A. Zoning District Pair Comparisons

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Current Zoning District	Proposed Zoning District
B-3	B-3
	NMU
	CMU
	RMU
	R-4A
	MT
R-O	R-O
	R-4A
R-4	R-4
	R-4A
I-1	I-1
	I-2
	B-3
	CMU
	RMU
I-2	I-1
	I-2
	CMU

B. Land Use Types Available for Testing in the EIA Model

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The following land use categories are based primarily on the draft EIA Report's ranking of the most common types of uses in the Bowl. Derived from municipal Assessor data, the names and some categories on the list were modified to match the names and categorization of equivalent land use types in Title 21. Categories can be added or removed from the model as necessary. For example, the "restaurant" use, while not the most common type of land use category in the Assessor file, was added to the list.

	Use	Comments
1	Multifamily or Mixed-use Dwelling, - 1 Bedroom	
2	Multifamily or Mixed-use Dwelling, - 2 Bedroom	
3	Multifamily or Mixed-use Dwelling, - 3 Bedroom	
4	Hotel Visitor Accommodations	
5	Office - business, professional and financial	
6	Office - health and medical	
7	Restaurant	
8	Retail, grocery store	
9	Retail, general - general, convenience store, building materials store, other retail	
10	Retail with lower parking need - pharmacy, video rental, liquor store, wholesale, business service, vehicle parts stores	
11	Retail, large durable goods store - furniture, home appliance, flooring	
12	Manufacturing, small (LT 5,000 sf)	
13	Manufacturing, large (GT 5,000 sf)	
14	Warehouse, small (LT 50,000 sf)	
15	Warehouse, large (GT 50,000 sf)	

C. Project Development Categories

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Note: A table of Project Development Categories will be available with the addendum to the EIA.

D. Model Dimensional Assumptions

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Building Floor Plate	Floor Area (Square Feet)	
Minimum footprint size for a one-story building		1,000
Minimum footprint size for a 2 - 5 story building		5,000
Minimum footprint size for a building taller than 5 stories		10,000
Minimum footprint size for structured parking area		5,000

Note: Model should use this factor to ensure that none of the test cases creates an unrealistic building floor plate, because this would create unrealistic assumptions about how much parking can get on site.

Site element Size	Area (Square Feet)	
Surface Parking Space	Square feet of land area	400
Ground-level Parking Space (under the building)	Square feet of gross floor area	350
Parking Structure Parking Space	Square feet of gross floor area	350
Type A Loading Berth	Square feet of land area	800
Type B Loading Berth	Square feet of land area	400
Does structured parking count toward gross floor area in FAR calculation in Title 21 Rewrite?	No in old Title 21 R-4 zone; yes in new Title 21.	

Dwelling Unit	Gross Floor Area (Square Feet) *- GFA of building per dwelling*		Affordable Unit *- sf of unit itself*	
Dwelling, Multifamily - Efficiency		600	600	
Dwelling, Multifamily or Mixed-use - 1 Bedroom		800	700	
Dwelling, Multifamily or Mixed-use - 2 Bedroom		1,000	800	
Dwelling, Multifamily or Mixed-use - 3 Bedroom		1,400	1,100	
Hotel Guest Room		1,000		

D. Model Dimensional Assumptions

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Use Type	Height of each story (feet)		
Structured Parking or Ground-level Parking under a building	15		
Dwelling, Multifamily or Mixed-use - 1 Bedroom	10		
Dwelling, Multifamily or Mixed-use - 2 Bedroom	10		
Dwelling, Multifamily or Mixed-use - 3 Bedroom	10		
Visitor Accommodations	10		
Office - business, professional and financial	15		
Office - health and medical	15		
Restaurant	15		
Retail, grocery store	15	25	(select one)
Retail, general - general, convenience store, building materials	15	25	(select one)
Retail, other - pharmacy, video rental, liquor store, wholesale, business service, vehicle parts stores	15		
Retail, large goods - furniture, home appliance, flooring	15	25	(select one)
Manufacturing, small	25		
Manufacturing, large	25		
Warehouse, small	25		
Warehouse, large	25		
Building Height Maximums (feet)	Current Code	Proposed Code	
B-3	Unlimited	45	
R-O	Unlimited	45	
R-4	Unlimited	60	(45 by right; 60 with bonuses)
R-4A	NA	90	(45 by right; 90 with bonuses)
I-1	Unlimited except 50' of residential district boundary	50	
I-2	Unlimited except 50' of residential district boundary	Unlimited	
CMU	NA	60	
NMU	NA	45	
RMU	NA	60	
MT	NA	TBD	

Building Construction - Non-industrial Development Projects (For technical reasons having to do with model functions and references, the following list includes all uses in the model, including uses that are unlikely to be in non-industrial projects)	**Per Gross Square Foot**		**% Adjustment for Proposed Architectural Standards**
	Current Title 21	**Proposed Title 21**	
Dwelling, Multifamily or Mixed-use - Efficiency or Studio	$150	$158	5%
Dwelling, Multifamily or Mixed-use - 1 Bedroom	$150	$158	5%
Dwelling, Multifamily or Mixed-use - 2 Bedroom	$150	$158	5%
Dwelling, Multifamily or Mixed-use - 3 Bedroom	$150	$158	5%
Hotel	$175	$184	5%
Office, business, professional and financial	$175	$184	5%
Office, health and medical	$265	$278	5%
Health Club/Fitness Center	$175	$184	5%
Restaurant	$175	$184	5%
Retail, grocery	$175	$184	5%
Retail, general - general, convenience store, building materials	$175	$184	5%
Retail, other - pharmacy, video rental, liquor store, wholesale, business service, vehicle parts stores	$175	$184	5%
Retail, large goods - furniture, home appliance, flooring	$125	$131	5%
Retail, large shopping mall	$145	$152	5%
Manufacturing, small	$130	$137	5%
Manufacturing, large	$120	$126	5%
Warehouse, small	$115	$121	5%
Warehouse, large	$110	$116	5%
Accessory storage/mechanical area	$125	$131	5%

Building Construction - for use in testing Industrial Development Projects (For technical reasons having to do with model functions and references, the following list includes all uses in the model, including uses that are unlikely to be in industrial projects)	**Per Gross Square Foot**		**% Adjustment for Proposed Architectural Standards**
	Current Title 21	**Proposed Title 21**	
Dwelling, Multifamily or Mixed-use - Efficiency or Studio	$150	$150	0%
Dwelling, Multifamily or Mixed-use - 1 Bedroom	$150	$150	0%
Dwelling, Multifamily or Mixed-use - 2 Bedroom	$150	$150	0%
Dwelling, Multifamily or Mixed-use - 3 Bedroom	$150	$150	0%
Hotel	$175	$175	0%
Office, business, professional and financial	$175	$175	0%
Office, health and medical	$265	$265	0%
Health Club/Fitness Center	$175	$175	0%
Restaurant	$175	$175	0%
Retail, grocery	$175	$175	0%
Retail, general - general, convenience store, building materials	$175	$175	0%
Retail, other - pharmacy, video rental, liquor store, wholesale, business service, vehicle parts stores	$175	$175	0%
Retail, large goods - furniture, home appliance, flooring	$125	$125	0%
Retail, large shopping mall	$145	$145	0%
Manufacturing, small	$130	$130	0%
Manufacturing, large	$120	$120	0%
Warehouse, small	$115	$115	0%
Warehouse, large	$110	$110	0%
Accessory storage/mechanical area	$125	$125	0%

E. Cost Assumptions

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Parking Construction			
Surface parking	$	8,000	per space
Surface, under building	$	35,000	per space
Above grade structure	$	35,000	per space
Below grade structure	$	60,000	per space
Off-site	$	-	per space

Loading Berths	$	20.00	per square foot

Landscaping	Current Code		Proposed Code	
Visual enhancement (VE)	$ 6.91	per sq. ft.	$ 10.94	per sq. ft.
Buffer 10' wide	$ 10.65	per sq. ft.	$ 11.70	per sq. ft.
Buffer 15' wide	not estimated	per sq. ft.		
Screening	$ 11.90	per sq. ft.	$ 11.37	per sq. ft.
Average of VE and Buffer	$ 7.85		$ 11.32	

Note #1: Model weights the average of VE and Buffer toward VE in Current Code because VE is currently applied more often.
Note #2: Model assumes that VE and Arterial Landscaping in Current Code have the same cost per square foot.

Site/Visual Enhancement	$1.20	per sq. ft.	$2.00	per sq. ft.

Areas of site not covered by buildings or other facilities or required landscaping shall be landscaped.

Current Code - Visual Enhancement Landscaping		
Landscape Item	**Quantity**	**Installed Cost**
Deciduous trees (1 inch caliper)[2]	5	$1,500
Deciduous shrubs (18 inch)	15 (3 shrubs per tree)	$825
Shredded bark mulch	800 square feet	$3,200
	Total	$5,525
	Per Square Foot	$6.91

Notes:

[1] Arterial landscaping is being dropped as a category in the new code and replaced with visual enhancement landscaping. It's assumed that the square foot costs are similar.

[2] The new code requires the minimum caliper of deciduous trees to be 2 inches. The minimum caliper under the current code is 1 inch for deciduous trees (for meeting visual enhancement landscaping requirements.

Proposed Code - L2 Visual Enhancement Landscaping		
Landscape Item	**Quantity**	**Installed Cost**
Deciduous trees (2 inch cal.)[1]	20 tree units required. 5 deciduous trees (2" cal.) = 20 units.	$2,250
Deciduous shrubs (18")	12 shrub units required. 24 deciduous shrubs (18") = 12 units	$1,320
Shredded bark mulch	800 square feet	$3,200
Additional required landscape units (to be used for additional or larger trees and shrubs; toward existing tree retention; or hardscape items)[2]	18 landscape units are remaining. For this estimate, assume more 18" shrubs are used to create a low shrub hedge. 36 more 18" shrubs = 18 units.	$1,980
	Total	$8,750 [2]
	Per Square Foot	$10.94

Notes:

[1] The new code requires the minimum caliper of deciduous trees to be 2 inches. The minimum caliper under the current code is 1 inch for deciduous trees (for meeting visual enhancement landscaping requirements.

[2] Total costs of the new code will vary widely depending on how the extra required landscape units are used. For example, one existing 4" caliper tree retained within the perimeter landscaping area would be worth 20 landscape units. This could replace the $1,980 used above to purchase additional shrubs. Also note that 18" shrubs are used in the cost comparison for the new code since this is the minimum shrub size required in the current code. However, since the new code doesn't prescribe 3 shrubs per tree which is the current policy, larger shrubs can be used which can also reduce costs. For example, 12 x 36 inch shrubs would also meet the mandatory 12 shrub units but would cost an estimated $1,140. In addition, if the site had one existing 4-inch deciduous tree to be retained within the perimeter landscaping area, the total landscaping cost would be approximately $7,340, or approximately 33% higher cost than the current code. If the site has more than one existing trees that can be applied to the perimeter tree requirement, the costs could be reduced even further.

Current Code - Buffer (10') Landscaping		
Landscape Item	**Quantity**	**Installed Cost**
Evergreen trees (6 ft.)	5	$3,000
Deciduous trees (1-1/2 inch caliper)	5	$2,000
Deciduous shrubs (18 inch)	30 (3 shrubs per tree)	$1,650
Shredded bark mulch	1,000 square feet	$4,000
	Total	$10,650
	Per Square Foot	$10.65

Proposed Code - L3 Buffer Landscaping		
Landscape Item	**Quantity**	**Installed Cost**
Evergreen trees (6 ft.)	30 evergreen tree units required. 5 evergreens (6 ft.) = 30 units.	$3,000
Deciduous trees (2 inch caliper)[1]	20 tree units required in addition to mandatory evergreen units. 5 deciduous trees (2 inch cal.) = 20 units.	$2,250
Deciduous shrubs (24 inch)	25 shrub units required. 50 shrubs (18 inch) = 25 units.	$2,750
Shredded bark mulch	1,500 square feet [2]	$6,000
Additional required landscape units (to be used for additional or larger trees and shrubs; toward existing tree retention; or hardscape items)[3]	35 landscape units left over. In this case, a 4 ft. high ornamental screening fence is used (100 ft. x. .3 units/ft) =30 units and 10 additional 18" shrubs = 5 units.	$3,000 (fence) $ 550 (10 shrubs)
	Total	$17,550 [3]
	Per Square Foot	$11.70

Notes:

[1] The new code's minimum deciduous tree has a 2 inch caliper. For the buffer landscaping requirement, the current code allows a 1-1/2 inch caliper tree.

[2] The new code requires a 15-foot wide landscaping bed while the current code only requires a 10-foot wide bed.

[3] Total costs of the new code will vary widely depending on how the extra required landscape units are used. For example, two existing 4" caliper trees retained within the perimeter landscaping area would be worth 40 landscape units. That could replace the $3,550 used above to purchase a fence and additional shrubs. Also note that 18" shrubs are used in the cost comparison for the new code since this is the minimum shrub size required in the current code. However, since the new code doesn't prescribe 3 shrubs per tree which is the current policy, larger shrubs can be used which can also reduce the number of shrubs and costs. For example, 25 x 36-inch shrubs would also meet the mandatory 25 shrub units but would cost an estimated $2,375. For comparison purposes, assume the site has two existing 4 inch caliper deciduous trees that will be retained and 25 x 36-inch shrubs are used to meet the minimum shrub requirement. The cost of that option would total $14,375, which has an approx. 23% higher cost than current code. If the site has more than two existing trees that can be applied to the perimeter tree requirement, the costs could be reduced even further.

Current Code - Screening Landscaping		
Landscape Item	**Quantity**	**Installed Cost**
Evergreen trees (8+ ft.)[1]	20 evergreen trees (two off-set rows)	$18,000
Deciduous trees	None required	$ --
Deciduous shrubs (30 inch)[2]	60 (3 shrubs per tree)	$5,700
Shredded bark mulch	3,000 square feet	$12,000
	Total	$35,700
	Per Square Foot	$11.90

Notes:

[1] The current code calls for a minimum evergreen height of 6 ft. with the average evergreen height being 8 ft. For this example, all the evergreen trees are assumed to be 8 ft.

[2] 36 inch shrub costs are used.

Proposed Code - L4 Screening Landscaping		
Landscape Item	**Quantity**	**Installed Cost**
Evergreen tree (8+ ft.)[1]	90 evergreen tree units required. 10 evergreens (8+ ft.) = 90 units.	$9,000
Deciduous tree (2 inch caliper)[2]	30 other tree units are needed. 8 deciduous trees at 2 inch caliper. = 32 units.	$3,600
Deciduous shrub (36 inch)	60 shrub units required. 60 x 36-inch shrubs = 60 units.	$5,700
Shredded bark mulch	3,000 square feet [3]	$12,000
Additional required landscape units (to be used for additional or larger trees and shrubs; toward existing tree retention; or hardscape items)[4]	38 landscape units left over. In this case, a 3 foot high berm is used for the extent of screening area = 15 landscape units, five boulders from the site are added to the landscape bed = 10 units, and 52 perennials = 13 units.	$1,500 (berm) $1,000 (boulders) $1,300
	Total	$34,100 [4]
	Per Square Foot	$11.37

Notes:

[1] Assumes 8 ft. evergreen trees even though the Public Hearing Draft doesn't specify this as a minimum height.

[2] The new code's minimum deciduous tree has a 2 inch caliper. The current code doesn't list a minimum caliper for deciduous trees since the screening requirements call for evergreens only.

[3] The cost estimate assumes the entire bed is covered with shredded bark, although in reality, a berm may only use mulch on the top portion of the berm under the trees and shrubs and use other seed mixes for the sloped sides of the berm.

[4] Total costs of the new code will vary widely depending on how the extra required landscape units are used. For example, screening landscaping areas will likely have many existing trees that could qualify for tree points and some large shrubs that could qualify for shrub points. Due to the potential cost savings, the landscape unit system may encourage more tree retention, particularly for screening landscaping areas which have a wide bed.

Approximate Cost of Landscaping Materials	
Evergreen Tree (12'+ ht.)	$1,500 each
Evergreen Tree (10-12' ht.)	$1,200 each
Evergreen Tree (8-10' ht.)	$900 each
Evergreen Tree (6-8' ht.)	$600 each
Deciduous Tree (4" cal.)	$2,000 each
Deciduous Tree (3" cal.)	$1,200 each
Deciduous Tree (2.5" cal.)	$750 each
Deciduous Tree (2" cal.)	$450 each
Deciduous Tree (1-1/2" cal.)	$400 each
Deciduous Tree (1" cal.)	$275 each
Deciduous Shrub (36" ht.)	$95 each
Deciduous Shrub (24" ht.)	$80 each
Deciduous Shrub (18" ht.)	$55 each
Evergreen Shrub (18" ht.)	$100 each
Perennial & Ground Cover (#1 container)	$25 each
Topsoil (4" depth) & Seeding	$1,200 MSF
Flower Basket Support	
Earth Berm (min. 18" ht.)	$15 lin.ft.
Decorative Ornamental Fence (metal)	$175 lin.ft.
Screen Fence (Opaque; 6'+ ht)	$30 lin.ft.
Ornamental Pavers	$12.50 sq.ft.
Ornamental Concrete (exposed aggregate, etc.)	$120 sq.yd
Landscape Boulders (3'x3')	$200 each
Landscape Boulders (4'x4')	$300 each
Seating / Decorative Walls	$200 lin.ft.
Bench (min. 6' length)	$1,800
Trash Receptacle	$1,500
Bicycle Rack	$1,000
Landscape Irrigation (in-ground)	$2.50 sq.ft.
Shredded bark mulch	$4 per sq. ft.
Rock mulch	$6 per sq. ft.

F. Number of parking spaces required per unit (residential or hotel) or per 1000 square feet of floor area (commercial)

Note: Parking requirement information is provided within the individual EIA Model Tests. A table of parking requirement assumptions will be available with the addendum to the EIA.

G. Setback Requirement Assumptions

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Minimum Setback Requirements					
Land Use		FRONT		REAR Abutting District	
				Residential	Non-Residential
CURRENT CODE					
B-3	Residential	10		10	10
B-3	Non-Residential	10		15	0
R-O	Residential	10		10	
R-O	Non-Residential	10		10	
R-4		10		10	
I-1		10		10	0
I-2		10		20	0
PROPOSED CODE					
B-3		10		15	5
R-O		10		15	
		Stories in Building			10
		1 to 3	4 or More		
R-4		10	10	10	
R-4A		10	10	10	5
I-1		10		10	0
I-2		10		20	0
NMU		0		15	5
CMU		0		15	5
RMU		0		15	5

For MUs, minimum is 0, max is 20. Set at max with option to change to less.

G. Setback Requirement Assumptions

DRAFT

Minimum Setback Requirements					
SIDES					
Basic		+ per 5' over 35' in bldg height	Abutting Districts		
			Residential	Non-Residential	
CURRENT CODE					
B-3		1			
B-3			10	0	
R-O	5	1			
R-O			0	0	
R-4	5	1			
I-1			5	0	Rear in R-6 = 50 feet, R-8 = 25 feet
I-2			10	0	
PROPOSED CODE					
B-3			10	10	Note on most of these, 0 or at least 5, nothing in between.
R-O			10	5	
R-4	5	1			
R-4A	~~5~~	~~1~~	10	5	
I-1			5	0	
I-2			10	0	
NMU			10	5	Note on most of these, 0 or at least 5, nothing in between.
CMU			10	5	Note on most of these, 0 or at least 5, nothing in between.
RMU			10	5	Note on most of these, 0 or at least 5, nothing in between.

H. Landscaping Requirement Assumptions

DRAFT

Proposed Code - Perimeter Landscaping Requirements																						
Zoning of Proposed Project	**Abutting District**																			**Abutting Street**			
	R-1	R-1A	R-2A	R-2D	R-2F	R-2M	R-3	R-4	R-4A	PLI	PR	RO	B-1A	B-3	NMU	CMU	RMU	I-1	I-2	Freeway	Arterial	Collector	Local
R-O	L3	L3	L3	L3	L3	L3	L3	L3	L3	L2			L2		L2	L2		L2	L2	L4	L2	L2	L2
B-3	L3	L3	L3	L3	L3	L3	L3	L3	L3	L2			L2		L2	L2		L2	L2	L4	L2	L2	L2
NMU	L3	L3	L3	L3	L3	L3	L3	L3	L3			L2		L2				L2	L2	L4			
CMU	L3	L3	L3	L3	L3	L3	L3	L3	L3			L2		L2				L2	L2	L4			
RMU	L3	L3	L3	L3	L3	L3	L3	L3	L3									L2	L2	L4			
R-4	L2	L2	L2	L2								L3	L3	L3	L3	L3	L3	L3	L3	L4	L3	L2	L2
R-4A	L2	L2	L2	L2								L3	L3	L3	L3	L3	L3	L3	L3	L4	L3	L2	L2
I-1	L3	L3	L3	L3	L3	L3	L3	L3	L3			L2	L2	L2	L2	L2	L2			L4	L2	L2	L2
I-2	L3	L3	L3	L3	L3	L3	L3	L3	L3			L2	L2	L2	L2	L2	L2			L4	L2	L2	L2

Proposed Code - Parking Lot Perimeter Landscaping Requirements			
Proposed Use Type	**Abutting Use or Street**		
	Single Family	Multifamily	Other
Multifamily	L3	L2	L2
Nonresidential	L3	L3	L2

H. Landscaping Requirement Assumptions

DRAFT

Current Code - Perimeter Landscaping Requirements																						
Zoning of Proposed Project	**Abutting District**																		**Abutting Street**			
	R-1	R-1A	R-2A	R-2D	R-2F	R-2M	R-3	R-4		PLI		RO	B-1A	B-3				I-1	I-2	Freeway	Arterial	Collector	Local
R-O																				S			
B-3	B	B	B	B	B	B	B	B												S	A	A	
R-4																				S			
I-1	B	B	B	B	B	B	B	B												S	VE	VE	
I-2	B	B	B	B	B	B	B	B				VE	VE	VE						S			

Current Code - Parking Lot Perimeter Landscaping Requirements					
Proposed Use Type	Abutting District		Abutting Street		
	Residential District	Nonresidential	Arterial	Collector	Local
B-3	10	8	6		8
Nonresidential Use in other districts besides B-3	10	8	8		
Residential Use in other districts besides B3	8	8	8		

Except in the B-3 district, parking lot perimeter landscaping requirements for p-lots adjacent to nonresidential uses only apply to p-lots with 15 or more spaces.

I. Loading Requirement Assumptions

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Required Loading Berths: Existing Title 21						
Use Type	**Type of Berth**	**Number of Berths per Gross Floor Area of Structure**				
		0	**1**	**2**	**3**	**4**
Dwelling, Multifamily or Mixed-use	B	Less than 25,000 sf	25,000 - 150,000 sf	150,001 - 400,000 sf	More than 400,000 sf	n/a
Hotel	B	Less than 25,000 sf gfa	25,000 - 40,000 sf gfa	40,001 - 100,000 sf gfa	100,001 - 200,000 sf gfa	More than 200,000 sf gfa
Office, business, professional and financial	B					
Office, health and medical	B					
Restaurant	B	Less than 7,000 sf gfa	7,000 - 24,000 sf gfa	24,001 - 50,000 sf gfa	50,001 - 100,000 sf gfa	More than 100,000 sf gfa
Retail, grocery	B					
Retail, general - general, convenience store, building materials	B					
Retail, other - pharmacy, video rental, liquor store, wholesale, business service, vehicle parts stores	B					
Retail, large goods - furniture, home appliance, flooring	B					
Retail, large shopping mall	B					
Manufacturing, small	A	Less than 12,000 sf gfa	12,000 - 36,000 sf gfa	36,001 - 60,000 sf gfa	60,001 - 100,000 sf gfa	More than 100,000 sf gfa
Manufacturing, large	A					
Warehouse, small	A					
Warehouse, large	A					

Required Loading Berths: Proposed Title 21						
Use Type	Type of Berth	Number of Berths per Gross Floor Area of Structure				
		0	1	2	3	4
Dwelling, Multifamily or Mixed-use	B	0 - 49 dwelling	50 - 149 dwelling	150 - 249 dwelling	250 - 349 dwelling	350 or more
Hotel	B	Less than 25,000 sf gfa	25,000 - 40,000 sf gfa	40,001 - 100,000 sf gfa	100,001 - 200,000 sf gfa	More than 200,000 sf gfa
Office, business, professional and financial	B					
Office, health and medical	B					
Restaurant	B	Less than 12,000 sf gfa	12,001 - 24,000 sf gfa	24,001 - 50,000 sf gfa	50,001 - 100,000 sf gfa	More than 100,000 sf gfa
Retail, grocery	B					
Retail, general - general, convenience store, building materials	B					
Retail, other - pharmacy, video rental, liquor store, wholesale, business service, vehicle parts stores	B					
Retail, large goods - furniture, home appliance, flooring	B					
Retail, large shopping mall	B					
Manufacturing, small	A	Less than 12,000 sf gfa	12,001 - 36,000 sf gfa	36,001 - 60,000 sf gfa	60,001 - 100,000 sf gfa	More than 100,000 sf gfa
Manufacturing, large	A					
Warehouse, small	A					
Warehouse, large	A					

J. Private Open Space Requirement Assumptions

DRAFT

Zoning District	Existing Title 21 "usable yard" requirement per dwelling unit (sf)	Proposed Title 21 "private open space" requirement per dwelling unit (sf)	Proposed Title 21 "private open space" requirement for non-residential development as a percentage of the gross floor area of the non-residential portion of the development
R-4	100	100	5%
R-4A		100	5%
B-3	100	60	5%
RO	100	60	5%
NMU		60	5%
CMU		60	5%
RMU		60	5%

Note: The cost of private open space per square foot is assumed to be the same as the cost of required landscaping per square foot.

K. Snow Storage Area Requirement

DRAFT

Use Type	Existing Title 21 Snow Storage Area Requirement	Proposed Title 21 Snow Storage Area Requirement	Comments
Multifamily Dwelling	No snow storage area required	An area equal to 15% of the size of the required surface parking lot (ie., 400sf * number of surface parking spaces), *minus* 25% of the required private open space area.	The draft code says that up to 50% of the required open space area may be used for winter snow storage, so the model splits the difference and assumes about 25% of the required open space area could be used toward the snow storage requirement.
Mixed-use Dwelling and all other uses	No snow storage area required	No snow storage area required	

L. Pedestrian Facility Requirement Assumptions

DRAFT

Pedestrian Facility Type	**Minimum Width Assumption** (ft)	**Total Length** (walkway length expressed as a percent of Site area)	**Total Square Feet**	**Comments**
Walkway	5	0.015		Model assumes that on average required walkways will occupy an area equivalent to 1.5% of the total site area. Actual walkway requirements will vary substantially from site to site based on site specific factors.
Primary Pedestrian Walkway	12			Model assumes that a primary pedestrian walkway wil have a width of 12 feet. This includes the minimum clear width of 8 feet for the walkway itself plus (a) additional width along buildings for a sidewalk storefront zone, transition pedestrian spaces and/or building foundation landscaping; and (b) buffer space of at least 4 feet in width along streets and driveways to accommodate street trees, landscaping beds, light fixtures, utilities, etc.
Off-street Transit Stop (Arterials)	15	60	900	Model assumes that bus stops along arterial streets will be required to have bus pull-out lanes at the bus stop, which requires that more of the space needed for the bus stop staging area must be acquired from outside the right-of-way.
On-street Transit Stop (Collector or Local Streets)	10	30	300	

M. Exterior Lighting - New Construction

DRAFT

Source: Clanton and Associates, with revisions made by the Planning Department, Municipality of Anchorage, with input from IESNA - Alaska Chapter, September 4, 2007.

MLO REQUIREMENTS	TYPICAL DESIGN 400 WATT SEMI-CUTOFF COBRAHEAD	MLO COMPLIANT 250 WATT ONE FOR ONE REPLACEMENT
Lighting Zone	LZ3	LZ 3
IESNA Criteria		
Minimum Horizontal Illuminance (HFC)	0.5	0.5
Minimum Vertical Illuminance (VFC)	0.25	0.25
LIGHTING STATISTICS		
Total Lumens	1944000	887550
Allowed Lumens	2060189	2060189
Average Horizontal Illuminance (HFC)	5.2	2.7
Maximum Horizontal Illuminance (HFC)	14.4	7.3
Minimum Horizontal Illuminance (HFC)	1.0	0.5
Minimum Vertical Illuminance (VFC)	0.7	0.3
Uniformity (Avg:Min)	5:1	4:1
Uniformity (Max:Min)	14:1	12:1

M. Exterior Lighting - New Construction

DRAFT

CAPITAL COSTS	TYPICAL DESIGN 400 WATT SEMI-CUTOFF COBRAHEAD	MLO COMPLIANT 250 WATT ONE FOR ONE REPLACENT		
Number of Luminaire Replacements	42	42		
Material Cost per Luminaire	$257	$360		
Total Material Cost	$10,794	$15,120		
Labor Cost per Luminaire	$250	$250		
Total Labor Cost	$10,500	$10,500		
Total Installed Cost	**$21,294**	**$25,620**	1.20	
Per square foot	**$0.082**	**$0.099**	1.20	Source: Development Strategies, Inc.
ENERGY USE				
Area (SF)	258324	258324		
Number of Lamps	42	42		
Input Wattage	452	288		←Assumes electronic ballasts where possible, otherwise pulse start
Total Power (W)	18984	12096		
Lighting Power Density (W/SF)	0.073	0.047		
Hrs of Operation per Day	10	10		Assumed average use over entire year
Hrs of Operation per Year	3640	3640		
Energy Use per Year (kWh)	69,102	44,029		
Cost of Energy ($/kWh)	$0.12	$0.12		←From Energy Information Administration - http://www.eia.doe.gov/cneaf/electricity/epm/table5_6_b.html
Energy Cost per Year ($/year)	**$8,292**	**$5,284**		
ECONOMIC ANALYSIS				
Capital Cost / SF	**$0.08**	**$0.10**		Source: Development Strategies, Inc.
Savings per Year ($/year)		$63,818		Revised by Development Strategies, Inc.
Lifetime (years)	15	15		
Discount Rate	5%	5%		Assumed a 5% discount rate
USPW	10.3797	10.3797		Uniform Series Present Worth factor
Simple Payback (years)		**0.1**		Revised by Development Strategies, Inc.
Net Present Cost (Present $)	**$107,364**	**$80,461**		LifeCycle Cost over project lifetime
Net Present Cost / SF	**$0.42**	**$0.31**		