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TECHNICAL MEMORANDUM

Date: August 8, 2022

To: Kamran Benji, Blue Marquise Investments, LLC, and Russell Pierce, RDP Development, Inc.

From: Jake Gusman, PE, and Evie Croft, River Focus, Inc.

RE: CEQA Environmental Checklist Question X(c) (i, ii, and iv) – Offsite Analysis Mapes/Trumble Warehouse, City of Perris

This memo has been prepared by River Focus, Inc. at the request of Blue Arch Investments. The purpose of this memo is to address the offsite portions of Question X(c) (i, ii, and iv) of the CEQA Environmental Checklist in Appendix G of the CEQA Guidelines for the proposed Mapes and Trumble Industrial Project (Project) located in the City of Perris, within Riverside County.

Question X(c) (i, ii, and iv) of the CEQA Environmental Checklist in Appendix G of the CEQA Guidelines states the following:

> *"Would the project…Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*
>
> *i) Result in a substantial erosion or siltation on- or off-site;*
>
> *ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; …*
>
> *iv) Impede or redirect flood flows?"*

River Focus addresses the above questions as they pertain to the offsite impacts of the project in the following sections.

X(c)(i). Result in substantial erosion or siltation on- or off-site;

The proposed development will not result in substantial erosion or siltation offsite. Existing offsite drainage patterns will be maintained. No onsite runoff will be discharged offsite undetained. All onsite flows will be captured, conveyed, and released offsite at or below existing flow rates with the use of catch basins and an underground detention system.

No construction activities will occur offsite. Clearing, grubbing, and grading of existing vegetation or topsoil will only occur onsite, within the proposed limits of grading. The project will adhere to all local, state, and federal regulations for temporary and permanent grading, erosion, and sediment control. Offsite flow patterns will not be altered by onsite flows.

X(c)(ii). Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

The proposed development will not increase the rate or amount of surface runoff offsite in a way that would result in flooding for the following reasons:

- Existing offsite drainage patterns will be maintained.
- No onsite runoff will be discharged offsite undetained.
- All onsite flows will be captured, conveyed, and released offsite at or below existing flow rates with the use of catch basins and an underground detention system.
- No work will be done within a regulated FEMA floodway.
- The Site is located within an ineffective flow area (IEFA) (See discussion under Section "iv. Impede or redirect flood flows?")

X(c)(iv). Impede or redirect flood flows?

As shown in Figure 1, the project site is in an area of the floodplain known as an ineffective flow area (IEFA). In this IEFA, the floodplain is a result of backwater from the main San Jacinto River floodplain, which means that the floodwaters in this area are ponded and are not contributing to the active flow in the main channel. In addition to the site being on the outer limits of the floodplain, the Interstate 215 freeway is approximately 15-ft high in this area and blocks all active flood flows from where the project site is located.

Based on the one-dimensional (1-D), steady flow hydraulic model used to develop the FEMA floodplain and floodway, any fill material placed within an IEFA will have zero impact on computed flood elevations on or offsite at the project area, including upstream and downstream of the project. Therefore, the project will have no adverse impact on adjacent properties, nor will it impede or redirect flows offsite.

In addition, the effective FEMA Flood Insurance Study (FIS) shows that the overall San Jacinto River floodplain, specifically between cross sections AN and AR, has a constant base flood elevation of 1,420.1 ft (the project is located between cross sections AQ and AR). Not only is the Site in an IEFA, but the overall floodplain is essentially ponded in this area with no measurable change in computed flood elevation, as shown in Figure 2.

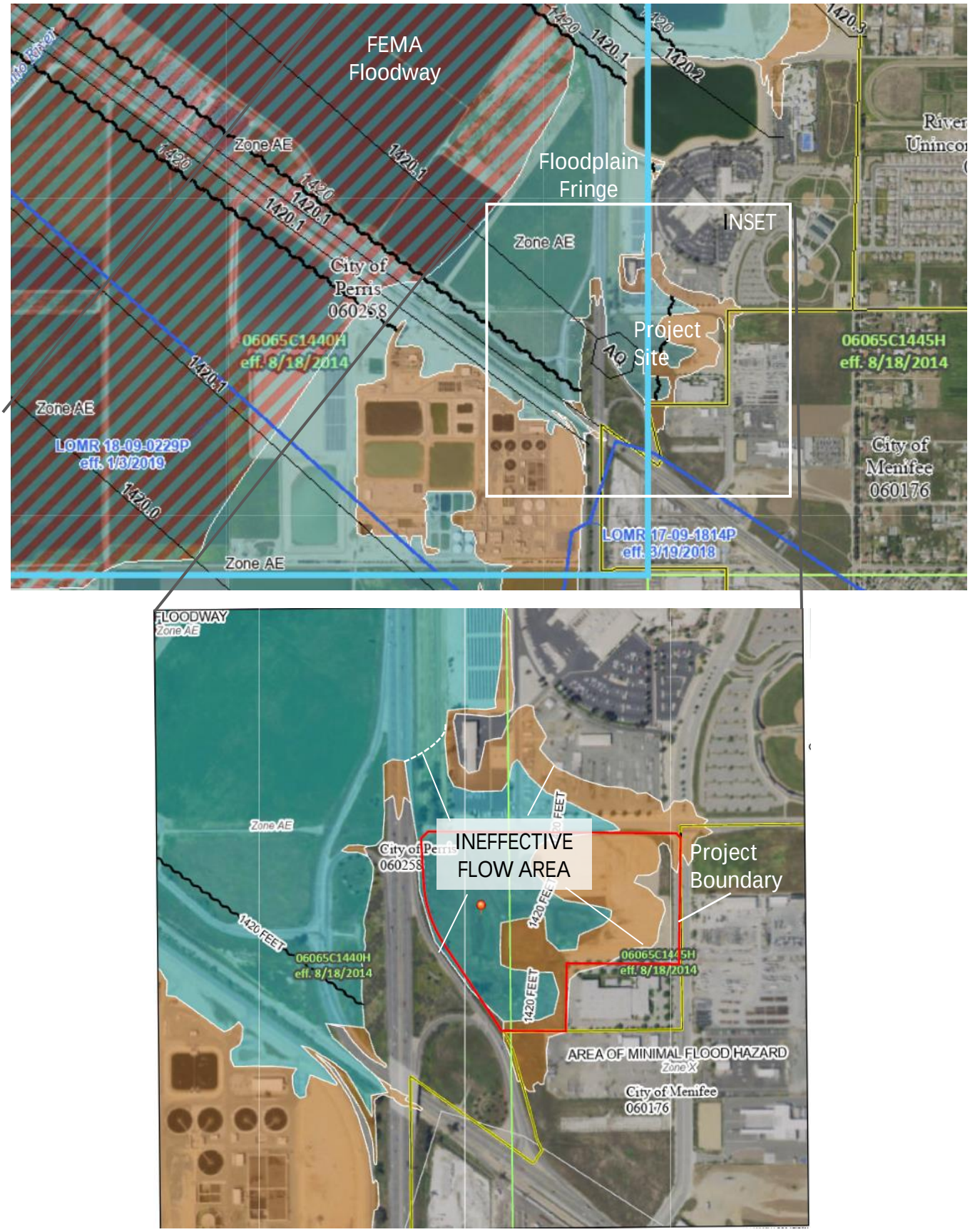

Figure 1 – Effective FEMA Floodplain Map – Project Site and Ineffective Flow Area

LOCATION		FLOODWAY			1% ANNUAL CHANCE FLOOD WATER SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
San Jacinto River (continued)								
AC	13,350[1]	165	2,027	12.1	1,310.9	1,310.9	1,311.2	0.3
AD	58,831[2]	271	2,616	9.4	1,415.6	1,415.6	1,415.8	0.2
AE	59,821[2]	473	4,021	6.1	1,417.5	1,417.5	1,418.1	0.6
AF	60,821[2]	427	3,985	6.2	1,418.3	1,418.3	1,419.1	0.8
AG	61,820[2]	1,204	10,895	2.3	1,419.2	1,419.2	1,420.1	0.9
AH	63,818[2]	1,410	11,034	2.3	1,419.5	1,419.5	1,420.3	0.8
AI	65,817[2]	1,504	12,393	2.0	1,419.8	1,419.8	1,420.6	0.8
AJ	66,817[2]	2,535	18,994	1.3	1,419.9	1,419.9	1,420.8	0.9
AK	67,317[2]	2,644	19,487	1.3	1,420.0	1,420.0	1,420.8	0.8
AL	68,817[2]	6,260	44,526	0.7	1,420.0	1,420.0	1,420.9	0.9
AM	70,817[2]	6,280	43,311	0.6	1,420.0	1,420.0	1,420.9	0.9
AN	72,317[2]	6,729	44,239	0.5	1,420.1	1,420.1	1,420.9	0.8
AO	73,782[2]	5,770	42,603	0.6	1,420.1	1,420.1	1,420.9	0.8
AP	73,997[2]	5,941	39,822	0.7	1,420.1	1,420.1	1,420.9	0.8
AQ	75,318[2]	6,422	42,319	0.6	1,420.1	1,420.1	1,421.0	0.9
AR	77,494[2]	5,994	41,480	0.6	1,420.1	1,420.1	1,421.0	0.9
AS	77,828[2]	5,753	47,345	0.7	1,420.2	1,420.2	1,421.0	0.8
AT	79,828[2]	7,400	51,973	0.5	1,420.3	1,420.3	1,421.1	0.8
AU	81,828[2]	7,986	41,501	0.6	1,420.3	1,420.3	1,421.1	0.8
AV	83,828[2]	5,818	33,667	0.7	1,420.4	1,420.4	1,421.2	0.8
AW	85,828[2]	5,402	28,453	0.9	1,420.5	1,420.5	1,421.2	0.7
AX	87,328[2]	3,913	14,717	1.8	1,420.6	1,420.6	1,421.3	0.7

[1]Feet above Lake Elsinore Levee
[2]Feet above confluence with Lake Elsinore

TABLE 24

FEDERAL EMERGENCY MANAGEMENT AGENCY
RIVERSIDE COUNTY, CA
AND INCORPORATED AREAS

FLOODWAY DATA
FLOODING SOURCE: SAN JACINTO RIVER

Figure 2 – FIS Floodway Data Table

Summary

In summary, the project will not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

1. The proposed development will not result in substantial erosion or siltation offsite.
2. The proposed development will not increase the rate or amount of surface runoff offsite in a way that would result in flooding for the following reasons
3. The proposed development will not impede or redirect flows.

Sincerely,

A. Jake Gusman, PE
Senior Hydraulic Engineer
President
River Focus, Inc.