City of Fullerton General Plan

COMMUNITY HEALTH AND SAFETY

City of Fullerton General Plan

COMMUNITY HEALTH AND SAFETY

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COMMUNITY HEALTH & SAFETY

1 INTRODUCTION

1.1 Purpose and Overview

The Community Health and Safety Element addresses hazards and disasters, and it sets out the policy basis for the City's response, both in preventing damage and injuries and in responding to disasters when they occur. It combines and satisfies the state-mandated requirements for both the Safety and Noise Elements.

The Element addresses the following issues:

- police and fire protection
- seismic safety, including slope instability leading to mudslides and landslides and hazardous structures
- flooding
- emergency/disaster preparedness
- noise protection
- water and sewer service
- airport operations

Hazardous materials and waste are discussed in the Regional Coordination Element.

2 OVERVIEW

Specific goals, policies and programs for the City's Community Health and Safety Element are found in the Element's last section. Police and fire protection, water, sewer and flood facilities, noise, airport operations, and seismic safety are all addressed. The following provides an overview of the programs as well as the key issues involved:

2.1 Police and Fire Protection

Police protection is provided by the Fullerton Police Department. As population increases, demand for police services in the City will also increase. A number of crime prevention programs are in place, including programs aimed at specific neighborhood problems and educational programs for children.

Policies of the Community Health and Safety Element promote improvement and efficiency of police and fire services in the City. Programs include maintenance and replacement of equipment, continued use of computer systems for day-to-day operations, intensive training and re-education of staff, and tracking of state-of-the-art practices in police science and fire protection. Police and fire department review of proposed development and park projects, as well as parking regulations to promote safe and efficient movement of vehicles, particularly in response to disaster, aids crime reduction through physical planning techniques. The policies respond to community growth by calling for infrastructure and fire/police facilities based on population, demographic trends, and housing growth.

See Goal CHS-1, Policies 1.1 through 1.5 and Policies CHS-2.1 and 2.2

Fire protection is provided by the Fullerton Fire Department. Firefighting operations include six fire stations, with a total of 10 pieces of apparatus, including nine fire engines and one aerial ladder truck. Emergency medical services are integrated within the fire fighting force–three of the six pumpers are equipped with required paramedic equipment and staffed with four personnel, including two certified mobile intensive care paramedics. All fire suppression personnel are trained to the Emergency Medical Technician I level.

Because Fullerton's climate includes long periods of hot, dry weather combined with high-velocity desert winds, the potential exists for large, spreading fires. While not considered to have significant areas subject to wildland fire hazard, the City does have large, undeveloped oil lands that are generally covered with grass and light brush. Fire breaks are maintained throughout these areas. The Fire Department also actively enforces the City's weed abatement ordinance.

The Fire Department is also responsible for safety inspections of commercial buildings as well as environmental protection responsibilities. The Department has actively collected hazardous materials information from approximately 300 businesses that meet the threshold disclosure requirements. This program also includes the administration of underground storage tank regulations. Other programs include public safety education.

Exhibit CS-1 in the Community Services Element shows the location of Police and Fire facilities. More detailed information is found in the General Plan EIR.

2.2 Seismic Safety

Earthquakes are caused by violent and abrupt releases of strain built up along faults. When a fault ruptures, energy is released in all directions from the source, or epicenter, in the form of seismic waves. Earthquakes generate two types of hazards. Primary hazards are ground shaking, surface rupture along faults, and associated building failure. Secondary hazards result from the interaction of ground shaking with existing ground instabilities and include liquefaction, settlement and landslides.

See Policies CHS-5.1 and CHS-5.2

Eight faults could potentially cause damage in Fullerton. Only one, the Norwalk Fault, actually traverses the city. The areas of hazard due to the Norwalk Fault are shown on Exhibit CHS-1, the Public Safety Map. The Norwalk Fault is categorized as potentially active. All of the faults that could result in earthshaking and damage in Fullerton are shown in Table CHS-1.

TABLE CHS-1
FAULTS WITHIN CLOSE PROXIMITY TO THE CITY[1]

Fault	Distance from City to Fault (miles)[2]	Length of Fault (miles)	Richter Magnitude of Historical Earthquakes (Greater than 5.0)
Norwalk	0	17	No known historical earthquakes
Whittier/[3] Elsinore	1.6	135-145	6.00 (1910) 5.00 (1920) 5.10 (1940)
Newport/ Inglewood	9.8	50-86	6.30 (1933) 5.40 (1941)
Sierra Madre/ San Fernando/ Santa Susana	14	61-69	6.40 (1971) 5.80 (1971)
Palos Verdes	20	45	5.40 (1941)
San Jacinto	36	130-242	7.00 (1899) 6.80 (1981) 6.00 (1937) 6.20 (1954) 6.40 (1958) 6.50 (1968) 5.50 (1980) 6.10 (1980) 6.40 (1987)
San Andreas (south & central)	37	300-320	8.00 (1857) 6.50 (1948) 5.60 (1986)

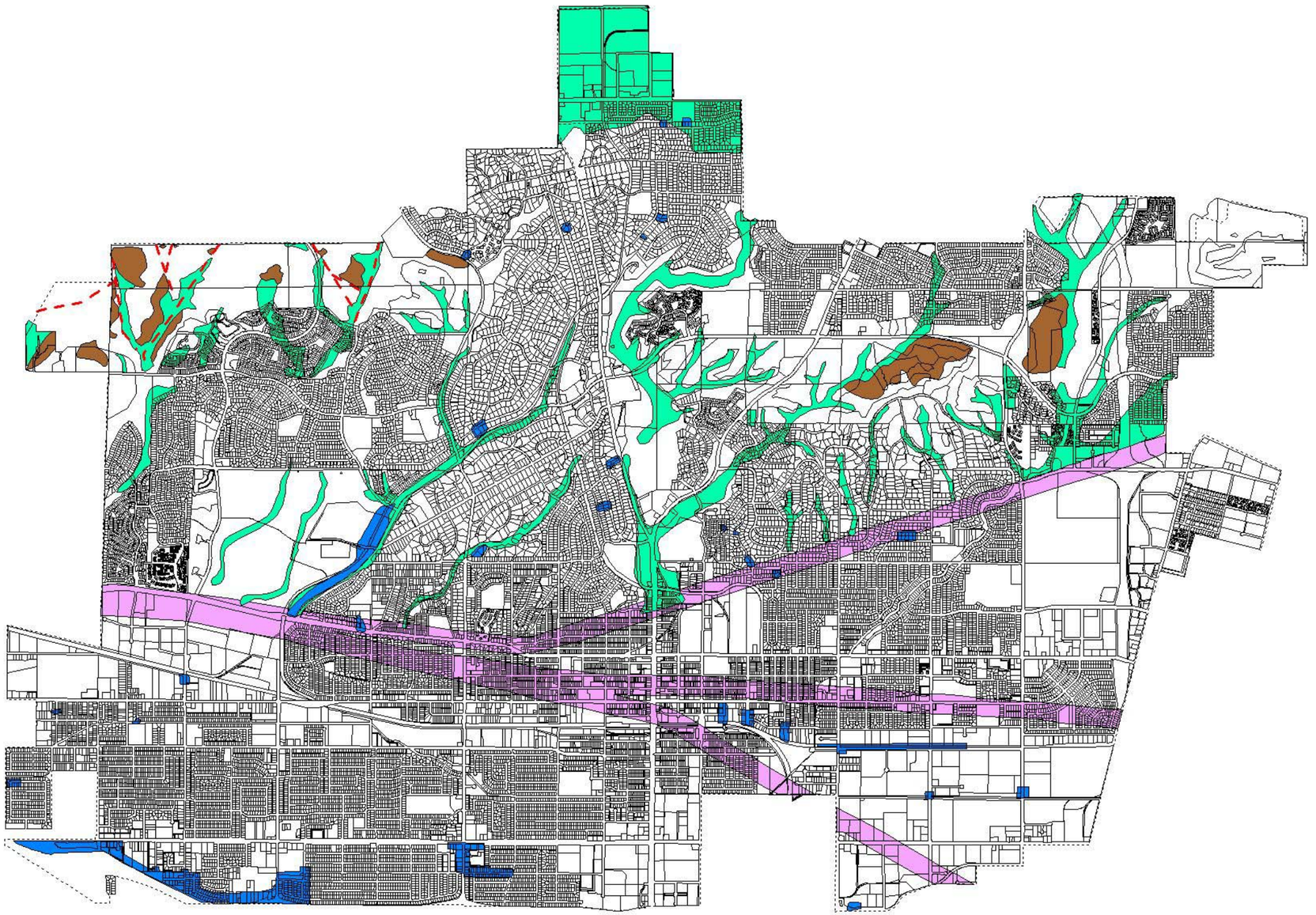
[1] Eberhart & Stone, Inc., June 6, 1989. Geotechnical Reconnaissance and Feasibility Investigation Coyote Hills East Fullerton, CA (W.O. 1543), Table 1 "Seismic Parameters." There is very recent indication of two additional faults which, upon more extensive investigation, may be appropriate to this list of proximate faults: the Oakridge Fault and the Los Angeles Fault, thought now to be limited to the Los Angeles downtown area.

[2] Ibid., Taken in part from A.E.G. Fault map (1973) and C.D.M.G. Fault map (1973).

[3] The California Department of Mines and Geology reports that the Elysian Park Fold and Thrust Belt (EPFTB), thought to be a northern extension of the Whittier/Elsinore fault, may actually be a district geologic hazard. DMG further reports that portions of the EPFTB may underlie northern portions of the City.

City of Fullerton
General Plan

Public Safety



PRIMARY SEISMIC EFFECTS

Norwalk or related fault range

Areas subject to ground shaking (entire city)

NON-TECTONIC FAULTS

Location of minor faults

SECONDARY EFFECTS

Areas subject to seismically induced bedrock landslide

Areas subject to liquefaction, subsidence and/or lurching

FLOOD

100 year flood hazard area

N
W E
S

0 0.25 0.5 0.75 1

Miles

City of Fullerton General Plan / Adopted September 17, 1996

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LAST UPDATED: 12/2/03

2.2.1 Landslides

Landslides often occur during or after strong earthquakes. Areas subject to seismically induced landslides are limited to the steeper portions of the East and West Coyote Hills. The probability of seismically induced bedrock landslides occurring elsewhere is low. Additionally, small soil slips can occur throughout the Coyote Hills in the newly developed portions of Coyote Hills. Adequate plans for the prevention of the landslides in the Coyote Hills have been made in the grading and development guidelines sections of the Specific Plans.

2.2.2 Subsidence

Settlement of under-consolidated soils may occur during earthquake shaking. This process can result in a slight lowering of the ground surface which can vary in amount from place to place. Although not considered a major problem, areas containing zones subject to subsidence resulting from consolidation are shown on Exhibit CHS-1, the Public Safety Map. Other parts of the City may experience minor subsidence from a major earthquake. Damage from subsidence is likely to be greatly overshadowed by damage resulting from groundshaking.

2.2.3 Liquefaction

Liquefaction occurs when ground water is forced out of the pores of soil as it subsides. This excess water momentarily liquifies the soil, causing an almost complete loss of strength. If this layer is at the surface, its effect is much like that of quicksand for any structure located on it. If the liquefied layer is in the subsurface, the material above it may slide laterally depending on the confinement of the unstable mass.

Liquefaction potential is based on three criteria: relative density, grain size distribution of unconsolidated sediments, and the depth of groundwater. Lost, saturated sandy materials (cohesionless) are the principal candidates for liquefaction due to earthquake movements. In general, liquefaction effects are seen at the surface if groundwater levels are less than 30 feet. Deeper ground water levels do not preclude the potential for liquefaction, but may be associated with the absence of liquefaction being observed at the surface. Sub-surface liquefaction can occur at depths up to 50 feet, and is an important consideration for structures which derive support at depths as well as for sites near excavations and water courses. Locations within the City which have the potential for liquefaction hazards are shown on Exhibit CHS-1.

2.2.4 Groundshaking

Groundshaking and associated building failure is the most potentially damaging effect of an earthquake for Fullerton because of the large area subject to shaking. Although newer structures would be anticipated to survive such groundshaking with little or no structural damage, the City does have some older structures which have not yet been retrofitted for seismic safety. These older structures may suffer major damage or collapse with the occurrence of a strong earthquake.

2.3 Hazardous Structures

The principal threat to people during an earthquake is the damage that the earthquake causes to structures. Continuing advances in engineering design and building code standards over the past decade have greatly reduced the potential for collapse in an earthquake of most new buildings. However, many structures were built before current earthquake design standards were incorporated into the building code. Several specific building types are a particular concern in this regard.

The City is in Seismic Zone 4 of the United States, the highest of four zones where structural requirements are most strict. Building standards are based on the most current edition of the Uniform Building Code, as adopted by the State of California.

2.3.1 Unreinforced Masonry Structures

Unreinforced masonry structures are recognized as the most hazardous structures in an earthquake. Because part of Fullerton was developed prior to the 1930s, many commercial structures are constructed of unreinforced masonry. The area of most concentrated development during this period was the Downtown.

State law requires local jurisdictions to enact structural hazard reduction programs by (a) inventorying pre-1934 unreinforced masonry structures, and (b) developing mitigation programs to correct the structural hazards. The City's Seismic Mitigation Program is intended to bring all unreinforced masonry structures into compliance with adopted seismic safety standards. The program is supplemented by the Seismic Rehabilitation Loan Program which aids owners to retrofit their structures through financial support. As part of this program, data on the current inventory of unreinforced masonry structures is maintained and updated. Almost all of the City's unreinforced masonry structures have been retrofitted under the program.

2.3.2 Pre-cast Concrete Tilt-up Buildings

Pre-cast concrete tilt-up buildings were introduced following World War II and gained popularity for use in industrial structures during the late 1950s and 1960s. Extensive damage to concrete tilt-up structures in the 1971 San Fernando earthquake revealed the need for better anchoring of walls to the roof, floor and foundation elements of the building, and for stronger roof diaphragms. In the typical damage to these structures, the concrete wall panels would fall outward and the adjacent roof would collapse creating a direct life hazard.

In 1990, the City adopted Ordinance 2681, which requires existing tilt-up structures to be retrofitted for seismic safety through stronger roof to wall connections. The same is also required of new tilt-up construction. All existing tilt-up structures in the City have been retrofitted.

2.3.3 Soft-Story Buildings

“Soft-Story” buildings are structures in which at least one story--commonly the ground floor--has significantly less rigidity and/or strength than the rest of the structure. This can form a weak link in the structure, unless special design features are incorporated to give the building adequate structural integrity. Typical examples of soft-story construction are buildings with glass walls on the first floor, or buildings placed on stilts or columns, leaving the first story open for landscaping, street-friendly building entry, parking, or other purposes. From the 1950s to the early 1970s, soft-story structures were a popular construction style for low- and mid-rise concrete frame structures.

The City has conducted a study to identify unreinforced masonry structures, but further investigation would be needed to determine whether any of them are of soft-story construction. Procedures are currently being developed by the Applied Technology Council for seismic evaluation of these and other types of potentially hazardous buildings.

2.3.4 Single-Family Homes

A number of older, pre-1973 single-family homes in the City may not be bolted to their foundations. Programs should be established to encourage retrofitting these structures.

2.4 Flood Hazard

Floodplain studies have been performed for Fullerton as part of the National Flood Insurance Program. The result of these studies are presented in the form of floodplain boundary maps and Flood Insurance Rate Maps (FIRMS). These maps contain official delineation of flood insurance zones and base flood elevation lines. Exhibit CHS-1 presents the detailed floodplain areas for the City of Fullerton.

See Policy CHS-6.4

There are presently some areas in the 100-year flood zone which can create a hazardous condition in the City. The 100-year flood areas are generally adjacent to creeks and channels within the City; however, there are some small scattered areas in the southern portion of the City subject to flooding hazards.

Detailed flood protection information can be found in the General Plan EIR.

2.4.1 Regional Drainage Facilities

Several major watercourses and dam facilities provide protection against major flood flows from runoff generated in watersheds north and east of the City. The most significant of these facilities are: Imperial Channel which lies southerly and parallel to Imperial Highway on the north boundary of the City; Brea Creek Reservoir and Brea Creek Channel (running along the base of the foothills) which are maintained by the U.S. Army Corps of Engineers and the Orange County Flood Control District (OCFCD), respectively; and Fullerton Reservoir and Fullerton Creek (which runs from the East to West through the center of the City), Houston Storm Channel (along the southerly boundary of the City), Placentia Storm Channel (along the easterly boundary of the City), and Carbon Creek Channel (in the southeast corner of the City), all operated by the OCFCD. All of these facilities have insufficient capacity for a 100-year storm.

2.4.2 Local Drainage Facilities

Smaller drainage facilities which drain into the major channels and reservoirs are the responsibility of the City for construction, operation and maintenance. For the most part, the existing local drainage facilities within the City of Fullerton have capacity to carry flood flows from storms of less than a 10-year recurrence interval. Those facilities constructed in the late 1950's, and subsequent to that time, generally have capacities approximating a 10-year frequency storm. There are many drainage deficiencies within the City, particularly in the flatter areas, from the foothills south. The majority of the current drainage deficiencies are addressed in the 25-year Capital Improvement Program for design and construction. The construction of the Commonwealth/State College Storm Drain project has removed the threat of flooding from major portions of the eastern section of the City.

2.5 Emergency/Disaster Preparedness

The Emergency Preparedness Plan, hereby incorporated by reference into the General Plan, details the responsibilities of federal, state and local agencies, as well as private organizations, in the event of a disaster. The City of Fullerton has an adopted Preparedness Plan that addresses emergencies related to natural disasters and other disasters such as riot or war. The maintenance of the Emergency Plan is important to meet emergency protection needs as the City continues to grow.

See Policy CHS-1.4

The City's Emergency Operations Center (EOC) is located in the City Hall. The Emergency Operations Center Activation Procedures set forth responsibilities, personnel, and information necessary to establish the EOC and respond to disasters. The Emergency Operations Center Activation Procedures were last updated in 1993.

Earthquake preparedness and other safety educational programs are offered to all residents of Fullerton. In addition, the Fire Department coordinates disaster planning and preparation for the City, including training for designated city employees.

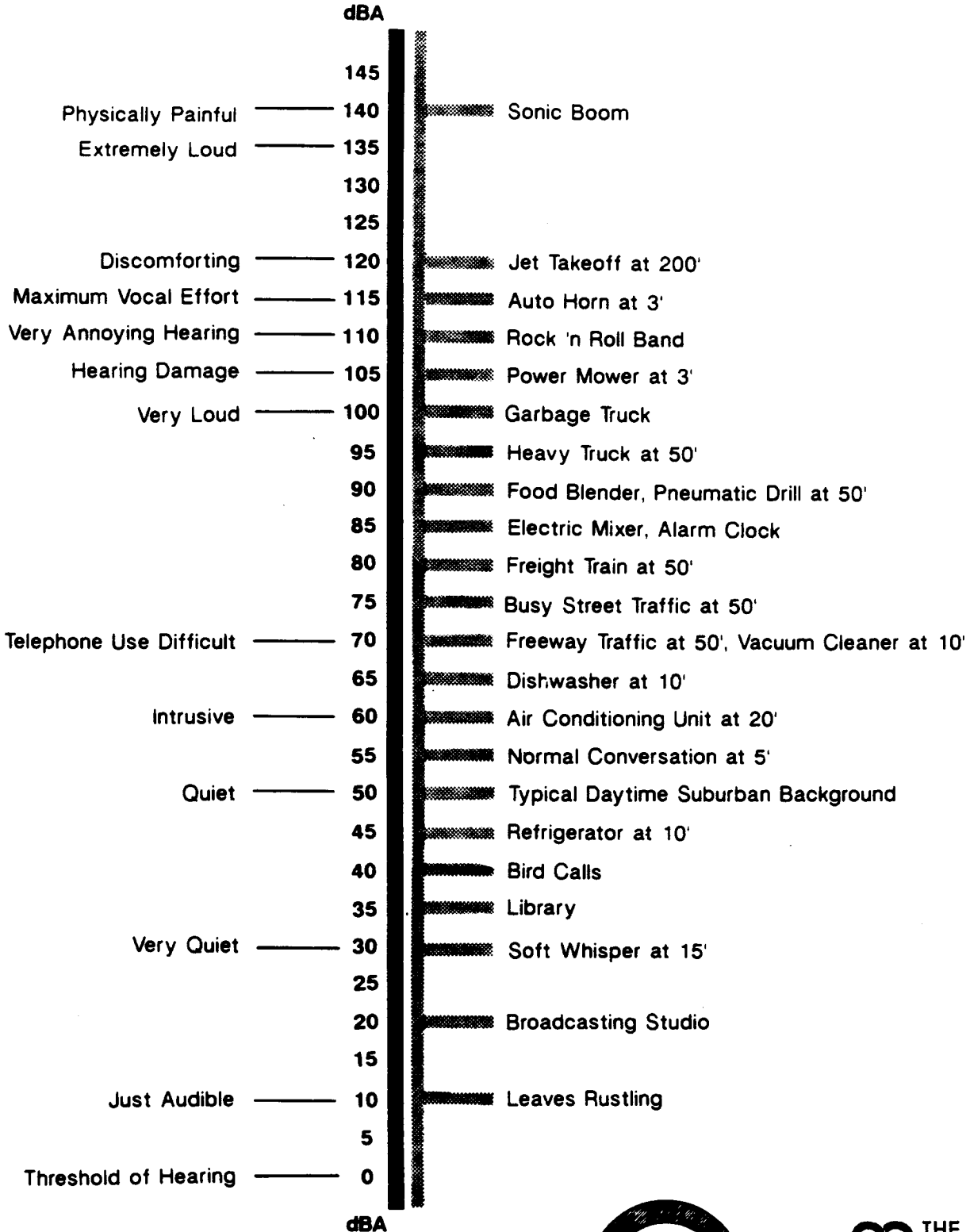
2.6 Noise

Noise within the City originates from either stationary or mobile sources. Stationary sources include noise generators such as the airport, industrial and construction activities, air conditioning/refrigeration units, and home appliances. Many stationary noise sources are typically accepted as part of the ambient or background noise level. Mobile noise sources are typically transportation-related and include aircraft, trains, automobiles, trucks, buses, motorcycles, and off-road vehicles. Construction noise is considered localized and temporary.

Sound intensity or acoustic energy is measured in decibels (dBA) that are weighted to correct for the relative frequency response of the human ear. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very annoying). Various sound levels corresponding to typical sources are provided in Exhibit CHS-2.

Motor vehicles are the single largest source of continuous noise in the City. Major roadways carry appreciable volumes of both truck and commuter traffic. Land uses adjacent to these roadways in the City are affected by motor vehicle noise. Other transportation sources in the City that contribute to community noise levels include the Atcheson Topeka & Santa Fe (AT&SF) and Union Pacific (UP) railroad trains and aircraft accessing Fullerton Municipal Airport. These transportation facilities, along with truck routes and the master planned circulation system, are the primary sources determining the level of noise impacts in Fullerton. Transportation noise generators are discussed separately in the following sections.

SOUND LEVELS AND HUMAN RESPONSE



Source: Adapted from William Bronson, "Ear Pollution, California Health (October, 1971), P. 29

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CITY OF FULLERTON

2.6.1 Noise Measurement and Land Use Compatibility

Exhibit CHS-3 reflects the compatibility and acceptable planning limits of exterior noise for various land uses and is used in conjunction with Exhibit CHS-4 and CHS-5 to determine the compatibility of land uses within various noise environments. Standards for both sensitive land uses and those uses considered less sensitive are provided. The standards are consistent with the State Office of Noise Control Guidelines and the California Noise Insulation Standards.

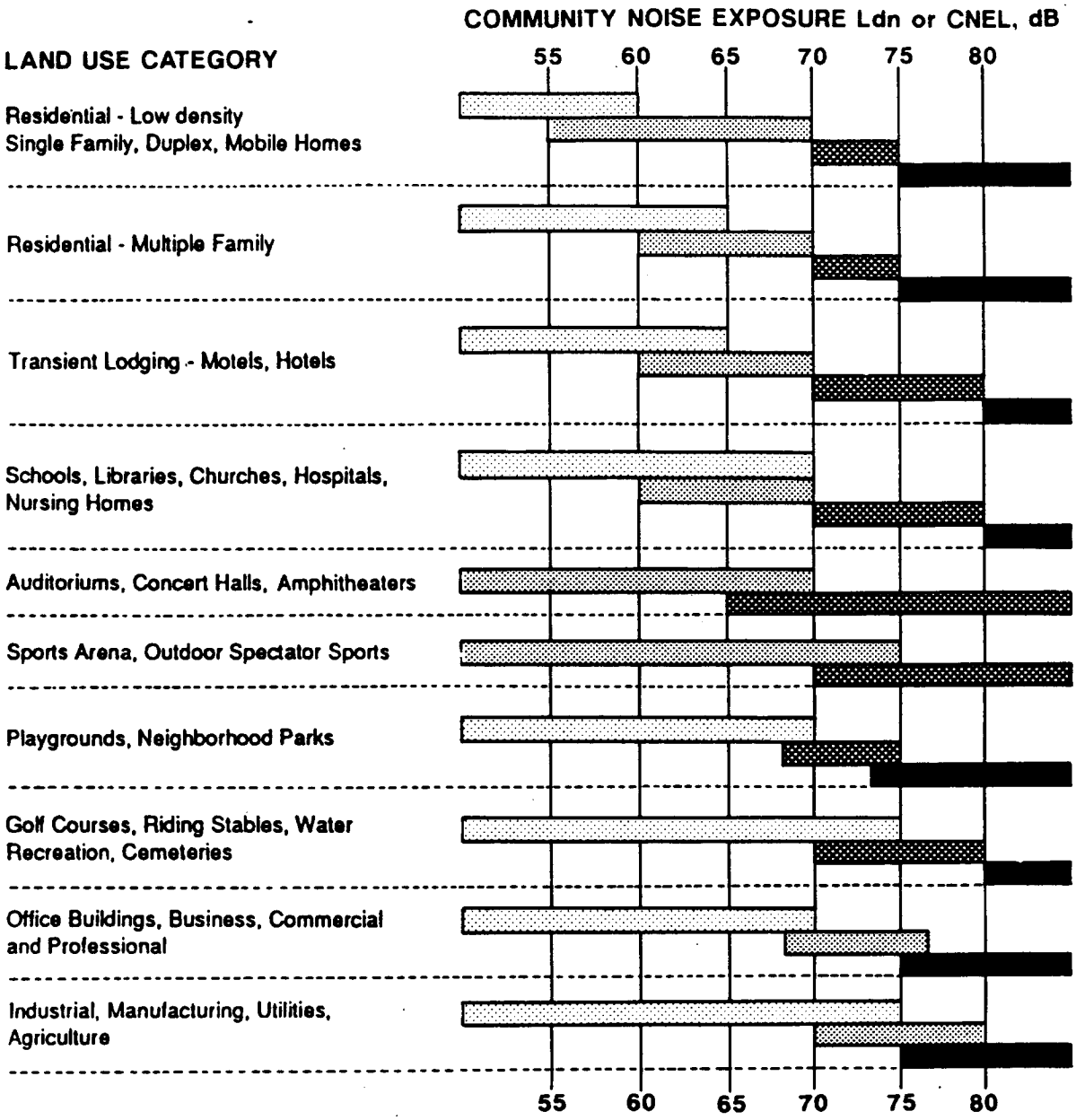
The standards are provided in terms of the Community Noise Equivalent Level (CNEL) rating scale. The CNEL is the time-varying noise over a twenty-four hour period with a weighing factor applied to noises occurring during evening hours from 7:00 p.m. to 10:00 p.m. (relaxation hours) and at night from 10:00 p.m. to 7:00 a.m. (sleeping hours) of 5 dBA and 10 dBA, respectively.

Exhibit CHS-3 depicts "normally acceptable," "conditionally acceptable," "normally unacceptable" and "clearly unacceptable" noise levels for various land use types. These designations identify noise limitations for determining land use compatibility between a new development and neighboring uses. For example, residential land uses are "normally acceptable" in exterior noise environments up to 60 CNEL and "conditionally acceptable" up to 65 CNEL. Public uses, such as schools, libraries, churches, hospitals, and day-care facilities are "normally acceptable" up to 65 CNEL and "normally unacceptable" up to 70 CNEL. Golf courses are "conditionally acceptable" up to 75 CNEL, as are office buildings and business, commercial and professional uses. Recreational uses, such as neighborhood parks, playgrounds and water-based recreation, are "normally acceptable" up to 70 CNEL and "normally unacceptable" from 70 to 75 CNEL.

A "conditionally acceptable" designation implies that new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use type is made and needed noise insulation features are incorporated into the design. By comparison, a "normally acceptable" designation indicates that standard construction can occur with no special noise reduction requirements.

An exception to the limits of exterior noise, as depicted in Exhibit CHS-3, permitting multi-family residential uses in areas with noise levels to 65 dB CNEL, exists for multi-family residential uses between the 60 dB and 65 dB CNEL airport noise contours. Airport noise contours are depicted in Exhibit CHS-4 in section 2.6.2. Consistent with the 2004 Fullerton Municipal Airport Master Plan and Airport Environs Land Use Plan, multi-family residential uses may be permitted in an area with noise levels between 60 dB and 65 dB CNEL with the use of sound attenuation as required by the California Noise Insulation Standards, Title 25, to ensure that the interior CNEL does not exceed 45 dB.

NOISE/LAND USE COMPATIBILITY MATRIX



Normally Acceptable
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. Outdoor environment will seem noisy.

Normally Unacceptable
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made with needed noise insulation features included in the design. Outdoor areas must be shielded.

Clearly Unacceptable
New construction or development should generally not be undertaken. Construction costs to make the indoor environment acceptable would be prohibitive and the outdoor environment would not be usable.

Source: California Office of Noise Control

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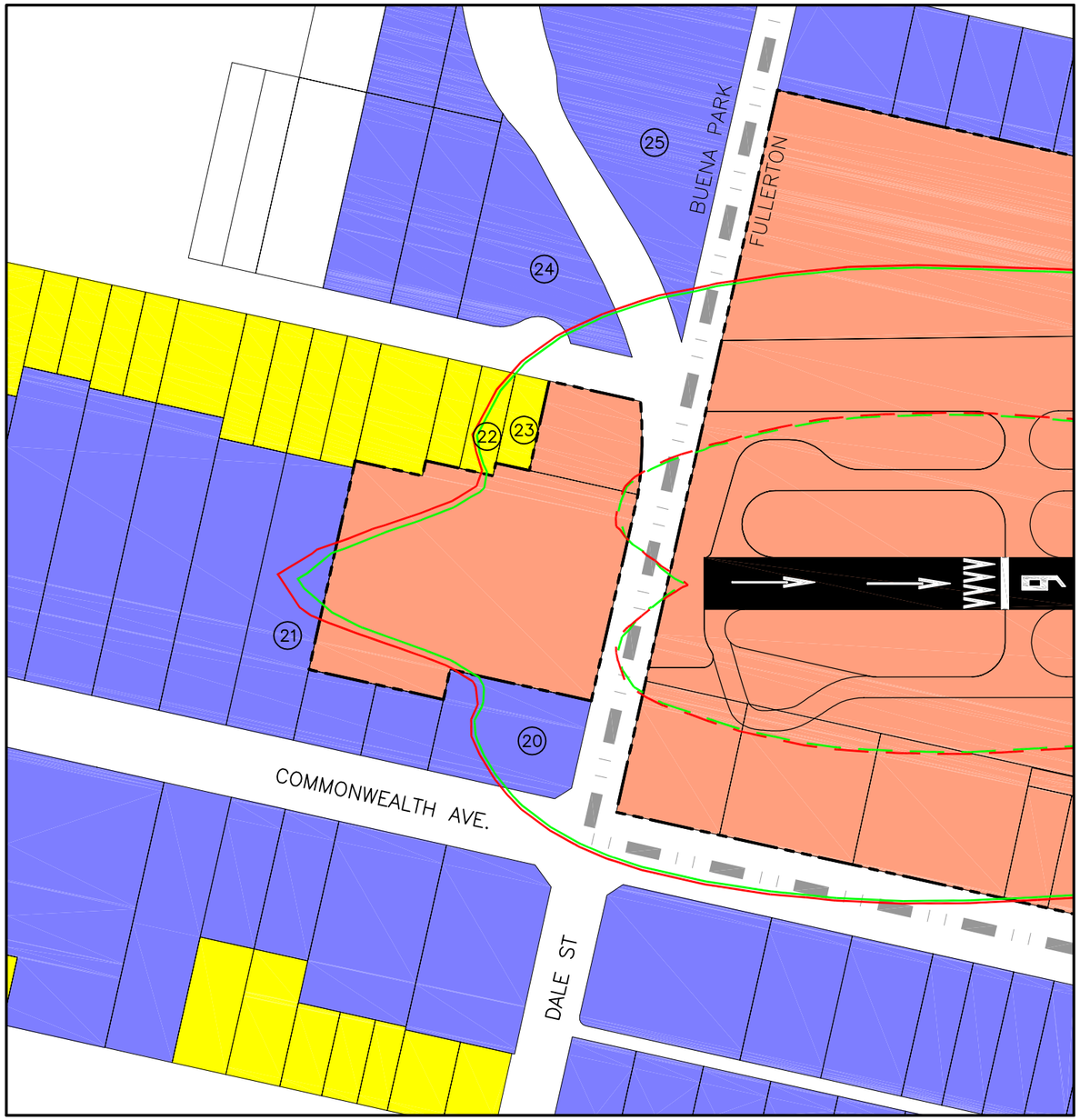


LEGEND

- FULLERTON MUNICIPAL AIRPORT
- COMMERCIAL
- INDUSTRIAL
- RESIDENTIAL
- PLANNED URBAN DEVELOPMENT
- CITY BOUNDARY LINE
- CNEL 65 – YEAR 2002
- CNEL 70 – YEAR 2002
- CNEL 65 – YEAR 2023
- CNEL 70 – YEAR 2023
- AIRPORT PROPERTY LINE

PARCELS

#	APN	#	APN	#	APN	#	APN	#	APN
1	066–391–33	6	280–212–05	11	030–051–07	16	030–052–07	21	066–270–73
2	066–391–40	7	280–212–07	12	030–051–08	17	030–052–08	22	066–270–58
3	066–391–42	8	280–212–03	13	030–052–04	18	030–052–09	23	066–270–43
4	280–292–71	9	030–051–28	14	030–052–05	19	030–040–16	24	066–220–49
5	280–212–06	10	030–051–27	15	030–052–06	20	066–270–76	25	066–220–50

NORTH

SCALE IN FEET

0 300 600

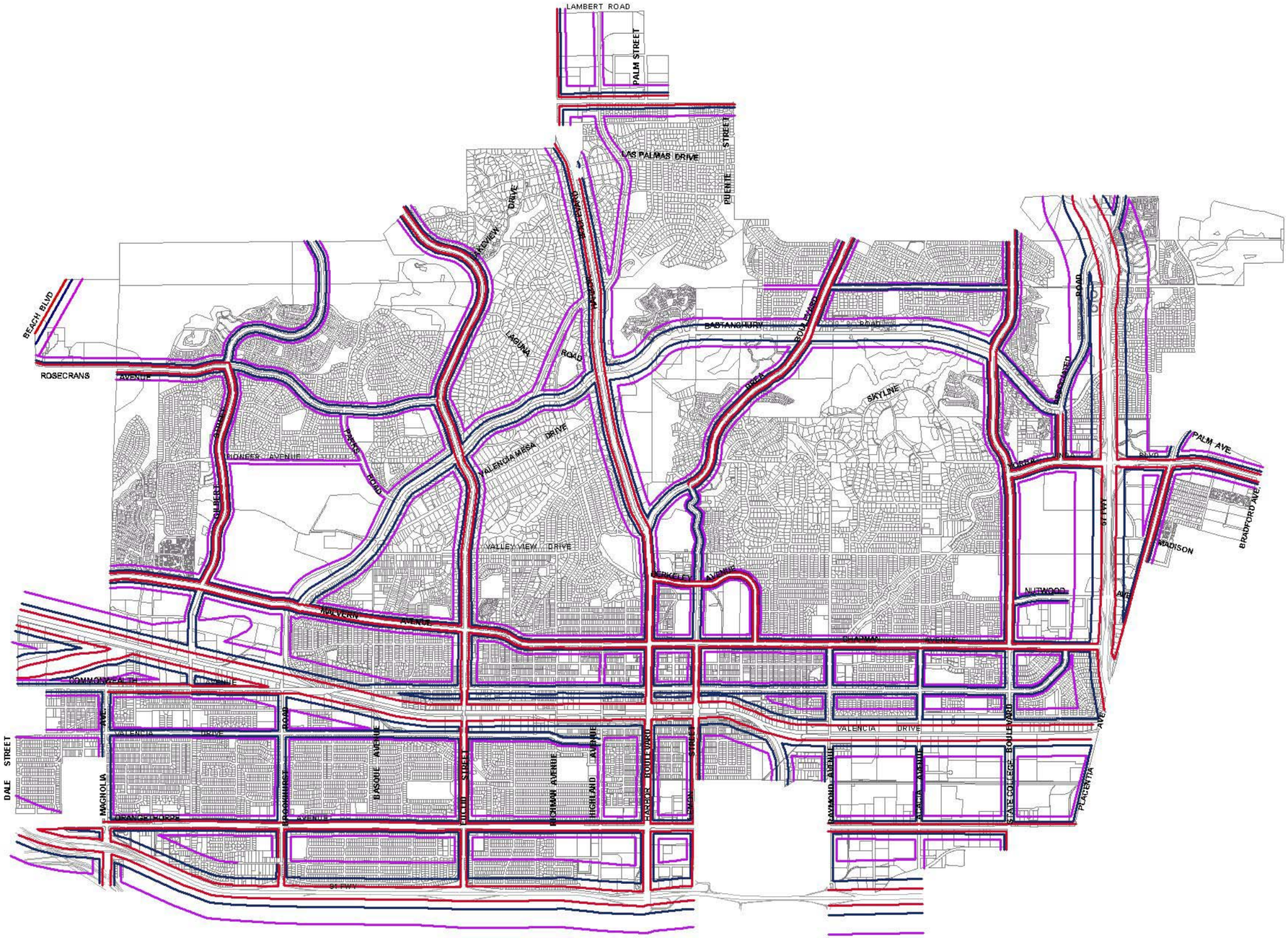
P&D Consultants, Inc.

2002 Noise Vs. 2023 Noise

Exhibit CHS-4

General Plan

Future Noise Contours



60 dBA

65 dBA

70 dBA

Note: Noise contours generated based on buildout traffic volume for autos, train and airplane modes by distance from center line of alignment.

N

W E

S

1000 0 1000 2000 3000 4000 5000 Feet

City of Fullerton
Development Services
Geographic Information Systems

SVCOFGIS/GISDATA/PROJECTS/PROJECTS_OLD_MAPBASE/GENERAL PLAN EXHIBITS/NOISE.APR

2.6.2 Airport and Aircraft

See Policy CHS-4.2

The Fullerton Municipal Airport is a general aviation airport located on the southwestern boundary of the City, between Artesia Avenue and West Commonwealth Avenue. Three-hundred and forty-eight aircraft were based at the airport in 2002, While overall growth, following FAA trends is projected to 2023. the total number of aircraft based at the airport remains lower than historical totals. Over 85 percent are single-engine aircraft; the balance are twin engines aircraft or helicopters. The air traffic control tower recorded 103,481 take-offs and landings in 2002 and 89,453 take-offs and landings during 2003. While overall growth from 2003 is projected to 2023, the total number of take-offs and landings remains lower than historical totals.

Airport noise exposure contours developed P&D Aviation for the 2004 Fullerton Municipal Airport Master Plan are depicted in the Noise Contour Exhibit CHS-4. The noise contours are for operations recorded in 2002. The number of operations as forecast to 2023 is projected to fall below 2002 levels. No increase in operations or the noise levels of aircraft associated with the airport is foreseen.

An existing City ordinance restricts aircraft from exceeding 12,500 pounds maximum gross weight or with a DBA noise level in excess of 75 DBA, as established by the Federal Aviation Administration. Aircraft cannot conduct successive pattern work between the hours of 10:00 p.m. and 7:00 a.m. on weekdays, or 10:00 p.m. and 8:00 a.m. on weekends or nationally recognized holidays.

2.6.3 Railroads

The AT&SF Mainline between Los Angeles and Chicago and the Union Pacific (UP) Anaheim Branch Line run through the City of Fullerton. The AT&SF line carries freight and passenger trains between local and district locations. The line supports the freight transportation needs of local industry and runs according to local market demand. The noise contours along railway tracks depicted in Table CHS-2 are determined from the number and type of trains using the line, the magnitude and duration of each train pass, and the time of the operation. The noise contours at 100, 200, 400 and 800 feet from each railway line are shown. These contours reflect conditions in 1993 on each railroad line. They also are indicative of future conditions, since no changes to operations have been identified by the railroad companies. It is important to note that the current and projected rail operations include Metrolink service as now envisioned.

TABLE CHS-2
COMPOSITE RAILROAD NOISE CONTOURS

Railway Line (Location)	Noise Level (CNEL) at			
	100 feet	200 feet	400 feet	800 feet
AT&SF Freight/Amtrak (East)	74.7	70.7	64.8	59.0
AT&SF Freight/Amtrak/Metrolink	65.5	61.6	55.8	50.1
AT&SF Freight/Amtrak/Metrolink	75.2	71.2	65.3	59.5
UP Anaheim Branch	60.8	57.2	53.0	48.7

2.6.4 Motor Vehicles

The current noise levels adjacent to master planned roadways in the City, assuming a standard sound attenuation of 4.5 dBA with each doubling of distance, are provided in

detail in the EIR. The noise levels at 100 feet from the centerline of area roadways currently range from 52.9 to 79.5 CNEL.
A number of roadway noise levels exceed 65 CNEL and could impact nearby sensitive noise receptors. Newer residential developments provide adequate sound barriers and may not currently be impacted by traffic noise. However, a substantial number of older homes face major roadways or are located at roadway intersections and may be exposed to excessive noise levels.

The City is also impacted by noise from the Riverside, Orange, and Santa Ana Freeways. These freeways are adjacent to residential areas in the southern and eastern portions of the City of Fullerton.

The Riverside Freeway (SR-91) runs adjacent to portions of the southern City limits. With a daily traffic volume of 213,000 vehicles, the 65 dBA contour is located at 862 feet from its centerline. With daily traffic volumes ranging from 203,000 to 216,000 in Fullerton, the Orange Freeway (SR-57) has a 65 dBA contour from 850 to 921 feet away from its centerline. The Santa Ana Freeway (I-5), located within the southwestern boundary of the City, has a daily volume of 169,000 vehicles and a 65 dBA contour 748 feet away from its centerline.

2.6.5 Truck Routes

Truck routes direct large trucks onto roadways that are designed to accommodate them. Truck routes are typically distant from sensitive receptor locations or noise levels have been appropriately mitigated to acceptable levels. The only designated truck route within the City's limits is Imperial Highway. Trucks must use the shortest possible route to arrive at their destination from Imperial Highway. Traffic levels along Imperial Highway currently range from 24,000 to 35,000 ADT. As the City grows and traffic levels increase, there is a potential for increased truck noise conflicts with adjacent land uses.

2.6.6 Future Noise Levels

The major sources of noise in the City will continue to be transportation related. Automobiles and trucks on freeways and local roadways, aircraft operations, and to a smaller extent, rail usage, will generate substantial noise throughout Fullerton.

See Policy CHS-4.1

Exhibit CHS-5 identifies projected noise levels from the City's major roadways, the Fullerton Municipal Airport, and railroad activity, assuming full buildout of the City as called for in the 1994 Land Use Element. The future noise levels reflect the increase in traffic volumes associated with new development activity, regional traffic increases on larger routes through the City, and traffic improvements identified in the Circulation Element and General Plan EIR. Train and airport activity show no increase from existing conditions since no operational increases are planned. The greatest increases in noise are projected along Chapman Avenue, Commonwealth Avenue, Euclid Street, Gilbert Street, Harbor Boulevard, Magnolia Avenue, Parks Road, Rosecrans Avenue, and Valencia Drive.

The noise contours provided in Exhibit CHS-4 identify unmitigated levels without any shielding from existing barriers or topography. The Future Noise Contours exhibit identifies areas where new projects could be impacted by increases in transportation noise and therefore subject to the City's noise attenuation development standards as shown in Exhibit CHS-3.

Fullerton ordinances require sound attenuation walls, double-thickness glass, and extra sound deadening insulation for new residences which are to be constructed in noise impacted areas. In addition, specific activities in residential zones are regulated by the

Zoning Ordinance. The City has worked to retain a 60 CNEL noise level in residential areas by enforcing these ordinances.

Programs aimed at reducing airport noise involve airport operations, educating pilots on quieter aircraft operating techniques and quieter aircraft, involving the public in aircraft noise reduction policy, and preventing sensitive uses from encroaching in noise constrained areas.

See Policy CHS-4.2

2.7 Water and Sewer Service

General Plan policies call for properly designed and maintained water, utility, flood control and sanitary sewer systems to meet the needs of present residents, accommodate future growth, protect the environment and afford proper health and safety protection, including the provision and maintenance of a safe and sufficient trunk sewer system. The City of Fullerton provides sewer and water service through the City's Engineering Department.

2.7.1 Sewer Service

Fullerton's sewer system consists of trunk lines, main lines and laterals. The larger trunk lines are owned and maintained by the Sanitation District of Orange County (SDOC); the remaining trunk lines and the main lines are the responsibility of the City's Engineering Department. Developers are required to install laterals (the lines that go between structures and the main line), and in some cases, the main lines, in conjunction with new construction. Property owners are responsible for maintaining lateral lines.

See Policy CHS-6.5

Based on the City's projected buildout, the Drainage Master Plan identifies ultimate capacity requirements and potential deficiencies to be corrected. The report outlines a deficiency priority list for major sewer maintenance. Eleven high priority projects will be financed through the Sanitation Fee Program. Under this program, the "sanitation fee" portion of the water bill is used to finance sewer and storm drain improvements. This priority list is reviewed annually.

The City continues the development of site plan standards that require developers to install sewer facilities as well as the issuance of sewer permits and inspection of completed sewer hookups. This is supported by periodic review of the sewer relief facility priority list and construction of relief sewers in a logical, priority-oriented sequence.

2.7.2 Domestic Water Service

Water supply and consumption within the City of Fullerton is planned for by both the Urban Water Management Plan (last updated in 1990) and the Water Master Plan (last updated June, 1991). Presently, the City of Fullerton pumps approximately 75 percent of its water from the groundwater supply. The remaining 25 percent is purchased from Metropolitan Water District (MWD). The City's system consists of twelve wells, ten reservoirs and eight imported water connections.

See Policies CHS-6.2 and 6.3

The Urban Water Management Plan includes a description of water conservation and water management activities that the City currently conducts or may conduct within the next ten years. The Water Master Plan provides specific water system improvements required as the City grows over time. The Plan takes into account land use, development and expansion, water use trends, available sources of supply, distribution system requirements, and initial and annual costs of proposed improvements. Overall, City water supply and the distribution network are considered adequate for existing and future development.

2.7.3 Fire Flow

Fire flow requirements which ensure adequate water pressure and volume for structural fire protection, are determined according to the formulas provided by the Uniform Fire Code. The City is responsible for providing adequate fire flow for existing structures, while developers are required to provide adequate fire flow for new construction. In areas where water supply is restricted, a developer can effectively decrease the fire flow requirements by the use of different types of construction and other modifications to building design. These include changes in the size of the project, the type of construction and/or the addition of built-in automatic fire protection such as fire sprinklers. Requirements are determined on a case-by-case basis at the time of project review.

See Policy CHS-6.2

The City of Fullerton has three emergency connections to assist in short-term emergency situations (such as water main breaks or fires). The connections are located at Harbor Boulevard and La Palma Avenues, Raymond Avenue south of Orangethorpe Avenue, and Placentia Avenue at the city boundary. Plans for short-term emergency connections are being developed with the City of La Habra.

2.8 Airport Operations

The Fullerton Municipal Airport is a City-operated general aviation facility located at the southwestern boundary of the City. The FAA requires a 1,000-foot Runway Protection Zone (RPZ) at either end of the runway, beginning 200 feet from the end of the displaced thresholds of each runway as depicted in Exhibit CHS-6. The displaced threshold is located at the beginning of the portion used for landings. The RPZ-Land Use provides unobstructed passage of aircraft through the above airspace enhancing the protection of people and property on the ground. The severe potential for loss of life and property due to accidents prohibits most land uses in this area. Also, the close proximity to aircraft operations limits land uses which would endanger such operations. New uses, except airport-related uses and open spaces, are not permitted. No new buildings intended for human habitation are permitted. Portions of the RPZ fall within the city limits of Buena Park.

See Policy CHS-3.1

An Accident Potential Zone II (APZ II) extends 500 feet from the runway in all directions as depicted in Exhibit CHS-7. The potential for loss of life and property due to aircraft accidents is sufficient to require density and intensity restrictions in this zone. New uses where lot coverage does not exceed seventy-five (75) percent or occupancy does not exceed 200 persons for long periods in an open assembly area or in a structure are permitted. Most forms of open space, industrial, commercial, and airport-related uses are acceptable, whereas residential and public facilities (schools, churches, etc.) are not acceptable.

Furthermore, because of the proximity to aeronautical operations, uses in the RPZ and APZ II must not attract birds nor emit excessive glare or light, nor produce or cause steam, smoke, dust, or electronic interference so as to interfere with, or endanger, aeronautical operations.

The land use restrictions of the RPZ and APZ II apply to new land uses and do not apply to existing uses, to the extent the use remains constant. Expansion, conversion, redevelopment, or reconstruction of an existing use or infill development may require compliance with the land use restrictions of the RPZ and APZ II and referral to the Airport Land Use Commission for a Determination of Consistency.

Avigation easements are recommended by the FAA for properties where noise impacts are substantial or where limitations on the height of structures and trees is essential to protection of runway approaches. These easements convey certain enumerated property rights from the property owner. As commonly applied in the aviation industry, avigation easements convey:

- A right-of-way for free and unobstructed passage of aircraft through the airspace over the property at any altitude above an imaginary surface specified in the easement.
- A right to subject the property to noise, vibration, fumes, dust, and fuel particle emissions associated with normal airport activity.
- A right to prohibit the erection or growth of any structure, tree, or other object that would enter the acquired airspace.
- A right-of-entry onto the property, with appropriate advance notice, for the purpose of removing, making or lighting any structure or other object that enters the acquired airspace.
- A right to prohibit electrical interference, glare, misleading lights, visual impairments, and other hazards to aircraft flight from being created on the property.

Properties in the RPZ would be eligible for FAA grants or funds equal to 90% (95% to 2007) of the purchase price of the easement. An allowance for a 10% City share has been included in the capital cost estimates in the 2004 Fullerton Airport Master Plan. Within the RPZ, where aircraft are expected to be relatively low to the ground, avigation easements may be required as a condition of approval.

The Airport influences land use patterns in the airport environs. In addition to noise concerns, flights in and out of the facility represent potential hazards to uses within the landing and take-off patterns. Flight routes to and from the Fullerton Airport are designed to minimize conflicts with and hazards to existing uses in the airport vicinity. However, new proposed uses must recognize the airport and its operating characteristics. The airport will continue to influence the types of land uses established and buildings constructed within proximity to the airport.

The City regulates heights near the airport to provide aircraft with protection from obstructions in accordance with FAA Part 77 standards that define imaginary surfaces around the airport as depicted in Exhibit CHS-8. Within the Part 77 area, buildings and other structures may not penetrate the surfaces without FAA approval and a Determination of Consistency from the Airport Land Use Commission. The FAA identifies the six surfaces practically defined as follows:

Primary – A 250 foot wide surface, centered over the runway with an elevation equal to the closet point on the runway centerline. The surface extends 200 feet beyond the usable take-off and landing pavement.

Approach – A trapezoidal surface extending from each end of the primary surface with an elevation increasing one vertical foot for every 20 lateral feet to an elevation of 246ft.

Transitional – A surface extending from the primary and approach surfaces with an elevation increasing one vertical foot for every 7 lateral feet to an elevation of 246 ft.

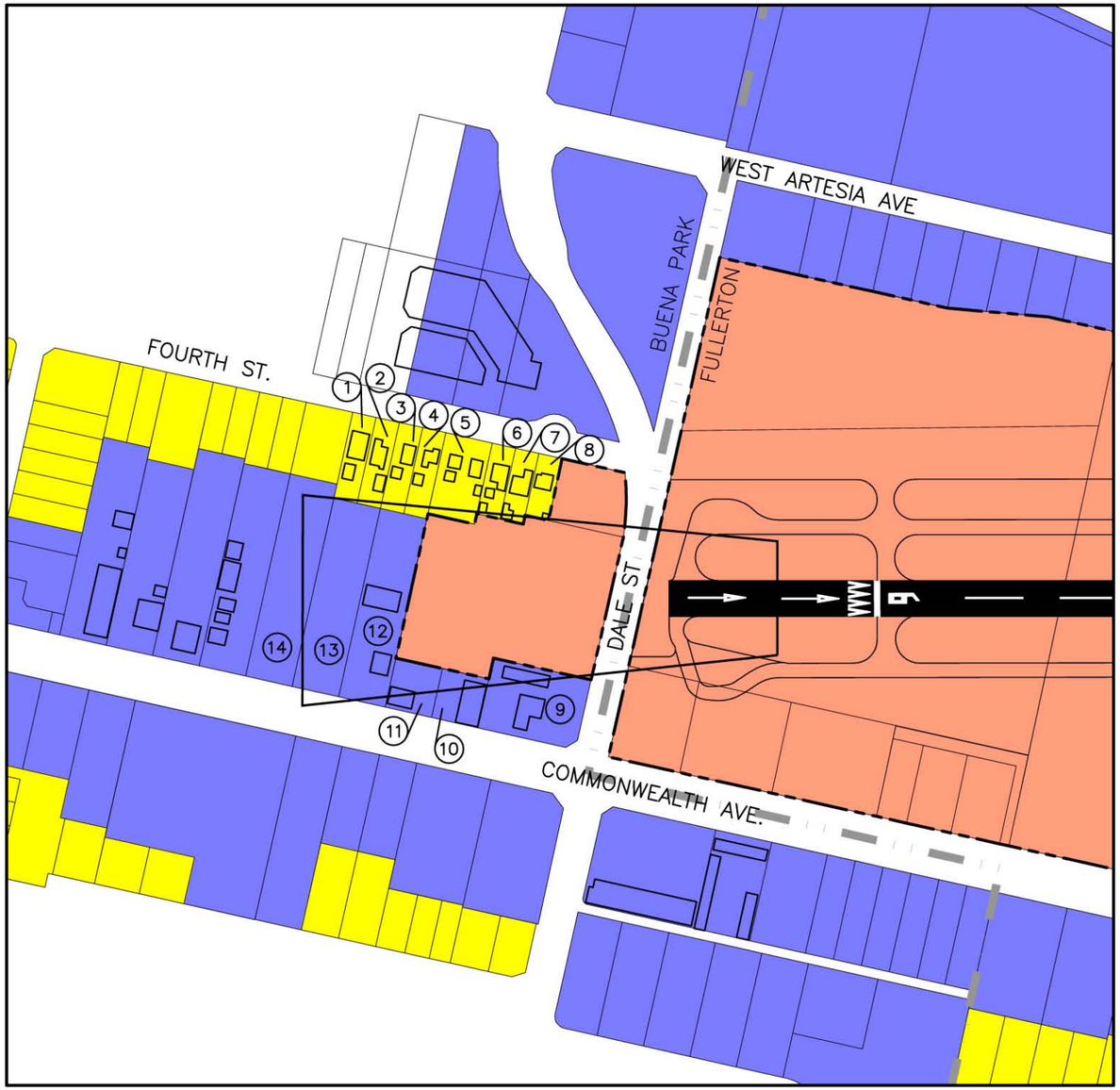
Horizontal – A plane, 246ft in elevation, extending from the Approach and Transitional to a point 5,000 ft from the primary surface.

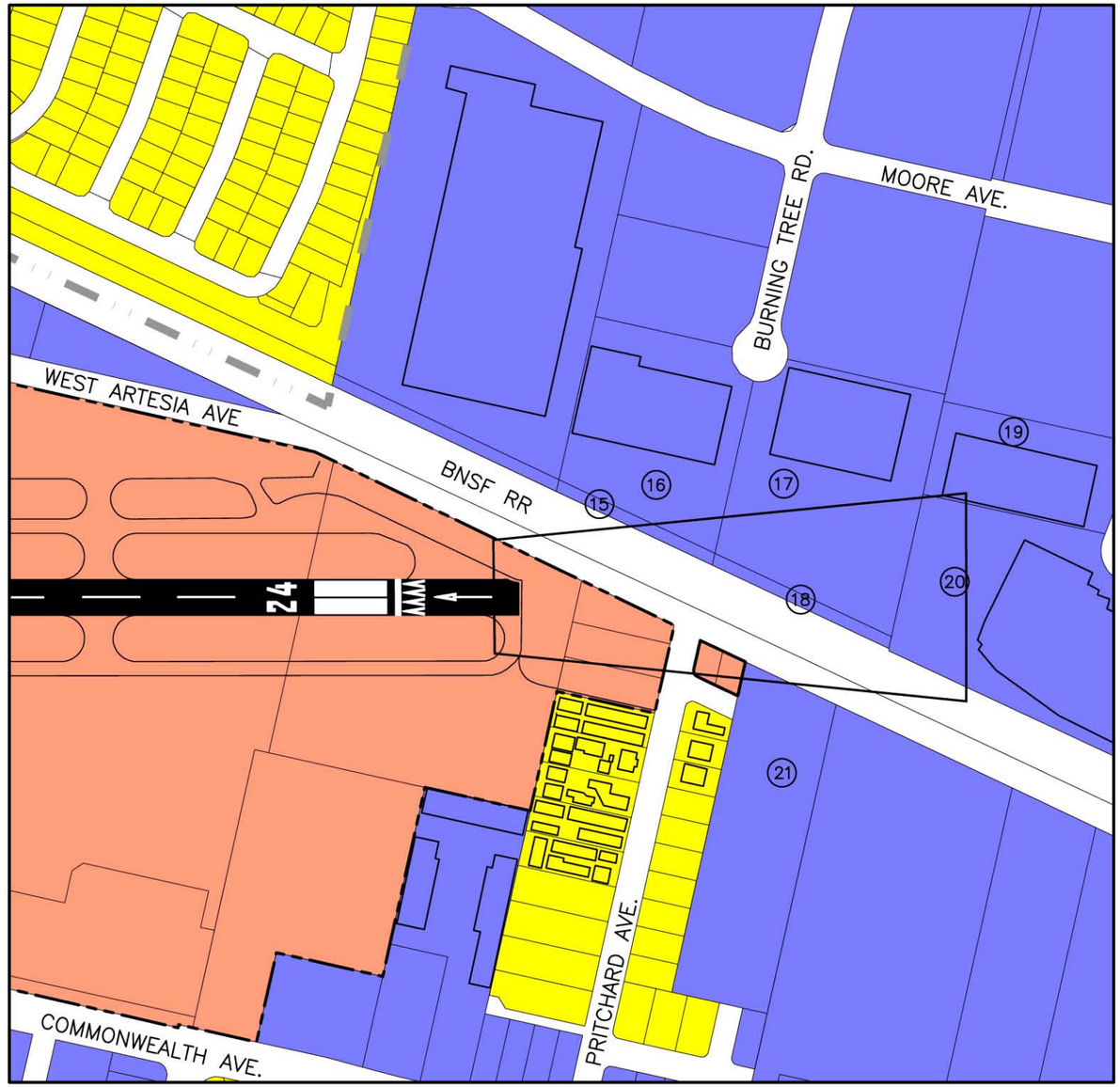
Conical – A surface extending from the Horizontal surface for a horizontal distance of 4,000ft with an elevation increasing one vertical foot for every 20 lateral feet reaching 446 ft at its highest point.

Surface penetrations are determined by comparing the elevation of the surface to the elevation of the building or object.

The City regulates the height of any structure more than 200ft above ground level, regardless of proximity to the airport. Construction or alteration of such a structure requires FAA approval and a Determination of Consistency from the Airport Land Use Commission in addition to all other requirements of the City.

The City regulates the construction or operation of a heliport or helistop at any location in the City. Construction or alteration of such a facility requires FAA and Cal Trans Division of Aeronautics approval and a Determination of Consistency from the Airport Land Use Commission in addition to all other requirements of the City.





LEGEND

- FULLERTON MUNICIPAL AIRPORT
- INDUSTRIAL OR COMMERCIAL*
- RESIDENTIAL*
- RUNWAY PROTECTION ZONE
- AIRPORT PROPERTY LINE
- CITY BOUNDARY LINE

*General Plan Land Use Designations

PARCELS					
#	APN	#	APN	#	APN
1	066-270-67	8	066-270-43	15	280-212-08
2	066-270-66	9	066-270-76	16	280-212-03
3	066-270-49	10	066-270-61	17	280-212-02
4	066-270-50	11	066-270-60	18	280-212-08
5	066-270-57	12	066-270-73	19	030-492-03
6	066-270-55	13	066-270-72	20	030-492-08
7	066-270-58	14	066-270-11	21	030-040-16

NORTH

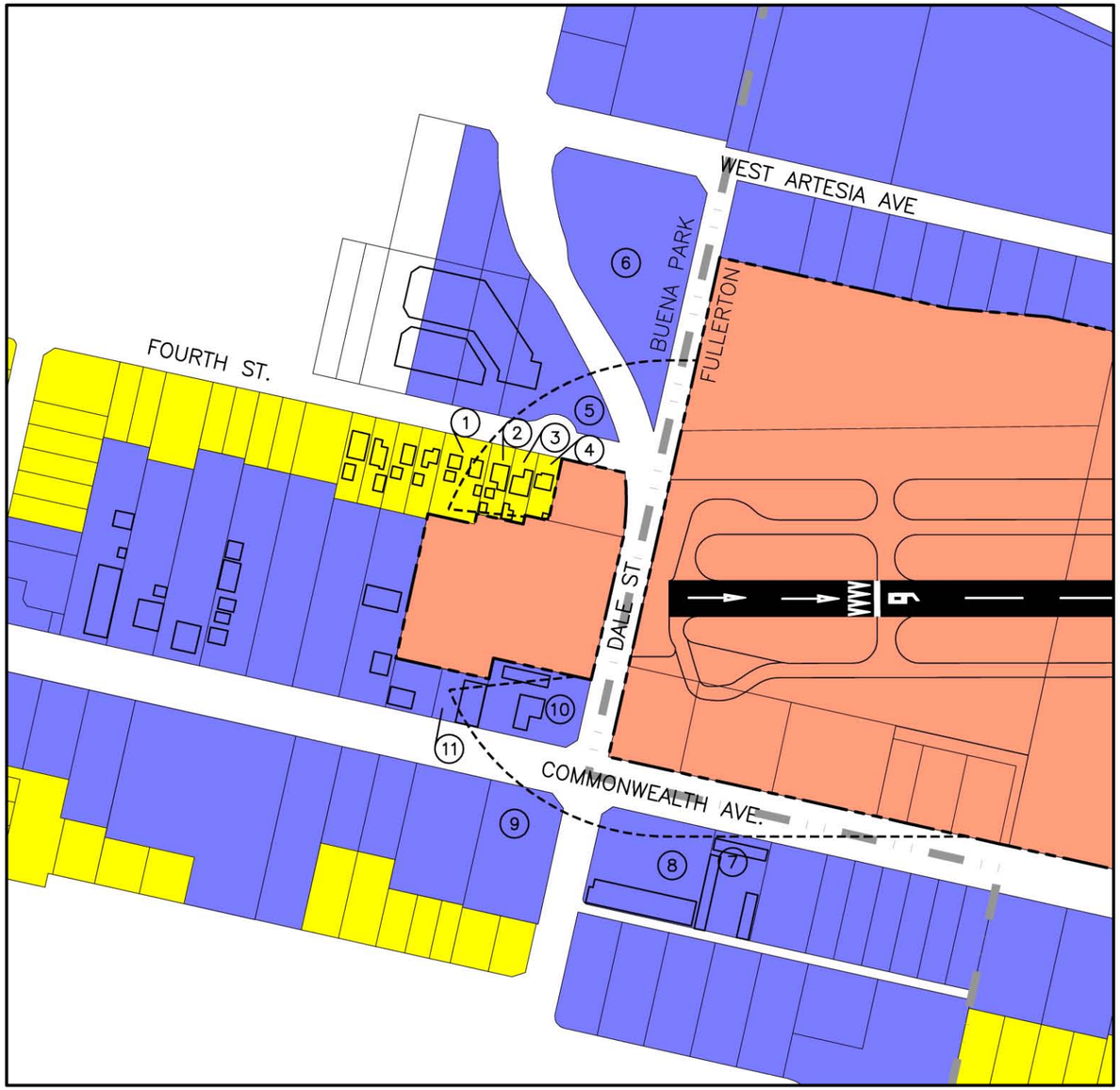
SCALE IN FEET

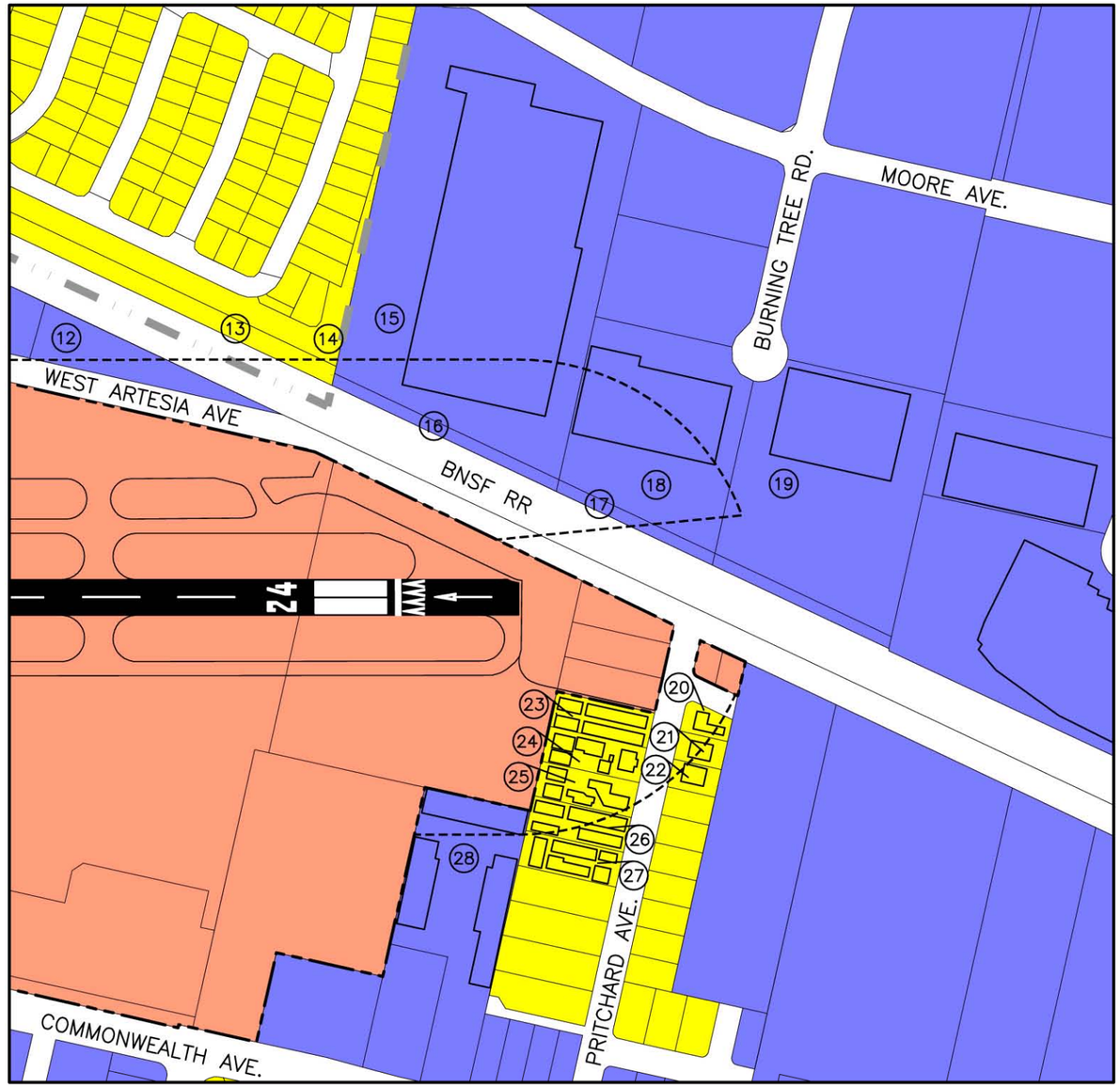
0 300 600

P&D Consultants, Inc.

Parcels Located within Fullerton Municipal Airport Runway Protection Zone - Land Use

EXHIBIT CHS-6





LEGEND

- FULLERTON MUNICIPAL AIRPORT
- INDUSTRIAL OR COMMERCIAL*
- RESIDENTIAL*
- ACCIDENT POTENTIAL ZONE II
- AIRPORT PROPERTY LINE
- CITY BOUNDARY LINE

*General Plan Land Use Designations

PARCELS

#	APN	#	APN	#	APN	#	APN
1	066-270-57	8	070-701-06	15	280-212-05	22	030-051-07
2	066-270-55	9	070-250-54	16	280-212-06	23	030-052-04
3	066-270-58	10	066-270-76	17	280-212-07	24	030-052-05
4	066-270-43	11	066-270-61	18	280-212-03	25	030-052-06
5	066-220-49	12	066-391-33	19	280-212-02	26	030-052-07
6	066-220-50	13	066-391-40	20	030-051-28	27	030-052-08
7	070-701-13	14	066-391-42	21	030-051-27	28	030-040-16

NORTH

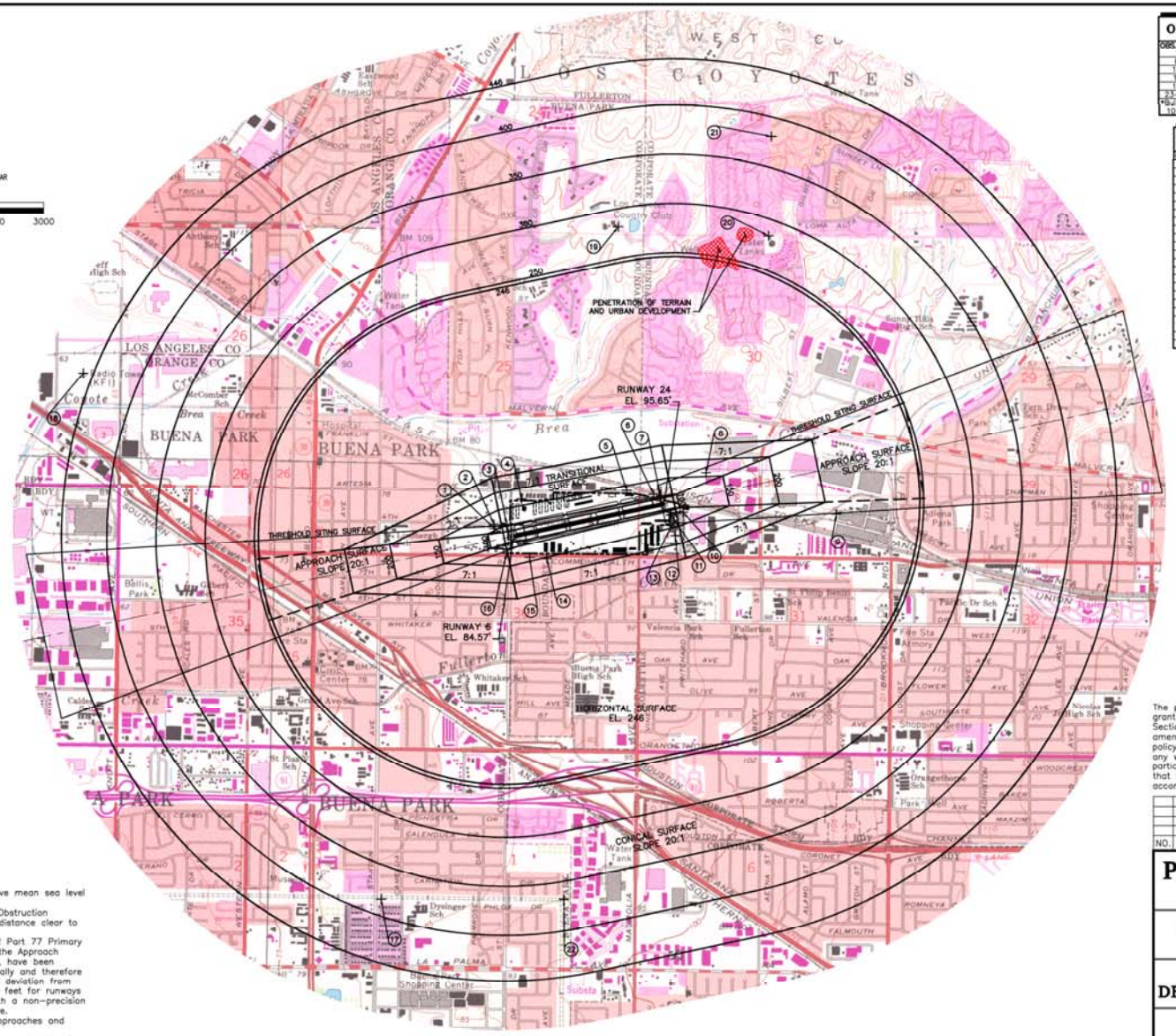
SCALE IN FEET

0 300 600

P&D Consultants, Inc.

Parcels Located within Fullerton Municipal Airport Accident Potential Zone II (APZ II)

EXHIBIT CHS-7



ANNUAL RATE OF CHANGE -2 MIN/YEAR

SCALE IN FEET

1000 0 1000 2000 3000

1 INCH = 1000 FEET

OBJECTS WITHIN THRESHOLD SITING SURFACES

OBS. No.	DESCRIPTION	ELEV.	PENETR.	RUNWAY	PROPOSED ACTION
1	TREE	142	28	6	TRIM
8	HOPPER	132	-13	24	NO PENETRATION
10	POLE	135	21	24	PROVIDE OL
11	BUILDINGS	111(Est.)	10	24	TO REMAIN*
13	POLE	130	27	24	PROVIDE OL

23-46 | SEE SHEET 5

*Buildings not to be obstruction lighted because taller objects in the area (objects 10 and 13) will be obstruction lighted.

PART 77 OBSTRUCTION IDENTIFICATION TABLE

OBS. No.	DESCRIPTION	ELEV.	PENETR.	SURFACE	PROPOSED ACTION
1	TREE	142	37	TRANSITIONAL	TRIM
2	TREE	141	24	TRANSITIONAL	TRIM
3	LIGHT STANDARD	115	5	TRANSITIONAL	TO REMAIN
4	ANTENNA	141	-28	TRANSITIONAL	NO PENETRATION
5	POLE	126	-10	TRANSITIONAL	NO PENETRATION
6	OL POLE	116	6	TRANSITIONAL	SEE NOTE 5
7	OL POLE	117	15	TRANSITIONAL	SEE NOTE 5
8	HOPPER	132	-28	TRANSITIONAL	NO PENETRATION
9	OL ON BUILDING	217	-29	HORIZONTAL	NO PENETRATION
10	POLE	135	19	TRANSITIONAL	PROVIDE OL
11	BUILDINGS	111(est.)	-2	TRANSITIONAL	NO PENETRATION
12	TREE	155	-19	TRANSITIONAL	NO PENETRATION
13	POLE	130	-3	TRANSITIONAL	PROVIDE OL
14	TREE	154	0	TRANSITIONAL	NO PENETRATION
15	POLE	124	-15	TRANSITIONAL	NO PENETRATION
16	LIGHT STANDARD	122	10	TRANSITIONAL	TO REMAIN
17	TOWER	225	-159	CONICAL	NO PENETRATION
18	OL RADIO TOWER	820	NA	NA	NA
19	TREE	282	10	CONICAL	TO REMAIN
20	POLE	328	44	CONICAL	TO REMAIN
21	POLE	193	-12	CONICAL	TO REMAIN
22	TOWER	227	-141	CONICAL	NO PENETRATION

23-46 | SEE SHEET 5

SURFACE ELEVATION

SURFACE	ELEV.
END OF RUNWAY 6	84.57'
END OF RUNWAY 24	95.65'
HORIZONTAL SURFACE	246'
CONICAL SURFACE (UPPER LIMIT)	446
APPROACH SURFACE (6)-UPPER LIMIT	334.57'
APPROACH SURFACE (24)-UPPER LIMIT	346.65'

USGS MAPS USED FOR BASE

7.5 MIN. QUAD
ANAHEIM (1981)
LA HABRA (1981)
LOS ALAMITOS (1981)

ABBREVIATIONS

ATCT	Air Traffic Control Tower
Est.	Estimated
FAR	Federal Aviation Regulation
NA	Not Applicable
OL	Obstruction Light

NOTES:

1. All elevations are in feet above mean sea level (MSL).
2. Negative penetrations in the Obstruction Identification Table represent distance clear to specified surface.
3. The existing width of the FAR Part 77 Primary Surface and inner widths of the Approach Surfaces, which are 250 feet, have been applied to the airport historically and therefore have been retained. This is a deviation from the Part 77 standard of 500 feet for runways serving small aircraft only with a non-precision instrument approach procedure.
4. For obstructions within the approaches and airport property see sheet 5.
5. Poles are to be moved to the north side of the railroad tracks.

Source of data for object elevations and locations: Airport Obstruction Chart Fullerton Municipal Airport, Fullerton, California; Published July 1990. Visually verified March 2003.

The preparation of this plan was financed in part through a planning grant from the Federal Aviation Administration as provided under Section 505 of the Airport and Airway Improvement Act of 1982, as amended. The contents do not necessarily reflect the official views or policy of the FAA. Acceptance of this plan by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development depicted therein nor does it indicate that the proposed development is environmentally acceptable in accordance with appropriate public laws.

NO.	DATE	REVISION	BY	APP.

PART 77 AIRSPACE PLAN

PENETRATIONS TO FAR PART 77 HORIZONTAL, CONICAL AND OFF-AIRPORT TRANSITIONAL SURFACES

FULLERTON MUNICIPAL AIRPORT
FULLERTON, CALIFORNIA

CITY OF FULLERTON
DEVELOPMENT SERVICES DEPARTMENT

P&D Aviation
A Division of P&D Consultants, Inc.
999 Town & Country Rd., 4th Floor
Orange, CA 92868

DESIGNED: AWS	CHECKED: SLA	EXHIBIT CHS-8
DRAWN: AWS	DATE: MAY 2004	

3 COMMUNITY HEALTH AND SAFETY GOALS, POLICIES AND PROGRAMS

Residents pride themselves on the safe living environment that prevails in the Fullerton community. The City will continue to provide adequate levels of public service and infrastructure support necessary to maintain this environment through implementation of the following goals, policies and programs:

Editor's Note: The goals, policies and programs are annotated to show the reader where changes have been made as a result of the Update. Regular text is from the 1981 plan. Italicized policies and programs text represents changes made during initial phases of the Update when 1981 goals and policies were being reviewed. Bold text comes from Council-approved Issue Paper recommendations, and contains new goals, policies and programs which respond directly to concerns identified during the Update.

Police and Fire Operations

Goal CHS-1: *Efficient, well-equipped and responsive fire and police departments which offer maximum feasible personal safety and protection from loss of life and property.*

Operational Efficiency

Policy CHS-1.1 Continue to research and implement methods of improving the efficiency of the fire and police forces.

Purpose:

1. Utilize personnel in a cost-effective manner.

2. Reduce the number of deaths, the severity of injuries, and amount of property loss per capita due to accidents, hazardous materials, crime, fire or medical emergency.

3. Retain effective response times for police and fire emergency calls.

4. Provide peace of mind to the community.

Programs:

a. Maintenance or replacement of equipment as necessary.

b. Research and evaluation of new developments in police science and fire protection and their implementation where feasible.

c. Staff training and re-education courses (paramedic training, counseling, law and ordinance education, etc.).

d. Participation in statewide police and fire organizations.

e. Continuation of computer assistance for patrol investigation, fire service dispatching, record management, planning and distribution of information.

f. Respond to hazardous material emergencies and supervise

mitigation/clean-up efforts.

Policy CHS-1.2 Expand the police and fire services as necessary to serve increased needs.

Expansion of Services

Purpose:

1. Extension of the same level of protection enjoyed by current residents to residents of newly developed areas of the City.

2. Retain a fire insurance rating that is the most appropriate and cost effective for the City.

Programs:

a. Development of advanced plans based on population and housing projections.

b. Expansion of water and hydrant system as necessary.

c. Extension or improvement of arterial streets as necessary to serve new development and expanding areas.

d. Relocation, enlargement and improvement of fire stations as necessary.

e. Offer cultural awareness training to safety personnel consistent with community demographics.

Policy CHS-1.3 Encourage physical planning techniques which will help prevent accidents, crimes, and fires.

Physical Design

Purpose:

1. Increase in public's knowledge of effective building safety, security, and site planning techniques.

2. Ensure adequate access and visibility for police patrols and the public of all new buildings, subdivisions, and park and open space areas.

Programs:

a. Educational activities and talks to the public.

b. Adoption of revised editions of State Building and Fire Codes.

c. Review of proposed development and park projects including landscape design, by police and fire departments.

d. Prohibition of parking on streets wherever traffic safety or community welfare dictates.

e. Investigation of the feasibility to establish fire lanes in developments of high hazard potential.

f. Regular fire safety inspections of residential, commercial, and industrial properties.

g. Adopt regulations and provide design guidelines which promote "defensible space" by increasing visibility, access and shared public domain.

Emergency/Disaster Preparation

Policy CHS-1.4 Adequately prepare in order to provide emergency services in the event of a major disaster.

Purpose:

1. Reduce the number of deaths and extent of injuries and property damage.

2. Restore essential services as soon as possible following a disaster.

3. Protect remaining resources.

4. Retain continuity in governmental functions.

5. Coordinate services with civil defense, emergency service organizations of other jurisdictions and volunteer groups.

Programs:

a. Implementation of the Disaster Preparedness Plan as necessary.

b. Involvement of key City personnel in annual practice drills for disaster preparedness.

Coordination with Social Services

See also the following Chapter:
• Community Services

Policy CHS-1.5 Police and fire activities and strategies will be coordinated with related social services.

Purpose:

1. Reduce the number of individuals who become involved in criminal activity.

2. Refer juveniles to qualified community-based service agencies wherever possible.

3. Reduce the long-term effects of crime on victims.

4. Better utilize existing social services through appropriate police referrals.

Programs:

a. Identify and coordinate social and recreational services for youth within the City.

b. Develop and exchange program models for youth services with other municipal and county agencies.

c. Continuation of juvenile diversion activities.

d. Police training classes to inform officers which agencies provide particular social services.

e. Dissemination of information to crime and emergency victims regarding available social services.

f. Continuation of Citizens' Victim/Witness Assistance.

g. Continuation of the community-based services and facilities for adult and juvenile restitution.

h. Establishment of regular communication between the Police Department and the Community Services Department.

i. Facilitate referral to public and non-profit agencies for those with special needs.

Community Involvement

Goal CHS-2: *A high level of communication reflecting citizen participation in policy development and delivery of fire and police services.*

Community Education

Policy CHS-2.1 Encourage citizens to participate with the Police and Fire Departments in crime, fire and accident prevention.

Purpose:

1. Increase the public's awareness of appropriate personal safety and other emergency actions.

2. Increase civic pride and responsibility in order to boost the quality of life.

3. Reduce the number of preventable accidents, crimes and fires.

4. Increase public participation in creating a crime-free environment.

Programs:

a. Continuation of educational activities and talks to the public and implementation of new educational activities as the need arises.

b. Participation in joint activities with community organizations.

c. Expansion of Neighborhood Watch.

d. Continuation of mandatory inspections and performance of safety inspections of homes and businesses upon request.

e. Commendations to citizens who have made exceptional contributions to public safety.

f. Distribution of self-help and public education brochures.

g. Encourage inter- and intra-neighborhood programs which increase respect/sensitivity for cultural diversity and create proud, safe communities.

Public Participation in Policy Development

Policy CHS-2.2 Encourage citizen participation in police and fire policy development.

Purpose:

1. Provide opportunities for citizen participation in identifying problems and recommending solutions.

2. Encourage positive officer-citizen relationships.

3. Enhance and maintain the public's trust in the Police and Fire Departments.

4. Enhance and maintain the public's understanding of the justice system.

Programs:

a. Identification of type and levels of services desired by the community.

b. Identification of public safety training needs.

c. Assistance to police-community groups.

d. Periodic surveys to determine citizen perception of officer performance, service expectations and satisfaction.

e. Establishment of procedures to evaluate and implement suggestions received from the public.

f. Continue and, where practical, expand problem solving efforts such as Operation Cleanup to address neighborhood deterioration and blight.

Airport Operations and Safety

Goal CHS-3: *Airport facilities that meet present and anticipated demands in a manner which enhances safety to the public, minimizes the adverse effects of aircraft operations on people, and promotes economic health of the community.*

Policy CHS-3.1 Provide safe and efficient airport operations.

Purpose: Promotion of aviation safety in operations at the airport.

Programs:

a. Provision and maintenance of Runway Protection Zones and Accident Potential Zone II.

b. Regulate heights of potential obstructions on all sides of the airport in compliance with the imaginary surfaces as depicted in the 2004 Fullerton Municipal Airport Master Plan and with Federal Aviation Resolution, Part 77 including any structure higher than 200ft above ground level.

c. Removal or marking of buildings and other objects as identified in the 2004 Fullerton Airport Master Plan that penetrate the Part 77 imaginary surfaces.

d. Placement and maintenance of emergency services at or near the airport.

e. Maintain the runway and taxiway conditions consistent with modern runway design criteria.

f. Coordinate with Federal Aviation Administration, and state, regional and local aviation agencies for co-sponsorship of aviation seminars on and off the airport.

g. Monitor local, regional, state disaster plans to ensure availability of the airport during a major disaster.

h. Maintain federal Reliever Airport status.

Airport Safety

See also the following Chapter:
• Circulation

Noise

Goal CHS-4 *A community with maximum feasible protection from noise.*

Overall Approach

Policy CHS-4.1 Maintain noise level standards and facilitate efforts of residents to obtain relief from excessive noise.

Purpose:

1. Retain the external noise levels in residential areas below 60 CNEL.

2. Retain the internal noise levels in residential developments below 45 CNEL.

Programs:

a. Enforcement of State building code, zoning ordinance, and aircraft operating ordinance provisions.

b. Review and participation of Federal and State noise abatement activities.

c. Enforcement of the City's noise ordinance.

d. Develop a program to identify existing or future motor vehicle noise impacted areas and designate needed mitigation to reduce noise to acceptable levels.

e. Identify potential redevelopment areas or rezoning of land to reduce conflicts between noise generators and sensitive receptors.

f. Continue to review development projects for potential noise generation using comprehensive noise standards to ensure against noise conflicts.

Airport Noise

See also the following Chapters:
• Land Use
• Circulation

Policy CHS-4.2 Plan and manage airport operations in order to minimize the impact of noise generation from activities.

Purpose:

Reduce the negative impact of the noise levels caused by airport operations.

Programs:

a. Monitor airport operations and implement procedures to reduce noise from the airport.

b. Promotion of on-airport pilot seminars to provide information and training on quieter operation of aircraft.

c. Continue to actively involve City staff and citizen volunteers in aircraft noise reduction through City policies, regulations, and public review.

d. Prevent noise sensitive uses from encroaching on the airport.

Seismic Safety

Goal CHS-5: *A community with maximum feasible protection from seismic hazards.*

Public Awareness

Policy CHS-5.1 Continue to promote public awareness of geologic and seismic hazards and mitigation measures.

Purpose:

Minimize loss of life or damage to persons or property due to seismic hazards through public awareness and education.

Programs:

a. Maintenance of geologic and seismic data on Fullerton which is updated and accessible to the public.

b. Distribution of pamphlets explaining hazards, mitigation measures and emergency actions.

c. Intensification of public education activities following an official earthquake prediction.

d. Train volunteers to augment city and county emergency response systems during a major earthquake.

Building and Planning Activities

Policy CHS-5.2 Take reasonable measures to protect the public from earthquakes through building and planning activities.

See also the following Chapter:
• Land Use

Purpose:

1. Ensure that new structures will be able to withstand a moderate earthquake without structural damage.

2. Correct structural deficiencies in public buildings that will be needed after a disaster.

3. Respond to state seismic safety mandates.

Programs:

a. Mandatory site plan standards which require developers to take appropriate mitigation measures where seismic hazards are suspected.

b. Adoption and enforcement of revised editions of the Uniform Building Code.

c. Inspections of seismic hazards upon request.

d. Identification and inspection of all essential public buildings that are needed during a disaster, checking for structural deficiencies and making needed corrections.

e. Mitigate deficiencies in essential public buildings by recommending structural and fire-life safety measures.

f. Review state laws and adopt/implement local ordinances to comply with state seismic safety programs.

g. Seismic mitigation of unreinforced masonry and pre-1973 tilt-up buildings.

Infrastructure Facilities

Goal CHS-6 *Properly designed and maintained water, utility, flood control, and sanitary sewer systems to meet the needs of present residents, accommodate future growth, protect the environment and afford proper health and safety protection.*

Street, Sidewalk and Trail Maintenance

See also the following Chapter:
• Circulation

Policy CHS-6.1 Improve streets, sidewalks, trails, and paths where needed and maintain them in a safe condition.

Purpose:

1. Reduce the number of deaths, severity of injuries and amount of property damage due to accidents.

2. Reduce the number of street-related crimes such as assaults, drug transactions, armed robbery and solicitation.

Programs:

a. Engineering studies, including biennial traffic surveys, to determine areas of congestion and conflict and areas in need of maintenance services.

b. Improvement of City street lighting systems as necessary and installation of safety lighting at signalized intersections, City parking lots and in deficient areas.

c. Maintenance and improvement of traffic signalization, including the installation of directional and regulatory signs and signals.

d. Maintenance of existing streets, alleys, sidewalks, trails and paths.

Water Delivery

See also the following Chapter:
•Land Use

Policy CHS-6.2 Maintain and expand the water system as economic and population growth warrants.

Purpose:

1. Retain the current level of water service.

2. Provide a sufficient water supply to meet the City's fire protection needs.

3. Provide an emergency supply of water sufficient to meet the needs of City residents for at least three average days.

4. Adequately maintain the water system infrastructure.

5. Increase water supply self-sufficiency by raising the percentage of water provided locally.

Programs:

a. Installation or replacement of water mains where necessary to provide sufficient fire flows.

b. Installation of fire hydrants where needed in both existing and new developments.

c. Construction and replacement of storage facilities, wells, pumping stations and transmission and distribution lines in accordance with new development, water quality requirements and population growth.

d. Continued enforcement of site plan standards which require developers to install water facilities.

e. Continuation of water system maintenance programs.

f. Investigate programs which reduce water consumption, such as the use of reclaimed or "gray" water, installation of dual piping, conservation and market incentives/disincentives.

Water Quality

Policy CHS-6.3 Reduce water pollution and ensure a quality water supply.

Purpose:

1. Reduce water pollution from both point and nonpoint sources.

2. Minimize erosion from construction sites and in new developments.

3. Maintain and improve the current level of ground water and distribution water quality.

4. Compliance with National Pollutant Discharge Elimination System (NPDES) standards.

Programs:

a. Investigation of actions to reduce water pollution.

b. Documentation of runoff volumes and erosion potential in the EIRs for major new developments.

c. Enforcement of grading regulations.

d. Continued implementation of water quality programs.

Flood Protection

Policy CHS-6.4 Provide and maintain local flood control protection.

Purpose:

1. Reduce the threat of flooding of property improvements.

2. Reduce the threat of local drainage problems due to poor building or site design.

Programs:

a. Continued enforcement of site plan standards which require developers to install storm drain facilities.

b. Continued construction of the primary storm drainage system.

c. Periodic review of storm drain priority list.

d. Review and submit revisions to Federal Emergency Management Agency (FEMA) of the flood hazard map as improvements are made.

e. Review and revision of building and site plans for impact of runoff.

f. Distribution of information to residents of proper slope maintenance techniques.

g. Identify flood hazard areas and provide appropriate land use designations and regulations for areas subject to flooding per Federal Emergency Management Agency (FEMA) requirements.

Sewer Facilities

Policy CHS-6.5 Provide and maintain a safe and sufficient trunk sewer system.

Purpose:

1. Maintain sufficient sewer capacity to serve existing and future users.

2. Provide quality sewer installation.

Programs:

a. Continued enforcement of site plan standards that require developers to install sewerage facilities.

b. Continuation of the issuance of sewer permits and inspection of completed sewer hookups.

c. Continuation of sewer main clean-up program.

Refuse Collection and Street Sweeping

See also the following Chapter:
• Regional Coordination (Waste Management Section)

Policy CHS-6.6 Continue to provide refuse collection and street sweeping services.

Purpose:

Coordinate street sweeping and refuse collection services in all City neighborhoods.

Programs:

a. Street sweeping and refuse collection services as often as necessary.

b. Periodic review of the quality and efficiency of refuse collection and street sweeping operations.

c. Continued implementation of the anti-litter campaign, including the adopt-a-park program.

d. Develop and implement an adopt-a-street anti-litter program.