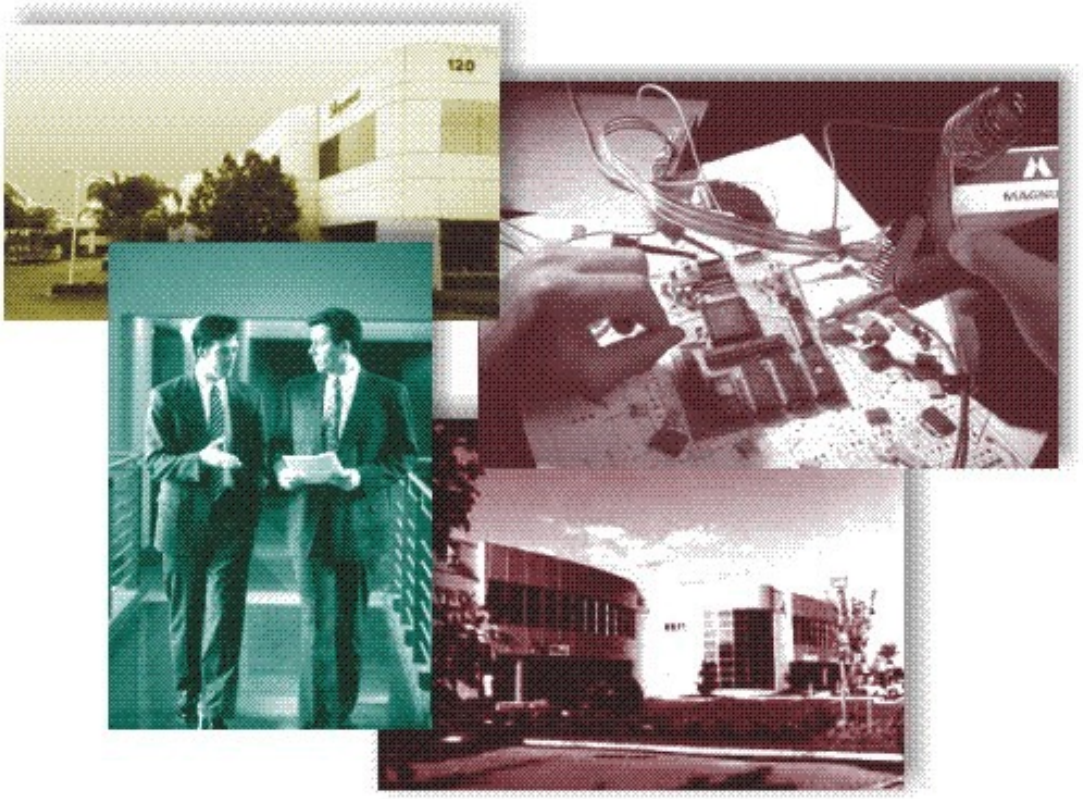
The West Patterson Business Park Master Development Plan

Adopted by the City of Patterson January, 2003
Adopted by Stanislaus County April, 2003



A Cooperative Effort of:

Stanislaus County

And

The City of Patterson

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I. Introduction

Early in 1999, Stanislaus County hired a consulting firm (EDAW, Inc.) to investigate the feasibility of locating industrial/business park development at five different locations along the I-5 corridor. The study envisioned a cooperative effort among the County, local jurisdictions, and private property owners to attract and retain industrial/business park development as part of an ongoing strategy for economic development. The study concluded that the industrial land between the Sperry Avenue/Interstate 5 interchange and the City of Patterson offered the best opportunity for these initial cooperative efforts. Accordingly, the *West Patterson Business Park Master Development Plan* is the product of a partnership among the City of Patterson, Stanislaus County and property owners in the West Patterson area to establish an infrastructure and regulatory framework for the development of employment-generating land uses in western Stanislaus County.

The goals of the Master Development Plan are:

- To achieve the economic development goals of the City of Patterson and Stanislaus County by implementing the policies and programs of each jurisdiction' s general plans.

- To establish an infrastructure and regulatory framework conducive for the attraction and retention of light industrial/business park development that emphasizes job creation and high quality development.

- To establish design guidelines that express the expectations of the City and Stanislaus County for the qualities expected in new development.

- To provide a comprehensive plan for the financing and installation of infrastructure improvements that will enable full development of the area with job-generating land uses.

To achieve these goals, the Master Development Plan addresses the following topics:

- ❑ Land use and development standards, including design guidelines for new development (Chapter II);

The recommended land use plan for the planning area is described in Chapter II and illustrated by Figure 6. The majority of land is designated *Light Industrial*, with land near the interchange reserved for additional *Highway Commercial* development. Allowable land uses and recommended development standards are contained in two new

zoning districts, West Patterson Industrial Business Park (WPIBP) and West Patterson Light Industrial (WPLI) which are provided in Appendix A. The allowable land uses emphasize high-quality jobs in technology-related support industries, as well as conventional industrial establishments.

In keeping with the overall goal of quality and economic development, Chapter III provides design guidelines for new development to help ensure that the quality and character of new development meets the expectations of the City and the County.

- Infrastructure plans (Chapter IV);

In 1992, the City of Patterson prepared and adopted master plans for water supply, wastewater, and storm drainage to guide the infrastructure improvements necessary to achieve the community's vision articulated in the general plan. Since that time, development has proceeded in a manner which has at times necessitated deviating from the recommendations of the various master plans to respond to opportunities which were unforeseen at the time the plans were prepared. Although these changes have enabled the City to achieve its goals under the general plan, the Master Plans have been updated to reflect current circumstances and to reflect a more recent understanding of water supply, wastewater and drainage issues for the Patterson area.

- Strategies for implementation(Chapter V);

The Master Development Plan covers properties that lie outside the corporate limits of the City of Patterson but largely within the City's planning area (see Figure 1). The Plan recommends expanding the City's planning area to the north between Baldwin Road and Rogers Road. Until properties within the plan area are annexed to the City, however, they will be developed in the county and provided with City services. Since each jurisdiction will share in the benefits of, and the costs of, development in the planning area, both will exercise development review authority, as described in Chapter I.

Lastly, the Master Development Plan discusses the timing of infrastructure improvements, the phasing of development, and financing strategies. The City and County intend to jointly establish a Mello-Roos assessment district to provide the primary funding mechanism for the considerable infrastructure improvements necessary to serve development of the Master Development Plan area (see below).

Previous and Continuing Planning Efforts

City of Patterson General Plan

In 1992, the City of Patterson completed a comprehensive update of its general plan which designates several hundred acres between Interstate 5 and the City for the development of light industrial, highway commercial and professional/medical office land uses (see Figure 3A). The Plan also designates considerable land for residential development west of the existing city, where several large residential neighborhoods are in various stages of construction and/or approval. Although demand for new housing in Patterson remains high, there has been little interest in the light industrial area until recently, in spite of a favorable location and the availability of infrastructure to serve the area.

Stanislaus County General Plan

The Stanislaus County General Plan was adopted in 1987 and has been amended several times since. In 1992 the County adopted an Agricultural Element which establishes goals and policies aimed at protecting viable agricultural lands within the County. In the west Patterson area, the County General Plan designates the area within the City's planning area as *Planned Industrial* and *Highway Commercial* to be consistent with the City's designations within its sphere of influence (See Figure 3B). The purpose of these designations is to ensure that lands remain in agricultural use until urban development consistent with a city's general plan is approved. Generally, urban development may occur only upon annexation to a city. However, development may be permitted prior to annexation provided the development is consistent with the land use designation of the city general plan.

Mello-Roos District Formation

To help finance the infrastructure improvements necessary to accommodate the continued development of the Master Development Plan area, the City, and the County a Mello-Roos financing district is being formed. District formation is in its preliminary stages; the properties showing initial interest in participating are shown on Figure 4.

Absorption Study

To provide guidance for the timing of needed infrastructure improvements, it is essential to have clear understanding of the potential market demand for new development from which the funding will be generated. To provide this information, the City hired an economist (The Meyers Group) to study the market and

absorption capacity for the Patterson area for residential, commercial and light industrial development. Their conclusions are that the City can expect strong demand for residential development over the next ten or more years, and that the demand for light industrial development could be as much as 100,000 square feet per year for the same time frame.

Plan Preparation and Methodology

Preparation of the Master Development Plan began with a series of meetings among the stakeholders, consisting of representatives of City and County staff and property owners. This process was aided by a consultant hired by the City who prepared a series of issues and options papers that offered strategies for dealing with the complexities associated with this joint economic development and land use planning effort. The issues and options papers addressed a wide range of topics, including:

- Constraints affecting the planning area;
- The arrangement of land uses throughout the planning area;
- Development standards to be applied to new development;
- The range of appropriate uses for the planning area;
- The responsibilities of the City and the County in the development review process.

Input provided by the planning team helped shape the preparation of the Master Development Plan so that the needs of both jurisdictions and the property owners are satisfied.

Keystone Development Project

The West Patterson area was chosen for these initial cooperative efforts in part because of the interest expressed by the Keystone Corporation of Raleigh North Carolina, who have a demonstrated record of developing industrial business parks and attracting the types of businesses envisioned for the planning area. The Keystone project involves amending the general plans of both the City and the County to add 342 contiguous acres to the City's planning area and sphere of influence as shown on Figure 1. Keystone intends to develop the 223 easterly acres with business park/light industrial uses which, it is hoped, will provide the initial "seed" that will attract additional business park and light industrial uses to the West Patterson area.

Relationship of the Master Development Plan to the County and City General Plans

The West Patterson Business Park Master Development Plan establishes the regulatory framework that will govern development

of the Plan area. Once adopted by both the City and the County, it is intended to supplement the general plans of both jurisdictions by establishing area-specific development standards and design guidelines that will apply to all new development. Accordingly, all new development proposals must be found to be consistent with this Master Development Plan, which in turn must be consistent with the general plans for the City of Patterson and Stanislaus County.

Figure 1: City of Patterson Planning Area and Sphere of Influence

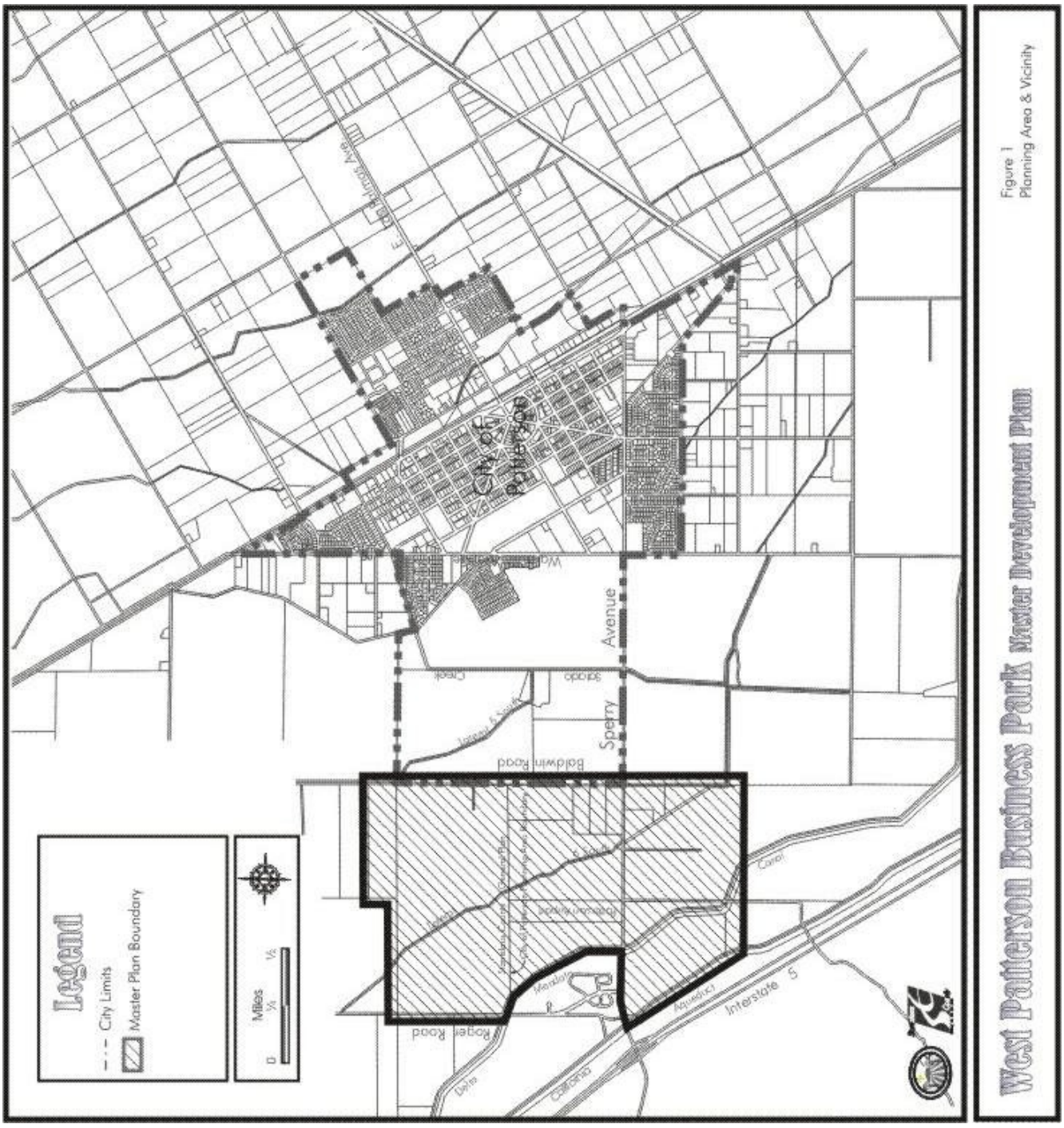


Figure 2: West Patterson Business Park Master Development Plan Boundaries

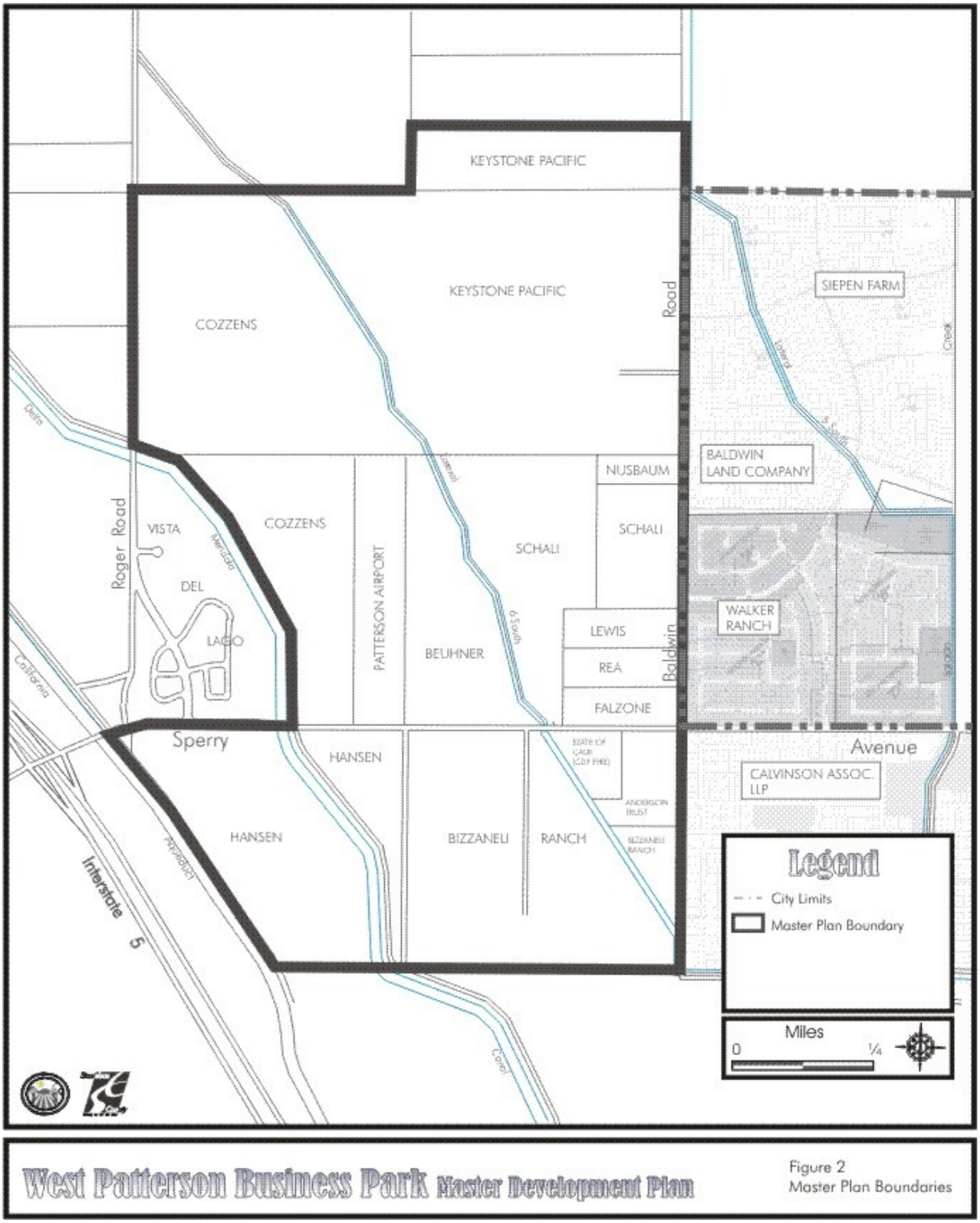


Figure 3A: General Plan Land Use Designations – City

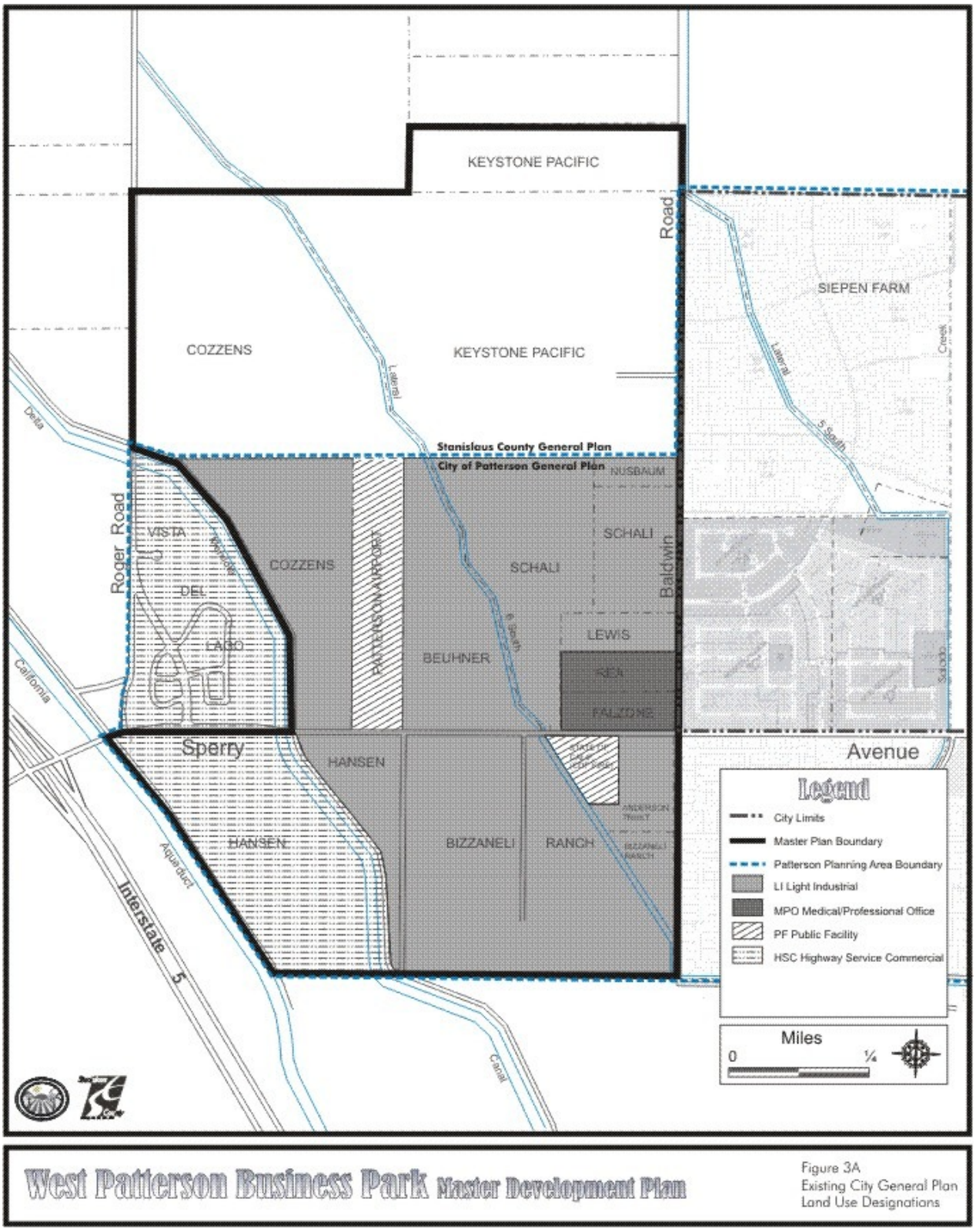
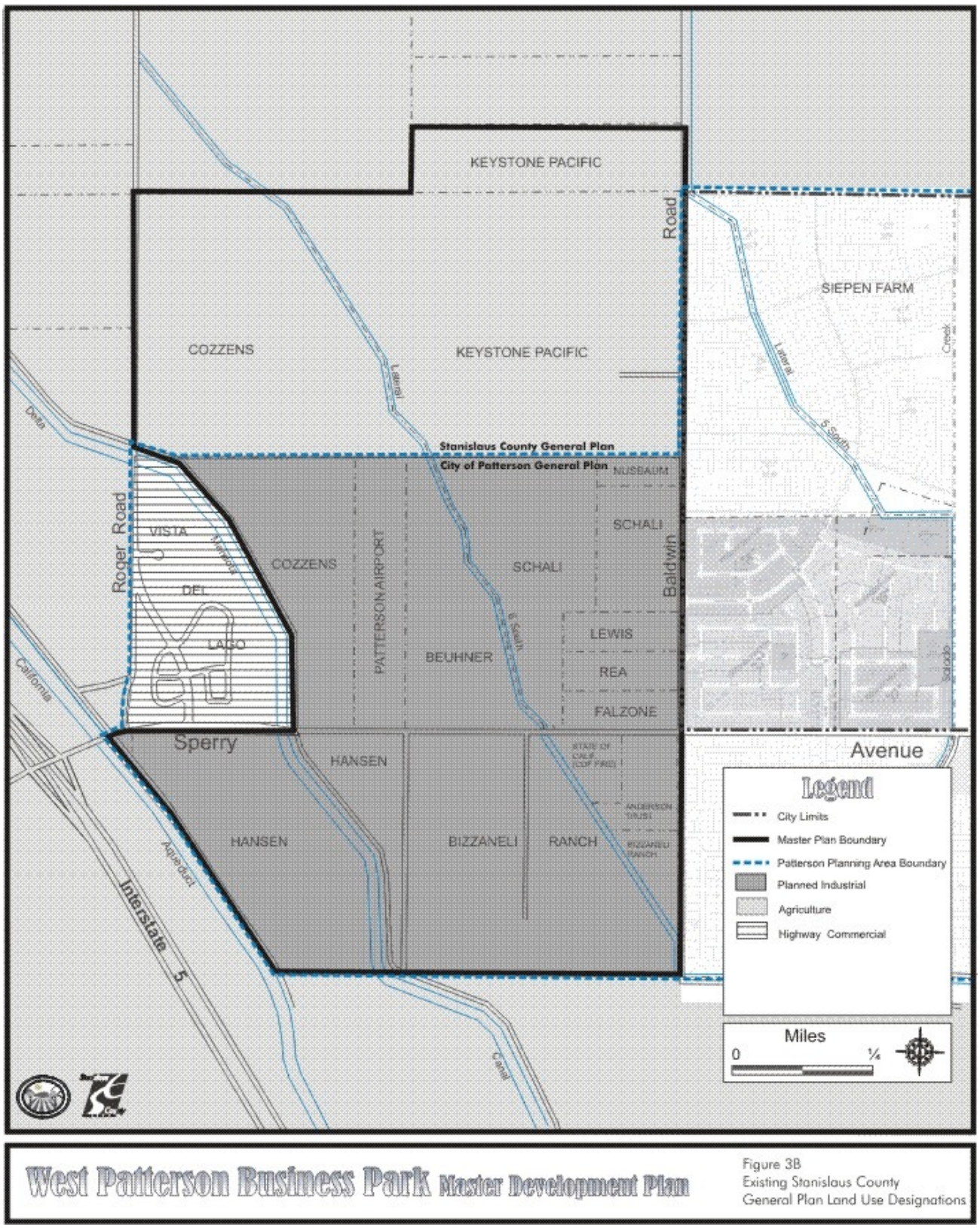


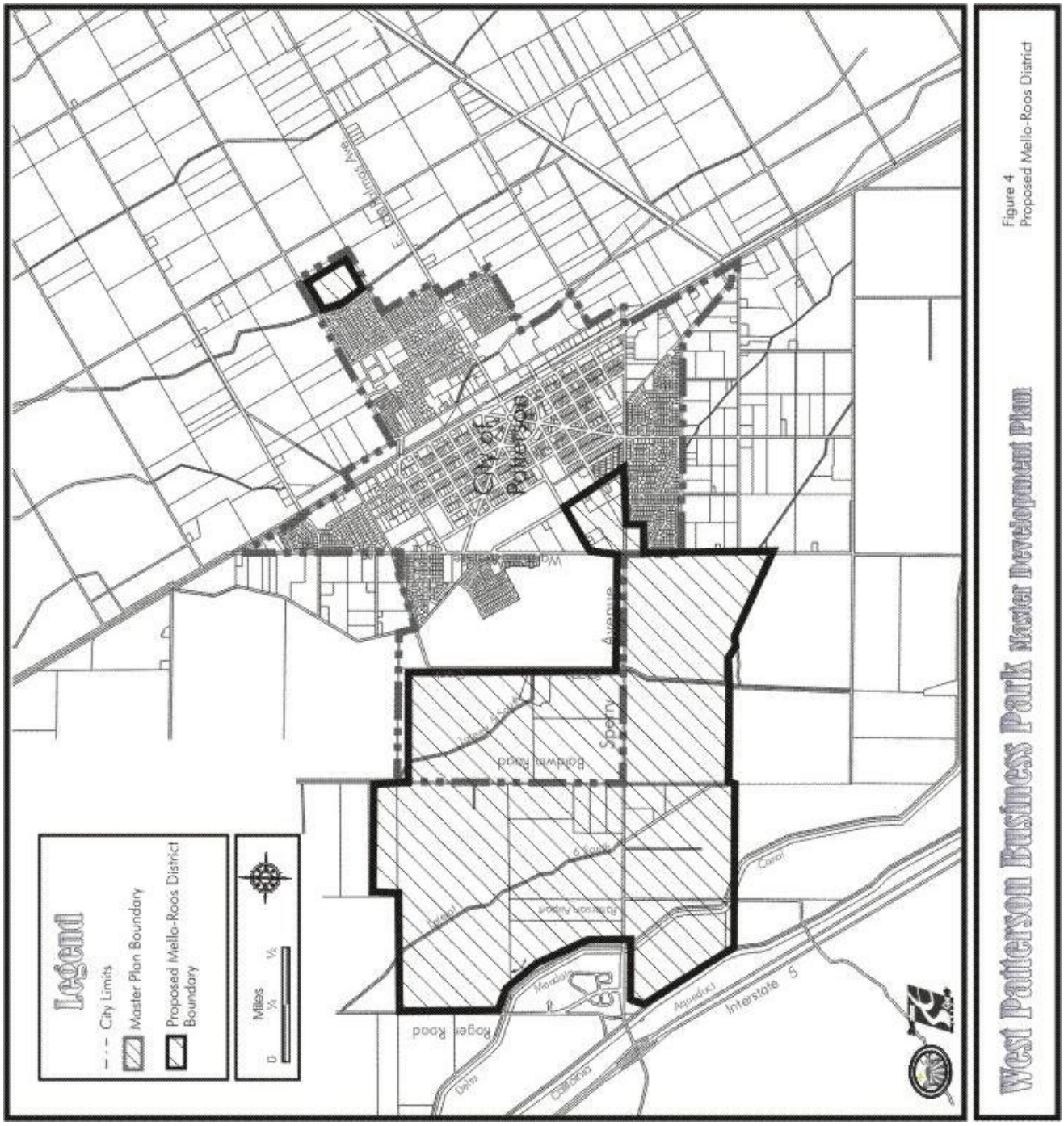
Figure 3B: General Plan Designations – County



West Patterson Business Park Master Development Plan

Figure 3B
Existing Stanislaus County
General Plan Land Use Designations

Figure 4: Mello-Roos Participating Properties



II. Land Use

Overview of the Planning Area

The West Patterson Business Park Master Development Plan covers an area of about 814 acres as shown on Figure 2, which also shows the tentative plans for residential development to the immediate east. Existing land use is primarily agriculture; the Patterson Airport lies almost in the center of the Plan Area and the Caltrans/CDF fire station occupy about 8 acres on the south side of Sperry Avenue just west of Baldwin Road. Closer to the I-5 interchange is the Villa Del Lago highway commercial complex which is about halfway to buildout.

General plan designations applied to the area by both the City of Patterson and Stanislaus County are shown on Figure 3. As stated previously, the Keystone Pacific and Cozzens properties lie outside the City of Patterson general plan area and sphere of influence and are designated *Agriculture* by the Stanislaus County General Plan.

Constraints to Development

The Master Development Plan must be based on a thorough and complete understanding of the constraints affecting the planning area if the goals of the Plan are ever to be achieved. An environmental impact report (EIR) is being prepared which will analyze these issues in detail. Figure 5 illustrates the primary constraints affecting the planning area, which include:

The California Aqueduct, the Delta Mendota Canal, and Associated Bridges

The planning area is crossed by a number of important water conveyences, the most important of which are the California Aqueduct, part of the State Water Project, and the Delta-Mendota Canal, operated by the Department of Interior, Bureau of Reclamation. Farther east are laterals that convey irrigation water to farming operations in the area.

The canals constrain vehicular circulation within the planning area because of the high cost of constructing or expanding the bridges that cross them. Currently, bridges exist for Sperry Avenue and Rogers Road.

Prime Agricultural Land and Existing Williamson Act Contracts

Soils within the planning area are considered "prime" in accordance with the classifications used by the State Farmland Mapping and

Monitoring Program (FMMP) which monitors land use change affecting California's agricultural land.

Within the planning area are several properties subject to Land Conservation Act (Williamson Act) contracts. The California Land Conservation Act (California Government Code Section 51290 et seq.), encourages the conservation of agricultural lands by providing a tax incentive to land owners who contract with the County to restrict land uses to agriculture and compatible uses. Properties subject to an LCA contracts must remain in agricultural use for a minimum of ten years. A property owner may cancel the contract by filing a Notice of Non-renewal and the contract is terminated at the end of ten years. The law provides for the cancellation of a contract but only under special circumstances and only after the Board of Supervisors makes certain specific findings.

The Patterson Airport and Associated Airport Land Use Plan

The Patterson Airport is a general aviation airport located on Sperry Avenue just east of Interstate 5. The Airport Land Use Commission (ALUC) has adopted a land use plan that establishes safety zones around the airport (see Figure 5) to protect the public from potential noise and safety impacts associated with aircraft overflights. Discussions with County staff indicate that the type of development envisioned for the Plan Area would be consistent with the Airport Land Use Plan which would mostly be concerned with ensuring that the design of individual development projects are consistent with building height restrictions and incorporate non-reflective surfaces to minimize potential hazards to aviation.

Compatibility Between Light Industrial/Business Park Development and Surrounding Land Uses

Another constraint relates to the interface between future light industrial and business park development west of Baldwin Road with continuing residential development to the east. Figure 5 shows the tentative plans for residential development of properties to the immediate east of the planning area. All of these projects are in various stages of approval and/or construction; about 2,300 dwelling units are proposed. Compatibility issues could arise from noise, truck and vehicular traffic, odors and other factors associated with industrial operations.

Similar land use compatibility issues could arise between development within the planning area and ongoing agricultural operations to the north and south.

Sperry Avenue Gateway

Sperry Avenue provides the primary access to the City from the I-5 interchange and is perhaps the City's most important gateway. Accordingly, new development along this important gateway should be designed to create an attractive entry to the City while accommodating access for trucks and employees of future industrial development.

The I-5/Sperry Avenue Interchange

Another important constraint to development of the planning area is the capacity of the Sperry Avenue/I-5 interchange. Interstate 5 is one of the four main north-south highways in California and accommodates regional commuter traffic within Stanislaus County and beyond. For the planning area to become a viable industrial and business center, it is essential that the I-5 interchange be capable of accommodating the volume and size of vehicles associated with such development.

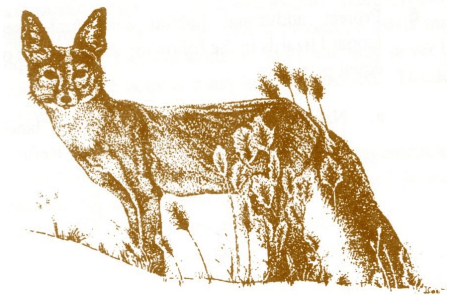
In 2002 Caltrans is completing a Project Study Report of the interchange to determine the level of improvements necessary to accommodate future development in the Patterson area. The Draft Project Study Report examined three potential solutions to the interchange that would accommodate the expected future traffic. Two of the alternatives, described in detail in the Circulation section of this Master Development Plan (Chapter IV.), have been determined to warrant future study. A development impact fee has been adopted by the City and County to help pay for the improvements, once the final design has been approved by Caltrans.

Other Infrastructure

Other important infrastructure constraints include water supply; roads and circulation; drainage and wastewater collection and treatment. These issues are addressed by the updated infrastructure master plans prepared by the City's engineering consultants and discussed in Chapter IV.

Foraging Habitat for Special Status Animals

The San Joaquin Valley is home to a number of special status plant and animal species classified by the California Endangered Species Act and the federal Endangered Species Act. For example, the planning area may have at one time provided foraging habitat for raptors such as the Swainson's Hawk (*Buteo swainsoni*) a species listed



San Joaquin kit fox

as *threatened* by the California Endangered Species Act, and for the San Joaquin kit fox (*Vulpes macrotis mutica*), a federally endangered species.

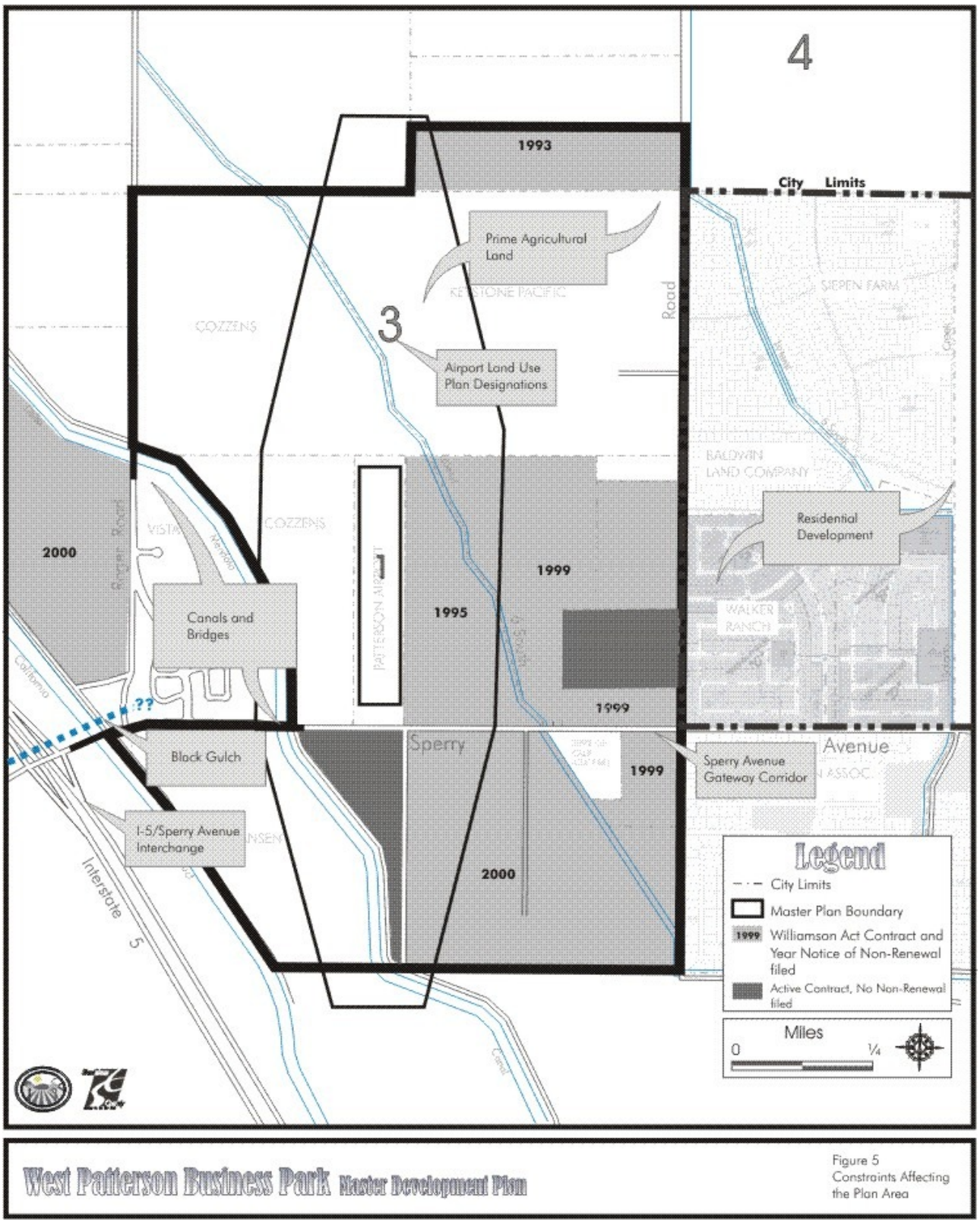
Field surveys conducted in the fall of 2001 and spring of 2002 found no specific evidence of kit fox within the Master Development Plan area and adjoining properties. The *Recovery Plan for Upland Species of the San Joaquin Valley* (US Fish and Wildlife Service, 1998) recommends protecting linkages between higher quality habitats north and south of the Patterson area. In the Patterson area these higher quality habitat linkages lie in the foothills west of Interstate 5. Nonetheless, future development within the Master Development Plan area would result in the permanent loss of potential habitat for this federally protected species. As a result, all new development will be required to compensate for this loss through one of the following actions:

- Fee title purchase of a permanent conservation easement for higher quality kit fox habitat west of Interstate 5 at a ratio of 2 acres preserved for each acre developed;
- Payment of an in-lieu fee of $2,000.00 per developed acre for the purpose of purchasing suitable habitat elsewhere; or

In either case, the lands selected for conservation must be approved by the US Fish and Wildlife Service.

A similar mitigation program will be required for the potential permanent loss of foraging habitat for Swainson's hawks, in addition to the conduct of pre-construction surveys to determine presence of special status species.

Figure 5: Constraints Affecting the Planning Area



Existing Land Use and Regulatory Setting

The study area consists of mostly level agricultural land in various stages of cultivation. Recent highway oriented commercial development occupies about 20 acres at the I-5/Sperry Avenue interchange in the unincorporated county (Vista de Lago). Further east is the Patterson Airport, a privately operated general aviation airport which occupies about 30 acres on the north side of Sperry Avenue immediately east of the Delta-Mendota canal. The California Aqueduct crosses the study area from the northwest to southeast about one-half mile east of I-5.

General plan designations applied to the area by both the City of Patterson and Stanislaus County are shown on Figure 3. The Keystone Pacific and the northerly portion of the Cozzens properties currently lie outside the City of Patterson general plan area and sphere of influence and are designated *Agriculture* by the Stanislaus County General Plan. Existing land use by general plan land use category is summarized on Table 1.

Water feature and landscaping at the Villa Del Lago project.

Table 1
Summary of Existing Land Use by General Plan Land Use Category

General Plan Land Use Category	Acres
Light Industrial[1]	318
Medical/Professional Office	24.5
Highway Commercial	64
Public[2]	7.7
Agriculture[3]	400
TOTAL:	814.2

Notes:

1. Includes 29.73 acres for Patterson Airport
2. California Division of Forestry (CDF) fire station and Caltrans work yard.
3. Stanislaus County General Plan

Patterson General Plan

The Patterson General Plan was adopted in 1992 and includes the following elements:

Land Use and Community Design
Housing
Transportation and Circulation
Public Facilities and Services

Recreational and Cultural Resources
Agricultural and Natural Resources
Health and Safety
Administration and Implementation

The Master Development Plan would help further the following policies and programs of the Patterson General Plan.

Land Use

I.A. 6 The City shall ensure its designation of land uses and approval of development projects do not hinder the efforts to maintain a positive fiscal balance for the City.

I. C. 3 The City shall promote the establishment, maintenance, and expansion of businesses in Patterson that generate high retail sales taxes as important contributors to the local economy.

I. C. 1 The City shall promote and assist with the maintenance and expansion of Patterson's commercial sector to meet the needs of Patterson residents, employees, and visitors.

I. C. 6 The City shall encourage efforts to attract major commercial and office tenants to Patterson.

I. E. 1 The City shall promote and assist the maintenance and expansion of Patterson's industrial sector.

Public Facilities

IV.B.2 The City shall ensure the provision of adequate sewer service to all new development in the city and support the extension of sewer service to existing developed areas where this service is lacking.

IV.C.3 The City shall expand and develop storm drainage facilities to accommodate the needs of existing and planned development.

City Design, Structure, and Aesthetics

VIII.A.6 The City shall create a continuous scenic corridor lined with palm trees extending along East Las Palmas Avenue from near the San Joaquin river west along Las Palmas Avenue through downtown to its planned intersection with Sperry Avenue and then west along Sperry Avenue to Interstate 5.

Programs

I.7 The City shall develop an economic development plan/employment strategy to identify strategies to attract new commercial development and industry to Patterson. The City shall create a citizen committee to assist the City in this effort.

The County General Plan contains the following policies concerning development within the unincorporated portion of a city's sphere of influence. Generally, these policies do not allow development to occur if it is inconsistent with a city's adopted general plan. These policies could, however, allow the County to approve development within Patterson's sphere of influence if the proposed development is consistent with the City's general plan.

Policy 24. *Non-residential development which requires discretionary approval and is within the sphere of influence of cities, other than Turlock, shall not be approved if its is inconsistent with the city's general plan land use designation...*

Policy 25. *Non-residential development which requires discretionary approval and is within the sphere of influence of a city must meet the applicable development standards of the affected city.*

Agricultural Element

The County's Agricultural Element was adopted in April, 1992 with the overall goal of preserving agricultural lands for agricultural uses. To achieve this goal, the Agricultural Element contains a number of policies and programs for the County's continued participation in the Williamson Act program. The Agricultural Element also includes the following policies concerning "Urbanization and the Conversion of Agricultural Land":

Policy 2.4 *To the greatest extent possible, development shall be directed away from the County's most productive agricultural areas.*

Policy 2.5 *New areas for urban development (as opposed to expansion of existing areas) shall be limited to less productive agricultural areas.*

Other relevant policies include those for "Expansion of Cities and Unincorporated Communities".

Policy 2.8 *The County recognizes the right of cities and unincorporated communities to grow and prosper and shall not oppose reasonable requests to expand spheres of influence of cities or community services districts and sanitary districts serving unincorporated communities to accommodate growth.*

Policy 2.9 *In recognition that unincorporated land within spheres of influence of cities or community services districts and sanitary districts serving unincorporated communities in managing development in urban transition areas.*

Policies of the Local Agency Formation Commission (LAFCo)

Changes to the organization of local governments are decided by the Stanislaus County Local Agency Formation Commission (LAFCo). As part of the Master Development Plan that relates to the Keystone development project, the City will petition LAFCo to amend the City's *sphere of influence* to include the areas shown on Figure 1. A sphere of influence is a plan adopted by LAFCo which describes the ultimate physical boundaries of the City and represents the areas into which the City will eventually grow and provide municipal services.

LAFCo has adopted rules, procedures and objectives for establishing and amending spheres of influence. To summarize, these objectives encourage the establishment of spheres of influence that correspond to the timely and logical extension of public services. The resolution adopting the City's 1992 sphere of influence states that, as the City amends its General Plan or adopts a specific plan for territory within its planning area, LAFCo will review the sphere of influence for its relevance.

The proposed amendment to the City's sphere of influence is consistent with LAFCo rules, procedures and objectives. The City has demonstrated a commitment to the provision of public services to the area through the adoption of infrastructure master plans (Chapter IV) and a financing plan (Chapter V).

Recommended Land Use Plan

Land use designations recommended for the planning area are shown on Figure 6; recommended zoning districts are shown on Figure 7. The arrangement of land uses was crafted to achieve the goals described in Chapter I and to address the physical constraints discussed above. The arrangement of uses was shaped in part by circulation and access constraints which are addressed by the circulation plan prepared by the City's traffic consultant and summarized in Chapter IV. Business park/research and development uses are concentrated along the Sperry Avenue and Baldwin Road corridors, while the interior areas are reserved for larger, more massive (and inherently less attractive) uses such as warehousing and distribution centers. Accordingly, the majority of the planning area is designated *Light Industrial*, consistent with the definition used by the City of Patterson General Plan and consistent with the County General Plan *planned industrial* designation. The area designated for *Highway Commercial* development on the south side of Sperry Avenue at the I-5 interchange (Hansen) has been reduced, and the properties at the northwest corner of Sperry Avenue at Baldwin Road currently designated for *Medical/Professional Office* are recommended to be re-designated as light industrial. The acreage devoted to different land uses are summarized on Table 2.

Table 2
Summary of Recommended
Land Use Plan

General Plan Land Use Category	Acres
Light Industrial[1]	772
Highway Commercial	34
Public[2]	7.7
TOTAL:	814.2

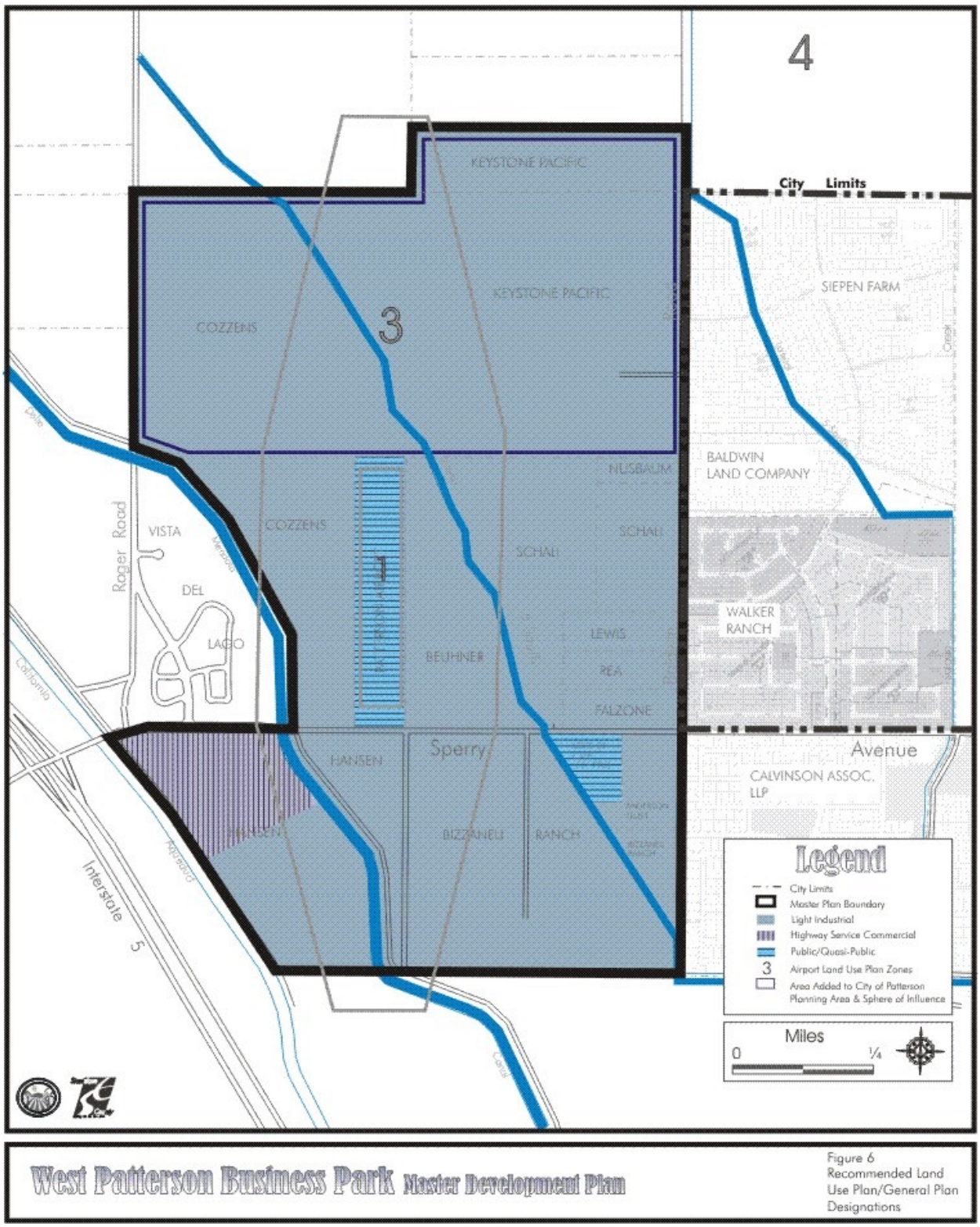
Notes:

1. Includes 29.73 acres for Patterson Airport
2. California Division of Forestry (CDF) fire station and Caltrans work yard.

The Keystone Project

The Keystone project involves amending the County and City general plans to designate 342 contiguous acres adjacent to the City's planning area for *Light Industrial* development and to amend the City's sphere of influence to include the area shown on Figure 2. Keystone intends to develop the eastern 223 acres (APNs 21-26-01 and 21-23-10) with business park/light industrial uses which will help provide the initial "seed" that will attract additional business park and light industrial uses to the West Patterson area.

Figure 6: Recommended Land Use Plan



Recommended Zoning, Development Standards and Allowable Uses

Recommended zoning designations for the planning area are shown on Figure 7. Two new industrial zoning classifications are applied: West Patterson Industrial Business Park (IBP) and West Patterson Light Industrial (LI). The complete recommended ordinances are provided in Appendix A.

Allowable Land Uses

The list of allowable land uses associated with these zoning classifications are summarized on Table 7 and in Appendix A. One of the goals of the Master Development Plan is to provide suitable locations for the development of business park/industrial uses that are not accommodated elsewhere in Stanislaus County. Accordingly, uses such as food processing that are water and sewer intensive have been excluded in favor of research and development and similar businesses that can be supported in an office/business park setting.

The range of allowable uses also distinguishes among the types of "manufacturing" uses that are allowed. Again, manufacturing that is not water/sewer intensive and employs a higher skilled work force is favored over other types of manufacturing. To help clarify the types of desirable manufacturing uses desired for the area, the *North American Industrial Classification System* definition for "computer manufacturing" was used. The uses described by this definition closely match the types of uses Keystone Pacific supports in their existing facilities in North Carolina and intends to pursue for the Plan Area.

Restaurants and retail businesses may be conditionally allowed, but only when integrated into the design of a business park campus and sized to be subordinate to the primary business or businesses.

Lastly, the lists of allowable uses are consistent with the limitations imposed by the Airport Land Use Plan for the Patterson Airport.

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Table 3 Allowed Uses and Permit Requirements for Light Industrial and Industrial Business Park Zoning Districts	P CUP – Permit Required	Permitted Use Conditional Use Permit required Use not allowed
Land Use	**IL**	**IBP**
AGRICULTURE AND OPEN SPACE USES		
Interim crop production and horticulture	P	P
INDUSTRY, MANUFACTURING & PROCESSING USES		
Assembly of products	P	P
Bakery wholesale and distribution	P	--
Bottling plant	P	--
Call centers	P	P
Communication systems research and development	P	P
Computer systems research and development	P	P
Conference center	--	CUP
Furniture manufacturing	P	CUP
Electronic repair and assembly	P	P
Food packaging	P	--
Interior design and office equipment sales	--	CUP
Manufacturing and technology support industries	P	P
Packaging	P	P
Pharmaceutical manufacturing	CUP	CUP
Printing and publishing companies, book binding	P	P
Research and development, laboratories	CUP	CUP
Seed processing and packaging	CUP	--
Sheet metal fabrication[1]	CUP	CUP
Sign fabrication companies[1]	CUP	CUP
Software development	P	P
Warehouses as a principle use	P	--
Wholesale distribution and catalog sales	P	P

Table 3 Allowed Uses and Permit Requirements for Light Industrial and Industrial Business Park Zoning Districts	P CUP – Permit Required	Permitted Use Conditional Use Permit required Use not allowed
Land Use	**IL**	**IBP**
RETAIL AND SERVICES USES		
Banks	CUP	CUP
Broadcast studios	CUP	CUP
Convenience store	CUP	CUP
Day care center	CUP	CUP
Gymnasium/ exercise business	CUP	CUP
Offices	CUP	CUP
Parcel delivery service	P	P
Government buildings and facilities	CUP	CUP
Copying and reprographics service	CUP	CUP
Restaurants, food take-out	CUP	CUP

Notes

1. So long as the use is conducted entirely within an enclosed building and complies with the performance standards established by Section 21.x66.xx. Outdoor storage is prohibited.

Recommended development standards are summarized on Table 4 and in Appendix A. The development standards largely mirror those applied by the City of Patterson Zoning Ordinance for the Light Industrial zone. However, minor deviations are recommended that relate to:

- Minimum building and lot sizes;
- The maximum allowable building height;
- Landscaping requirements and the use of on-site retention basins;

In addition to the development standards described in Appendix A, the Master Development Plan incorporates design guidelines for new development (Chapter III).

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Table 4
West Patterson Industrial Zoning Districts
Development Standards

	IL	IBP
Minimum lot size	Minimum area dimensions for parcels proposed in new subdivisions	
Minimum lot area	2 acres	5 acres
Minimum dimensions	100 ft.	100 ft.
Minimum Building Size	25,000 sq.ft.	50,000 sq.ft.
Setbacks(3)		
Front	15 ft.	15 ft.
Sides (each)	10 ft.	10 ft.
Rear	15 ft.	15 ft.
Site coverage	50% maximum	50% maximum
Height limit (1)	45 ft. (2)	45 ft. (2)
Landscaping	As required by Section 21.xx.xx	As required by Section 21.xx.xx
Lighting	As required by Section xx.xx.xx	As required by Section xx.xx.xx
Parking and loading	As required by Section 21.76	As required by Section 21.76
Signs	As required by City of Patterson Sign Regulations	As required by City of Patterson Sign Regulations

Notes:

(1) Maximum allowed height of structures. Exceptions may be allowed by Chapter 21.66.050 (Exceptions).

(2) Except as may be required by the Airport Land Use Plan for the Patterson Airport.

(3) The minimum setback for parking, buildings and other structures along Rogers Road, Baldwin Road, Sperry Avenue shall be twenty (20) feet measured from the property line or the adopted right-of-way plan line, whichever is greater.

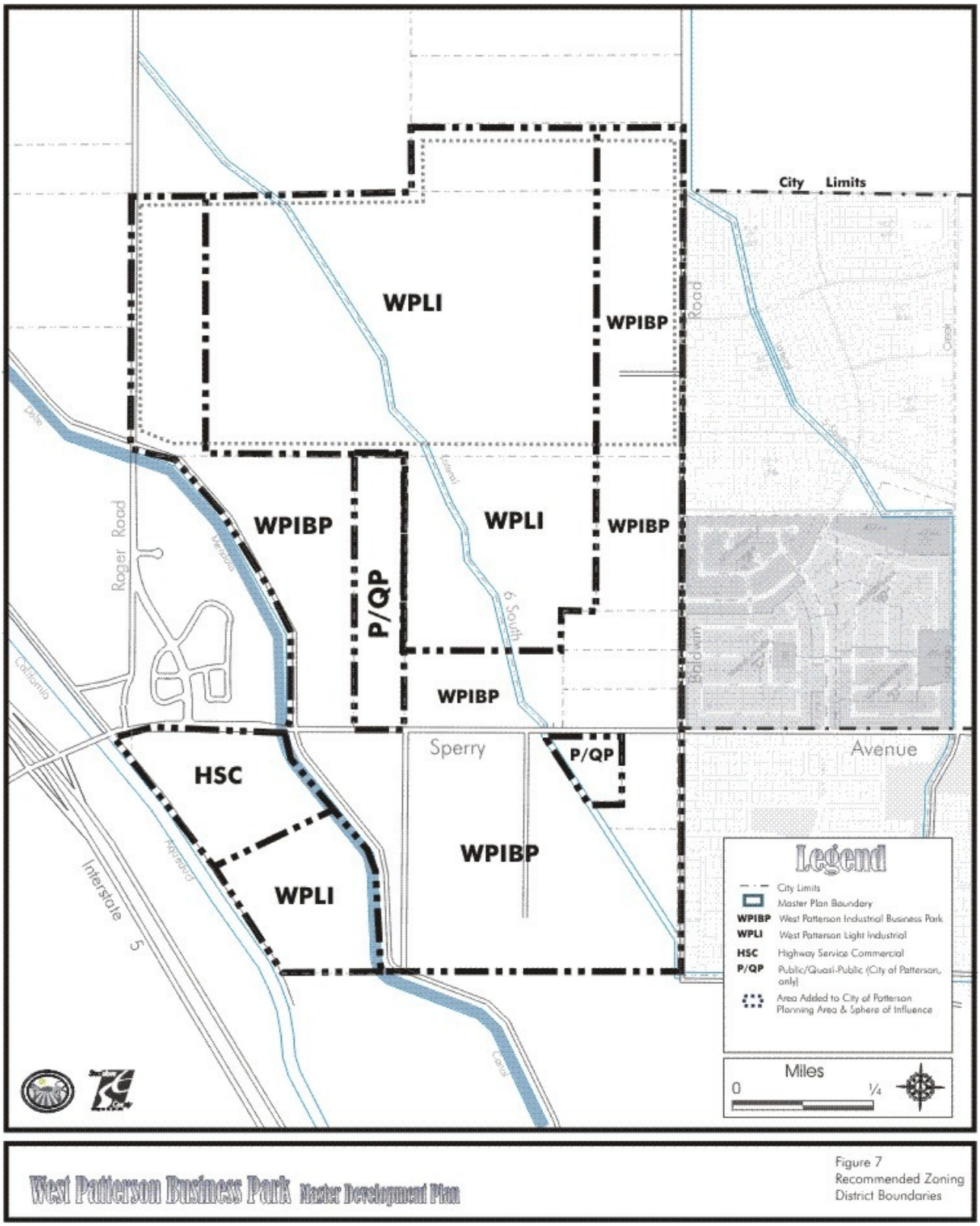
Employment Targets

The main goal of the West Patterson Business Park Master Development Plan is to attract and retain businesses that provide well-paying jobs. To that end, the following employment targets have been established:

Zoning District	Desired Minimum Employment Generation (jobs per gross acre)
Industrial Business Park (IBP)	35 jobs per gross acre
Light Industrial (IL)	20 jobs per gross acre

It should be emphasized that these are targets, only, and will be one of many factors used to assess the appropriateness of a given use for the area.

Figure 7: Recommended Zoning Districts



Development Holding Capacity

Table 5 provides a summary of the recommended land use by ownership, along with an estimate of the "holding capacity" for the planning area. Holding capacity refers to the commercial and industrial floor space that can be accommodated based on the amount of land designated for these uses. Due to market forces, the size and shape of parcels and other factors, the maximum development potential is rarely achieved. For this reason, holding capacity is typically expressed as 80 percent of the gross development potential (acres x building intensity x 80%).

Note that Table 5 shows buildout potential using *floor-area ratios,* which refer to the ratio of building area to the area of the underlying parcel. For light industrial development, two FARs are used: 0.16 and .30. For commercial development, a floor area ratio of 0.25 is assumed. These ratios were taken from the Patterson General Plan which uses similar floor area ratios to estimate holding capacity. Employee generation assumes one employee per 500 square feet of floor area for commercial and industrial development.

The holding capacity estimate in Table 5 represents a level of development that may be realized over many years. According to an absorption capacity study prepared by the Meyers Group (February, 2001) a more realistic estimate of future demand for light industrial development is about 100,000 square feet of building floor area per year for the next ten years (about 11 acre per year).

Table 5
Summary Holding Capacity
By Recommended Zoning District
West Patterson Business Park Master Development Plan
Source: CMCA

Recommended Zoning District	**Acres**	**Building Floor Area**[2]	**Employment**[3]
West Patterson Industrial Business Park	402	4,202,669	8,042
West Patterson Light Industrial	345	4,508,460	7,310
Highway Commercial	34	473,933	788
Public/Quasi-Public[1]	33.2		
TOTAL:	814.2	9,185,062	16,140

Notes:

1. Includes the Patterson Airport, Caltrans Yard and CDF Fire Station.

2. By applying the development standards provided in Appendix A.

3. Based on the following:

   One employee per 750 square feet of floor area for warehouse and wholesale businesses;
   One employee per 500 square feet of floor area for manufacturing businesses;
   One employee per 300 square feet of floor area for offices and labs;
   One employee per 500 square feet of floor area for retail and highway serving businesses;

III. Guidelines for the Design of New Development

Purpose and Applicability

One the primary goals of the West Patterson Business Park Master Development Plan is to establish a regulatory and infrastructure framework that serves as a catalyst for the attraction and retention of high-quality industrial and business park development. Accordingly, the Design Guidelines that follow were prepared to aid designers, the public and decision-makers by expressing the community's shared vision for the quality and attractiveness expected from new development in the Plan Area. The Guidelines emphasize the use of landscaping, screening, sign control, and other techniques to improve and enhance the visual qualities of the planning area so that a visitor's first impression is a positive one.

In some instances the Guidelines are fairly precise. However, they are not rigid and inflexible, nor are they intended to stifle creativity by imposing a formula for the design of new development. Their main purpose is to ensure that new development in the West Patterson area enhances the quality of life in Patterson and Stanislaus County and preserves its image as a desirable place to live, work and visit.

The vision embodied by these Guidelines can only be achieved through a cooperative effort among the decision-makers, private property owners and the community. The responsibility of decision-makers is to provide timely review of new projects, and to help foster private investment by implementing public improvements that enable development to occur. These Design Guidelines help achieve the former by providing a greater measure of predictability to the design review process. The role of the community is to be a sounding board with regard to new development so that decision-makers remain in touch with the preferences of County citizens.

The Design Review Process

The design review process for the West Patterson area is illustrated by Figures 15 and 16 in Chapter V of this Master Development Plan. As with all other development-related matters in Patterson and Stanislaus

County, design review is handled by the Planning Department and the appropriate decision-making body (Planning Commission, Board of Supervisors, City Council). Anyone considering a development project should first make an appointment to discuss the project and these Guidelines with a member of the City or County Planning Department staff. The staff member can help explain the development review procedures and determine if design review is required. The staff member can also provide an approximate timetable for the processing of the project and describe any other permits or approvals that may be required.

Design review is not a separate process apart from other discretionary approvals such as site plan review or a conditional use permit. To the extent allowed by the City or County's codes and ordinances, any additional planning or building permits will usually be processed concurrently.

Exceptions

It is envisioned that the great majority of projects will comply in their entirety with these Guidelines. However, it is possible that there may be unusual circumstances where a project may not be able to meet one or more of the standards due to the peculiarities of the project. In such instances, the Director or the Planning Commission may approve an exception provided that the overall intent of the Guidelines is still being met.

Amendments to the Guidelines

These Design Guidelines express the community's expectations for the design and quality of new development in the West Patterson industrial area. Although they advocate basic principles of "good" design that have been found to apply in almost every occasion, they also encourage innovation and creativity. However, the Guidelines cannot anticipate how the community's expectations are likely to change over time as new design and construction techniques emerge and as tastes change. Thus, the Guidelines should be viewed as a "living document" that will evolve with the changing sentiments of the community. If amendments are deemed necessary in the future, they should be considered carefully and with the full participation of the community.

Who Does the Reviewing?

The Director (or his/her designated staff) handles the task of design review for projects that do not require Planning Commission approval. When Planning Commission approval is required, such as a project requiring a conditional use permit, planned development or other entitlement, the Commission serves as the design review authority. When the Director or Commission determines that a project conforms to all applicable provisions of the City or County

Code, the project is approved. The approval may be subject to conditions that bear a reasonable relationship to the nature and intensity of development and the potential impacts such development may generate. Before a building permit may be issued, the project must demonstrate compliance with all applicable conditions and codes. Minor exceptions to these Guidelines may be approved by the Director (or the Planning Commission upon appeal) upon finding that the proposed design solution achieves the overall objectives of these Guidelines.

What Standards Will Be Used to Review My Project?

By its nature, design review involves subjective judgments: one person's idea of artistry may appear ugly to another. That is, in part, why these Design Guidelines were incorporated into the Master Development Plan and also why persons contemplating a development project should meet with City or County staff to discuss the design review process.

In their role as the design review authority, the Director and/or Planning Commission will look at the entire design of a project, considering such factors as how the project relates to the natural features of a site and to surrounding development, and the visibility of the site along major corridors and entryways. They will also try to judge the quality of the experience people will have when working or conducting business in the development, as well as the effect the development will have on the visual character and quality of life of the community.

Design Guidelines

General Qualities of Design

1. Industrial/ business park centers shall be designed with a consistent architectural theme that employs elements to visually unify the buildings and signage.

2. Desirable design elements and qualities that should be incorporated into new industrial development include:

    - Variety of surface texture.
    - Wall articulation and relief (awnings, trellises, etc.).
    - Significant landscaping that complements the buildings.
    - Projection that helps identify the entrance.
    - Entries that resemble a quality office in appearance and architecturally integrated with the mass and composition of the building.

3. Large industrial buildings often convey a "box-like" appearance. The following design techniques should be employed to help reduce the box-like appearance of large scale, bulky buildings:

    - Provide articulation to the various components of a building's façade through the use of color, the arrangement of façade elements, or changes in materials.
    - Incorporating recesses, projections, trim elements and other architectural features to provide visual interest.
    - Incorporate landscaping and architectural detailing at ground level to lessen the bulk of the building.
    - Incorporating indentations, color bands, vertical seams, textured walls and articulated surfaces.

Examples of business park development.

4. All roof top equipment shall be screened from view by materials compatible with those of the building.

5. The roofline at the top of a structure should not run in a continuous plane. Offsets should be provided in the plane of the roof at intervals proportional to the overall length of the façade.

Colors and Materials

6. Colors or logos identified with an individual company should be employed as accent features to a building and should not be incorporated as a main architectural feature.

7. Large areas of bright, intense colors shall be avoided. While more subdued colors usually work best for the overall color, brighter accent colors are appropriate for trim, windows, doors and key architectural elements. Bold stripes of color are not an adequate substitute for architectural detailing.

8. Wherever possible, the number of colors on a building should be minimized. Earth tones should be employed for the body of the building. Examples include shades of brown, beige, tan, brick, and gray. Generally, colors appearing on a building should be complimentary with contrasts provided by detailing or trim with primary colors.

9. Exterior materials should convey quality in design and construction.

10. Metal, tilt-up construction is prohibited. Concrete construction for industrial business park buildings may be used only when accompanied by elements that help provide articulation and visual interest, such as:

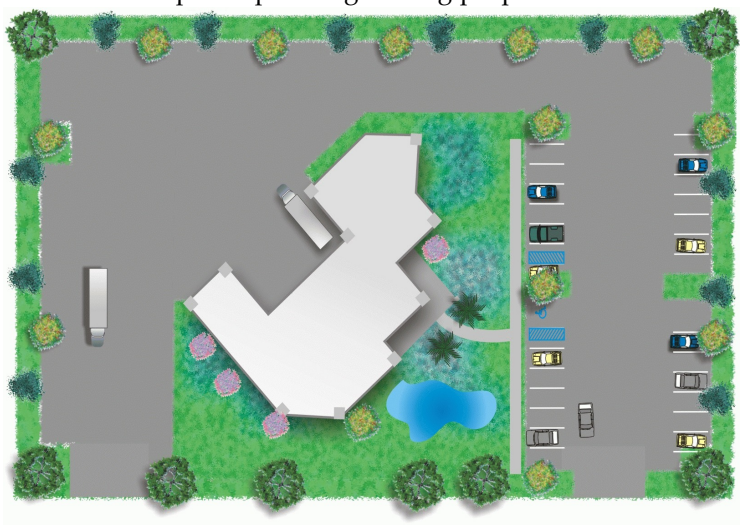
    - Texturing of the concrete surface to simulate rough or split-faced block.
    - Trim or other suitable exterior materials.
    - Painting of concrete block is prohibited. Painting on clay and concrete roofing tiles or shake roofs is also prohibited.

11. Roof materials should be functional, durable and consistent with the quality of materials employed on the buildings they serve.

Site Planning/Parking & Access

12. Site planning for industrial development should address the following principles:

- Controlled site access;
- Service and loading areas located at the rear or side of the building and screened from view;
- Safe and convenient vehicular access in which truck access is separated from visitor/employee parking;
- Emphasis on the main entrance to the building;
- Landscaping within parking lot areas and in areas visible from the public right of way.
- Building setbacks should be proportionate to the scale of the buildings. Larger structures should be set back further on the lot to provide balance with open space and so that buildings do not impose upon neighboring properties.



An example of a site plan for a business park use incorporating ample landscaping, a water feature and truck loading at the rear. The site plan below depicts a more conventional industrial project with loading in the rear and perimeter landscaping.

13. Large expanses of parking are to be avoided. Landscaping, including trees, shrubs and ground cover shall be provided throughout parking areas in accordance with City standards. Lighting within parking areas shall be provided in accordance with City standards.

14. Parking should be screened from view and visually subordinate to the development. Parking lots should not overwhelm the appearance of a site, or views from the site, and should incorporate landscaping for all areas not used for vehicle storage, access or circulation. Plants, berms and low walls, or a combination of these features, should be used to help screen parking from adjoining streets.

15. Parking lots shall be landscaped both on the interior and around the perimeter. In general, a planter should be provided at intervals sufficient to achieve an overall canopy of trees and should generally have minimum dimensions of six feet by eight feet.

16. Entrances to parking and loading areas should be clearly marked with appropriate directional signage.

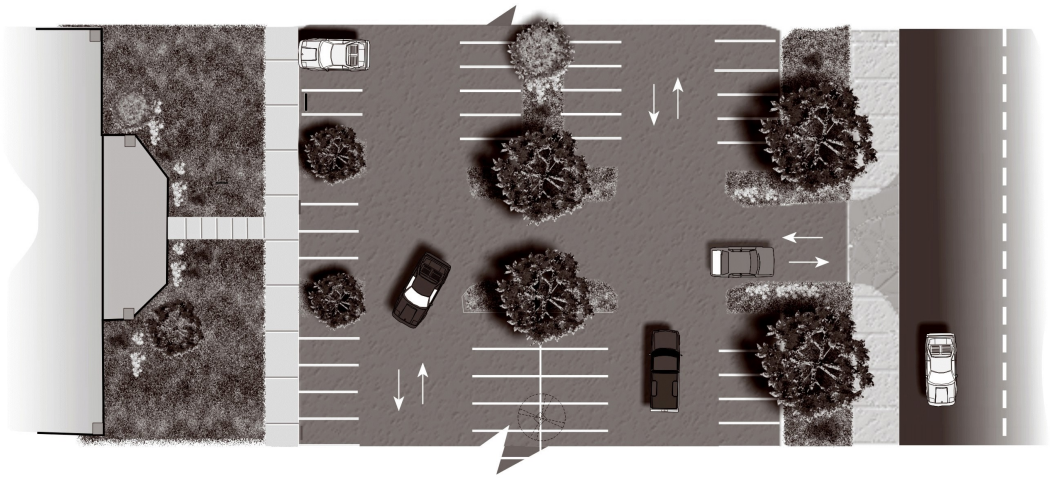
17. On-site circulation should be designed so that vehicles are not required to enter the street to move from one area to another.

18. Common driveways that provide access to more than one industrial site are encouraged and shall be utilized wherever possible.

19. Loading facilities should be located at the rear or side of the building and screened from view. When loading facilities are located on the front of the building they should be adequately screened and designed so that the loading areas do not dominate the view from the street.

20. Loading areas should be designed so that delivery trucks do not have to back onto the street for access.

21. Landscaping should be used to define areas on the site and emphasize the entrances to buildings, parking lots, and loading areas. The use of vines on walls can help soften the appearance of large building walls.



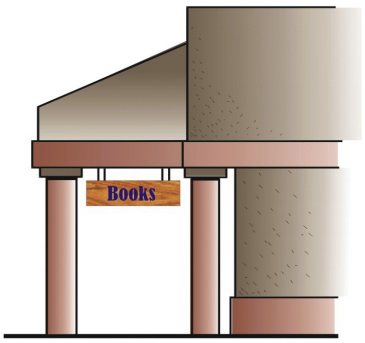
Signs

23. All signs shall be consistent with the City of Patterson sign ordinance in addition to the Guidelines in this section.

24. Provisions for the placement of signs shall be considered in the design of buildings. Signs shall bear a direct relationship to the overall design and character of a building and shall be compatible in size, scale, colors and materials with the architectural style of the building(s).

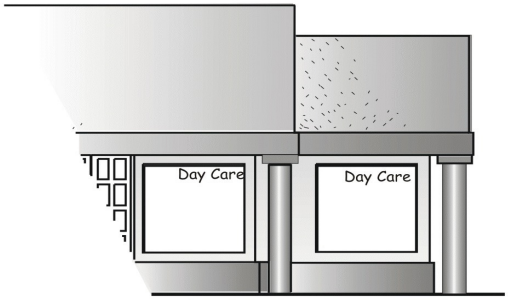
Canopy

Wall



Under Marquee

Projecting



Window

Signs should be integrated with the style and character of the project.

25. All signs shall be constructed of high quality materials such as stone, brick, cast concrete, tile or similar materials. Bare metal, wood or other non-durable materials shall be reviewed on a case by case basis.

26. For buildings with multiple tenants, a comprehensive sign program for the entire center is required. Such development shall utilize a single monument sign on each street frontage that identifies the overall name of the center. Signs for individual tenants shall be incorporated into the design of the project consistent with the other guidelines and standards for signage contained in these Guidelines and the City Sign Ordinance.

27. Signs shall be designed with permanent (non-changeable) graphics that are either back-lit or illuminated by means of recessed light fixtures at the sign base. Back-lit sign letters fixed directly to the sign face are encouraged over cabinet signs or other types of lettering. Flashing or message-board signs are not allowed.

28. Internally-illuminated sign cabinets are strongly discouraged. The placement of sign cabinets on building walls is prohibited.

29. Signage should identify the business or industrial center. Trade slogans are not allowed as permanent signage.

30. Stark contrasts in sign colors should be avoided.

31. Monument-type signs are preferred for business identification. Pole signs are not allowed. Where several tenants occupy the same site, individual wall mounted signs are appropriate in combination with a monument sign identifying the development address. Monument signs shall be no taller than eight feet and shall be integrated with landscaping around the base.

32. Monument signs shall be designed to complement the architectural style of the buildings they serve and shall utilize high quality materials such as brick, stone, tile, cast concrete or similar materials. A cabinet sign placed on a base does not meet the intent of these guidelines. Cabinet signs may be allowed provided the entire cabinet exclusive of the sign face is encased in the above mentioned materials, or if the overall design of the sign is unique and meets the intent of these guidelines.

33. Project identification signs should be placed at key project entries and form an attractive entry statement complemented by landscaping.

Landscaping, Walls, Screening and Lighting

Landscaping

In addition to these guidelines, all projects must comply with the City of Patterson's Drought Tolerant Landscaping Ordinance.

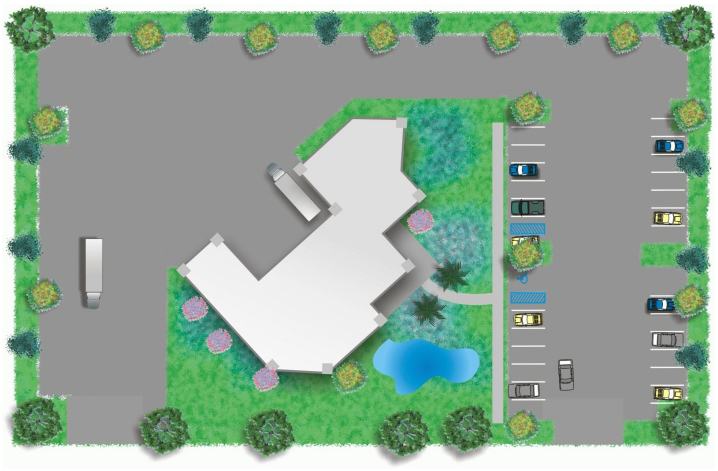
35. Landscaping should achieve the following objectives, as relevant to a particular project.

    - Enhance the aesthetic appearance of development.
    - Help buffer the transition between industrial and abutting residential development.
    - Help control erosion.
    - Screen incompatible land uses.
    - Preserve the visual integrity of neighborhoods and commercial districts, and enhance pedestrian and vehicular traffic and safety by clearly distinguishing walkways and access points.
    - Provide shade in parking areas.

36. Some commonly used planting design concepts include:

    - Grouping specimen trees and providing rows at major focal points and entries.
    - Flowering vines on walls and arbors.
    - Pots, vases, window boxes and raised planters.
    - Trees to create canopy and shade, especially in parking areas and along pedestrian ways.
    - Flowering trees or seasonal flowers to provide color.
    - Berms, plantings and low walls to screen parking areas.

37. Landscaping and other open spaces should be integrated into the overall site design for a project. Landscaping should enhance and complement the design of the building(s), preserve and enhance views, provide buffers, transition areas and screening.



Business park site plan creating a campus-like setting by incorporating ample perimeter and parking lot landscaping, a water feature and entry statement.

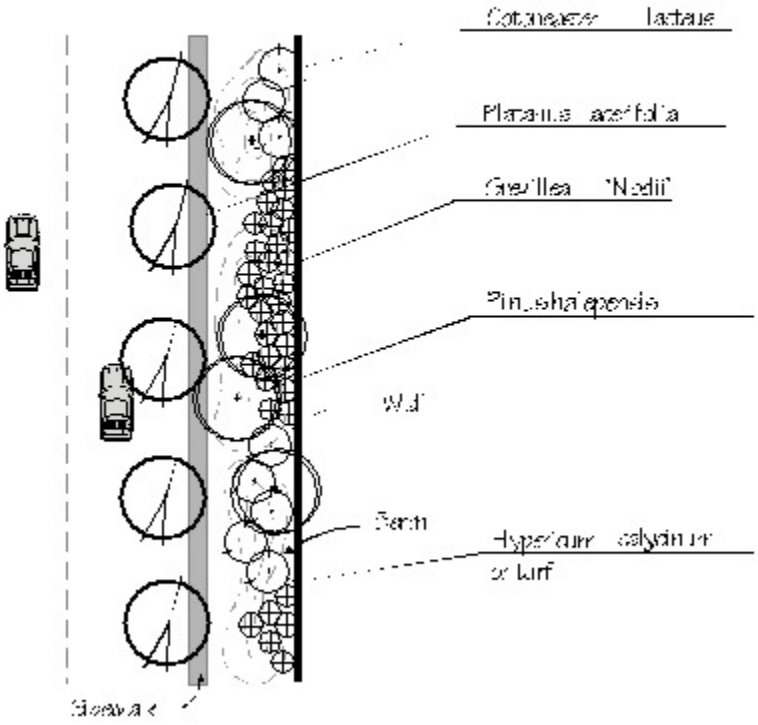
38. Landscaping should employ drought-tolerant varieties of plants, consistent with the City's Drought Tolerant Landscaping Ordinance.

39. A combination of deciduous and evergreen trees should be used to provide a variety of texture, color, and form in planting areas.

40. Trees with large canopies are required in parking lots, with accent trees at entries.

Walls and Screening

42. Screen walls should be designed to be compatible with the style and materials of the architecture of a site. Landscaping should be used in combination with such walls which covers at least 50% of the wall within five years. Berms should be incorporated into such landscaping. A conceptual landscaping plan that accomplishes these goals is provided below.



43. Long expanses of walls or fences should be interrupted with offsets and provided with accents to prevent monotony. Landscape pockets and pedestrian access through walls should be provided.

Staggered wall surface helps break up linearity.

Planter incorporated into wall provides relief from flat surface.

Variation in wall height along with foundation planting soften its appearance.

Materials that give texture to walls

44. Screening of outdoor storage should generally be solid, with a minimum height of six feet, in accordance with the City's fence height regulations. Vinyl-coated chain link fencing with slats may be appropriate for screening when not visible from the street in industrial zones. Chain link fencing is prohibited in commercial areas. Exposed chain link fencing may be used in industrial areas.

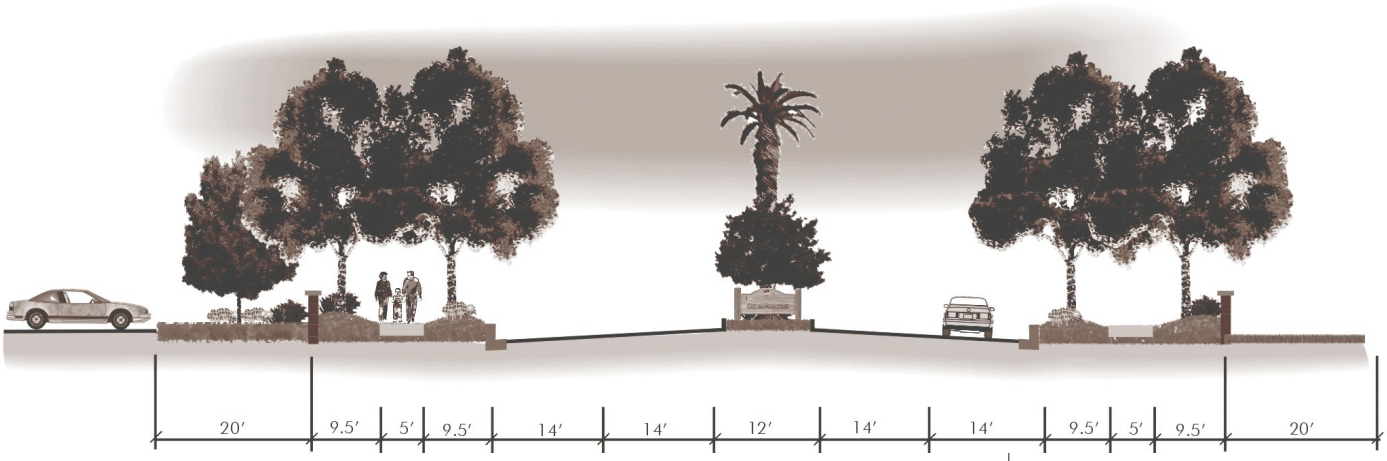
45. The use of barbed-wire or "razor wire" fencing is discouraged but may be considered in industrial areas where security of outdoor storage is a problem.

46. Where screening is required, a combination of elements should be used, including solid fences, walls, landscaped fences, landscaped berms and other landscaping.

Arterials and Streetscape Improvements

47. Sperry Avenue, Baldwin Road and Roger Road are important visual gateways and/or occupy prominent visual corridors. The design of new development along these key visual corridors shall incorporate elements to protect and enhance the viewshed.

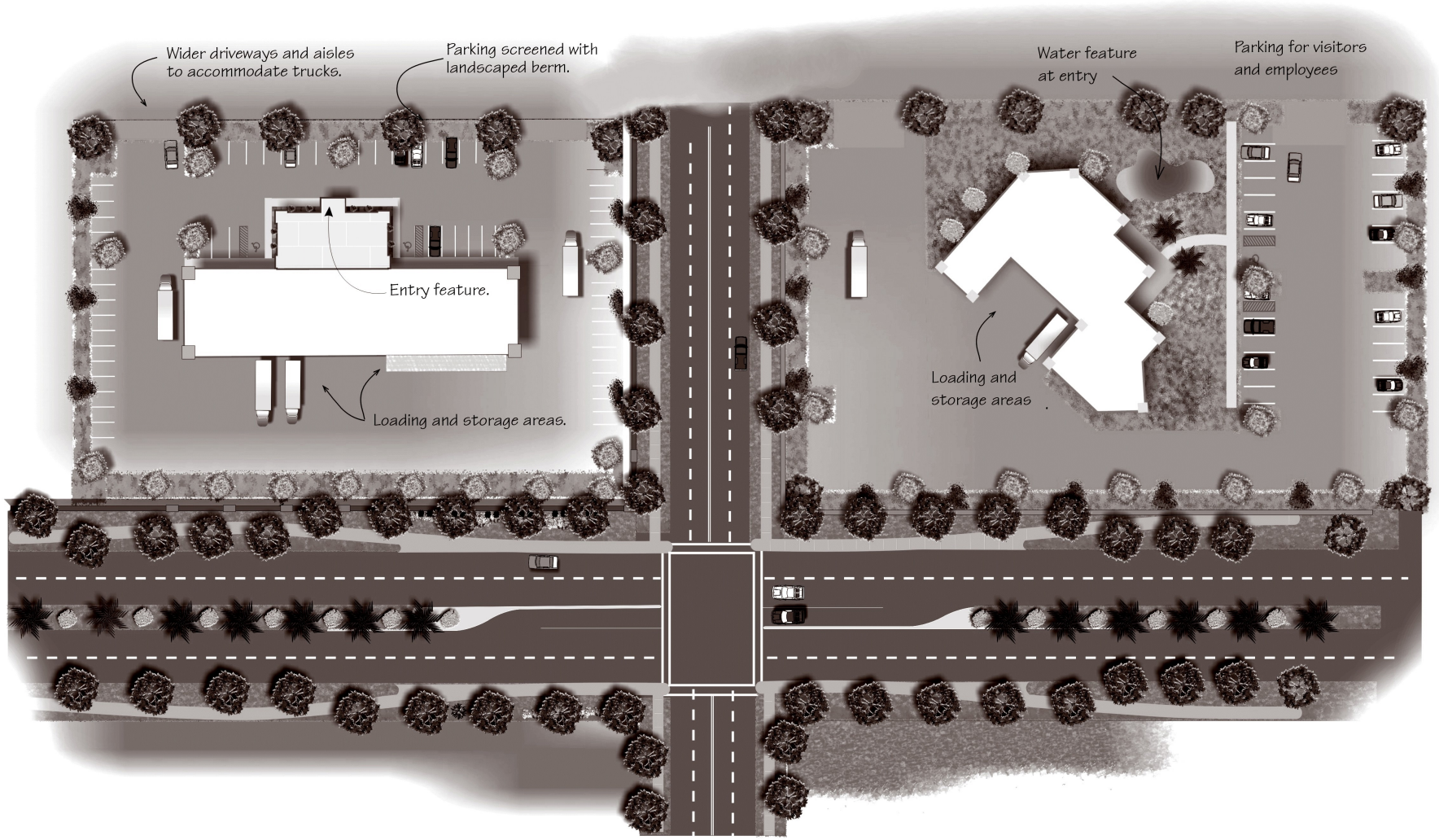
48. The Sperry Avenue corridor shall be improved and landscaped in accordance with the street section and landscaping plan adopted by the City of Patterson. The street section is illustrated below.



49. New industrial development along Baldwin Road shall ensure that truck access, loading areas and other potential noise sources are located on the interior of the building site where possible to minimize nuisance impacts to residential development to the east.

50. The design of new development shall incorporate elements to protect and enhance views from prominent vantage points, which include Interstate 5, Sperry Avenue, Roger Road and Baldwin Road. Such elements include those recommended by these design guidelines, in addition to the following:

    - Where possible orient loading areas interior to the site and screened from view along these corridors;
    - Roof design shall incorporate full screening of all roof-mounted equipment;
    - Landscaping plans shall incorporate trees of sufficient number and size to provide screening of new development;



Sperry Avenue with conceptual landscape/streetscape design and adjoining light industrial (left) and business park development (right).

IV. Infrastructure

Introduction/Background

In 1992, the City of Patterson prepared and adopted master plans for water supply and distribution, wastewater collection and treatment, and storm drainage to guide the infrastructure improvements necessary to achieve the community's vision articulated in the general plan. Since that time, development has proceeded in a manner which has at times necessitated deviating from the recommendations of the various master plans to respond to opportunities which were unforeseen at the time the plans were prepared. Although these changes have enabled the City to achieve its goals under the general plan, the Master Plans have been updated to reflect current circumstances and to reflect a more recent understanding of water supply, wastewater and drainage issues affecting the Patterson area.

Water Supply, Storage and Distribution

City of Patterson Water Supply and Production Resources

The City derives all of its water supply from the Delta-Mendota Groundwater Basin (Basin), as defined by the Department of Water Resources (DWR) in Bulletin 118-80 (DWR, Jan. 1980). The Basin encompasses 736,000 acres of land extending along the western side of the San Joaquin Valley between the San Joaquin River and the western edge of the Valley alluvium, from the Stanislaus/San Joaquin County line through Stanislaus and Merced Counties into Fresno County to the boundary of the Westlands Water District south of the City of Firebaugh. The Basin is composed of three subbasins – a Northern Subbasin, a Central Subbasin, and a Southern Subbasin, delineated in a regional Groundwater Management Plan prepared by the San Luis & Delta Mendota Water Authority (SLDMWA) (Stoddard & Assocs., April 1996). The City lies at the southern end of the Northern Subbasin.

In a 1995 study, DWR concluded that the Delta-Mendota Basin was overdrafted by 24,000 acre-feet annually (afa), 5% of the total annual withdrawals from the Basin (DWR, 1995). That overdraft, however, appears to be located well to the south of the City, west of Los Banos, Dos Palos, and Firebaugh. Surface water deliveries to that area have recently been curtailed due to environmental restrictions implemented to protect water quality and fish and wildlife in the Delta.

More specific and recent studies have confirmed that the groundwater in the City's vicinity is not overdrafted.[1] In 2002, in preparing an Urban Water Management Plan (see below), the City undertook additional study of the groundwater in the west Patterson vicinity (Schmidt & Assocs., April 2002). That study revealed a total quantity of at least 80,000 acre-feet of water in the aquifer beneath the City, 30,000 to 50,000 acre-feet of which were estimated to be of adequate water quality for municipal and industrial uses served by the City. The 80,000 acre-foot total is sustained by an estimated 9,300 acre-feet of annual recharge, not including seepage from irrigation and Salado and Del Puerto Creeks.

The City currently operates five groundwater wells east of the City limits, with nominal capacities ranging from 600 gallons per minute (gpm) in Well 6 to 1,600 gpm in Well 5 and total nominal capacity of 5,200 gpm.

Water is delivered to customers directly from the City's wells, without treatment. Two hydropneumatic tanks (13,000 gallons and 5,000 gallons) allow water to be fed to the distribution system at a constant pressure. The distribution system consists primarily of asbestos-cement and steel pipe, ranging from two to ten inches in diameter (Bookman-Edmonston Engineering, May 1992).

Present and Future Water Supply and Demand

On August 6, 2002, the Patterson City Council adopted an Urban Water Management Plan pursuant to the Urban Water Management Planning Act.[2] The UWMP evaluates past, present, and projected water demand and supply in five-year increments through the year 2020; the costs and reliability of the supply; and the City's conservation efforts, water shortage responses, and use of recycled water. The UWMP's evaluation incorporated the water demand projected to be created by development of the Master development Plan area and surrounding development. Based on an evaluation of the City's groundwater resources, the UWMP concluded that the City's groundwater is sufficient to serve the projected demand associated with the land uses (identified in the City's 1992 General Plan) within the City's sphere of influence as it is proposed to be amended for the West Patterson Business Park Master Development Plan. Nevertheless, the UWMP concluded that surface water would be a superior source of supply and noted that the City has begun negotiations with water providers in the region in pursuit of potential surface water transfers.

[1] The studies are discussed in the UWMP (Stoddard & Assocs., Aug. 2002a).

[2] Water Code sections 10610-10657, as amended by 2001 Cal. Stat. 320 (SB 672), 2001 Cal. Stat. 643 (SB 610), and 2001 Cal. Stat. 644 (AB 901).

Most of the Master Development Plan area is currently in agricultural use, principally in irrigated row crops. Because the City does not supply water for agricultural use, it does not currently deliver water to any properties within the project area. Agricultural users in the project area either (1) pump groundwater for use on-site (estimated to be a very small quantity[3]), or (2) contract with one of the local water districts for provision of water. Domestic uses on agricultural properties are similarly supplied. The project area is divided between the service areas of the Del Puerto Water District (DPWD) and the West Stanislaus Irrigation District (WSID). The project area presently receives an estimated 1,950 afa of CVP and San Joaquin River water per year from those water districts. Neither district supplies its customers with groundwater.

As noted above, the City's 2002 groundwater study estimated that between 30,000 acre-feet and 50,000 acre-feet of drinking-water-quality groundwater is available to the City in the confined aquifer. If existing plus approved development demand were to continue unchanged indefinitely, groundwater meeting Domestic Water Quality Standards would likely be exhausted at some point between 2009 and 2014. The 2009 date corresponds to the estimate of 30,000 acre-feet of adequate quality groundwater, while the 2014 date corresponds to the 50,000 acre-foot estimate. In sum, the City's existing water supply is not believed to be sufficient to supply existing demand much beyond the early part of the next decade.

At full buildout, the Master Development Plan area would account for an annual water demand of approximately 2,322 afa for business park and light industrial uses (Stoddard & Assocs., Aug. 2002b). Of that 2,322 acre-feet, the proposed 224-acre Keystone Pacific Business Park is anticipated to use approximately 627 afa (Stoddard & Assocs., July 2001, at Tbl. III-2).

Estimated Cumulative Water Demand

In 2020, total water demand in the City's sphere of influence including the West Patterson projects (cumulative demand) is anticipated to be approximately 7,589 afa (Stoddard & Assocs., Aug. 2002a), 3,989 afa beyond the existing plus approved development demand baseline and. Table 6 shows the estimated pace of population growth and the accompanying increase in water demand to 2020. The City's UWMP uses 2020 as a very conservative estimate of buildout of the City's amended sphere of influence. In fact, it is anticipated that, while buildout of the proposed Patterson Gardens development and perhaps other residential areas in the City's sphere of influence will occur by that date, the West Patterson Business Park Plan area is

[3]Because data on private groundwater wells is not available to the public, precise estimates of groundwater use on properties in the project area are not possible.

anticipated to take significantly longer to build out. The conservative 2020 buildout date was used to ensure that sufficient water supplies are available before, rather than after, they are needed (Stoddard & Assocs., Aug. 2002a).

Table 6
Total Water Demand Projections

YEAR	POPULATION	WATER DEMAND	
		(mg/yr)	(afa)
2000	12,100	768	2,357
2005	15,600	1,102	3,381
2010	20,800	1,596	4,898
2015	25,000	1,996	6,126
2020	30,000	2,472	7,589

Source: Stoddard & Assocs., Aug. 2002a.

Initial development of the Master Development Plan area would be served, along with the City's existing demand, from untreated groundwater pumped from the City's existing wells. Three additional wells would also be needed to serve development in the west Patterson area, in addition to existing and other projected demand, by 2012.

The total quantity of groundwater available to the City, irrespective of quality, is estimated to be sufficient to sustainably supply demand associated with the Master Development Plan area in addition to existing and other development contemplated by the General Plan without causing overdraft in the aquifer. The aggregate quantity of available groundwater was estimated by the City's groundwater study to be 80,000 af, with an estimated annual recharge of 9,300 afa, not including seepage from irrigation water and water in Salado and Del Puerto Creeks. The projected annual demand of 7,600 afa by 2020 is well within the volume of annual recharge.

Nevertheless, the quantity of groundwater meeting applicable water-quality standards is considerably lower. As mentioned previously, assuming the Master Development Plan area were not developed and no further growth were approved within the City's present sphere of influence, the City would be expected to deplete the available supply of groundwater meeting Domestic Water Quality Standards beneath the City at some point between 2009 and 2014. If no growth were to occur at all beyond 2000, those dates would be 2011 and 2020, respectively. Approval of the Master Development Plan, in combination with other development in the City's sphere of influence anticipated to occur by 2020, would accelerate the depletion of good quality groundwater, from 2009 or 2011 to 2008 and from 2014 or 2020

to 2012, respectively. Although the City would need to look beyond untreated groundwater to meet its projected water demand even without the Master Development Plan, any additional development would cause the problem to arise earlier.

To serve cumulative demand, the City would continue to rely on its groundwater, with installation of treatment systems before groundwater quality deteriorates to a level that will no longer support the City's uses, likely between 2008 and 2012. Existing wells (estimated to be seven to nine in number by the time treatment would become necessary) would be maintained and two new wells installed thereafter by 2020, which would also tap the deep, confined aquifer. Wells would be located to optimize the quality of groundwater pumped and to minimize potential adverse effects of pumping.

Before water quality became unacceptable, existing wells would be retrofitted with wellhead desalination systems. New wells coming on line would similarly be equipped with the treatment systems. Using reverse osmosis, the systems would remove sufficient dissolved solids and other constituents of concern to allow the resulting water to satisfy Department of Health Services primary and mandatory secondary drinking water standards. Wellhead treatment would avoid the need to construct and operate a centralized treatment plant, and treated water could be conveyed directly to the end customer via the City's conveyance infrastructure planned for in the City's Water Master Plan.

Operation of the desalination system would create substantial volumes of concentrated brine as a byproduct, estimated to be as great as 16% of the total volume of water pumped. Accordingly, approximately 9,034 acre-feet of groundwater would need to be pumped annually to meet the City's projected 2020 water demand of 7,589 acre-feet annually, approximately 1,445 acre-feet of that 9,034 acre-feet being lost as unusable brine. Disposal of the brine would involve design and construction of a conveyance system to collect the brine from each wellhead treatment system and deliver it to a central source for disposal, either by deep well injection or evaporation.

The City's Urban Water Management Plan and the Water Supply Assessment prepared for Master development Plan area and surrounding development (incorporated by reference) identified rough estimates of the costs associated with groundwater treatment. Although the costs of treatment would be high, the UWMP and Assessment concluded that groundwater treatment remains a feasible source of supply. More precise cost estimates must await more detailed engineering evaluation and identification of the particular treatment technology and brine disposal method to be used.

Another water supply option that could be considered in the future is for the City to obtain surface water rights sufficient to meet future demand. As discussed in the Urban water management Plan, the City would need to obtain entitlements to a surplus of water, about 13,000 acre-feet per year, to ensure that average deliveries would meet the City's projected cumulative demand of 7,589 acre-feet per year.

Both options (treatment of groundwater and surface water) are described in detail in the City's Urban Water Management Plan which is incorporated by reference and available for review at the City Planning Department, 33 S. Del Puerto.

Water Quality

The State of California Department of Health Services enforces safe drinking water standards as provided in the California Code of Regulations, Title 22, Division 4, Chapter 15 "Domestic Water Quality and Monitoring". Primary standards are those established to protect public health, while secondary standards are based on consumer acceptability, as the secondary constituents may adversely affect taste, odor or appearance of drinking water.

The primary standards are not exceeded in the city's wells; however the nitrate standard of 45 milligrams per liter has been nearly exceeded in Well 4. The recommended secondary standards are currently exceeded in all the wells, especially as the standards relate to total dissolved solids (salinity) and nitrates. Thus, the availability of water supply is limited by the quality of available sources.

Test wells drilled in the City and to the west of the City have produced sufficient water to meet future demand but the quality of the water does not meet safe drinking water standards for TDS and nitrates. Additional test wells are planned to the east of the City where higher quality water has been located previously.

Water Storage and Distribution

A number of factors are considered in the design of a water supply system. These factors include requirements for adequately providing capacity to meet peak water demands, and consideration of requirements for fire protection. Typically, the average demand rate is multiplied by a 'peaking factor', then increased by a flow rate for fire protection to determine the required capacity of a water supply and distribution system. This approach was used in formulating infrastructure facilities that will provide a water supply system for development under the General Plan.

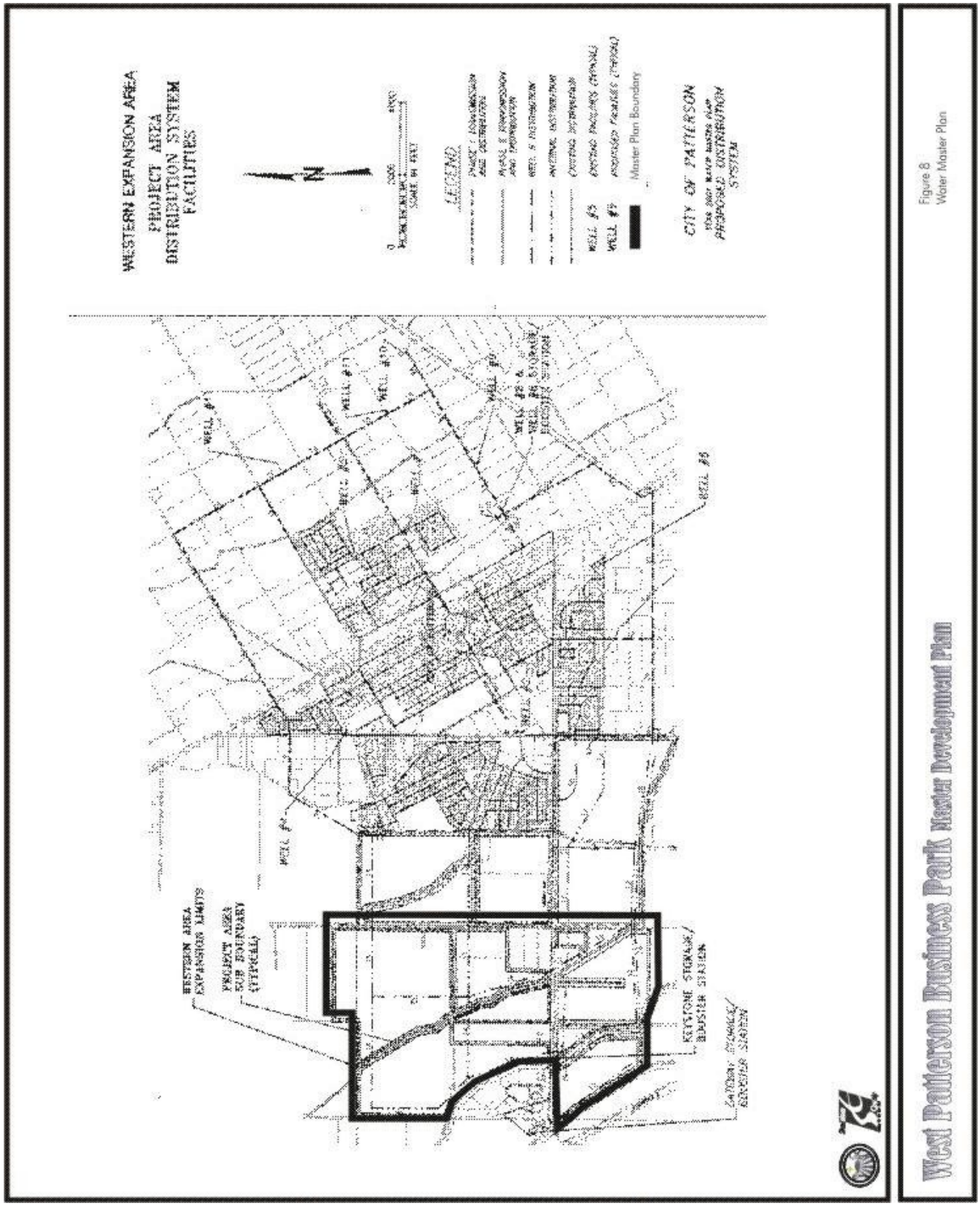
The updated Water Master Plan identifies arterial water distribution pipelines, water storage tanks, pressure control devices and groundwater wells and pumps necessary to serve buildout of the City

and the Master Development Plan area. The design criteria and recommended components of the system are summarized in the Draft Year 2001 Water Master Plan, which is incorporated by reference.

Existing and Planned Water Supply and Distribution Improvements

Planned water system improvements are shown on Figure 8 which shows tentative locations for production wells, trunk distribution lines, storage tanks, and pump stations.

Figure 8: Existing and Planned Water Distribution System



Wastewater Collection and Treatment

The City's Wastewater System

The City of Patterson provides wastewater collection, treatment and disposal service for all residents, schools, commercial and industrial establishments in the City except for Patterson Frozen Foods, which has its own onsite treatment system, and a few residences, which are served by their own onsite septic tank systems. The City's wastewater system also serves the Villa Del Lago commercial development located near the I-5/Sperry Avenue interchange. The City's wastewater system consists of three basic components: collection, treatment, and disposal.

Wastewater Collection

The City's wastewater collection system consists of gravity flow pipelines ranging in size from 6-inch to 33-inch diameters, typically located in City street rights-of-way. Older portions of the system, which generally serve the downtown core residential and commercial areas, were constructed before 1960. Newer developments have been connected to the system over time.

Wastewater Treatment and Disposal

The City's wastewater treatment plant is located on a 160-acre site situated between Walnut and Las Palmas Avenues, east of Poplar Avenue and west of the San Joaquin River. The plant's currently permitted capacity is 1.3 million gallons per day (mgd), and the average current volume of wastewater produced by the City is approximately 0.8 mgd. The remaining capacity is available to provide service for previously-approved expansion and to accommodate unanticipated high flow conditions. Wastewater is treated using two types of treatment processes, each principally an aerated biological treatment system. The older system, with a permitted capacity of 0.8 mgd, consists of an activated sludge process followed by clarification. The newer system is an advanced integrated pond system (AIPS), with a permitted capacity of 0.5 mgd.

The treatment facilities include a lift station, metering structure, headworks, comminuter, oxidation ditch, settling clarifiers, AIPS ponds, and sludge drying beds. The lift station is located at the terminus of Walnut Avenue where the influent (i.e., untreated wastewater) is received from the Walnut Avenue trunk sewer line into the plant.

In 1992, the City of Patterson prepared the *Wastewater System Master Plan* (City of Patterson, 1992) to provide guidance for future expansion of its existing wastewater collection, treatment and disposal system to

accommodate expected development in the City General Plan Area. The Master Plan found:

> *The existing collection system is considered adequate to serve the existing service area including infill. For planning purposes, capacity is not available other than on an interim case by case basis for new development in the General Plan growth area (City of Patterson, 1992; page 2-2).*

The Master Plan also included a staged implementation program to meet the City's future treatment capacity needs, but recommended periodic review to incorporate revisions that may be appropriate due to changing future conditions. Over the last several years, a substantial amount of development has occurred in western portion of the City. The sewer collection pipe sizes constructed for the new developments generally followed the recommendations set forth in the Master Plan, and some of the pipes were oversized to assist in providing sewage collection service for future development on the west side of the City.

In 2001, the City prepared the *Western Expansion Area Sanitary Sewer Collection System* report (City of Patterson, 2001) to determine the most cost effective way of providing sewage collection to the west side of the City's General Plan Area using the oversized sewer lines constructed since the 1992 Master Plan was developed. This report recommended an expansion of the sewer collection system. Under this system, the existing 15-inch and 21-inch sewer lines running through the Heartland Ranch (formerly Patterson Ranch) development would be loaded to near maximum capacity, and the 27-inch line in M Street would be loaded slightly above capacity. Therefore new collection pipeline would be required to serve the Master Development Plan area.

Wastewater Generation

The Keystone Pacific Business Park portion of the Master Development Plan area would result in development of 224 acres of business-related uses including light industrial, warehouse, and flex space. The Business Park would generate an average wastewater flow rate of approximately 136,500 gallons per day (gpd) at project buildout.

Past and present development projects contribute approximately 800,000 gpd of wastewater to the City's treatment plant. This represents the current (2002) flows generated in the City's wastewater service area. Development of the Master Development Plan area and surrounding residential development would generate approximately 806,000 gpd of wastewater. Future buildout of the portions of the

Patterson General Plan area outside the Master Development Plan Area would generate approximately 2,514,000 gpd of wastewater, and the Diablo Grande project would generate approximately 733,000 gpd. If the City decides in the future to accept and treat Diablo Grande wastewater, the total cumulative wastewater flows projected in the City by the year 2020, including existing flows, would be approximately 4.1 mgd. Future projected flows would exceed the plant's currently permitted capacity of 1.3 mgd. Future development, including that proposed in the Master Development Plan area, will be required to contribute their fair share of funding to assist in mitigating future wastewater system service and treatment deficiencies. The recommended infrastructure improvements for wastewater are described below.

Recommended Wastewater Infrastructure Improvements

The City is proposing to expand its wastewater collection, treatment, and disposal system to accommodate wastewater generated by development within the Master Development Plan area and adjoining residential development. The City is proposing a 2-phase, 1 million gallon per day (1 mgd) expansion of its wastewater treatment and disposal facilities to accommodate previously-approved residential development and buildout of the Master Development Plan area. In the near term, the City also proposes physical expansion of its collection system to serve two development proposals: the Patterson Gardens residential project, and the Keystone Pacific Business Park portion of the Master development Plan area. Additional expansion of the collection system will be required to serve future development within the Master Development Plan Area.

The City is also separately contemplating a plan to accommodate the wastewater generated by the Diablo Grande development in western Stanislaus County, and has entered into an agreement with the Western Hills Water District to provide for engineering and environmental analysis of the necessary facilities. The City has not decided to collect or treat Diablo Grande wastewater; the impact of expanding the City's wastewater treatment system to include Diablo Grande wastewater flows is proposed to be included in an environmental review document planned to be prepared on the City's Wastewater Master Plan. Environmental review has already been carried out for the Diablo Grande development project. In anticipation of potentially accepting Diablo Grande wastewater, the City is considering construction of the wastewater collection lines (i.e., sewer trunk lines) in Sperry Avenue and Ward Avenue at a slightly larger size to accommodate Diablo Grande flows as well as flows from the West Patterson projects. Slightly oversizing the sewer trunk line for the West Patterson projects would avoid re-trenching and laying a second pipeline in the future if the City decided to collect and treat Diablo Grande wastewater. The Western Hills Water District

would fund the incremental cost of the larger trunk line. If the City chose not to provide Diablo Grande with wastewater treatment, these larger sewer trunk lines could theoretically accommodate additional development in the area west of Patterson; however, no such development is approved, contemplated, or under discussion by the City or Stanislaus County, and the new collection lines could not serve additional development without new connecting pipelines. Therefore, the additional capacity would likely go unused.

Wastewater Collection

A new sewer collection pipeline would be constructed from the intersection of Sperry Avenue and American Eagle Drive, running east under Sperry Avenue and north under Ward Avenue to the existing 27-inch line in M Street. A new sewer trunk line would be constructed from the end of the existing 27-inch sewer line in M Street. As described in the *Western Expansion Area Sanitary Sewer Collection System* report, the new sewer trunk line would run along M Street, cross Highway 33 and the railroad tracks, and then continue down Walnut Avenue to the wastewater treatment plant. Because the City is proposing to construct the wastewater collection lines that would be common to both Diablo Grande and development on the west side of the City 3 inches larger in diameter to accommodate flows from Diablo Grande, development on the western section of this sewer trunk line would be sized at 30 inches and the eastern section would be 36 inches in diameter. Slightly oversizing the trunk line now would avoid re-trenching and laying a second pipeline in the future if the City approves collection and treatment of Diablo Grande wastewater. If Diablo Grande wastewater is not collected by the City, the large collection facilities could accommodate additional development in the Master Development Plan area.

To accommodate wastewater generated by the Keystone Pacific Business Park portion of the Master Development Plan area, the City is proposing to construct 12-inch and 21-inch sewer lines across the northen portion of the Creekside Meadows development to connect with the existing 21-inch line in the northwestern portion of Heartland Ranch (See Figure 9).

Once constructed, the M Street and Walnut Street trunk line that was previously approved as part of the Creekside Development would convey wastewater generated by the Master development Plan area from the existing 27-inch line in M Street to the wastewater treatment plant. This sewer trunk line will run along M Street, cross Highway 33 and the railroad tracks, and then continue down Walnut Avenue to the wastewater treatment plant.

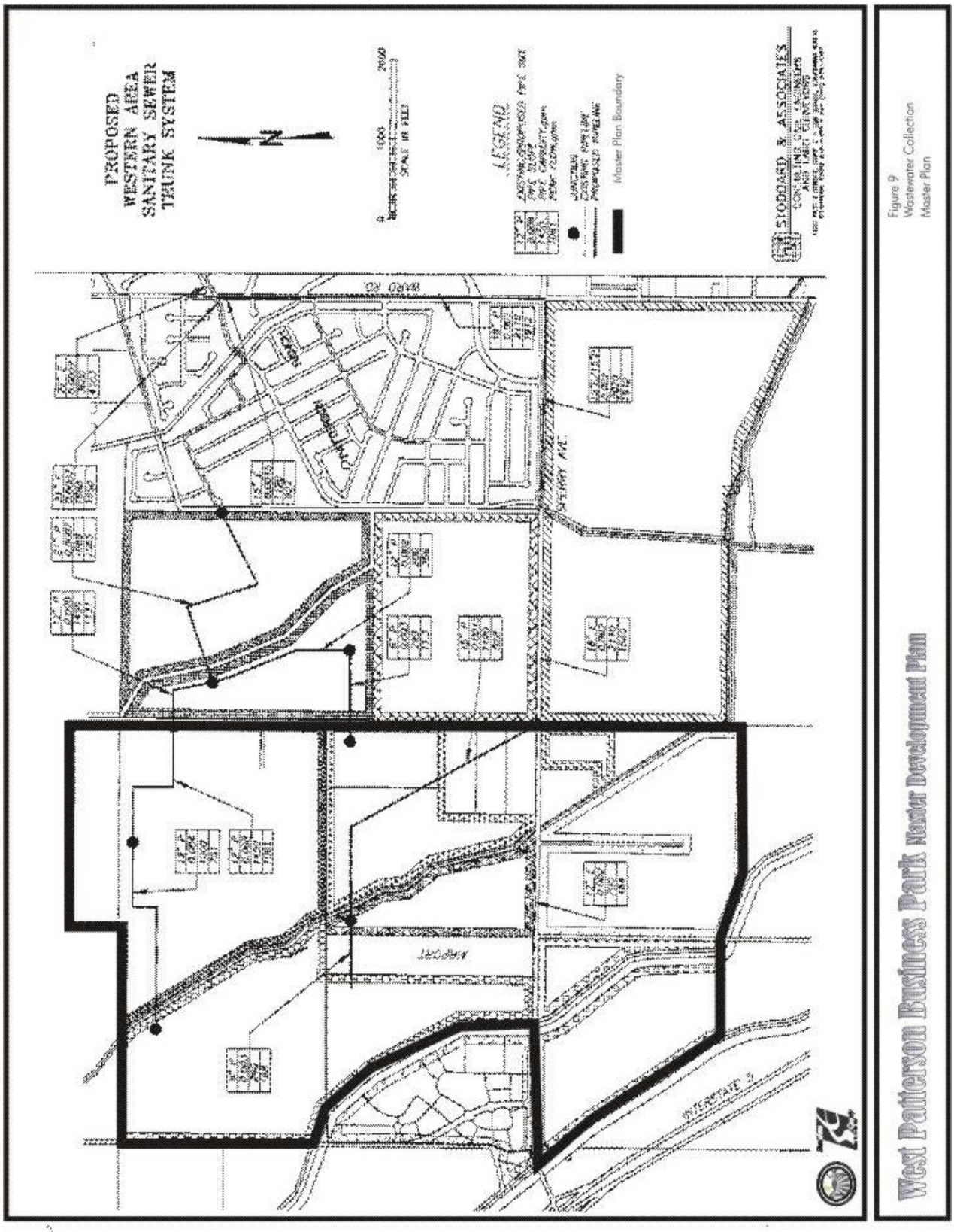
Treatment Plant Expansion

Expansion of the City's existing wastewater treatment plant would include a two-phase expansion of the AIPS treatment system in the existing wastewater treatment plant facility (approximately 0.5 mgd per phase), and construction of approximately 120 acres of percolation ponds. The first phase expansion would be constructed to serve the previously-approved 1,348-residences in the Creekside Development. The Creekside Development includes the Creekside Meadows, Walker Ranch, and Cascario projects located east of the Master Development Plan area. The City's plant currently serves 750 Creekside development residences. The first-phase expansion would serve the balance of the Creekside development, the Patterson Gardens residential project, and about 150 acres of the Keystone Pacific Business Park portion of the Master Development Plan area. The second-phase expansion is intended to serve the balance of the Keystone Pacific Business Park and future development in the remainder of the Master Development Plan area.

Existing and Recommended Wastewater Collection Improvements

Existing and recommended wastewater collection system improvements are illustrated by Figure 9 and described in detail in the Western Expansion Area Sanitary Sewer Collection System (Stoddard & Associates, November, 2000) which is incorporated by reference.

Figure 9: Existing and Recommended Wastewater Collection System Improvements



Drainage

Setting

Patterson is located at the intersection of three watersheds: Del Puerto Creek (about 45,500 acres), Salado Creek (about 16,000 acres) and Black Gulch (2,440 acres). Salado Creek flows through an earthen channel from the west until it reaches Highway 33 where the natural creek has been filled in and replaced with a 36-inch pipe. Both creeks originate in the mountains of the Diablo Range west of the City and generally flow easterly toward the floor of the San Joaquin Valley.

The climate in Patterson is considered semi-arid with annual rainfall of about 11 inches. The terrain within the Project Area is flat and partly developed with urban land uses. Streets, buildings and other impervious surfaces tend to increase the volume of runoff, while the level terrain tends to slow the rate at which runoff leaves the area. This combination can result in localized areas of ponding both within the Project Area and other portions of the City.

Storm water runoff originating in the Planning Area currently flows to Salado Creek and/ or percolates into the ground.

Based on the Federal Emergency Management Agency's (FEMA) 1989 Flood Insurance Study for Stanislaus County (FEMA, 1989), flooding reportedly occurred in the Patterson/Newman area in 1954, 1955, 1957, 1958, 1959, 1963, 1968, 1969, 1978, 1980, 1983, and 1986. Since that report was published, flooding has occurred on Salado Creek several times in the 1990s, including 1995 and 1998 (Lambert, 2002). Based on the Flood Insurance Rate Map (FIRM), the 100-year flood zone (Zone A6)[4] within the project area is confined within the Salado Creek channel; no other drainage or irrigation feature with the project area is associated with the 100-year floodplain (FEMA, 1989a). The rate at which water is delivered to the Salado Creek channel in the vicinity of the project area is controlled by the amount of water that passes through the overchute at the DMC. The overchute on, and the levee system upstream of, the DMC limit the peak discharge downstream of the DMC to 710 cubic feet per second (cfs) (FEMA, 1989). Salado Creek between the DMC and Sperry Avenue is capable of conveying 300 cfs (Stoddard, 2001). The disparity between the conveyance capacity of Salado Creek downstream of the DMC (300 cfs) and the conveyance capacity of the DMC overchute (710 cfs) is the reason that the FIRM shows a broad "Zone B" flood hazard area north of the DMC. Zone B is defined as "areas between limits of the 100-year and 500-year flood; or certain areas subject to 100-year flooding with an average depth less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood." The FIRM indicates that the creek overtops the

[4]Zone A6 is defined as "areas of 100-year-flood; based flood elevations and flood hazard factors have been determined."

channel banks just north of the DMC during the 100-year event, and therefore it is concluded that the Zone B designation is for "*areas subject to 100-year flooding with an average depth less than one (1) foot.*"

It is important to note that two infrastructure projects have been completed since the FIRM was published that would be expected to reduce flood hazards at the Patterson Gardens site: 1) the Salado Creek diversion structures at the DMC, and 2) the improvement of Salado Creek conveyance capacity from Sperry Avenue to the San Joaquin River.

Salado Creek Diversion at the Delta Mendota Canal

In 1998, three 60-inch diameter concrete culverts were installed through the levee that separates Salado Creek from the DMC. The culverts allow storm water to flow from Salado Creek into the DMC during moderate to large storm events. This diversion reduces the maximum peak flow through the DMC overchute and in Salado Creek north of the DMC. Prior to the installation of the diversion structures, the overchute had a calculated conveyance capacity of 710 cfs (during the 100-year event). The anticipated conveyance through the overchute during the 100-year event with the diversion structure in-place has not been calculated, but would be expected to be substantially less than 710 cfs.

Salado Creek Flood Mitigation Project

As described in the City of Patterson, Western Expansion Area Master Storm Drainage Plan (Stoddard, 2001):

> *In 1998, a cooperative project between the County of Stanislaus, the City of Patterson, and Kaufmann & Broad was carried out to increase the carrying capacity of Salado Creek from Sperry Road all the way to the San Joaquin River. The improvements consisted of both channel enlargement and embankment construction with the majority of the work being construction of a 96-inch cast-in-place pipeline from a point just east of the Union Pacific Railroad all the way to the San Joaquin River. The design capacity of the facility between Sperry Road and the San Joaquin River is 500 cfs.*

This downstream conveyance improvement would be expected to substantially reduce backwater flooding at the site.

In summary, portions of the Master Development Plan area are susceptible to storm-related flooding, but not dam failure inundation or coastal flooding. Based on the FIRM, the 100-year flood hazard zone (Zone A) for Salado Creek through the Patterson Gardens site is

contained within the channel banks. A substantial portion of the site is subject to flooding (with inundation depths less than one foot) during the 100-year storm events (Zone B). It is likely that since storm drainage infrastructure improvements have been completed since the FIRM was published that the FIRM overstates the flood hazard at the project area.

The final development plan for the Patterson Gardens residential project includes improvements to the Salado Creek channel through that site. The plan, if implemented, would reshape the channel form to increase the conveyance capacity from an estimated 300 cubic feet per second (cfs) to 500 cfs. It would not be beneficial to the region-wide drainage conditions to increase the channel capacity beyond 500 cfs since the downstream components are not designed to convey more than 500 cfs (Stoddard, 2001). In addition, the plan includes bank reshaping measures and the establishment of a 20-foot setback (including a 7.5-foot oak savanna buffer). However, even with the proposed channel conveyance improvements, it has not been demonstrated that all 100-year flows would be contained within the channel banks, and therefore flooding of residential development proposed in the vicinity of Salado Creek could occur during moderate to severe flood events.

To address potential flooding problems, all new construction and substantial improvement of any structure in Zone B (no construction is proposed in Zone A) shall have the lowest floor elevation, including basement, elevated above the highest adjacent grade at least two feet (as measured from the flow line of the gutter). This is consistent with General Plan policy VII.B.2 which states that all new residential development shall be constructed so that the lowest floor elevation is at least 12 inches above the 100-year flood, since the maximum inundation depth within Zone B at the site is one foot.

The *2001 Master Storm Drainage Plan, City of Patterson, Western Expansion Area* (Master Drainage Plan) was prepared to guide storm drain infrastructure improvements required to adequately serve the anticipated growth in the vicinity of the project area. The Master Drainage Plan specified *Detention and Discharge to Salado Creek* as the preferred alternative to address the drainage challenges of the West Patterson area. Specifically, the Master Drainage Plan states that (page 15):

> *Storm water would be collected through a series of pipelines and discharged into one of many detention basins so that the flow could be attenuated and discharged to the creek. The discharge would be interrupted when insufficient capacity was available in the creek for conveyance some time later to avoid contributing to creek flooding downstream. Detention basins would be*

evacuated by gravity discharge with the basins connected in series to a pipeline which discharges to Salado Creek, with the exception of the basins near the creek which would be evacuated by use of pumping stations. Flow into the pipeline would both be 'metered' through an orifice, and regulated by a control gate. The rate of metering would be such that the entire contents of the basin could be evacuated within 48 hours. The basins would be designed to contain runoff from the 100-year 24-hour storm event. Detention basins would be configured to serve also as parks in a dual purpose function.

Existing and Planned Drainage Improvements

In 1992, the City prepared a Storm Water Master Development Plan that identifies the drainage improvements necessary to accommodate buildout of the City in accordance with the Patterson General Plan. The Master Plan recommends a combination of open channels and underground drainage pipes to mitigate the drainage impacts associated with buildout of the City.

The Storm Water Master Plan was modified with the approval of the Creekside Annexation and subsequent development agreement between the City and the developer of Patterson Ranch, the largest sub-area of the Creekside. The developer has agreed to pay $2.5 million in up-front costs for storm drainage improvements that will serve their project and provide additional capacity to serve other areas of the City. This initial investment will be repaid over time by new development through the collection of impact fees. The money will be used to help alleviate the existing flooding problem east of Highway 33 through the installation of an expanded culvert and pipe between Ward Avenue and First Street, and through the construction of an open drainage channel between First Street and the San Joaquin River. The improvements described in the Storm Water Master Plan, as modified by the Patterson Ranch development agreement, are intended to mitigate potential drainage impacts associated with buildout of the City in accordance with the General Plan.

More recently, the Storm Water Master Plan was amended to identify drainage infrastructure necessary to accommodate buildout of the West Patterson area as envisioned by this Master Development Plan. The recommended improvements are illustrated by Figure 11. The revised Storm Water Master Plan is incorporated by reference into this Master Development Plan.

Figure 10: Areas Prone To Flooding

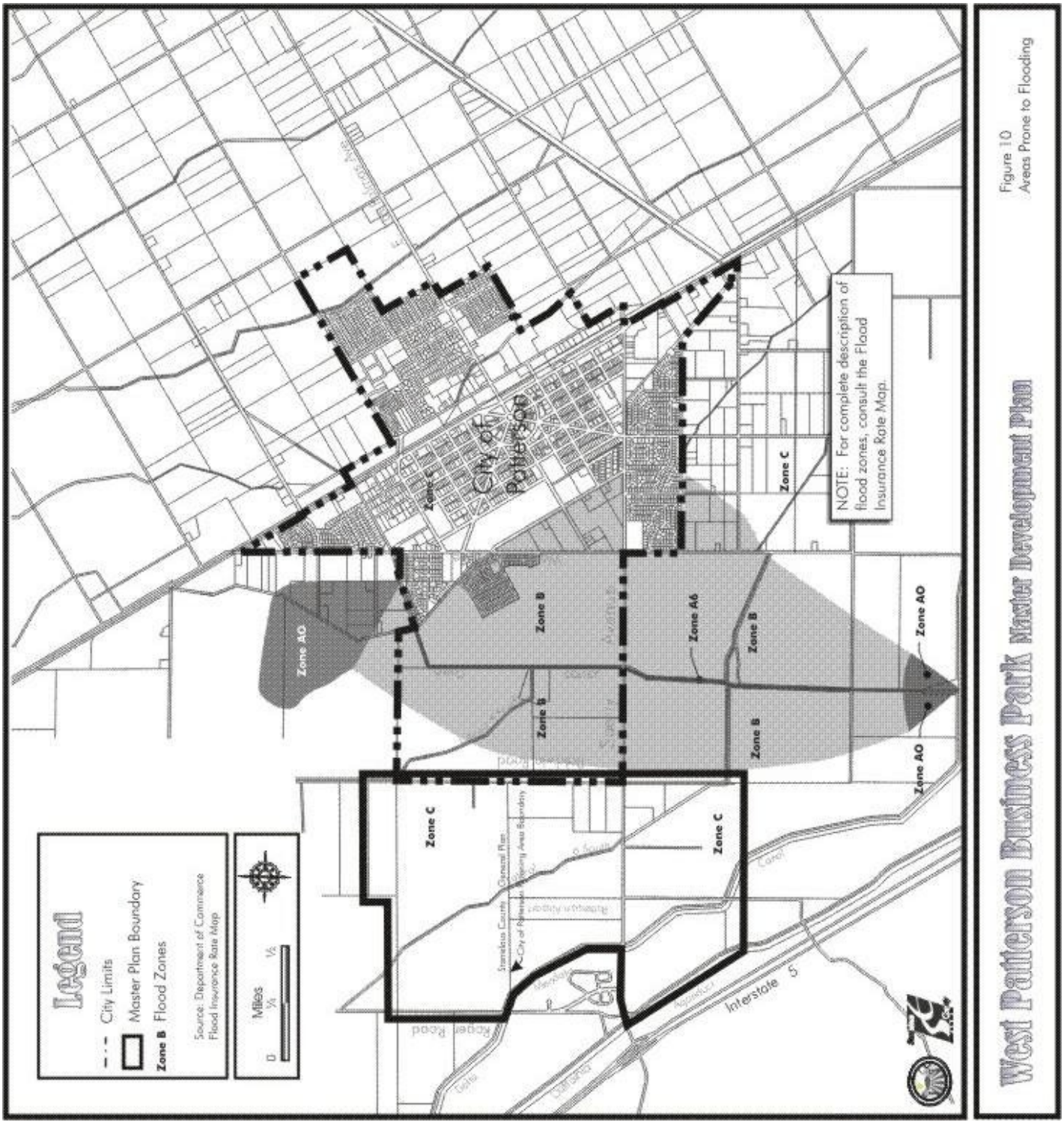
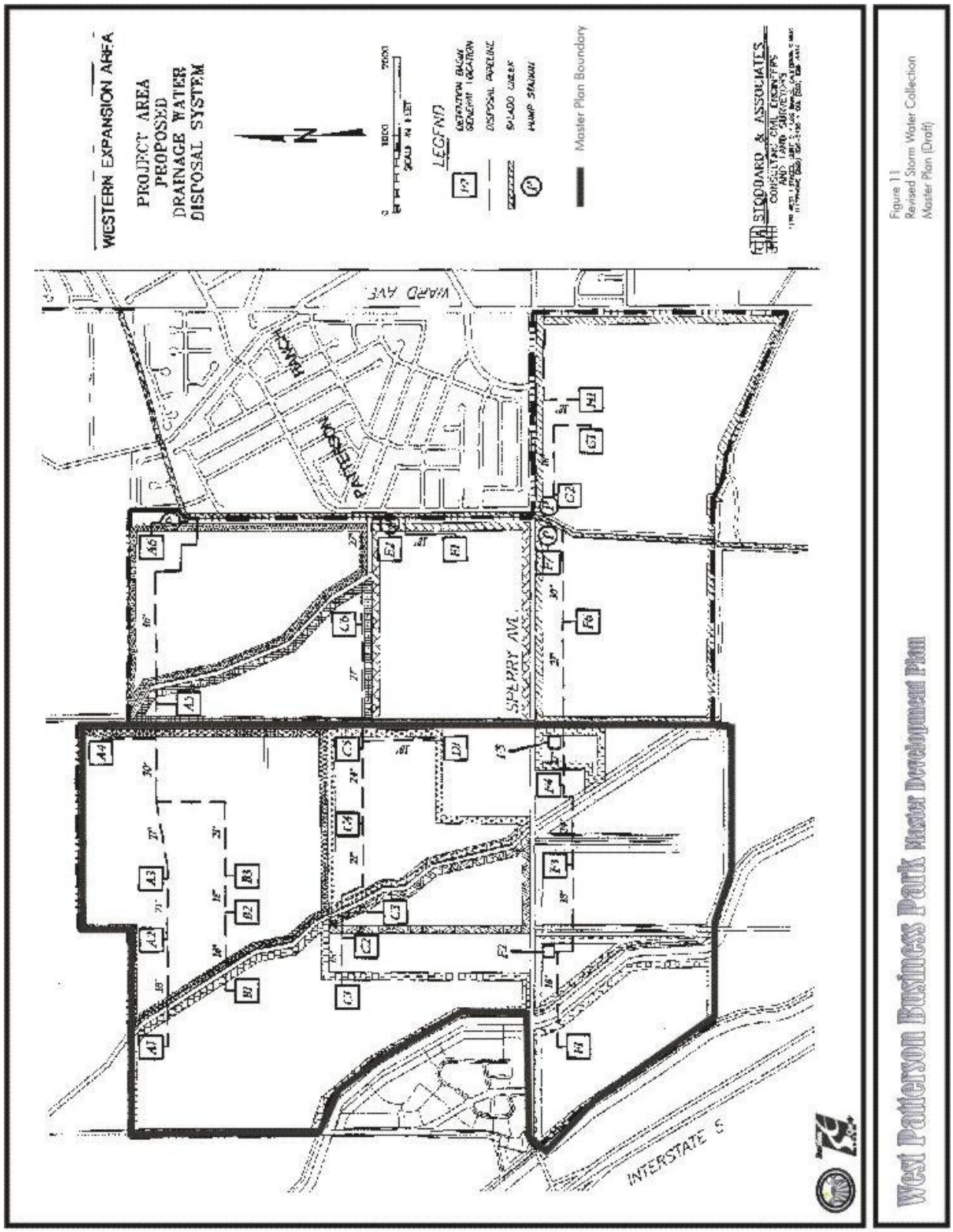


Figure 11: Existing and Planned Drainage Improvements



Circulation

Setting

Existing Circulation System

Figure 12 shows the existing circulation system serving the Planning Area. The following street classifications apply to the streets and roadways serving the Planning Area:

Arterials. Arterials are moderate-speed through streets with an Average Daily Traffic (ADT) of about 10,000 vehicles per day. Arterials usually have four to six travel lanes and left turn pockets or lanes. Examples of arterials within the City include Las Palmas Avenue, Second Street (State Route 33) and Sperry Avenue.

Collector. Collectors are intended to transfer traffic from collector and local streets to an arterial. Average daily traffic on a collector is usually less than 10,000 trips per day. Baldwin Road, Ward Avenue and Rogers Road are examples of collector streets serving the Planning Area.

Local Streets. Local streets serve individual residences. Average daily traffic is usually less than 1,000 vehicles per day. Local streets are typically two-lanes with a right-of-way of between 46 to 60 feet. The Planning Area is largely undeveloped and absent of local streets as defined by the Circulation Element.

For regional travel, the City of Patterson relies primarily on Interstate Highway 5 (I-5), a major north-south freeway to west of the current city limits. I-5 connects to I-580 approximately 15 miles to the north. Together, I-5 and I-580 provide access to regional employment centers in Pleasanton, San Ramon and the rest of the San Francisco Bay Area.

Interstate 5 is a four-lane freeway near Patterson. Traffic from Patterson is expected to use the interchange at Sperry Avenue. As published in the 2000 Caltrans Volume report, the ADT on I-5 was 24,400 vehicles per day (vpd) to the north of Sperry Avenue, an increase of approximately 10 percent compared to the 1990 volume of approximately 23,500 vpd. South of Sperry Avenue, the reported ADT on I-5 was approximately 25,500 vpd, compared to 22,500 vpd in 1990, an increase of approximately 13 percent, or approximately one percent per year.

The I-5/Sperry Avenue interchange is configured as a tight diamond with a narrow local road underpass and a steep drop in grade next to the northbound on-ramp. The ramps are one lane in each direction.

State Route 33 (SR 33), approximately three miles east of I-5, is a north-south, two-lane state highway that provides access to Westley to the north and Crows Landing to the south. Four lanes are provided on SR 33 in the vicinity of Las Palmas Avenue near downtown Patterson. The ADT on SR 33 in the vicinity of Patterson is approximately 3,000 to 4,700 vpd.

In the Master Development Plan area, Sperry Avenue serves east-west traffic while Baldwin Road serves north-south traffic.

Sperry Avenue is a two-lane major arterial that provides the main access between downtown Patterson, the Master Development Plan area, and I-5. In the vicinity of I-5 east of Rogers Road, the existing ADT on Sperry Avenue is approximately 5,880 vpd. Traffic volumes have more than doubled since 1990, when the ADT was approximately 2,800 vpd, with an average growth rate of nearly 10 percent per year over the last 10 years.

Baldwin Road is a two-lane north-south collector street between Sperry Avenue and SR 33. It is the eastern boundary of the proposed West Patterson Business Park Master Development Plan site.

Ward Avenue is a two-lane north-south collector street east of and paralleling Baldwin Road. It connects to SR 33 on the north and to I-5 near Fink Road south of the City of Patterson. Ward Avenue forms the eastern boundary of the Patterson Gardens site. A Class I bicycle path parallels Ward Avenue onn the west side between Sperry Avenue and the Sports Complex to the south

Las Palmas Avenue, east of the West Patterson project area, is a wide, two-lane major east-west arterial lined with mature palm trees. East of Sycamore Avenue it has center two-way left-turn lanes; west of Sycamore it narrows to a two-lane road. West of SR 33 and the railroad tracks, in downtown Patterson, a roundabout is formed on Las Palmas Avenue by its intersection with three other major streets: Third Street, Salado Avenue, and Del Puerto Avenue. Traffic destined for Modesto currently uses either Las Palmas Avenue or I-5 and State Route 132. East Las Palmas Avenue (which begins east of SR 33) currently carries approximately 11,700 vpd on the segment east of downtown Patterson.

Rogers Road is a two-lane north-south road on the western boundary of the West Patterson project area. The road connects Sperry Avenue to SR 33 several miles north of the project area. A count taken in 2001 showed an ADT of approximately 260 vpd.

Table 7 provides a summary of existing traffic volumes and Level of Service (where LOS "A" denotes free flow conditions and LOS "F"

refers to jammed conditions with intolerable traffic delays) at selected intersections where traffic counts were taken in 2002.

Table 7
Level of Service of Selected Intersections
Source: TJKM, 2002

Intersection	Existing Intersection Control	AM		PM	
		Delay	LOS	Delay	LOS
1. Sperry Ave/I-5 SB Off-Ramps	Unsignalized	10.0	A	13.5	B
2. Sperry Ave/I-5 NB On-Ramps	Unsignalized	8.8	A	11.4	B
3. Sperry Ave/Rogers Road	Signalized	6.0	A	8.4	A
4. Sperry Ave/Baldwin Rd	Unsignalized	10.1	B	11.4	B
5. Sperry Ave/American Eagle Dr	Signalized	4.5	A	3.6	A
6. Sperry Ave/Las Palmas Ave	Unsignalized	9.1	A	9.2	A
7. Sperry Ave/Ward Ave	Signalized	5.0	A	5.1	A
8. Sperry Ave/S Del Puerto Ave	Signalized	4.4	A	5.4	A
9. Sperry Ave/SR-33	Unsignalized	8.7	A	10.6	B
10 First St/Orange Ave	Unsignalized	8.9	A	9.5	A
11. SR-33/Las Palmas Ave	Signalized	10.5	B	18.4	B
12. Ward Ave/ Salado Ave	Unsignalized	13.9	B	12.1	B
13. Ward Ave/SR-33	Unsignalized	11.4	B	0.8	A
14. Zacharias Rd/SR-33	Unsignalized	10.0	A	11.1	B
15. Baldwin Rd/SR-33	Unsignalized	10.4	B	0.3	A
16. Rogers Rd/SR-33	Unsignalized	11.0	B	12.3	B
17. Sycamore Ave/Orange Ave	Unsignalized	9.6	A	9.9	A
18. Sycamore Ave/E. Las Palmas	Unsignalized	17.2	C	15.4	C
19. E.Las Palmas/ Poplar Ave	Unsignalized	12.4	B	13.8	B
20. West Main/Carpenter Rd	Unsignalized	9.5	A	18.3	C
21. West Main/Crows Landing Rd	Unsignalized	11.6	B	14.8	B

Notes:
LOS = Level of Service
Delay =Average stopped delay at signalized intersections and average delay for all movements at STOP-controlled intersections, in seconds per vehicle

Bicycle Circulation

Policies of the General Plan encourage the development of a system of bike paths as an alternate form of transportation to the automobile. Class II bike paths (a striped bike lane within the street right-of-way) have been provided along arterials such as Sperry Avenue. There is a Class II (signed and striped) bicycle route on Sperry Avenue between SR 33 and 9th Avenue on the north (westbound) side; on the south (eastbound) side the bicycle route operates as a Class III route because it is not striped and is poorly signed.

Transit Service

Public transit service in Patterson is provided by Westside Dial-A-Ride. No fixed route service currently serves the project area or is expected in the foreseeable future. However, Westside Dial-A-Ride will offer service to the area on a call-in basis.

Future Levels of Service

A comprehensive traffic study prepared in 2002 by TJKM Traffic Consultants analyzed potential long-term traffic impacts from development of the Master Development Plan area together with additional residential, commercial and public/ quasi-public land uses in the project vicinity. The traffic study is incorporated in its entirety and is available for review at the City Planning Department, 33 S. Del Puerto. Figure 12 illustrates average daily traffic volumes on City streets as summarized by the TJKM traffic study for 2002; Figure 13 shows future traffic conditions at buildout of the Master Development Plan area and cumulative traffic generated by continued development in accordance with the City's General Plan and distributed on a recommended backbone circulation system. The study concludes that all of the streets and intersections will operate at Level of Service "C" or better so long as the roadway and intersection improvements recommended by the traffic study and General Plan are implemented concurrently or in advance of new development. The recommended improvements are listed in Appendix B.

It should be noted that the study also concludes that the southbound PM peak hour traffic on Interstate 5 would operate at LOS "F" in 2025 at buildout of the Master Development Plan area and the cumulative growth in traffic from other development. The cumulative long-term impacts to I-5 are considered unmitigable.

The I-5/Sperry Avenue Interchange

Another important constraint to development of the planning area is the capacity of the Sperry Avenue/I-5 interchange. Interstate 5 is one of the four main north-south highways in California and accommodates regional commuter traffic within Stanislaus County and beyond. For the planning area to become a viable industrial and business center, it is essential that the I-5 interchange be capable of accommodating the volume and size of vehicles associated with such development.

In 2002 Caltrans is completing a Project Study Report of the interchange to determine the level of improvements necessary to accommodate future development in the Patterson area. The Draft Project Study Report examined three potential solutions to the interchange that would accommodate the expected future traffic. Two

of the alternatives, described below, have been determined to warrant future study.

Alternative 1: Roundabout Intersection At Ramp Termini

This alternative proposes to construct a 2-lane roundabout at the ramp intersections. The proposed roundabout at the southbound ramp intersection would be designed to provide a 65 meter inscribed circle diameter with two travel lanes. The southbound ramp would be widened from 1 lane to 2 lanes with standard shoulders. This alternative would also widen the Sperry Avenue undercrossing from 2 lanes to 3 lanes and Sperry Avenue east of the interchange from 2 to 4 lanes. This alternative would not require the replacement of the existing undercrossing structures on I-5 because there is adequate width to accommodate the required additional lanes.

A preliminary cost estimate of this alternative is $7.4 million (in 2002 dollars).

Alternative 3: Double Left Turn

Under this alternative double left run lanes would be constructed at the southbound offrramp, along with two additional travel lanes for the Sperry Avenue undercrossing. This alternative would require construction of a retaining wall to cut back the embankment behind the bridge columns to accommodate a sidewalk. This alternative would require the acquisition of additional right of way to accommodate the widening of Sperry Avenue, the ramps and Del Puerto Canyon Road which leads to the west to the Diablo Grande project.

A preliminary cost of this alternative is $6.1 million.

Planned Roadway Improvements

The Circulation Element of the General Plan recommends a number improvements to maintain the desired level of service on the City's road segments and intersections through buildout of the General Plan. These improvements are intended to be funded through the collection of traffic impact fees from new development and from other sources and include the following:

Table 8
Roadway Improvements Recommended
By the General Plan
Source: Patterson General Plan, 1992

Roadway	Segment	Improvements
East Las Palmas	HWY 33 to Southern Bypass Road	Widen to four lanes.
East Las Palmas	East of Southern Bypass	Widen to six lanes.
M Street	First Street to ward Avenue	Widen to four lanes.
Rogers Road	North of Sperry Avenue	Widen to four lanes.
Second Street (HWY 33)	M Street to Southern Bypass	Widen to four lanes.
Sperry Avenue	Second Street to Southern Bypass, Second Street to Locust Avenue	Widen to four lanes.
Sperry Avenue	Southern Bypass to I-5	Widen to six lanes.
Ward Avenue	Ivy Avenue to 9th Street, Sperry Avenue to West Las Palmas	Widen to four lanes.
Ward Avenue	M Street to Sperry Avenue	Widen to four lanes with center turn lane.

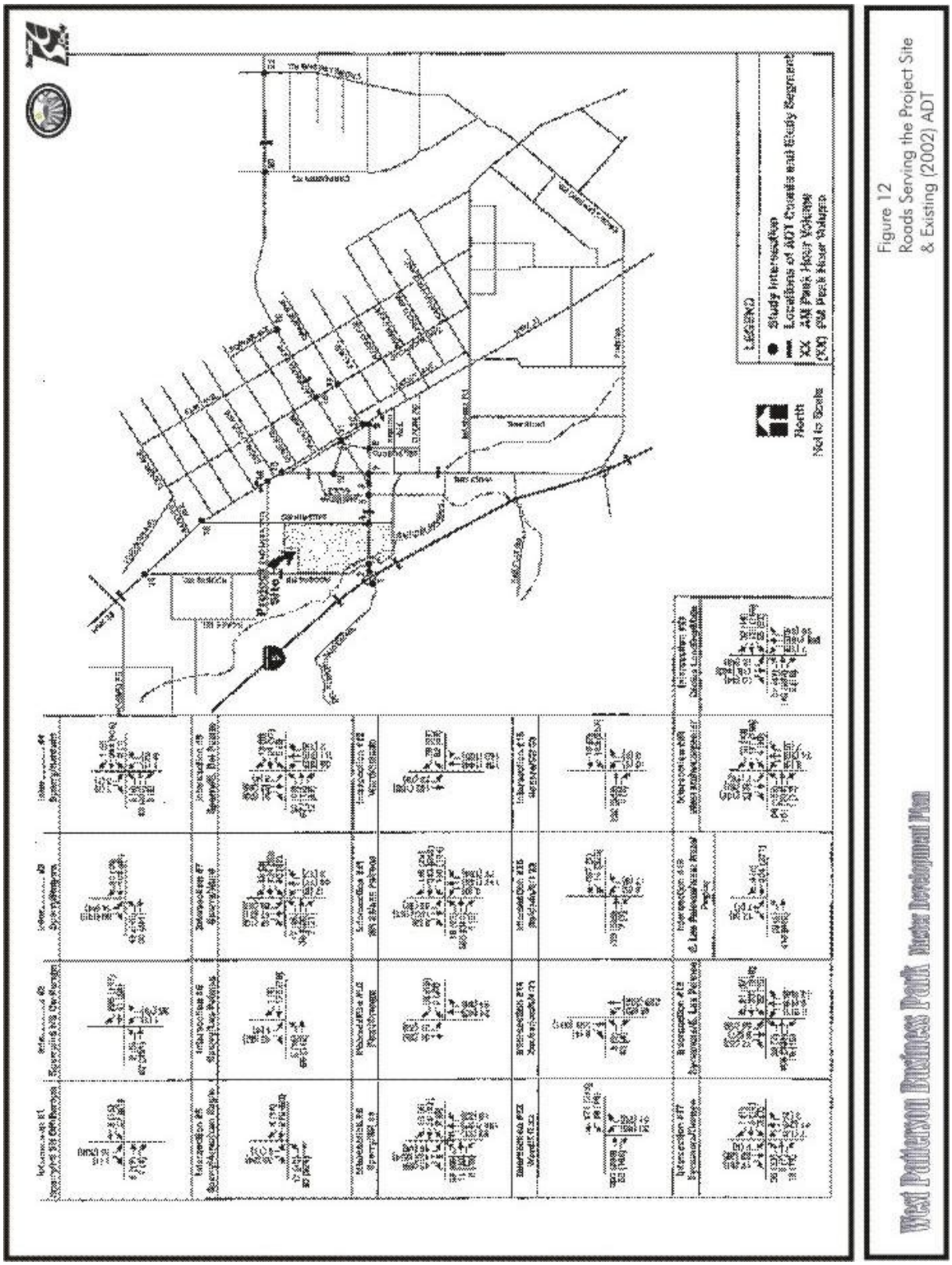
It should be noted that the Circulation Element recommended a "southern bypass" connecting the Sperry Avenue/ I-5 interchange with Highway 33 and east to Las Palmas Road. This roadway connection is no longer being pursued by the City and County.

Table 9
Signalization Improvements
Recommended
By the General Plan
Source: Patterson General Plan, 1992

Intersection
East Las Palmas/ Second Street
East Las Palmas/ First Street
East Las Palmas/ Hartley Street
Sperry Avenue/ Second Street
Sperry Avenue/ Del Puerto Avenue
Sperry Avenue/ Ward Avenue
Sperry Avenue/ W. Las Palmas Avenue
Sperry Avenue/ Southern Bypass
Sperry Avenue/ Baldwin Road
Sperry Avenue/ Roger Road
Sperry Avenue/ I-5 interchange
W. Las Palmas Avenue/ Ward Avenue
Ward Avenue/ 9th Street
Ward Avenue/ M Street

In addition to the improvements recommended by the General Plan, the traffic study prepared by TJKM recommends a number of roadway and intersection improvements to mitigate traffic impacts associated with development of the Master Development Plan area along with continued development of the City in accordance with the General Plan. The recommended improvements are listed in their entirety in Appendix B.

Figure 12: Circulation System Serving the Project Area and Existing ADT



Recommended Circulation Plan

The recommended circulation system for the planning area is illustrated in Figure 13. Future intersection operations and mitigated lane geometries are described in detail in the circulation analysis prepared by TJKM incorporated by reference.

Infrastructure Phasing

Implementation of the improvements recommended by the master plans for water, wastewater, and storm drainage will occur over time concurrently or in advance of the demand anticipated from new development. Table 10 provides a tentative schedule for design and construction based on the amount and type of development anticipated in the West Patterson Business Park Master Development Plan area and surrounding areas within the City.

Figure 13: Recommended Circulation System

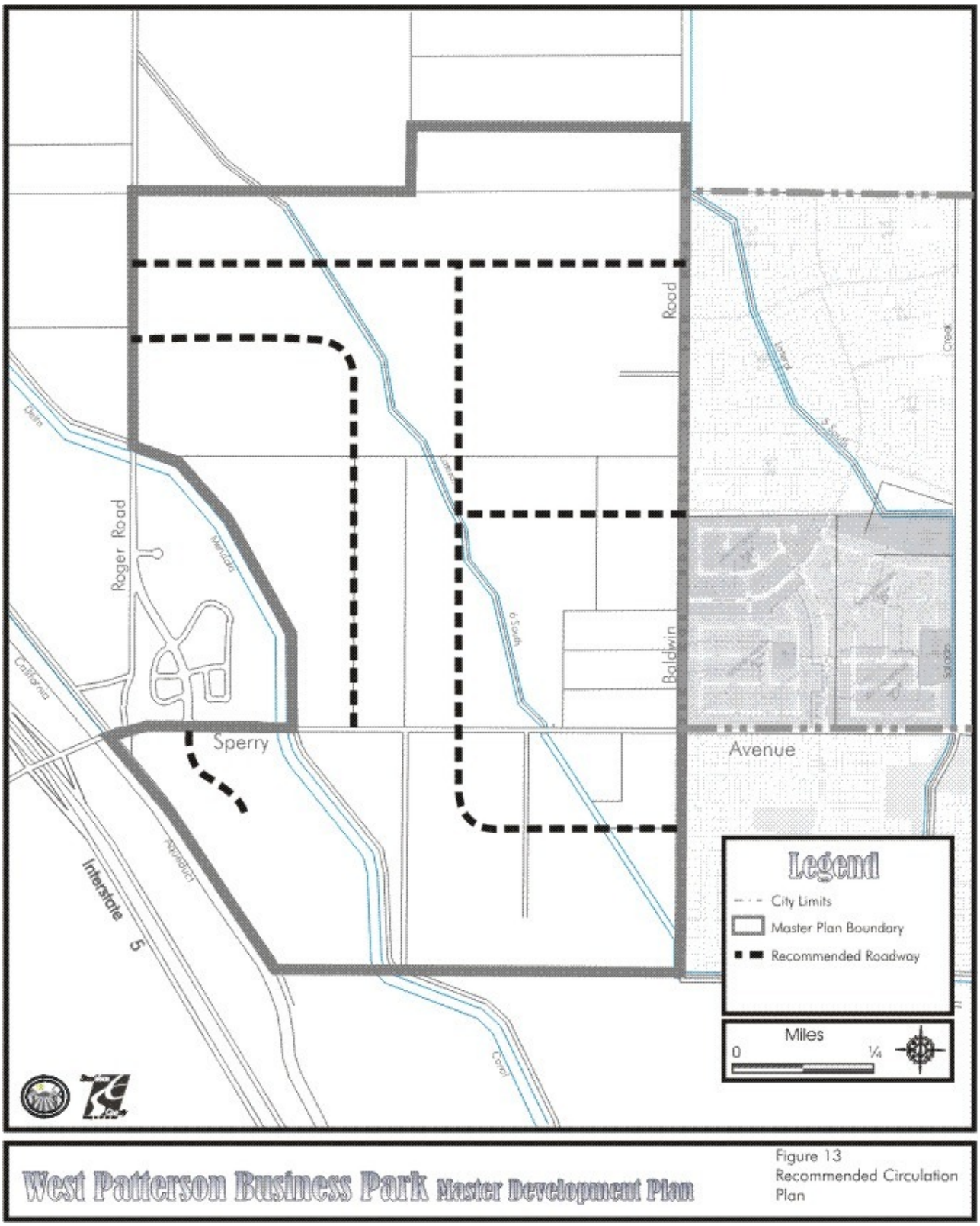


Figure 14: Future (2025) Levels of Service at Selected Intersections

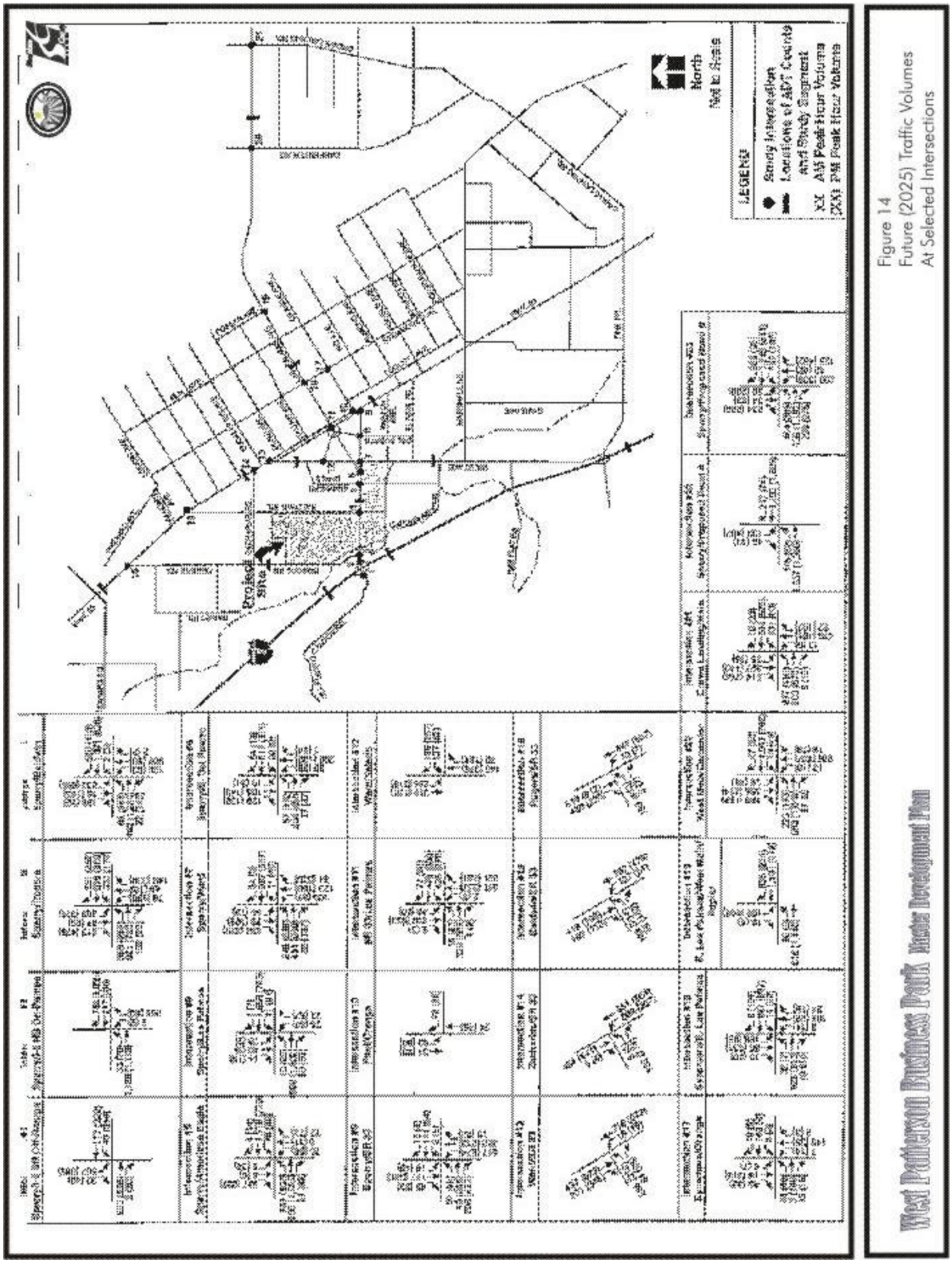
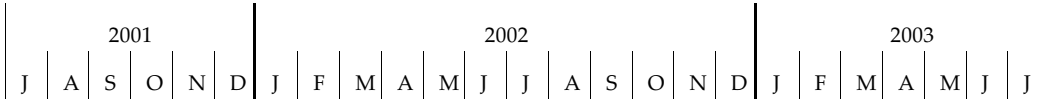


Table 10

Tentative Infrastructure Implementation Schedule for Water, Wastewater and Storm Drainage

Source: Stoddard & Associates, June, 2001

Description	Duration (months)
Production well No. 8	
Design	3
Construction	3
Well No. 8, Pump, Booster Station & Tank	
Design	7
Construction	12
Well No. 8 Distribution	
Design	6
Construction	6
Zone 2 Tank & Booster Station	
Design	10
Construction	14
Phase 1 trans. & distribution, 18" high pressure line	
Design	10
Construction	14
15" Sperry Avenue sanitary sewer	
Design	8
Construction	12
18" Ward Avenue sanitary sewer	
Design	8
Construction	12
Walnut Avenue sewer line	
Design	8
Construction	12
Northeast area storm drain	
Design	8
Construction	12



V. Implementation

Introduction

The Master Development Plan is intended to govern land use and development within the West Patterson area under the jurisdiction of both the City of Patterson and Stanislaus County. For the foreseeable future, the planning area is expected to develop within the unincorporated county and served by City water, sewer, drainage and other public facilities and services. However, the development review process outlined below describes the roles of both jurisdictions in exercising discretionary approval over new development.

Consistency With Applicable Plans and Policies

California law requires that area plans, such as the West Patterson Business Park Master Development Plan, be consistent with the applicable general plan for the area. The goals and land uses described in the Master Development Plan were formulated to implement the goals, policies and programs of the City of Patterson general plan and the general plan of Stanislaus County. The Master Development Plan is intended to supplement the goals and policies of each general plan by providing more specific land use and development standards applicable to the West Patterson area. Once adopted, a notation should be placed on the Land Use Element maps for both the City and the County alerting property owners and designers of the requirements of the Master Development Plan.

Implementation Process

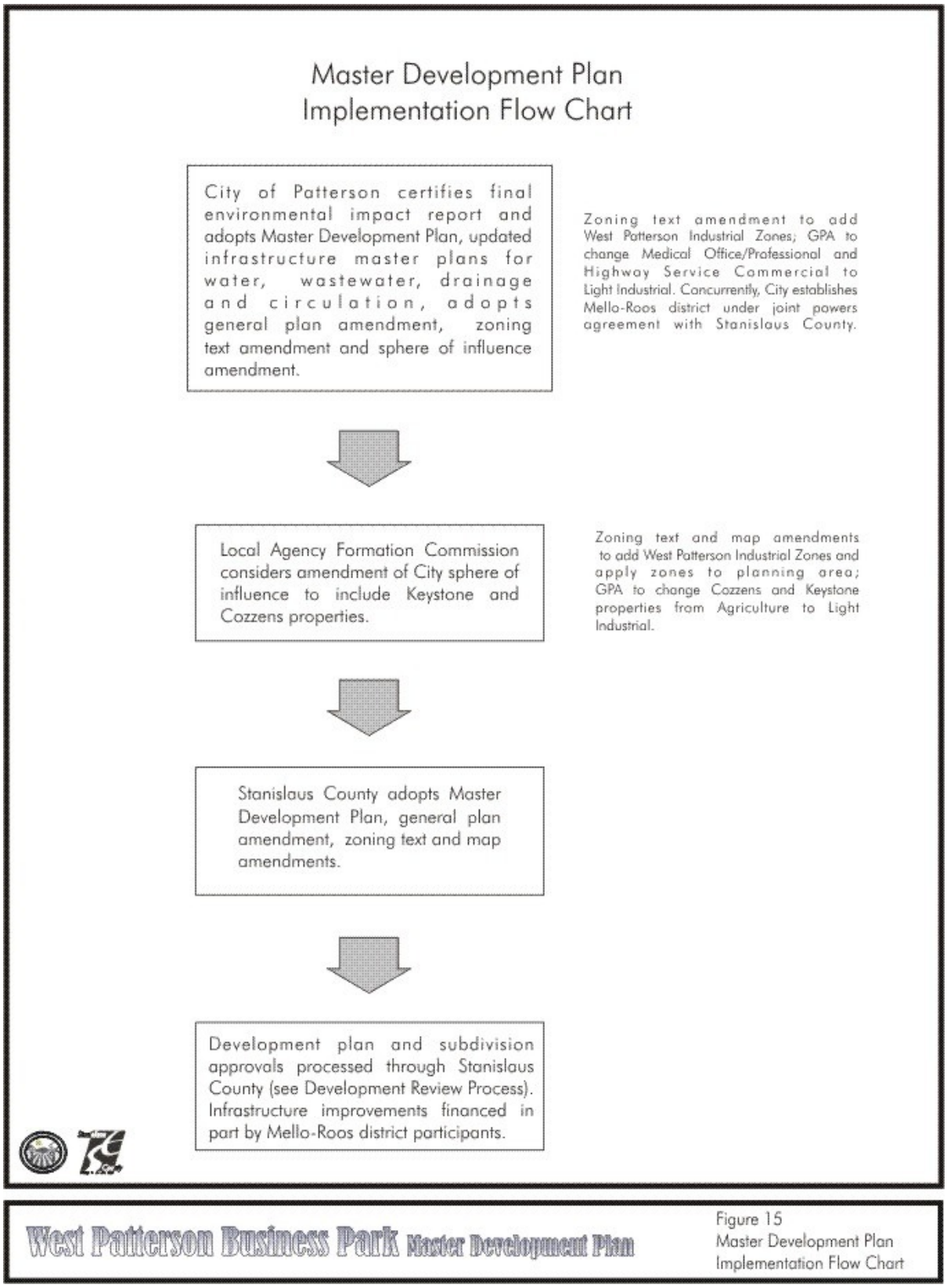
The process of implementing or carrying out the goals and recommendations of the Master Development Plan will require completion of a series of steps. The implementation process will begin with the formal adoption of the Plan by the City and the County. Following adoption, the Plan will be carried out through the review and approval of subdivisions and development projects in accordance with the standards and land uses contained in the Plan, and the establishment of new public services, facilities and infrastructure as recommended by the updated infrastructure Master Plans.

Implementation will also require certain amendments to the City of Patterson and Stanislaus County zoning ordinances to incorporate the standards described in Appendix A.

Lastly, the Master Development Plan and updated infrastructure master plans are considered a "project" as defined by the California Environmental Quality Act (CEQA). For this reason, the Plan will require environmental review to determine the extent of potential adverse environmental impacts may occur through its adoption and implementation.

The overall steps leading to adoption are summarized on the following flow chart.

Figure 15: Implementation Flowchart



Development Review Process

The development review process envisioned for the planning area closely matches the process currently in place for Vista del Lago, which is an area within the City's planning area being developed in the unincorporated County. Under this scheme, development review is provided by the City but theactual issuance of building permits is provided by the County. The City also also acts as lead agency for CEQA purposes. Once City advisory approvals are obtained, the materials (conditions, etc.) are passed along to the County who provides notice of the impending approval and provides an opportunity for an appeal to the County Planning Commission. If no appeal is filed, the County issues a building permit. The goal of the two-tired review process (City and County) is to provide opportunities for public participation under both jurisdictions while minimizing the necessary steps.

Amendments to the Plan

An amendment to the Master Development Plan will be treated the same as a general plan amendment, except that the Master Development Plan can be amended more than four times per calendar year. An application for an amendment would be submitted to the City Planning Department and processed through the City and then the County in a fashion similar to the original plan adoption. The request would also be subject to review in accordance with the California Environmental Quality Act and would be considered at public hearings before the City and the County.

Funding

The City and County intend to help fund the infrastructure improvements necessary to serve the Master Development Plan area by establishing a Mello-Roos facilities district in accordance with the *Mello-Roos Community Facilities Act* of 1982. The Act permits the formation of community facilities districts (CFD) for the funding of public infrastructure improvements such as sewers, storm drains, water systems, roads and similar improvements, as well as to finance other improvements of general benefit such as corporation yards, civic buildings, parks, and public safety facilities. A CFD is a geographically designated area within which a special tax is levied to pay for the facilities authorized to be finded in the CFD formation process, either by paying the costs of the facilities directly or by paying debt service on bonds issued to finance the facilities.

A CFD is formed by the governing board of the public agencies with jurisdiction over the land to be included within the boundaries of the proposed CFD (in this case the City and County). As shown on Figure 4, the proposed CFD boundaries include land within the City and as

well as land within the unincorporated County. In this case a joint exercise of power authority between the two agencies (JPA) is being pursued. Under state law, a JPA is a separate legal entity from the public agencies involved, but both agree to contribute funds or staffing or both.

The specific details of how the CFD will be implemented is described in the financing plan which is incorporated herein by reference.

Once formed, individual developers will be responsible for implementing their fair share of improvements necessary to serve their project through participation in the CFD and through direct construction or direct payment for infrastructure improvements. Development impact fees applied by the County and the City would continue to be collected by the respective agency to defray the cost of other public facilities, such as police and fire protection facilities, school facilities and parks, that are not covered by the CFD.

Mitigation for the Loss of Foraging Habitat for Endangered Species

The planning area has the potential to provide foraging and denning habitat for at least one federally endangered species, the San Joaquin kit fox. Since the kit fox is a federally endangered species, activities that have the potential to degrade or otherwise limit its habitat base are subject to the provisions of Section 10 of the Endangered Species Act.

The US Fish and Wildlife Service have prepared a draft recovery plan for the kit fox which identifies two levels of recovery strategies for the kit fox in the San Joaquin Valley. The Level A strategy is aimed at establishing a viable complex of kit fox populations on private and public lands throughout its geographic range, while concentrating on the three largest extant populations currently residing in the Carrizo Plan Natural Area of San Luis Obispo County, the natural lands of western Kern County and the Ciervo-Pinoche Natural Area of western Fresno and San Benito Counties. The main strategy is to connect larger blocks of isolated natural land to these core populations through land acquisitions and habitat restoration. Level B strategies involve expansion of the ongoing efforts to gain a better understanding of the distribution and status of its current and historical range, and the nature and extent of the use of agricultural lands by kit foxes.

Accordingly, the Draft Recovery Plan provides two lists of recovery actions to be undertaken concurrently. One relates to habitat protection and population interchange, and the other to population ecology and management. Within these two broad categories are a number of recommend actions and/or study tasks to be undertaken aimed at protecting larger tracts of kit fox habitat, and at gaining a better understanding of kit fox biology and behavior.

One strategy that has been undertaken in western Stanislaus County when kit fox habitat is lost through urbanization is the permanent protection of an equal or greater amount of habitat through the acquisition of conservation easements on suitable habitat elsewhere. The precise ratio of habitat preserved to habitat lost is based on a number of factors such as the quality of the habitat lost and its importance in the overall strategy for maintaining a viable breeding population of the species in question.

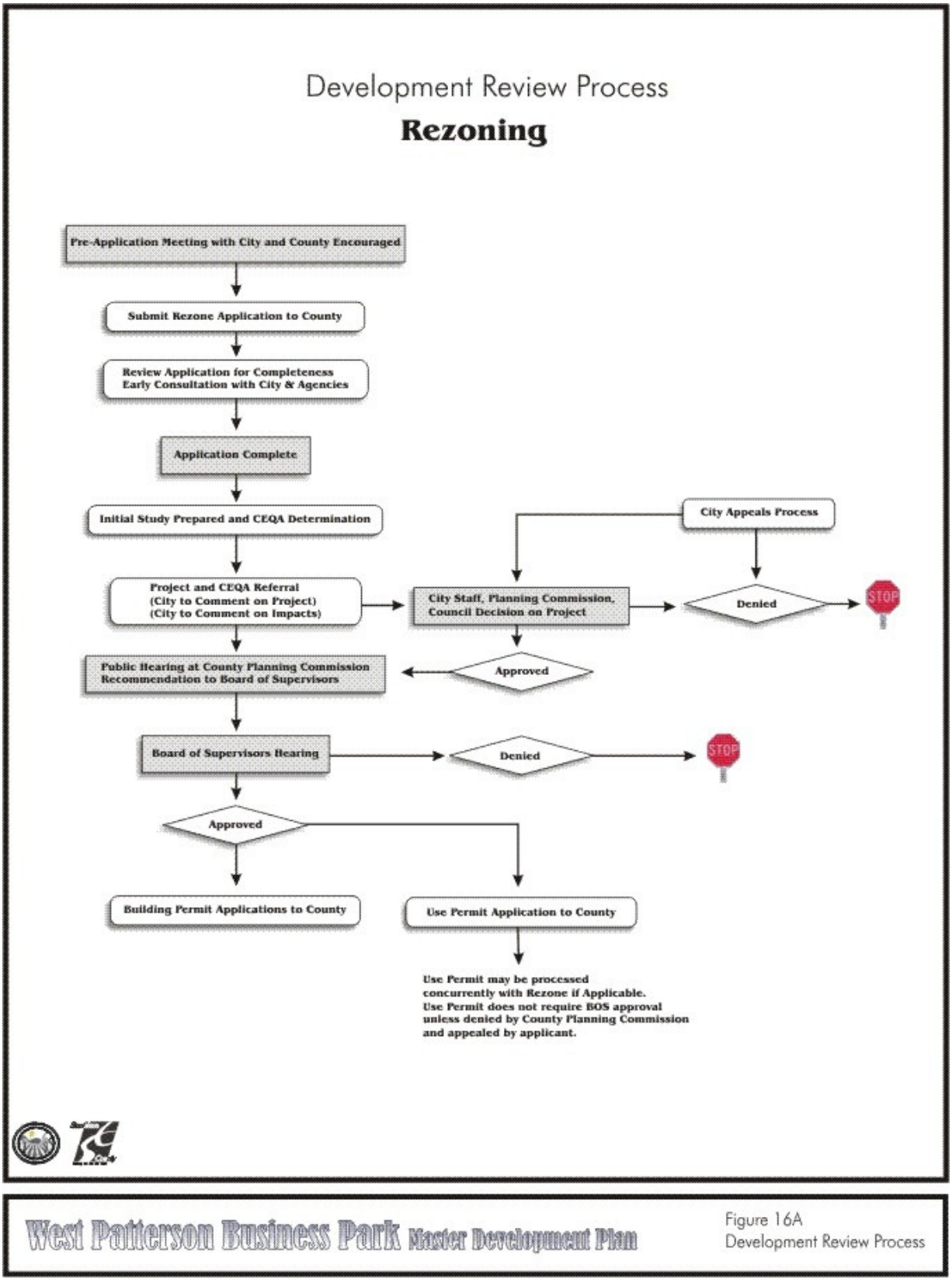
Field surveys conducted in the fall of 2001 and spring of 2002 found no specific evidence of kit fox within the Master Development Plan area and adjoining properties. The *Recovery Plan for Upland Species of the San Joaquin Valley*(US Fish and Wildlife Service, 1998) recommends protecting linkages between higher quality habitats north and south of the Patterson area. In the Patterson area these higher quality habitat linkages lie in the foothills west of Interstate 5. Nonetheless, future development within the Master Development Plan area would result in the permanent loss of potential habitat for this federally protected species. As a result, all new development will be required to compensate for this loss through one of the following actions:

- Fee title purchase of a permanent conservation easement for higher quality kit fox habitat west of Interstate 5 at a ratio of 2 acres preserved for each acre developed;
- Payment of an in-lieu fee of $2,000.00 per developed acre for the purpose of purchasing suitable habitat elsewhere; or

In either case, the lands selected for conservation must be approved by the US Fish and Wildlife Service.

A similar mitigation program will be required for the potential permanent loss of foraging habitat for Swainson's hawks, in addition to the conduct of pre-construction surveys to determine presence of special status species.

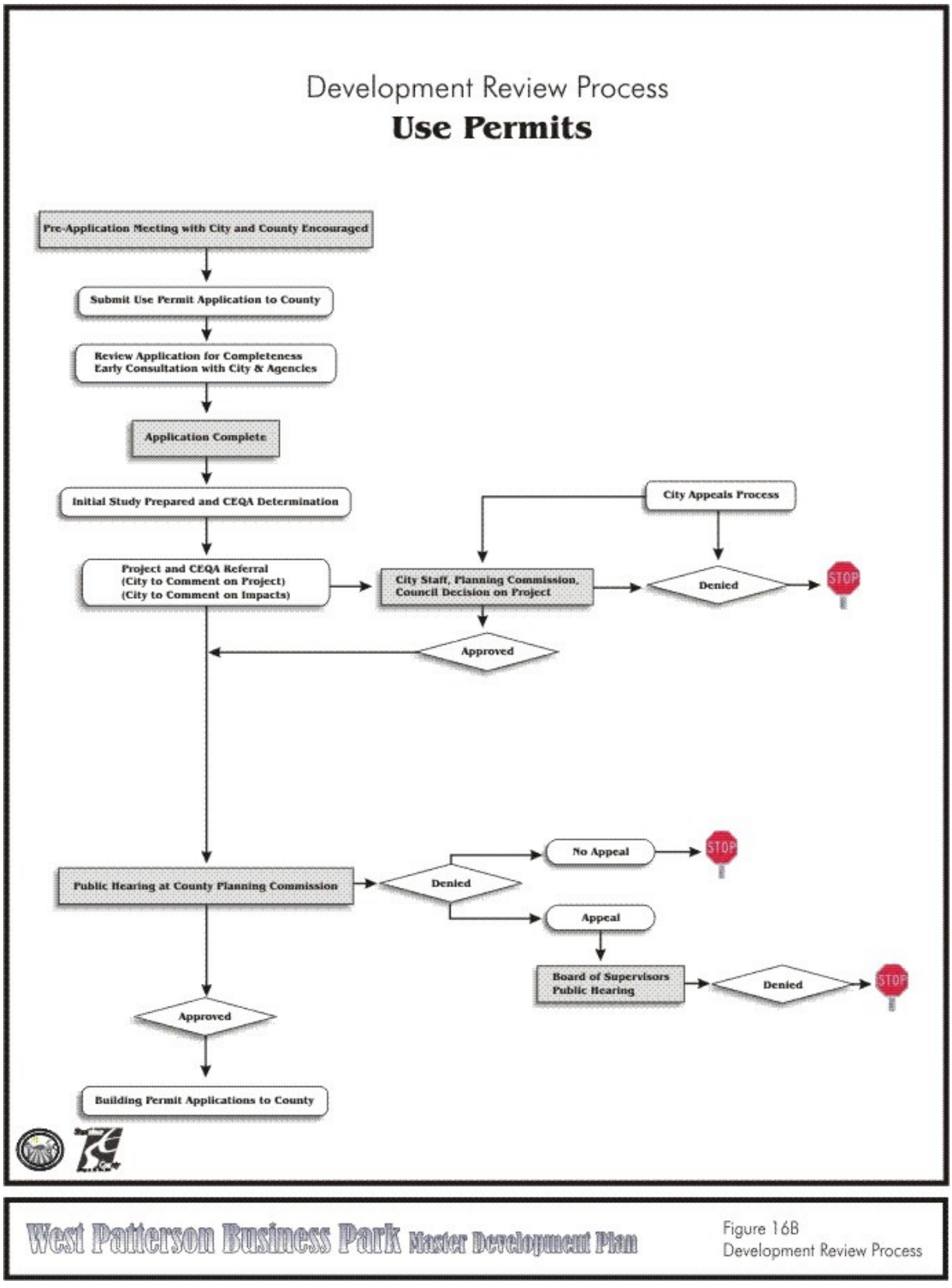
Figure 16A: Development Review Process – Rezonings



West Patterson Business Park Master Development Plan

Figure 16A
Development Review Process

Figure 16B: Development Review Process – Use Permits



West Patterson Business Park Master Development Plan

Figure 16B
Development Review Process

Plan Preparation

Crawford Multari & Clark Associates
David Moran, principle author and project manager

TJKM Traffic Consultants
Chris Kinzel, PE, President
Christopher Thnay, PE, AICP

Stoddard & Associates
Infrastructure Master Plans
Urban Water Management Plan

Susan Goodwin Consulting Group
Infrastructure Financing Plan

City of Patterson
Rod Simpson, Planning Director
George Lambert, City Manager

References

City of Patterson General Plan, 1992
City of Patterson Zoning Ordinance (Tttle 18 of the Municipal Code)
City of Patterson General Plan Background Report, 1992
City of Patterson General Plan Final EIR, 1992
Creekside Draft and Final EIR
Stanislaus County General Plan
Stanislaus County Zoning Ordinance (Title 21 of the County Code)
Stanislaus County Local Agency Formation Commission Rules and Procedures
West Patterson Projects, Draft Environmental Impact Report, October, 2002 Turnstone Consulting

Documents Incorporated By Reference

The following documents are available for review at the City Planning Department, 3 S. Del Puerto, Patterson, California:

Water Master Plan and 2001 Revisions, Stoddard & Associates
Urban Water Management Plan, 2002 Stoddard & Associates
Wastewater Collection Master Plan and 2001 Revisions, Stoddard & Associates
Drainage Master Plan and 2001 Revisions, Stoddard & Associates
Circulation Master Plan, 2002, TJKM Transportation Engineers
Financing Plan, 2001, Susan Goodwin Consulting Group

Appendix

Appendix A: Recommended Industrial Zoning Districts

CHAPTER 21.62 - WEST PATTERSON INDUSTRIAL BUSINESS PARK ZONING DISTRICT

Sections:

21.62.010 - Purpose of Chapter

This Chapter lists the land uses that may be allowed within the Industrial Business Park zoning district established by the West Patterson Business Park Master Development Plan, determines the type of land use permit/approval required for each use, and provides basic standards for site layout and building size. The purposes of the Industrial Business Park zoning district and the manner in which it is applied is as follows.

A. **IBP (Industrial/Business Park) District.** The IBP zoning district is applied to areas appropriate for light industrial and business park land uses, including low-intensity manufacturing and assembly processes, research and development, and corporate headquarters offices. The land uses allowed and development standards required within the IBP district are intended to protect adjacent areas from impacts while allowing indoor, clean, and quiet industry. Land uses in the IBP zoning district are often organized as a business park, with tenants that may include some commercial activities. The IBP zoning district is consistent with the Light Industrial land use designation of the City of Patterson General Plan.

21.62.020 - Permitted Uses

A. **General requirements.** Table ___ identifies the uses of land allowed by this Zoning Ordinance in the Industrial Business Park zoning district, and the land use permit required to establish each use, in compliance with Section ____ of the Stanislaus County and City of Patterson Zoning Ordinances (Allowable Land Uses and Permit Requirements).

Note: the far right column in the tables ("Specific Use Regulations") will show a section number for regulations that apply to the particular use listed, in addition to the other general standards of this Zoning Ordinance.

B. The following uses are permitted subject to the development standards (21.62.040): Crop farming and horticulture, assembly of products, call centers, communication systems research and development, computer systems research and development, electronic repair and assembly, manufacturing and technology support industries, packaging, printing and publishing companies, book binding, software development, wholesale distribution and catalog sales, parcel delivery service.

C. Government offices and facilities (police and fire) and infrastructure when used to support uses in this district, may be permitted.

Uses permitted subject to first securing a use permit in each case:

A. Corporate offices, conference center, furniture manufacturing, interior design and office equipment sales, pharmaceutical manufacturing, research and development laboratories, sheet metal fabrication, sign fabrication, broadcast studios, offices, regional offices and facilities of the County and state government, regional, state or national offices of the federal government.

B. Offices for building contractors, engineering and architectural firms may be permitted in buildings with multiple tenants subject to the issuance of a conditional use permit and subject to the following limitations:

1. The combined floor area of all such offices within a single building or group of buildings developed as a single development shall not exceed 25% of the total floor area.
2. No outdoor storage is allowed.

C. Support services including, but not limited to, banks, convenience stores, day care centers, gymnasia and exercise businesses, copying and reprographics service, restaurants and food take out businesses may be allowed in a building housing multiple tenants subject to the issuance of a conditional use permit and subject to the following findings and limitations:

1. Required findings for a conditional use permit for support businesses:

    a. The use will be consistent with the purpose and intent of the West Patterson Business Park Master Development Plan.
    b. The use will be compatible with existing and allowed uses in the Master Development Plan area.
    c. The use does not preclude the establishment of of industrial/business park uses favored for the Master Development Plan area, as described in the West Patterson Business Park Master Development Plan.

2. Limitations for the establishment of support services.

a. The combined floor area of all such offices within a single building or group of buildings developed as a single development shall not exceed 25% of the total gross floor area.
b. All such businesses must be integrated with the design of the building or group of buildings developed as a single project and shall be found to be incidental to, and supportive of, the primary industrial business or businesses.

c. All such businesses shall comply with the design guidelines established by the West Patterson Business Park Master Development Plan.

d. No outdoor storage shall be allowed.

e. All signage shall comply with the provisions of this chapter and the design guidelines established by the West Patterson Business Park Master Development Plan.

D. Permit requirement for expansion. Any expansion of an existing use within an industrial zoning district comprising less than 25 percent of the existing building floor area shall be subject to administrative approval by the Director or his/her staff. An expansion involving greater than 25 percent of existing floor area may be allowed subject to the issuance of a conditional use permit.

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Table ___ Allowed Uses and Permit Requirements for Industrial Business Park Zoning District, West Patterson Master Development Plan Area	P CUP –	Permitted Use Conditional Use Permit required Use not allowed
Land Use	**Permit Required** **IBP**	**Specific Use Regulations**
AGRICULTURE AND OPEN SPACE USES		
Crop production and horticulture	P	
INDUSTRY, MANUFACTURING & PROCESSING USES		
Assembly of products	P	
Bakery wholesale and distribution	--	
Bottling plant	--	
Call centers	P	
Communication systems research and development	P	
Computer systems research and development	P	
Conference center	CUP	
Corporate offices	P	
Furniture manufacturing	CUP	
Electronic repair and assembly	P	21.62.030
Food packaging	--	
Interior design and office equipment sales	CUP	
Manufacturing and technology support industries	P	21.62.030
Packaging	P	
Pharmaceutical manufacturing	CUP	
Printing and publishing companies, book binding	P	
Research and development, laboratories	CUP	
Seed processing and packaging	--	
Sheet metal fabrication[1]	CUP	
Sign fabrication companies[1]	CUP	
Software development	P	
Warehouses as a principle use	--	
Wholesale distribution and catalog sales	P	

Table ___ Allowed Uses and Permit Requirements for Industrial Business Park Zoning District, West Patterson Master Development Plan Area	P CUP –	Permitted Use Conditional Use Permit required Use not allowed
Land Use	**Permit Required** **IBP**	**Specific Use Regulations**
RETAIL AND SERVICES USES		
Banks	CUP	21.62.030
Broadcast studios	CUP	21.62.030
Convenience store	CUP	21.62.030
Day care center	CUP	21.62.030
Gymnasium/exercise business	CUP	21.62.030
Offices	CUP	21.62.030
Parcel delivery service	P	
Public buildings	P	
Copying and reprographics service	CUP	21.62.030
Restaurants, food take-out	CUP	21.62.030

Notes

1. So long as the use is conducted entirely within an enclosed building and complies with the performance standards established by Section 21.62.xx. Outdoor storage is prohibited.

2. Computer and peripheral equipment manufacturing and assembly incorporating activities defined by the *North American Industry Classification System, United States Office of Management and Budget*, Sub-Sectors 334 and 335, including but not limited to mainframe computers, personal computers, workstations, laptops and computer servers; peripheral equipment such as storage devises, printers, monitors, input/output devices, and terminals, and similar activities. Also included in this category is the manufacture and assembly of other parts, casings, cable sets, switches, and similar peripheral equipment in support of computer and technology industries.

21.62.040 - Development Standards

Subdivisions, new land uses and structures, and alterations to existing land uses and structures, shall be designed, constructed, and established in compliance with the requirements in Table ____, in addition to any other applicable requirements of the Stanislaus County and City of Patterson Zoning Ordinances.

TABLE ___
INDUSTRIAL BUSINESS PARK ZONING DISTRICT
DEVELOPMENT STANDARDS

	IBP
Minimum lot size	Minimum area and dimensions for parcels proposed in new subdivisions.
Minimum lot area	**5** acres
Minimum dimensions	100 ft.
Minimum Building Size	50,000 sq.ft.
Setbacks(3)	Minimum setbacks required. See Chapter 21.08.060 for setback measurements, exceptions, and allowed projections into setbacks.
Front	15 ft.
Sides (each)	10 ft.
Rear	15 ft.
Site coverage	50% maximum
Height limit (1)	45 ft. (2)
Landscaping	As required by Chapter 21.62.xx (Landscaping)
Lighting	As required by Section xx.xx.xx
Parking and loading	As required by Chapter 21.76 (Parking and Loading)
Signs	As required by City of Patterson Sign regulations

Notes:

(1) Maximum allowed height of structures. Exceptions may be allowed by Chapter 21.050 (exceptions).

(2) Except as may be required by the Airport Land Use Plan for the Patterson Airport.

(3) The minimum setback for parking, buildings and other structures along Rogers Road, Baldwin Road, Sperry Avenue shall be twenty (20) feet measured from the property line or the adopted right-of-way plan line, whichever is greater.

21.62.050 - Exceptions

Exceptions to Sections 21.62.030 and 21.62.040 (specific use requirements and development standards) may be granted by the Director (in the case of a permitted use) or by the Planning Commission upon review of a conditionally allowable use, upon making all of the following required findings:

1. The exception will not constitute a grant of special privilege inconsistent with the purpose and intent of the West Patterson Business Park Master Development Plan or the City of Patterson or Stanislaus County Zoning Ordinances.

2. The exception will not adversely affect the health, safety or general welfare of persons working or residing in the vicinity.

21.62.060 - Prohibited Uses

The following uses are prohibited:

Bakery-wholesale and distribution, bottling plant, food packaging including packing shed, seed processing and packaging, and warehouses as a principle use.

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Chapter 21.66 - West Patterson Light Industrial Zoning District

Sections:

21.66.010 - Purpose of Chapter

This Chapter lists the land uses that may be allowed within the Light Industrial zoning district established by the West Patterson Business Park Master Development Plan, determines the type of land use permit/approval required for each use, and provides basic standards for site layout and building size. The purpose of the Light Industrial zoning district and the manner in which it is applied is as follows.

A. **LI (Light Industrial) District.** The IL zoning district is applied to areas appropriate for light industrial and manufacturing, warehousing, offices and assembly uses. Land uses allowed in the IL zoning district will not create objectionable noise, smoke, odor, dust, noxious gases, glare, heat, vibration, or industrial wastes. The IL zoning district is consistent with the Light Industrial land use designation of the General Plan.

21.66.020 - Light Industrial Zoning District Land Uses and Permit Requirements

A. **General requirements.** Table ___ identifies the uses of land allowed by this Zoning Ordinance in the Light Industrial zoning district, and the land use permit required to establish each use, in compliance with Section ____ of the City of Patterson Zoning Ordinance (Allowable Land Uses and Permit Requirements) and Section ___ of the Stanislaus County Zoning Ordinance.

Note: the far right column in the tables ("Specific Use Regulations") will show a section number for regulations that apply to the particular use listed, in addition to the other general standards of this Zoning Ordinance.

B. The following uses a re permitted subject the development standards described in Chapter 21.66.040: Crop farming and horticulture, assembly of products, bakery-warehouse and distribution, bottling plant, call centers, communication systems research and development, computer systems research and development, furniture manufacturing, food packaging, packaging, printing and publishing companies – book binding, software development, warehouses as a principle use, wholesale distribution and catalog sales, parcel delivery service, public safety (police and fire stations), public infrastructure, electronic repair and assembly, manufacturing and technology support industries.

C. Permit requirement for expansion. Any expansion of an existing use within an industrial zoning district comprising less than 25 percent of the existing building floor area shall be subject to administrative approval by the Director or his/her staff. An expansion involving greater than 25 percent of existing floor area may be allowed subject to the issuance of a conditional use permit.

21.66.030 - Uses Requiring Use Permit

Uses permitted, subject to first securing a use permit in each case:

A. Pharmaceutical manufacturing, research and development laboratories, seed processing and packaging, sheet metal fabrication, sign fabrication, broadcast studios.

B. Corporate offices, regional offices and facilities of the County and state government, regional, state or national offices of the federal government may be permitted subject to the establishment of the following findings by the Planning Commission:

1. The use will be consistent with the purpose and intent of the West Patterson Business Park Master Development Plan.

2. The use will be compatible with existing and allowed uses in the Master Development Plan area.
3. The use does not preclude the establishment of of industrial/business park uses favored for the Master Development Plan area, as described in the West Patterson Business Park Master Development Plan.

B. Offices for building contractors, engineering and architectural firms may be permitted in buildings with multiple tenants subject to the issuance of a conditional use permit and subject to the following limitations:

1. The combined floor area of all such offices within a single building or group of buildings developed as a single development shall not exceed 25% of the total floor area.
2. No outdoor storage is allowed.

C. Support services including, but not limited to, banks, convenience stores, day care centers, gymnasia and exercise businesses, copying and reprographics service, restaurants and food take out businesses may be allowed in a building housing multiple tenants subject to the issuance of a conditional use permit and subject to the following findings and limitations:

1. Required findings for a conditional use permit for support businesses:

    a. The use will be consistent with the purpose and intent of the West Patterson Business Park Master Development Plan.
    b. The use will be compatible with existing and allowed uses in the Master Development Plan area.
    c. The use does not preclude the establishment of of industrial/business park uses favored for the Master Development Plan area, as described in the West Patterson Business Park Master Development Plan.

2. Limitations for the establishment of support services.

a. The combined floor area of all such offices within a single building or group of buildings developed as a single development shall not exceed 25% of the total gross floor area.

b. All such businesses must be integrated with the design of the building or group of buildings developed as a single project and shall be found to be incidental to, and supportive of, the primary industrial business or businesses.

c. All such businesses shall comply with the design guidelines established by the West Patterson Business Park Master Development Plan.

d. No outdoor storage shall be allowed.

e. All signage shall comply with the provisions of this chapter and the design guidelines established by the West Patterson Business Park Master Development Plan.

Table ___ Allowed Uses and Permit Requirements for Light Industrial Zoning District, West Patterson Master Development Plan Area	P CUP –	Permitted Use Conditional Use Permit required Use not allowed
Land Use	**Permit Required** **IL**	**Specific Use Regulations**
AGRICULTURE AND OPEN SPACE USES		
Crop production and horticulture	P	
INDUSTRY, MANUFACTURING & PROCESSING USES		
Assembly of products	P	
Bakery wholesale and distribution	P	
Bottling plant	P	
Call centers	P	
Communication systems research and development	P	
Computer systems research and development	P	
Conference center	--	
Furniture manufacturing	P	
Electronic repair and assembly	P	21.66.030
Food packaging	P	
Interior design and office equipment sales	--	
Manufacturing and technology support industries	P	21.66.030
Packaging	P	
Pharmaceutical manufacturing	CUP	
Printing and publishing companies, book binding	P	
Research and development, laboratories	CUP	
Seed processing and packaging	CUP	
Sheet metal fabrication[1]	CUP	
Sign fabrication companies[1]	CUP	
Software development	P	
Warehouses as a principle use	P	
Wholesale distribution and catalog sales	P	

Table ___ Allowed Uses and Permit Requirements for Light Industrial Zoning District, West Patterson Master Development Plan Area	P CUP –	Permitted Use Conditional Use Permit required Use not allowed
Land Use	**Permit Required** **IL**	**Specific Use Regulations**
RETAIL AND SERVICES USES		
Banks	CUP	21.66.030
Broadcast studios	CUP	21.66.030
Convenience store	CUP	21.66.030
Day care center	CUP	21.66.030
Gymnasium/exercise business	CUP	21.66.030
Offices	CUP	21.66.030
Parcel delivery service	P	
Government buildings and facilities	P	21.66.030
Copying and reprographics service	CUP	21.66.030
Restaurants, food take-out	CUP	21.66.030

Notes

1. So long as the use is conducted entirely within an enclosed building and complies with the performance standards established by Section 21.x66.xx. Outdoor storage is prohibited.

2. Manufacturing and technology support industries. Computer and peripheral equipment manufacturing and assembly incorporating activities defined by the *North American Industry Classification System, United States Office of Management and Budget*, Sub-Sectors 334 and 335, including but not limited to mainframe computers, personal computers, workstations, laptops and computer servers; peripheral equipment such as storage devises, printers, monitors, input/output devices, and terminals, and similar activities. Also included in this category is the manufacture and assembly of other parts, casings, cable sets, switches, and similar peripheral equipment in support of computer and technology industries.

21.66.040 - Development Standards

Subdivisions, new land uses and structures, and alterations to existing land uses and structures, shall be designed, constructed, and established in compliance with the requirements in Table 4, in addition to any other applicable requirements of the Stanislaus County and City of Patterson Zoning Ordinances.

TABLE 4
LIGHT INDUSTRIAL ZONING DISTRICT
DEVELOPMENT STANDARDS

	IL
Minimum lot size	Minimum area dimensions for parcels proposed in new subdivisions
Minimum lot area	2 acres
Minimum dimensions	100 ft.
Minimum Building Size	25,000 sq.ft.
Setbacks(3)	Minimum setback required. See Chapter xxx.xx.xx for setback measurments, and allowed projections into setbacks.
Front	15 ft.
Sides (each)	10 ft.
Rear	15 ft.
Site coverage	50% maximum
Height limit (1)	45 ft. (2)
Landscaping	As required by Section 21.xx.xx
Lighting	As required by Section xx.xx.xx
Parking and loading	As required by Section 21.76
Signs	As required by City of Patterson Sign Regulations

Notes:

(1) Maximum allowed height of structures. Exceptions may be allowed by Chapter 21.66.050 (Exceptions).

(2) Except as may be required by the Airport Land Use Plan for the Patterson Airport.

(3) The minimum setback for parking, buildings and other structures along Rogers Road, Baldwin Road, Sperry Avenue shall be twenty (20) feet measured from the property line or the adopted right-of-way plan line, whichever is greater.

21.66.050 - Exceptions

Exceptions to Sections 21.66.030 and 21.66.040 (specific use requirements and development standards) may be granted by the Director (in the case of a permitted use) or by the Planning Commission upon review of a conditionally allowable use, upon making all of the following required findings:

1. The exception will not constitute a grant of special privilege inconsistent with the purpose and intent of the West Patterson Business Park Master Development Plan or the City of Patterson or Stanislaus County Zoning Ordinances.

2. The exception will not adversely affect the health, safety or general welfare of persons working or residing in the vicinity.

21.66.060 – Prohibited Uses

The following uses are prohibited:

Medical offices and clinics, branch offices for attorneys, real estate and financial institutions.

Chapter 21.xx - West Patterson Industrial Zoning Districts Landscaping and Irrigation Requirements

21.xx.010 - Landscape and Irrigation Plan Approval Required

A. **Preliminary Landscape and Irrigation Plan.** A Preliminary Landscape Plan shall be submitted as part of an application for a land use entitlement, for new development, and the significant expansion or redevelopment of an existing use as determined by the Director.

B. **Final Landscape and Irrigation Plan.** Following approval of the land use entitlement, a Final Landscape Plan shall be submitted as part of the application for a Building Permit. Final plans shall be approved by the Director prior to the start of on-site construction or soil disturbance and prior to the issuance of a Building Permit.

C. **Content.** Preliminary Landscape and Irrigation Plans and Final Landscape and Irrigation Plans shall contain information as specified in the instructions for preparing landscape plans provided by the Department.

D. **Review and approval.** After initial application, the Director shall review each Preliminary Landscape and Irrigation Plan and Final Landscape and Irrigation Plan to verify its compliance with the provisions of this Chapter. The Director may approve the submittal in compliance with this Chapter, or may disapprove or require changes to a submittal that is not in compliance.

E. **Statement of surety.** When required by the Director, a statement of surety in the form of cash, performance bond, letter of credit, or certificate of deposit, in an amount equal to 150 percent of the total value of all plant materials, irrigation, installation, and maintenance shall be posted with the City for a two-year period. The Director may require statements of surety for phased development projects, a legitimate delay in landscape installation due to seasonal requirements (including adverse weather conditions) and similar circumstances

where it may not be advisable or desirable to install all of a project's landscaping before occupancy of the site.

F. **Minor changes to approved plans.** Landscape and Irrigation plan approval may include the Director authorizing minor changes from the requirements of this Chapter.

G. **Water efficiency.** All landscape and irrigation plans shall be prepared in compliance with City of Patterson Ordinance No. 485: Water Efficient Landscape Ordinance for New Construction and Development.

21.xx.020 - Landscape Area Requirements

Landscaping shall be provided in the locations specified below except for single-family uses.

A. **Setbacks.** All setback and open space areas required by this Ordinance, and easements for utilities, and drainage courses shall be landscaped, except where a required setback is screened from public view or it is determined by the Director that landscaping is not necessary to fulfill the purposes of this Chapter.

B. **Unused areas.** All areas of a project site not intended for a specific use, including pad sites held for future development, shall be landscaped unless it is determined by the Director that landscaping is not necessary to fulfill the purposes of this Chapter.

C. **Parking areas.** Parking areas shall be landscaped in compliance with the following requirements.

1. **Landscape materials.** Landscaping materials shall be provided throughout the parking lot area using a combination of trees, shrubs, and ground cover.

2. **Curbing.** Areas containing plant materials shall be bordered by a concrete curb at least six inches high and six inches wide. Alternative barrier design to protect landscaped areas from damage by vehicles may be approved by the Director.

3. **Location of landscaping.** Parking lot landscaping shall be located so that pedestrians are not required to cross landscaped areas to reach building entrances from parked cars. This should be achieved through proper orientation of the landscaped fingers and islands.

4. **Bumper overhang areas.** To increase the parking lot landscaped area, a maximum of two feet of the parking stall depth may be landscaped with low-growth, hearty materials in lieu of paving, allowing a two-foot bumper overhang while maintaining the required parking dimensions.

5. **Perimeter parking lot landscaping.**

   a. **Adjacent to streets**. Parking areas adjoining a public street shall be designed to provide a landscaped planting strip between the street right-of-way and parking area equal in depth to the setback required by the zoning district or 15 feet, whichever is more.

      The landscaping shall be designed and maintained to screen cars from view from the street to a height of between 30 inches and 42 inches. Screening materials may include a combination of plant materials, earth berms, solid masonry walls, raised planters, or other screening devices which meet the intent of this requirement. Shade trees shall be provided at a minimum rate of one for every 30 linear feet of landscaped area. Plant materials, signs, or structures within a traffic safety sight area of a driveway.

   b. **Adjacent to side or rear property lines.** Parking areas for nonresidential uses shall provide a perimeter landscaped strip at least five feet wide (inside dimension) where the facility adjoins a side or rear property line. The perimeter landscaped strip may include a required yard or buffer area. Trees shall be provided at the rate of one for each 30 linear feet of landscaped area.

c. **Adjacent to structures.** When parking areas are located adjacent to structures, a minimum five-foot wide landscape strip shall be provided adjacent to the structure.

6. **Interior parking lot landscaping.**

a. **Amount of landscaping**.

(1) Industrial/manufacturing uses shall provide landscaping within the parking area at a minimum ratio of six percent of the gross area of the parking lot. One tree shall be provided for every 10 parking spaces.

b. Location of landscaping. Landscaping shall be evenly dispersed throughout the parking area. Use of an orchard-style planting scheme (placement of trees in uniformly-spaced rows) is encouraged for larger parking areas. Parking lots with more than 100 spaces should provide a concentration of landscape elements at primary entrances, including specimen trees, flowering plants, enhanced paving, and project identification.

7. Drainage Areas, Retention/Detention Basins. All surface drainage facilities and retention/detention basins shall be landscaped and integrated as an amenity into the site and landscaping plan for a project. Plant materials shall be chosen that are water tolerant and that provide visual relief to the appearance of the retention/detention basin during periods when no water is present.

8. Wet Ponds. Wet ponds may be incorporated into the site and landscaping plan as an amenity which may also provide storm water retention/detention. All such ponds shall be integrated as an amenity into the site and landscaping plan for a project.

21.xx.030 - Maintenance of Landscape Areas

A. **Maintenance required.** All landscaped areas shall be maintained in a healthful and sound condition at all times. Irrigation systems and their components shall be maintained in a fully functional manner consistent with the originally approved design and the provisions of this Chapter. Regular maintenance shall include checking, adjusting, and repairing irrigation equipment; resetting automatic controllers; aerating and dethatching turf areas; adding/replenishing mulch, fertilizer, and soil amendments; pruning; and weeding all landscaped areas.

B. **Water waste prohibited.** Water waste in existing developments resulting from inefficient landscape irrigation leading to excessive runoff, low head drainage, overspray, and other similar conditions where water flows onto adjacent property, nonirrigated areas, walks, roadways, or structures is prohibited.

21.xx.040 - Public Education

Developers shall provide information to prospective tenants regarding water-efficient landscaping techniques. A sample of the information to be provided shall be submitted to the Director for approval prior to issuance of a Building Permit.

CHAPTER 21.XX - WEST PATTERSON INDUSTRIAL ZONING DISTRICTS PERFORMANCE STANDARDS

21.xx.010 – Performance Standards

A. All land uses proposed in the IBP and IL zoning districts shall be operated and maintained so as to not be injurious to public health, safety or welfare, and shall comply with the following standards.

1. Air emissions. No approved land use shall generate or cause any visible dust, gasses, or smoke to be emitted into the atmosphere, except as necessary for the heating or cooling of structures, and the operation of motor vehicles on the site.

2. Glare and heat. No direct or sky-reflected glare or heat, whether from floodlights or from high temperature processes (including combustion or welding or otherwise) shall be visible or felt at the property line.

3. Ground vibration. No approved land use shall generate ground vibration perceptible without instruments at any point along or outside of the property line of the use, except for motor vehicle operations.

4. Odor. No approved land use shall generate or emit any odor or fumes perceptible at the property line.

Measure E.6.a: Intersection 1. Sperry Ave/I-5 SB Off-Ramp. Signalize; widen southbound left-turn to two lanes, add a westbound left-turn lane; and add a westbound though lane, consistent with the Caltrans PSR.

Phasing

At 20 percent of project development: signalize intersection.
At 60 percent to 70 percent of project development: implement remaining measures.

Measure E.6.b: Intersection 2. Sperry Ave/I-5 NB On-Ramps. Signalize; widen underpass to accommodate two eastbound through lanes and a left-turn lane, and a through lane and left and right turn lanes in the westbound direction.

Phasing

At 50 percent of project development: signalize intersection.
At 60 percent to 70 percent of project development: implement remaining measures.

Mitigation E.6.c: Intersection 3. Sperry Ave/Rogers Road. In the eastbound direction, add one left-turn lane and a shared through and right-turn lane; in the westbound direction, add two left-turn lanes and a through lane;. in the southbound direction, add a through lane; in the northbound direction add a left, through and right turn lane.

Phasing :

At 50 percent of project development: implement mitigation.

Mitigation E.6.d: Intersection 4. Sperry Ave/Baldwin Road. Signalize. In the eastbound direction, add one left-turn lane and a shared through and right-turn lane. In the westbound direction, add one left-turn lane, a through and right turn lane. In the southbound, add two left-turn lanes. In the northbound, add a left-turn lane.

Phasing:

At 20 percent of project development: signalize intersection.
At 50 percent of project development: implement remainder of mitigation.

Mitigation E.6.e: Intersection 5. Sperry Ave/American Eagle Drive. In the eastbound direction, add one left-turn lane, a through and right-turn lane. In the westbound direction, add one left-turn lane and a through lane. In the southbound, add a right-turn lane. In the northbound, add a left-turn, a through and right-turn lanes.

Phasing:

At 70 to 80 percent of project development: implement mitigation.

Mitigation E.6.f: Intersection 6. Sperry Ave/Las Palmas Avenue. Signalize. In the eastbound direction, add a through and right-turn lane. In the westbound direction, add a left-turn lane. In the northbound, add a left-turn, and a shared through and right-turn lane. No change for the southbound approach.

Phasing:

At 20 percent of project development: signalize intersection.
At 70 to 80 percent of project development: implement remaining measures.

Mitigation E.6.g: Intersection 7. Sperry Ave/Ward Ave. In the eastbound direction, add one left-turn lane, and a through lane. In the westbound direction, add a through lane. In the southbound, add a left-turn lane. In the northbound, add a left-turn and a right-turn lane.

Phasing:

At 70 to 80 percent of project development: implement mitigation.

Mitigation E.6.h: Intersection 8. Sperry Ave/S Del Puerto Ave. In the eastbound direction, add one left-turn lane, and a shared through and right-turn lane. In the westbound direction, add a left and a shared through and right turn-lane.

Phasing:

At 70 to 80 percent of project development: implement mitigation.

Mitigation E.6.i: Intersection 9. Sperry Ave/SR-33. Signalize. In the eastbound direction, add one left-turn lane, and a right-turn lane. In the northbound direction, add a left turn-lane.

Phasing

At 20 percent of project development: signalize intersection.

At 70 percent to 80 percent of project development: implement remaining mitigation.

Mitigation E.6.j: Intersection 11. SR-33/Las Palmas Ave. In the northbound direction, add one right-turn lane.

Phasing:

At 70 percent to 80 percent of project development: implement mitigation.

Mitigation E.6.k: Intersection 12. Ward Ave/Salado Ave Signalize. In the southbound direction, add one left-turn lane. In the westbound direction, add a left-turn lane.

Phasing:

At 70 to 80 percent of project development: implement mitigation.

Mitigation E.6.l: Intersection 13. Ward Ave/SR-33. Signalize. In the southbound direction, add one through lane. In the northbound direction, add a left-turn lane and a through lane.

Phasing:

At 10 percent of project development: signalize intersection.

At 70 to 80 percent of project development: implement remaining mitigation.

Mitigation E.6.m: Intersection 14. Zacharias Rd/SR-33. Signalize. In the eastbound direction, add a left and right-turn lane. In the southbound direction, add one through lane. In the northbound direction, add a left and through lane.

P*hasing*:

At 20 percent of project development: signalize intersection.

At 70 to 80 percent of project development: implement remaining mitigation.

Mitigation E.6.n: Intersection 15. Baldwin Rd/SR-33. Signalize. In the eastbound direction, add a left-turn lane. In the southbound direction, add one through lane. In the northbound direction, add a left-turn lane.

Phasing:

At 25 percent of project development: signalize intersection.

At 70 to 80 percent of project development: implement remaining mitigation.

Mitigation E.6.o: Intersection 16. Rogers Rd/SR-33. Signalize. In the southbound direction, add one through and right-turn lane. In the northbound direction, add a left and right-turn lane.

Phasing:
At 40 percent of project development: signalize intersection.
At 70 to 80 percent of project development: implement remaining mitigation.

Mitigation E.6.p: Intersection 18. Sycamore Ave/E. Las Palmas Ave Signalize. In the eastbound direction, add a left-turn and a through lane. In the westbound direction, add a left and a through lane. In the southbound direction, add a left-turn lane.

Phasing:
At 20 percent of project development: signalize intersection.
At 70 to 80 percent of project development: implement remaining mitigation.

Mitigation E.6.q: Intersection 19. E.Las Palmas/ Poplar. Signalize. In the eastbound direction, add a through lane. In the westbound direction, add a through lane. In the southbound direction, add a left-turn lane.

Phasing:
At 20 percent of project development: signalize intersection.
At 70 to 80 percent of project development: implement remaining mitigation.

Mitigation E.6.r: Intersection 20. West Main/Carpenter Rd Signalize. In the eastbound direction, add a left and through lane. In the westbound direction, add a through lane. In the southbound direction, add a left-turn lane. In the northbound direction, add a left-turn lane.

Phasing:
At 20 percent of project development: signalize intersection.
At 70 to 80 percent of project development: implement remaining mitigation.

Mitigation E.6.s: Intersection 21. West Main/Crows Landing Rd. Signalize. In the eastbound direction, add a left-turn lane. In the southbound direction, add a left-turn lane. In the northbound direction, add a left and right-turn lane.

Phasing:
At 40 to 50 percent of project development: signalize intersection.
At 70 to 80 percent of project development: implement remaining mitigation.

Keystone Pacific Business Park

To be required and installed consistent with the phasing described above for the overall West Patterson Business Park Master Development Plan.

Measure E.8.a: Intersection 6. Sperry Ave/Las Palmas Avenue. Signalize intersection.

Measure E.8.b: Intersection 9. Sperry Ave/SR 33. Add a right-turn lane on the eastbound approach on Sperry Avenue, and add a left-turn lane on the northbound approach on State Route 33.

Measure E.8.c: Intersection 12. Ward Ave/Salado Ave. Signalize intersection and add a right-turn lane on the westbound approach on Salado Avenue.

Measure E.8.d: Intersection 14. Zacharias Rd/SR 33. Signalize intersection.

Measure E.8.e: Intersection 15. Baldwin Rd/SR 33. Add a through/turn lane in the southbound approach on Baldwin Road.

Measure E.8.f: Intersection 16. Rogers Rd/SR 33. Add a right-turn lane in the southbound approach on Rogers Road, in addition to contributing to a new signal that would be needed as a result of 2025 Base conditions.

Measure E.8.g: Intersection 20. West Main/Carpenter Rd. Add a through lane on both eastbound and westbound approaches, on West Main, in addition to contributing to a new signal and left-turn lanes on both eastbound and westbound approaches on West Main that would be needed as a result of 2025 Base conditions.

Measure E.8.h: Intersections 1, Sperry Ave/I-5 SB Off-Ramps; 18, Sycamore Ave/E. Las Palmas Ave; and 19, E. Las Palmas Ave/Poplar Ave. Contribute to signalization of the intersections that would need signalization as a result of 2025 Base conditions and that would receive a significant contribution to traffic delays from Keystone Pacific Business Park traffic.