CITY OF WEST COVINA

PARKING LOT DESIGN AND LIGHTING STANDARDS
REVISION NO. 7

APPROVED BY THE WEST COVINA PLANNING COMMISSION ON
June 25, 2002
PER PLANNING COMMISSION RESOLUTION NO.
(PLANNING COMMISSION RESOLUTION NO. 2513, REVISION 7)

TABLE OF CONTENTS

SECTION 1.	GENERAL REQUIREMENTS	1
SECTION 2.	CIRCULATION/DRIVEWAYS	3
SECTION 3.	CURBING	4
SECTION 4.	HANDICAPPED-ACCESSIBLE PARKING SPACES	4
SECTION 5.	HANDICAPPED-ACCESSIBLE PASSENGER/ VALET DROP-OFF ZONES	6
SECTION 6.	COMPACT-SIZE PARKING-	6
SECTION 7.	LIGHTING	7
SECTION 8.	STRUCTURED PARKING/RAMPS	8
SECTION 9.	PAVING/DRAINAGE	9
SECTION 10.	MAINTENANCE	9

ATTACHMENT A:	PARKING LOT PUBLIC PARKING PERMITTED LAYOUTS
ATTACHMENT B:	PARKING SPACE DIMENSIONS
ATTACHMENT C:	DIMENSIONS OF DESIGN VEHICLE
ATTACHMENT D:	HANDICAPPED PARKING DIMENSIONS

These standards are designed to apply to sites with non-residential uses.

SECTION 1.
GENERAL REQUIREMENTS

Review Process	Parking designs shall be shown on plans to be reviewed by the Planning Commission. The Planning Director may, at his discretion, approve re-configurations of approved parking designs. The Planning Commission or Planning Director may approve deviations from certain standards if it is determined that it will result in an overall improved design and not impede traffic and pedestrian safety.
Parking Layout Design	Only those layouts shown on Attachment A are permitted, except that tandem parking spaces, either when parallel or perpendicular to an accessible driveway, may be permitted where parking is by assignment only (for employees or tenants).
Parking Layout Dimensions	Dimensional requirements for standard parking angles are shown on Attachment B
Parking Space Dimensions	9.0 feet wide by 18.0 long OR 8.5 feet wide by 18.0 long (both lengths include a 2.0 foot overhang; see standards under Curbing) See Section 6 regarding dimensions for compact-size spaces.
End Space Dimensions/ Curbing	A Portland Cement Concrete raised slab or raised planter with a minimum height of 4 inches is required at the ends of all parking rows. When the end parking space is adjacent to a building, light standard, wall, or other obstruction, a minimum clearance between the curbface and the face of the obstruction shall be a minimum of 3.5 feet, except under certain circumstances in parking structures (see Section 8). In other cases, a curbed island shall be provided with a minimum exterior width of 4 feet or a larger size sufficient to accommodate landscaping, electroliers, and sign posts.
Pavement markings	Pavement markings, including hatched crosswalks, stop messages, lane, lines, "compact" designation, parking space delineation lines, and arrows to indicate one-way aisles, shall be painted "white" (except where a different color is specifically required) on the ground surface per an approved plan. Parking spaces must be delineated with 4-inch wide paint lines
Screening and Landscaping	Screening and landscaping shall conform to the requirements of the City of West Covina Municipal Zoning Ordinance.
Signage	Any signing used in public parking lots for traffic control purposes shall conform to the requirements of the State of California Traffic Manual as to color, shape, legend, reflectivity and usage. Sizes may be varied as necessary to be compatible with prevailing conditions in the parking facility. No traffic control signing for public parking facilities shall be so located as to conflict with officially installed traffic control devices on public rights-of way.

SECTION 2.
CIRCULATION/ DRIVEWAYS

Driveway dimensions	Do not serve adjacent parking space(s) or serve as a fire lane: Single-lane: 12 feet minimum Multi-lane: 11 feet minimum per lane	Serve adjacent parking space(s): See Attachment B
Circulation	Parking lot circulation shall be provided so that once a vehicle enters a site, it must be able to access every parking space without exiting the site onto the public right-of-way.	
Dead-end driveways	Dead-end driveways are not permitted, except under certain circumstances when allowed by the Planning Commission if it is determined that it will not cause a traffic safety hazard and adequate turnaround area is provided. Adequate turnaround areas may consist of a marked space with a minimum width of 12 feet width. The turnaround space shall not be counted as a required space and shall be painted with diagonal hatch marks and signed to indicate that it is not a parking space.	
Driveway approach location and number	The location of each driveway is subject to the approval of the City Engineer giving due regard to the type of land use, estimated traffic generation, width, geometric design, and traffic volumes of contiguous streets. In no case shall a driveway be located less than 10 feet from the beginning of a curb return. The number of driveways per lot is subject to the approval of the City Engineer.	
Driveway approach dimensions	Driveway approaches shall conform with City Engineer's Standard Plans A-103, A-104, A-104A, A-112, A-112A as required. The minimum width for one-way access is 15 feet; the required width for two-way access is 30 feet, with exceptions for special circumstances.	
Driveway entries	Curbed entrance "throats" shall be provided to prevent the stacking of vehicles onto public streets at driveway entries. Parking layouts shall be designed so that backing from parking spaces into the public right-of-way is not required. Parking facilities with less than 300 parking spaces shall be provided "throats" with a minimum length of 20 feet measured from the street curb line and minimum width of 30 feet. Parking facilities with 300 spaces or more shall be provided "throats" with a minimum length of 50 feet measured from the street curb line and a minimum width of 30 feet. Longer "throats" may be required on the basis of land use, estimated traffic generation, existing traffic volume, vehicle delay, and accident rate.	

SECTION 3.
CURBING

Application	Curbing shall be provided for parking spaces facing a wall, light standard, or other obstruction over 4 inches in height and for planter islands except where next to a wall or sidewalk. (Curbing is not required for parking spaces facing another parking space unless a particular space faces a light standard or other fixed obstruction over 4 inches in height.)
Type/ Dimensions	Curbing shall have a height of at least four inches above parking grade, provided that the overhang distance is in addition to the required walkway width (typically four feet), required planter width (typically three feet, not including curbs), width of light standard base (typically two feet), or the width of any other obstruction . If a walkway or planter is not provided in front of a parking space, a raised slab with a height of four inches and a width not less than the required overhang shall be provided. Free-standing wheelstops shall be permitted only after it has been determined that curbing described above is not practical from a design standpoint.

SECTION 4.
HANDICAPPED-ACCESSIBLE PARKING SPACES

Application	The California Code of Regulations Title 24 requires that newly constructed or remodeling projects in buildings and facilities are made accessible for people with disabilities. (Additionally, all sites need to comply with standards of the American with Disabilities Act.).
Dimensions:	For van-accessible spaces: 17 feet wide (9-feet wide space with 8-foot wide loading & unloading passenger side aisle) by 18 feet long For other accessible spaces: 14 feet wide (9-feet wide space with 5-foot wide loading & unloading passenger side aisle) by 18 feet long Two accessible spaces may share the same loading & unloading aisle. See Attachment D
Location/ Placement:	Parking shall be placed so as to provide the shortest accessible route to accessible building entrance(s) and so persons with disabilities must not be compelled to wheel or walk behind parked cars other than their own. This accessibility is required in each type of parking facility (employee, visitor, valet) and distributed proportionately among each type. In parking facilities that do not serve a particular building, accessible parking shall be located on the shortest accessible route of travel to an accessible pedestrian entrance of the parking facility. In buildings with multiple accessible entrances with adjacent parking, accessible parking spaces shall be dispersed and located closest to the accessible entrances.

Number	total number of required spaces	number of accessible spaces
	1-25	1 van accessible space
	26-50	2 including 1 van accessible space
	51-70	3 including 1 van accessible space
	76-100	4 including 1 van accessible space
	101-150	5 including 1 van accessible space
	151-200	6 including 1 van accessible space
	201-300	7 including 1 van accessible space
	301-400	8 including 1 van accessible space
	401-500	9 including 2 van accessible space
	501-1000	2% including 3 van accessible spaces;
	over 1000	20 + 1 per 100 or fraction, including min. 1 van accessible space per 8 accessible spaces or fraction thereof.
Number for Outpatient medical facilities	10% of spaces provided for patients must be accessible (for facilities that specialize in services for persons with mobility impairments: 20% of spaces provided for patients must be accessible).	
Signage (not required for parking facilities with 4 or less total parking spaces, including non-accessible spaces)	1. Reflectorized International Symbol of Accessibility at each space shall be minimum 70 square inches (minimum 80 inches high if in path of travel), and unobscured by a parked vehicle 2. "Van Accessible" supplemental sign, in addition to sign stated above, for van spaces. 3. Tow away sign with telephone number at each entrance to parking area or adjacent to accessible spaces, minimum size 17-inch by 22-inch, 1-inch high letters. 4. Accessible Space Pavement must be either (a) painted or outlined space in blue & outlined profile view depicting wheelchair with occupant, or (b) 36-inch by 36-inch outlined profile view of wheelchair with occupant in white or blue background visible to traffic enforcement officer when vehicle occupies space.	
Other	1. Slope: Maximum 1:50 (2%) in any direction 2. Surface: Stable, firm, and slip resistant 3. Arrangement: Wheelstop or curb to prevent car encroachment on required width of walkways	
Unreasonable Hardship	Under ADA standards, a project may be exempted from a portion of the accessibility standards in rare circumstances when it is structurally impractical to comply with a particular standard . The Building Official may authorize exemptions from a particular standard if "unreasonable hardship" is demonstrated by the applicant as detailed in Title 24 criteria.	

The standards stated above were based on " The ADA Access Guide: Survey Checklist" published by the California Department of Rehabilitation, June 1995

SECTION 5.
HANDICAPPED-ACCESSIBLE PASSENGER/VALET DROP-OFF ZONES

Application	Required for nonresidential development of 100,000 square feet of building floor area as stated in Section 26-751.1100(c)(1), and certain uses where deemed necessary by the Planning Director.
Type/ Dimension	Consists of a loading zone for passenger drop-off (5 feet by 20 feet, with the 20 feet dimension parallel to driveway orientation) and a vehicle pull-up area adjacent to the driveway
Location	The loading zone shall be located on accessible route of travel and parallel to vehicle pull-up area (not to be used as a parking space) along the driveway
Curbing	The loading zone and vehicle pull-up area shall be at the same grade, or a curb ramp shall be provided. Detectable warning measures are required for walk surfaces that cross or join the vehicular way that are not separated by curbs: A 36-inch strip of truncated domes in contrast color & integrated into surrounding surface (ADA Guidelines 4.29.5 requires strip to provide different sound when tapped with cane)
Vertical clearance	9'8" from entrances and exits to pull-up spaces and loading zones
Other	1. Slope: Maximum 1 inch vertical per 50-inches horizontal 2. Zone surface: stable, firm, slip-resistant 3. Signs: International Symbol of Accessibility (36-inch by 36-inch)

The standards stated above were based on " The ADA Access Guide: Survey Checklist" published by the California Department of Rehabilitation, June 1995

SECTION 6.
COMPACT-SIZE PARKING SPACES

Application	A precise plan is required to be approved by the Planning Commission for all lots requesting compact parking. Permitted on non-residential sites with more than 20 parking spaces, OR sites with more than the minimum number required by Code.	
Dimensions	8.0 feet wide and 16.0 feet long 1.5 foot overhang, see standards under Section 3.	
Location	Placement of compact car spaces shall be reviewed by staff and shall be indicated on the development plan to be approved by the Planning Commission. The Planning Director may approve revisions to a development plan where there is no increase in the number of existing parking spaces.	
Marking	Each approved compact car space shall be clearly marked on the pavement "COMPACT" in minimum eight inches high upper-case letters in white paint centered on the space's width.	
Number	no. of required spaces 0-1000 1001-1400 Over 1400 no. of non-required spaces (exceeds minimum required by code)	maximum number of compact spaces counted as required 35 percent * 40 percent 45 percent maximum number of compact 45 percent *in excess of first 20 parking spaces

SECTION 7.
LIGHTING

Application	Lighting is required on all sites with public parking facilities. Lighting shall be operational during the hours of operation of the uses on the site. The level of illumination required for certain areas and/or sites shall be marked on plans approved by the Planning Commission.
Review Process	Detailed lighting plans shall require the approval of the Engineering Department and the Planning Department prior to issuance of electrical permits. The plans shall include fixture, lamp, accessory and support pole data (manufacturer's sheets), photometric data (isolux diagram for each fixture and an isolux overlay of site plan), electrolier foundation design, and other items deemed necessary by the Engineering Department to determine if standards are being met.
Location	Noting the location of light standards on the study plan approved by the Planning Commission shall be encouraged. Light standards may not be placed within the minimum dimensions of a parking space, including the overhang of a particular space or the clearance of an end parking space. Curbing as part of a raised slab or planter as stated in Section 3 shall be provided to protect the light standard base from damage. Light standards shall be placed 20 feet or more from trees and other objects that may potentially obstruct lighting.
Illumination levels on parking areas	The lowest illumination level at any point on the pavement for "open" parking areas shall not be less than 0.9 footcandles maintained horizontal illuminance. (For illumination levels in structured or covered parking areas: See Section 8.) The average/ minimum uniformity shall not exceed 4 to 1. Particular sites, due to the potential to create high amounts of pedestrian and vehicular traffic, may be required to provide an average illumination level or greater minimum illumination level if deemed necessary by the Planning Director.
Illumination levels on main driveways	The illumination levels at driveway entries, passenger loading zones, and collector driveways shall be not less than twice the average illumination level of the adjacent parking area or the adjoining street, whichever is greater.
Illumination levels on service areas	If the Planning Commission finds that a site has services areas and access roads where conflicts between vehicles and pedestrians are not likely to occur because these areas are not expected to be frequented by the public, a reduced standard of lighting may be provided for these specific areas. However, the maintained horizontal illuminance on the pavement in these areas shall not be less than an average of 1.0 foot-candles with an average /minimum uniformity shall not exceed 3 to 1.
Illumination levels for low-intensity uses (churches, educational facility)	If the Planning Commission finds that a particular site has a low level of nighttime activity that will create relatively low amounts of pedestrian and vehicular traffic, a reduced standard of lighting may be provided. However, the lowest illumination level at any point on the pavement shall not be less than 0.6 foot candles maintained horizontal illuminance with an average/minimum uniformity not to exceed 4 to 1. Low-intensity sites may include, but are not limited to, churches and educational facilities.
Illumination on Sites Abutting or Near Residential Parcels	Parking lot lights shall not create a negative impact from illumination and glare. Lights shall be hooded, louvered, aimed, or otherwise arranged so as to direct light away from any premises. Additional mitigation may be required by the Planning Director, including, but not limited to, relocation (height, setback) of the fixture, reduction of lamp wattage, or placement of planting or fencing as barriers. Lighting "spill over" shall not exceed 0.5 foot candles at any point on residential premises, churches, and other sensitive uses.

SECTION 8.
STRUCTURED PARKING/RAMPS:

Application	Structured parking areas shall include any parking area located beneath a roof, including those consisting of multiple levels, subterranean parking, and enclosed garage parking.	
Parking Space Dimensions/ Layout	Dimensions and layout shall be the same as "open" parking areas, except that parking spaces next to support structures shall not be subject to the standards for end spaces as stated in Section 1 if the total length of structures along the length of the parking space does not exceed one foot.	
Ramp Grade Maximums	Ramps longer than 25 feet Ramp grade shall not exceed 12 percent, with the first and last 8 feet of the ramp not exceeding 6 percent.	Ramps 25 feet or less Ramp grade shall not exceed 16 percent, with the first and last ten feet of the ramp not exceeding 6 percent.
Ramp breakover	Grade differentials shall not exceed 9-1/2 degrees	
Ramp Widths	Single-lane ramp widths Minimum clear lane width of 12 feet with minimum setbacks of 2 feet from the edge of the lane to fixed objects of 10 inches or more in height.	Multi-lane ramps widths Minimum clear widths of 12 feet per lane, plus 2 foot setbacks from the edge of end lanes to fixed objects of 10 inches or more in height.
Vertical clearance	Minimum clearance for all structured parking areas is 6.5 feet. However, when a passenger loading zone (as stated in Section 5), accessible parking space (as stated in Section 4), or a vanpool parking area (as stated in Section 26-751.1100 of the West Covina Municipal Code) is either provided within a structured parking area or the route of travel to such facilities require passage through a structured parking areas, the facilities and the accessways to those areas shall meet the following: Passenger loading zone (as stated in Section 5): 9'8" Accessible parking space (as stated in Section 4): 8'2" Vanpool preferential parking (as stated in Section 26-751.1100 of the West Covina Municipal Code): 7'2"	
Lighting levels	The maintained horizontal illuminance on the pavement shall not be less than an average of 5.0 foot-candles. Adequate illumination levels at entrance areas, ramps, and corners shall be provided during daylight hours. During daylight hours, entrance areas shall be provided with an average illumination level not less than 50 foot-candles (sum of artificial lighting and daylight). During daylight hours, ramps and corners shall be provided with an average illumination level not less than 10 foot-candles (sum of artificial lighting and daylight). The average/ minimum uniformity of all areas shall not exceed 4 to 1. See Section 7 regarding other standards regarding lighting. These illumination levels shall not apply to areas "open" to the sky, such as the top level of a multi-level structure (These areas are subject to Section 7).	

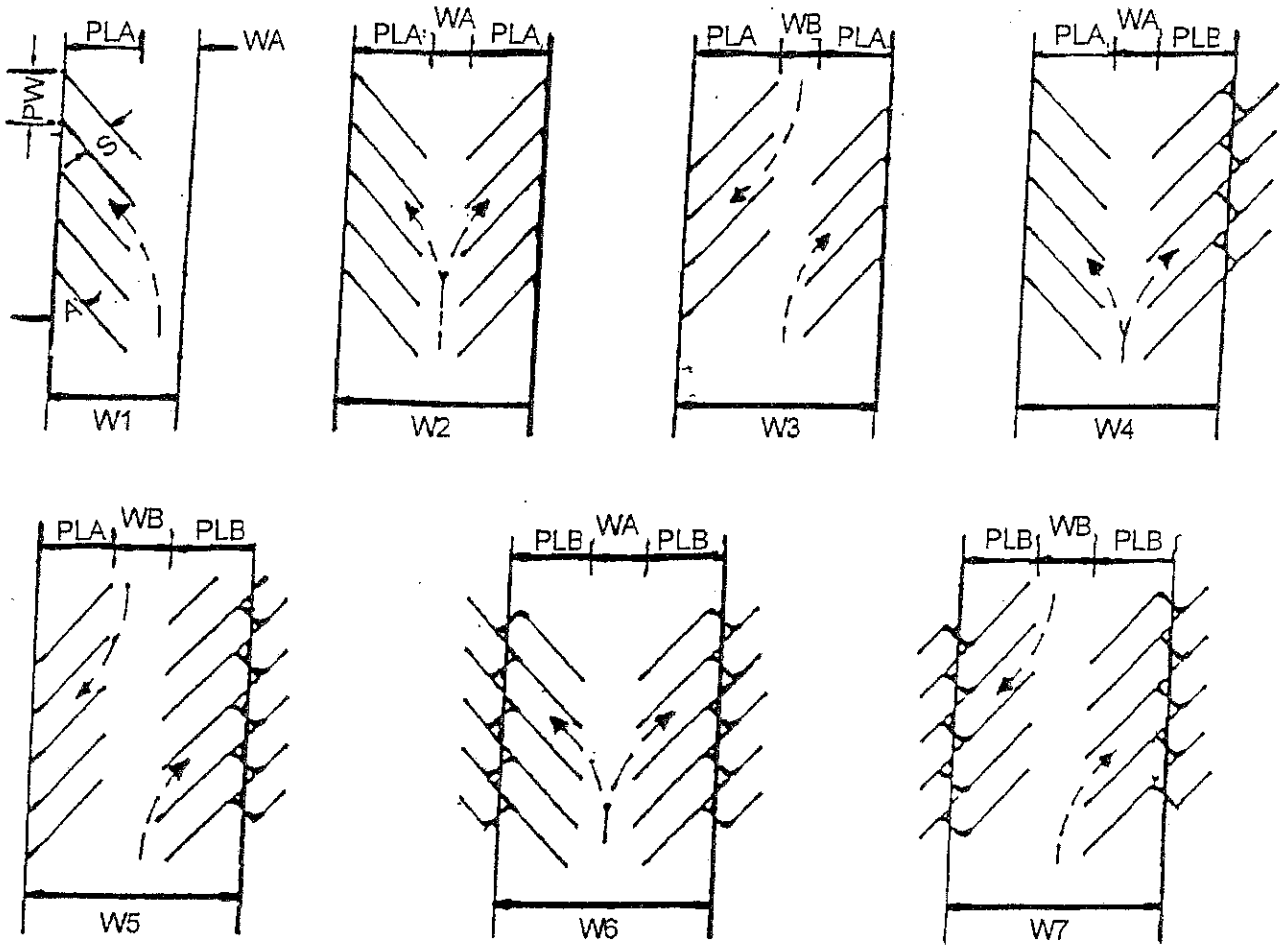
SECTION 9.
PAVING/ DRAINAGE

Paving for parking areas and car sales areas	Provide a durable dust-free surface. The structural section of the pavement shall be designed in accordance with the "Flexible Pavement Structural Section Design Guide for California Cities and Counties," and a minimum Traffic Index of 4.0. The minimum structural section shall be 2 inches of asphaltic concrete on 4 inches of aggregate base material.
Paving for freight loading areas and aisles	Freight loading areas and aisles leading to loading shall be designed for a Traffic Index of 5.0. The minimum structural section shall be 3 inches of asphaltic concrete on 4 inches of aggregate base material.
Grading and Drainage	All parking areas shall be graded and drained so as to dispose of all surface waters. In no case shall such drainage be allowed across sidewalks except at driveway approaches. Refer to Chapter 9 of the West Covina Municipal Code for grading standards.

SECTION 10.
MAINTENANCE

General	All pavement shall be maintained in good condition.
Markings	All surface markings shall be maintained by painting, cleaning, or otherwise, so as to remain clearly visible.
Wheelstops	All wheelstops shall be maintained in usable condition.
Signage	All signing shall be maintained clearly visible.
Other	All other improvements within the parking areas shall be maintained in a safe and usable condition.
Enforcement	A violation of this maintenance section must be corrected within 72 hours of notification of property owner/manager by the City.

Parking Lot Design Standards



Definition of Symbols

A	-	Parking Angle
PW	-	Projected Width of Stall
S	-	Width of Stall
PLA	-	Projected length of stalls against wall or curb over 4" high
PLB	-	Projected length of stalls with interlocking bays
WA	-	Aisle width, **one** way traffic
WB	-	Aisle width, **two** way traffic
W1 to 7	-	Unit parking depth

Attachment A

WEST COVINA PARKING LOT DESIGN STANDARDS
ATTACHMENT B1
STANDARD-SIZED STALL (9.0 FT WIDE X 18.0 FT LONG)

ANGLE DEGREE	PW	PLA	PLB	WA	WB	W1	W2	W3	W4	W5	W6	W7
30	18.00	16.79	12.90	13.00	22.00	29.79	46.58	55.58	42.69	51.69	38.80	47.
35	15.69	17.69	14.00	13.00	22.00	30.69	48.38	57.38	44.69	53.69	41.00	50.
40	14.00	18.46	15.02	13.00	22.00	31.46	49.92	58.92	46.48	55.48	43.04	52.
45	12.73	19.09	15.91	13.50	22.00	32.09	51.18	60.18	48.00	57.00	44.82	53.
50	11.75	19.58	16.69	14.50	22.00	33.68	53.26	61.16	50.37	58.27	47.48	55.
55	10.99	19.90	17.32	16.00	22.00	34.35	54.35	61.80	51.77	59.22	49.19	56.
60	10.39	20.09	17.84	18.75	22.00	35.83	55.92	62.18	53.67	59.93	51.42	57.
65	9.93	20.11	18.21	20.40	22.00	37.06	57.17	62.22	55.27	60.32	53.37	58.
70	9.57	19.98	18.44	21.34	23.00	38.10	58.08	62.96	56.54	61.42	55.00	59.
75	9.32	19.72	18.56	22.27	25.00	38.95	58.67	64.44	57.51	63.28	56.35	62.
80	9.14	19.29	18.51	23.18	25.00	40.54	59.83	63.58	59.05	62.80	58.27	62.
85	9.00	18.71	18.32	24.06	25.00	41.96	60.67	62.42	60.28	62.03	59.89	61.
90	9.00	18.00	18.00	25.00	25.00	43.00	61.00	61.00	61.00	61.00	61.00	61.

Figures above are in feet.

ATTACHMENT B(1)

WEST COVINA PARKING LOT DESIGN STANDARDS
ATTACHMENT B2
STANDARD-SIZED STALL (8.5 FT WIDE X 18.0 FT LONG)

ANGLE DEGREE	PW	PLA	PLB	WA	WB	W1	W2	W3	W4	W5	W6	W7
30	17.00	16.36	12.68	13.00	22.00	29.36	45.72	54.72	42.69	51.69	38.8	47.8
35	14.82	17.29	13.81	13.00	22.00	30.29	47.58	56.58	44.69	53.69	41.00	50.00
40	13.32	18.08	14.83	13.00	22.00	31.08	49.16	58.16	46.48	55.48	43.04	52.04
45	12.02	18.74	15.73	13.50	22.00	32.24	50.98	59.48	48.00	57.00	44.82	53.82
50	11.10	19.25	16.52	14.50	22.00	33.75	53.00	60.50	50.37	58.27	47.48	55.38
55	10.38	19.62	17.18	16.00	22.00	35.62	55.24	61.24	51.77	59.22	49.19	56.64
60	9.81	19.84	17.71	18.75	22.00	38.59	58.43	61.68	53.67	59.93	51.42	57.68
65	9.38	19.91	18.11	20.40	22.00	40.31	60.22	61.82	55.27	60.32	53.37	58.42
70	9.05	19.82	18.37	21.34	23.00	41.16	60.98	62.64	56.54	61.42	55.00	59.88
75	8.80	19.59	18.49	22.27	25.00	41.86	61.45	64.18	57.51	63.28	56.35	62.12
80	8.63	19.20	18.30	23.18	25.00	42.38	61.58	63.40	59.05	62.80	58.27	62.02
85	8.53	18.67	18.30	24.06	25.00	42.73	61.4	62.34	60.28	62.03	59.89	61.64
90	8.50	18.00	18.00	25.00	25.00	43.00	61.00	61.00	61.00	61.00	61.00	61.00

Figures above are in feet.

ATTACHMENT B(2)

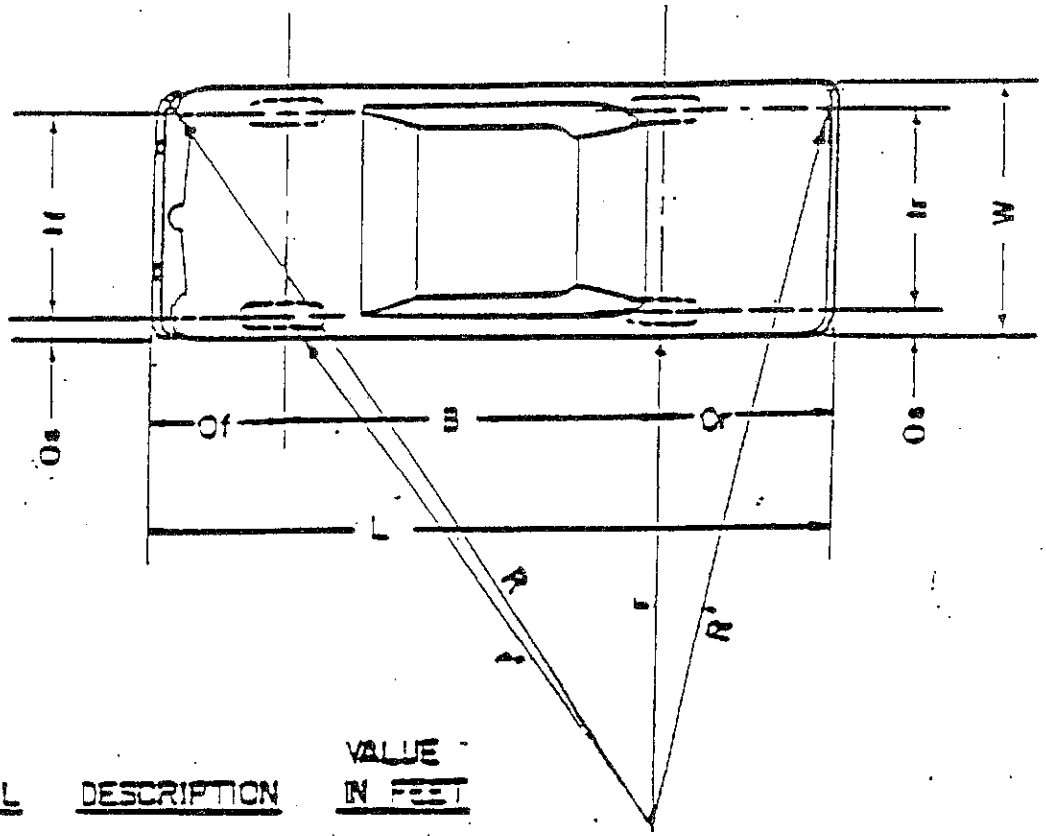
C:/PKG/ATTB.DOC

WEST COVINA PARKING LOT DESIGN STANDARDS
ATTACHMENT B3
COMPACT-SIZED STALL SIZE (8.0 FT WIDE X 16.0 FT LONG)

ANGLE DEGREE	PW	PLA	PLB	WA	WB	W1	W2	W3	W4	W5	W6	V
30	16.0	13.0	11.9	13.00	22.00	26.0	39.0	48.0	37.9	46.9	36.8	4
35	13.9	13.8	12.9	13.00	22.00	26.8	40.6	49.6	39.7	48.7	38.7	4
40	12.4	14.6	13.7	13.00	22.00	27.6	42.2	51.2	41.3	50.3	40.5	4
45	11.3	15.3	14.5	13.00	22.00	28.3	43.6	52.6	42.8	51.8	42.0	5
50	10.4	15.9	15.1	13.00	22.00	28.9	44.8	53.8	44.0	53.0	43.3	5
55	9.8	16.3	15.7	13.00	22.00	29.3	45.6	54.6	45.0	54.0	44.4	5
60	9.2	16.6	16.1	14.26	22.00	30.9	47.5	55.2	47.0	54.7	46.5	5
65	8.8	16.8	16.4	16.56	22.00	33.4	50.2	55.6	49.8	55.2	49.4	5
70	8.5	16.9	16.6	18.90	22.00	35.8	52.7	55.8	52.4	55.5	52.0	5
75	8.3	16.8	16.6	21.21	22.00	38.0	54.8	55.6	54.6	55.4	54.4	5
80	8.1	16.6	16.5	23.50	23.50	40.1	56.7	56.7	56.6	56.6	56.6	5
85	8.0	16.2	16.2	25.00	25.00	41.2	57.4	57.4	57.4	57.4	57.4	5
90	8.0	16.0	16.0	25.00	25.00	41.0	57.0	57.0	57.0	57.0	57.0	5

Figures above are in feet

ATTACHMENT B(3)



SYMBOL	DESCRIPTION	VALUE IN FEET
L	OVERALL LENGTH	17.20
W	OVERALL WIDTH	6.06
B	WHEEL BASE	9.50
Of	FRONT OVERHANG	3.56
Or	REAR OVERHANG	4.19
tr	REAR TREAD	5.05
tf	FRONT TREAD	4.94
r	MIN. TURNING RADIUS (inside rear wheel)	12.55
r'	MIN. TURNING RADIUS (inside front wheel)	15.72
R	MIN. TURNING RADIUS (outside front bumper)	22.10
R'	MIN. TURNING RADIUS (outside rear bumper)	18.51
Os	SIDE OVERHANG	0.51

REFERENCE: "PARKING DIMENSIONS VARIOUS YEARS" PUBLISHED BY AMERICAN MANUFACTURERS ASSOC.

NOTE: DIMENSIONS OF 80% OF AMERICAN MADE AUTOMOBILES FROM 1980 TO 1982 ARE EQUAL OR LESS THAN THE DESIGN VEHICLE

CITY OF WEST COVINA

Standard
DIMENSIONS OF
DESIGN VEHICLE

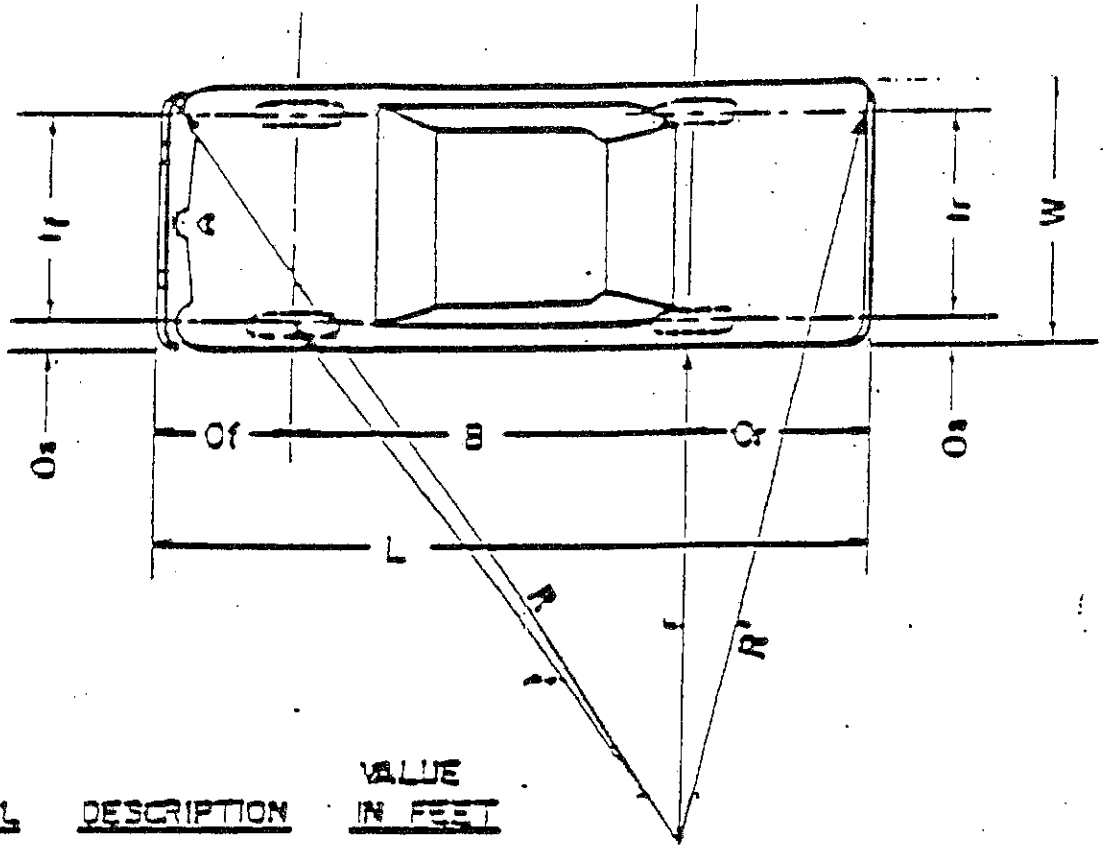
DRAWN BY A. HUI | SCALE NONE
CHECKED BY | DATE NOV. 30, 1976

REVISION	APPROVED BY	DATE
		9-5-83

APPROVED R.E. 18542 CITY ENGINEER

DRAWING NO. T-34 SHT. 2 OF 2 SHTS

ATTACHMENT C(1)



SYMBOL	DESCRIPTION	VALUE IN FEET
L	OVERALL LENGTH	15.18
W	OVERALL WIDTH	5.82
B	WHEEL BASE	8.74
Of	FRONT OVERHANG	3.13
Or	REAR OVERHANG	3.34
tr	REAR TREAD	4.75
tf	FRONT TREAD	4.89
r	MIN. TURNING RADIUS (inside rear wheel)	11.03
r'	MIN. TURNING RADIUS (inside front wheel)	14.29
R	MIN. TURNING RADIUS (outside front bumper)	20.50
R'	MIN. TURNING RADIUS (outside rear bumper)	16.51
Os	SIDE OVERHANG	0.46

REFERENCE: "PARKING DIMENSIONS" VARIOUS YEARS PUBLISHED BY AMERICAN MANUFACTURERS ASSOC.

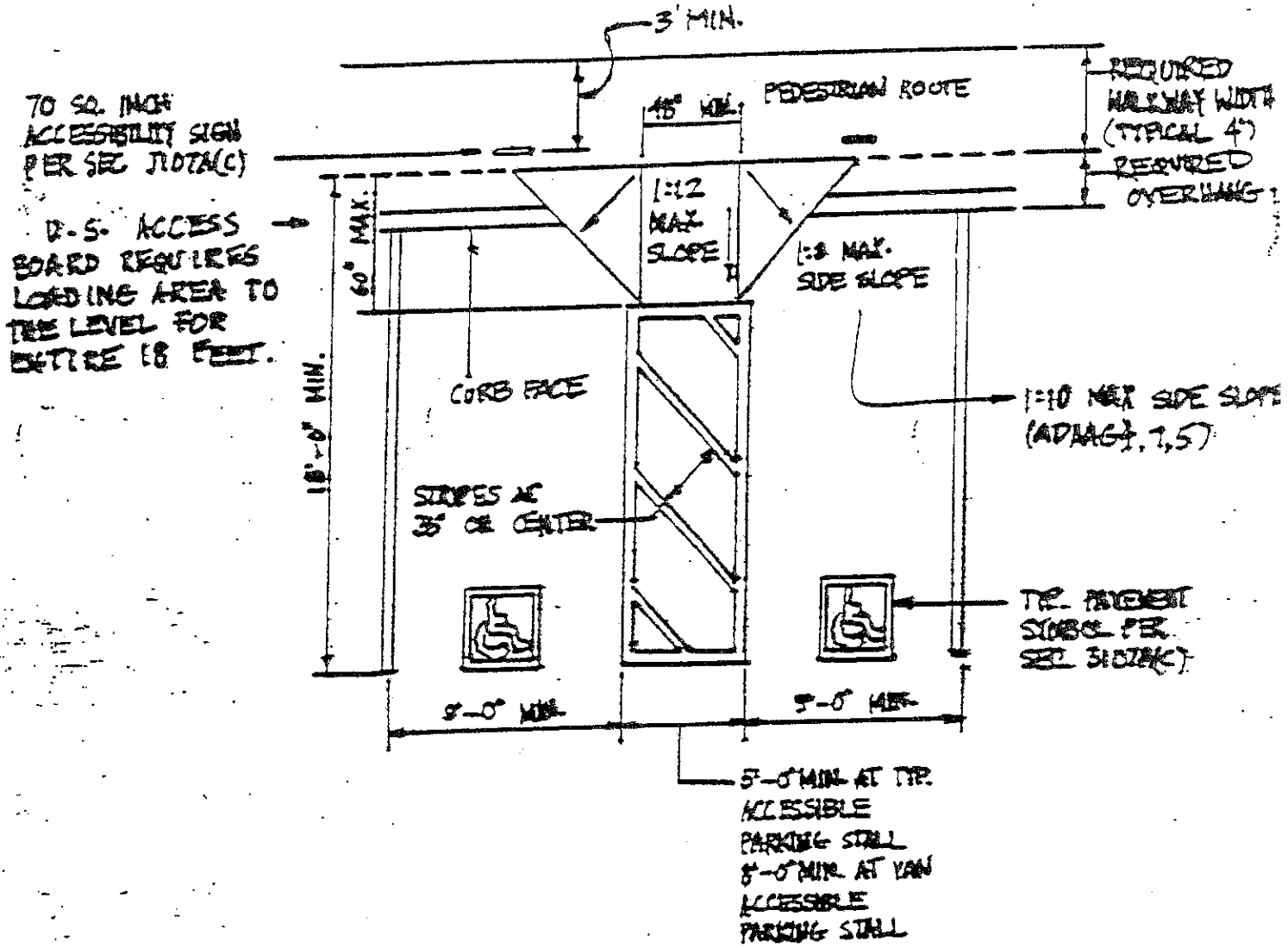
CITY OF WEST COVINA

Standard
DIMENSIONS OF
DESIGN COMPACT VEHICLE

DRAWN BY: G. DELLINO | SCALE: NONE
CHECKED BY: | DATE APR. 2, 1982
APPROVED: R.E./85-42 CITY ENGINEER | DRAWING NO. T-34 A SHT 3 OF 1 SHTS

REVISION	APPROVED BY	DATE

ATTACHMENT C(2)



ATTACHMENT D