Memorandum

July 26, 2019

To:	Andy Chamberlain Collins & Schoettler Planning Consultants	Project:	Focused Trip Generation Analysis – Proposed Park in the City of Kerman (East Side Community Park)
From:	Gary Mills, Joe Ramirez	Ref/Job No.:	11199653
CC:	Karl Schoettler, C&S	File No.:	C11199653MEM001.DOCX

Subject: Trip Generation Analysis

Purpose

The purpose of this Memorandum is to prepare a trip generation analysis, or assessment, of proposed land uses using AM, PM and daily trip generation. The proposed project is a city park development in the City of Kerman located at the corner of California Avenue and Goldenrod Avenue. Figure 1 identifies the proposed project location. The proposed development, Eastside Community Park, site will encompass 35 acres that will include but are not limited to the following park characteristics (Attachment A):

- Community Garden
- Lake
- Windmill
- Splash Park
- Picnic Shelters
- Play Area
- Basketball
- Multi-Use Fields

Existing Use

Currently, this property is vacant. According to the City of Kerman General Plan Map (Attachment B), the vacant lot is designated "Parks" and is within the 2017 growth limit and sphere of influence of the City. Additionally, the City of Kerman General Plan Parks Map (Attachment C) identifies this site as a future parks and is consistent with the 2007 Kerman General Plan Update policies and action programs.

Trip Generation Methodology

Today's standard practices used to develop trip generation rates for land uses is derived from the *Trip Generation Manual*, published by the *Institute of Transportation Engineers* (ITE). Many versions have been published with the most recent being the *10th Edition*. For this study, GHD assumed that the existing use is relevant to Public Park, ITE Land Use code 411.

GHD
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Nelson Avenue

Whitesbridge Road

Kearney Boulevard

California Avenue

Church Avenue

Jensen Avenue

Siskiyou Aveue

Del Norte Avenue

Madera Ave

Vineland Avenue

Goldenrod Avenue

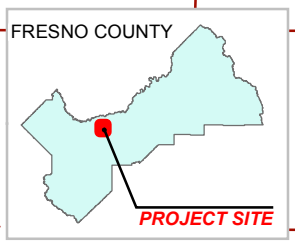
Sycamore Avenue

Howard Avenue

Legend

- Project Site
- City of Kermin-City Limits
- Sphere of Influence
- Streets

Eastside Community Park Master Plan



Paper Size ANSI A

0 0.25 0.5 0.75 1

Miles

N

Map Projection: Lambert Conformal Conic
Horizontal Datum: North American 1983
Grid: NAD 1983 StatePlane California IV FIPS 0404 Feet

Collins & Schoettler Planning Consultants

PROJECT VICINITY MAP: EASTSIDE COMMUNITY PARK (City Kerman)

Project No. **11199653**

FIGURE 1

N:\US\Fresno\Projects\561\11199653\GIS\Maps\Working\Site Map.mxd
Print date: 26 Jul 2019 - 14:31

Data source: Fresno County public shape files (streets, boundary); Data.gov (tiger shape files). Created by: jramirez2

ITE Land Use 411: Public Park description is as follows:

> *Public parks are owned and operated by a municipal, county, state or federal agency. The parks surveyed vary widely as to location, type, and number of facilities, including boating or swimming facilities, beaches, hiking trails, ball fields, soccer fields, campsites, and picnic facilities. Seasonal use of the individual sites differs widely as a result of the varying facilities and local conditions, such as weather. For example, some of the sites are used primarily for boating or swimming; others are used for softball games. Soccer complex (Land Use 488) is a related use.*
>
> *[Note: The percentage of the park area that is used most intensively varies considerably within the studies contained in this land use; therefore, caution should be used when using acres as an independent variable.]*

Table 1 summarizes *ITE Trip Generation (10th Edition)* Land Use 411. Table 1 identifies average trip generation rate by time of day for peak hour of generator, i.e., the hour of highest volume of traffic entering and exiting the site during the AM or PM peak hour period on a weekday. Additionally, Saturday and Sunday of the peak hour generator, i.e., the hour with the highest volume of traffic entering and exiting a site, that is anticipated during the AM or PM peak hour period is also identified in Table 1.

Trip Generation Calculations

Table 1 identifies the estimated trip generation of the project's land-use based upon data presented in *ITE Trip Generation (10th Edition)*. For this project, trip generation rates for ITE land use code 411 (Public Park) was applied to obtain the project trips contained in the Table 1.

Table 1
Proposed Trip Generation

Land Use Category (ITE Code)	Unit	Daily Trip Rate/Unit[1]	AM Peak Hour Trip Rate/Unit			PM Peak Hour Trip Rate/Unit		
			Total	In %	Out %	Total	In %	Out %
Public Park (411) – weekday	Acres	0.78	0.15	67%	33%	0.11	10%	60%
Public Park (411) – weekend (Saturday)	Acres	1.96	—	—	—	0.28	55%	45%
Public Park (411) – weekend (Sunday)	Acres	2.19	—	—	—	0.31	39%	61%
Public Park (411) – weekend (Saturday)	Acres	0.95	—	—	—	0.17	26%	74%
Public Park (411) – weekend (Sunday)	Acres	0.90	—	—	—	0.14	30%	70%
Project Name	**Quantity (Units)**	**Daily Trips**	**AM Peak Hour Trips**			**PM Peak Hour Trips**		
			Total	**In**	**Out**	**Total**	**In**	**Out**
Eastside Community Park								
Weekday	35	27	**5**	4	2	**4**	2	2
Weekend (Saturday)	*35*	69	—	—	—	10	5	4
Weekend (Sunday)	*35*	77	—	—	—	11	4	7
Weekend (Saturday)	35	33	—	—	—	6	2	4
Weekend (Sunday)	35	32	—	—	—	5	1	3
Average Daily/Peak Hour Trips		**48**	**5**	**4**	**2**	**7**	**3**	**4**

Notes: 1. Trip rates based on *ITE Trip Generation Manual 10th Edition*, peak hour of the generator rates. *Rounding errors may occur*

As indicated in Table 1, this project is estimated to generate an average of **48 daily trips**, including **5 AM** and **7 PM** peak hour trips during a typical week.

Conclusions

Generally, traffic impact studies are required if the peak hour is expected to generate 100 or more peak hour trips. For example, *Caltrans Guide to Preparation of Traffic Impact Studies* (December 2002), indicates the following trip generation threshold to determine if further analysis, such as development of a Traffic Impact Study, is necessary:

1. *Generates over 100 peak hour trips assigned to a State highway facility.*
2. *Generates 50 to 100 peak hour trips assigned to a State highway facility – and, affected State highway facilities are experiencing noticeable delay; approaching unstable traffic flow conditions (LOS "C" or "D").*
3. *Generates 1 to 49 peak hour trips assigned to a State highway facilities experiencing significant delay; unstable or forced traffic flow conditions (LOS "E" or "F").*

As shown in Table 1, the existing use is projected to generate an average of 5 AM and 7 PM peak hour trips over the course of a typical week, which does not trigger the trip generation threshold for additional analysis. **Therefore, development of the proposed park is expected to have a less than significant impact on trip generation** on the surrounding roadway circulation network during typical weekday conditions.

Attachments

Attachment A – Eastside Community Park Site Plan

Attachment B – City of Kerman General Plan Map

Attachment C – City of Kerman General Plan Parks Map

Attachment A:

Eastside Community Park Site Map

PEDESTRIAN PATH (TYPICAL)
PATH LIGHTING, TYPICAL (SOLAR POWERED)
PICNIC PAD OR SHELTER
RESTROOM (SOLAR PANELS)
SPRAY PARK
BENCHES / SEATING
PLAY AREA
PICNIC PAD OR SHELTER
PASSIVE RECREATION / NATURAL AREA (NATIVE PLANTINGS AROUND LAKE)
PAR FITNESS STATION (TYPICAL)
WINDMILL (PUMPING FOR IRRIGATION)
FUTURE SHOP BUILDING (40' X 60')
PATH LIGHTING, TYPICAL (SOLAR POWERED)
PAR FITNESS STATION (TYP.)
ACQUISITION (5 ACRES) FUTURE MULTI-USE FIELD AREA
4 ACRE FUTURE PARK DEVELOPMENT
MULTI-USE FIELDS
MAIN SHELTER
FUTURE LOOKOUT
BIOSWALE
SECURITY LIGHTING (TYPICAL)
LAKE (DETENTION, IRRIGATION)
FUTURE PARK EXPANSION
10' WIDE PATH (MAINTENANCE ACCESS)
FENCING (PARK DEVELOPMENT LINE)
BASKETBALL (FENCED)
FUTURE BASKETBALL
GOLDEN ROD AVE.
CALIFORNIA AVE.
PARK SIGN
COMMUNITY GARDEN
FUTURE RECREATION CENTER
BIOSWALE
TOT PLAY AREA
BENCHES / SEATING
PARKING LOT
PICNIC PAD OR SHELTER
PAR FITNESS STATION, DRINKING FOUNTAIN (TYPICAL)
HANDBALL COURTS
BUS STOP
BUS SHELTER


COMMUNITY GARDEN


LAKE


WINDMILL


SPLASH PARK

PICNIC SHELTERS


PLAY AREA


BASKETBALL

Plot By: RJJ

EASTSIDE COMMUNITY PARK

MASTER PLAN

PREPARED FOR:
CITY OF KERMAN
RECREATION, PARKS AND COMMUNITY SERVICES
KERMAN, CALIFORNIA

PREPARED BY:
LAND IMAGE LANDSCAPE ARCHITECTS
627 BROADWAY
CHICO, CALIFORNIA 95928

SOLAR INFLUENCE

0 30 60

NORTH

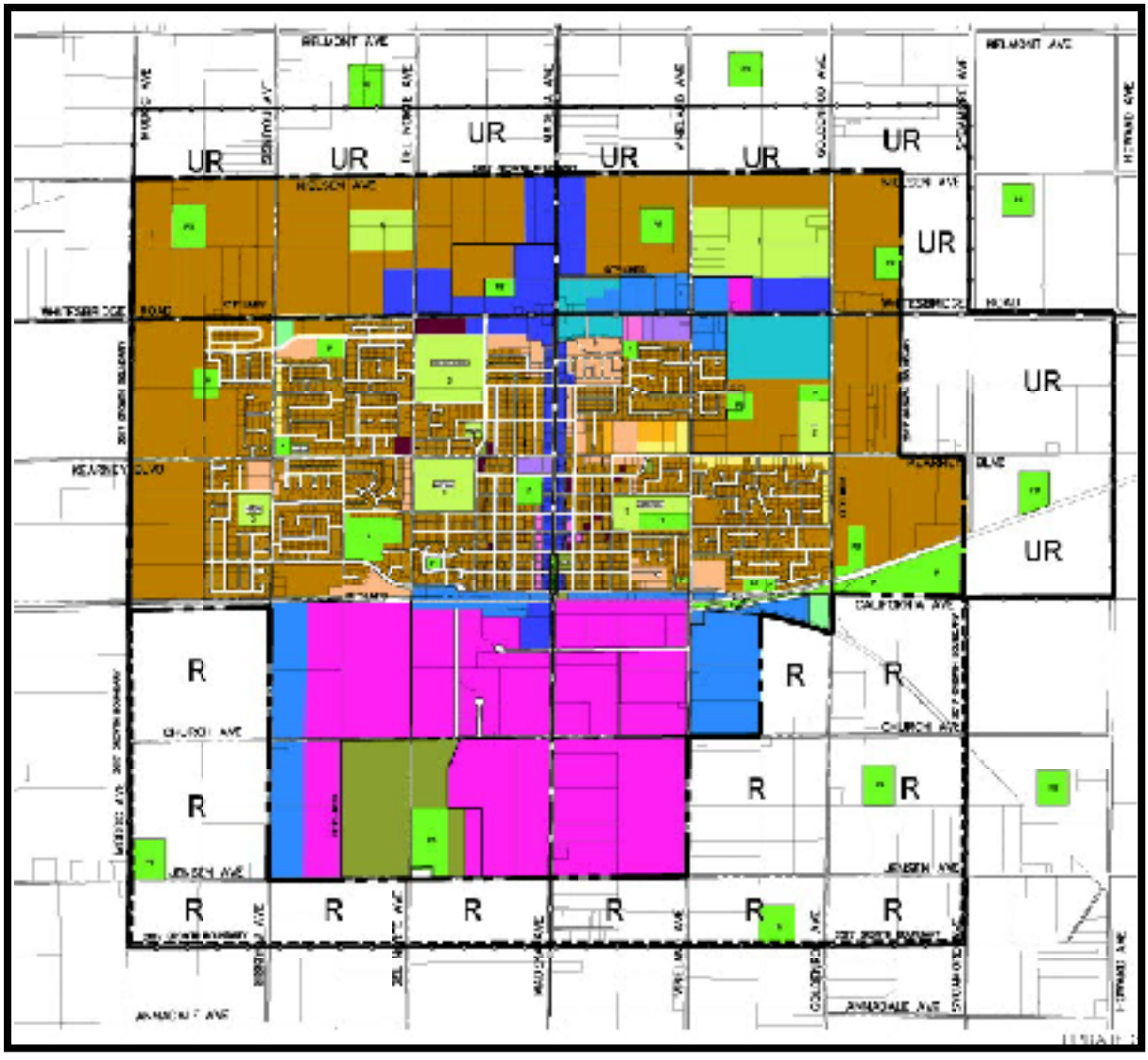
SCALE: 1" = 60'-0"

DATE: FEBRUARY 26, 2010
PROJECT NUMBER: 1491.1

Attachment B:

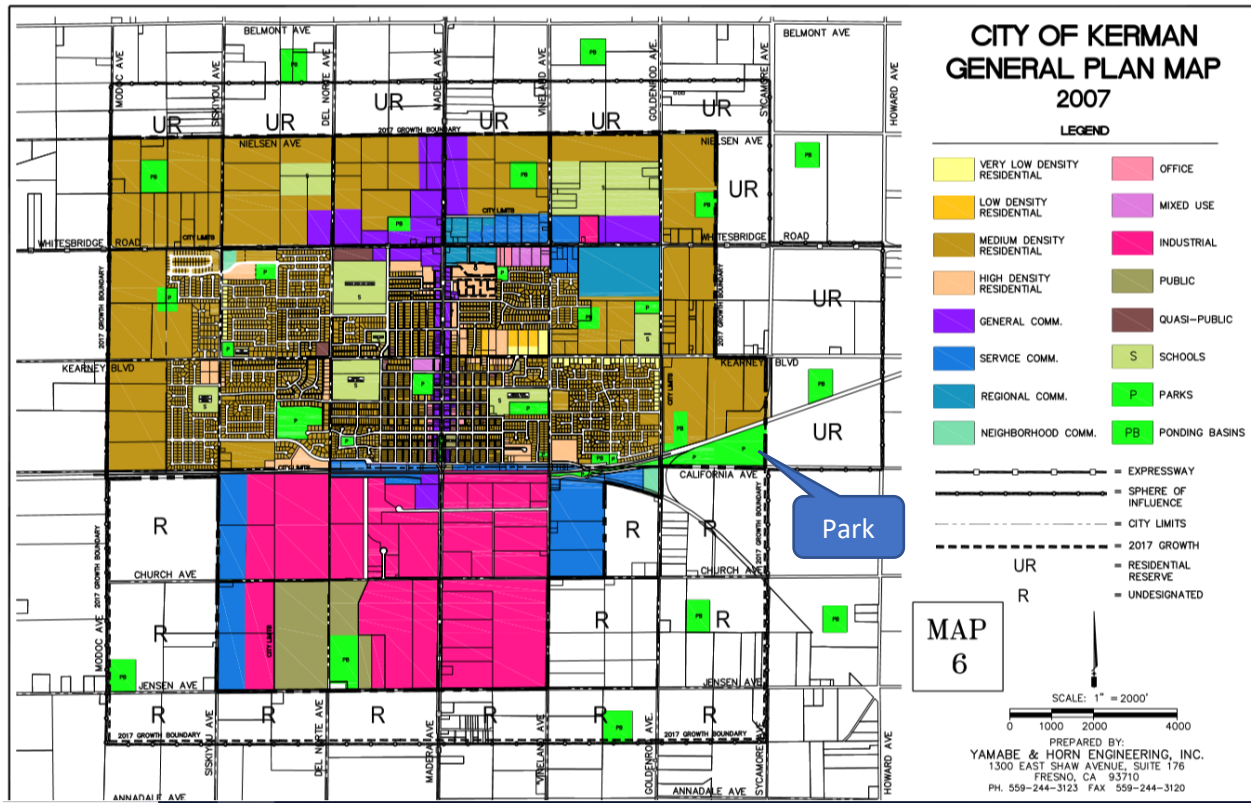
City of Kerman General Plan Map

2007 - 2027 Kerman General Plan Update



Prepared by

Collins & Schoettler
PLANNING CONSULTANTS


CITY OF KERMAN
GENERAL PLAN MAP
2007
LEGEND
VERY LOW DENSITY RESIDENTIAL
LOW DENSITY RESIDENTIAL
MEDIUM DENSITY RESIDENTIAL
HIGH DENSITY RESIDENTIAL
GENERAL COMM.
SERVICE COMM.
REGIONAL COMM.
NEIGHBORHOOD COMM.
OFFICE
MIXED USE
INDUSTRIAL
PUBLIC
QUASI-PUBLIC
S SCHOOLS
P PARKS
PB PONDING BASINS
= EXPRESSWAY
= SPHERE OF INFLUENCE
= CITY LIMITS
= 2017 GROWTH
UR = RESIDENTIAL RESERVE
R = UNDESIGNATED
MAP 6
SCALE: 1" = 2000'
0 1000 2000 4000
PREPARED BY:
YAMABE & HORN ENGINEERING, INC.
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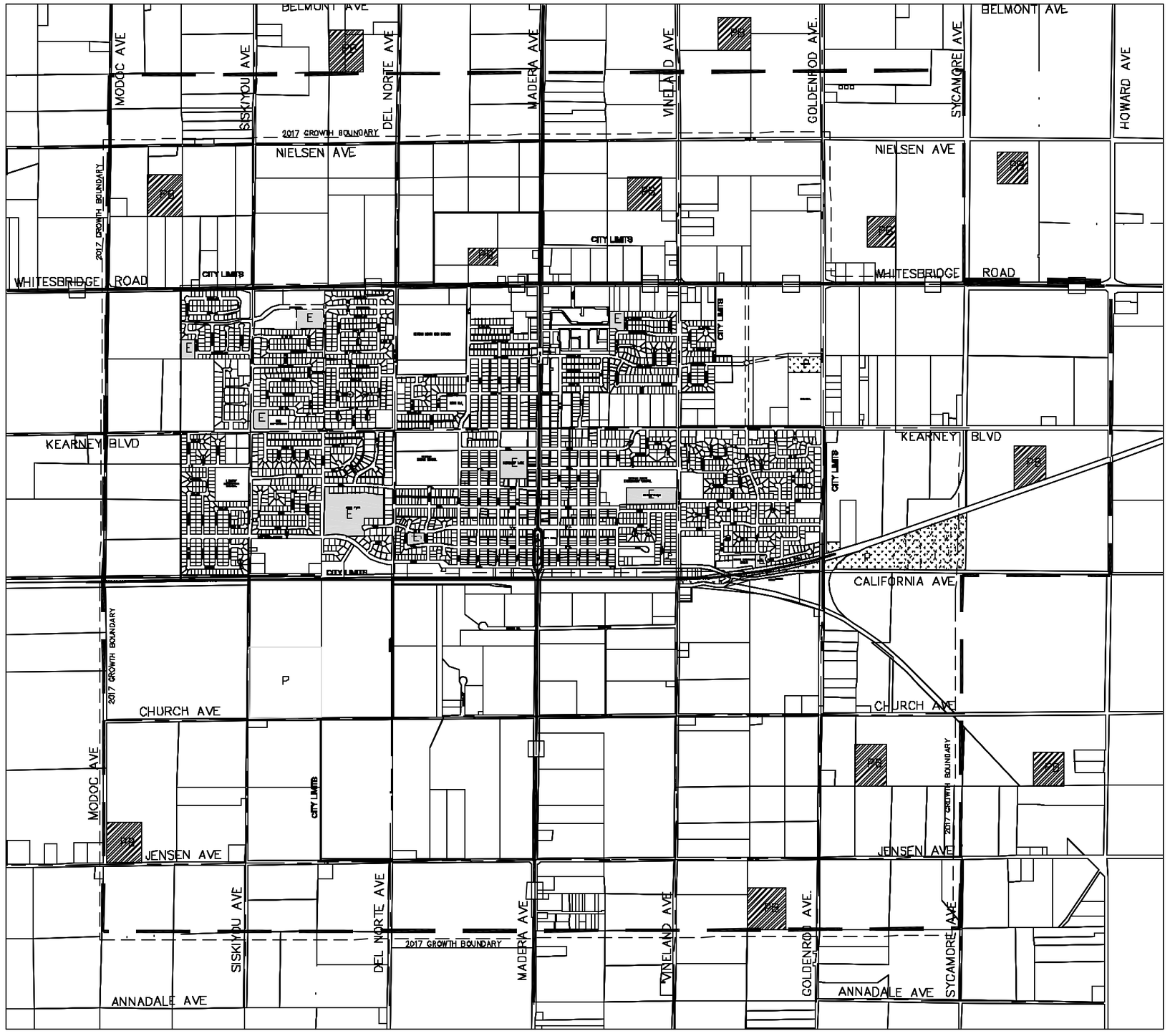
FRESNO, CA 93710
PH. 559-244-3123 FAX 559-244-3120
Park
BELMONT AVE
NIELSEN AVE
WHITESBRIDGE ROAD
KEARNEY BLVD
CALIFORNIA AVE
CHURCH AVE
JENSEN AVE
ANNADALE AVE
MODOC AVE
SISKIYOU AVE
DEL NORTE AVE
MADERA AVE
VINELAND AVE
GOLDENROD AVE
SYCAMORE AVE
HOWARD AVE
2017 GROWTH BOUNDARY
CITY LIMITS

Attachment C:

City of Kerman General Plan Parks Plan



CITY OF KERMAN GENERAL PLAN PARKS MAP

E EXISTING PARKS

P FUTURE PARKS

PB FUTURE PONDING BASIN & PARK

CITY LIMITS (EXISTING)

SPHERE OF INFLUENCE

2017 GROWTH BOUNDARY

2007 KERMAN GENERAL PLAN UPDATE

MAP 9

SCALE: 1" = 2000'

0 1000 2000 4000

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MAR. 28, 2007
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