 ELE: NONE GIVEN	REVISED: KL 05/2023
CBM NO: NONE GIVEN	CHECKED: SP 03/2023
BAR IS ONE INCH ON ORIGINAL DRAWING	APPROVED: AM 03/2023
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	
SCALE: HORIZONTAL PLAN/PROFILE 1" = 30'	
VERTICAL PROFILE ONLY N/A	
SCALE	



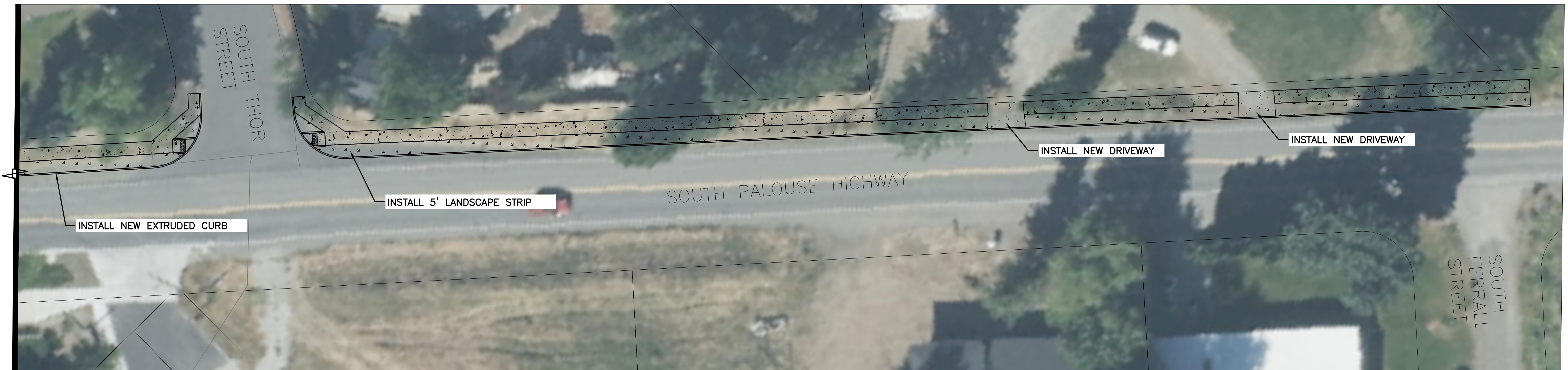
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3
 3 OF 6

PROJECT NAME: SPOKANE TRAFFIC CALMING MASTER PLAN	TYPE OF IMPROVEMENT: TRAFFIC
SEGMENT LIMITS: FREYA STREET 46TH COURT TO PALOUSE HWY	CITY PROJECT NUMBER: CITY PLAN NUMBER
PROJECT LIMITS: SOUTHGATE NEIGHBORHOOD	

Plotted On: May 15, 2023 - 4:12pm



LEGEND

-  INSTALL NEW CONCRETE SIDEWALK PER COS STD PLAN F-102B
-  INSTALL NEW CURB PER COS STD PLAN F-106B
-  INSTALL CURB RAMP PER COS STD PLAN F-105
-  PROPERTY LINE
-  INSTALL LANDSCAPING STRIP

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Plotted On: May 15, 2023 - 4:12pm

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BENCH MARK LOCATION: NONE GIVEN	BY: KL 03/2023	
NAV88 ELE: NONE GIVEN	REVISED: KL 05/2023	
CBM NO: NONE GIVEN	CHECKED: SP 03/2023	
NAV88 DATUM	APPROVED: AM 03/2023	
BAR IS ONE INCH ON ORIGINAL DRAWING	HORIZONTAL PLAN/PROFILE: 1" = 30'	VERTICAL PROFILE ONLY: N/A
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	SCALE	



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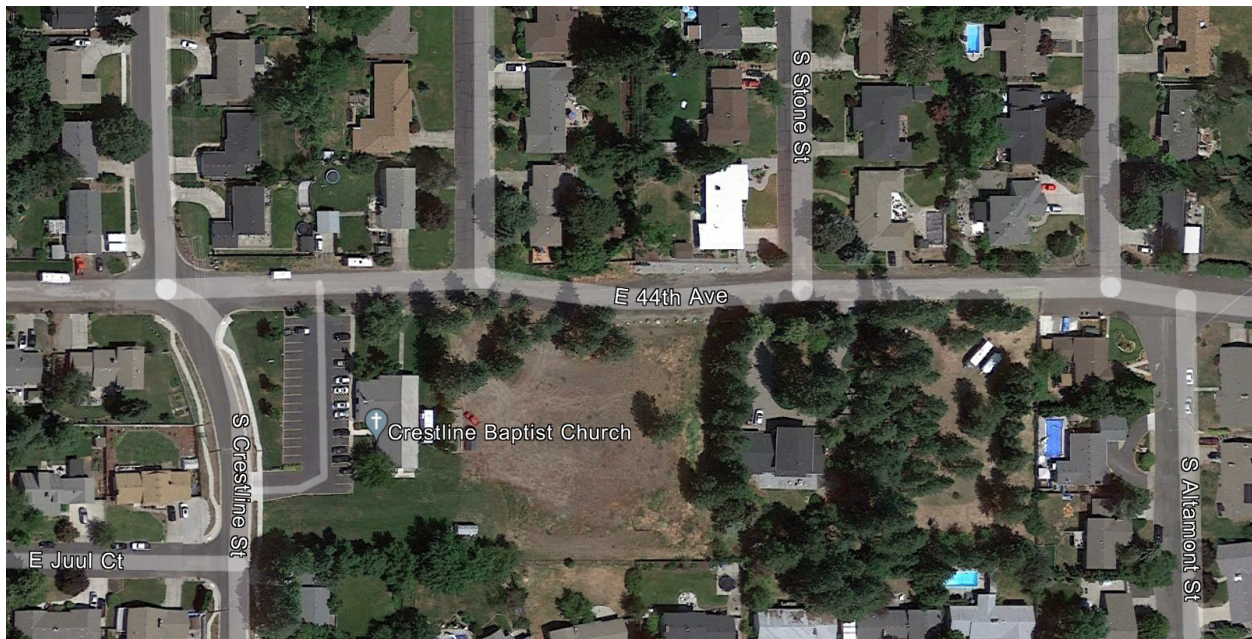
4
4 OF 6

PROJECT NAME: SPOKANE TRAFFIC CALMING MASTER PLAN	TYPE OF IMPROVEMENT: TRAFFIC
SEGMENT LIMITS: PALOUSE HIGHWAY FERRALL STREET TO CLARE VIEW SOUTH	CITY PROJECT NUMBER: CITY PLAN NUMBER
PROJECT LIMITS: SOUTHGATE NEIGHBORHOOD	DATE: 03/2023

Spokane Traffic Calming Master Plan

District:	2
Neighborhood:	Southgate
Project Extent:	44 th Avenue from Crestline Street to Altamont Street
	Estimate: \$198,000

Problem Statement: Residents of the Southgate neighborhood raised concerns over speeding and traffic cut through on 44th Avenue from Crestline Street to Altamont Street (approximately 0.18 miles). The figure below shows the study segment on 44th Street.



44th Ave from Crestline Street to Altamont Street

Traffic Analysis

44th Avenue within the study area is classified as local street with a posted speed limit of 25 miles per hour and a two-lane cross-section. The study segment was recently improved with a paved roadway surface, curbs, and sidewalks on the north side. There are no crossing treatments along the study segment and the nearest protected crossing is located 0.3 miles east of Altamont Street.

The table below shows the 2022 daily traffic volumes and 85th percentile speeds on 44th Avenue between Altamont Street and Cook Street. The daily volume on 44th Street was 843 vehicles west of Altamont Street. The 85th percentile speed was 27 miles per hour (two miles per hour greater than the posted speed limit), indicating there is a moderate speeding concern.

Spokane Traffic Calming Master Plan

2022 Daily Traffic and 85th Percentile Speeds on 44th Avenue

Direction	# Lanes	2022 Estimated Daily Traffic (Vehicles per day) ^a	85 th Percentile Speed (mph)	Posted Speed (mph)
44 th Avenue between Altamont Street and Cook Street (east of Altamont)				
EB	1	363	27	
WB	1	480	27	25
Both Dir.	2	843	27	

^a Traffic data collected in Nov 2022.

There are no crashes recorded on the study corridor over the last five years from 2017 to 2021.

Recommended Solution:

The recent count and speed data shows 44th Avenue serves a moderate level of traffic with some speeding concerns. 44th Avenue provides a direct east-west connection between the neighborhood and commercial designations on Regal Street to the east. The addition of traffic calming treatments are recommended to lower driver speeds and improve overall safety for all users.

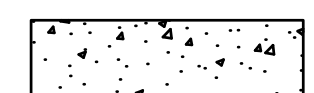
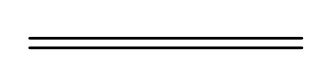
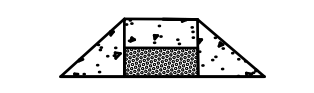
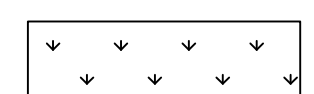
The installation of curb extensions is recommended on 44th Avenue at Cook Street to narrow the roadway. Curb extensions are expected to decrease the 85th percentile speed by three miles per hour¹.

The construction of sidewalks with a landscape strip on the north side of 44th Avenue between Cook Street and Altamont Street is recommended to fill in a sidewalk gap and narrow the roadway for speed management.

¹ *Engineering Speed Management Countermeasures: A Desktop Reference of Potential Effectiveness in Reducing Speed.* Federal Highway Administration. July 2014.



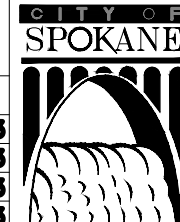
LEGEND

-  INSTALL NEW CONCRETE SIDEWALK PER COS STD PLAN F-102B
-  INSTALL NEW CURB PER COS STD PLAN F-106B
-  INSTALL CURB RAMP PER COS STD PLAN F-105
-  PROPERTY LINE
-  INSTALL LANDSCAPING STRIP

RIGHT OF WAY LINES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY

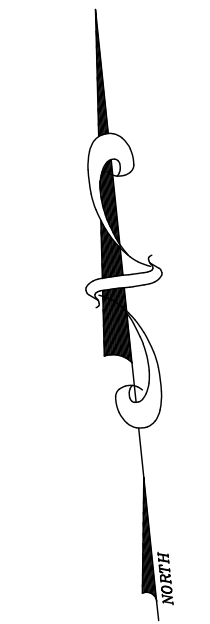
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5 OF 6

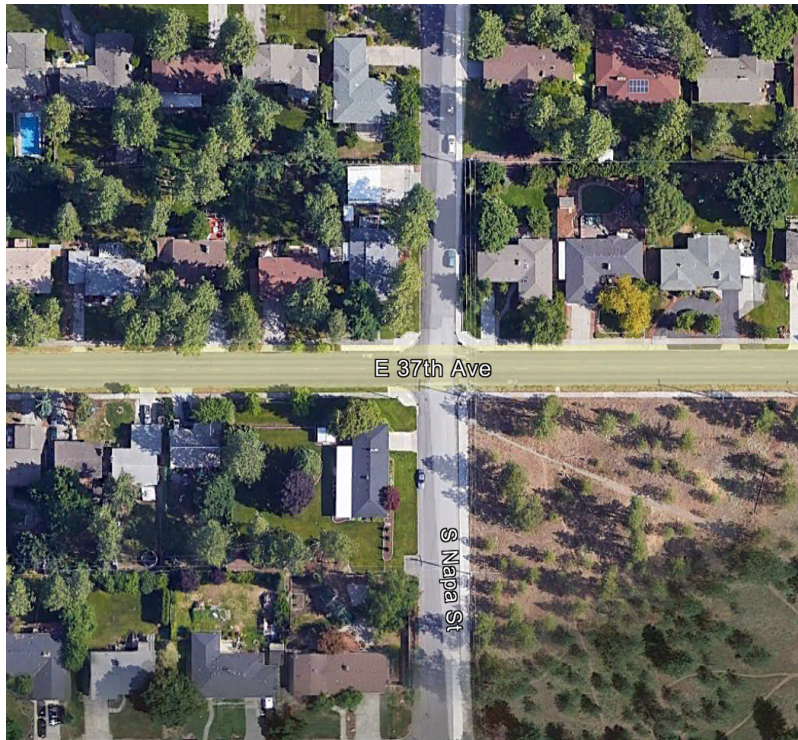
PROJECT NAME: SPOKANE TRAFFIC CALMING MASTER PLAN	TYPE OF IMPROVEMENT: TRAFFIC
SEGMENT LIMITS: 44TH AVENUE ALTAMONT STREET TO COOK STREET	CITY PROJECT NUMBER: CITY PLAN NUMBER
PROJECT LIMITS: SOUTHGATE NEIGHBORHOOD	EFN: TWP/CDM

Plotted On: May 15, 2023 - 4:12pm

Spokane Traffic Calming Master Plan

District:	2
Neighborhood:	Southgate
Project Extent:	37 th Avenue and Napa Street Intersection
	Estimate: \$206,000

Problem Statement: Residents of the Southgate neighborhood raised concerns over pedestrian crossing safety, especially difficulties crossing 37th Avenue at Napa Street. Figure below shows the study intersection.



37th Avenue and Napa Street Intersection

Traffic Analysis

37th Avenue within the study area is classified as minor arterial with a posted speed limit of 30 miles per hour and provides two lanes. Napa Street is classified as local street with a posted speed limit of 25 miles per hour and provides two lanes with on-street parking. Sidewalks within the study area are mostly completed, except for the southbound direction on the north and south legs. Marked crossings are provided on the east leg of the intersection with warning signs. The intersection approaches do not have marked bike lanes or shoulder, however a bike sharrow marking is provided along 37th Avenue (east and west legs). The intersection is controlled by two-way-stop on the Napa Street approaches. Transit Route 43 travels on 37th Avenue and has bus stops one block to the east and west of Napa Street.

Spokane Traffic Calming Master Plan

The table below shows the estimated 2022 daily traffic volumes and 85th percentile speeds on the approaches of study intersection. The highest daily volume on 37th Avenue was 6,992 vehicles east of Helena Street. The highest 85th percentile speed was 36 miles per hour (six miles per hour greater than the posted speed limit). The data indicates there is a moderate speeding issue on 37th Avenue.

2022 Estimated Daily Traffic and 85th Percentile Speeds on 37th Avenue and 37th Avenue

Direction	# Lanes	2022 Estimated Daily Traffic (Vehicles per day)	85 th Percentile Speed (mph)	Posted Speed (mph)
37 th Avenue East of Helena Street ^a				
EB	1	3,482	36	30
WB	1	3,510		
Both Dir.	2	6,992		
Napa Street South of 39 th Street ^b				
NB	1	274	27	25
SB	1	243		
Both Dir.	2	517		

^a Traffic data collected in April 2018. Traffic volumes were grown at a 1.0% annual growth rate, to estimate 2022 traffic conditions.

^b Traffic data collected in May 2017. Traffic volumes were grown at a 1.0% annual growth rate, to estimate 2022 traffic conditions.

No crashes were recorded at the intersection over the past five years from 2017 to 2021. The need for enhanced pedestrian crossing treatments on 37th Avenue was analyzed at the intersection based on NCHRP Report 562. Based on the findings, active or enhanced is the preferred treatment if there are 20 or more pedestrian crossings during the peak hour. Although pedestrian data is not available, it is assumed the 20 or more pedestrian crossing threshold is met due to the surrounding urban neighborhoods, nearby park, and adjacent bus stops.

Recommended Solution:

To increase pedestrian safety and address community concerns, the installation of a rectangular rapid flashing beacon (RRFB) pedestrian crossing is recommended given the traffic volumes and speeds on 37th Avenue. The RRFB should be located on the east leg crossing 37th Avenue where the existing marked crosswalk is located. The roadway width and lack of on-street parking does not provide an opportunity to install curb extensions with the crossing.



LEGEND

- PROPERTY LINE
- PROPOSED RRFB PEDESTAL LOCATION



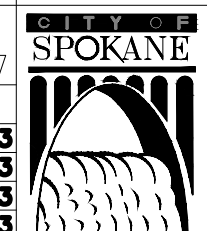
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6
6 OF 6

RIGHT OF WAY LINES ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY

DATE	BY	PROJ	DESCRIPTION	DATE	BY	PROJ	E.F.N. / U.S.N.	FROM	TO	COUNCIL ACCEPT DATE	FROM	TO	ORD. NO.	DATE	FILE NO.
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BENCH MARK LOCATION	NONE GIVEN		
NAV88 ELE	NONE GIVEN	BAR IS ONE INCH ON ORIGINAL DRAWING	HORIZONTAL PLAN/PROFILE 1" = 10'
CBM NO.	NONE GIVEN	IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	VERTICAL PROFILE ONLY N/A
NAV88 DATUM	SCALE		



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PROJECT NAME: SPOKANE TRAFFIC CALMING MASTER PLAN		TYPE OF IMPROVEMENT: TRAFFIC	
SEGMENT LIMITS: 37TH AVENUE AND NAPA STREET		CITY PROJECT NUMBER	CITY PLAN NUMBER
PROJECT LIMITS: SOUTHGATE NEIGHBORHOOD		EPA: TWP/DC/0000	

Plotted On May 15, 2023 - 4:12pm