

Appendix E
Transportation Technical Memorandum

MEMORANDUM

To: Ilene Macintire | City of Tracy

From: Frederik Venter, PE, and Colin Ogilvie | Kimley-Horn and Associates

Date: July 28, 2023

Re: Tracy Temporary Emergency Shelter – Transportation Technical Memorandum

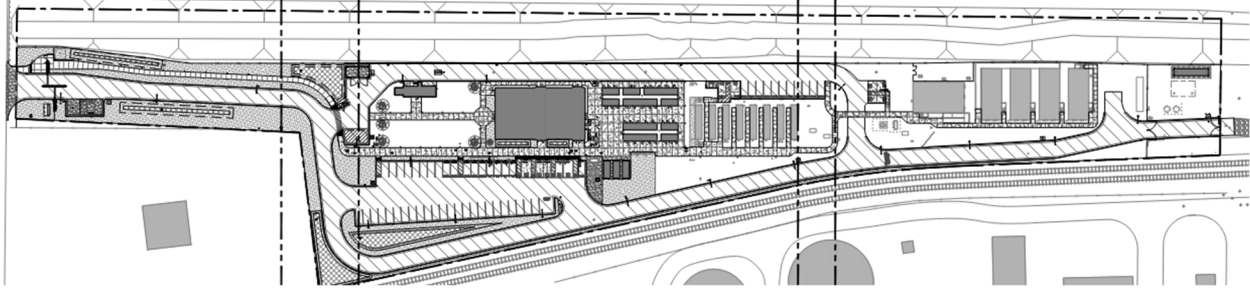
Introduction

City of Tracy has proposed the construction of an emergency housing shelter (Project) located 500 W. Arbor Road (APN 212-223-005). The Project’s location is shown in **Figure 1**. A trip generation analysis, qualitative level of service analysis and Project access review were performed as a part of the transportation technical analysis for the Project for National Environmental Protection Act (NEPA) review. The Project is proposed to be constructed in four phases, with Phase 1 having already been constructed. At buildout the Project will have 166 beds and 4,320 square feet of office space. A portion of the Project site plan is shown in **Figure 2** and the full site plan is shown in the **Appendix**.

Figure 1: Project Location Map



Figure 2: Project Site Plan



Trip Generation Analysis

A trip generation analysis was completed for the Project during both the AM and PM peak hours using the applicable ITE land use code trip rates based on the latest project description. Since ITE’s *Trip Generation Manual* does not have a direct land use code correlation with a temporary emergency shelter, the Project was divided into Assisted Living (Land Use 254) for shelter beds and General Office Building (Land Use 710) for the shelter administrative offices and break rooms. See **Table 1** for the Project’s trip generation. The Project at buildout conditions is anticipated to generate 36 AM peak hour, 46 PM peak hour and 478 daily trips.

Table 1: Project Trip Generation

Land Uses	ITE Land Use Code (LUC)	Project Size		AM Peak Hour						PM Peak Hour						Daily	
		#	Units	Rate	Percent In	Percent Out	Trips In	Trips Out	Total	Rate	Percent In	Percent Out	Trips In	Trips Out	Total	Rate	Trips
Existing																	
<i>Phase 1 (Constructed)</i>																	
Transitional Housing ¹	254	12	Beds	0.18	60%	40%	1	1	2	0.24	39%	61%	1	2	3	2.60	31
Offices & Staff Break Room ²	710	2.16	1,000 SF	1.52	88%	12%	3	0	3	1.44	17%	83%	1	2	3	10.84	23
Phase 1 Trips:							4	1	5	--	--	--	2	4	6	--	54
Project																	
<i>Phase 2</i>																	
Transitional Housing ¹	254	68	Beds	0.18	60%	40%	7	5	12	0.24	39%	61%	6	10	16	2.60	177
Offices & Staff Break Room ²	710	0	1,000 SF	1.52	88%	12%	0	0	0	1.44	17%	83%	0	0	0	10.84	0
Phase 2 Trips:							7	5	12	--	--	--	6	10	16	--	177
<i>Phase 3</i>																	
Transitional Housing ¹	254	48	Beds	0.18	60%	40%	5	4	9	0.24	39%	61%	4	8	12	2.60	125
Offices & Staff Break Room ²	710	2.16	1,000 SF	1.52	88%	12%	3	0	3	1.44	17%	83%	1	2	3	10.84	23
Phase 3 Trips:							8	4	12	--	--	--	5	10	15	--	148
<i>Phase 4</i>																	
Transitional Housing ¹	254	38	Beds	0.18	60%	40%	4	3	7	0.24	39%	61%	4	5	9	2.60	99
Offices & Staff Break Room ²	710	0	1,000 SF	1.52	88%	12%	0	0	0	1.44	17%	83%	0	0	0	10.84	0
Phase 4 Trips:							4	3	7	--	--	--	4	5	9	--	99
<i>Project Total</i>																	
Transitional Housing ¹	254	154	Beds	0.18	60%	40%	16	12	28	0.24	39%	61%	14	23	37	2.60	401
Offices & Staff Break Room ²	710	2.16	1,000 SF	1.52	88%	12%	3	0	3	1.44	17%	83%	1	2	3	10.84	23
Project Total Trips:							19	12	31	--	--	--	15	25	40	--	424
Existing Plus Project Total																	
Transitional Housing ¹	254	166	Beds	0.18	60%	40%	17	13	30	0.24	39%	61%	15	25	40	2.60	432
Offices & Staff Break Room ²	710	4.32	1,000 SF	1.52	88%	12%	6	0	6	1.44	17%	83%	2	4	6	10.84	46
Existing Plus Project Total Trips:							23	13	36	--	--	--	17	29	46	--	478

Notes:

1. Land Use: 254 - Assisted Living was assumed for shelter housing
2. Land Use: 710 - General Office Building was assumed for shelter administrative offices and break rooms
3. Trip generation data is based on Institute of Transportation Engineers' Trip Generation Manual, 11th Edition, 2021

Source: Kimley-Horn, 2023

Level of Service (LOS) Analysis

A traffic study is not required for the Project per City of Tracy or San Joaquin County guidelines due to the Project’s low peak hour trip generation. Therefore, no level of service analysis is included in this review. The nearest intersections to the Project are Holly Drive and Arbor Avenue (all-way stop control) 1,800 feet to the west and MacArthur Drive and Arbor Avenue (all-way stop control) 1,400 feet to the east. The intersection of MacArthur Drive and Arbor Avenue was a study intersection in the City of Tracy’s *Citywide Roadway & Transportation Master Plan* (TMP), but Holly Drive and Arbor Avenue was not included in the TMP. MacArthur Drive and Arbor Avenue operated at LOS A in existing conditions for both AM and PM peak hours and at LOS B and C in Horizon Year (2035) conditions for both AM and PM peak hours, respectively. The TMP did not recommend any improvements for either nearby intersection; therefore, the Project is not anticipated to cause any intersection LOS deficiencies per City of Tracy’s thresholds.

Project Access Review

The Project proposes to have one full access driveway with a side street stop control on Arbor Avenue at the location of an existing gated driveway. The proposed driveway has one lane in and one lane out. The site plan provides access from Arbor Avenue to all of the buildings and common spaces for vehicles, pedestrians and bicyclists. Parking is located conveniently including ADA spaces.

Arbor Avenue is a two-lane arterial with no shoulders, curb and gutter or sidewalk and has a speed limit of 40 miles per hour west of the driveway and 35 miles per hour east of the driveway. The City’s TMP does not anticipate roadway widening for this segment of Arbor Avenue. Arbor Avenue does not have pedestrian or bicycle facilities. It is recommended for a temporary sidewalk/trail to be constructed from the Project site west along the south side of Arbor Avenue and then south along the west side of Holly Drive to connect at the existing sidewalk.

The City of Tracy’s bus system, Tracer, has begun a pilot bus route to the Project from the Tracy Transit Station. **Figure 3** shows the current timetable, which consists of four round trips per day Monday through Saturday.

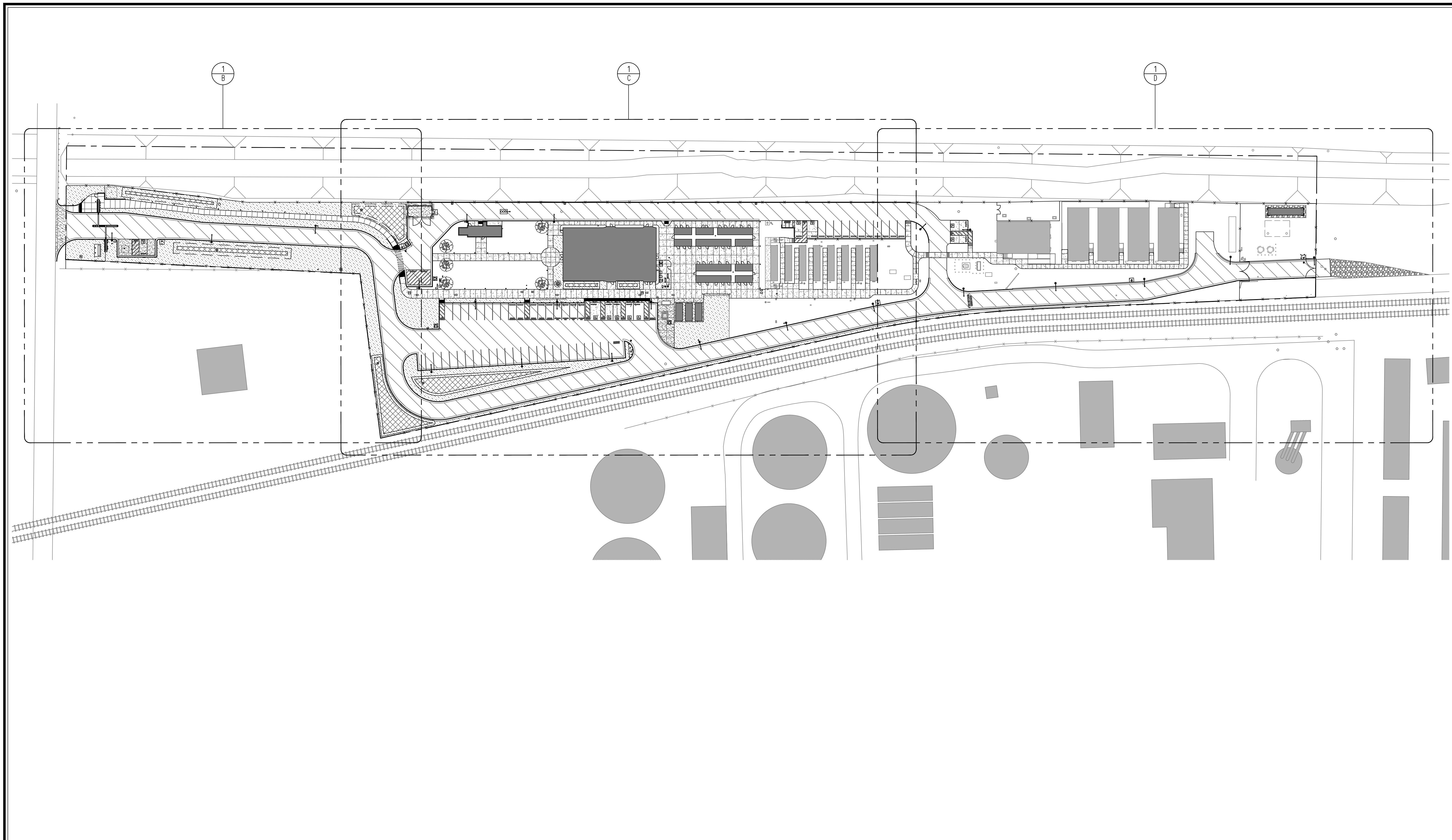
Figure 3 - Bus Route H Timetable

NEW Pilot service effective 11/16/22
Service runs Monday through Saturday only

ROUTE H					
OUTBOUND:			INBOUND:		
Transit Station to Arbor Avenue.			Arbor Avenue. to Transit Station		
Tracy Transit Station	East Street Grant Line Rd Bowling Alley	Arbor Ave.	Arbor Ave.	East Street Grant Line Rd Bowling Alley	Tracy Transit Station
1	4	10	10	14	1
9:05	9:10	9:15	9:15	9:20	9:30
11:40	11:45	11:50	11:50	11:55	12:05
2:45	2:50	2:55	2:55	3:00	3:10
5:15	5:20	5:25	5:25	5:30	5:40

Appendix

- Project Site Plan



PLAN NORTH
 1 OVERALL SITE PLAN
 1" = 50'
 0 25 50 100

CITY OF TRACY
 TEMPORARY EMERGENCY HOUSING