Whipple Consulting Engineers, Inc.

Updated
August 29, 2023
W.O. No. 2022-3345

Parcel No. 25116.0077

City of Spokane
Department of Engineering Services
801 W. Spokane Falls Boulevard
Spokane, WA 99201

Attn: Inga Note, P.E

Re: **Proposed Red Band Binding Site Plan (BSP)**
1620 N River Ridge Blvd, Spokane, WA
Trip Generation and Distribution Letter

Dear Inga,

This trip generation and distribution letter has been updated to describe the proposed changes in access to the project.

The purpose of this document is to provide a Trip Generation and Distribution Letter (TGDL) for the proposed Red Band BSP. This letter will establish the anticipated trip generation and distribution for the development as shown on Figure 2, Preliminary Site Plan. This report will follow the standards for traffic letters as required by the City of Spokane and the Institute of Transportation Engineers.

PROJECT DESCRIPTION

Phases 1 and 2 of this project proposed to develop a 96-unit apartment complex within four (4) 3-story buildings. The project proposes to develop a 9.12 acre +/- portion of a parcel totaling 13.05 acres +/- into a 168-unit apartment and 40-unit townhome complex within fourteen (14) additional buildings (7 apartment and 7 townhome buildings). This project is currently a vacant large lot split zoned as Residential High-Density and Community Business, with trees, shrubs, natural grasses, and weeds. The property is located at 1620 N River Ridge Blvd in the City of Spokane. The project proposes to be accessed via River Ridge Boulevard and Whistalks Way, please see Figure 3 & 4 for the proposed turn restrictions of each Whistalks Way access. The expected build out year is 2023.

VICINITY / AERIAL VIEW OF SITE

The project site is currently split zoned as Residential High Density and Community Business. The surrounding area is zoned as Residential High Density, Residential Single Family, and Residential Multifamily. The site lies in a portion of the SW ¼ of Section 11, T.25N., R.42E., W.M. within Spokane Valley. A vicinity map is included as Figure 1 and a preliminary copy of the site plan is included as Figure 2, please see the Appendix. The parcel number for the site is 25116.0077. To the north of the site is the Spokane Community College. To the east and west are residential and undeveloped land uses. To the south of the site is residential land uses.

TRIP GENERATION AND DISTRIBUTION

Trip Types

The proposed land use for the project is residential. ITE has developed data regarding various trip types that all developments experience. These are found in several places, however, for this analysis the *Trip Generation Manual 11th Edition* as well as the *Trip Generation Handbook* were used to develop the criteria for this analysis.

Generally, all existing and proposed developments will be made up of one or more of the following trip types: new (destination) trips, pass-by trips, diverted trips, and shared (internal trips). In order to better understand the trip types available for land access a description of each specific trip type follows.

New (Destination) Trips - These types of trips occur only to access a specific land use such as a new retail development or a new residential subdivision. These types of trips will travel to and from the new site and a single other destination such as home or work. This is the only trip type that will result in a net increase in the total amount of traffic within the study area. The reason primarily is that these trips represent planned trips to a specific destination that never took trips to that part of the city prior to the development being constructed and occupied. This project will develop new trips.

Pass-by Trips - These trips represent vehicles which currently use adjacent roadways providing primary access to new land uses or projects and are trips of convenience. These trips, however, have an ultimate destination other than the project in question. They should be viewed as customers who stop in on their way home from work. An example would be on payday, where an individual generally drives by their bank every day without stopping, except on payday. On that day, this driver would drive into the bank, perform the prerequisite banking, and then continue home. In this example, the trip started from work with a destination of home, however on the way, the driver stopped at the grocery store/latte stand and/or bank directly adjacent to their path. Pass-by trips are most always associated with commercial/retail types of development along major roadways. Therefore, for this project pass-by trips will not be considered.

Diverted (Linked) Trips - These trips occur when a vehicle takes a different route than normal to access a specific facility. Diverted trips are similar to pass-by trips, but diverted trips occur from roadways, which do not provide direct access to the site. Instead, one or more streets must be utilized to get to and from the site. For this project, because of the many different routes that can be taken to and from the site, we believe that these would be difficult to track and verify. Therefore, no diverted trips were acknowledged for this analysis.

Shared Trips - These are trips which occur on the site where a vehicle/consumer will stop at more than one place on the site. For example, someone destined for a certain shop at a commercial site may stop at a bank just before or after they visit the shop that they went to the

site to visit. This trip type reduces the number of new trips generated on the public road system and is most used for commercial developments. Determining these trip types is more difficult to quantify and without specific guidance are usually determined by engineering judgment on a project-by-project basis. Although some shared trips between land uses may occur with this project, there is no supporting data to justify a large, shared trip reduction. Therefore, to be conservative no shared trips were credited for this project.

Trip Generation Characteristics for the Proposed Project

As noted earlier, trip generation rates are determined by use of the *Trip Generation Manual, 11th Edition* published by the Institute of Transportation Engineers (ITE) to determine the number of trips generated during the PM Peak Hour. The purpose of the *Trip Generation Manual* is to compile and quantify empirical trip generation rates for specific land uses within the US, UK, and Canada.

Proposed Land Uses

For the proposed 208 units, Land Use Code LUC#220 Multifamily Housing (Low Rise) was used to establish the number of potential trips generated by the proposed land use. Based upon Section 4.4 in Trip Generation Handbook, the average rate was used to calculate new project trips. The fitted curve equation and the anticipated number of AM & PM peak hour trips for the proposed land use are shown on Table 1.

Table 1- Trip Generation Rates for LUC # 220 Multifamily Housing (Low-Rise)

No. of Dwelling Units	AM Peak Hour			PM Peak Hour		
	Vol. per Fitted Curve	Directional Distribution		Vol. per Fitted Curve	Directional Distribution	
		24% In	76% Out		62% In	38% Out
208	101	25	76	123	76	47

Average Daily Trip Ends (ADT)		
Units	Fitted Curve	ADT
208	-	1,409

Fitted Curve Equations:
AM: T = 0.35(x) + 28.13
PM: T = 0.42(x) + 34.78
ADT: T = 6.41(x) + 75.31

As shown on Table 1, the proposed land use is anticipated to generate 101 trips in the AM peak hour with 25 trips entering the site and 76 trips exiting the site. In the PM peak hour, the proposed land use is anticipated to generate a total of 123 trips, with 76 trips entering the site and 47 trips exiting the site. The proposed development is anticipated to generate a total of 1,409 average daily trip ends to/from the site.

TRIP DISTRIBUTION

It is anticipated that the project site is accessed via River Ridge Boulevard and Whistalks Way. The roads anticipated to be used by the additional trips generated by the development are listed below.

River Ridge Boulevard is generally a north/south, two-way, 2-lane lane, local access road that extends south from Whistalks Way through Sand Ridge Avenue, Brook Terrace Street, and Inland Court before intersecting with Government Way. River Ridge Boulevard serves primarily residential and institutional land uses. The speed limit on River Ridge Boulevard is 25 MPH.

Whistalks Way is generally an east-west, two-way, 4-lane Major Arterial that extends east from Government Way through River Ridge Boulevard and Elliott Drive before transitioning into Meenach Drive as it crosses over Spokane River. Whistalks Way Serves generally residential and institutional land uses. The speed limit within the study area is posted at 35 MPH.

Government Way is a north/south, two-way, 2- & 4-lane major arterial that extends north from Sunset Boulevard through Hartson Avenue, Riverside Avenue, Greenwood Road, River Ridge Boulevard, Whistalks Way, and Houston Road before transitioning into Trails Road at the Centennial Trail. Government Way serves residential, institutional, and recreational land uses. The posted speed limit on Government Way within the study area is 35 MPH.

Considering many factors such as the surrounding transportation facilities, typical commuting patterns, and existing development in the area, traffic for the proposed development is anticipated as follows: 55% of the trips are anticipated to go to/from the east via Whistalks Way, 15% of the trips are anticipated to go to/from the north via Government Way, and 30% of the trips are anticipated to go/to from the south via Government Way. Please see Figures 3 & 4, AM & PM Trip Distribution.

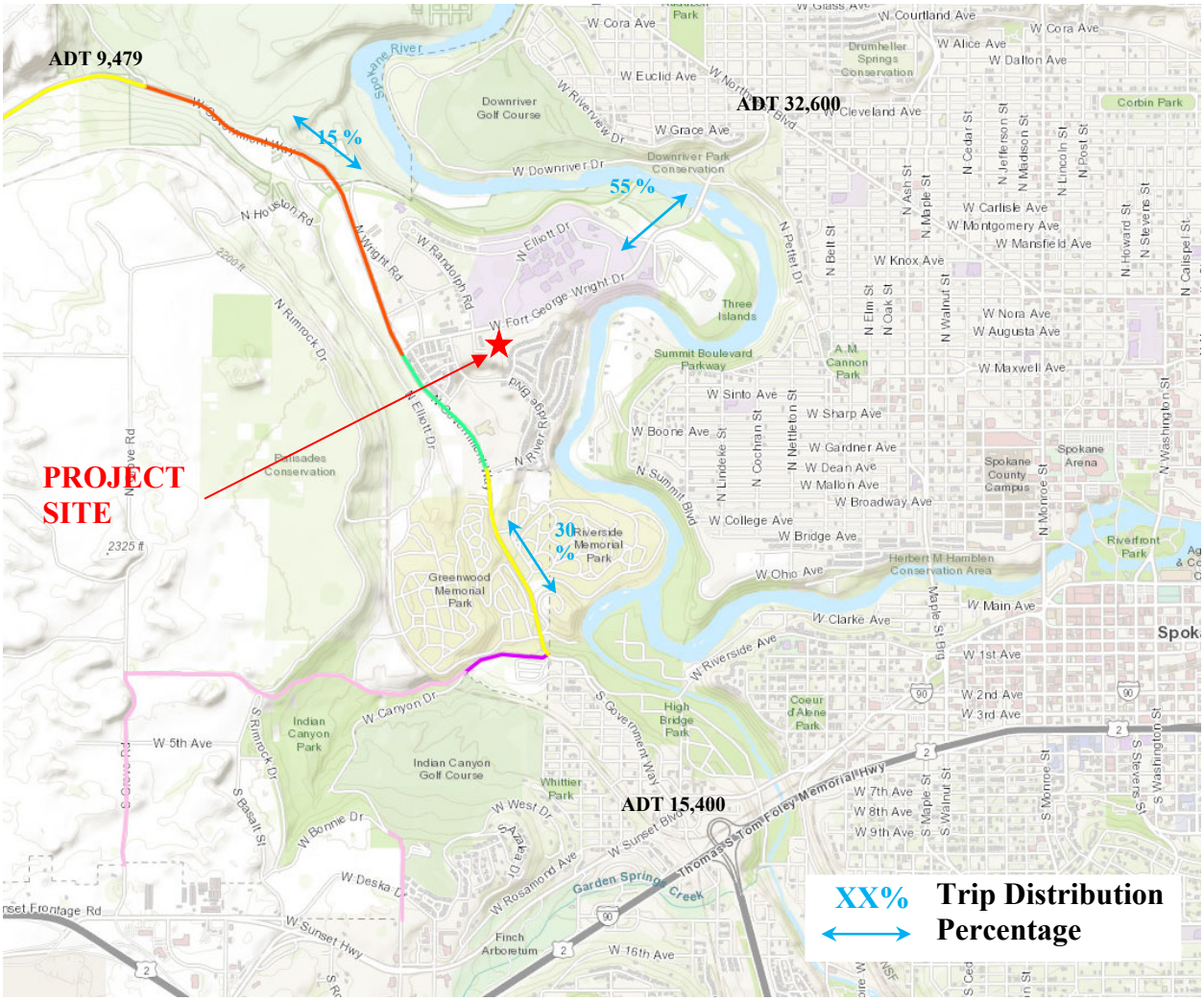
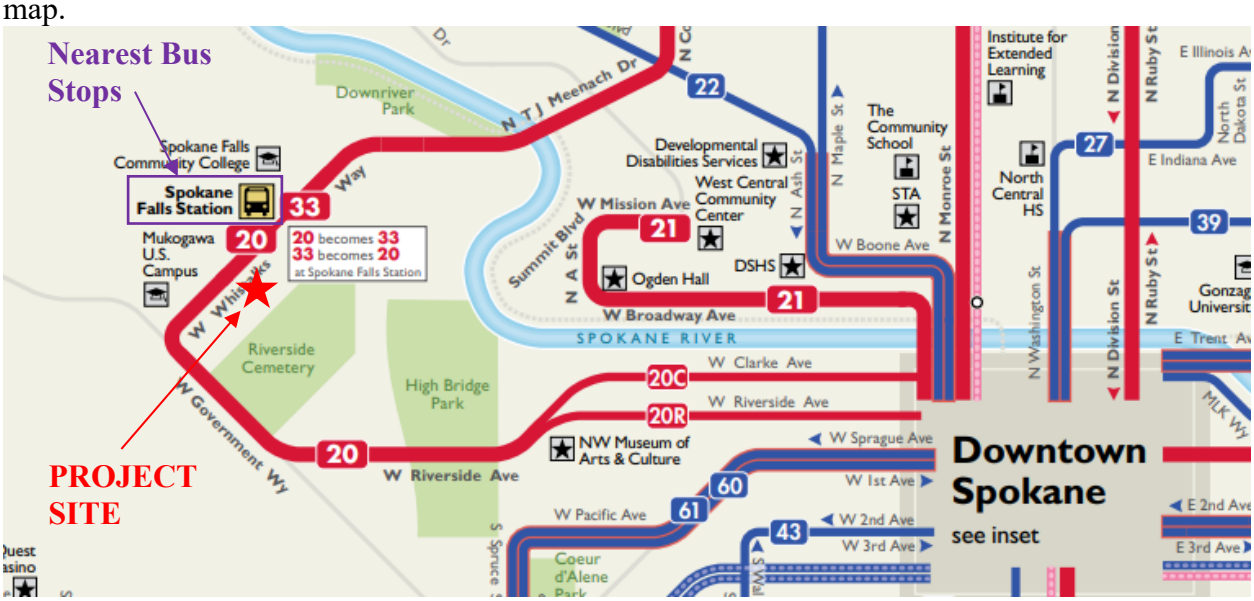


Exhibit 1: Trip Distribution Percentage (Source: COS and Spokane County ADT Counts)

Existing Transit System

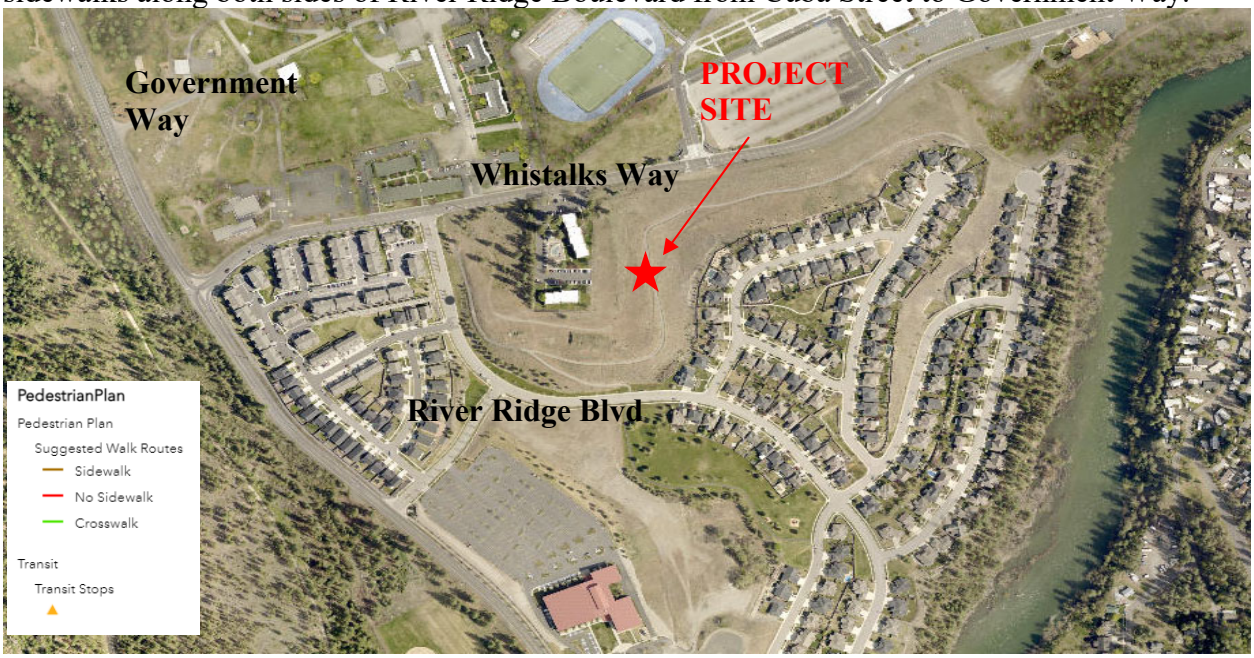
The existing bus route nearest the project site is Route 20(33). The nearest bus stop from the project site to the route is within 200 ft +/- at Whistalks Way & Randolph Road. The bus stop can be accessed by pedestrian sidewalks along Whistalks Way. Please see the attached route map.



Source: Spokane Transit Authority

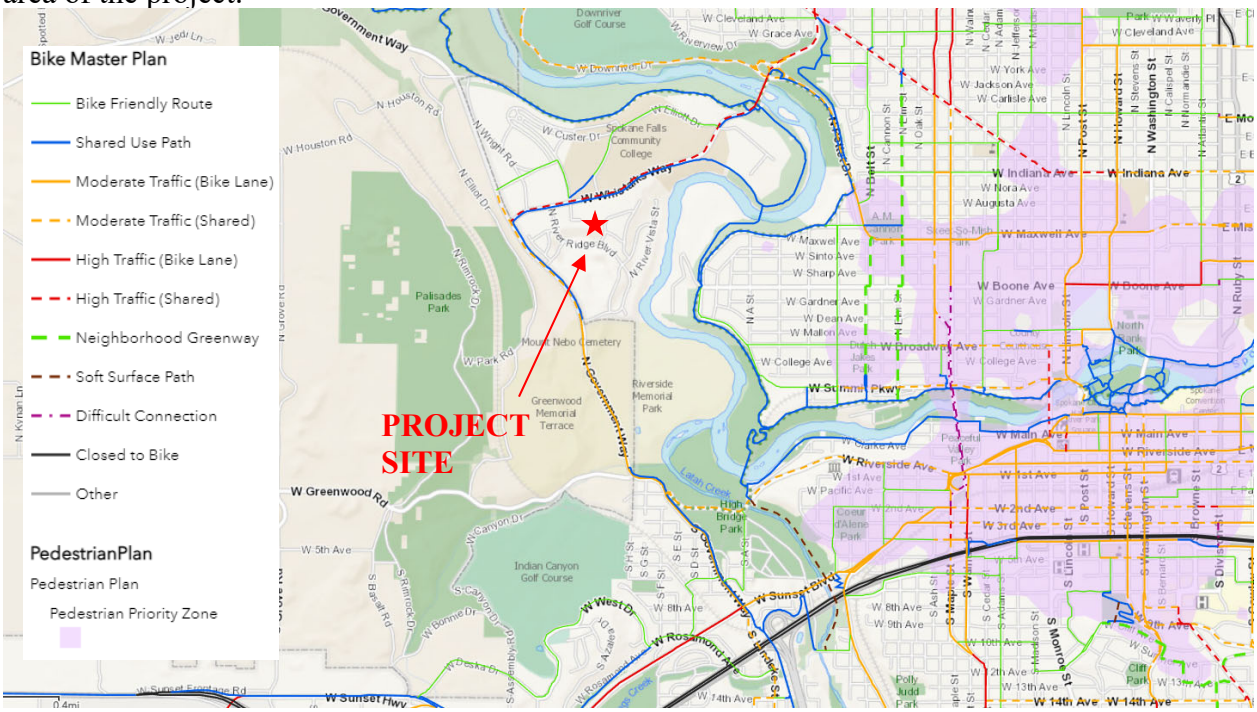
Existing Pedestrian System

There are sidewalks along the north side of Whistalks Way from Government Way to Elliott Drive and for south side from Government Way to River Ridge Boulevard. There are also sidewalks along both sides of River Ridge Boulevard from Cuba Street to Government Way.



Existing Bike System

There is currently a shared use bike route along Whistalks Way and Government Way within the area of the project.



Source: City of Spokane Bike Plans

TRAFFIC IMPACT FEE

The City of Spokane municipal code has established transportation impact fees under Spokane Municipal Code Title 17 Chapter 17D.030. The proposed project is within the Northwest Service Area and as such is subject to the current Impact Fee Schedule. Table 2 calculates the anticipated impact fee for the proposed project.

Table 2 –Proposed Land Use Impact Fee

Land Use	LUC	Quantity	Unit of Measure	Fee per unit	Fee
LUC # 221 Multi-Family 3-10 level	221	208	dwelling	$393.27	$81,800.16

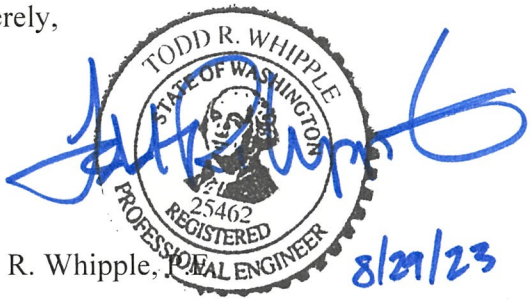
As shown in Table 2, the proposed project under the current fee schedule is anticipated to generate an impact fee of $81,800.16.

Conclusions and Recommendations

It is anticipated that the project would generate 101 AM peak hour trips and 123 PM peak hour trips. Based upon the number of anticipated trips, and the distribution of those trips, we believe that the proposed project will have a minimal impact on the transportation system. Therefore, we recommend that the project complete frontage improvements and be allowed to move forward without further traffic analysis.

Should you have any questions related to this document please do not hesitate to call at (509) 893-2617.

Sincerely,



8/29/23

Todd R. Whipple, P.E.

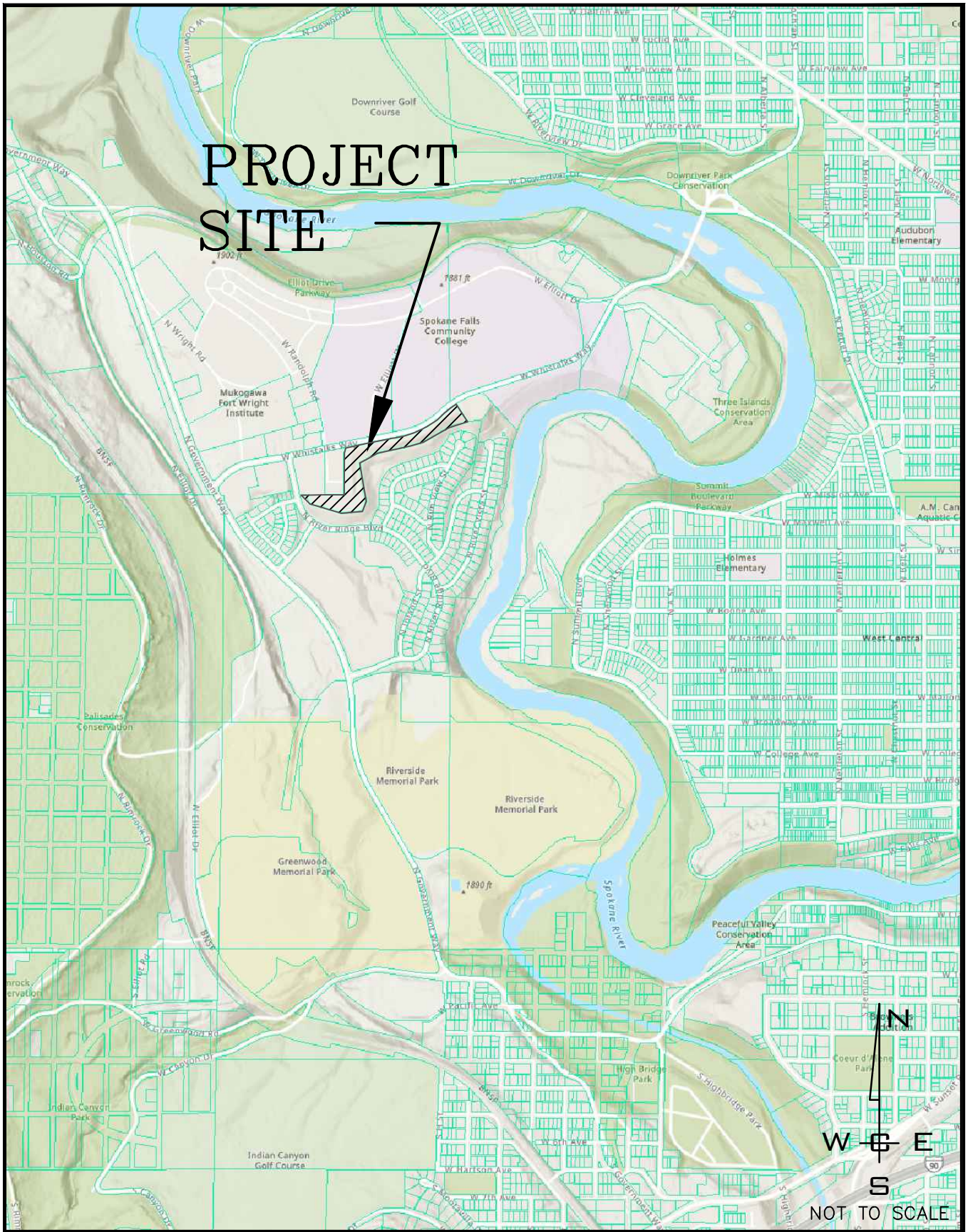
TRW/MTR

encl. Appendix (Vicinity Map, Aerial View of Site, Trip Dist %)

cc: Sponsor
File

APPENDIX

1. Vicinity Map
2. Preliminary Site Plan
3. AM Existing Trip Distribution
4. PM Existing Trip Distribution



PROJ #: 22-3345 DATE: 02/22/23 DRAWN: MTR APPROVED: TRW	TRIP GENERATION & DISTRIBUTION LETTER **RED BAND SHORT PLAT** 1620 N. RIVER RIDGE BOULEVARD SPOKANE, WASHINGTON	WCE WHIPPLE CONSULTING ENGINEERS CIVIL AND TRANSPORTATION ENGINEERING 21 S PINES ROAD SPOKANE VALLEY, WASHINGTON 99206 PH: 509-893-2617 FAX: 509-926-0227
FIGURE 1	VICINITY MAP	

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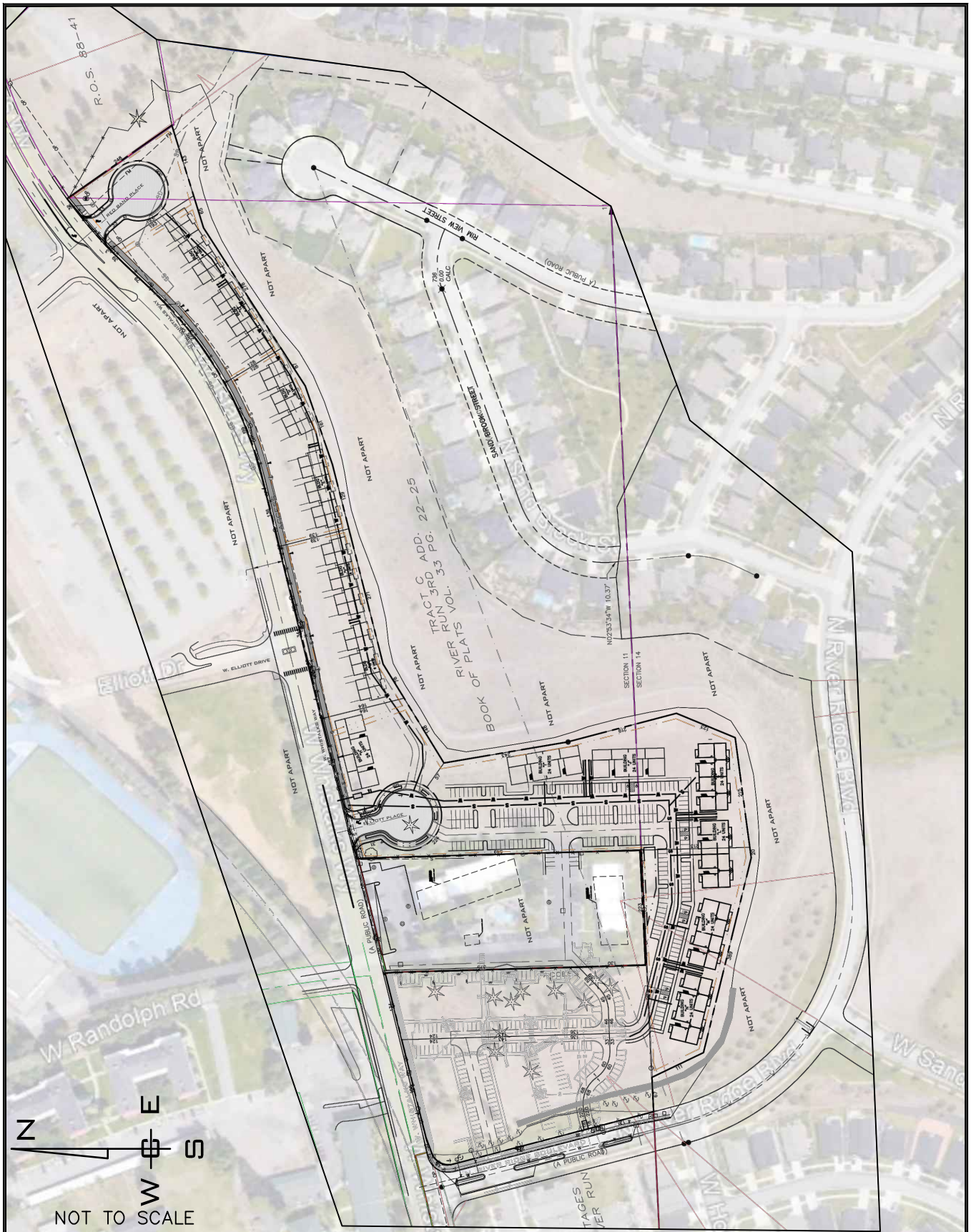

PROJ #: 22-3345 DATE: 08/25/23 DRAWN: MTR APPROVED: TRW	TRIP GENERATION & DISTRIBUTION LETTER **RED BAND SHORT PLAT** 1620 N. RIVER RIDGE BOULEVARD SPOKANE, WASHINGTON	WCE WHIPPLE CONSULTING ENGINEERS CIVIL AND TRANSPORTATION ENGINEERING 21 S PINES ROAD SPOKANE VALLEY, WASHINGTON 99206 PH: 509-893-2617 FAX: 509-926-0227
FIGURE 2	**PRELIMINARY SITE PLAN**	

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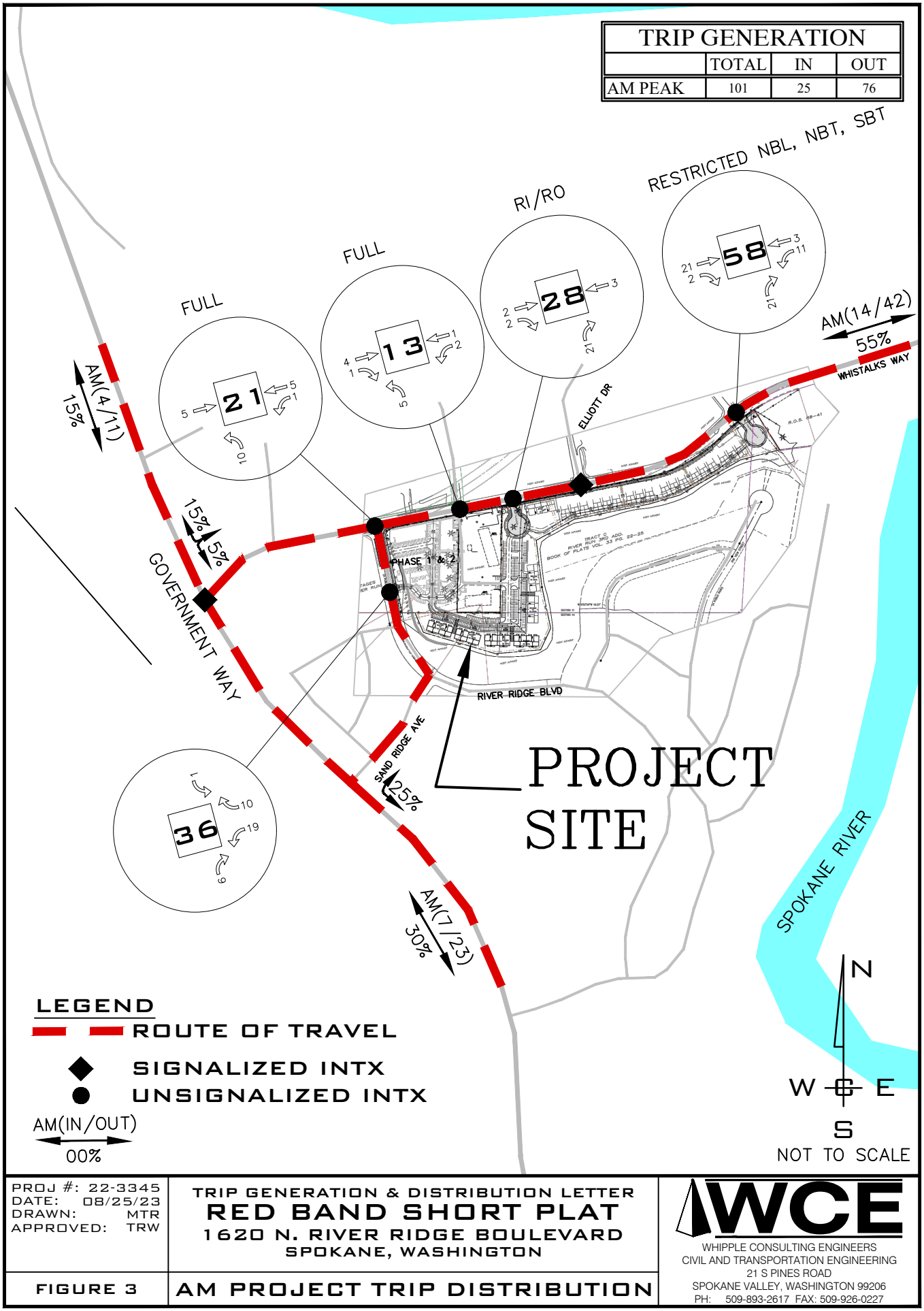

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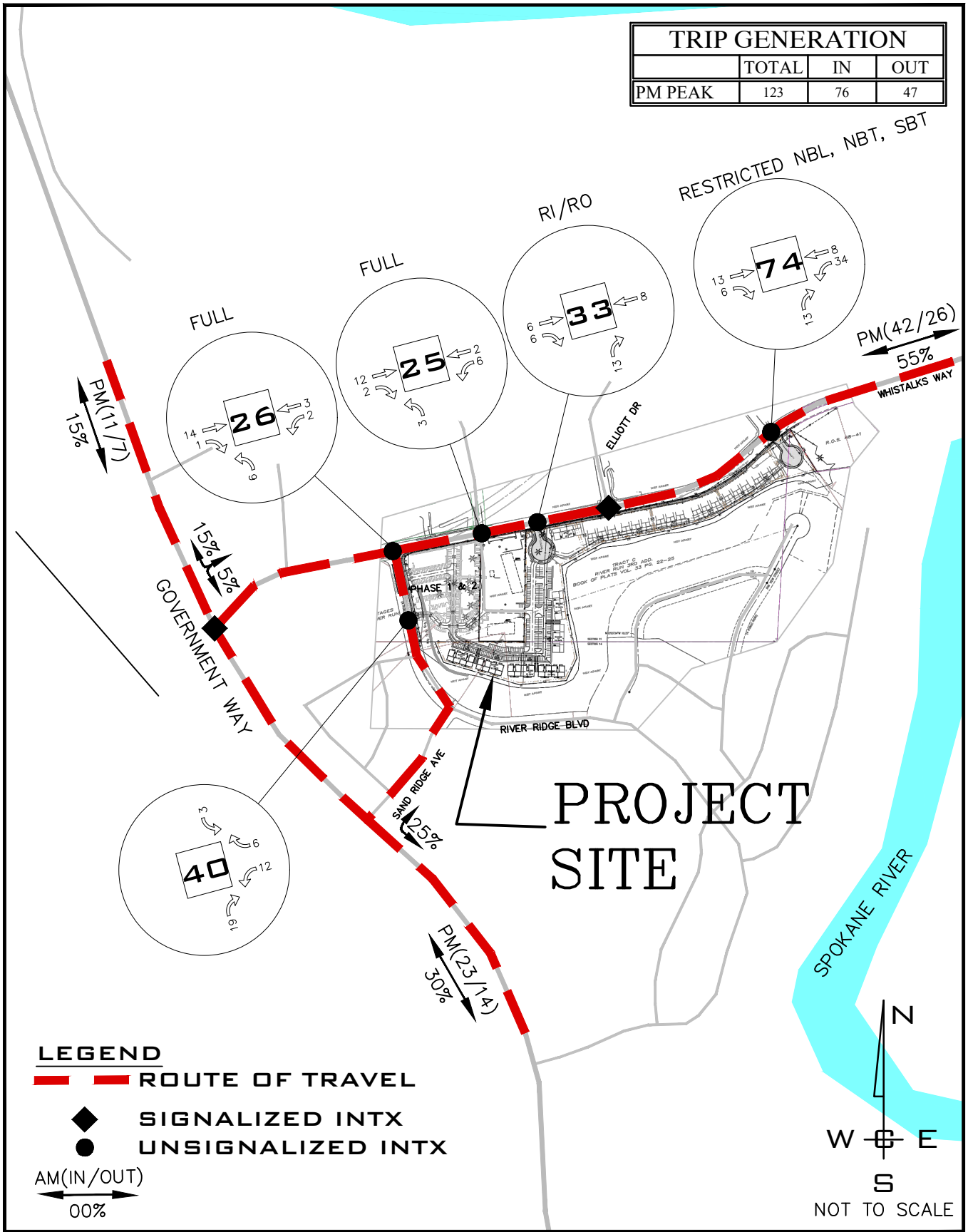
APPROVED: TRW

TRIP GENERATION & DISTRIBUTION LETTER
RED BAND SHORT PLAT
1620 N. RIVER RIDGE BOULEVARD
SPOKANE, WASHINGTON

FIGURE 3

AM PROJECT TRIP DISTRIBUTION

WCE
WHIPPLE CONSULTING ENGINEERS
CIVIL AND TRANSPORTATION ENGINEERING
21 S PINES ROAD
SPOKANE VALLEY, WASHINGTON 99206
PH: 509-893-2617 FAX: 509-926-0227



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TRIP GENERATION & DISTRIBUTION LETTER
RED BAND SHORT PLAT
1620 N. RIVER RIDGE BOULEVARD
SPOKANE, WASHINGTON

FIGURE 4

PM PROJECT TRIP DISTRIBUTION

WCE
WHIPPLE CONSULTING ENGINEERS
CIVIL AND TRANSPORTATION ENGINEERING
21 S PINES ROAD
SPOKANE VALLEY, WASHINGTON 99206
PH: 509-893-2617 FAX: 509-926-0227