Municipality of Anchorage

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Mayor Mark Begich

Planning Department

February 29, 2008

SUBJECT: DRAFT Economic Impact Analysis for Title 21 Rewrite

Development Strategies, under contract with the Municipality of Anchorage, has prepared a draft Economic Impact Analysis (EIA) of the Title 21 Rewrite. The analysis focuses on certain proposed land use regulations in the Public Hearing Draft now under review. The EIA measures potential economic impacts in two ways: impacts on land values compared to land development potential, and impacts on development costs to comply with the proposed regulations. Robert Lewis, Principal at Development Strategies, will visit Anchorage in March to present the results of the draft EIA at the following meetings:

Wednesday, March 19

6:30 – 8:30 p.m.
Joint Worksession
Planning & Zoning Commission
Platting Board
Urban Design Commission
Zoning Board of Examiners & Appeals
Conference Room 170, Planning and Development Center, 4700 Elmore Road

Thursday, March 20

9:30 – 11:30 a.m.
Assembly Title 21 Committee
Mayor's Conference Room 830, City Hall, 8th Floor, City Hall, 632 W. 6th Avenue

6:30 – 8:30 p.m.
Public Meeting
Training Room, Planning and Development Center, 4700 Elmore Road

Friday, March 21

2:00 – 4:00 p.m.
Assembly Worksession
Mayor's Conference Room 830, 8th Floor, City Hall, 632 W. 6th Avenue

The draft EIA is available for review at **http://www.muni.org/planning/Econ_Impact_Analysis-T21.cfm**. Copies of the document will be available at the following two locations after Monday, March 3:

- Planning and Development Center, Planning Department Public Counter, 4700 Elmore Road
- City Hall, Municipal Clerk's Office, Room 250 on 2nd Floor, 632 West 6th Avenue.

A public hearing on the draft EIA is scheduled before the Planning and Zoning Commission at its regular meeting on Monday, April 7, 2008. Comments may be submitted by e-mail to **Title21@muni.org** or through the Zoning Cases Online system at the following link. **http://www.muni.org/Zoning/index.cfm**. Click on the icon and input case number **2008-056**.

Comments may also be mailed, hand-delivered, or faxed using the delivery/contact information below:

By mail:
Physical Planning Division
Planning Department
Municipality of Anchorage
P.O. Box 196650
Anchorage, AK 99519-6650

Hand-delivery:
Planning Department Counter
Planning and Development Center
4700 Elmore Road (formerly Bragaw Street)

Fax: 343-7927

If you have questions about the upcoming meetings or about the EIA, please contact the Planning Department at 343-7921 or e-mail **Title21@muni.org**.

ECONOMIC IMPACT ANALYSIS

TITLE 21 LAND USE REGULATIONS REWRITE
Anchorage, Alaska

Prepared for
Municipality of Anchorage
Planning Department

February 29, 2008

DRAFT

DEVELOPMENT STRATEGIES®
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1.0 EXECUTIVE SUMMARY

TO BE PUBLISHED SEPARATELY

2.0 INTRODUCTION AND BACKGROUND

With the adoption of *Anchorage 2020: Anchorage Bowl Comprehensive Plan* in 2001, the Municipality initiated a number of actions to improve the quality of life in Anchorage through implementation of the Plan's recommendations. Among those recommendations is a rewrite of Title 21 of the municipal ordinances that regulate land development or, more simply, an update to the city's zoning code. With continued growth and, for about two decades now, relative stability and increasing average length of residency, Anchorage is modernizing its code to address the demands of an important international city.

Anchorage until the late 1980s was a "boom and bust" city that enjoyed the economic growth and benefits of thriving periods like military expansions and oil discoveries. But it also suffered sharp economic setbacks when these periods ended and a great deal of the city's wealth was drained away. In many ways, these rather sharp and severe business cycles prevented Anchorage from implementing a well-managed zoning program and other regulatory oversight. Booms meant coping with rapid growth with too little time for contemplation of the right land uses in the right places. Busts exhausted the tax base and other resources necessary to undertake strong planning—and there certainly wasn't the land development taking place that needed regulation; indeed, there was often abandonment or under-utilization of real estate.

For almost two decades, however, economic and demographic trends reveal Anchorage as growing steadily without booms and busts. This has enabled Anchorage to envisage a better future and the tools necessary to achieve that future. One result is *Anchorage 2020* and one tool is the zoning code. Thus, the city embarked on a modernization of Title 21. But modernization means change and change instills uncertainty which, in turn, increases the perceived risks of future land development. Once property owners, architects, developers, real estate brokers, and even planners understand the processes and consequences of a zoning code, changing that code means having to re-learn many "habits." But modernization also can mean creation of a more useful, flexible, and responsive zoning code that, while imposing some temporary "uncertain" costs, can result in a more functional and attractive city—attractive for residents and attractive for economic development.

Initial drafts of the Title 21 Rewrite exposed the distance between Anchorage's existing zoning and the state of the art found in other U.S. cities. Anchorage's planners called upon the lessons learned and opportunities gained from the evolution of zoning in the U.S. But Anchorage may not yet be ready for so sudden a change; evolution of zoning needs to take place in Anchorage, too, as it has elsewhere, though it may happen more quickly in Anchorage because of the recent experience of its many peer cities. Still, the state of the art had to be reined in somewhat and the most recent *public hearing draft* of Title 21 reflects a more moderate approach.

It is this draft which is evaluated by the economic impact analysis. The early drafts not only revealed the distance that zoning has traveled since Anchorage adopted its current Title 21 regulations, they also revealed that some of the proposed changes might have profound economic impacts on property owners and those who pay for the development of property. It is not that the proposed regulations would have been generally unacceptable, but that they went too far too fast from current regulations such that new and uncertain, but possibly significant, costs would have to be incurred to comply with the proposed regulations as compared to current requirements. Thus was born the need to better understand those potential economic consequences, whether positive or negative, and thus was initiated the present report.

As it turns out, the economic consequences of the latest draft of the Title 21 Rewrite do not appear to be as dramatic as might have been feared with, say, the first draft (although no equivalent economic impact

analysis was conducted of any of the earlier drafts). Analysis of property values and the economic impact model developed for this study indicate that, generally in most cases, there would not be significant economic impacts caused by changing zoning codes and zoning districts. Community discussion and debate have led to continued revisions that seem to have reduced the potential economic impacts related to certain specific regulations of the code. While the specifics of the prior drafts of the code were not topics of research and analysis for this report, anecdotal evidence and interviews with community leaders suggest that the planners have been responsive to the community's need to ease into a more modern set of regulations rather than to adopt relatively extreme measures.

That said, it is impossible to identify every possible change and impact that might occur. However, the analysis did identify several proposed restrictions that seem to substantially increase land area requirements, though not overall monetary cost requirements. In only one case did the proposed Title 21 appear to require more land than the site contained (about four percent more). Several others would require more land to be consumed than the present code requires to meet proposed zoning requirements, but all the while staying within the boundaries of the site. The modeling purposely tried to identify where the greatest pressure might be put on existing developments. Nevertheless, it should be expected that, as a follow up to this report, the municipal Planning Department will provide decision makers with a reevaluation of these proposed restrictions as part of the public approval process in order to identify ways to reduce the added land requirements.

Thus, it should be expected that some property owners may be significantly affected in a negative way because of the proposed Title 21 changes related to land area requirements. This report establishes several methods for evaluating such claims, which are designed to reveal positive and negative impacts. Where legitimized, potential negative claims that could arise may have to be dealt with on a case-by-case basis with appropriate sensitivity to the particular challenge.

Economic impact is an elusive issue to define. This report primarily evaluated two perspectives to provide Anchorage with sufficient understanding of possible economic impacts of the proposed Title 21 requirements on properties subject to the requirements in order to create the most appropriate public policies and tools to deal with land development. Those perspectives include property values and development costs, as introduced below and evaluated in detail in Chapters 3 and 4.

PROPERTY VALUES

Chapter 3 of the report gets immediately quantitative. Analyzing economic impacts of development requires a good understanding of the economic dynamics of the community, especially the pattern of real estate values. The most comprehensive source of property values is the tax assessor. The Anchorage Planning Department obtained the full Assessor's database for properties in five key zoning districts in the Anchorage Bowl (purposefully excluding Downtown, because it will have a separate set of new zoning districts specific to Downtown).[1] The five districts—B-3, R-4, R-O, I-1, and I-2—were predetermined by the Planning Department as likely to be the most affected by proposed changes in Title 21. (There are fewer changes proposed in the lower to medium density residential zoning districts such as R-6 and the R-1, R-2 or R-3 districts. This is partly because the dollar value impacts of the Title 21 Rewrite are considered to be potentially greatest in the high-density and commercial districts, where the most changes are proposed, or in the industrial districts, where commercial uses are proposed to be restricted.)

[1] Chugiak-Eagle River properties also were not included because there is a placeholder chapter in the Title 21 Rewrite Public Hearing Draft for that area.

With limited study resources, it was deemed best to limit the economic analysis, therefore, to these five districts. The database obtained from the Assessor contains information not only on property values[2] (land separately from buildings or improvements), but also on building size, property size, and land use. There are 77 separate land use designations used by the Assessor for 5,154 parcels zoned as listed above. Chapter 3, therefore, reveals the patterns of values throughout the Bowl. The analysis focuses, however, on land values since, in theory, land value is a reflection of factors much different than the value of the building. Location, for instance, affects land value more than the building value. The building value is more closely related to its ability to produce income at that location; but, were it not for the land itself, that building could not take advantage of the particular site. Moreover, because all the land in Anchorage has value while not all the land parcels have buildings on them, the relationship of land values across the Bowl (again, only in the five subject zoning districts) provides strong insight into the way the market has set values for different types of locations, zoning districts, and land uses.

The building information is, nonetheless, also quite useful in the analysis. Another indicator of the economic value of a particular parcel is the size of the structure (where there is one). Bigger structures cost more to build and operate than smaller ones, so bigger structures suggest that the location of the parcel is able to command higher paying tenants. Thus, measuring the size of the building in relation to the size of the parcel is a good indicator of the ability of property owners to maximize income and profits from a site.

This indicator is called a floor area ratio (FAR). For properties with buildings on them, a FAR was determined using the information in the Assessor's records. This provides a quantitative analysis of how large the buildings in Anchorage are relative to their properties and, more importantly, how large their FARs are relative to their *potential* FARs as allowed by the current Title 21. This approach to economic impact analysis reveals how "dense" the land is being developed in the Bowl compared to how dense it could be developed. Lower densities relative to allowable densities, or relative to densities achieved by other owners of similar land uses and zoning districts, suggest that the *market* is not yet able to take full advantage of the opportunities and choices afforded by the current Title 21. It is possible from such information, therefore, to estimate whether the proposed Title 21 will have significant negative economic impacts on property owners if, in fact, those owners have not yet taken full advantage of the economic opportunities of the current Title 21, and are not anticipated to do so given current economic growth forecasts for the next 25 years.

This is not to criticize such owners. Virtually all property in the Bowl can be said to be effectively underutilized relative to the flexibility of the current Title 21. Even the new and large office buildings in Midtown are far from their maximum possible FARs. Instead, the analysis points out that the economy in Anchorage has not yet grown sufficiently to enable property owners to increase their FARs and, therefore, their incomes and profits to levels that Title 21 already allows. As discussed in Chapter 3, there is ample room for economic growth (expressed in terms of land values and FARs) in Anchorage before serious negative economic impacts would be imposed by Title 21 restrictions.

There are some instances, of course, where greater flexibility in the proposed Title 21 will simply not be possible. Chapter 3 points out possibly the most extreme example of this potential which would be triggered by the disallowance of some higher value land uses from the I-1 and I-2 districts. The analysis uses the Assessor's data to estimate the scale of what could be a negative economic impact resulting from

[2] The market values maintained for each property in the Assessor's database do not necessarily reflect actual market values; indeed, they rarely do for any assessor in the U.S. But the unknown ratio of actual market value to assessor market value is assumed to be consistent within an entire community, especially for a large sample of properties, so the pattern of the Assessor's value distribution in the Bowl is assumed to represent the pattern found in the "real market."

the zoning restrictions alone. For all intents and purposes, this would be a rare occurrence, but the example points out that some owners may, indeed, perceive that some property value growth *potential* will be reduced by the proposed Title 21 and its companion land use plan map for the Anchorage Bowl.[3]

DEVELOPMENT COSTS

But land values alone do not define all economic impacts. Chapter 4, therefore, describes the outcomes of a spreadsheet-based computer model that compares the development costs of site improvements that are essentially required by the current and proposed zoning codes. If, for instance, the proposed Title 21 requires more landscaping improvements on a property than the current code requires, then the owner is faced with added capital improvement costs and, thus, a negative economic impact.

The converse can happen, too. Parking requirements in the B-3 district, for example, are generally less strenuous in the proposed code than in the current code. So less money and less land need be devoted to parking improvements—a positive economic impact for the property owner. This saves money to pay for the negative impacts and/or it may enable the property owner to construct a larger building on the site since less land will be required for parking. Again, a larger building implies the ability to attract more income and more profits.[4]

There are several basic "expense categories" that are imposed by Title 21 and would be imposed also by the proposed Title 21. These include requirements for parking, landscaping, loading areas, lighting, pedestrian connections, snow storage, and open space. Zoning also imposes costs regarding the structures on a site. Although building codes and market forces account for most of building construction costs, a comparison of development costs incurred by current and proposed zoning requirements necessarily requires inclusion of the buildings, not just the costs imposed or required on the land, in order to provide a full understanding of the impacts of zoning. The computer model for this analysis asks for input on building construction costs so that the "imposed costs" of zoning can be compared to the total costs of developing a site.

Economic Impacts beyond the Scope of this Report

The scope of this analysis focuses on the more immediate impacts on an individual property or site that is subject to the proposed requirements. The analysis assumes, as economists frequently do, that, beyond the individual affected property, "all else remains equal." Higher costs borne by the owner to comply with, say, aesthetic improvements might also lead to higher property values for the owner because the site becomes more attractive. For example, added landscaping costs imposed by the Title 21 Rewrite would certainly reduce profitability for the property, but only if that landscaping does not contribute to the property's ability to increase rents or sale prices. More expensive landscaping, imposed by government in order to improve the aesthetics of the community and to protect the values of surrounding properties, might also enhance the ability of the property to attract higher value tenants, buyers, or customers. The property value improvement might offset the negative effects of higher compliance costs. But these possible valuation effects, some of which occur over the longer lifetime of the development, are not

[3] The draft Anchorage Bowl Land Use Plan Map can be viewed at **http://www.muni.org/planning/Land_Use_Map_PHD.cfm**

[4] Even under the current code, property owners are not entirely prohibited from constructing larger buildings, although market forces may not be so favorable. If the market were strong enough, virtually every commercially-zoned property owner in the Bowl could build taller and larger buildings. Or they could build structured parking facilities, which take up less land per parking space than surface parking, thus providing more land for larger buildings. To date, few if any commercial properties in the Bowl have taken full advantage of the building capacity of the land as allowed by the current Title 21. A recent example of a development that perhaps comes close is the high rise under construction at 188 West Northern Lights. However, the vast majority of development is not, nor is expected to be, anywhere close to that kind of intensity.

evaluated by Development Strategies. In short, only the direct economic impacts of compliance are the subject of the following analysis.

All impact findings also relate only to the property itself, not to adjacent properties or the community as a whole. For example, enhanced landscaping buffers and other neighborhood transition tools could have a positive impact on the use and value of surrounding properties and neighborhoods. Moreover, at the broader community scale, there are certainly long-term economic impacts related to the degree to which, as a result of the new development standards, the community's physical development pattern gradually becomes more functional, attractive, safe, and convenient for prospective residents, businesses, and investment. There may be cases where a negative impact on the property owner (i.e., higher costs) would improve, say, the aesthetics of the entire community, thus improving the economic value of the community.

These mitigating factors, which, over the long term, probably have a substantial financial return effect on the subject property, are difficult to quantify and are beyond the scope of this report. However, although a more rigorous development requirement may have long term mitigating benefits for the property, or directly benefits the neighbors and the wider community, if such development requirement comes at higher immediate cost to the property owner, a negative impact judgment is rendered so far as this report is concerned. In sum, this economic impact analysis is an assessment of immediate impacts on the property owner who must comply with the land use code.

SUMMARY

There are two primary perspectives which this economic impact analysis takes in evaluating the potential economic impact on property owners resulting from the proposed Title 21:

1. Land values by zoning district and land use, and how these relate to maximum values achieved by other property owners and to floor area ratios. This is the topic of Chapter 3 which evaluates land values for all 77 land uses classified by the Municipal Assessor for the 5,154 land parcels in the studied database. While the land values recorded by the Assessor are not necessarily reflective of true market value, the statistical relationships between land values of different zoning districts and land uses sheds light on how well Anchorage's property owners are presently achieving maximum possible values.
2. Development costs in compliance with the current and proposed codes. This is the topic of Chapter 4 which compares the land area needed to meet the site development requirements of the current Title 21 to the proposed Title 21. These requirements are also expressed in terms of likely monetary costs to comply with the two versions of Title 21. The analysis is completed by use of a spreadsheet-based computer model into which information is entered about a proposed project. Each model test compares the development of that project between two possible zoning districts—one in the current code and one in the proposed code. The results of modeling three development scenarios are described in detail in Chapter 4 and in Appendix B. A summary of all the modeling results is provided in Chapter 4.

The report concludes with overall observations about the potential "direct" economic impacts of the proposed Title 21 on property owners and developers. An appendix to the report goes a bit further with some additional means for evaluating economic impacts which are more difficult to quantify but deserve discussion nonetheless.

Zoning codes not only regulate building size, they also regulate other activities on private property. Appendix A, therefore, addresses key development standards of the Title 21 Rewrite to estimate whether the proposed changes would have positive, negative, mixed or neutral impacts on property owners. For

instance, zoning often regulates how much and where storm water must be stored temporarily on site and released to the public sewer network. If the proposed regulations would require slower release in order not to overwhelm the sewer network, then the same regulations would require that more storm water be temporarily stored on site (ponds, etc.) which, in turn, requires more land that cannot be used for, say, a larger building. To the property owner, this is a negative economic impact.[5]

The measures in Appendix A do not readily lend themselves to quantitative results. Instead, each development standard is evaluated in terms of the "direction" of likely added burdens placed on property owners to comply with the proposed regulations vis-à-vis the current regulations. If there appears to be an added burden required, this amounts to a negative economic impact. On the other hand, some of the tools actually give the property owner more flexibility with site design and property management, so these are considered positive economic impacts.

A planned addendum to this report will further address impacts:

The addendum will address potential economic impact based on the floor area ratio (FAR) restrictions imposed, or effectively imposed, by the proposed zoning regulations. The presumption is that a larger building on a fixed lot size can enable the property owner to obtain higher revenues (sales, rents, etc.) and, therefore, higher profits.[6] This is not to say that zoning is the sole determinant of building size; indeed, market forces are far more powerful in the choice of building size by the property owner. But zoning, by definition, restricts or impedes that choice if the market would otherwise support a larger building than the zoning allows. More flexible zoning, however, can broaden the opportunities created by choice.

The FAR measure, however, does not readily allow for quantitative economic or financial analysis because there are so many other factors that affect the economics of real estate. So the addendum will simply note whether the allowable FAR of the proposed Title 21 would increase, decrease, or leave unchanged the FAR allowed in the current code. An increase would mean that the proposed code has a potentially positive economic impact on the property owner (a larger building can be built). A decrease means a negative impact (smaller building), while no change means no change in economic impact from the current to the proposed code at least with regard to the maximum allowable building size. The proposed Title 21 Rewrite impacts on maximum FARs will also vary by (a) type of land use and (b) type of development program (e.g., surface parking lot or parking structure).

To help provide information regarding the allowable FAR, the addendum will build on the economic impact analysis (EIA) model described in Chapter 4. The model will effectively be "reversed" so that the largest building that the site could support can be determined. The present model evaluates a proposed development "as is" and reports on the amount of land that is utilized to comply with zoning. The supplementary model, now under development, will use the complexities of the main model to determine parking counts, land area requirements, and other restrictions while testing for various sizes and footprints of a possible building. In effect, the supplementary model will indicate when 100% of the site is "used up" in complying with the proposed zoning code, thus identifying the maximum FAR that the site could support under a variety of assumptions about use type, building footprint size and parking configurations.

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[5] To the community as a whole, it might be a positive economic impact because the sewer network would be utilized more efficiently with less damage caused by overflow erosion, etc. Moreover, the individual property owner might take the opportunity to increase the value of the property by creating a water feature as part of the landscape in order to enhance the aesthetic quality of the site.

[6] This is not to say that a larger building will necessarily increase the rate of return or the rate of profit (e.g., percent of profit as related to income), but the dollar amounts can be larger if the building is larger.

3.0 APPRAISED VALUATION COMPARISONS

Central to an economic impact analysis and modeling for changes that might be triggered by land development regulations is the value of real estate. Market values play the dominant role in determining what kinds of land uses are most appropriate for a site and how intense the development should or could be on that site in order to maximize profits based on the value of the property. Land, in particular, incorporates into its dollar value all of the characteristics which affect its value—accessibility, visibility, soil conditions, surrounding land uses, utility availability, and zoning, among other factors. Thus, it is very important to understand the patterns of property values across the Anchorage Bowl (again, excluding Downtown) in order to compare values for similar land uses in different zoning districts.

The largest and most consistent database on real estate value in any community is the property tax roll, or the appraised valuations that are regularly updated throughout a community. While property tax records rarely exhibit precise and accurate "market values" (they almost universally understate true market value), they are usually very useful in comparing *relative* values between different parts of a community or, as is important here, comparative values between different zoning districts and land uses.

The key to such comparisons, however, is the valuation of similar land uses in different zoning districts. For instance, the value of an office building in the B-3 district of Anchorage should be compared to a similar office building in, say, I-1. Where there is a difference, some of the variation may be due to the zoning classification itself. Understanding these deviations can lead to a better understanding of the economics of zoning and related land development policies.

Perhaps most critical to property owners are situations where existing uses would no longer be allowed under the proposed Title 21 zoning districts or where possible "higher and better uses" (i.e., those that can return higher financial rewards) are no longer allowed in a given district, thus preventing an owner from upgrading the land use to a more profitable level. In some cases, an alternative zoning district will enable the owner to either be in full conformity if the zoning is changed, or will enable the owner to upgrade the value of the property by changing zoning to achieve a more profitable use.

For areas not subject to an area-specific neighborhood or district plan[7], the Municipality intends to make such zoning changes voluntary—that is, not mandatory. In selected cases, the Municipality may initiate rezonings in order to achieve other community goals, such as the adopted Bowl land use plan map.

Under such circumstances, property owners should rarely feel the negative economic effects of a change in zoning (though there may be added costs to comply with changes in the internal development standards associated with a zoning district). Virtually the only further hindrance to increasing the financial return (and, therefore, the value) of a real estate site, therefore, would be non-compliance with the official land use plan map of the Municipality. To date, there is such a land use plan map for the Anchorage Bowl that is in draft form and undergoing public review.[8] Until final adoption, the generalized land use plan map from the 1982 Comprehensive Plan remains officially in effect. If and when an updated land use plan

[7] Examples of neighborhood or district plans currently under preparation include the Fairview Neighborhood Plan, Hillside District Plan and Midtown District Plan. In these areas, a community planning process produces an area-specific land use plan map with recommendations as to future zoning in the plan area. The recommendations of these area-specific plans provide a basis and direction for the community to initiate zoning changes consistent with the area-specific plan. For example, adoption of the new Downtown Comprehensive Plan will lead to a follow-up public process through which the Municipality will amend the zoning districts and zoning map in the central business district.

[8] The new draft map is called the "draft Anchorage Bowl Land Use Plan Map" which is available for viewing on the Municipality's web page and at the Planning Department.

map is adopted, there may be circumstances where zoning changes will not be allowed. It is these cases where the greatest economic impacts may be felt by owners.

3.1 METHODOLOGY

Development Strategies analyzed property value data for the Anchorage Bowl provided by the Anchorage Planning Department. The Planning Department obtained assessor data for 2007 from the Municipal Assessor for selected current zoning districts in the Bowl excluding Downtown. Five zoning categories were isolated: "B-3" general business district, "I-1" light industrial district, "I-2" heavy industrial district, "R-4" multiple family residential, and "R-O" residential office district. These five categories encompass the properties likely to be most affected by the Title 21 changes and thus were selected by the Planning Department for the economic analysis. This also helped to limit the size of the database that was analyzed.

The database includes all parcels that contain land value information, including "Special Limitation" or SL parcels within the five zoning districts. SL parcels usually have more development restrictions imposed on them than the underlying zoning would normally require, such as greater restrictions on uses allowed, buffering from adjacent properties, lot sizes or development densities, site or building design, or building heights. These added restrictions might have notable economic impacts on the land that would be different than other parcels, so it was important to be able to segregate SL lots from all the others.

The Assessor database evaluated by Development Strategies and the Planning Department included many duplicate entries—in most cases, data for individual parcels broken into separate line items for each floor of each building (with some exceptions). This "original" database contained over 12,000 line items. Development Strategies deleted unnecessary line items using instructions from the Planning Department so that the resulting database contains only one line item per parcel which includes all relevant information necessary for the economic impact analysis, listed below. All other items for each parcel were removed from the working database.

Development Strategies also removed from the database all parcels for which there was no valuation data provided. That is, several hundred unique parcel numbers contain information for lot size, building floors, and building square feet (if a building exists on the parcel), but they contain no information on lot value or building value. Because this report is primarily related to economic impacts, the lack of valuation data required removal of those line items.

In the end, there are 5,154 separate real estate parcels in the database reported on in this chapter, 238 of which are SL parcels. Each of these is presently zoned either B-3, I-1, I-2, R-4, or R-O. A wide range of land uses is encompassed by these parcels, both residential and non-residential. The resulting database of 5,154 parcels contains the following information:

- Parcel number.
- Zoning district.
- Lot size in square feet.
- Land use as coded by the Assessor. This represents what is considered the "predominant land use" if multiple uses are on the parcel.
- Total square feet of floor area, including all buildings and parking structures on the parcel.
- Land, building, and total appraised values as of January 1, 2007, as determined by the Assessor.

It is important to emphasize that these data are from the Assessor only and land use information may not be the same information that the Planning Department maintains for the same parcels because of different methods of coding land use. For example, the Assessor relates land use more to the type of building on a parcel than to the actual land use. Ideally, these information resources will one day be coordinated and made consistent, but this is not an uncommon inconsistency in other cities. Still, it is better to use the Assessor's information for the following analysis in order to have a consistent and compatible database that also includes the economic information. The aggregate results of this analysis will not likely be significantly affected by an eventual merging and coordinating of databases, but the Assessor's records are already comprehensive in scope and readily useful for statistical comparisons.

From the information obtained from the Assessor through the Planning Department, Development Strategies calculated the following information for each parcel:[9]

a. **Lot size in acres**, based on the lot size in square feet provided (43,560 square feet per acre).

b. **Land value per square foot of land** and **per acre of land** for all parcels. [Note, again, that there is no assumption that the values as provided by the Assessor are *market* values; it is simply assumed that the relationship of assessor valuations between land uses and districts would be the same as the relationship in the real market.]

c. **FAR—floor area ratio** (building floor area in square feet ÷ lot area in square feet). This is probably the most important indicator of the ability of a land parcel to generate revenues and profits.

Where there are missing data (e.g., no building size or no building value because of a vacant parcel), the entry is left blank. That way, aggregate statistics are not affected by inappropriate zeros.

Moreover, condominium uses are eliminated from this analysis because the condo data does not separate land value from building value; land values are, perhaps, the best indicator of economic differences between land uses and zoning districts because, theoretically, they are not influenced by size, quality, type, or condition of the building. Thus, lack of an isolated land value measure required removal of condominium parcels from the analysis.

3.2 Findings and Measurements

3.2.1 Zoning Districts

There are five selected zoning districts represented by the Bowl-wide 2007 assessor data. Almost four out of ten of the 5,154 parcels are in the B-3 district—1,992 parcels, or 38.6 %. Next are 1,762 parcels in the I-1 district (34.2%). Thus, B-3 and I-1 account for over 70% of the parcels, or seven out of ten, in the database.

In third place, with 857 parcels (16.6 %), is the R-4 district, followed by I-2 with 292 parcels (5.7%) and by the R-O district with 251 parcels, or 4.9% of the total in the database.

Table 3-1: Count of Parcels in the Selected Zoning EIA Database by Zoning District

	All Parcels	
Zoning	Count	Percent
B3	1,992	38.6%
I1	1,762	34.2%
I2	292	5.7%
R4	857	16.6%
RO	251	4.9%
Grand Total	5,154	100%

[9] Other values can also be calculated based on the Assessor's information, but these represent the information deemed most useful for this report on economic impacts.

3.2.2 LAND USES

There are 77 separately delineated land uses in the database of 5,154 selected parcels, as summarized on Table 3-2 on the next page. It is important to note that these are land uses as recorded by the Assessor's office; a separate land use inventory of the Bowl was not conducted for this economic impact analysis.

The largest single number of parcels belongs to *vacant land* which defines 1,422 separate parcels, or more that one quarter of the database (27.59%). Vacant land, as defined by the Assessor, contains no building improvements. Vacant land also excludes parking lots which are separately delineated by the Assessor.[10]

Next in number are *warehouses* with 448 parcels, or 8.69%, just under one third the number of vacant properties. Third in the count of individual land use definitions is *apartments* with 443 parcels (8.60%), representing properties primarily in the R-4 zoning district. While the Assessor has additional information on the number of apartments that these parcels represent, such data were not deemed necessary for this economic impact study and, so, were not obtained.

Fourth in count are *parking lots, miscellaneous* with 399 parcels (7.74%). This is the only "parking lot" land use designation provided by the Assessor. The word "miscellaneous" distinguishes these parking lots as separately platted parcels of land as opposed to parking lots included on a site with a different land use designation, such as parking on shopping center or office sites. Parking that is directly on-site is not separately accounted for in the database if the dominant land use is something other than parking.[11]

The fifth most common land use is *office warehouse* with 351 parcels (6.81%). Office warehouses are similar to warehouses, though often considered of somewhat higher value because they contain formal work spaces for management and operations along with storage and distribution spaces. They may also have higher ratios of employment per square foot than warehouses.

With just these five land uses, six out of ten (59.43%) of the subject zoned parcels in the Anchorage Bowl appear to be developed at rather low densities, if developed at all. While warehousing is an important part of the economic structure of Anchorage, such buildings tend to be single story structures (high ceilings, but useable only on the ground floor, typically) with relatively little employment other than in the office components of the office warehouses. Vacant land and parking lots also do not generate much in the way of jobs or, for that matter, tax base, though the parking lots are important for supporting job creation on adjacent lots.

Other relatively high parcel-count (100 or more) land uses include those with *low rise office* structures (337 parcels, 6.54%), *single family residential* properties (274 parcels, 5.32%), *single-occupancy retail* properties—presumably stores on their own separate lots—(223 parcels, or 4.33%), *auto service garages* (171 parcels, or 3.32%), and *multiple-occupancy retail* properties (134 parcels, or 2.60%).

[10] This does not necessarily mean that such vacant lots are not used for parking. If they are, the Assessor did not consider parking to be the predominant use of the site.

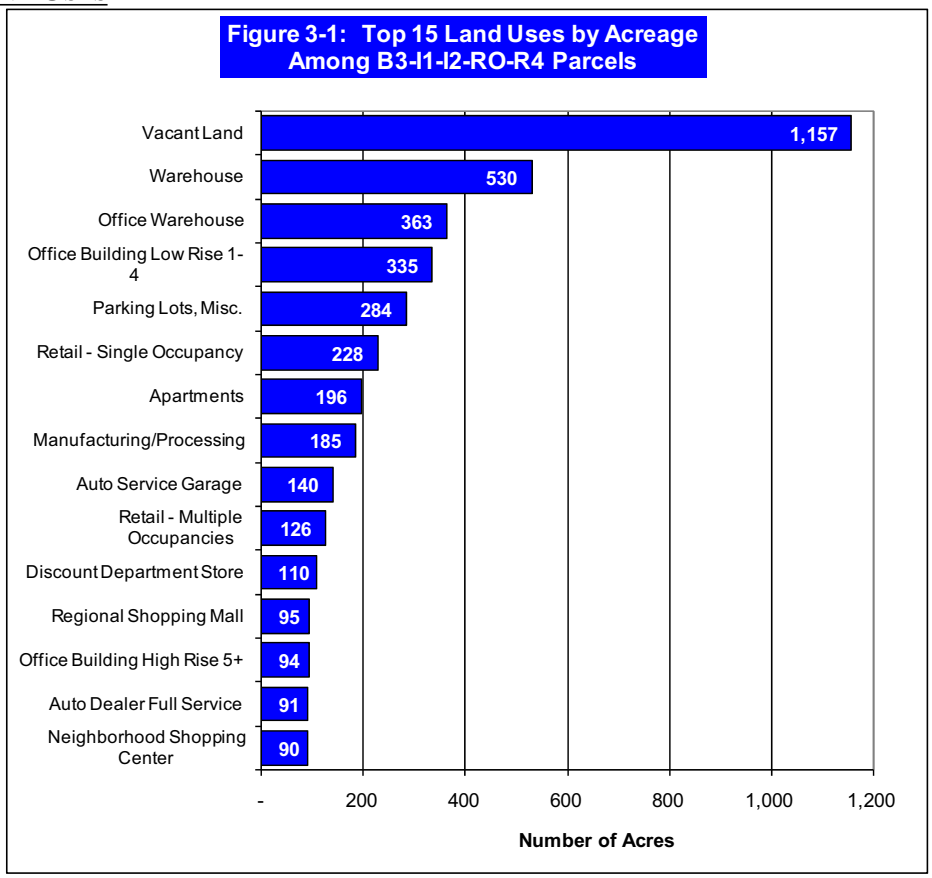
[11] These include a wide range of parking areas, according to the Assessor's office, such as parking for adjacent businesses, equipment storage lots, the airport parking at International and Northwood, RV storage lots at self-storage warehouses, and even car sales lots. They may be paved or unpaved. If a lot is improved by grading and used for one of the above it will likely be classified as miscellaneous parking. Because some of the "parking, miscellaneous" parcels directly support uses on adjacent lots, this may have an effect on the size of structures that can be built on the adjacent lot. Developments that satisfy parking requirements by utilizing adjacent parcels can have larger buildings than would otherwise be allowed on that site alone.

Together, these "top ten" land uses that each have 100 or more entries total 4,202 parcels, or eight out of ten (81.53%) parcels in the Bowl that are zoned B-3, I-1, I-2, R-4, or R-O.

Table 3-2: Count of Parcels in the B-3, I-1, I-2, R-4, R-0 Database by Land Use

Land Use	Count	Percent	Land Use	Count	Percent
Amusement Park	2	0.04%	Mobile Home Lot	3	0.06%
Apartments	443	8.60%	Mobile Home Park	20	0.39%
Apartments High Rise	7	0.14%	Motion Picture Theater	3	0.06%
Asphalt Plant	1	0.02%	Neighborhood Shopping Center	18	0.35%
Auto Dealer Full Service	34	0.66%	Night Club/Dinner	7	0.14%
Auto Service Garage	171	3.32%	Nursing Home	3	0.06%
Auto Service Station w/o Bays	6	0.12%	Office Building High Rise 5+	23	0.45%
Auto Service Station with Bays	14	0.27%	Office Building Low Rise 1-4	337	6.54%
Bank	23	0.45%	Office Building Medical	38	0.74%
Bar/Lounge	15	0.29%	Office Warehouse	351	6.81%
Boarding/Rooming House	15	0.29%	Other Improvements	24	0.47%
Bowling Alley	2	0.04%	Parking Lots, Misc.	399	7.74%
Car Wash Automatic	6	0.12%	Radio/TV Transmitter	1	0.02%
Car Wash Manual	11	0.21%	Rail/Bus/Air Terminal	1	0.02%
Club House	6	0.12%	Recreation/Health	3	0.06%
Cold Storage Facility	6	0.12%	Regional Shopping Mall	5	0.10%
Community Shopping Center	11	0.21%	Religious	11	0.21%
Convenience Food Market	30	0.58%	Research & Development	2	0.04%
Correctional	1	0.02%	Residential Structure on Commercia	30	0.58%
Day Care Center	8	0.16%	Restaurant	83	1.61%
Department Store	1	0.02%	Retail - Multiple Occupancies	134	2.60%
Discount Department Store	11	0.21%	Retail - Single Occupancy	223	4.33%
Duplex	75	1.46%	Savings Institution	2	0.04%
Fast Food	43	0.83%	School	5	0.10%
Food Stand	1	0.02%	Single Family Residential	274	5.32%
Four-Plex or More	1	0.02%	Skating Rink	2	0.04%
Funeral Home	5	0.10%	Social/Fraternal Hall	3	0.06%
Greenhouse/Florist	7	0.14%	Strip Shopping Center	38	0.74%
Hangar	47	0.91%	Supermarket	3	0.06%
Health Spa	6	0.12%	Telephone Equipment Building	2	0.04%
Hospital	6	0.12%	Tennis Club - Indoor	1	0.02%
Hotel/Motel High Rise	8	0.16%	Triplex	13	0.25%
Hotel/Motel Low Rise	37	0.72%	Truck Stop	1	0.02%
Lumber Storage	6	0.12%	Truck Terminal	1	0.02%
Manufacturing/Processing	61	1.18%	Vacant Land	1,422	27.59%
Mini Warehouse	25	0.49%	Veterinary Clinic	10	0.19%
Misc. Storage	1	0.02%	Warehouse	448	8.69%
Mixed Commercial/Residential	49	0.95%	Warehouse Prefab	2	0.04%
Mixed Residential/Commercial	6	0.12%			
Grand Total				**5,154**	**100%**

3.2.3 LAND AREA BY LAND USES



The 5,154 parcels and 77 land uses encompass 5,014 acres of land—excluding rights of way and other land that would not be part of the tax data base. This is an average of almost one (0.97) acre per parcel. The land area, in acres for each land use, is tabulated on the following page and graphically shown on Figure 3-1 for land uses with the highest acreage totals.

Almost a quarter (23.1%) of the land area of these selected parcels is considered *vacant*, totaling some 1,157 acres. Combining this information with the count of vacant parcels, the average vacant parcel has about 0.81 acres, or 35,430 square feet. While these parcels might appear to represent ample numbers of vacant sites and acreage for attracting additional buildings, additional tax base, and additional economic and housing development, the median vacant parcel has just 0.26 acres (a quarter of an acre), meaning that half of the parcels have sizes of that amount or less. If this high proportion of very small vacant sites is scattered throughout the Bowl, they may not represent a significant development opportunity except for small infill projects and/or supportive parking.

Indeed, the largest vacant parcel in the data base is just over 37 acres. This alone creates a sizeable development opportunity. But there are only 14 parcels that have ten acres or more, while there are 1,198 of one acre or less. This reinforces the "conventional wisdom" in Anchorage that the Bowl appears to be virtually fully developed. In fact, that is not the case, but the undeveloped parcels are generally relatively small and scattered so that their collective impact for the most part is highly diluted.

The next largest users of the Bowl land in the database relate more closely to the industrial sector. *Warehouse* uses encompass 530 acres, or 10.6% of the database, and *office/warehouse* uses encompass another 363 acres, or 7.2%. Recall that these land uses were also the second and fifth most numerous in the parcel counts.

Low-rise office buildings are fourth on the list of land usage at 335 acres, or 6.7% of all land in the database. Low-rise office buildings are considered by the Assessor as those with no more than four stories. Parking lots are fifth in land usage at 284 acres, or 5.7% of the selected database.

Table 3-3: Land Area of Parcels in the B-3, I-1, I-2, R-4, R-0 Database by Land Use					
Land Use	Acres	Percent	Land Use	Acres	Percent
Amusement Park	2.25	0.04%	Mobile Home Lot	1.30	0.03%
Apartments	196.05	3.91%	Mobile Home Park	60.98	1.22%
Apartments High Rise	6.56	0.13%	Motion Picture Theater	18.21	0.36%
Asphalt Plant	1.48	0.03%	Neighborhood Shopping Center	89.99	1.79%
Auto Dealer Full Service	90.67	1.81%	Night Club/Dinner	6.44	0.13%
Auto Service Garage	140.36	2.80%	Nursing Home	6.08	0.12%
Auto Service Station w/o Bays	16.70	0.33%	Office Building High Rise 5+	94.32	1.88%
Auto Service Station with Bays	10.11	0.20%	Office Building Low Rise 1-4	335.04	6.68%
Bank	35.80	0.71%	Office Building Medical	37.92	0.76%
Bar/Lounge	5.04	0.10%	Office Warehouse	363.44	7.25%
Boarding/Rooming House	7.80	0.16%	Other Improvements	4.72	0.09%
Bowling Alley	3.57	0.07%	Parking Lots, Misc.	283.73	5.66%
Car Wash Automatic	4.92	0.10%	Radio/TV Transmitter	0.47	0.01%
Car Wash Manual	7.67	0.15%	Rail/Bus/Air Terminal	1.61	0.03%
Club House	12.72	0.25%	Recreation/Health	19.81	0.40%
Cold Storage Facility	38.77	0.77%	Regional Shopping Mall	95.28	1.90%
Community Shopping Center	7.03	0.14%	Religious	14.03	0.28%
Convenience Food Market	37.71	0.75%	Research & Development	10.64	0.21%
Correctional	0.22	0.00%	Resid. Structure on Comm. Land	9.29	0.19%
Day Care Center	12.55	0.25%	Restaurant	67.69	1.35%
Department Store	4.79	0.10%	Retail - Multiple Occupancies	126.45	2.52%
Discount Department Store	109.89	2.19%	Retail - Single Occupancy	228.13	4.55%
Duplex	16.25	0.32%	Savings Institution	4.54	0.09%
Fast Food	29.06	0.58%	School	9.37	0.19%
Food Stand	0.17	0.00%	Single Family Residential	53.61	1.07%
Four-Plex or More	0.20	0.00%	Skating Rink	6.03	0.12%
Funeral Home	2.47	0.05%	Social/Fraternal Hall	1.28	0.03%
Greenhouse/Florist	2.91	0.06%	Strip Shopping Center	62.92	1.26%
Hangar	70.47	1.41%	Supermarket	11.90	0.24%
Health Spa	19.38	0.39%	Telephone Equipment Building	1.31	0.03%
Hospital	17.29	0.34%	Tennis Club - Indoor	3.67	0.07%
Hotel/Motel High Rise	17.96	0.36%	Triplex	2.02	0.04%
Hotel/Motel Low Rise	50.07	1.00%	Truck Stop	0.73	0.01%
Lumber Storage	12.85	0.26%	Truck Terminal	3.56	0.07%
Manufacturing/Processing	184.64	3.68%	Vacant Land	1,156.73	23.07%
Mini Warehouse	67.00	1.34%	Veterinary Clinic	5.66	0.11%
Misc. Storage	0.19	0.00%	Warehouse	529.94	10.57%
Mixed Commercial/Residential	31.60	0.63%	Warehouse Prefab	8.39	0.17%
Mixed Residential/Commercial	1.28	0.03%			
Grand Total				**5,014**	**100%**

3.2.4 Average Land Value Per Square Foot of Land

The value of a square foot of land is probably the best measure for comparing the economics of different land uses and zoning districts. Building values most often reflect the size, quality, and uses of the buildings themselves. But they do not contain factors that directly influence the value of the underlying land. Thus, it is most important to focus on land values in an economic assessment such as this rather

than on either the building value or the total value of real estate which, by definition, includes the building value. Fortunately, tax assessors generally separate the value of land from the value of improvements, and Anchorage is no exception.

The properties in the selected property database average $9.52 per square foot of land (again, reminding the reader that this is not necessarily true market value, only the assessor's indication of value). The table below shows the averages by zoning district and the count of parcels in the database.[12]

Table 3-4: Average Land Value per Square Foot of Land

Zoning	Number of Parcels	Total Value from Assessor	Total Square Feet of Land from Assessor	Average Land Value per Square Foot of Land
B3	1,992	$991,123,300	75,637,270	$13.10
I1	1,762	$707,039,600	82,431,862	$8.58
I2	292	$190,276,600	36,951,773	$5.15
R4	857	$93,115,700	13,889,719	$6.70
RO	251	$97,607,100	9,485,013	$10.29
TOTAL	**5,154**	**$2,079,162,300**	**218,395,637**	**$9.52**

Clearly, the B-3 district is the leader on a value per square foot basis, though the R-O district is not far behind. B-3 also has the largest number of parcels and B-3 land values average $13.10 per square foot (psf) of land, 38% greater than the overall average. B-3 also has relatively unrestrictive zoning regulations and has, therefore, been treated as Anchorage's only general-purpose commercial district allowing a wide range of land uses. Indeed, B-3 has almost certainly served a very useful purpose as Anchorage has grown and changed rapidly.

Because the B-3 district has the highest average value, it also suggests that B-3 parcels tend to be located in the most advantageous commercial locations. Other commercial districts are used in only a few areas, not the central commercial areas that have grown up in the Bowl. With the continuing maturation of Anchorage as a diverse city, however, it is sensible to address the many land uses that B-3 now must accommodate and consider a more structured approach to land management from the zoning perspective.

Having said that, the two "I" districts are intended for industrial kinds of uses, though like B-3, the "I" districts have relatively few restrictions. Industrial uses, however, tend to have lower land values than most other commercial development, primarily because industrial uses are usually pushed to less desirable locations, so the values created in B-3 would be expected to reflect the highest commercial averages to be found in the Bowl.

That is, land values have likely been enhanced by the market for B-3 properties because the opportunities for development in B-3 are highly varied with few requirements for re-zoning or related costs. But they are also enhanced from a real estate perspective because of their generally more sought after locations in Midtown and at major road intersections in the Bowl.

Still, the R-O district also compares quite favorably with the highest values in Anchorage, and R-O is far more restrictive in terms of site usage. Averaging $10.29 psf of land area, R-O parcels may exhibit high values because of the flexibility of "as of right" uses that have been allowed. Like B-3, this flexibility in

[12] Excluding the 238 SL parcels, the average is $9.44 per square foot. The SL parcels alone have an average land value of $10.20 per square foot of land.

the particular zoning requirements seems to have a powerful upward effect in market perceptions, but it cannot be dismissed that the tighter restrictions in R-O may also be having a positive effect on land values, perhaps because of the protections that a strong zoning district can provide against undesirable land uses in the same district or even in adjacent districts.

Of course, there are many other factors involved with land value determination in the market. These include the clichéd "location, location, location" but also factors like soils and buildability, availability of utility trunk lines, accessibility to transportation, ambient noise, light, and related noxious features, and so on (most of which, of course, relate to "location, location, location"). The database evaluated for this study does not contain quantified information on these other factors, but the zoning and land use data (the latter discussed next) reveal significant value indicators nonetheless.

3.2.5 Average Land Value per Square Foot by Land Use

This measure is led by *savings institutions*, as shown on Table 3-5. This value is $20.20 per square foot (nearly $880,000 per acre), but is the average for just two parcels of land, a statistical sample too small for drawing meaningful conclusions. Savings institutions, however, are similar to *banks* which, separately, have an average land value of $17.29 per square foot. Combined, this group of 25 parcels (a strong statistical basis) has a weighted average value of $17.40 per square foot.

The overall average land value for the entire database is $9.52 per square foot of land. Banks and savings institutions, therefore, have an average value 83% higher than the overall average. Figure 3-2, following Table 3-5, shows averages only for those land uses with more numerous parcels so that the averages have a stronger statistical basis; some of these represent combinations of similar land uses, like savings institutions and banks, to demonstrate the types of land uses that command the highest relative land values in the Bowl.

The largest number of parcels represented on the table is 1,422 for *vacant land* where the average land value in the Assessor's records is $7.56 per square foot, or 21% less than the overall average of $9.52 psf. If vacant land were "distributed" throughout the Bowl proportionally to all other land uses, the average value of that vacant land should approximate the overall average. Because the value of vacant land is so much less than the overall average, however, it may well be that the lion's share of vacant land is located well away from the "urban core" (say Midtown and environs) where there is greater land development intensity and diversity—and, therefore, greater values. Review of preliminary mapping of the location of the Assessor's vacant parcels shows this to be the case—that there is proportionally more vacant land outside of Midtown than inside.

Note that three of the top five values shown on Figure 3-2 are all related to retailing (including banking and dining, land uses that typically locate where retail customers are attracted), and nine of the top 12 are in retail. It probably goes without saying that retailers seek the most visible and accessible locations—thus, the most valuable locations—in order to attract and serve customers. Medical office buildings also fall in the top 12 (indeed, number 10) for many of the same reasons; medical offices serve many customers per day and need to be highly accessible like retail stores and unlike "normal" office buildings occupied by professional services or similar businesses.

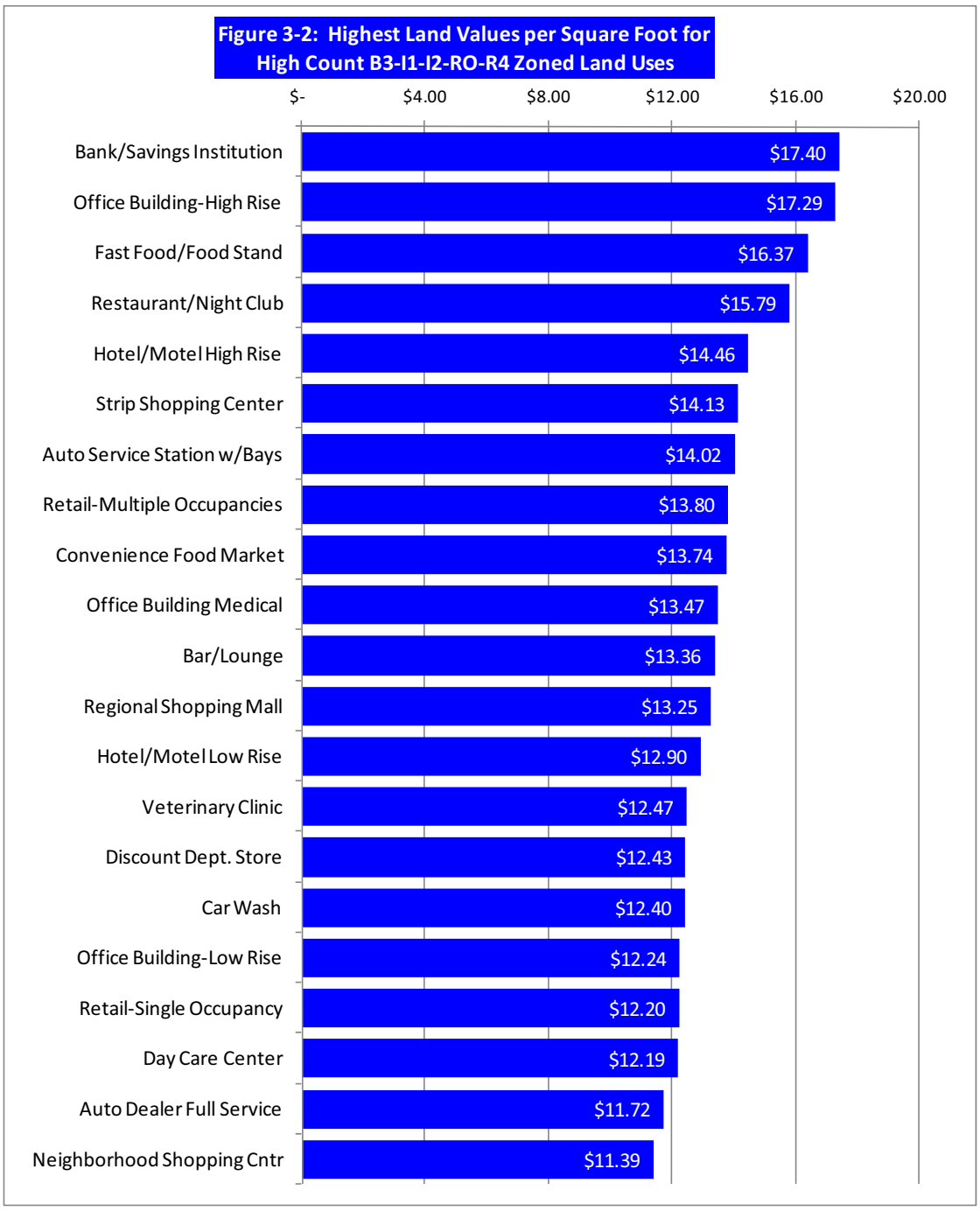
Still, there is a fairly wide range of values even within land uses. The highest overall value per square foot, for instance, is $34.60 ($1.5 million per acre) for a vacant parcel of about a quarter of an acre zoned R-O (on Overlook Place just north of the Park Strip). This value, 4.7 times the average for all vacant land, almost tripled between 2005 and 2007. Another example of the range of values is that the highest retail land value is $28.35 psf for a half-acre convenience food market site zoned B3 with a 1,600 square

foot building on it on Northern Lights.[13] This is more than double the average of $13.64 psf for 13 convenience food market parcels in the database.

Table 3-5: Assessor Land Values per Square Foot by Land Use
Ranked by Values per Square Foot

Land Use	Value per sq. ft.	Land Use	Value per sq. ft.
Savings Institution	$ 20.20	Correctional	$ 9.98
Community Shopping Center	$ 20.00	Duplex	$ 9.98
Office Building High Rise 5+	$ 17.29	Four-Plex or More	$ 9.76
Bank	$ 17.04	Auto Service Garage	$ 9.65
Food Stand	$ 16.50	Greenhouse/Florist	$ 9.63
Fast Food	$ 16.37	Boarding/Rooming House	$ 9.59
Restaurant	$ 15.80	Single Family Residential	$ 9.59
Night Club/Dinner	$ 15.68	School	$ 9.28
Hotel/Motel High Rise	$ 14.46	Bowling Alley	$ 9.14
Strip Shopping Center	$ 14.13	Other Improvements	$ 9.09
Auto Service Station with Bays	$ 14.02	Health Spa	$ 9.04
Asphalt Plant	$ 14.00	Rail/Bus/Air Terminal	$ 9.00
Retail - Multiple Occupancies	$ 13.80	Tennis Club - Indoor	$ 9.00
Convenience Food Market	$ 13.74	Skating Rink	$ 8.92
Radio/TV Transmitter	$ 13.71	Religious	$ 8.92
Office Building Medical	$ 13.47	Parking Lots, Misc.	$ 8.90
Bar/Lounge	$ 13.36	Truck Stop	$ 8.81
Regional Shopping Mall	$ 13.25	Amusement Park	$ 8.62
Hotel/Motel Low Rise	$ 12.90	Office Warehouse	$ 8.45
Car Wash Manual	$ 12.64	Social/Fraternal Hall	$ 8.39
Veterinary Clinic	$ 12.47	Mixed Commercial/Residential	$ 8.37
Motion Picture Theater	$ 12.47	Mini Warehouse	$ 8.37
Discount Department Store	$ 12.43	Misc. Storage	$ 8.10
Office Building Low Rise 1-4	$ 12.24	Warehouse	$ 8.10
Retail - Single Occupancy	$ 12.20	Vacant Land	$ 7.56
Day Care Center	$ 12.19	Lumber Storage	$ 7.54
Car Wash Automatic	$ 12.04	Apartments High Rise	$ 7.43
Department Store	$ 11.93	Mobile Home Lot	$ 7.42
Hospital	$ 11.89	Apartments	$ 6.73
Auto Dealer Full Service	$ 11.72	Cold Storage Facility	$ 6.43
Nursing Home	$ 11.68	Recreation/Health	$ 5.93
Telephone Equipment Building	$ 11.66	Manufacturing/Processing	$ 5.64
Auto Service Station w/o Bays	$ 11.55	Truck Terminal	$ 5.31
Neighborhood Shopping Center	$ 11.39	Club House	$ 5.04
Supermarket	$ 11.22	Mobile Home Park	$ 4.56
Funeral Home	$ 11.18	Research & Development	$ 4.48
Residential Structure on Commercial Land	$ 10.95	Hangar	$ 3.47
Mixed Residential/Commercial	$ 10.85	Warehouse Prefab	$ 2.56
Triplex	$ 10.11		
Grand Total			**$ 9.52**

[13] The presence of a building on the site should have very little to no bearing on the value of the land itself, although the presence of certain kinds of buildings on other nearby sites may influence the value of this particular site.



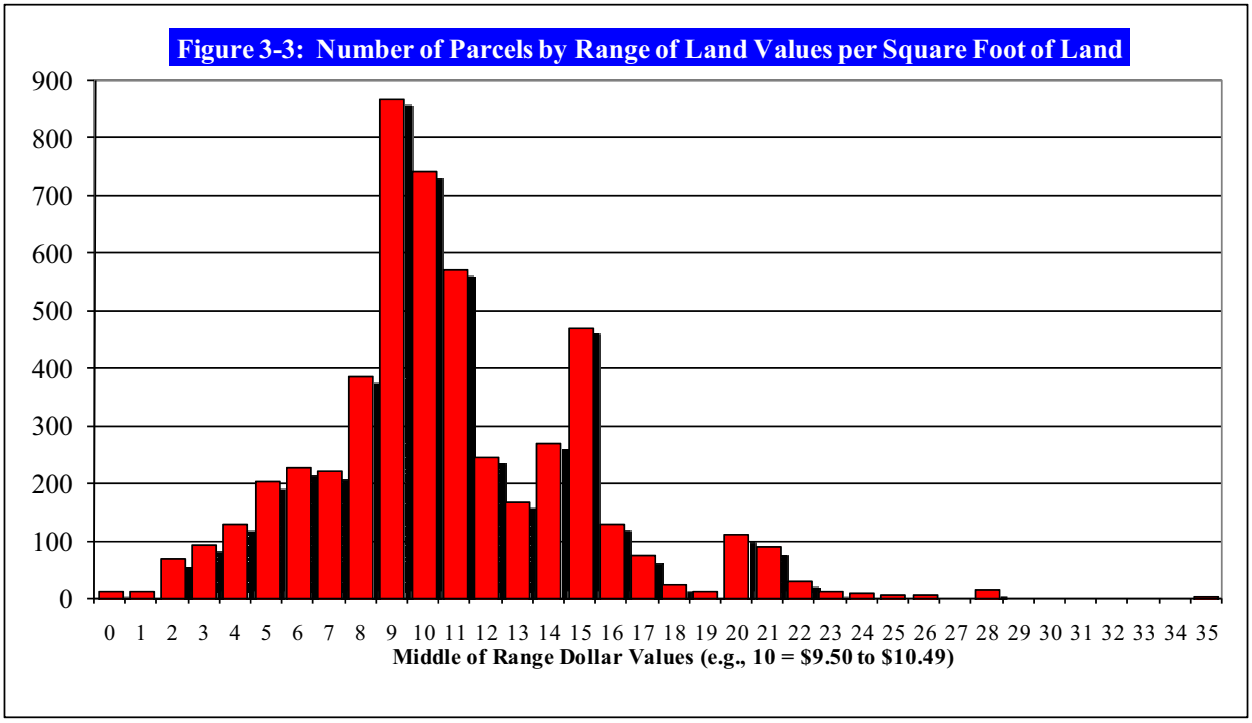
3.2.6 Distribution of Land Values: The Bell Curve

To a statistician, the large amount of data pertaining to a large number of land parcels that the Assessor's database represents should demonstrate many characteristics of "random distribution" wherein most data items cluster around the average and median ("central tendency") while there are a few data items that stray relatively far from the average ("tails"). Such a distribution is generally called the "bell curve" and is very useful in statistical analysis to illustrate important factors, or even flaws, in the distribution of, in this case, land values. This section describes two bell curves:

- The number of parcels in the database by their land value per square foot of land (ignoring the value of any improvements on the land).
- The number of acres in the database by their land value per square foot of land.

There are 5,154 separate parcels in the database which consist of those parcels zoned B-3, R-O, R-4, I-1, or I-2. The average value (or "mean") of the land per square foot of land as contained in the Assessor's database for 2007 is $9.52. Remember, this is not necessarily the average *market* value; this is the average taxable value. The two values may not be the same.

The median value is $9.90 per square foot of land. That is, half the values are higher than $9.90 and half are lower than $9.90. With the mean at $9.52 and the median slightly higher at $9.90, the data are slightly skewed toward lower values. A "perfectly distributed" sample would find the average and the median equal. But the average is in the lower (left) half, so there must be a small predominance of properties in the lower portion of the scale. This is illustrated on Figure 3-3.



The graph shows the number of parcels (counted on the vertical axis) by their range of land values per square foot. The range of numbers on the horizontal axis represents midpoints in dollars. For example, the range of "10" means that all of the parcels in this range have values between $9.50 and $10.49 per square foot. 10 dollars is the midpoint in this range.

The lowest value in the database is $0.01 per square foot of land. There are six parcels with this value. This value falls in the range of "0" (obviously not the midpoint in this one case), or between $0.00 and $0.49 per square foot. There are 11 parcels that fall into this range.

The highest value is $34.60 per square foot, or the range noted by the number "35" for values between $34.50 and $35.50. There is only one such parcel—indeed, because there is only one, it is all but

impossible to see on the graph at this scale. While the graph shows all the ranges between 0 and 35 on the X axis, there are no parcels or values in the ranges represented by 27, 29, 30, 31, 32, 33, or 34.

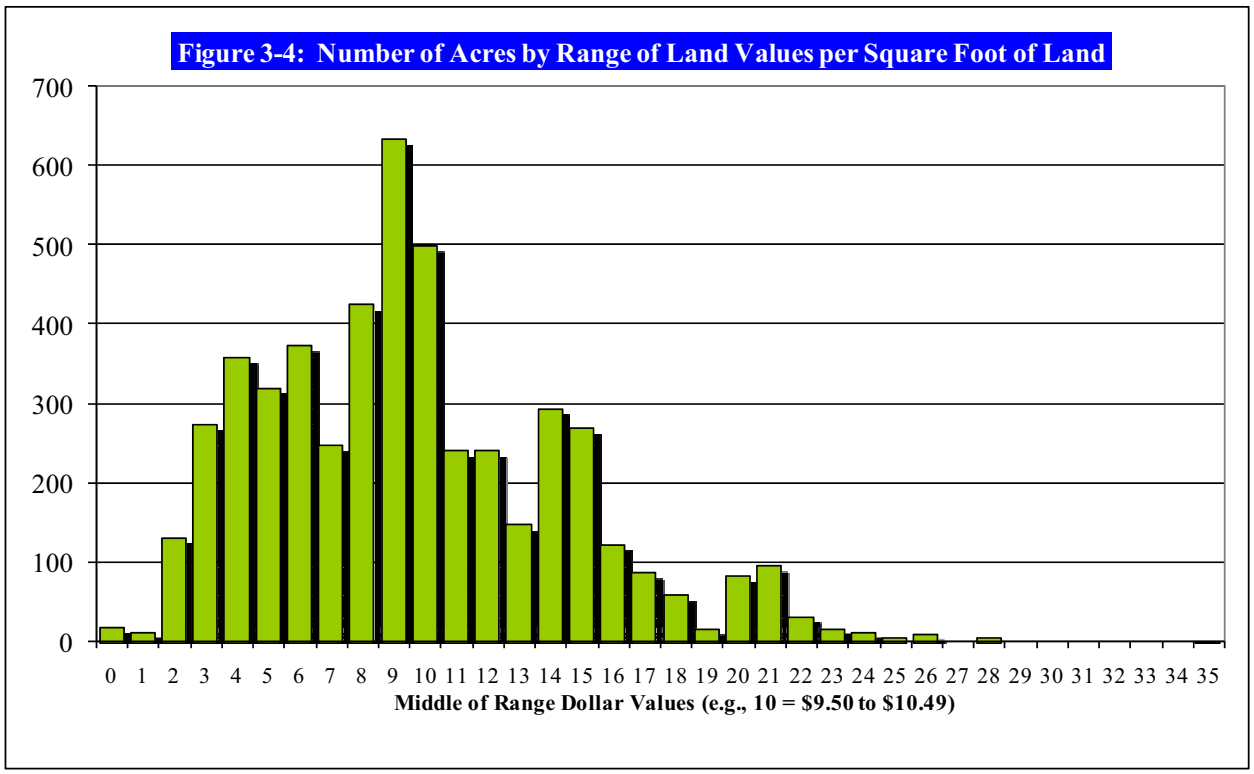
Using the minimum and maximums as end points, it is clear that the parcels in the database are skewed to the left of the range. If there was an even distribution among the ranges (or at least a perfect bell curve), the median and average would be about $17.50, representing about the midpoint between the ranges. As it is, both the median and the average are considerably less than $17.50, so the data are skewed to the left.

There is something of a bell curve nevertheless represented by the data. But the right side curve of the bell spikes markedly upward at about $14 per square foot, then even higher at $15. The curve then returns to an expected pattern at $16 per square foot. Thus, there is an unexpected concentration of values between $13.50 and $15.49, a factor that may be related to the high number of *commercial* properties in the database, especially the concentration of properties in the B-3 district in Midtown where values tend to be the highest; thus, a higher proportion of higher values might be expected. If the complete set of parcels for the entire Bowl, including the large number of residential properties, were included in the database, a smoother distribution of land values would be expected. With a selection of just those parcels in B3, I-1, I-2, R-4, and R-O, however, a skewed distribution of values emerges.

The standard deviation on the above graph is $4.19. Falling within one standard deviation of the mean (between $5.33 and $13.71 per square foot), are 3,486 parcels, or 67.6%, almost exactly the proportion of about 68% that would be expected for a perfect bell curve distribution. Within two standard deviations ($1.13 to $17.91) fall 94.2% of all parcels, again almost exactly the expected 95% for a normal bell curve distribution. Despite the high proportion of parcels in the $14 and $15 ranges, the distribution of values per square foot reflects a normal distribution; but because of the high proportion of parcels in the $14 and $15 ranges, the distribution in other values is proportionally less.

This pattern essentially repeats itself on Figure 3-4 which shows the number of acres in the database, rather than the number of parcels, but still by the ranges of land values per square foot as in Figure 3-3. The data are again skewed to the left and the seeming anomalies of the ranges of $14 and $15 reappear.

The two graphs essentially indicate that the distribution of land values favors lower values. Because some of the properties have been able to achieve relatively high values, even within the present land regulation climate, it can be concluded that others could also do so if there were more favorable market conditions to a point where the distribution of values achieves a balanced distribution (i.e., average equals the median). This means that the zoning and regulatory climate itself is not significantly hindering the ability of properties to achieve higher values, but the general state of economic conditions may be holding back the ability of more properties to achieve higher values.



3.2.7 DISTRIBUTION OF FLOOR AREA RATIOS IN THE ANCHORAGE BOWL

Floor area ratios (FARs) vary widely in Anchorage, as would be expected from variously sized buildings on variously sized lots in the full range of zoning districts. In an ideal economic circumstance, all property owners would construct buildings that are as large as allowed by zoning in order to take the fullest advantage of market opportunities. Thus, ideally, all properties would be built to their allowable FARs.

In the real world, of course, market conditions often do not match FAR potentials. Sometimes, the market or local economy isn't quite strong enough to justify a larger building. While the zoning code might allow a certain FAR, market conditions might not, so the property owner is unable to take full advantage of the FAR. Conversely, market conditions might be strong enough to justify a larger building but the zoning code might prevent the owner from further building expansion.

There is a mismatch in both cases. A goal of a healthy and supportive zoning ordinance, however, is often to allow owners to build large enough buildings to meet market opportunities while not stifling those opportunities. Contrasting but simultaneous goals are often to protect the values of nearby property owners and the aesthetics of the community by not allowing structures that are out of scale with the surroundings, or by not allowing high intensity uses that overwhelm nearby services, infrastructure or neighborhoods. Such goals could very well be in conflict with market opportunities. It can be difficult for zoning ordinances to balance these conflicting goals.

Information about the distribution of FARs across a jurisdiction can help in determining whether that balance is within or outside of acceptable economic and political boundaries. The Anchorage Municipal Assessor's database on land uses, values, and building sizes enables such measures to be made, as summarized in this section. Illustrated herein are bell-curve graphs depicting the number of parcels in the five subject zoning districts (B-3, I-1, I-2, R-4, and R-O) in the Bowl by their FARs.

Recall that the FAR is simply the number of gross square feet of a building's floor area divided by the gross square feet of the individual parcel on which the building sits. A building of 20,000 square feet on a 50,000 square foot lot, therefore, has a FAR of 0.40 (20,000 ÷ 50,000 = 0.40). FARs of greater than 1.0 indicate buildings that have more floor area than their respective parcels' land area, a situation than can be achieved only with multi-story buildings. But even FARs of less than 1.0 might have multi-story buildings so that some of the land on the parcel can be utilized for other needs—e.g., parking, landscaping, required setbacks, and so on. The following graphic provided by the Planning Department illustrates the potential variety of building site configurations with the same FAR.

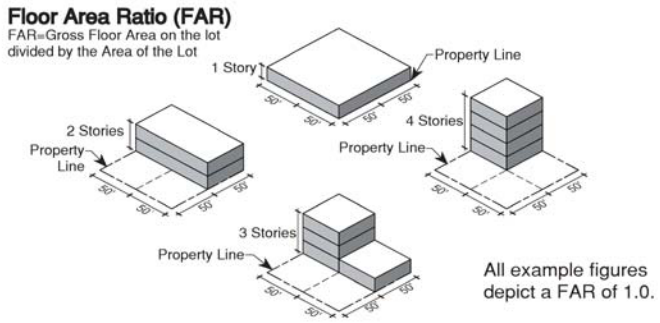


Figure 3-5 shows the distribution of FARs for all five zoning districts combined, encompassing the 3,351 parcels of the 5,154 in database that have structures on them (according to the Municipal Assessor). Because of the large number of "data points," the various FARs are lumped into groups of 0.05 FAR. Thus, the first bar on the graph is labeled "0.05" and includes all parcels with FARs of 0.01 to 0.05. The next bar, labeled "0.10" includes FARs of 0.06 to 0.10. The graph extends to 5.00 FAR and accommodates the one parcel with the single largest FAR of 4.93 with a small (barely visible) bar extending above 4.95.

This clearly shows a skewing of FARs toward smaller numbers, or a concentration of lower FAR values. While there are some relatively large FARs shown on the right side of the graph, these are few in number. But it is fair to query as to why some owners are able to achieve high FARs while most are not. There are many logical reasons, not the least of which is that some zoning districts allow higher FARs than others, so a graph, like Figure 3-5, that shows several districts combined will inevitably display differences that are caused by zoning restrictions as much as by economic or market restrictions.

The overall FAR for the subject parcels is 0.31. This is the result of 48,269,900 square feet of floor area in the buildings of the database divided by the total site area of all their parcels, 157,486,900 square feet (or 3,615 acres).[14] This is an average of 13,350 square feet per acre of land. Keep in mind, of course, that the database does not include most of the residentially developed land in the Bowl, so most single family homes, which are not likely to reach 13,350 square feet on an acre of land are not counted in this FAR.

[14] It is important to note that the FAR on a given parcel includes not only the "main building" but also any other buildings and parking structures. For parking structures, however, any spaces below grade are excluded from the FAR measurement, as are spaces below grade but under the building itself. Below grade floors in a building that are not used for parking, however, are included in the FAR calculation.

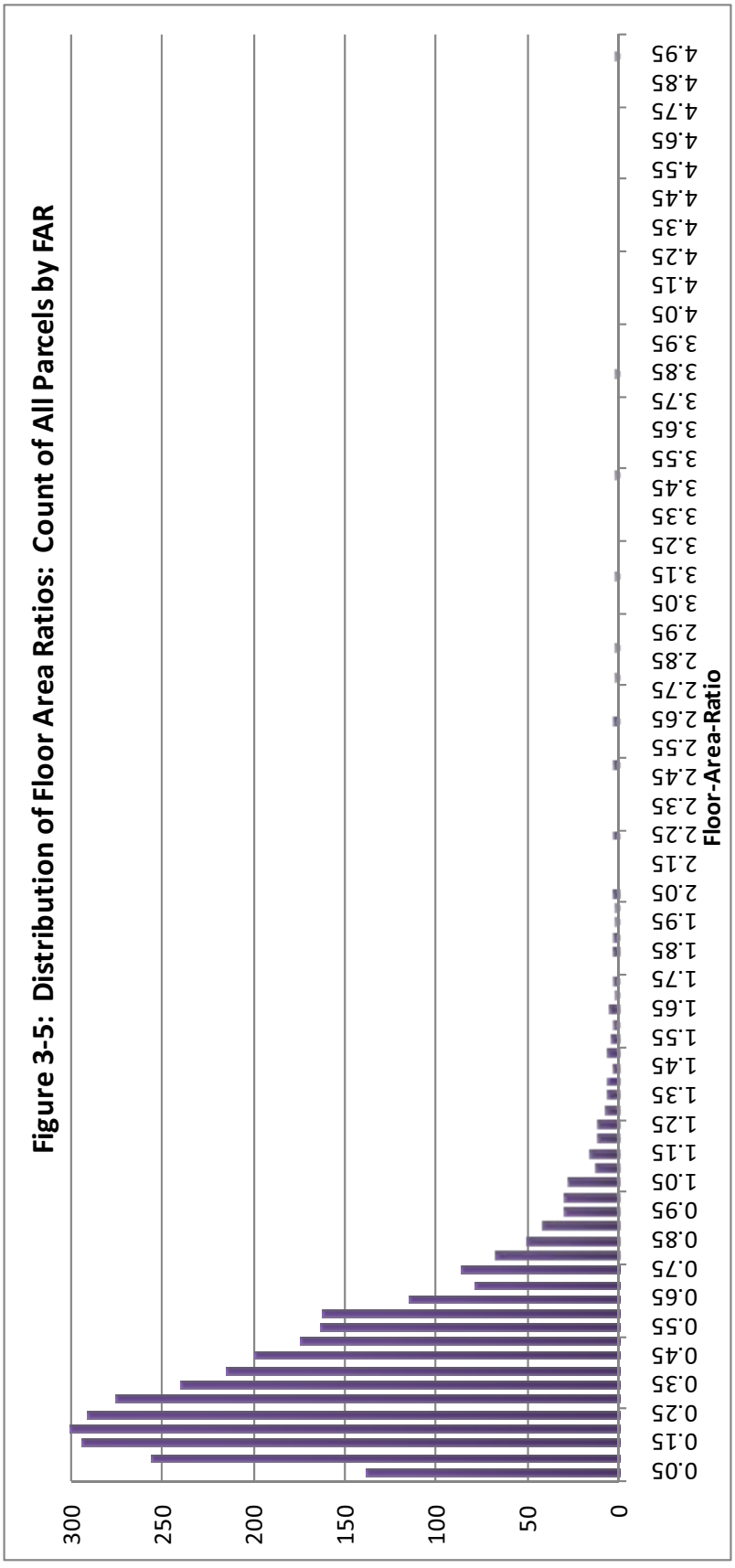


Figure 3-5: Distribution of Floor Area Ratios: Count of All Parcels by FAR
Floor-Area-Ratio
0.05
0.15
0.25
0.35
0.45
0.55
0.65
0.75
0.85
0.95
1.05
1.15
1.25
1.35
1.45
1.55
1.65
1.75
1.85
1.95
2.05
2.15
2.25
2.35
2.45
2.55
2.65
2.75
2.85
2.95
3.05
3.15
3.25
3.35
3.45
3.55
3.65
3.75
3.85
3.95
4.05
4.15
4.25
4.35
4.45
4.55
4.65
4.75
4.85
4.95
0
50
100
150
200
250
300

The highest FAR depicted on Figure 3-5 is 4.93. This is for a high-rise office building and parking structure that together are 653,000 square feet of gross floor area on a parcel of 132,400 square feet (3.04 acres) zoned B-3. The next highest FAR is 3.84 for a use classified as a hospital in the R-O district with special limitations (SL). It has 163,300 square feet of gross floor area on a 42,570 square foot lot (just under one acre).

That some parcels are able to achieve relatively high FARs suggests that many more could do so—assuming market conditions and zoning allow. But, again, the previous graph shows all of the five zoning districts combined, which dilutes and hides a number of factors peculiar to each district. The following five graphs show the district FARs separately. All five graphs are on the same scale—the total count of parcels on the vertical axis tops out at 120 (less than Figure 3-5 but encompassing the highest count in any one district) while the highest FAR grouping on the horizontal axis is 4.95 (actually 4.91 to 4.95), same as Figure 3-5.

In all cases, there is a tendency to show relatively low FARs. Much of this, of course, relates to market economics and the need to devote land to parking and non-building uses like landscaping and walkways. All of the zoning districts nevertheless have a smattering of parcels that exhibit relatively high FARs. The most extreme are in B-3 areas and, to a lesser degree, in R-O areas. But the suggestion is that higher FARs can be achieved in each district than the bulk of FARs would otherwise suggest.

This is indicative of an economic circumstance in the Bowl that the vast majority of properties are not yet achieving the maximum economic value that they might otherwise. Of course, achieving higher economic value, as expressed through the FAR, would require enlarging the buildings and, in many cases, creating either on-site structure parking or using off-site parking lots or structures to satisfy the zoning requirements for parking caused by the buildings themselves. Therefore, the ability to bear the high cost of structured parking is a prerequisite to achieving higher FAR under current zoning. This ability depends in part on the resources of the owner and the market, including land values.

It is difficult for most commercial buildings with surface parking to achieve a FAR greater than 0.4 – 0.7 because required parking for most commercial uses takes up most of the site. Buildings that have higher FARs usually have structured parking or were constructed in an era prior to automobile-oriented travel patterns and parking requirements.

As noted earlier, one of the economic benefits of the proposed Title 21 regulations is a requirement for less parking than required under the current Title 21 regulations. With less parking required, a property owner can, if market conditions warrant, of course, create more building floor area by using the land no longer required for parking. This can help to achieve higher FARs without resorting to structured parking or off-site parking.

In light of the data on FARs, a great deal more building expansion might be achieved well before the Anchorage Bowl reaches zoning restrictions on the size of buildings. From an economic impact perspective, this suggests that the proposed Title 21 regulations may increase the economic potential of most sites. But most sites can also be said, today, to be developed well under their zoning-enabled capacity even under the present Title 21 regulations. Or it is possible that some are developed to the maximum capacity allowed by zoning for developments with surface parking--projects in which the market or financing could not support the cost of structured parking must depend on surface parking required by zoning, which carries a high land cost.

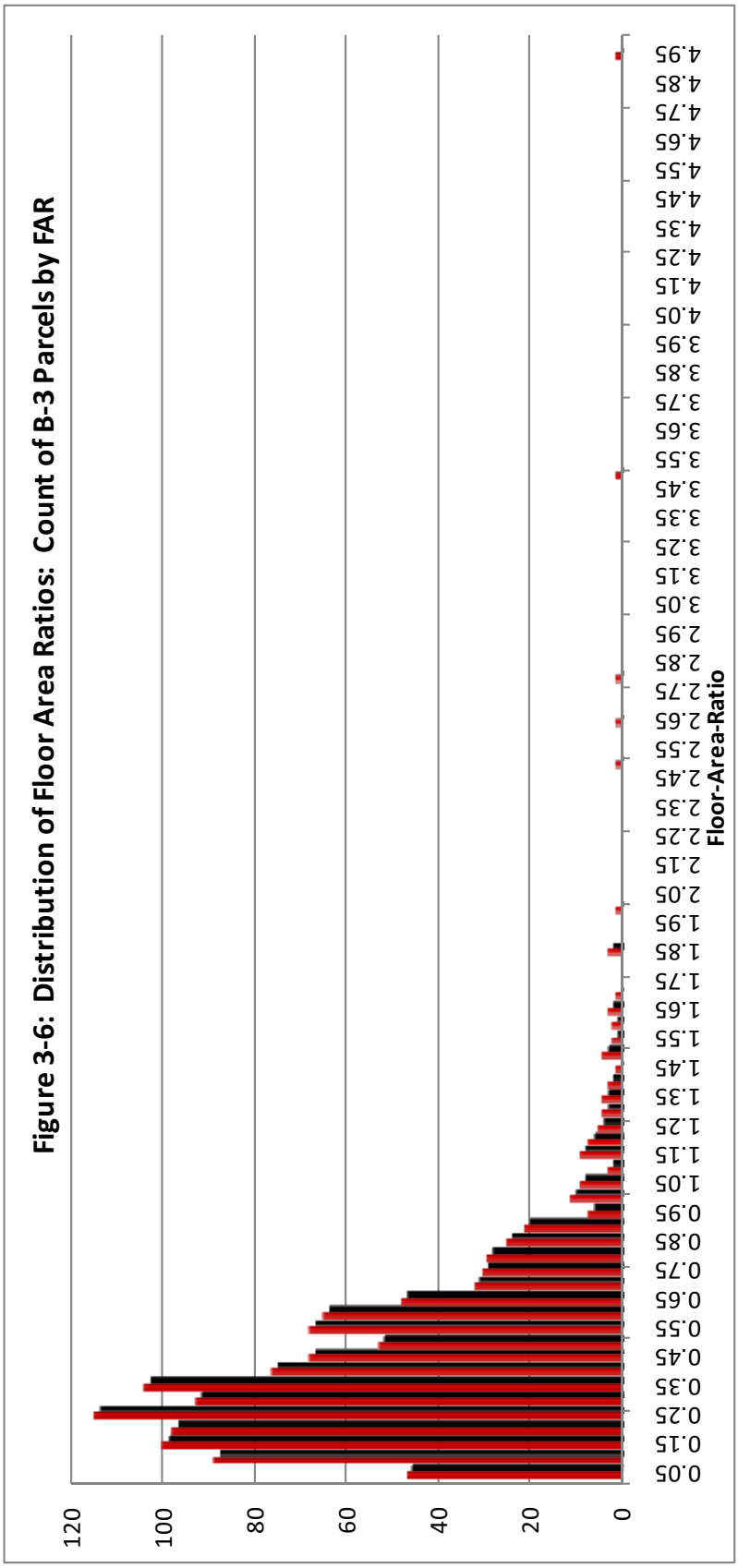


Figure 3-6: Distribution of Floor Area Ratios: Count of B-3 Parcels by FAR
Floor-Area-Ratio
0.05
0.15
0.25
0.35
0.45
0.55
0.65
0.75
0.85
0.95
1.05
1.15
1.25
1.35
1.45
1.55
1.65
1.75
1.85
1.95
2.05
2.15
2.25
2.35
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3.05
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3.25
3.35
3.45
3.55
3.65
3.75
3.85
3.95
4.05
4.15
4.25
4.35
4.45
4.55
4.65
4.75
4.85
4.95
0
20
40
60
80
100
120

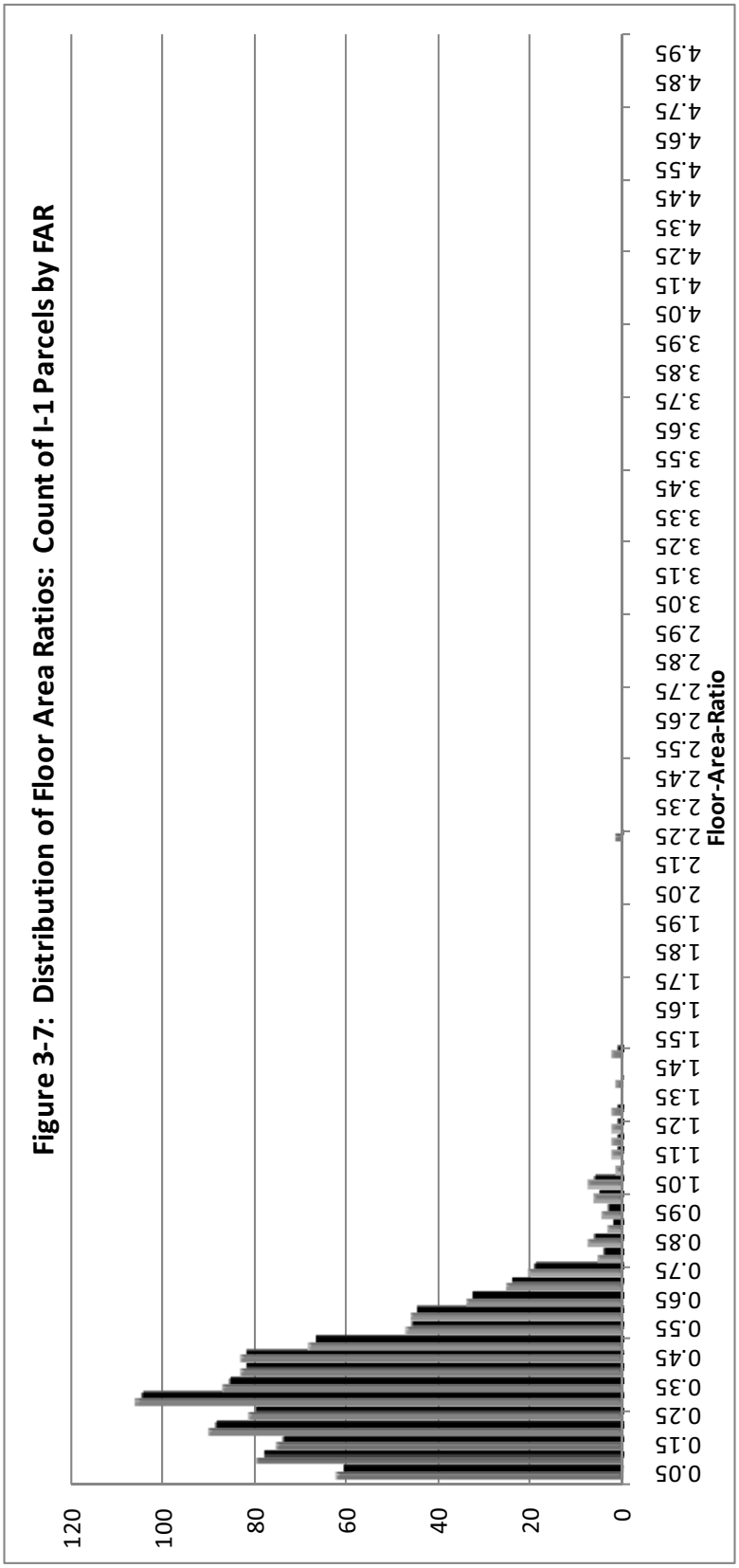
Figure 3-7: Distribution of Floor Area Ratios: Count of I-1 Parcels by FAR
Floor-Area-Ratio
0.05
0.15
0.25
0.35
0.45
0.55
0.65
0.75
0.85
0.95
1.05
1.15
1.25
1.35
1.45
1.55
1.65
1.75
1.85
1.95
2.05
2.15
2.25
2.35
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3.05
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3.25
3.35
3.45
3.55
3.65
3.75
3.85
3.95
4.05
4.15
4.25
4.35
4.45
4.55
4.65
4.75
4.85
4.95
0
20
40
60
80
100
120

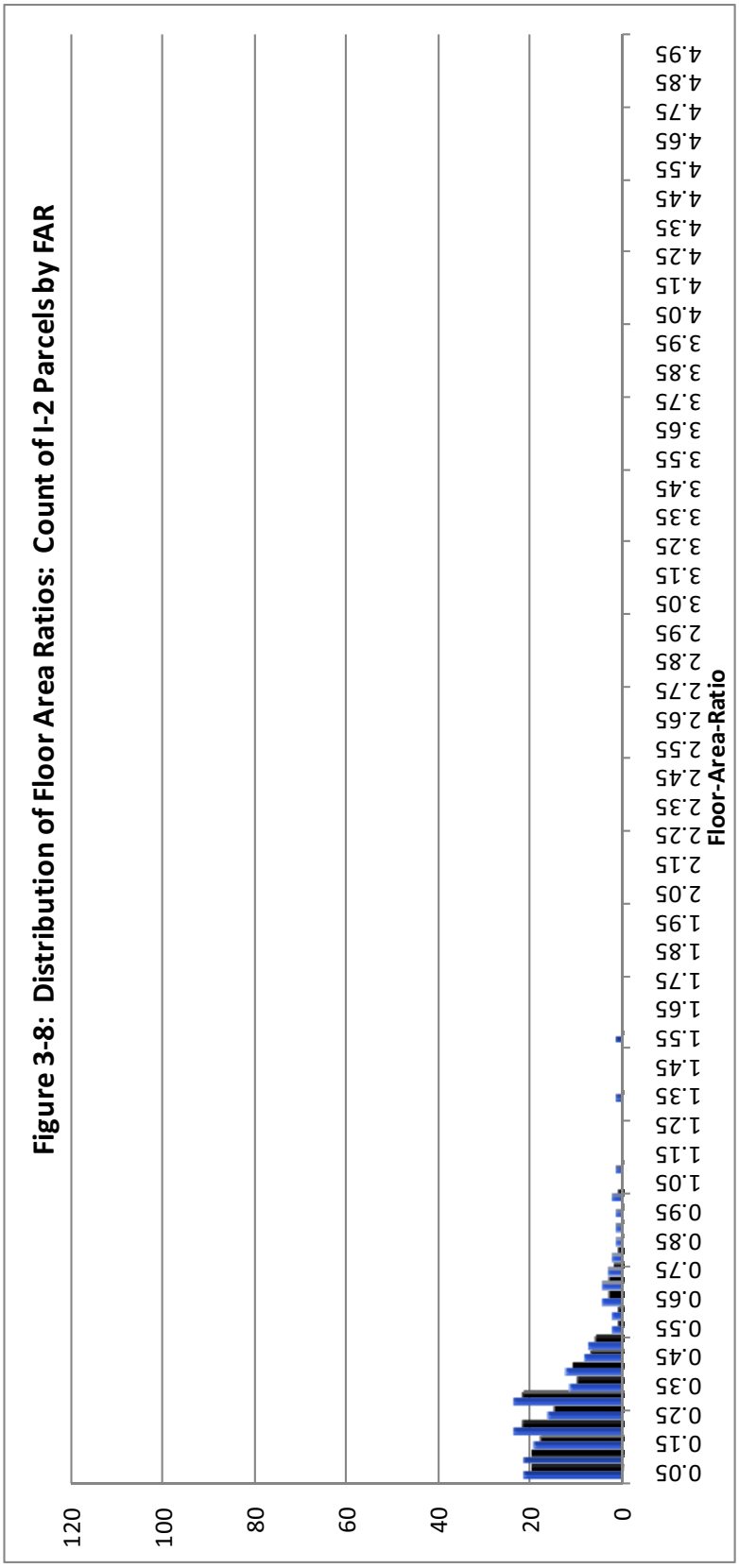
Figure 3-8: Distribution of Floor Area Ratios: Count of I-2 Parcels by FAR
Floor-Area-Ratio
0.05
0.15
0.25
0.35
0.45
0.55
0.65
0.75
0.85
0.95
1.05
1.15
1.25
1.35
1.45
1.55
1.65
1.75
1.85
1.95
2.05
2.15
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3.95
4.05
4.15
4.25
4.35
4.45
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4.65
4.75
4.85
4.95
0
20
40
60
80
100
120

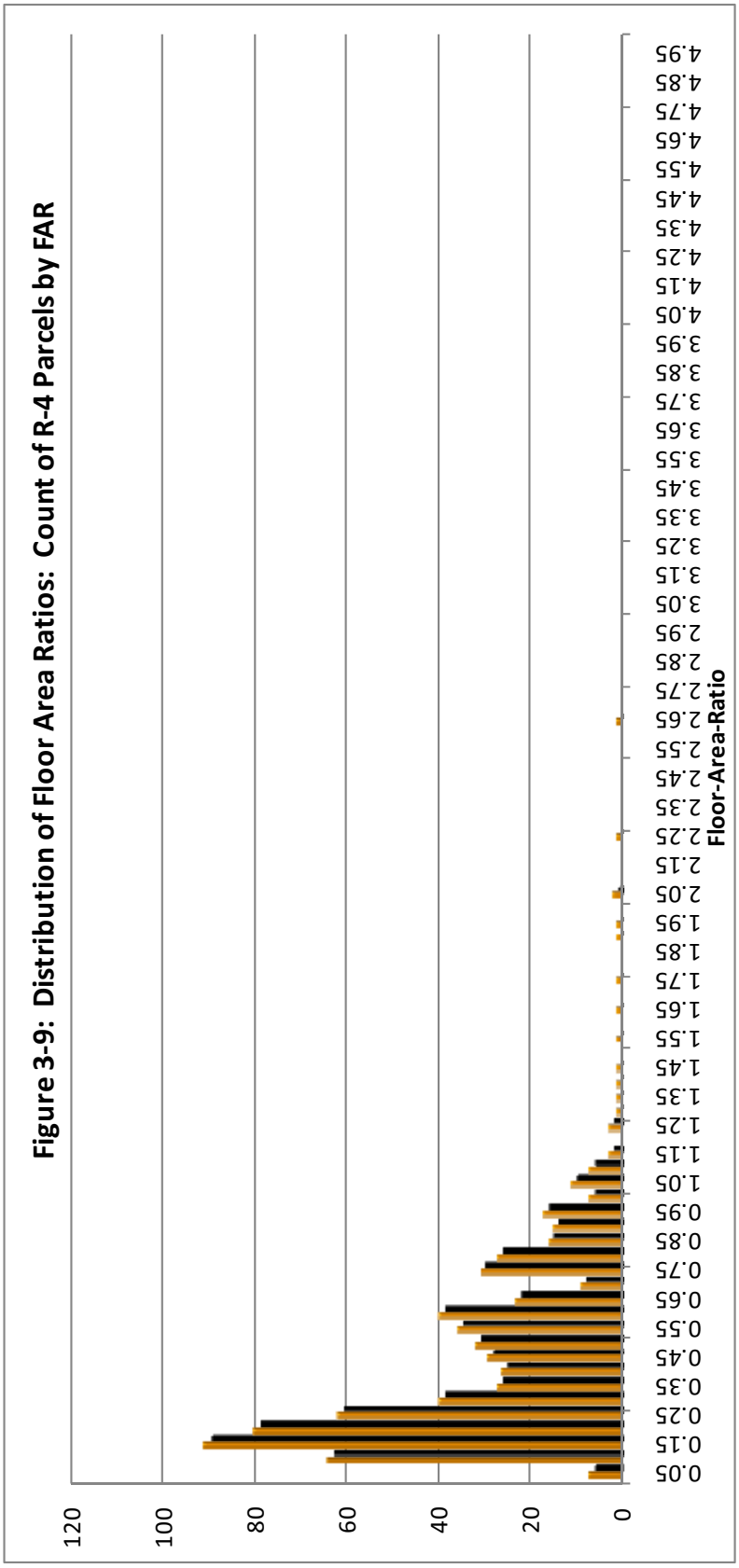
Figure 3-9: Distribution of Floor Area Ratios: Count of R-4 Parcels by FAR
Floor-Area-Ratio
0.05
0.15
0.25
0.35
0.45
0.55
0.65
0.75
0.85
0.95
1.05
1.15
1.25
1.35
1.45
1.55
1.65
1.75
1.85
1.95
2.05
2.15
2.25
2.35
2.45
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2.85
2.95
3.05
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100
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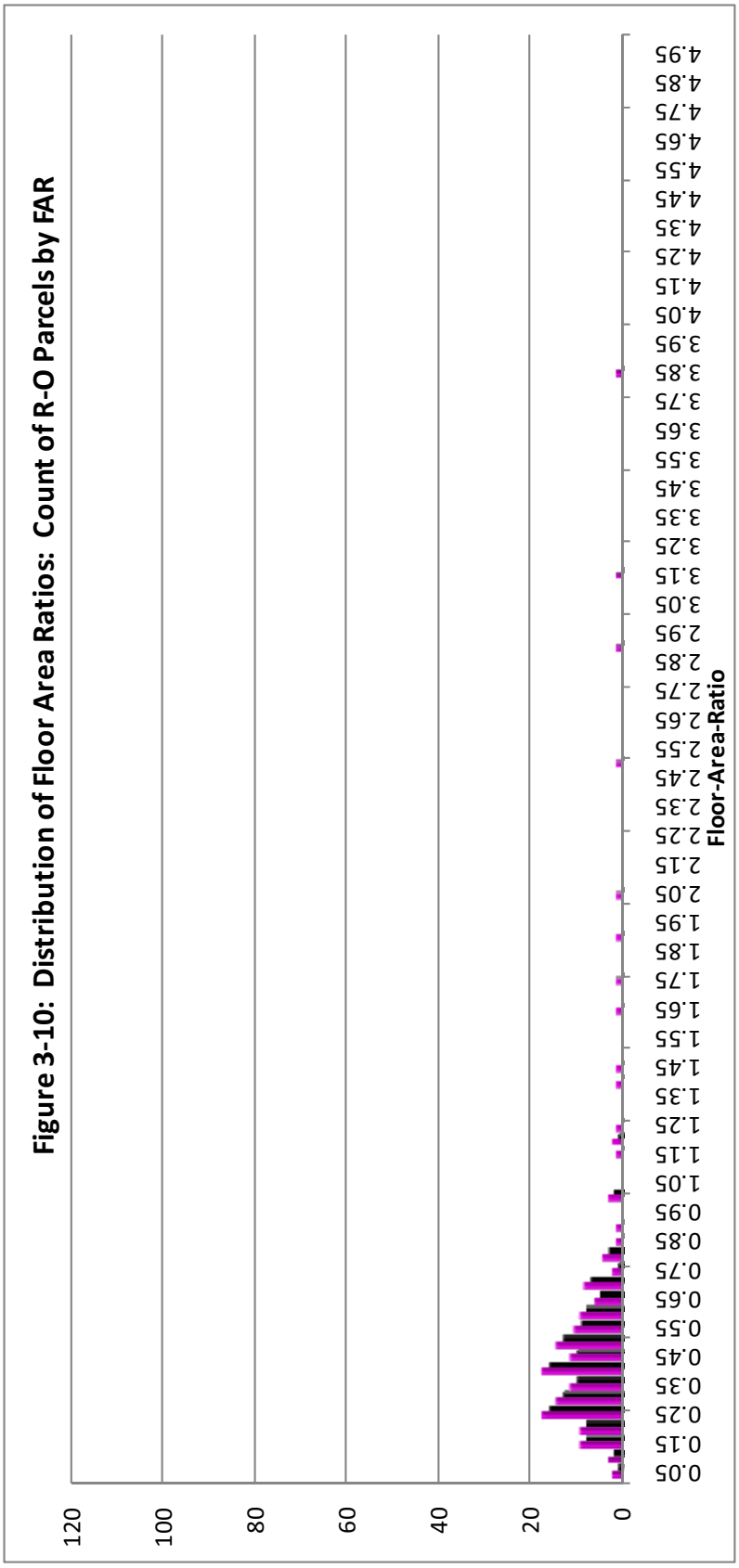
Figure 3-10: Distribution of Floor Area Ratios: Count of R-O Parcels by FAR
Floor-Area-Ratio
0.05
0.15
0.25
0.35
0.45
0.55
0.65
0.75
0.85
0.95
1.05
1.15
1.25
1.35
1.45
1.55
1.65
1.75
1.85
1.95
2.05
2.15
2.25
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3.3 OFFICE BUILDING LAND VALUES BY ZONING DISTRICT

Office buildings are instructive of the range of valuations, partly because a significant number of office buildings, as classified by the Municipal Assessor, are in the five zoning categories,[15] thus creating a large "sample" for statistical analysis. Of the 360 office parcels in the database, 211 are in the B-3 district, including 20 of the 23 office buildings of five stories or more (high rise). Another 92 office buildings are in the I-1 district, 51 are in the R-O district, and six in the I-2 district. This information is summarized on Table 3-6. The table shows the zoning districts on the left side, segregated by high rise (5 stories or more) and low rise (1 to 4 stories) office buildings.

- The first column shows the sum of the land values for office buildings in these classifications.
- The second column shows the sum of all the land area, in square feet, for each classification.
- The third column shows the average land value per square foot (PSF).
- The fourth and fifth columns show the lowest and highest land values PSF for each classification.
- The final column shows the number of parcels for each classification.

The 191 low rise office structures (4 stories or less) in B-3 have an average land value of $14.56 per square foot, above the overall average of $13.35 for all office buildings, while the 20 high rise office structures in B-3 average $17.24 psf of land, 18% higher than the low rise structures. This finding indicates that one of the reasons that the higher value land has larger structures is because of the higher value, or cost, of the land. Higher land values require more floor area in the office building to generate sufficient rents, or return on investment (ROI), to afford the land value.

Table 3-6: Comparative Land Values per Square Foot for Office Structures by B1-I1-I2-RO Zoning Districts, 2007

Zoning District		2007 Land Value	Lot Size (square feet)	Average Value per Sq. Ft.	Minimum Land Value per Land Sq. Ft.	Maximum Land Value per Land Sq. Ft.	Count of Parcels
B3	High Rise	$64,168,800	3,722,741	$17.24	$10.50	$24.15	20
	Low Rise	$98,733,700	6,782,128	$14.56	$5.51	$26.25	191
B3 Total		$162,902,500	10,504,869	$15.51	$5.51	$26.25	211
I1	High Rise	$6,078,300	320,497	$18.97	$17.97	$22.00	2
	Low Rise	$49,820,300	4,867,554	$10.24	$1.82	$20.00	90
I1 Total		$55,898,600	5,188,051	$10.77	$1.82	$22.00	92
I2	High Rise	$0	0	$0.00	$0.00	$0.00	0
	Low Rise	$3,863,100	838,035	$4.61	$3.85	$6.00	6
I2 Total		$3,863,100	838,035	$4.61	$3.85	$6.00	6
RO	High Rise	$784,800	65,400	$12.00	$12.00	$12.00	1
	Low Rise	$26,270,400	2,106,557	$12.47	$3.50	$28.00	50
RO Total		$27,055,200	2,171,957	$12.46	$3.50	$28.00	51
Grand Total	High Rise	$71,031,900	4,108,638	$17.29	$10.50	$24.15	23
	Low Rise	$178,687,500	14,594,274	$12.24	$1.82	$28.00	337
Grand Total		$249,719,400	18,702,912	$13.35	$1.82	$28.00	360

[15] Actually, just four of the selected zoning districts are shown on Table 3-6 because there are no office parcels in the R-4 district of the Assessor's database. This analysis focuses on the two land use categories for low rise and high rise office buildings. Medical office buildings are excluded because they function more like retail space than typical office space owing to the large amount of in-and-out traffic they generate with patients (like customers at a retail center). Office-warehouses are also excluded because they function more as warehouses than typical office buildings.

This is an expected pattern in any urban market. Lower value land does not require large buildings—indeed, the market probably doesn't even *demand* larger buildings—because those sites would have fewer characteristics that drive up the land value and, therefore, fewer characteristics to attract occupants willing to pay higher rents or prices for the building. As the land value rises, however, so does the pressure to be able to build more density (more square feet of floor area per land area) in order to generate the necessary rate of return.

Such a pattern would be expected to extend to the I-1 district which, because industrially zoned sites are generally valued less than office or retail sites, would be expected to have lower land values where there are fewer office buildings than in the B-3 district. This is almost the case in Anchorage, but not quite. There are two high rise office buildings zoned I-1 in Anchorage and these have land values averaging $18.97 per square foot—or $1.73 more than high rise structures in B-3. But there are only two such buildings, so the sample is small and these results may be suspect. Moreover, the highest value of these two buildings in I-1 is $22.00 psf, less than the highest value $24.15 in B-3.

There are 90 low rise office buildings zoned I-1, however, which is a substantial statistical sample. These average $10.24 per square foot for land value, well under the average for the same kinds of buildings in B-3. This is an expected pattern between the two districts, but the anomalies of the high rise buildings in I-1 suggest that such a pattern might not be universal.

The expected pattern is evident in the I-2 district, although the sample of only six low rise office buildings in I-2 (there are no high rises) is on the small size. Still, the average land value of these six buildings is $4.61 psf, only about a third of the land value of low rise office buildings in B-3 ($14.56) and well under half of the average land value in I-1 ($10.24).

The R-O district may also be reinforcing the expected, though not universal, pattern. The 51 office buildings in R-O average $12.46 psf for land values, not much less than the overall average in the Bowl ($13.35), higher than in I-1 ($10.77) and lower than in B-3 ($15.51). R-O is a relatively restrictive zone but it also offers more flexibility in land uses and site design.

3.4 Land Value Comparisons for Most Numerous Land Uses by Zoning District

Based on the relative ease of development in B-3 and a general expectation that higher values would more likely be found in B-3 than in the two industrial districts and, perhaps, than in the R-O and R-4 districts, the following table compares land values for the 21 most numerous land uses in the subject database that are also found in relative abundance in B-3.

- The amounts under the five district headings are the average land values per square foot.
- The amounts under the heading "Comparison to B-3" are simply subtractions: B-3's value minus the value for the other districts. This shows how much greater than or less than B-3's values are.

Table 3-7: Comparative Land Values per Square Foot for Most Numerous Land Uses									
Most Numerous Land Uses	**Aaverage Value per Square Foot of Land**					**Comparison to B-3**			
	B-3	**I-1**	**I-2**	**R-4**	**R-O**	**B-3 to I-1**	**B-3 to I-2**	**B-3 to R-4**	**B-3 to R-O**
Apartments	$11.08	$10.76		$9.35	$10.37	$ 0.32		$ 1.73	$ 0.71
Auto Dealer Full Service	14.81	11.03				3.79			
Auto Service Garage	12.54	9.50	6.49	9.59		3.04	6.05	2.95	
Bank	17.40	14.75				2.65			
Convenience Food Market	15.89	13.31				2.58			
Fast Food	16.97	14.09	17.00			2.89	(0.03)		
Hotel/Motel Low Rise	13.57	12.47		7.93	10.76	1.10		5.64	2.82
Manufacturing/Processing	15.83	8.72	5.39		9.00	7.10	10.43		6.83
Mini Warehouse	9.71	7.41	6.00			2.29	3.71		
Mixed Commercial/Residential	12.26	7.79		10.54	10.00	4.47		1.72	2.26
Office Building Low Rise 1-4	14.10	10.51	4.87		14.74	3.59	9.23		(0.64)
Office Building Medical	13.99				12.85				1.14
Office Warehouse	11.49	9.20	7.35	9.83		2.29	4.14	1.66	
Parking Lots, Misc.	12.77	8.83	7.42	9.41	13.26	3.94	5.34	3.36	(0.49)
Restaurant	15.45	17.65	0.00			(2.20)			
Retail - Multiple Occupancies	14.82	11.52	20.00			3.30	(5.18)		
Retail - Single Occupancy	14.29	11.08	8.00		14.38	3.21	6.29		(0.08)
Single Family Residential	13.98	8.32		10.07		5.67		3.92	
Strip Shopping Center	14.82	12.23				2.59			
Vacant Land	11.50	7.82	6.28	9.35	10.46	3.69	5.22	2.15	1.04
Warehouse	11.42	8.83	5.82	10.81		2.58	5.60	0.60	
Grand Total	**$12.98**	**$8.92**	**$6.50**	**$9.59**	**$11.65**	**$4.06**	**$6.48**	**$3.39**	**$1.33**

Overall, the table indicates that values in B-3 are higher than in the other four districts. At an average of $12.98 (for just the 21 uses shown on the table), B-3 exceeds I-1 by $4.06 psf, I-2 by $6.48 psf, R-4 by $3.39 psf, and R-O by $1.33 psf.

But the effects are not universal for these highest count land uses (those for which statistical measures are most reliable). The *apartments* classification, for example, suggests some degree of equity between zoning districts. While B-3 commands the highest value land, the differences aren't very large between districts.

Altogether, there are 49 possible comparisons shown on the table.[16] Of those 49, B-3 values exceed all four other zoning districts in 43 cases, but trail at least one other district in six cases. For the most part, therefore, it is fair to assume that similar kinds of land uses developed in the B-3 district will have to generate income in excess of the income needed in the other districts in order to repay or otherwise support the higher land prices and real estate taxes that result.

3.5 Economic Impact from Changes in Land Use Opportunities

Built into the process for long term implementation of the proposed Title 21 land use code is a voluntary choice mechanism for property owners who wish to change their zoning districts under guidance of the adopted Bowl land use plan map. They would do so, of course, if there would be economic advantage to changing the zoning in order to exploit higher value land uses. In other cases, rezoning may not be necessary for many, many years. However, recommendations from adopted neighborhood and district plans will provide the basis for initiating zoning changes consistent with those area-specific plans.

[16] There are actually 84 spaces for comparison (21 cells for each of the four right hand columns), but 35 of them are blank where the land uses do not exist in the comparison zoning district. Thus, only 49 comparisons to B-3 are possible.

The draft Anchorage Bowl land use plan map and the individual neighborhood/district plans[17] play a crucial role here, however. If, for instance, a given zoning district does not allow a certain land use that could yield higher financial returns for the owner, but the adopted land use plan map for an area would support rezoning to a district that would allow such a use, then the property owner may want to voluntarily change the zoning to reflect the land use plan map. Indeed, the Municipality may outright encourage such a change in zoning. On the other hand, where the current code would allow a "higher and better use" in a given zoning district, but the proposed code and land use plan map would not, the property owner may feel that a negative economic impact has been imposed on the property by action of municipal government.

In light of the differences between the current version of Title 21 and the proposed Rewrite (the public hearing draft under review in early 2008), the most significant potential decreases in land use opportunities appear to be in the B-3, I-1, and I-2 districts. But these three examples also offer substantially different options for property owner relief if that owner feels that an unwarranted loss of income potential has occurred or will occur.

3.5.1 Land Use and Value Impacts from the B-3 District

While the proposed B-3 district cites fewer specific land uses allowed than the current B-3 district, there is a purpose to this new restriction which relates to the Municipality's desire to encourage more mixed use development in certain parts of the city and to better manage that development while offering incentives to property owners for more creative site design. Moreover, the land use plan map as currently proposed attempts to maintain the breadth of land use opportunities on current B-3 properties. But many of these latter goals would have to be accomplished by changing zoning to one of the newly proposed mixed use districts or the yet-to-be drafted Midtown ("MT") zoning. In short, B-3 would emerge with more restrictions on specific land uses, while conversion to a "new" district is intended to increase the ability of a property owner to add to or maximize financial return while improving the public's oversight role in managing the growth and change of Anchorage.

There are anticipated to be some exceptions, however, where B-3 should remain in place. An example is the Old Seward Highway commercial corridor south of Tudor Road. According to the draft land use plan map, this corridor may be discouraged from rezonings from B-3 to, say, mixed use designations. A property owner in this corridor, therefore, might review the list of disallowed land uses and claim that a certain amount of future land value has been taken from the property with new regulations.

A review of the disallowed uses in the "new" B-3, however, suggests that such claims would not be made. There are only two land use categories from the Municipal Assessor's database, which are now enabled in the current B-3 zoning, that were determined by Development Strategies and the Anchorage Planning Department to be disallowed under the provisions of the proposed B-3 regulations in Title 21: Cold Storage Facility and Private Club House.

In other words, these are uses that can be built under today's B-3 but would not be allowed in the proposed B-3. The Assessor's data also indicate that these land uses presently have land values per square foot of land of $6.43 (Cold Storage Facility) and $5.04 (Private Club House) far less than the lowest value shown earlier on Figure 3-2 which illustrates the top 21 values by land use. That list is led

[17] Each neighborhood or district plan will include an area-specific land use plan map for its area which is intended to refine, provide more detail and supersede the designations that appear on the overall Anchorage Bowl land use plan map.

by banks and savings institutions that average $17.40 per square foot. In 21st place are neighborhood shopping centers at an average land value of $11.39 per square foot.

All but one of the land uses in the top 21 values would be allowed in the proposed B-3 regulations. The exception would be high rise office buildings—excluded because the proposed B-3 would have a building height restriction of 45 feet. But another possible limitation might be the proposed B-3 restriction on the size of a bank building to 5,000 square feet. That is ample floor area for a retail banking operation serving customers, but the restriction is meant to discourage the construction of larger "bank headquarters" buildings in those areas that retain the B-3 zoning, and to encourage them in the new mixed-use districts. This restriction, therefore, may have a negative impact on bank property owners who would not be able to build larger structures to pay for the higher value properties that retail banks typically occupy. But such zoning in itself will also help to reduce upward pressure on site values that would otherwise attract retail banks because both the sellers and the buyers of such parcels will know that higher land prices cannot be offset with a larger structure generating more rental income. So the size limit for banks will likely have only a small, if any, effect on the ability of such parcels to reach relatively high market values.

Thus, it is unlikely that a B-3 land owner, faced with the disallowance of only the two land uses listed above, would claim that potential future value had been denied to the property when at least 20 allowable land uses are already able to achieve average values greater than the disallowed uses. To obtain higher values, therefore, the land owner may have to shift from a disallowed use (which might become a non-conforming use in the new B-3) to a higher value use that is allowed.

3.5.2 Land Use and Value Impacts from the I-1 and I-2 Districts

The I-1 and I-2 districts appear to be more problematic. The current code essentially allows virtually any non-residential use to be constructed and operated in either I-1 or I-2. Even though an "I" district is generally reserved for industrial kinds of uses (e.g., manufacturing, warehousing, outdoor storage, trucking operations, and the like), Anchorage's "I" districts presently allow much more than those kinds of uses.

An entrepreneurial property owner within today's industrial districts, therefore, might recognize that the current code enables the property to be "upgraded" from, say, an office-warehouse to a retail shopping center. Office-warehouses generally command lower land values than retailing, so if the office-warehouse site could be changed to a retail site, the owner might be able to obtain higher rents and, therefore, higher financial returns. Under the current Title 21 regulations, the only hindrances to such an upgrade are market forces—or the "invisible hand" that has the most influence on the land use choices of property owners. Zoning is presently not a significant deterrent to an upgrade in the land use under this hypothetical example; it is the market that is not yet ready for the site to be a retail center. Thus, the owner freely chooses to develop the land with the highest and best use that the market will presently bear.

Under the proposed Title 21 regulations in I-1 and I-2, some of this opportunity might disappear. Indeed, the proposed I-1 and I-2 regulations prohibit most non industrial kinds of uses, although a smattering of stand-alone retail, retail/wholesale establishments, and office buildings would still be allowed in the I-1 district. Retail shopping centers are not directly named as allowable uses in the proposed Title 21, but would likely be discouraged in favor of preserving as much I-1 and I-2 land as possible for industrial uses. In the following analysis, therefore, it is assumed that the hypothetical opportunity to upgrade from, say, office-warehousing to a retail shopping center in I-1 and I-2 would be lost. This has implications for possible negative economic impacts on the land owner.

There may be an ameliorating factor in some areas currently zoned industrial. The draft Anchorage Bowl land use plan map does designate some areas currently zoned I-1 or I-2 to be rezoned as commercial or mixed-use areas. In those areas, the owners would be encouraged to rezone to a district that would allow a broader range of commercial uses than would be allowed in I-1 and I-2. Lands considered to be important for industrial use, however, are recommended to remain designated industrial and zoned I-1 or I-2, and these would lose some flexibility in land use choices.

That said, it is important to understand a potential, if extreme, circumstance that could arise with regard to the decrease in allowable specific land uses in the industrial districts. The Assessor's database analyzed in this chapter sheds light on the potential loss in value that this inability to convert to a more valuable use may cause. Indeed, the choice of hypothetical land uses such as office-warehousing and retail shopping are not chosen at random. These land uses represent the highest average land values per square foot for dominant uses (i.e., large numbers of parcels) allowed currently in I-1 and I-2. The gap between these two values, therefore, could be said to represent the potential economic impact that an owner, faced with the proposed industrial restrictions, might experience from adoption of the proposed code. The following exercise illustrates the size of this potential gap.

1. Retail shopping as evaluated here is based on four of the land use categories used by the Assessor: community shopping centers, neighborhood shopping centers, retail-single occupancy parcels, and retail-multiple occupancies parcels. There are 386 such parcels in the database in all but the R-4 district. B-3 is the dominant retail district (one may say that the market prefers B-3) while I-1 captures a small share. In B-3 are found 306 of these shopping centers (79%). The I-1 district has 73 retail shopping center parcels (19%). I-2 has three and R-O has four retail parcels.

2. In contrast, office-warehouses are concentrated in the industrial districts, especially in I-1. There are 351 office-warehouse parcels in the database, 244 of which (70%) are in I-1. The I-2 district has 45 office-warehouse parcels (13%) while the B-3 district has a few more at 61 (17%). There is one office-warehouse parcel in the R-4 district, and none in the R-O district.

3. The highest land value per square foot of land presently achieved for retail properties in the Bowl is $26.25 (in the B-3 district). The highest land value for office-warehouse properties is $22.00 (in the I-1 district).

4. Thus, an owner of land that is today zoned to *allow* retail shopping centers (e.g., I-1 or I-2 land) might reasonably expect that the land could, one day, be worth about $26.25 psf (in 2007 dollars).

5. But the vast majority of retail land uses are not allowed in the proposed changes to the I-1 and I-2 districts. Thus, this owner might claim that the property is being deprived of some possible future value which could be achieved if market forces one day allowed the site to be converted to a shopping center.

6. I-1 and I-2 property owners, therefore, might claim that the proposed code limits their properties to a maximum of $22.00 in potential land value when the current code could have enabled a value of $26.25. This creates a negative economic impact of some $4.25 per square foot, or almost 20% of the office-warehouse maximum.[18]

[18] Even if the property is not presently classified as office-warehouse (thus, perhaps, obtaining a lower market value), the owner cannot claim that the gap is wider because the property could first be "upgraded" to office-warehouse under the proposed zoning.

7. The percentage is very important here because the dollar amounts in the Assessor's database do not necessarily reflect actual market value, but the percent differences between land uses should be considered consistent whether in the database or in the real world. So the hypothetical owner in this example might claim that the proposed Title 21 deprives the property of up to 20% of its potential value.

There are many extenuating circumstances, however, that are not considered in this example that also affect market value, not the least of which is the actual location of the property.[19] How much does location affect the actual market value? If roads would need to be upgraded to support a shopping center, when would those improvements take place, if ever? Do decisions by the Municipality not to upgrade the road network also create grounds for claiming a "gap" in potential market value? Where do the wealthiest shoppers live in relationship to the highest value shopping centers? Would such shoppers be attracted to an I-1 or I-2 site if it were converted to a shopping center? How long would it take to improve the surrounding market area buying power to a point where a shopping center could achieve values averaging $26.25 per square foot?

While these are critical factors in determining whether or not a site is capable of supporting a shopping center above and beyond simply the zoning regulations and land use plan map, this exercise is nonetheless illustrative. There could be as much as a 20% loss in *potential value* for properties in I-1 and I-2.[20] There are likely to be other "gaps" for other land uses in and between the five commercial zoning districts that are the subject of this report, but the most extreme examples that cannot be remedied by rezoning appear to be in the I-1 and I-2 districts. Again, negative impacts in B-3, as described earlier, are not likely to arise or would likely be remedied by rezoning within the constraints of the yet-to-be adopted land use plan map. The list of allowable land uses in both the current and proposed R-4 and R-O districts suggests that no significant negative economic impacts would be caused by the change in zoning regulations alone.

This does not preclude other potential economic impacts, negative or positive, as a result of the proposed Title 21. One such potential impact may be restrictions on FAR, which will be the subject of an addendum to this report. Another impact is the cost of complying with the proposed site development standards. The next chapter discusses results of a computer model developed to compare development costs based on the requirements of the current and proposed zoning districts. Such costs are not the same as property values as discussed in this chapter, but higher costs can lead to lower financial returns if the property cannot gain higher revenues as a result of the higher development costs.

[19] Not considered here, for instance, is the possible increase in value of industrially zoned land over time as it becomes increasingly scarce.

[20] This is almost certainly the maximum gap because the two land uses represented in the example reflect the highest possible values for land uses currently allowed in I-1 and I-2.

4.0 ECONOMIC IMPACT ANALYSIS COMPUTER MODEL

The Municipality's Title 21 land use regulations require property owners to incur a number of site development and related costs to comply with land regulations. These development requirements also limit the density of development that is possible on a property. The kinds of costs and limitations so imposed are generally standard for zoning codes enabled by every state in the U.S., though each community varies certain items to best match its own vision and plans. Thus, it is neither unusual nor illegal to limit building size, height or intensity of development, or to require certain expenditures on private property by the property owners if such limitations or expenditures advance community goals.

Anchorage has been no exception to such regulations. But most urban planners in the U.S. would recognize that the current Title 21 regulations are well out of date with regard to the state of the art for zoning and related land management from the public sector's perspective. Modern codes have moved toward more performance and incentive zoning, for instance, where property owners may be required to perform certain improvements at their expense but can receive many additional benefits in return. These benefits often take the shape of higher density (thus, higher income potential) or greater creativity allowed in site design—that is, fewer restrictions on specific building placement—or less required parking, and so on. The end result is supposed to be a more efficiently managed, safer, and aesthetically appealing community that raises the value of real estate for every owner.

It is many such improvements that are being proposed in the Title 21 Rewrite with many of the same aspirations. But changes create costs to make those changes, so it is wise to evaluate how such costs might affect property owners in ways that are not required or expected under the present Title 21 regulations. Likewise, it is wise to evaluate effects of the proposed code rewrite on the development potential or density, in terms of allowable floor area, for anticipated types of development projects. To this end, a spreadsheet-based economic impact analysis (EIA) model was created that enables a comparison of the "imposed costs" of development and "imposed limitations" to buildability that are implied by both the current and proposed Title 21 codes.

ZONING DISTRICT "PAIR COMPARISONS"

The model is intended to compare the development costs required by zoning regulations between current zoning districts and proposed zoning districts. A large part of the changes in the regulations are intended to encourage more mixed-use development in Anchorage. The model is set up to evaluate only the present B-3, R-O, R-4, I-1, and I-2 districts, but the model is segmented into "pair comparisons" where a specific district in the current code is compared to a specific district in the proposed code. Sometimes this comparison is for the same district title (e.g., B-3 current compared to B-3 proposed), but most comparisons are intended to show how costs might be different if developers and property owners would consider alternative districts (e.g., B-3 current to CMU proposed).

In total, the model that is the subject of this report has 17 pair comparisons, as listed to the right. For instance, the current B-3 is compared to five of the proposed districts which would be established to regulate many of the same areas of the Bowl now zoned as the current B-3. But I-1 is not compared to, say, NMU, because areas now zoned I-1 are not designated by the draft

Zoning District "Pair Comparisons"

Existing Zoning District	Proposed Zoning District
B-3	B-3
	NMU
	CMU
	RMU
	R-4A
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

Anchorage Bowl land use plan map to be designated for neighborhood-scale mixed-use, so an economic impact comparison would be meaningless. Most areas currently zoned I-1 will either remain I-1 or may be rezoned to I-2, B-3, CMU or RMU, depending, in part, on the land use designation on the draft land use plan map. Each of the worksheets in the model contains one pair; but each of the worksheets functions in the same manner.

None of the comparisons include Downtown Anchorage. Downtown is not a subject of the EIA model because Downtown's zoning requirements are undergoing a revision process that is separate from the Title 21 Rewrite project, as a follow-up to the recently adopted Downtown Plan, and are so uniquely different than the rest of Anchorage that it was excluded from the EIA analysis. Chugiak-Eagle River properties are also not included as a separate chapter in the new Title 21 is being drafted for that area.

As with Downtown, the Midtown District Plan is intended to provide guidance for any changes to zoning districts in the core business areas of Midtown. Therefore, proposed revisions to the zoning in Midtown's core business districts await the draft Midtown District Plan. In the meantime, the Title 21 Rewrite public hearing draft includes only a placeholder for several "MT" (Midtown Core) zoning districts. Draft MT zoning has yet to be developed so is not available for testing.

This is not to say that none of Midtown is covered by the proposed Title 21 Rewrite zoning districts. The proposed Title 21 Rewrite districts would actually apply to most of the Midtown Plan's study area. It is only the central business districts of the Midtown "Core" that are awaiting the draft "MT" zoning.

The scope of the model also does not include comparisons of lower to medium density residential zoning districts, including zoning districts such as R-6 on the Hillside or the R-1, R-2 or R-3 districts. This is partly because the dollar value impacts of the Title 21 Rewrite are considered to be potentially greatest in the high-density and commercial districts, where the most changes are proposed, or in the industrial districts, where commercial uses are proposed to be restricted. There are fewer changes proposed in the lower to medium density residential zoning districts.

4.1 Description of Key Development Costs in the Model

The model contains ten primary cost "items" for development that are affected by zoning regulations, as follows:

1. **Cost of the primary building or structure.** While zoning imposes relatively minor costs regarding the structures on a site (building codes do more so, but zoning far less), most building costs are a direct function of market forces that emanate from the expectations and demands of prospective buyers and renters. Thus, in many ways, inclusion of structure costs in the Title 21 EIA model is misleading. But a comparison of development costs necessarily requires inclusion of the building(s), not just the costs imposed or required on the land, in order to provide a full understanding of the impacts of zoning. The model separates the building costs from the land development costs to enable a more accurate comparison of the impacts of proposed changes in Title 21. It is challenging to estimate the potential cost impacts of Anchorage's proposed zoning standards for buildings in part because the proposed code provides many menu choices instead of requiring each building to adhere to a single, one-size-fits all standard. Therefore, the model simply assumes that the proposed zoning code's menu-based system for requiring building articulation, windows facing the street and northern climate design would increase building construction costs by five percent over what such costs would be today.

2. **Cost to provide automobile parking and access.** The model incorporates the costs of driveways and parking facilities into an overall land and monetary cost estimate for vehicle parking and access. Parking lot landscaping and other perimeter landscaping are addressed separately. The model allows for analysis of several combinations of parking alternatives, including (a) all surface parking lot spaces, (b) some surface spaces and some within the primary building above and/or below ground, (c) some or all in a separate parking structure, and/or (d) some provided off-site such as in a nearby garage or parking lot where space is leased from another property owner. In any event, the size of the building and the types of uses to be contained in that building dictate the number of parking spaces required and, therefore, the monetary cost and amount of land needed to provide the parking. In turn, the amount of land used for parking restricts the amount of land that could otherwise be used for, say, a larger building that could produce more income for the property owner. Thus, there is a trade-off between parking versus density and building income, and this trade-off is at least partially affected by the zoning requirements.[21]

3. **Cost of setbacks, easements and perimeter landscaping.** In order to minimize conflicts with surrounding land uses and roadways, zoning codes typically require that a certain amount of space around the perimeter of a site not have structures on it. It is also the case that buildings and certain other site elements must not be located within linear utility easements that are often placed along the perimeter lot line. The more such land has to be set aside along the perimeters of the site, the less land there is available for buildings and parking, thus reducing the site's income-producing capacity. Moreover, the public sector usually requires that these setback areas be attractively landscaped and maintained in order to continue protecting the values of surrounding uses and to upgrade the aesthetic quality of the community as a whole. At the same time, the setbacks and landscaping also improve and protect the subject property, perhaps increasing its ability to attract higher rents and financial returns.

   The model addresses setbacks, utilities, site perimeter and parking lot perimeter landscaping as separate but interdependent units, whose impact on land and monetary costs often depend on their location relative to one another and other site elements such as the building. The cumulative land and monetary costs of these separate items are provided.

4. **Cost to landscape the interior of the parking lot.** In addition to the costs of providing parking, the zoning codes (current and proposed) require property owners to beautify the parking lots themselves. This is a commonly accepted practice in the United States that softens the otherwise harsh landscape and water quality impacts of a large, paved area, and can also improve the aesthetics and value of the entire property.

5. **Cost of loading areas.** Commercial buildings of virtually any sort require that large vehicles deliver and pick up many goods. Loading areas that are separated from vehicular and pedestrian traffic improve the safety of the driving and walking areas while also minimizing the congestion effects of delivery vehicles. Furthermore, designated loading areas can tend to be relatively ugly compared to the rest of the building, so separating them from front doors also improves aesthetics and the ability to achieve higher rents. Like parking, however, loading areas take away land that might otherwise be used for a larger building; but without at least some convenient loading areas, a building can become dysfunctional and produce less income.

[21] This does not mean that zoning is the only determinant of parking. In most areas of town outside of Downtown, a building without parking is a building that will attract very few, if any, tenants or customers and, thus, will generate little or no income for the owner. Thus, the market is the strongest determinant of parking, but it is in the interests of the residents and businesses of Anchorage to assure that every building has sufficient parking related to it so that users of the buildings do not impose on other properties or on the public sector entirely for parking.

6. **Cost of site lighting.** Lighting is crucial to the safety and efficiency of movement on a site and can also increase a site's visibility and aesthetic qualities. Thus, imposition of minimum lighting standards by zoning helps to improve safety, while market forces also encourage good lighting in order to attract the most favorable tenants and customers. Note, however, that the proposed lighting standards would not introduce minimum lighting requirements; the code requires these already in parking lots. The proposed standards are primarily meant to restrict overlighting, to minimize glare and light trespass onto adjacent properties, and improve visibility and safety through the use of white light sources.

7. **Cost of private open spaces.** In addition to perimeter landscaping and parking lot landscaping, zoning often requires a certain amount of other open space related to the size of the building or number of dwellings which, in turn, is related to the number of people using the building who need a minimum amount of open space for fresh air and relaxation. When required by zoning, such spaces represent an imposed cost; when demanded by market forces to attract higher quality tenants and customers, such spaces represent necessary investments to maximize income potential.

8. **Cost of snow storage areas.** Anchorage is a northern city that copes with snow every winter. With respect to commercial development projects, however, there is no proposed requirement that properties set aside some land for the storage of snow after clearing parking lots or adjacent streets. Such a requirement is proposed only for multi-family residential developments—even if these are in commercial districts. Snow storage areas, of course, restrict the amount of land that might otherwise be used for parking or buildings, but they also enable property owners to readily move snow out of the way of residents' cars, thus improving the ability to attract tenants and, therefore, the value of the property.

9. **Cost of pedestrian connections.** The proposed Title 21 regulations seek to implement a wider community goal to make Anchorage more accessible for pedestrians by requiring properties to provide safe and functional walkways between adjacent properties and between the public sidewalks and building entries. The proposed regulations also provide incentives and menu choices for enhanced pedestrian walkways and transit stop improvements. Again, these requirements and incentives take up land that might otherwise be used for income-producing purposes, but pedestrian connections can also improve the value of the property by making it more attractive to prospective tenants and customers.

10. **Cost of site enhancement landscaping.** Zoning typically requires that the remaining areas of the site not encumbered by buildings, structures, parking, driveways, loading areas, perimeter or parking lot landscaping, pedestrian areas or undisturbed natural vegetation to be landscaped. Both the current and proposed codes require property owners to plant or install site enhancement landscaping, and the model includes a cost estimate for such areas based on the specific landscaping requirements of each code.

4.2 DESCRIPTION OF THE MODEL'S INPUTS, CALCULATIONS, AND OUTPUTS

The model consists of a computer spreadsheet workbook containing more than 30 individual spreadsheets, or "worksheets" of information. These include separate modeling worksheets for each of the 17 zoning district "pair comparisons."[22] A "Summary" worksheet provides a synopsis of the results of

[22] In fact, there are 18 pair comparison worksheets, but the one that is intended to compare possible shifts from the current B-3 to the proposed MT zoning is not yet complete. It awaits further recommendations regarding the MT district after completion of the current Midtown District planning process.

all 17 tests, comparing the economic impacts of the current and proposed codes. The summary table is presented later in this chapter.

There are several other worksheets in the spreadsheet workbook. These provide the various parameters and measures that are contained in the two zoning codes, as well as the model's assumptions regarding development costs and land areas needed by individual site elements (e.g., the cost and area of each parking space). These parameters and measures are used by the model so they can be easily adjusted to test for sensitivity (e.g., what if the parking requirement was 2.9 spaces per 1,000 square feet instead of 3.0 spaces?), and the effects will automatically ripple through the model. These additional worksheets include, for example:

- A list of zoning district paired comparisons.
- A list of the types of land uses that the model is capable of testing.
- The dimensional and cost assumptions.
- Tables that contain summary excerpts of the current and proposed zoning code requirements for each site element. These include requirements for parking, loading, landscaping, snow storage, pedestrian connections and private open space.

4.2.1 STRUCTURE OF THE MODEL

The 17 zoning district paired comparison worksheets (18 including a placeholder for the B-3 to MT zoning comparison) use these parameters and assumptions to estimate the land and monetary costs of the proposed zoning in comparison to current zoning. Following is a description of the different parts of the model. Each part is duplicated on each spreadsheet, though some of the parameters change on the spreadsheets because of the different paired comparisons.

1. **Project Scenario Location, Description and Zoning.** Each worksheet starts with a page of straightforward inputs for such matters as the name and location of the project scenario, a general project description, and the current zoning and proposed zoning districts that are being tested. There is also a query as to whether the project is in the vicinity of (i.e., near not within) Downtown or the "center city" area (west of New Seward Highway, north of Tudor Road, and east of Minnesota Drive), where certain parking requirement reductions are allowed in the proposed code.

2. **Proposed Uses on the Site.** Page 2 of the model then asks questions related to proposed land uses, such as the number of dwelling units (if applicable), how many square feet of floor area by land/building use, and the floor area of structured/indoor parking (if any). The model asks for the size or extent of each use that it needs later to calculate various development requirements.

3. **Proposed Building Dimensions.** Page 3 of the model asks questions related to the size and height of the primary building and its placement and area of coverage (footprint) on the site. The model uses information about the number of floors and the height and square footage of each, including basements and mechanical penthouses, to determine whether it complies with zoning restrictions on maximum height and floor area ratio (FAR). Building size and placement also factor into the calculation of other site development requirements later on.

4. **Site Dimensions and Context**. Page 4 of the model asks for information about the dimensions of the site, including the length and status of each perimeter lot line (i.e., is it a primary street frontage, side lot line, or rear lot line?). Input of the perimeter dimensions works best if the site is four-sided and generally rectangular. From those dimensions, the model estimates the site's land area and estimates the areas that will be needed for setbacks and perimeter landscaping. But the area calculations and

setback estimates can be overridden if the site is irregularly shaped.[23]

Page 4 also asks questions regarding the types of adjacent streets and the adjacent zoning and use of neighboring properties along each perimeter lot line of the site. The model uses this information to generate zoning requirements such as perimeter landscaping and setbacks.

For the most part (with periodic additional inputs) the model takes over from there, after page 4. There are, for instance, assumptions built into the model about costs per square foot for the various cost items, and the model estimates the amount of land that would have to be devoted to such factors as parking, setbacks, loading areas, and the like. The remaining pages in the worksheet quantify these requirements, as follows:

5. **Parking Requirements.** Pages 5 and 6 of the model worksheet calculate the required number of parking spaces. However the model depends on a manual distribution of the parking spaces by location–i.e., inserting in the number of spaces in surface lots, parking garages, or under the building. Some parking might be built under the building, or into the first few floors of the building. Some might even be provided off-site. After manual distribution of these alternatives, the model estimates the amount of land that parking will demand. All surface parking, of course, is more land intensive than a combination of surface and garage parking, but garage or interior parking has a higher per-space construction cost.
   The model will alert if the distributed parking spaces fail to add up to the total number required. If the number of parking spaces exceeds the minimum requirements, the model certainly allows this, but costs associated with more than the minimum are added at the owner's discretion, not the zoning code's regulations.

   The model also calculates the impact of the parking reductions that are available in the proposed code. Some of these parking reductions are automatically activated based on the project's location or zoning, while others may be manually activated. The model does not incorporate all 20 of the parking reductions available in the proposed code, however, in order to minimize complications.

6. **Perimeter Setbacks, Easements and Landscaping.** Page 7 of the model calculates a complex interaction of factors to generate the combined land requirement for site perimeter landscaping, parking lot perimeter landscaping, setbacks and easements. The perimeter factors include: the length of perimeter lot lines, required site perimeter landscaping, required parking lot perimeter landscaping, the location and façade length of the primary building on the site, the classification of abutting streets, and the zoning and land use of both the subject site and neighboring properties. The model asks for information about utility easements; otherwise the calculations are automatic.

7. **Land Requirements for Other Required Site Elements.** Pages 8 and 9 are primarily a series of calculations of the land requirements for various individual site elements required by the current and/or proposed zoning. These elements include parking lot landscaping islands, vehicle loading areas, private open space requirements, snow storage areas, and pedestrian connections. The calculation of the land area needed for private open space is affected by whether some of the private open space is provided inside or on the roof of the building, whether the development has received a parking reduction (proposed code), and whether the development is providing extra private open space to achieve bonus floor area (proposed code). Likewise, the calculation of the land area needed

[23] In extreme cases where the site has many twists and corners, it may be necessary to use the model only as a guide for determining which parameters to use, but manual calculations may be necessary. If the model can one day be linked to a geographic information system (GIS) at the Planning Department, such inputs may not be necessary because the computer will be able to calculate land area and other dimensions more readily with GIS.

for pedestrian connections in the proposed zoning is affected by whether it is assumed that a bus stop is required in return for a transit-related parking reduction, or that the owner-developer provides a wider, enhanced pedestrian walkway in order to gain bonus floor area.

8. **Other Facilities or Undeveloped Areas.** Page 9 of the worksheet accounts for the land area of facilities on the site that are not required by zoning but may be integral to the development. For example, a food distribution warehouse development is not required by zoning to include a tractor-trailer staging / storage area, but it may be useful to take such a facility into account when determining the overall site area needed by the development. Other facilities may include, for example, portions of the site left undeveloped (natural vegetated state) or outdoor storage areas. The model provides this option to make the testing of certain uses or sites more realistic. Importantly, however, the model also avoids automatically counting these areas in the calculation of site enhancement landscaping costs because such costs are not explicitly required by zoning.

If there are no adjustments needed to the model, the results are summarized on pages 10 and 11 of the model worksheet. The economic impacts are shown in two ways:

9. **Land Costs:** Page 10 of the model summarizes the amount of land area required to accommodate the building and all requirements of the zoning code, comparing these between the current and proposed zoning. It shows the land requirements of the various land-intensive components: parking, setbacks, open space, loading, etc. These results affect the maximum development potential of the site.

   A comparison is made as to whether the current code or the proposed code consumes more land. If zoning requirements consume less land, it allows for more floor area of active uses, more flexibility to provide site elements that are not necessarily required by zoning but that complement the development, and/or the ability to use the land that is excess to the development for other developments or uses.

10. **Monetary Costs:** Finally, page 11 of the model calculates the monetary costs to comply with the various zoning requirements. It shows the individual development costs for each of the items described earlier, determined separately for the current and proposed codes. Among these items are exterior lighting and site enhancement landscaping, which are zoning requirements that do not increase the land area needed for a project but do carry monetary costs.

    For the most part, the per unit cost (e.g., cost per square foot or cost per linear foot) are the same for either the current zoning or the proposed zoning. The zoning alone doesn't necessarily change the per unit cost, except in a few cases, most notably with regard to building construction, landscaping and lighting. The landscaping requirements of the proposed code would be more expensive than the current zoning for some types of landscaping. This is partly because the proposed code would require somewhat higher quality planting materials, such that it would likely cost more per square foot to landscape.

    The model also assumes that zoning compliance for some of the exterior features of the building under the proposed code adds five percent to the building construction costs. This may or may not be the case, so this premium can be adjusted in the model, but the model defaults to this premium if only to remind that there are likely to be added expenses, even to the building, in order to comply with the new code. This premium is not applied to industrial buildings, which would not be subject to the building standards under the proposed code.

    The cost comparison page culminates in a subtotal cost figure for all of the site development requirements, a separate cost figure for building construction, and finally an overall development cost

figure including both the zoning requirements for site development and the building construction. It must be kept in mind that the majority of building construction costs are unrelated to zoning requirements. However, because it is assumed that the proposed zoning will increase building construction costs, building construction is included.

Chapter 3 of this report describes economic impacts in terms of land values and the effects on such values that might be expected in Anchorage if the proposed Title 21 is adopted. The EIA model yields another perspective on economic impacts: development costs.

Where such costs are "required" to be higher under the proposed code than under the current code, the property owner may experience a negative economic impact. Where development costs under the proposed code would total less than under the current code, the owner may experience a positive economic impact.

Again, none of these impacts is assumed in this report or in the computer model to be offset by increased value to the building that might be caused by, for instance, more attractive landscaping or pedestrian connections that make the site more conducive to walking. Those offsets, or mitigating factors, await either the property owner's evaluation or the judgment of the market as to how high the rents and prices can be.

4.2.2 ADJUSTMENTS AND CONSIDERATIONS

Adjustments to Cost and Dimensional Assumptions. The model's cost calculations are dependent on averages and assumptions inserted into the model. Those averages can be overridden if acceptable alternative costs are available (from, say, an architect's estimates or those of a building contractor). There are some adjustments that can and should be considered. One, of course, is to review the cost assumptions for various components to be sure they reflect the kind of project being proposed. Some buildings, for instance, cost more than others to construct. There may be particularly problematic soil conditions which add to site preparation costs for parking. The model essentially includes average costs for the Anchorage Bowl, but these are readily adjusted to reflect the specific site.

Development Costs not Measured. The objective of the model is to compare the cost impacts of the current and proposed zoning codes. This fits within the overall purpose: to assist in the evaluation of the public hearing draft of the Title 21 Rewrite. Therefore, the model is limited in scope to measuring the costs of only those items required by the current and/or proposed Title 21. It does not, for example, measure the cost of stormwater management features mandated by the federal government or required by regulations outside the scope of Title 21, such as the municipal Design Criteria Manual (DCM). Therefore, this model is not intended to be a comprehensive model of all development costs. It is only intended to compare the direct impacts of the current and proposed zoning requirements.

Site Plan Graphic. The general perimeter dimensions must be directly input into the model. The model works best if the site is assumed to be four-sided and generally rectangular. From those dimensions, the model estimates the site's land area and estimates the areas that will be needed for setbacks and perimeter landscaping. But the area calculations and setback estimates can be overridden if the site is irregularly shaped.

It is best, therefore, to run the model with a site plan or at least a to-scale sketch of the site in hand. The model's parameters should match those of the diagram. However, the model determines only minimum requirements. Thus, only minimum parking or minimum setbacks, landscaping, and loading requirements

will be determined. If a project scenario in a model test exceeds those minimums, the model will show that the amount of land required and the costs incurred will also be greater than the minimums, thus reducing the amount of land for the building, which is presumed to be the sole potential source of revenue for the site. Again, a smaller building is assumed to yield lower revenues and profits.

Variability of Outcomes with "Incentive Zoning". Modern zoning codes make greater use of incentives and flexible menu choices, and the proposed zoning code is no exception. Therefore, while minimum requirements are assumed, the model also incorporates allowances for bonuses. A bonus typically takes the form of a larger amount of floor area for a building in return for certain "incentives." For example, in the proposed R-4 and R-4A districts, a housing development can obtain an allowance for two additional square feet of housing on the site for every square foot of "affordable housing" built. Thus, a higher density on the site can be achieved and, presumably, higher revenues can be gained from rents or sale prices for the market-rate housing. Meanwhile, the community at large increases its stock of affordable units.

Similarly, in some proposed districts a development can earn several square feet of floor area in the main building(s) for every square foot of parking that is provided below ground. This encourages developers and property owners to "hide" some parking while increasing the amount of land area that is not devoted to parking. This provides more land area for a larger structure and/or creates a more attractive and environmentally sensitive site because parking facilities and grade-level paving are less dominant.

There are other bonus opportunities in the proposed Title 21, and most of these are modeled in order to demonstrate how and where the economics of the proposed code differ from the current code. It also demonstrates that the cost impacts of the proposed code vary significantly depending on the potential bonus incentives, menu choices or optional parking reductions for which a given site and proposed use are eligible, and which among those available choices any given property owner may select. This variability in results becomes evident in the 17 zoning district pair comparison tests of "real life" development project examples.

4.3 Illustrative Comparisons of Current and Proposed Regulations

Three of the 17 "real life" examples of the workings of the model are presented below. For illustration purposes, these three development scenarios are adaptations of actual projects developed in the Bowl. They also embody many of the issues raised by economic impact concerns and offer the opportunity to conduct sensitivity analyses that test other site development scenarios. After these three "walk-throughs" of the model, examples are summarized for the other 14 pair comparisons. The model test results for the three scenarios that follow are provided in Appendix B. All 17 model test results are available for review on the Municipality's project website. The numbering of the following model results corresponds to placement of the test in the 17 model tests.

EIA Model Test #3:

- Zoning Pair Comparison: B-3 to CMU
- Development Category: Low-to-Medium Rise Commercial Office Building
- Example development Scenario: Alaska USA Federal Credit Union

This scenario compares the present Alaska USA Federal Credit Union Financial Center building and its development at 500 West 36th Avenue in the current "B-3" General Business" district to the prospective economic impacts if the site were to be re-zoned to the proposed "CMU" Community Mixed-use District. The EIA model also provides other tests using the Alaska USA scenario as if building under the proposed new B-3, NMU and RMU zoning districts. However, the following discussion focuses on the results of EIA Model Test #3, which demonstrates the prospective impacts if the site had been re-zoned to the new "CMU" Community Mixed Use district under the proposed Title 21.

Alaska USA represents a common type of commercial development in Anchorage—a low-to-medium rise commercial office building surrounded by surface parking. This project had also been used as an example in previous tests of the draft Title 21 Rewrite. This scenario is not intended to test what the proposed zoning would do to this specific site at 500 West 36th Avenue. In reality, this location would more likely be eligible for rezoning to a more intensive new Midtown (MT) zoning than to any of the proposed commercial/mixed-use districts tested in the initial EIA model. An MT district is yet to be developed and not available for testing as part of this analysis.

To initiate the test, information about the Alaska USA project was input to the model. Some of the project dimensions and characteristics have been generalized or simplified for modeling purposes. Key input data include:

1. The building has four main stories and a total of 92,500 square feet of gross floor area. Of this, 67,000 is office space and 25,500 square feet is accessory storage and mechanical areas. Some of the latter space is provided as a mechanical penthouse on top of the building, some in a basement. The current B-3 does not have a maximum allowable height; thus, the building complies with height restrictions and could be taller.

   A 4-story office building would also comply with the 60 foot height limit of the proposed CMU district. The proposed code would also allow the mechanical penthouse appurtenance to exceed the height limit by up to 15 feet, but only if the appurtenance covers less than one-third of the roof area of the building. Since the actual mechanical penthouse covers approximately two-thirds of the roof area of the Alaska USA building, the proposed code would count it toward the building height calculations, rendering the building 75 feet in height and, therefore, out of compliance with the maximum height in the CMU district. Had the mechanical penthouse been smaller in area, such as 5,000 square feet, it would be exempted from the maximum height calculation as an appurtenance, and the building would comply with CMU height limitations.

2. The site is rectangular in shape, about 630 feet across the front and back, 230 feet on the sides for total site area of 144,900 square feet, or 3.33 acres.

3. The 92,500 square foot building on a 144,900 square foot site has a *floor area ratio* (FAR) of 0.64. At this time, the current B-3 district does not have a maximum allowable FAR; thus, the building could be much larger if the site could also accommodate all the other zoning-based requirements such as parking, landscaping and related setbacks, etc.

   The proposed CMU district would have a maximum FAR allowable by-right established at 1.0, meaning that the building could not exceed 144,900 square feet of gross floor area without providing bonus features to earn more floor area.

   The CMU district would also allow a number of "bonuses" for additional floor area (discussed below) up to a maximum total FAR of 2.0, or a building of as much as 289,800 square feet of gross floor area—again, as long as the site also accommodates other requirements like parking and landscaping.

4. The site is a corner lot with an arterial street on the front (36th Avenue) and a local street (Centerpoint Drive) on one side.
5. The building has a "footprint" of 15,000 square feet, occupying about 10.4% of the site.
6. Adjacent and abutting sites are all non-residential land uses. Under current zoning, the surrounding area is zoned B-3. The model assumes in the proposed CMU zoning scenario the abutting lot to the south would be zoned CMU, and the lots to the west toward Arctic Boulevard are zoned B-3, meaning that it is assumed that, in general, zoning around the site would be commercial and/or mixed-use if the proposed zoning code were implemented.

Impacts determined from these factors are as follows:

1. The current B-3 zoning requires a minimum of 249 parking spaces (223 for the office space, 26 for the accessory and storage spaces). If all of these are on the surface (as is the case), parking requires a gross amount of 99,600 square feet of land area at an average of 400 square feet per parking space (including appurtenant paved areas for accessing parking, such as driveways and drive aisles), or 69% of the site area. To this point, therefore, the building would occupy 10.4% of the site (see item 5, above) and parking 69% of the site, for a total of 79.4% of the site.

   The proposed CMU zoning in this scenario requires a minimum of 182 parking spaces (164 for the office space, 18 for the accessory and storage spaces). Because the proposed parking requirement is affected by a menu of potential parking reductions, some of which are optional, the proposed parking requirement will vary based on how many parking reduction(s) the development project applies for. In this scenario, it is assumed that the development receives only those reductions that it is eligible for automatically due to its geographic location. This includes a 10% parking reduction for being in a mixed-use district combined with a 10% reduction for being in the "Central City" area of the Bowl and a 5% parking reduction for being adjacent to transit service. However, the development does not partake of options to get additional reductions listed by the model. If all of the required parking spaces are on the surface[24], parking requires a gross amount of 72,800 square feet of land area at an average of 400 square feet per parking space, or 50.2% of the site area. To this point, therefore, the building would occupy 10.4% of the site and parking 50.2% of the site, for a total of approximately 60.6% of the site. So far, the proposed CMU zoning leaves more of the site for, say, a larger building, than the current B-3 zoning.
2. Based on minimum standards for building setbacks on the site, the model assumes that current B-3 zoning requires setbacks of 10 feet on the front and west side of the building, 5 feet on the east side, but no setback in the rear[25]. The proposed CMU district would require no setback in the front and east (in order to encourage more "street presence"), and a five-foot setback on the other sides where the hypothetical future zoning of the adjacent properties would also be nonresidential.

   There is a 10 foot wide utility easement within the lot running along three of the property lines and a 20 foot wide utility easement running along the west side property line. The utility easement has implications for how close the building may get to the property line, and in the proposed code also has implications for the width of required landscaping around the lot perimeter.

   The current B-3 zoning requires six foot wide "arterial" landscaping along 36th Avenue, or eight foot wide "visual enhancement" landscaping around the perimeter of the parking lot wherever parking lots

[24] There is no requirement in either the current or proposed Title 21 codes that all the parking be on the surface. But this assumption is used as a "worst case" scenario because it would consume the greatest amount of land area. With, say, structured parking or parking under the building, less land area outside of the building footprint would be needed for parking.
[25] It may also be the case the current B-3 zoning would interpret the rear lot line as a "side" lot line, because the lot fronts on streets on two lot lines. In that case, the minimum setback for any building not right on the property line would be 10 feet. This would probably not change the results of the test in this case, because either way the building must be set back 10 feet from the rear lot line due to a 10 foot wide utility easement.

abut a lot line. The proposed CMU zoning does not require site perimeter landscaping except along one lot line where the lot abuts an adjacent B-3 district, but does require eight foot wide "L2visual enhancement" landscaping around the perimeter of the parking lot where parking abuts a lot line. So far, because parking covers most of the site, the combined area requirements of site and parking perimeter landscaping do not differ greatly between the current B-3 and proposed CMU zoning.

However, then the proposed code requires at least half the width of a required perimeter landscaping bed to not overlap with any utility easement. The purpose is to protect tree plantings, which take decades to mature in Anchorage, from the inevitable periodic maintenance and excavation of utility lines. The effect on land costs in this case is substantial, because this site has utility easements on all four perimeters, including an uncommon 20 foot wide easement on one side. This means that the 8-foot wide L2 landscaping bed must be located toward the interior of the site and not wholly within the utility easement—only half the width of the bed within the easement. This leaves the remainder of the utility easement outside of the landscaping effectively isolated from the rest of the site and, obviously, not useable for an income-producing building. The model assumes that this area would be planted with general site enhancement landscaping. In the Alaska USA site tests, this nearly doubled the landscaping area requirement of the proposed code.

The net cumulative effect of the minimum setbacks, utility easements, site perimeter landscaping and parking lot perimeter landscaping—and taking into account the location of the building on the site relative to perimeter lot lines—is that the current code (B-3) would require that some 12,041 square feet of the site (8.3%) be devoted to setbacks and perimeter landscaping while the proposed code (CMU) would require 22,813 square feet (15.7%). Were it not for the proposed limitation against co-locating required landscaping and utility easements combined with the relative ubiquity of easements on this particular site, the cumulative requirement under CMU zoning would be around 12,000 square feet, or similar to that of the current B-3 district.

However, so far overall the CMU zoning still requires less land. With the building footprint, all-surface parking, and setbacks, the current B-3 requires use of 87.4% of the site, while the CMU district would use 76.3% of the site for these three site elements.

3. In addition, parking lot interior landscaping area requirements would impact the site as follows:
   a. The current B-3 zoning requires that the parking area interior be landscaped in an amount equivalent to 5% of the parking surface—in this, case, 4,980 square feet.
   b. Since the parking lot has over 100 spaces, the proposed CMU zoning would require that the interior of the parking area be landscaped in an amount equivalent to 10% of the parking surface—in this case, 7,280 square feet.
4. In addition to parking areas, the building would be required to have loading berths based on the size of the building and type of building use. Under both the current B-3 and proposed CMU, there would be two berths of 400 square feet required, for a land requirement of 800 square feet total.
5. The model then indicates the zoning requirements for lighting of outside areas for both codes. While there is a dollar cost associated with lighting, there is no significant land commitment.
6. The current B-3 zoning does not require that a commercial development site set aside private open space areas. The proposed CMU district requires a private open space area (such as a small plaza between the public sidewalk and building entrance) equal to five percent of the gross floor area of a commercial development, which in this case is 4,614 square feet of private open space. (It so happens that the actual Alaska USA Federal Credit Union development project provides approximately 5,000 square feet of private open space, and therefore offers a real life example of how much area the proposed code would require of a building that size.)

The proposed code's private open space requirement also increases by 40 square feet for every parking space that is subtracted as part of the Parking Reductions. Because this project scenario partakes of parking reductions totaling 31 eliminated parking spaces (saving 12,400 square feet of land area), an additional 1,240 square feet of private open space would be required, making for a total of 4,614 plus 1,240, or 5,865 square feet of required private open space for the site.

7. Snow storage areas are also not required under the current B-3 zoning. And they are not required under the proposed CMU unless there are multifamily dwelling units as part of the project. In this case, there is no land commitment for snow storage.

8. The final land requirement is for pedestrian connections on the site, notably those connections between the main building entrances and the public sidewalks. There is no such requirement under the current B-3 zoning. Under the proposed CMU zoning, the land commitment is assumed to be for 1.5% of the gross site area. In this case, CMU would require that about 2,174 square feet of the site be devoted to pedestrian connections. At the proposed required 6-foot width of, say, a walkway or sidewalk, this converts to a requirement for about 362 linear feet of pedestrian connections.[26]

   The proposed code provides a floor area bonus incentive for providing wider, enhanced "primary pedestrian walkways". To illustrate the cost impacts of a property owner making such a choice, the model test for CMU zoning assumes that the owner expands the width of the required walkways from the minimum required 5-foot width into a 12-foot wide primary pedestrian walkway for 200 linear feet, increasing the total land requirement to 3,374 square feet of the site for pedestrian connections.

   In addition, the proposed code provides for bus stop areas that may be required in return for parking reductions related to transit service. It would not be required in all cases because bus stops are not needed in front of every property. Although this scenario does receive a transit related parking reduction, it is assumed a bus stop would not be required because there is an existing bus stop just one block east.

Altogether, the above described minimum land requirements total:

a. 132,421 square feet under the B-3 zoning, or about 91.4% of the entire site.

b. 128,132 square feet under the CMU zoning, or about 88.4% of the site. Land requirements would therefore be 3% lower under the proposed CMU zoning in this scenario than under current zoning.

In both cases, these requirements support the functions of the building size and uses as proposed. Each leaves "left over land" which might be used for other purposes. One of those purposes might be a larger structure. Others might include an additional building or use, more generous landscaped areas, more parking than the minimum requirements, and so on. (The actual Alaska USA development project used its leftover land area for additional landscaping and pedestrian entrance plazas.)

There are opportunities for creation of a larger building in both situations, however. In the current B-3 zoning, these opportunities are essentially limited to shrinking the surface area devoted to parking in order to create a larger structure. By constructing a parking garage, for instance, some of the surface parking can be stacked, thus opening up more land for a building footprint. Recall that there is no formal FAR maximum in B-3, so the building could be expanded or heightened to virtually any amount (subject to

[26] The model may or may not be overestimating the land requirements for pedestrian walkways in the proposed code. The proposed code would require the building to be closer to the street and public sidewalk. If the front façade of the building were 30 feet from the public sidewalk, and the two main entrances another 40 feet back from that, then the total pedestrian walkway requirement would be 2x70 = 140 linear feet. If the proposed code were to further require an on-site walkway between a building entrance and Centerpoint Drive, it is possible the total requirement could reach 435 linear feet as suggested by the model.

FAA restrictions[27]) as long as other requirements of the zoning ordinance are satisfied. Thus, a high-rise parking structure might allow for a much larger number of parking spaces on a smaller amount of land, but also supporting the parking demands of a broader and higher office building.

Such parking adjustments can also be made under the CMU zoning, within limits. The CMU limits the total by-right FAR to 1.0 unless certain "bonus" incentives are achieved. These bonuses are summarized below and in the model. In effect, the bonuses allow more building floor area to be created above and beyond the 1.0 FAR up to a maximum total FAR of 2.0. Thus, a structure of twice the land area—or about 289,800 square feet—could be allowed on the site if all bonuses could be maximized on this site. Of course, because the CMU district is proposed with a four-story height limit, the footprint of the building would likely have to expand beyond 15,000 square feet to support a structure of 289,800 square feet. But this would also require a substantial amount of structured parking, under the building and/or in a separate parking garage.

The floor-area ratio bonuses under CMU that could apply to this project include:

1. Two square feet of additional building area for every square foot of parking constructed below ground. Thus, if 100 parking spaces planned for the surface could, instead, be built underground (say, below the ground floor of the building itself), then the building would be allowed to add 70,000 square feet to the building (assuming 350 square feet per underground parking space). But, of course, this would increase the requirement for parking from 182 spaces presently to 271 spaces. The 100 spaces put underground would be partially offset on the surface by an additional 80 spaces. Thus, the land savings may not be substantial, but the larger size of the building may enable the property owner to earn sufficient marginal income from the real estate to pay for the buried parking while still earning an acceptable rate of return.
2. Another area of possible bonus for this project is from the provision of private open space above and beyond the requirements. If the developer were to include private open space area beyond what is required, an additional square foot of building area would be allowed for every additional square foot of private open space. Again, adding more square feet to the building will require more parking spaces, so there would have to be a balance created between the amount of land utilized for a building footprint, open spaces, and required parking.
3. Enhanced pedestrian connections can also create bonuses. The CMU regulations allow for five additional square feet of building area for every linear foot of "primary pedestrian walkway" provided. If the subject site were able to define all of its 362 linear feet of pedestrian connections as primary walkways, then an additional 1,810 square feet of building area could be created. However, the proposed code requires the "primary pedestrian walkway" to be wider, and therefore it would require more land.
4. There are other possible floor area bonuses under CMU, but the others relate directly to housing. One is a bonus of three square feet of building area for every square foot of affordable housing provided. Another is a bonus of two square feet of building area for every square foot of housing provided regardless of the type of housing. An intent of CMU, as illustrated by this latter bonus, is to encourage mixed-use housing development. With the sum of all bonuses, however, the project would not be allowed to exceed a FAR of 2.0, thus putting a limit on, say, the density of housing or in the effective height of a building or set of buildings. Such a limit may or may not be appropriate, depending, in part, on what kinds of areas of town the CMU district is intended to apply, and the anticipated density of future development in those areas.

In this case, the model test assumes that the development partakes of only one special feature bonus, that of providing approximately 200 linear feet of an enhanced "primary pedestrian walkway". This results in

[27] The Federal Aviation Administration (FAA) regulates the height of buildings and structures in certain areas of the Bowl to prevent interference between land uses and air traffic.

1,000 square feet of bonus floor area, which is not needed anyway because the proposed building size does not exceed the by-right maximum FAR. It also results in greater land and development costs in the test results to reflect the greater width and amenities needed for the enhanced walkway.

The model test concludes with estimates of the monetary costs to comply with the current B-3 and proposed CMU zoning. Altogether, the model estimates that costs to comply with Title 21 for the subject site would be as follows:

a. $17,252,800 under the current B-3 zoning, or $2,164,800 for the site development expenses required by zoning (parking, landscaping, open spaces, etc.). The building itself is assumed to cost $15,088,000.

b. $17,694,900 under the proposed CMU zoning, or $1,852,900 for the site development expenses required by zoning. The building itself is assumed to cost $15,842,000.

In short, the minimum site requirement monetary costs for the Alaska USA development scenario would be 14% less under the proposed CMU zoning (principally because of the less stringent parking requirements), but the five percent premium on assumed building construction costs would cause the CMU zoning to show three percent higher costs overall.

EIA MODEL TEST #10:

- ZONING PAIR COMPARISON: R-4 TO R-4
- DEVELOPMENT CATEGORY: MULTI-FAMILY APARTMENTS WITH UNDERGROUND PARKING
- EXAMPLE DEVELOPMENT SCENARIO: PARK PLAZA II APARTMENTS

This scenario compares the present Park Plaza II Apartment Homes, a recent high-density residential development at 201 E. 16th Avenue (corner of 16th and A Street) in the current "R-4" Multiple Family Residential district to the prospective economic impacts if the site were to be re-zoned to a revised "R-4" Multi-Family Residential 2 district under the proposed Title 21. The EIA model provides zoning pair comparisons using the Park Plaza II scenario as if the building were constructed under the current R-4, B-3 or R-O districts and the proposed R-4, R-O and R-4A zoning districts. However, the following discussion focuses on the results of EIA Model Test #10, which demonstrates the prospective impacts between the current R-4 to the new R-4 district under the proposed Title 21.

For simplicity the model generalizes some dimensions and characteristics of Park Plaza II. A significant modification to the project as built is a hypothetical assumption that 20 of the 100 housing units would be for qualified "affordable housing" residents. This adjustment is intended only to provide a basis for illustrating the bonus floor area incentive available for affordable housing.

Another adjustment is that the model assumes that the office and health club space within the building are separate primary uses, rather than ancillary to the apartment residences. This provides the potential to test a mixed-use scenario.

Key input data include:

1. The building has a total of 144,800 square feet of gross floor area. Of this space, 41,000 is basement parking garage, 18,500 is for structured parking in the first floor of the building, 78,800 square feet is for 100 residential housing units in the upper floors, 1,500 is for a small amount of office space and 5,000 square feet is for a health and fitness club in the building. The model assumes there will be 26 efficiency (studio) apartments, 54 one-bedroom apartments, and 20 two-bedroom apartments.

   The building is five stories plus a steep sloped roof form, estimated in the model to measure at approximately 58 feet in building height. The current R-4 zoning does not have a height limit. However, the proposed zoning allows up to 45 feet by right and up to 60 feet if there is compliance with several design prerequisites and participation in the FAR bonus system. The computer model does not automatically track compliance with these; in this case it is assumed that the proposed building could comply.

2. The site is rectangular in shape, about 275 feet across the front and back, 200 feet on the sides for total site area of 55,000 square feet, or 1.26 acres.

3. The building containing 103,800 square feet excluding below-grade parking on a 55,000 square foot site has a *floor area ratio* (FAR) of 1.89. At this time, the current R-4 district has a maximum allowable FAR of 2.0; thus, the building fits well within the present R-4 zoning.

   The proposed R-4 district in the "new" Title 21 would have a maximum FAR allowed by-right at 1.0, meaning that the building could not exceed 55,000 square feet, unless certain bonuses are achieved to enable a larger building. With bonuses, the highest allowable FAR in the proposed R-4 district is 2.0; the present 1.89 FAR for the building would fall well within this upper limit, assuming it could be achieved with appropriate bonuses. According to the model, the development as proposed includes enough special bonus features—underground parking, affordable housing, etc.—to allow the building to achieve the maximum 2.0 FAR; thus the building also fits within the proposed R-4 zoning. (Even without a bonus for affordable housing, the project could achieve 2.0 FAR because of the sizeable bonus it would receive for underground parking).

4. The site is a corner lot fronting on 16th Avenue, considered a collector street, with the west side of the property on A Street, an arterial street. In addition, a local street borders the rear of the property.

5. The building has a "footprint" of 25,000 square feet, occupying about 45.5% of the site. The building has five floors. This falls well within the maximum 65% lot coverage requirement of the proposed R-4 district.

6. Adjacent and abutting sites are a mix of residential and non-residential land uses. The front is across 16th Avenue from the Chester Creek Sports Complex. Across A Street to the west is a non-residential development presently zoned R-O and that is anticipated to remain in R-O zoning if a new Title 21 is approved. To the north and east are residential properties also zoned R-4.

Impacts determined from these factors are as follows:

1. The current R-4 zoning requires a minimum of 197 parking spaces, including 175 for the residences, 5 for the office and 17 for the health club, which are assumed in the model to be independent uses. If all of these spaces were on the surface (which is not the case), parking would require 78,800 square feet of land area at an average of 400 square feet per parking space. This, however, would exceed the entire site size of 61,987 square feet. Instead, the project has 25 surface spaces (including 5 in the rear) and 172 spaces within and under the building. Thus, only the 25 surface spaces require additional site area (additional to the building footprint), which totals 10,000 square feet, or 18% of the site. To this point, therefore, the building would occupy 45.5% of the site (see item 5, above) and parking 18% of the site, for a total of 63.5% of the site.

The proposed R-4 zoning requires a minimum of 131 parking spaces, including 105 for the residences, 4 for the office and 22 for the health club. For purposes of modeling, it is assumed that 19 of these would be on the surface, 32 within the building on the first floor, and 80 would be in the basement under the building. The assumptions behind this hypothetical distribution are (a) the overall ratio between the numbers of surface, first floor and underground spaces remains similar to current zoning and (b) the development provides only about as much underground parking as necessary to achieve the maximum floor area bonus available. In this respect, the change from the current R-4 to the proposed R-4 would not greatly affect the amount of land area devoted to parking, although it would likely eliminate the need to have as large a parking structure within the first floor and under the building as the current R-4 would demand. Thus, unlike the previous scenario where many fewer surface parking spaces were required, this scenario consumes almost as much land for the building and surface parking under both the present and proposed zoning codes.

Because the proposed parking requirement is affected by a menu of potential parking reductions, some of which are optional, the proposed parking requirement will vary based on how many parking reduction(s) the development project applies for. In this scenario, it is assumed that the development receives only those reductions that it is eligible for automatically due to its geographic location. This includes a 10% parking reduction for each dwelling because it is located in the designated central city area, combined with a 5% parking reduction for being adjacent to transit service, but that the development does not partake of options to obtain additional reductions (such as a 20% reduction in the parking requirement for each affordable housing unit).

Both the current and proposed code provide the option for shared parking between uses, such as between the office, health club and residential spaces. Therefore, it is possible that the parking requirement can be reduced further through shared parking under both the current and proposed code. However, the model does not explore that option, partly because it would be the same under the current and proposed zoning.

2. The net cumulative effect of the minimum setbacks, utility easements, site perimeter landscaping and parking lot perimeter landscaping—and taking into account the location of the building on the site relative to perimeter lot lines—is that the current R-4 district would require that 2,980 square feet of the site (5.4%) be devoted to setbacks and perimeter landscaping while the proposed R-4 would require 9,174 square feet (16.7%). The primary reason for the increase is that the proposed R-4 requires a wider buffer landscaping along A Street (an arterial), introduces a perimeter landscaping requirement along the rear street frontage (a local street), and does not permit this newly required landscaping to overlap wholly with a 10-foot utility easement along the rear of the property, resulting in a new 14-foot wide perimeter landscaping requirement along the rear of the property. (The actual development project used this space to provide parallel parking toward the parking requirement.)
3. In addition to landscaping in the perimeter/setback areas, and in addition to the amount of land area required for surface parking:
    a. The current R-4 zoning does not require that the interior of the parking area be landscaped because there are fewer than 60 surface parking spaces. Thus, no additional land need be devoted to such landscaping.
    b. Had the surface parking area exceed 20 spaces in the proposed R-4 zoning, it would have required that the parking area be landscaped in an amount equivalent to 5% of the parking surface—in this case, 450 square feet. However, the surface parking is less than 20 spaces in the proposed zoning scenario, so the parking lot interior landscape requirement would is zero.

4. The model then indicates the zoning requirements for lighting of outside areas for both codes. While there is a dollar cost associated with lighting, described below, there is no significant land commitment.

5. The current R-4 zoning requires 10,000 square feet of "usable yard" private open space area, or 100 square feet per dwelling unit. The proposed R-4 district would also require 100 square feet of open space per dwelling unit. Both codes allow this to be provided either on site or on the building (e.g., rooftops or balconies).

   In addition, the project would have to provide open space equivalent to 5% of the non-residential floor area—in this case some 325 square feet of additional open space. Because this project scenario partakes of parking reductions totaling 20 eliminated parking spaces (saving 2400 square feet of land area and a lot of money in structured parking), an additional 800 square feet of private open space would be required, making for a total of 11,125 square feet of required private open space for the site under the proposed code.

   A "worst case" scenario for the project would be that all such open space is provided on available land on the site, rather than on horizontal building surfaces or balconies. This would total 11,125 square feet of land. In this case, the actual Park Plaza II development provides nearly half of its required private open space on the building rooftop. For testing purposes the model assumes that the development provides 5,000 square feet on the building rooftop and the remainder on the land. The model could have but did not assume that the development provided more than the minimum requirement to receive floor area bonuses under the proposed zoning. This would have required more land (or rooftop) however.

6. Snow storage areas are also not required under the current R-4 zoning. But they are required for multi-family residential developments in the proposed Title 21 regulations. In this case, however, there is no land commitment for snow storage because the model assumes that the proposed code can be interpreted such that the residential portion of the parking requirement (105 spaces required) is wholly satisfied within the building (112 covered spaces), allowing the surface parking (19 spaces) to be classified as serving the non-residential office and health club uses—exempting it from the snow storage requirement. This can be interpreted as a kind of built-in incentive for structured residential parking.

7. The final major land commitment is for pedestrian connections on the site, notably those connections between the main entrances to the site's building(s) and the street and public sidewalks. There is no such requirement under the current R-4 zoning. Under the proposed R-4 zoning, 5-foot wide pedestrian connections are required. However, the extent of pedestrian facilities to be provided varies greatly from one site to another depending on a variety of factors such as site plan layout. For simplicity the model assumes that the land commitment for pedestrian connections averages around 1.5% of the gross site area, or in this case 825 square feet. At an estimated five-foot width of, say, a path or sidewalk, this would convert to a requirement for about 165 linear feet of pedestrian ways.

   The proposed code provides a floor area bonus incentive for providing wider, enhanced "primary pedestrian walkways". To illustrate the cost and bonus floor area impacts of a property owner making such a choice, the model test for the proposed R-4 zoning assumes that the owner expands the required walkway width into a 12-foot wide primary pedestrian walkway for 160 linear feet.

   In addition, the model accounts for bus stop areas that the proposed code may require in return for parking reductions related to transit service. This scenario receives a transit related parking reduction, and it is assumed a bus stop is required along A Street, requiring 900 square feet of the site for a bus stop. (A real bus stop is located several feet to the north of the actual Park Plaza II

development.) Therefore, the total land requirement increases to 2,845 square feet of the site for pedestrian connections.

Altogether, the above described minimum land requirements total:

a. 43,380 square feet under the current R-4 zoning, or about 79% of the entire site.

b. 51,144 square feet under the proposed R-4 zoning, or about 93% of the site.

For illustration purposes, this scenario contains some bonus calculations under the proposed R-4 regulations which could enable the project to add more floor area (and, possibly, housing units). The bonuses under the proposed R-4 that could apply to this project include:

1. Two square feet of additional building area for every square foot of parking constructed below ground, up to an increase of 1 FAR. Thus, if it is assumed that the 80 parking spaces required under the proposed R-4 regulations will be underground, then the building would be allowed to add 55,000 square feet to its floor area (assuming 350 square feet per underground parking space). If it were assumed that 100 parking spaces are provided underground, then the building would be allowed to add 70,000 square feet to its floor area, except that this bonus incentive (underground parking) is not allowed to increase the FAR by more than 1.0, so the model would still default to 55,000, or 1.0 times the size of the site.

   Still, this would push the project over the allowable 2.0 FAR. At present, the site has a 1.89 FAR. If the building added another 55,000 square feet, it would have 103,800 + 55,000 = 158,800 square feet, or an FAR of 2.9. So the development could not take full advantage of this incentive, though it could capitalize on some of it. Keep in mind, of course, that adding more square feet—if it increased the number of housing units—would also increase the parking demand which would have to be created at additional cost.

2. If the project provided affordable housing units, it could also become a larger building. Again, for illustration purposes, the model assumes that 20 of the 100 units are for qualified affordable households. Under the proposed R-4 zoning, a bonus of two square feet of building area can be obtained for every square foot of affordable housing. In this case, it is assumed that the 20 affordable units total 13,500 square feet, so the building might qualify for two times this amount, or 27,000 additional square feet in bonus space for more dwellings. This is about the maximum bonus possible for affordable housing, because the incentive cannot allow more than a 0.5 FAR increase, or 27,500 square feet. So the project could add another 27,000 square feet in building area if it provided 20 affordable housing units. Doing so would enable the project to reach a FAR of 2.38, except that the maximum allowed by the proposed R-4 is 2.0 FAR. Therefore, as with the underground parking bonus, the development could not take full advantage of this incentive, though it could capitalize on some of it.

3. Another area of possible bonus for this project is from the provision of private open space above and beyond the requirements. The bonus would allow for a one-to-one addition of square feet, or 1,475 square feet more in building area. Of course, parking would have to increase because of that addition, thus adding to costs. But it would also add to potential revenues.

The model test concludes with estimates of the monetary costs to comply with the current and proposed R-4 zoning. Altogether, the model estimates that costs to comply with Title 21 for the subject site would be as follows:

c. $22,477,600 under the current R-4 zoning, or $9,344,600 for the site development expenses required by zoning (including parking, landscaping, open spaces, etc.). Structured parking costs are categorized with these site expenses. The building itself (not including parking) is assumed to cost $13,133,000.

d. $20,178,900 under the proposed R-4 zoning, or $6,389,900 for the site development expenses required by zoning. The building itself is assumed to cost $13,789,000.

In short, the minimum site development costs for the Park Plaza II development scenario would be 32% less under the proposed R-4 zoning (principally because of the less stringent parking requirements), but the five percent premium on assumed building costs would cause the proposed R-4 zoning to cost only ten percent less overall on the project.

EIA MODEL TEST #11:

- ZONING PAIR COMPARISON: I-1 TO I-1
- DEVELOPMENT CATEGORY: LIGHT INDUSTRY AND WAREHOUSING
- EXAMPLE DEVELOPMENT SCENARIO: CARR GOTTSTEIN DISTRIBUTION WAREHOUSE

This scenario compares the Carr Gottstein Distribution Warehouse at 6441 C Street in the current "I-1" Light Industrial district to the prospective economic impacts if the site would remain "I-1" but under the proposed Title 21. The EIA model provides zoning pair comparisons using the CG Warehouse scenario as if the building were constructed under the current I-1, I-2 and B-3 districts and the proposed new I-1, I-2, CMU and RMU zoning districts. However, the following discussion focuses on the results of EIA Model Test #11, which demonstrates the prospective impacts if the site had been built under the proposed revised I-1 zoning.

The example site represents a common industrial use in the Bowl: warehousing. Several aspects of the actual development were generalized or simplified for purposes of the modeling. For example, the actual site has an irregular shape, but the model has simplified it into a rectangle that generally reflects its proportions and matches its actual size.

Key input data include:

1. The building has a total of 239,000 square feet gross floor area. The model assumes that 233,000 is for warehousing on the main floor and 6,000 square feet is for ancillary offices in a mezzanine.
2. To simplify the modeling process, the site is assumed to be rectangular in shape, about 520 feet across east to west, 1,220 feet north to south for total site area of 634,400 square feet, or 14.56 acres. In reality, the south lot line runs at a diagonal following the boundary of the Alaska Railroad utility corridor; the model squares off this portion of the lot.
3. The 239,000 square foot building on a 634,400 square foot site has a *floor area ratio* (FAR) of 0.38. At this time, the current I-1 district has no maximum allowable FAR; thus, the building can, theoretically, be of any size as long as all other requirements of Title 21 are satisfied (e.g., parking and landscaping).

   The proposed I-1 district in the "new" Title 21 also has no maximum FAR, again meaning that the building could be of any scale as along as all other on-site requirements are met. This also means that zoning and density bonuses that are available for other districts need not apply in I-1.

   The proposed building has one story and is assumed to have a height of 40 feet (based on the assumed 25 foot high ceiling dimensional assumption plus a 10 foot high mezzanine for office uses). This type

of one-story industrial building fits in with the 50 foot maximum height introduced in the proposed I-1 district.

4. The site is a corner lot fronting on C Street, an arterial street, with the north side of the property on a local street, 64th Avenue. A minor portion of the southern end of the site also abuts a short segment of the unimproved 68th Avenue right-of-way, however the model simplifies the site configuration for testing purposes and does not assume any part of the south perimeter lot line abuts a street.
5. The building has a 233,000 square foot "footprint" equivalent to the entire building minus the office mezzanine, occupying 36.7% of the site.
6. Adjacent and abutting sites are all non-residential land uses and all zoned I-1. They are also expected to remain in I-1 under the proposed Title 21.

Impacts determined from these factors are as follows:

1. The current I-1 zoning requires a minimum of 253 parking spaces (20 for the office space and 233 for the warehousing). If all of these are on the surface (as is the case), parking requires 101,200 square feet of land area at an average of 400 square feet per parking space (including appurtenant driveways and drive aisles), or 16% of the site area. To this point, therefore, the building would occupy 36.7% of the site (see item 5, above) and parking 16% of the site, for a total of 52.7% of the site.

   The proposed I-1 zoning requires a minimum of 173 parking spaces, 80 fewer than the current code, primarily because of lower parking requirements for large industrial/warehouse establishments. If all of these are on the surface (they are), parking occupies 69,200 square feet of land area. To this point, building and parking together would occupy 47.6% of the site.
2. The net cumulative effect of the minimum setbacks, utility easements, site perimeter landscaping and parking lot perimeter landscaping—and taking into account the location of the building on the site relative to perimeter lot lines—is that the current I-1district would require that 17,466 square feet of the site (2.8%) be devoted to setbacks and perimeter landscaping while the proposed I-1would require 41,260 square feet (6.5%). The primary reason for the increase under proposed zoning is the existence of a 25-foot wide utility easement the long property line fronting C Street. Combined with a required 8-foot site perimeter landscaping bed that cannot overlap more than 4 feet into the easement, this effectively encumbers the first 29 feet of the site along C Street, or 35,380 square feet, for landscaping. Under the proposed code, the landscaping requirement along the rear lot line would theoretically be reduced because there is no building setback requirement.
3. In addition to landscaping in the perimeter/setback areas, and in addition to the amount of land area required for surface parking:
   a. The current I-1 zoning requires that the interior of the parking area be landscaped in an amount equivalent to 5% of the parking surface—in this, case, 5,060 square feet.
   b. The proposed I-1 zoning would require that the interior of the parking area be landscaped in an amount equivalent to 10% of the parking surface—in this case, 6,920 square feet.
4. In addition to parking areas, the building would be required to have four loading berths of 800 square feet each under either zoning scenario. The model assumes this would add 3,200 square feet to the land demand in each case. In reality, however, because the development is a distribution warehouse with many loading berths, the zoning requirement does not really have a practical effect over what would be provided anyhow.
5. The model then indicates the zoning requirements for lighting of outside areas for both codes. While there is a dollar cost associated with lighting, there is no significant land commitment.
6. Neither the current nor proposed I-1 district regulations require private open space.

7. Snow storage areas are also not required under the current and proposed zoning.
8. The final major land commitment is for pedestrian connections on the site, notably those connections between the main entrances to the site's building(s) and the street and public sidewalks. There is no such requirement under the current I-1 zoning. Under the proposed I-1 zoning, the model assumes the commitment would be for 1.5% of the gross site area, in this case 9,516 square feet. At the required five-foot width of a walkway this would convert to a requirement for about 1,900 linear feet of pedestrian walkways. Assuming the actual building location relative to 64th Avenue and C Street, this model assumption is probably higher than what would be required for this actual development, however the number was left unadjusted.
9. The model also accounts for the land area consumed for facilities on the site that are not required by zoning but are integral to the development. In this case, the food distribution warehouse development is not required by zoning to include the 170,000 square foot tractor-trailer staging / loading/ storage area, but since this area is integral to the warehouse facility it is important to include for determining the overall site area needed by the development. In addition, a portion of the actual site has been left undeveloped (natural vegetated state). Together, these non-required areas account for 240,000 square feet of the site area. The model avoids automatically counting these areas in the calculation of required site enhancement landscaping costs because these areas are not explicitly required by zoning.

Altogether, the above described minimum required land requirements total:

a. 359,926 square feet under the current I-1 zoning, including the building footprint, or about 56.7% of the entire site. Excluding the building, zoning requirements demand use of 126,926 square feet, or 20% of the site. These requirements do not take into account the 240,000 square feet of the site encumbered by tractor-trailer loading/parking and undeveloped areas.

b. 363,096 square feet under the proposed I-1 zoning, or about 57.2% of the site. Excluding the building, zoning requirements demand use of 130,100 square feet, or 20.5% of the site. Again, these requirements do not take into account the 240,000 square feet of the site encumbered by tractor-trailer loading/parking and undeveloped areas.

The model estimates that costs to comply with Title 21 for the subject site would be as follows:

i. $29,021,900 under the current I-1 zoning, or $2,341,900 for the site development expenses required by zoning (including parking, landscaping, open spaces, etc.). The building itself is assumed to cost $26,680,000.

ii. $28,615,400 under the proposed I-1 zoning, or $1,935,400 for the site development expenses required by zoning. The building itself is assumed to cost $26,680,000.

Although the model applies a 5% premium to the cost of residential and commercial construction under the proposed zoning scenarios, the model does not assume that the cost of construction of industrial buildings will increase under the proposed code. This is because the proposed zoning code would not apply building development standards to industrial uses.

In short, the minimum site development costs for the CG Warehouse would be 17% lower under the proposed I-1 zoning, and the overall development costs including the site and assumed building costs would be 1% lower.

4.4 Summary Comparisons of Land and Cost Requirements

In the same way that the three scenarios, above, were evaluated in the model, all the other 14 comparisons of current-to-proposed zoning pairs were assessed. For consistency in the comparisons, the same inputs from the above scenarios were used in the other pairs where the zoning and land uses are appropriate:

- The office building inputs comparing the effects from B-3 to CMU were repeated for B-3 to B-3, B-3 to NMU, and B-3 to RMU.
- The residential development inputs comparing the effects from R-4 to R-4 were repeated for B-3 to R-4A, R-O to R-O, R-O to R-4A, and R-4 to R-4A.
- The industrial project inputs comparing the effects from I-1 to I-1 were repeated for I-1 to I-2, I-1 to B-3, I-1 to CMU, I-1 to RMU, I-2 to I-1, I-2 to I-2, and I-2 to CMU.

SUMMARY TABLE OF IMPACTS COMPARING CURRENT TO PROPOSED TITLE 21

Key summary results of these comparisons are shown on the following table. The table highlights how much the land area requirements and cost estimates of the proposed Title 21 differ from the requirements and estimates of the current zoning for the development scenarios tested. Instead of repeating the monetary or land area figures from the tests, the table shows percentages. These are the land and monetary costs of proposed zoning ***as a percent of current zoning***.

For instance, the first comparison on the table is for the Alaska USA office building scenario as if built under the current B-3 regulations and compared to the proposed B-3 regulations. Including the building footprint in the land requirements, the proposed zoning would demand 103% of the land area requirements of the current zoning. That is, the proposed code would require three percent more land area to accommodate the building and all the zoning conditions than the present code does.

Comparing monetary cost estimates for the Alaska USA example on the same line, the model predicts that the proposed B-3 zoning would require costs of about 103% of the current zoning when the building is included in the costs. Without the building, the proposed zoning would cost about 91% of the present zoning.

Thus, for this one example (B-3 to B-3), more land is required to comply with the proposed Title 21, but site-related costs (not including the building) would be somewhat less. An analysis of the differences indicates that the added landscaping and related land needs offset the reduced parking requirements. But parking costs more than the landscaping, so a reduction in parking has a greater downward effect on costs than the added landscaping has on space needs.

Table 4-1. Land and Economic Cost Impacts Comparing Current to Proposed Title 21 Based on Example Development Scenarios

Current Zoning	Proposed Zoning	Example Development Scenario	Cost of Site Development (not including the building)	Cost of Site and Building Development	Land Area Required for Site Development (not including the building)	Land Area Required for Site and Building Development
			Proposed Zoning as a Percent of Current Zoning			
B-3	B-3	1- Alaska USA	91%	103%	104%	103%
B-3	NMU	1- Alaska USA	84%	102%	96%	97%
B-3	CMU	1- Alaska USA	86%	103%	96%	97%
B-3	RMU	1- Alaska USA	84%	102%	96%	96%
B-3	R-4A	2 - Park Plaza II	64%	88%	127%	112%
R-O	R-O	2 - Park Plaza II	69%	90%	174%	131%
R-O	R-4A	2 - Park Plaza II	56%	84%	143%	118%
R-4	R-4A	2 - Park Plaza II	64%	88%	143%	118%
R-4	R-4	2 - Park Plaza II	68%	90%	142%	118%
I-1	I-1	3 - CG Warehouse	83%	99%	102%	101%
I-1	I-2	3 - CG Warehouse	83%	99%	102%	101%
I-1	B-3	3 - CG Warehouse	82%	99%	117%	106%
I-1	CMU	3 - CG Warehouse	71%	98%	79%	93%
I-1	RMU	3 - CG Warehouse	71%	98%	79%	93%
I-2	I-1	3 - CG Warehouse	85%	99%	111%	104%
I-2	I-2	3 - CG Warehouse	85%	99%	111%	104%
I-2	CMU	3 - CG Warehouse	73%	98%	86%	95%

4.4.2 Discussion of Initial Results of EIA Computer Model

The combined results from the single individual development scenario for each of 17 zoning pairs does provide enough information to suggest initial findings regarding the monetary and land costs of the proposed zoning ordinance.

A. Monetary Cost Comparison – Summary of Initial Results

Overall development costs for the 17 scenario tests ranged between a 16% cost reduction and a 3% increase in costs under the proposed code as compared to the current code. Overall development costs include site improvements required by zoning and the cost of building construction.

Site improvements—comprised of required landscaping, parking, loading, open space, snow storage and pedestrian walkways—cost less under the proposed zoning in each of the 17 cases.

These site cost savings result from the lower parking space requirements in the proposed code. The cost of providing for vehicle access and parking accounts for the vast majority of costs incurred to improve a

site. In terms of cost, individual site elements such as loading, snow storage, private open space and pedestrian connections are insignificant in comparison to the cost of parking. For example, at Alaska USA, the cost to construction parking is more than three times all other required site elements put together, including parking lot landscaping and lighting. The lower parking requirement not only has a direct cost savings itself but also has a ripple effect on the costs of other site elements such as parking lot interior landscaping and lighting.

The 5% increase in building construction that is assumed to occur under the proposed code counter-balanced the site-related cost savings of the proposed code in the residential and commercial tests. For example, in the four zoning paired comparisons involving the Alaska USA development scenario, the increase in building construction costs outweighed the decrease in site costs under the proposed code. While site-related costs for Alaska USA under the proposed code were 9% to16% lower than under the current code, overall development costs including site and building were 2% to3% higher than under the current code.

In some cases, however, higher building costs could not outweigh the substantially reduced cost of parking, especially in the cost of structured parking. For example, the five residential tests involving the Park Plaza II multifamily development scenario with structured underground parking showed 10% to16% lower overall development costs under the proposed code.

Because the proposed code does not apply building development standards to industrial buildings, there was no increase in building construction costs in the eight tests involving the CG Warehouse development scenario. These tests indicate a 1% to 2% monetary cost savings overall under the proposed code.

B. Comparative Land Requirements -- Summary of Initial Results

The overall land area requirements (ignoring monetary costs for the moment) for the 17 scenario tests ranged between a 7% reduction and a 31% increase in land area consumption under the proposed code as compared to the current code. Overall land requirements include the land area needed for site elements required by zoning and the land area (footprint) of the primary building.

The four tests involving the Alaska USA Federal Credit Union scenario, which featured a building surrounded by surface parking and perimeter landscaping, indicated that, if the development is eligible for parking reductions in a mixed-use district, the land requirements under the proposed code are less than those of the current code. This reduction in land requirements is primarily due to the lower parking requirements in the proposed mixed-use zones, and comes despite a substantial increase in the proposed landscaping area requirement, which nearly doubles. This landscaping increase is not because of a dramatic change in the basic landscaping standards; it comes as a result of a single provision in the proposed code that landscaping cannot fully co-locate with utility easements (see discussion below). In the proposed B-3 district, which would lack some of the parking reductions available to the mixed-use districts, a somewhat reduced parking requirement relative to the current code is not enough to overcome the increased land requirements for landscaping, resulting in a moderate (3%) overall increase in land area requirements.

The Alaska USA cases showed that, for the most part, proposed pedestrian connections, parking lot interior landscaping islands and private open space requirements were not the major land cost factors—both were outweighed by the much more dominant factors of parking and perimeter landscaping.

Under the four zoning pair comparison tests involving the Park Plaza II high density residential development (B-3 to R-4A, R-O to R-O, R-O to R-4A, and R-4 to R-4), the overall land area

requirements are 12% to 31% greater under the proposed code than the land requirements of the current code, depending on which test. The greatest increase in land area requirements (a 31% increase) came in EIA Model Test #7 under the proposed R-O district. The proposed R-O district zoning requirements for site development in this case (not including the building footprint) consume about 58% of the Park Plaza II site, while the current zoning requirements (not including building footprint) consume only 33% of the site. With the building in place, the overall land area requirement under current zoning utilizes 78.9% of the site, and under the proposed zoning 103.5% of the site. The model results suggest that under the proposed R-O district the site could not accommodate Park Plaza II as it was actually developed. In the tests of the proposed R-4 and R-4A districts, the site could accommodate Park Plaza II.

This multi-family high density[28] example that is evaluated in the four residential comparisons is in contrast to all the other examples because of the surface parking requirements. For the office and industrial examples, all parking is assumed to be on the surface. Because the proposed code requires less parking than the current code, all-surface-parking scenarios would require less land. And parking is the principal consumer of land in Title 21. While the proposed Title 21 demands more land for non-parking purposes (e.g., setbacks, landscaping), the scale of reduction in parking requirements overcomes the increases caused by non-parking.

In the residential comparisons, however, all surface parking is assumed to be a similar number of spaces—just 20-25 spaces—while the reduced parking requirements of the proposed code are reflected in less structured parking. Thus, structured parking would cost less and possibly consume less building floor area under the proposed code, but, because the surface spaces would consume a similar amount of land regardless of scenario, then the proposed code's non-parking requirements result in a net gain in land needed. This example is very important in the overall analysis, therefore, because it highlights a crucial perspective on potential economic impacts from higher density projects.

The second most important site area requirements factor in the tests besides parking configuration is the incidence of site perimeter utility easements that happen to overlap with required perimeter landscaping. Scenario sites that were encumbered with more utility easements and/or wider utility easements—such as the Alaska USA site having easements within all four perimeter lot lines (including a 20' wide water utility easement)—showed nearly twice the land area encumbered by landscaping under the proposed code as under the current code. This is not because the basic landscaping requirement is substantially greater under the proposed code. It is primarily because the proposed zoning requires at least half the width of a required landscaping bed to not overlap with a utility easement. The landscaping must be located toward the interior of the site not within the utility easement, leaving the remainder of the utility easement outside of the landscaping effectively isolated from the rest of the site and, obviously, not useable for an income-producing building. The model assumes that this area would be planted with general site enhancement landscaping. In the Alaska USA site tests, this nearly doubled the landscaping area requirement of the proposed code.

Because the results above measure the impacts of each individual development scenario example, they are not intended to provide a definite, comprehensive finding as to the overall comparative performance of the proposed zoning districts for all kinds of use and development cases. The model has tested only one development scenario for each zoning district pair. The relative performance of each zoning district will vary by type of land use, parking configuration, and location, among other factors. For example, the performance of the proposed B-3 relative to current zoning will almost certainly vary for a retail store versus a mixed-use residential-commercial building with parking underneath.

[28] FAR of 1.89 for this project is the 7th highest FAR of the 3,351 parcels with buildings on them in the Municipal Assessor database analyzed in Chapter 3.

A more complete picture of how a proposed zoning district will perform would require multiple tests on several different types of uses and development projects that are likely to be common types of development for each zoning district pair. Therefore, it would be best to describe the results of the testing completed to date, documented in the previous summary table and this report, as *initial* results of the EIA model.

This report does not test every possible combination. Instead, it selected a set of representative, informative examples of anticipated uses and development types, and found that in most cases, most of the proposed zoning provisions that would apply to them would not seem to have a significant overall economic impact.

The testing also helped identify where there may be issues with certain provisions in the proposed code. The results of the cost comparison model tests are intended to be used by the Planning Department to evaluate the Title 21 Rewrite and possibly recommend changes to the draft code. Further testing of additional development types and use types may be necessary. Where the initial tests and possible further testing reveal a weakness in the proposed code, Planning will need to document and address them as part of the public approval process now underway.

5.0 CONCLUSIONS

It is not the intent of this report to necessarily comment on differences in the quality of land development regulations between the current Title 21 and those proposed as of the Public Hearing Draft of the Title 21 Rewrite. But it is clear to Development Strategies, as author of the report, that there are many advantages of the proposed code to developers, property owners, and the Municipality. It appears to offer more flexibility while encouraging more creativity in site design.

What is also clear, and is the intent of this report, is that the overall economic impacts of the proposed regulations should not be significantly different from current regulations. While every possible combination of zoning changes could not be tested, Development Strategies and the Anchorage Planning Department made substantial efforts to identify representative sample projects that would also push the EIA model to its limits in order to identify (1) where economic impacts might be triggered; (2) where the model needed to be refined so that it captures and justly evaluates even extreme situations; and (3) where further refinements in the Title 21 proposals might be considered.

The EIA model reveals that there are many economic impacts within any given project. Some of these are negative, some are positive, some are neutral. Most notably, the negative effects are caused by greater demands of the proposed Title 21 for landscaping, especially in relation to utility easements, open spaces, and pedestrian ways that enhance the aesthetics and functions of the site. More land and more costs will generally be involved for these site enhancements. But these are usually offset by the generally reduced requirements for automobile parking. The proposed code simply would require substantially less parking than is now the case, based on research on parking demand by the Planning Department. Thus, property owners would be faced with lower demands on land and lower costs to develop parking. The EIA model determines that the net effects of these internal impacts is generally neutral or, at worst, only slightly negative.

In rare cases, there may be onerous net demands or impacts, although the modeling for this report could not anticipate every possible development scenario. The Municipality should be sensitive to these possible claims of significant negative economic impact and should use the methods described in this report to help the owners and policy makers fully understand the extent of the claims. Where hardships are encountered, mitigation actions might be required. But this report demonstrates that such hardships are likely to be quite rare.

In other cases, the proposed Title 21 will save on land and costs. This doesn't mean that "left over land" needs to remain idle. Instead, land not required to fulfill zoning requirements might be devoted to larger buildings which, in turn, can increase the net incomes available to owners, depending on market conditions.

One key element of economic impact was not evaluated in this report: the cost of the transition from current to proposed zoning. There will be such costs, if only the time and money involved in processing the changes, that would need to be borne by the Municipality and/or the affected property owners. This is an issue to be addressed by policy makers in the future, however.

This report's analysis of property values demonstrates that, in general, land that is within the zoning districts herein analyzed has not achieved the highest values possible, even under current zoning conditions. More value could be obtained even under current zoning if (1) market conditions warrant and (2) property owners create larger buildings to generate more income. This shortfall in prospective

property value is also apparent in the relatively small floor-area-ratios (FARs) in today's land use patterns.

This is not a criticism of the current zoning regulations or of the property owners. Indeed, larger buildings would be constructed under the current zoning only if market conditions encourage property owners to invest that way. It appears from the modeling of potential economic impacts, however, that the propensity for higher property values is even greater under the proposed Title 21.

While this report could not test every possible development, the model testing did help identify where there may be issues with certain provisions in the proposed code. The results of the cost comparison model tests are intended to be used by the Planning Department to evaluate the Title 21 Rewrite and possibly recommend changes to the draft code. Further testing of additional development types and use types may be necessary. Where the initial tests and possible further testing reveal weaknesses in the proposed code, Planning will need to document and address them as part of the public approval process now underway.

Appendix A:

Code Comparison: Development Standards

APPENDIX A: CODE COMPARISON: DEVELOPMENT STANDARDS

Staff of the Anchorage Planning Department prepared a summary comparison for a variety of development standards between the current Title 21 and the proposed revision. Development Strategies used this comparison to identify where economic impacts might occur from the standpoint of the property owner, whether these impacts might be positive, negative, or neutral. The staff's comparisons are paraphrased in this section to facilitate an economic perspective.

The impact of most development standards will vary by zoning district, use type, lot configuration, size of development project, natural features of the site, or by area of town. All impact judgments relate to the property itself, not to the Municipality as a whole. That is, this is a microeconomic assessment that affects the property owner. There may be cases where a negative impact on the property owner (e.g., higher costs) would improve, say, the aesthetics of the entire community, thus improving the economic value of the community. But these would come at higher costs to the property owner, so a negative impact judgment is rendered.

The impact judgment also relates only to the immediate and direct cost of initial development, not to any longer-term benefits a higher standard may have for the project over its life-cycle. For example, higher costs by the owner to comply with, say, aesthetic improvements might also lead to higher property values for the owner because of a more attractive site. The property value improvement might offset the negative effects of higher compliance costs. Proposed new standards may also result in efficiencies, such as reduced maintenance costs due to smaller parking areas, or energy-efficiencies gained as a by-product of lighting requirements. These possible valuation effects, however, are also not evaluated by Development Strategies. In short, only the direct and immediate economic impacts of compliance are the subject of the following analysis.

A.01 ALTERNATIVE EQUIVALENT COMPLIANCE

The alternative equivalent compliance (AEC) tool would be new to Anchorage in the revised Title 21; it does not exist in the current development regulations. AEC would permit a proposed development or redevelopment to substitute certain development standards that are required in the new code as long as those substitutions would produce equivalent (or better) results. Under the proposed code, for instance, the design team would be free to suggest different landscaping configurations or building massing features in order to take advantage of better soil conditions, improved views, or broadened open spaces. As long as the substitute regulations—applicable to that site only—still protect neighboring properties, allow for the free flow of traffic and pedestrians, and meet or exceed the intent of the code regulations, then the substitutes can be adopted.

This new code provision offers property owners and developers greater flexibility for site design that can lead to maximum property values. Therefore, AEC should have a positive economic impact for the property owner while not imposing costs. The quantification of this economic impact, however, will vary from site to site depending on individual circumstances and the particular market values already established.

A.02 Drainage, Storm Runoff, and Erosion Control

This section of the existing code lists prohibited discharges, requires compliance with a municipal Storm Water Treatment Plan Review Guidance Manual, and requires a permit for mechanized land clearing on two acres or more. The revised section would insert more standards into the code and address additional issues. Most of these changes come from requirements of the Municipality's National Pollutant Discharge Elimination System (NPDES) permit. That is, under separate regulations outside of Title 21, development in Anchorage must comply with NPDES.

As a result, the economic impact on the property owner is likely to be neutral. Strictly comparing the current code to the new code for these drainage, storm runoff, and erosion control regulations could lead to a conclusion that the property owner might be negatively impacted because the proposed regulations in Title 21 are more stringent. But these regulations already exist outside of Title 21, so the proposed Title 21 would not hold property owners to a higher standard than will be required anyhow.

A.03 Exterior Lighting

In many of the existing zoning districts of the current Title 21 code, the following is prohibited:

> Any use which causes or may reasonably be expected to cause excessive noise, vibration, odor, smoke, dust or other particulate matter, toxic or noxious matter, radiation, humidity, heat or glare at or beyond any lot line of the lot on which it is located.

The current code also requires exterior lighting of parking lots in all non-residential districts and for all non-residential uses in residential zones to meet the level of illumination, uniformity ratios and minimum lumen intensities suggested by the Illuminating Engineering Society of North America (IESNA), and that such lighting be designed to avoid glare to motorists and residents of adjoining properties.

The proposed code retains most of these same prohibitions but adds a new and much more comprehensive tool with somewhat stricter standards regarding exterior lighting. This provision is partially based on a model ordinance developed by the Illuminating Engineering Society of North America (IESNA) to reduce or eliminate adverse effects of artificial light including glare, light trespass, and overlighting of sites. These new provisions will be applicable to multifamily residential as well as to non-residential uses, and they will have measurable standards in order to ease compliance and enforcement.

This is likely to have a negative economic impact on property owners owing to costs of compliance. Indeed, the lighting cost estimates provided in the economic impact model indicate that capital expenditures for parking lot lighting in the proposed code will exceed those of the current code by about 20%; in turn, lighting represents about 0.5% of total non-building costs for development of a site with 100% surface parking. This excludes, however, any analysis of energy cost savings as a result of using new technologies for lighting that are in compliance with the proposed code. It could be a fairly short period of time—in some cases possibly within several years—before the capital costs of complying with the new code are recovered through energy savings. At the same time, however, the same standards should decrease or eliminate the negative effects of lighting from adjacent properties, thus, improving property values, though it would not be expected that this added value would fully compensate for the added compliance costs.

A.04 LANDSCAPING, SCREENING, AND FENCES

The current Title 21 code requires four types of landscaping:

- Visual Enhancement — To improve the aesthetics of properties, particularly parking and vehicle circulations areas, from public rights of way or adjacent properties, there must be an 8-foot average width of the landscaping corridor where trees must be planted at a minimum of one every 20 feet (denser is allowed) with at least three shrubs per tree.

- Buffer — To protect incompatible land uses on separate properties, e.g., commercial uses abutting residential uses, there is a requirement for a 10-foot average width for buffer zones with a minimum of one tree every ten feet (no more than 50% deciduous) with a minimum of three shrubs per tree.

- Screening — Where uses are required to be effectively hidden from neighboring properties, or to protect views from the major highway entrances into the city, there is a current requirement of a 30-foot average width for a screening corridor; or that corridor can be 20 feet wide but must also include a seven-foot high decorative wood fence. Landscaping in both cases must include, at a minimum, two rows of trees every ten feet and three shrubs per tree.

- Arterial Road Frontage — Commercial properties fronting collector or arterial streets must provide a six-foot wide landscaping strip at the right of way line where a combination of trees and/or shrubs must become at least four feet high.

With exceptions, lots along the New Seward Highway and the Glenn Highway must provide a 30 foot strip of undisturbed natural vegetation or new planted landscaping between the right of way and uses on private property.

The proposed Title 21, as revised, would have three types of landscaping, with modified widths, with a fourth type only available in limited situations in the downtown zones. But the amount of plant material would be based on a new point system, giving flexibility in types of vegetation (within some parameters) and the location of planting. The point system also would provide more points for existing vegetation which encourages tree retention—at a potential cost savings to the developer.

For the proposed Title 21, where perimeter landscaping would be required, it is determined by the abutting zoning district and abutting road classification, although some uses would still have use-specific standards requiring landscaping.

Parking lot landscaping requirements would change somewhat in the new code. For larger parking lots, interior parking lot landscaping would be increased to 5% from 10% of parking area and appurtenant drives. This change would, of course, decrease the amount of land available for parking, a change that would mitigated, however, by reduced parking requirements as described later. The interior parking lot landscaping areas could also be used for on-site drainage and stormwater retention which may also be a design consideration in larger parking lots.

The proposed code would have a new requirement in subdivisions to retain or plant trees on each lot. There would also be new provisions on screening requirements such as the location and screening of dumpsters.

The proposed code would require perimeter landscaping to avoid co-locating with utility easements. Only one-half the width of the landscaping bed could overlap the utility easement, which would impact land area requirements.

Development Strategies' review of these changes in landscaping requirements clearly shows that the Municipality is attempting to improve the aesthetic character of Anchorage. In some cases the net effect of the landscaping requirement may be zero additional cost, due in part to the increased flexibility, incentives to locate buildings closer to the street in mixed-use districts, and incentives for retaining existing trees in the new code. In most cases, however the net effect is most likely to be added costs for private land owners as they comply with the regulations.

A.05 LARGE COMMERCIAL ESTABLISHMENTS

The city passed a big box ordinance in 2001 that requires certain design standards, many of which are considered vague and non-specific. For example:

> "The site plan shall ensure buildings have complexity at street level with human scale by providing features such as changes in building form at entrances, and providing windows, enhanced trim and architectural detail."

The proposed code refines these regulatory provisions by providing more measurable standards. There is a menu of additional standards, and developers are required to choose and follow any three of the eight additional design standards.

With the addition of the eight new design standards (three required), the proposed code may seem more restrictive than the old. This would seem to have negative economic impacts for property owners. However, due to increases in specific guidelines and the elimination of any previous vague language, the proposed code should, if anything, make interpretation and compliance easier for developers. This can generally reduce costs for property owners and developers. As described, the overall economic impact would be neutral.

A.06 NATURAL RESOURCE

In order to protect and conserve the area's creeks and wetlands and their functions, the existing code contains setback requirements when a property is adjacent to a stream. The Anchorage Wetlands Management Plan makes wetland protection a priority. Existing code standards include:

- A 25-foot setback on each side of streams in every district except R-10.
- A 100-foot setback on each side of streams in the R-10 district.

- No existing standards for development on steep slopes, except for lot size, lot coverage, and solid surface limitations in the R-10 district.

The proposed code requires 50-foot setbacks adjacent to streams in all districts. The proposed code also aims to create new 15-foot setbacks from all water bodies and wetlands. Furthermore, new standards are included that would restrict development on steep slopes.

These new guidelines and restrictions are more limiting and could in fact reduce the economic potential of a site for property owners. On the other hand, these guidelines have been provided to reduce any

potential issues that environmental or natural disasters may cause on a property owners or resident. For example, these new setback restrictions could help prevent certain damage to improvements if a flood were to occur. The economic loss during natural events such as these is far greater than any economic potential lost from these restrictions. However, the general immediate economic effects would be negative for property owners, depending on the location.

A.07 Off-Street Parking and Loading

The existing code lists a minimum number of parking spaces that are required through a mathematical formula; i.e. based on square footage or number of bedrooms/units.

The proposed code would lower parking ratios for specific uses and raise parking ratios for other specific uses in order to correct previous parking problems. Further ratio reductions are available for areas such as mixed use districts. Other ratio reductions are available in return for efficient use of parking areas. In addition, parking lot designs would be required to accommodate pedestrian activity into and within the site.

The overall economic impacts of these proposals are, for many types of uses, substantially positive. The impact varies by type of land use. In general, most industrial uses, multi-family developments and many commercial uses are proposed to have lower parking requirements. The ratio reductions in specific areas would directly reduce the costs for owners and increase flexibility. Property owners would be able to build parking more as they see fit. For some uses, increased parking is necessary for business. Other uses may need less and would prefer to use greater portions of the land for economic use. In addition, there would probably not be any real impact from the changes to the parking lot designs.

A.08 Neighborhood Protection Standards

The current code allows some discretionary decision-making to be made by acting authorities in regards to “buffers” between “urban” and “rural” residential developments and between residential and non-residential developments.

The proposed code would allow complete discretion from the decision-making authorities. In doing so, the code imposes new conditions and/or increases standards that would protect neighborhoods from nearby nonresidential development. The issues that would be addressed are listed in the code text. Also, buffering between different residential densities would no longer be addressed.

It is likely that in most cases no negative costs would be imposed on property owners due to these regulations. The existing code already gives some discretion to authorities, but is not laid out for developers or property owners to easily follow. The proposed code is intended to illustrate exactly what the decision-making bodies are looking for and could prevent conflicts.

A.09 Nonconformities

The current code has relatively strict regulations in regards to nonconforming uses. The basic policy of the current code is to allow nonconformities to continue operations until they vacate the property, but to not encourage the growth or perpetuation of the use. In other words, nonconformities may persist, but are not allowed to expand. Any repairs up to ten percent of replacement cost of nonconforming structures are

allowed. However, if a property or operation is damaged by more than 50 percent of replacement cost, property must become conforming.

The proposed code makes significant changes to lessen the impact of the proposed code on existing land uses and structures. These changes include:

- Making single and two-family structures exempt from most of nonconformities section.
- Allowing over-height buildings and buildings that do not conform to the new maximum setback provisions as conforming structures.
- Allowing repairs of up to 50 percent of replacement cost for nonconforming structures.
- Requiring a new application process for replication of damaged or destroyed nonconforming structure.
- Issuing a new process for overcoming presumption of abandonment.
- Requiring any project in need of a permit and costing more than 2.5 percent of the assessed value of the structure to spend up to 10 percent of the total project costs on bringing the development towards compliance with characteristics of use. Large retail establishments must spend 20 percent.

The proposed Title 21 code illustrates that not complying with any new characteristics of use does not create a nonconformity. Overall, the new code has mixed impacts on property owners. The new application process may prove to cause negative impacts on property owners. On the other hand, greater flexibility for nonconforming structures may have positive impacts.

A.10 OPEN SPACE

As it stands, the current code's open space requirements are targeted towards multi-family residential, to ensure that vegetation and scenic views are preserved, provide increased health benefits, and allow greater resident access to outdoor recreation. Under the current regulations, multi-family development in the R-2M and R-3 districts must provide up to 400 square feet of usable yard per dwelling unit. In the R-4 district, 100 square feet of usable yard must be provided per dwelling unit.

The proposed code would make no changes in total open space area requirements in the R-2M and R-4 districts, while instituting the same total area requirements for the new R-2F and R-4A districts respectively. The proposed code would decrease the amount of required usable yard for the R-3 district from 400 square feet to 300 square feet. New design and dimensional standards are intended to improve the quality and usability of open areas. The minimum dimension of a common-use open space area is proposed to increase, for example.

In the current code, residential development in the R-O and B-3 districts is required to provide 100 square feet of usable yard per dwelling unit. The proposed code reduces this requirement to 60 square feet per dwelling unit, and also applies it to residential development in the mixed-use districts.

In addition to residential requirements, new open space requirements for nonresidential development in the B-1A, B-3, R-O, NMU, CMU, RMU, and MT districts would be created. In these districts, private

open space should be equal to at least five percent of the gross floor area in the non-residential portion of a development.

The economic impacts from these revisions would be mixed. On one hand, the R-3 multi-family district's required open space would decrease from 400 to 300 square feet, which would be less restrictive and have a positive impact for property owners. Additionally, residential development in most commercial districts would be required to provide 40% less open space than in the current code. On the other hand, the new open space requirements for nonresidential development in some of the business districts may prove to be more restrictive, which could have a negative impact on property owners. Also, the increased minimum standards and dimensions for quality open space areas could reduce flexibility and increase costs

A.11 PUBLIC/INSTITUTIONAL AND COMMERCIAL DESIGN STANDARDS

The existing code has no public or commercial building design standards. The proposed code's aim would be to create specific design standards for developments that are not considered large-scale commercial. These standards include the following considerations:

- Building orientation;
- Building massing;
- Façade articulation;
- Weather protection;
- Sunlight and wind mitigation.

The design standards are provided in a menu format, so that the developer can choose which standards best meet the needs of the use and the features of the site. This flexibility makes the economic impacts of the standards less burdensome than fixed requirements with no choices. But due to the addition of restrictions and standards, negative economic impacts could be imposed on the property owner.

A.12 RESIDENTIAL DESIGN STANDARDS

The existing code has no residential design standards. The proposed code would include a new tool that would create residential design standards for single-family structures, duplexes, townhouses, and multi-family developments. Mobile homes would be excluded.

These new design standards and regulations are more restrictive and could create additional costs for property owners.

A.13 TRANSPORTATION AND CONNECTIVITY

The existing code has no transportation standards or connectivity guidelines, although the Fire Code has standards for the number of exits from a subdivision. The proposed code would have an index which measures connectivity for proposed subdivisions and sets new design standards for pedestrian facilities.

These standards could have a positive impact on traffic congestion, walkability, and thus public health. But in terms of impact on property owners, these new tools in the proposed code generally mean more restrictions, so negative economic impacts could be imposed.

A.14 UTILITY DISTRIBUTION FACILITIES

No changes.

A.15 SUMMARY OF IMPACTS FROM DEVELOPMENT STANDARDS

The summary of the estimated impacts of the 14 development standards discussed above shows that two would likely have positive economic impacts on the property owner, seven would have negative impacts, and five would have mixed or no impacts (neutral). The net effect of this rather crude measurement of relative magnitude of impacts favors negative impacts.

Still, each of the assessments is judged in isolation and is based primarily on the added on-site costs that would be required to provide and maintain each item. Added standards or increased landscaping, even at added cost, may also enable a property owner to achieve higher value because of the higher quality of the site.

Moreover, higher standards maintained by adjacent properties can increase the value of a single owner's property because of the "macro" effects caused by large scale property improvements; eventually, the entire city can have higher aesthetic qualities, more efficient stormwater control, more open space available to the public, and so on. Thus, it is difficult to judge the overall effects of such changes as proposed for Title 21 even though direct costs associated with compliance suggest immediate negative impacts on individual property owners.

Appendix B:

EIA Model Tests

ECONOMIC COST & BENEFIT COMPARISON WORKSHEET

Title 21 Land Use Code
Current Code vs. Proposed Code (2007 Public Hearing Draft)
Anchorage, Alaska

CELL	Cells requiring direct input.
COLOR	Cells calculated by the model; can be overridden by direct input.
CODES	Cells with drop-down answer menus.

Current Title 21 Zoning District:	**B-3**	**General Business**
Proposed Title 21 Zoning District:	**CMU**	**Community Mixed Use**

Name of Project:	**Alaska USA Federal Credit Union**	
Address or Location of Project:	500 West 36th Avenue	
Current Zoning:	B-3	General Business
Proposed Zoning:	CMU	Community Mixed Use
Is this project in Downtown vicinity?	No	*Answer "Yes" if North of 15th Avenue, west of Gambell Street, east of L Street and south of Ship Creek*
If not, is this project in the Central City?	Yes	*Answer "Yes" if North of Tudor Rd, east of Minnesota Dr and west of Seward Hwy, or in Fairview, Mt. View, or Gov't Hill neighborhood.*

Written description of proposed project:

A low-medium rise financial services office building surrounded by surface parking lot and landscaping. This test assumes that the proposed zone is CMU, although this location in central Midtown would more likely be eligible for rezoning to a more intensive Midtown Core (MT) district. MT zoning has yet to be developed and so is not available for testing.

19	**Proposed Uses on the Site**				
20	**RESIDENTIAL**		Number of Dwelling Units	Square Feet	Square Feet GFA per Dwelling Unit
21		Dwellings, Multifamily or Mixed-use - Efficiency	-	-	600
22		Dwellings, Multifamily or Mixed-use - 1 Bedroom	-	-	800
23		Dwellings, Multifamily or Mixed-use - 2 Bedroom	-	-	1,000
24		Dwellings, Multifamily or Mixed-use - 3 Bedroom	-	-	1,400
25		*Total Dwelling Units*	-	-	
26					
27	**Bonus Potential: Affordable Housing**	Dwellings from above that are qualified as Affordable Housing			Square Feet in ea. Affordable Unit
28		Efficiency	-	-	
29		1 Bedroom	-	-	600
30		2 Bedroom	-	-	700
31		3 Bedroom	-	-	800
32		TOTAL Affordable Units	-	-	1,100
33		*Added building floor area allowed (up to 0.5 added FAR)*		-	*3 sq. ft. per affordable housing sq. ft.*
34					
35	**Bonus Potential: Housing Square Feet**	*Potential bonus square feet from housing square feet (up to 0.5 added FAR)*		-	*2 sq. ft. per housing sq. ft.*
36					
37					
38	**HOTEL**		Number of Hotel Rooms	Square Feet GFA per hotel room	
39			-	1,000	
40		*Total Hotel Rooms*	-	-	
41					
42	**COMMERCIAL USES**			Square Feet	
43		Office, business, professional and financial		67,000	
44		Office, health and medical		-	
45		Health Club, Fitness		-	
46		Restaurant		-	
47		Retail, grocery		-	
48		Retail, general - general, convenience store, building materials		-	
49		Retail, other - pharmacy, video rental, liquor store, wholesale, business service, vehicle parts stores		-	
50		Retail, large goods - furniture, home appliance, flooring		-	
51		Retail, large shopping mall		-	
52		Manufacturing, small		-	
53		Manufacturing, large		-	
54		Warehouse, small		-	
55		Warehouse, large		-	
56		Accessory storage/mechanical area		25,500	
57		*Total Commercial Square Feet*		*92,500*	
58					
59	**STRUCTURED PARKING**	Parking, above grade in the building or a separate structure		-	
60		Structured parking below grade or in the basement		-	
61	***Total Square Feet***			***92,500***	
62					

Proposed Building Dimensions

FLOORS

	Number of Floors	Floor Height (ft)	Floorplate Size	
First Floor	1	15	15,000	square feet
Second Floor and/or Mezzanine	1	15	17,500	square feet
Third Floor	1	15	17,500	square feet
Fourth Floor	1	15	17,500	square feet
Fifth Floor	-	0		square feet
Number of Additional Floors	-	0		square feet
Mechanical Storage Penthouse	1	15	10,000	square feet
Attic or Sloping Roof (Above Eave)	-	0		
Total Floors Above Grade	*5*			
Basement Floors (Below Grade)	1	0	15,000	square feet

NOTICE: Mechanical penthouse appurtenance exceeds 33% rooftop coverage, and so will be counted as an additional floor. If as a result the building exceeds height limits, consider reducing appurtenance floor area or redistributing it to a basement.

GROSS FLOOR AREA

Gross Floor Area (based on floor dimensions)	92,500	square feet
Gross Floor Area of proposed uses (from previous page)	92,500	square feet
Gross Floor Area excluding below grade structured parking	92,500	square feet
Gross Floor Area excluding all structured parking	92,500	square feet
Net Floor Area (useable or leasable) excluding parking	78,625	square feet
Floor Area Efficiency	85%	

BUILDING HEIGHT

Height of Proposed Building (based on floor dimensions)			75	feet
Allowable Height	Current code	B-3	Unlimited	feet
	Proposed Code	CMU	60	feet

WARNING: Building height exceeds allowable maximum in proposed code. Consider reducing the number of floors for the proposed code analysis, in part by increasing the number of square feet per floor to compensate for the lower building height.

LOT COVERAGE

Gross Building Footprint		15,000	square feet
Minimum Building Footprint Requirement		5,000	square feet
Gross Footprint as Percent of Site Area		10.4%	
Maximum Allowed Lot Coverage	B-3	Unrestricted	
	CMU	Unrestricted	

BUILDING LOCATION

Building Location Relative to Perimeter Lot Lines	Current Code	Proposed Code	
Near Front Lot Line, not set back behind vehicle area?	No	Yes	This lot line abuts a street and has the primary front setback
Length of Façade near Front Lot Line	0	122	feet
Near Side Lot Line, not set back behind vehicle area?	No	No	This lot line is located clockwise from the "Front Lot Line"
Length of Façade near Side Lot Line	0	0	feet
Near Other Side Lot Line, not set back behind vehicle area?	No	No	This is located counter-clockwise from the "Front Lot Line"
Length of Façade near Other Side Lot Line	0	0	feet
Near Rear Lot Line, not set back behind vehicle area?	Yes	No	This lot line is located opposite from the "Front Lot Line"
Length of Façade near Rear Lot Line	122	0	feet

FLOOR AREA RATIO (FAR)

Current Code	B-3				
Maximum FAR Allowed		Unrestricted	Maximum Floor Area Allowed:	NA	sq. ft.
Proposed FAR		0.64	Proposed Floor Area	92,500	sq. ft.
Proposed Code	CMU				
Maximum FAR By right		1.00	Maximum Floor Area By right:	144,900	sq. ft.
Maximum FAR with bonuses		2.00	Maximum Floor Area with Bonuses:	289,800	sq. ft.
Allowable FAR with bonuses proposed		1.01	*Allowable floor area in this case:*	145,900	sq. ft.
Proposed FAR		0.64	*Proposed floor area:*	92,500	sq. ft.

114									
115	**How many public streets border this property?**								
116	Two, corner lot								
117									
118	**Types of Streets along Boundaries**					**Street Name**	Driveways	Driveway Width	
119	Primary front lot line	Arterial Street				West 36th Avenue	2	24	feet
120	Secondary street frontage	Local Street				Centerpoint Drive	1	24	feet
121	Not Applicable	Not Applicable				None			feet
122	Not Applicable	Not Applicable				None			feet
123									
124	**Lot Dimensions in Feet**	Front lot line	630	feet	This lot line abuts a street and has the primary front setback				
125		Side lot line	230	feet	This lot line is located clockwise from the "Front Lot Line"				
126		Other side lot line	230	feet	This is located counter-clockwise from the "Front Lot Line"				
127		Lot line opposite front line (rear)	630	feet	This lot line is located opposite from the "Front Lot Line"				
128		Other		feet	This is an additional lot line for testing irregular shaped lots.				
129									
130	**Estimated land area**		144,900	square feet					
131	(*accept the calculation or enter exact*)		3.33	acres					
132									
133	**Adjacent and Abutting Properties**			Zoning					
134				Current Code	Proposed Code	Land Use	District		
135		Front lot line	Adjacent	B-3	CMU	Non-Residential	Non-Residential		
136		Side lot line	Adjacent	B-3	CMU	Non-Residential	Non-Residential		
137		Other side lot line	Abutting	B-3	B-3	Non-Residential	Non-Residential		
138		Lot line opposite front line (rear)	Abutting	B-3	CMU	Non-Residential	Non-Residential		
139									

Parking Requirements and Land Utilization for Parking

Current Title 21	**B-3**	**General Business**			Total Spaces	
Dwellings, Multifamily or Mixed-use - Efficiency			1.68	spaces per dwelling unit	-	
Dwellings, Multifamily or Mixed-use - 1 Bedroom			1.68	spaces per dwelling unit	-	
Dwellings, Multifamily or Mixed-use - 2 Bedroom			2.00	spaces per dwelling unit	-	
Dwellings, Multifamily or Mixed-use - 3 Bedroom			2.80	spaces per dwelling unit	-	
Hotel			1.00	space per room	-	
Office, business, professional and financial			3.33	spaces per 1,000 gross square feet	223.3	
Office, health and medical			4.00	spaces per 1,000 gross square feet	-	
Health Club, Fitness			3.33	spaces per 1,000 gross square feet	-	
Restaurant			13.33	spaces per 1,000 gross square feet	-	
Retail, grocery			5.00	spaces per 1,000 gross square feet	-	
Retail, general - general, convenience store, building materials			3.33	spaces per 1,000 gross square feet	-	
Retail, other - pharmacy, video rental, liquor store, wholesale, business service, vehicle parts stores			3.33	spaces per 1,000 gross square feet	-	
Retail, large goods - furniture, home appliance, flooring			3.33	spaces per 1,000 gross square feet	-	
Retail, large shopping mall			4.00	spaces per 1,000 gross square feet	-	
Manufacturing, small			2.50	spaces per 1,000 gross square feet	-	
Manufacturing, large			2.50	spaces per 1,000 gross square feet	-	
Warehouse, small			1.00	space per 1,000 gross square feet	-	
Warehouse, large			1.00	space per 1,000 gross square feet	-	
Accessory storage/mechanical area			1.00	space per 1,000 gross square feet	25.5	
Total parking required					**249**	spaces

Parking space distribution						Gross Land Area per Space	
Surface parking			249	100.0%	400	square feet	
Within building, above ground	*Number of levels:*	1	-	0.0%	-	square feet	
Within building, below ground	*Number of levels:*	1	-	0.0%	-	square feet	
Above grade structure	*Number of levels:*	1	-	0.0%	-	square feet	
Below grade structure	*Number of levels:*	1	-	0.0%	-	square feet	
Off-site			-	0.0%	-	square feet	
TOTAL			249	100.0%	400	square feet	

Total Land Area Requirement	99,600	square feet
	2.29	acres
Percent of Gross Site Area	*69%*	

	Parking Requirements and Land Utilization **Proposed Title 21** The private open space requirement increases by 40 square feet for every parking space that is subtracted as part of the Parking Reductions.	Spaces required per 1,000 GSF (non-resid.) or per dwelling or per hotel room	40% Reduction in parking requirement for Downtown vicinity Residential	10% Reduction in parking requirement for Central City Residential	10% Reduction in parking requirement in Mixed-use Zones - NMU, CMU, RMU or R-4A	5% Reduction in parking requirement for Uses Adjacent to Transit Service	Reduction in parking requirement for Shared Parking	10% Reduction for Transit Pass Benefits or Parking Cash-out	Total Parking Spaces Required (with Reductions)
176			No	Yes	Yes	Yes	No	No	
177	Dwellings, Multifamily Efficiency	1.00	100%	90%	90%	95%	100%	100%	-
178	Dwellings, Multifamily 1 Bedroom	1.20	100%	90%	90%	95%	100%	100%	-
179	Dwellings, Multifamily 2 Bedroom	1.60	100%	90%	90%	95%	100%	100%	-
180	Dwellings, Multifamily 3 Bedroom	2.10	100%	90%	90%	95%	100%	100%	-
181	Hotel	0.90	100%	100%	90%	95%	100%	100%	-
182	Office, business, professional and financial	2.86	100%	100%	90%	95%	100%	100%	163.67
183	Office, health and medical	4.00	100%	100%	90%	95%	100%	100%	-
184	Health Club, Fitness	4.44	100%	100%	90%	95%	100%	100%	-
185	Restaurant	16.67	100%	100%	90%	95%	100%	100%	-
186	Retail, grocery	4.00	100%	100%	90%	95%	100%	100%	-
187	Retail, general	3.33	100%	100%	90%	95%	100%	100%	-
188	Retail, other	2.50	100%	100%	90%	95%	100%	100%	-
189	Retail, large goods	1.25	100%	100%	90%	95%	100%	100%	-
190	Retail, large shopping mall	3.33	100%	100%	90%	95%	100%	100%	-
191	Manufacturing, small	1.00	100%	100%	90%	95%	100%	100%	-
192	Manufacturing, large	0.67	100%	100%	90%	95%	100%	100%	-
193	Warehouse, small	0.80	100%	100%	90%	95%	100%	100%	-
194	Warehouse, large	0.67	100%	100%	90%	95%	100%	100%	-
195	Accessory storage/mechanical area	0.80	100%	100%	90%	95%	100%	100%	17.44
196	**Total parking required**								**182**
197									
198	Parking space distribution								Gross Land Area per Space
199	Surface parking					182	100%	400	square feet
200	Within building		*Number of levels:*	1		-	0%	-	square feet
201	Within building, below ground		*Number of levels:*	1		-	0%	-	square feet
202	Above grade structure		*Number of levels:*	1		-	0%	-	square feet
203	Below grade structure		*Number of levels:*	1		-	0%	-	square feet
204	Off-site					-	0%	-	square feet
205	**TOTAL**					**182**	100%	400	square feet
206	Total Land Area Requirement	72,800	square feet						
207		1.67	acres						
208	*Percent of Gross Site Area*	*50.2%*							
209									
210	**Bonus Potential: Below Ground Parking**								
211	Number of Below Ground Spaces					-	spaces		
212	Square feet of below ground parking					-	square feet		
213	Added building floor area allowed at		*2 sq. ft. per sq. ft. of below ground parking*			-	square feet (up to 1.0 added FAR)		
214									

			Current Code B-3		Proposed Code CMU	
Minimum Setback Requirements						
Types of Streets along Boundaries						
Arterial Street	Front lot line		10	feet	0	feet
Local Street	Side lot line		5	feet	0	feet
Not Applicable	Other side lot line		10	feet	5	feet
Not Applicable	Lot line opposite front line (rear)		0	feet	5	feet

		Current Code B-3		Proposed Code CMU	
Site Perimeter Utility Easements					
Linear utility easements along perimeter of site.	Front lot line	10	feet	10	feet
	Side lot line	10	feet	10	feet
	Other side lot line	20	feet	20	feet
	Lot line opposite front line (rear)	10	feet	10	feet

		Current Code B-3		Proposed Code CMU			
Minimum Perimeter Landscaping Setbacks from Adjacent Uses	Adjacent Uses	Adjacent Zoning	Minimum Perimeter Landscaping Width (feet)	Adjacent Zoning	Site Perimeter Landscaping Level	Minimum Perimeter Landscaping Width (feet)	Landscaping Width with Utility Easement
Front lot line	Arterial Street	B-3	6	CMU	None	0	0
Side lot line	Local Street	B-3	0	CMU	None	0	0
Other side lot line	Non-Residential	B-3	0	B-3	L2	8	24
Lot line opposite front line (rear)	Non-Residential	B-3	0	CMU	None	0	0

	Current Code B-3			Proposed Code CMU				
Minimum Parking Lot Perimeter Landscaping Setbacks	Adjacent Zoning	Perimeter Landscaping Width (feet)	Perimeter Landscaping Length (feet)	Adjacent Zoning	Parking Lot Perimeter Landscaping Level	Parking Landscaping Width (feet)	Parking Landscaping Length (feet)	Landscaping Width with Utility Easement
Front lot line	B-3	6	630	CMU	L2	8	423	14
Side lot line	B-3	8	216	CMU	L2	8	214	14
Other side lot line	B-3	8	216	B-3	L2	8	214	24
Lot line opposite front line (rear)	B-3	8	508	CMU	L2	8	545	14

		Current Code B-3		Proposed Code CMU			
Combined Minimum Landscaping and Setback Requirements from Lot Lines		Landscaping	Building Setback	Landscaping…	…with easements	Building Setback	
	Front lot line	6	10	8	14	10	feet
Greater of minimum zoning requirements or landscaping requirements.	Side lot line	8	10	8	14	10	feet
	Other side lot line	8	20	8	24	24	feet
	Lot line opposite front line (rear)	8	10	8	14	10	feet

		Current Code B-3		Proposed Code CMU	
Setback, Easement and Perimeter Landscaping Site Area Requirements					
	Front lot line	3,492	square feet	6,855	square feet
	Side lot line	1,536	square feet	2,804	square feet
	Other side lot line	1,728	square feet	5,520	square feet
	Lot line opposite front line (rear)	5,285	square feet	7,633	square feet
	TOTAL	12,041	square feet	22,813	square feet

Parking Interior Lot Landscaping Requirements		Current Code	B-3	Proposed Code	CMU	
Number of surface parking spaces		249	spaces	182	spaces	
Surface parking land area		99,600	square feet	72,800	square feet	
Percent of parking area for landscaping		5%		10%		
Required Landscaping Area (in addtion to surface parking area)		4,980	square feet	7,280	square feet	
Loading Area Requirements		Current Code	B-3	Proposed Code	CMU	
Berth Type		B		B		
Number of Berths Required		2		2		
Land Area per Berth		400	square feet	400	square feet	
Total Loading Area Land Area Requirement		800	square feet	800	square feet	
Lighting Requirements		Current Code	B-3	Proposed Code	CMU	
Surface parking land area		99,600	square feet	72,800	square feet	
Private Open Space Requirements		Current Code	B-3	Proposed Code	CMU	
Required for Residential Dwellings		-	square feet	-	square feet	
Required for Non-residential Uses		-	square feet	4,625	square feet	
Required in return for Parking Reductions			square feet	1,240	square feet	
Total Required Private Open Space		**-**	**square feet**	**5,865**	**square feet**	
Amount provided on or in the building(s)		-		-	sq. ft.	
Amount provided on the land		-		5,865	sq. ft.	
Total Private Open Space Provided				**5,865**	**sq. ft.**	
Acres				*0.13*	acres	
Percent of Site				*4.0%*		
Excess Private Open Space Provided (R-4)				-	sq. ft.	
Bonus floor area allowed:						
1 sq. ft. of floor area per	1 sq. ft. of excess private open space			-	sq. ft. of added floor area	
Snow Storage Area Requirement		Current Code	B-3	Proposed Code	CMU	
20% of multi-family surface parking requirements		No Requirement		-	square feet	
less				less		
25% of private open space provided on the land				-	square feet	
Total Snow Storage Requirement				**-**	**square feet**	
				-	*acres*	
Percent of Site				*0.0%*		

298	**Pedestrian Connections Requirements**			Current Code B-3	Proposed Code CMU	
299	**Required Walkways**			No Pedestrian Requirements	2,174	square feet
300	**Bus Stop** (may be required for transit-related parking reduction)				-	square feet
301	*Required in return for a Parking Reduction?*	No	*(Accept default or enter yes or no)*			
302	*Is it located along an Arterial class street?*	No	*(Enter yes or no)*			
303	*Additional area for on-site transit facilities*	0	square feet			
304	**Primary Pedestrian Walkways**				200	linear feet of primary pedestrian walkway
305					2,400	square feet of primary pedestrian walkway
306	**Bonus floor area allowed at**	5	square feet per lin. ft.		1,000	square feet of bonus floor area
307						
308	*Pedestrian Connections Square Feet*				3,574	square feet
309	*Pedestrian Connections in Acres*				*0.1*	*acres*
310	*Percent of Site*				*2.5%*	
311						

312				
313	**Other Facilities or Undeveloped Areas (Optional)**	Area (sf)	Brief Description of Facility	
314	Area of site encumbered by other facilities not necessarily required by the zoning ordinance			
315	but needed by the use type. Such areas may include, for example, portions of the site left			
316	undeveloped, storage areas, trailer parking and storage, loading areas or fleet parking areas.			
317	The model provides the option to account for such areas to avoid unnecessarily counting			
318	them toward required site enhancement landscaping costs. TOTAL AREA	-	square feet	
319				

	Summary Site Area Requirements	Current Code B-3		Proposed Code CMU		
	Land Area in Square Feet					
	Building Footprint	15,000	square feet	15,000	square feet	
	Parking	99,600	square feet	72,800	square feet	
	Setbacks, Easements and Perimeter Landscaping	12,041	square feet	22,813	square feet	
	Parking Lot Interior Landscaping	4,980	square feet	7,280	square feet	
	Loading Area	800	square feet	800	square feet	
	Lighting	Same as Parking	square feet	Same as Parking	square feet	
	Private Open Space	-	square feet	5,865	square feet	
	Snow Storage	-	square feet	-	square feet	
	Pedestrian Connections	-	square feet	3,574	square feet	
	TOTAL	**132,421**	**square feet**	**128,132**	**square feet**	3% lower
	Total Site Area	144,900	square feet	144,900	square feet	
	Percent of Total Site Area					
	Building Footprint	10.4%		10.4%		
	Parking	68.7%		50.2%		
	Setbacks, Easements and Perimeter Landscaping	8.3%		15.7%		
	Parking Lot Interior Landscaping	3.4%		5.0%		
	Loading Area	0.6%		0.6%		
	Lighting	NA		NA		
	Private Open Space	0.0%		4.0%		
	Snow Storage	0.0%		0.0%		
	Pedestrian Connections	0.0%		2.5%		
	TOTAL	**91.4%**		**88.4%**		
	Total Site Area	100.0%		100.0%		

					Current Code B-3	Proposed Code CMU	
346	**Summary Cost Requirements**						
347	Parking Construction						Pct. of Current
348	*Surface parking*	*$8,000*	*per space*		*$1,992,000*	*$1,456,000*	*73%*
349	*Within building, above ground*	*$35,000*	*per space*		*$0*	*$0*	
350	*Within building, below ground*	*$60,000*	*per space*		*$0*	*$0*	
351	*Above grade structure*	*$35,000*	*per space*		*$0*	*$0*	
352	*Below grade structure*	*$60,000*	*per space*		*$0*	*$0*	
353	*Off-site*	*$0*	*per space*		*$0*	*$0*	
354	Total Parking Construction				$1,992,000	$1,456,000	*73%*
355							
356	Setbacks, Easements and Perimeter Landscaping						
357	Current Code	$ 7.85	per square foot		$94,500		
358	*Proposed Code - perimeter landsc.*	*$ 11.32*	*per square foot*			*$127,900*	
359	*Proposed Code - easement landsc.*	*$ 2.00*	*per square foot*			*$23,000*	
360	Proposed Code - total					$150,900	*160%*
361							
362	Parking Lot Interior Landscaping						
363	Current Code	$ 7.85	per square foot		$39,100		
364	Proposed Code	$ 11.32	per square foot			$82,400	*211%*
365							
366	Site Enhancement Landscaping						
367	Current Code	$1.20	per square foot		$15,000		
368	Proposed Code	$2.00	per square foot			$33,500	*223%*
369							
370	Loading Area	$ 20.00	per square foot		$16,000	$16,000	*100%*
371							
372	Lighting Current Code	$ 0.08	per square foot		$8,200		
373	Proposed Code	$ 0.10	per square foot			$7,200	*88%*
374							
375	Private Open Space						
376	Current Code	$ 7.85	per square foot		$0		
377	Proposed Code	$ 11.32	per square foot			$66,400	
378							
379	Snow Storage	$ 11.32			$0	$0	
380							
381	Pedestrian Connections	$ 11.32	per square foot		$0	$40,500	
382							
383	**COST OF SITE DEVELOPMENT (Including structured parking)**				**$2,164,800**	**$1,852,900**	*86%*
384							
385	**COST OF BUILDING CONSTRUCTION**				**$15,088,000**	**$15,842,000**	*105%*
386							
387	**TOTAL COST OF DEVELOPMENT**				**$17,252,800**	**$17,694,900**	*103%*

1	**ECONOMIC COST & BENEFIT COMPARISON WORKSHEET**			
2	**Title 21 Land Use Code**		CELL	Cells requiring direct input.
3	**Current Code vs. Proposed Code (2007 Public Hearing Draft)**		COLOR	Cells calculated by the model; can be overridden by direct input.
4	**Anchorage, Alaska**		CODES	Cells with drop-down answer menus.
5	**Current Title 21 Zoning District:**	**R-4**	**Multiple Family Residential**	
6				
7	**Proposed Title 21 Zoning District:**	**R-4**	**Multiple Family Residential**	
8				
9	**Name of Project:**	**Park Plaza II**		
10	**Address or Location of Project:**	16th Avenue and A Street		
11	**Current Zoning:**	R-4	Multiple Family Residential	
12	**Proposed Zoning:**	R-4	Multiple Family Residential	
13	**Is this project in Downtown vicinity?**	No	*Answer "Yes" if North of 15th Avenue, west of Gambell Street, east of L Street and south of Ship Creek*	
14	**If not, is this project in the Central City?**	Yes	*Answer "Yes" if North of Tudor Rd, east of Minnesota Dr and west of Seward Hwy, or in Fairview, Mt. View, or Gov't Hill neighborhood.*	
15				
16	**Written description of proposed project:**			
17	5-story, 100-unit residential building over underground and ground floor parking including some office space and a health club. For testing purposes 20 units are assumed to meet proposed Title 21 definition for affordable housing. Health club and office space are for purposes of test considered separate primary allowed uses.			
18				

Proposed Uses on the Site						
RESIDENTIAL		Number of Dwelling Units	Square Feet		Square Feet GFA per Dwelling Unit	
	Dwellings, Multifamily or Mixed-use - Efficiency	26	15,600		600	
	Dwellings, Multifamily or Mixed-use - 1 Bedroom	54	43,200		800	
	Dwellings, Multifamily or Mixed-use - 2 Bedroom	20	20,000	Residential	1,000	
	Dwellings, Multifamily or Mixed-use - 3 Bedroom	-	-		1,400	
	Total Dwelling Units	*100*	*78,800*			
Bonus Potential: Affordable Housing	Dwellings from above that are qualified as Affordable Housing				Square Feet in ea. Affordable Unit	
	Efficiency	10	6,000			
	1 Bedroom	5	3,500		600	
	2 Bedroom	5	4,000		700	
	3 Bedroom	-	-		800	
	TOTAL Affordable Units	20	13,500		1,100	
	Added building floor area allowed (up to 0.5 added FAR)		*27,000*		*2 sq. ft. per affordable housing sq. ft.*	
Bonus Potential: Housing Square Feet	*Potential bonus square feet from housing square feet (up to 0.5 added FAR)*		-		*0 sq. ft. per housing sq. ft.*	
HOTEL		Number of Hotel Rooms	Square Feet GFA per hotel room			
		-	1,000			
	Total Hotel Rooms	-	-			
COMMERCIAL USES			Square Feet			
	Office, business, professional and financial		1,500			
	Office, health and medical		-			
	Health Club, Fitness		5,000			
	Restaurant		-			
	Retail, grocery		-			
	Retail, general - general, convenience store, building materials		-			
	Retail, other - pharmacy, video rental, liquor store, wholesale, business service, vehicle parts stores		-			
	Retail, large goods - furniture, home appliance, flooring		-			
	Retail, large shopping mall		-			
	Manufacturing, small		-			
	Manufacturing, large		-			
	Warehouse, small		-			
	Warehouse, large		-			
	Accessory storage/mechanical area		-			
	Total Commercial Square Feet		*6,500*			
STRUCTURED PARKING	Parking, above grade in the building or a separate structure		18,500			
	Structured parking below grade or in the basement		41,000			
Total Square Feet			***144,800***			

Proposed Building Dimensions

FLOORS

Number of Floors		Floor Height (ft)	Floorplate Size	
First Floor	1	10	25,000	square feet
Second Floor and/or Mezzanine	1	10	22,500	square feet
Third Floor	1	10	22,500	square feet
Fourth Floor	1	10	22,500	square feet
Fifth Floor	1	10	11,300	square feet
Number of Additional Floors	-	0		square feet
Mechanical Storage Penthouse	-	0		square feet
Attic or Sloping Roof (Above Eave)	-	8		
Total Floors Above Grade	*5*			
Basement Floors (Below Grade)	1	0	41,000	square feet

GROSS FLOOR AREA

Gross Floor Area (based on floor dimensions)	144,800	square feet
Gross Floor Area of proposed uses (from previous page)	144,800	square feet
Gross Floor Area excluding below grade structured parking	103,800	square feet
Gross Floor Area excluding all structured parking	85,300	square feet
Net Floor Area (useable or leasable) excluding parking	72,505	square feet
Floor Area Efficiency	85%	

BUILDING HEIGHT

Height of Proposed Building (based on floor dimensions)			58	feet
Allowable Height	Current code	R-4	Unlimited	feet
	Proposed Code	R-4	60	feet

Building height is in compliance with code.

LOT COVERAGE

Gross Building Footprint	25,000	square feet
Minimum Building Footprint Requirement	1,000	square feet
Gross Footprint as Percent of Site Area	45.5%	
Maximum Allowed Lot Coverage R-4	Unrestricted	
Maximum Allowed Lot Coverage R-4	65%	

BUILDING LOCATION

Building Location Relative to Perimeter Lot Lines	Current Code	Proposed Code	
Near Front Lot Line, not set back behind vehicle area?	Yes	Yes	This lot line abuts a street and has the primary front setback
Length of Façade near Front Lot Line	158	158	feet
Near Side Lot Line, not set back behind vehicle area?	Yes	Yes	This lot line is located clockwise from the "Front Lot Line"
Length of Façade near Side Lot Line	158	158	feet
Near Other Side Lot Line, not set back behind vehicle area?	No	No	This is located counter-clockwise from the "Front Lot Line"
Length of Façade near Other Side Lot Line	0	0	feet
Near Rear Lot Line, not set back behind vehicle area?	No	No	This lot line is located opposite from the "Front Lot Line"
Length of Façade near Rear Lot Line	0	0	feet

FLOOR AREA RATIO (FAR)

Current Code	R-4					
	Maximum FAR Allowed	Unrestricted	Maximum Floor Area Allowed:	NA	sq. ft.	
	Proposed FAR	1.89	Proposed Floor Area	103,800	sq. ft.	
Proposed Code	R-4					
	Maximum FAR By right	1.00	Maximum Floor Area By right:	55,000	sq. ft.	
	Maximum FAR with bonuses	2.00	Maximum Floor Area with Bonuses:	110,000	sq. ft.	
	Allowable FAR with bonuses proposed	2.00	*Allowable floor area in this case:*	110,000	sq. ft.	
	Proposed FAR	1.89	*Proposed floor area:*	103,800	sq. ft.	

How many public streets border this property?								
	Three, two corners, no rear street							
Types of Streets along Boundaries					**Street Name**	Driveways	Driveway Width	
Primary front lot line	Collector Street				East 16th Avenue	1	24	feet
Secondary street frontage 1	Arterial Street				A Street			feet
Secondary street frontage 2	Local Street				East 15th Avenue	1	24	feet
Not Applicable	Not Applicable				None			feet
Lot Dimensions in Feet	Front lot line		275	feet	This lot line abuts a street and has the primary front setback			
	Side lot line		200	feet	This lot line is located clockwise from the "Front Lot Line"			
	Other side lot line		200	feet	This is located counter-clockwise from the "Front Lot Line"			
	Lot line opposite front line (rear)		275	feet	This lot line is located opposite from the "Front Lot Line"			
	Other			feet	This is an additional lot line for testing irregular shaped lots.			
Estimated land area			55,000	square feet				
(*accept the calculation or enter exact*)			1.26	acres				

Adjacent and Abutting Properties		Zoning			
		Current Code	Proposed Code	Land Use	District
Front lot line	Adjacent	PLI-p	PR	Non-Residential	Non-Residential
Side lot line	Adjacent	R-O	R-O	Non-Residential	Non-Residential
Other side lot line	Adjacent	R-4	R-4	Residential	Residential
Lot line opposite front line (rear)	Abutting	R-4	R-4	Residential	Residential

140	**Parking Requirements and Land Utilization for Parking**								
141	**Current Title 21**	**R-4**	**Multiple Family Residential**					Total Spaces	
142	Dwellings, Multifamily or Mixed-use - Efficiency				1.68	spaces per dwelling unit		43.7	
143	Dwellings, Multifamily or Mixed-use - 1 Bedroom				1.68	spaces per dwelling unit		90.7	
144	Dwellings, Multifamily or Mixed-use - 2 Bedroom				2.00	spaces per dwelling unit		40.0	
145	Dwellings, Multifamily or Mixed-use - 3 Bedroom				2.80	spaces per dwelling unit		-	
146	Hotel				1.00	space per room		-	
147	Office, business, professional and financial				3.33	spaces per 1,000 gross square feet		5.0	
148	Office, health and medical				4.00	spaces per 1,000 gross square feet		-	
149	Health Club, Fitness				3.33	spaces per 1,000 gross square feet		16.7	
150	Restaurant				13.33	spaces per 1,000 gross square feet		-	
151	Retail, grocery				5.00	spaces per 1,000 gross square feet		-	
152	Retail, general - general, convenience store, building materials				3.33	spaces per 1,000 gross square feet		-	
153	Retail, other - pharmacy, video rental, liquor store, wholesale, business service, vehicle parts stores				3.33	spaces per 1,000 gross square feet		-	
154	Retail, large goods - furniture, home appliance, flooring				3.33	spaces per 1,000 gross square feet		-	
155	Retail, large shopping mall				4.00	spaces per 1,000 gross square feet		-	
156	Manufacturing, small				2.50	spaces per 1,000 gross square feet		-	
157	Manufacturing, large				2.50	spaces per 1,000 gross square feet		-	
158	Warehouse, small				1.00	space per 1,000 gross square feet		-	
159	Warehouse, large				1.00	space per 1,000 gross square feet		-	
160	Accessory storage/mechanical area				1.00	space per 1,000 gross square feet		-	
161	**Total parking required**							**197**	spaces
162									
163	Parking space distribution							Gross Land Area per Space	
164	Surface parking					25	12.7%	400	square feet
165	Within building, above ground		*Number of levels:*	1		52	26.4%	-	square feet
166	Within building, below ground		*Number of levels:*	1		120	60.9%	-	square feet
167	Above grade structure		*Number of levels:*	1		-	0.0%	-	square feet
168	Below grade structure		*Number of levels:*	1		-	0.0%	-	square feet
169	Off-site					-	0.0%	-	square feet
170	TOTAL					197	100.0%	51	square feet
171	Total Land Area Requirement	10,000	square feet						
172		0.23	acres						
173	*Percent of Gross Site Area*	*18%*							

	Parking Requirements and Land Utilization **Proposed Title 21** The private open space requirement increases by 40 square feet for every parking space that is subtracted as part of the Parking Reductions.	Spaces required per 1,000 GSF (non-resid.) or per dwelling or per hotel room	40% Reduction in parking requirement for Downtown vicinity Residential	10% Reduction in parking requirement for Central City Residential	10% Reduction in parking requirement in Mixed-use Zones - NMU, CMU, RMU or R-4A	5% Reduction in parking requirement for Uses Adjacent to Transit Service	Reduction in parking requirement for Shared Parking	10% Reduction for Transit Pass Benefits or Parking Cash-out	Total Parking Spaces Required (with Reductions)
			No	Yes	No	Yes	No	No	
177	Dwellings, Multifamily Efficiency	1.00	100%	90%	100%	95%	100%	100%	22.23
178	Dwellings, Multifamily 1 Bedroom	1.20	100%	90%	100%	95%	100%	100%	55.40
179	Dwellings, Multifamily 2 Bedroom	1.60	100%	90%	100%	95%	100%	100%	27.36
180	Dwellings, Multifamily 3 Bedroom	2.10	100%	90%	100%	95%	100%	100%	-
181	Hotel	0.90	100%	100%	100%	95%	100%	100%	-
182	Office, business, professional and financial	2.86	100%	100%	100%	95%	100%	100%	4.07
183	Office, health and medical	4.00	100%	100%	100%	95%	100%	100%	-
184	Health Club, Fitness	4.44	100%	100%	100%	95%	100%	100%	21.11
185	Restaurant	16.67	100%	100%	100%	95%	100%	100%	-
186	Retail, grocery	4.00	100%	100%	100%	95%	100%	100%	-
187	Retail, general	3.33	100%	100%	100%	95%	100%	100%	-
188	Retail, other	2.50	100%	100%	100%	95%	100%	100%	-
189	Retail, large goods	1.25	100%	100%	100%	95%	100%	100%	-
190	Retail, large shopping mall	3.33	100%	100%	100%	95%	100%	100%	-
191	Manufacturing, small	1.00	100%	100%	100%	95%	100%	100%	-
192	Manufacturing, large	0.67	100%	100%	100%	95%	100%	100%	-
193	Warehouse, small	0.80	100%	100%	100%	95%	100%	100%	-
194	Warehouse, large	0.67	100%	100%	100%	95%	100%	100%	-
195	Accessory storage/mechanical area	0.80	100%	100%	100%	95%	100%	100%	-
196	**Total parking required**								**131**
197									
198	Parking space distribution								Gross Land Area per Space
199	Surface parking					19	15%	400	square feet
200	Within building		*Number of levels:*	1		32	24%	-	square feet
201	Within building, below ground		*Number of levels:*	1		80	61%	-	square feet
202	Above grade structure		*Number of levels:*	1		-	0%	-	square feet
203	Below grade structure		*Number of levels:*	1		-	0%	-	square feet
204	Off-site					-	0%	-	square feet
205	**TOTAL**					**131**	100%	51	square feet
206	Total Land Area Requirement	7,600	square feet						
207		0.17	acres						
208	*Percent of Gross Site Area*	*13.8%*							
209									
210	**Bonus Potential: Below Ground Parking**								
211	Number of Below Ground Spaces					80	spaces		
212	Square feet of below ground parking					28,000	square feet		
213	Added building floor area allowed at		*2 sq. ft. per sq. ft. of below ground parking*			55,000	square feet (up to 1.0 added FAR)		

Minimum Setback Requirements		Current Code R-4		Proposed Code R-4	
Types of Streets along Boundaries					
Collector Street	Front lot line	10	feet	10	feet
Arterial Street	Side lot line	5	feet	5	feet
Not Applicable	Other side lot line	10	feet	10	feet
Local Street	Lot line opposite front line (rear)	5	feet	5	feet

Site Perimeter Utility Easements		Current Code R-4		Proposed Code R-4	
Linear utility easements along perimeter of site.	Front lot line	0	feet	0	feet
	Side lot line	0	feet	0	feet
	Other side lot line	0	feet	0	feet
	Lot line opposite front line (rear)	10	feet	10	feet

Minimum Perimeter Landscaping Setbacks from Adjacent Uses		Current Code R-4		Proposed Code R-4			
	Adjacent Uses	Adjacent Zoning	Minimum Perimeter Landscaping Width (feet)	Adjacent Zoning	Site Perimeter Landscaping Level	Minimum Perimeter Landscaping Width (feet)	Landscaping Width with Utility Easement
Front lot line	Collector Street	PLI-p	0	PR	L2	8	8
Side lot line	Arterial Street	R-O	0	R-O	L3	15	15
Other side lot line	Residential	R-4	0	R-4	None	0	0
Lot line opposite front line (rear)	Local Street	R-4	0	R-4	L2	8	14

Minimum Parking Lot Perimeter Landscaping Setbacks	Current Code R-4			Proposed Code R-4				
	Adjacent Zoning	Perimeter Landscaping Width (feet)	Perimeter Landscaping Length (feet)	Adjacent Zoning	Parking Lot Perimeter Landscaping Level	Parking Landscaping Width (feet)	Parking Landscaping Length (feet)	Landscaping Width with Utility Easement
Front lot line	PLI-p	8	100	PR	L2	8	87	8
Side lot line	R-O	8	0	R-O	L2	8	0	0
Other side lot line	R-4	10	0	R-4	L2	8	0	0
Lot line opposite front line (rear)	R-4	10	0	R-4	L2	8	0	0

Combined Minimum Landscaping and Setback Requirements from Lot Lines		Current Code R-4		Proposed Code R-4			
		Landscaping	Building Setback	Landscaping…	…with easements	Building Setback	
	Front lot line	8	10	8	8	10	feet
Greater of minimum zoning requirements or landscaping requirements.	Side lot line	0	5	15	15	15	feet
	Other side lot line	0	10	0	0	9.6	feet
	Lot line opposite front line (rear)	0	10	8	14	14	feet

Setback, Easement and Perimeter Landscaping Site Area Requirements		Current Code R-4		Proposed Code R-4	
	Front lot line	2,189	square feet	2,324	square feet
	Side lot line	791	square feet	3,000	square feet
	Other side lot line	0	square feet	0	square feet
	Lot line opposite front line (rear)	0	square feet	3,850	square feet
	TOTAL	2,980	square feet	9,174	square feet

Parking Interior Lot Landscaping Requirements			Current Code	R-4	Proposed Code	R-4
Number of surface parking spaces			25	spaces	19	spaces
Surface parking land area			10,000	square feet	7,600	square feet
Percent of parking area for landscaping			0%		0%	
Required Landscaping Area (in addtion to surface parking area)			0	square feet	0	square feet
Loading Area Requirements			Current Code	R-4	Proposed Code	R-4
Berth Type			B		B	
Number of Berths Required			1		1	
Land Area per Berth			400	square feet	400	square feet
Total Loading Area Land Area Requirement			400	square feet	400	square feet
Lighting Requirements			Current Code	R-4	Proposed Code	R-4
Surface parking land area			10,000	square feet	7,600	square feet
Private Open Space Requirements			Current Code	R-4	Proposed Code	R-4
Required for Residential Dwellings			10,000	square feet	10,000	square feet
Required for Non-residential Uses			-	square feet	325	square feet
Required in return for Parking Reductions				square feet	800	
Total Required Private Open Space			**10,000**	**square feet**	**11,125**	**square feet**
Amount actually provided on or in the building(s)			5,000	sq. ft.	5,000	sq. ft.
Amount actually provided on the land			5,000	sq. ft.	6,125	sq. ft.
Total Private Open Space Provided			**10,000**	**sq. ft.**	**11,125**	**sq. ft.**
Acres					*0.14*	acres
Percent of Site					*11.1%*	
Excess Private Open Space Provided (R-4)					-	sq. ft.
Added floor area allowed:						
1 sq. ft. of floor area per	1 sq. ft. of excess private open space				-	sq. ft. of added floor area
Snow Storage Area Requirement			Current Code	R-4	Proposed Code	R-4
20% of multi-family surface parking requirements			No Requirement		-	square feet
less					less	
25% of private open space provided on the land					-	square feet
Total Snow Storage Requirement					**-**	**square feet**
					-	*acres*
Percent of Site					*0.0%*	

298	**Pedestrian Connections Requirements**			Current Code R-4	Proposed Code R-4	
299	**Required Walkways**			No Pedestrian Requirements	825	square feet
300	**Bus Stop** (may be required for transit-related parking reduction)				900	square feet
301	*Required in return for a Parking Reduction?*	Yes		*(Accept default or enter yes or no)*		
302	*Is it located along an Arterial class street?*	Yes		*(Enter yes or no)*		
303	*Additional area for on-site transit facilities*	600		square feet		
304	**Primary Pedestrian Walkways**				160	linear feet of primary pedestrian walkway
305					1,920	square feet of primary pedestrian walkway
306	**Bonus floor area allowed at**	5		square feet per lin. ft.	800	square feet of bonus floor area
307						
308	*Pedestrian Connections Square Feet*				2,845	square feet
309	*Pedestrian Connections in Acres*				*0.1*	*acres*
310	*Percent of Site*				*5.2%*	
311						
312						

313	**Other Facilities or Undeveloped Areas (Optional)**		Area (sf)	Brief Description of Facility
314	Area of site encumbered by other facilities not necessarily required by the zoning ordinance			
315	but needed by the use type. Such areas may include, for example, portions of the site left			
316	undeveloped, storage areas, trailer parking and storage, loading areas or fleet parking areas.			
317	The model provides the option to account for such areas to avoid unnecessarily counting			
318	them toward required site enhancement landscaping costs.	TOTAL AREA	-	square feet
319				

320	**Summary Site Area Requirements**	Current Code R-4		Proposed Code R-4		
321	Land Area in Square Feet					
322	Building Footprint	25,000	square feet	25,000	square feet	
323	Parking	10,000	square feet	7,600	square feet	
324	Setbacks, Easements and Perimeter Landscaping	2,980	square feet	9,174	square feet	
325	Parking Lot Interior Landscaping	-	square feet	-	square feet	
326	Loading Area	400	square feet	400	square feet	
327	Lighting	Same as Parking	square feet	Same as Parking	square feet	
328	Private Open Space	5,000	square feet	6,125	square feet	
329	Snow Storage	-	square feet	-	square feet	
330	Pedestrian Connections	-	square feet	2,845	square feet	
331	**TOTAL**	**43,380**	**square feet**	**51,144**	**square feet**	18% higher
332	Total Site Area	55,000	square feet	55,000	square feet	
333	Percent of Total Site Area					
334	Building Footprint	45.5%		45.5%		
335	Parking	18.2%		13.8%		
336	Setbacks, Easements and Perimeter Landscaping	5.4%		16.7%		
337	Parking Lot Interior Landscaping	0.0%		0.0%		
338	Loading Area	0.7%		0.7%		
339	Lighting	NA		NA		
340	Private Open Space	9.1%		11.1%		
341	Snow Storage	0.0%		0.0%		
342	Pedestrian Connections	0.0%		5.2%		
343	**TOTAL**	**78.9%**		**93.0%**		
344	Total Site Area	100.0%		100.0%		
345						

					Current Code R-4	Proposed Code R-4	
Summary Cost Requirements							Pct. of Current
Parking Construction							
Surface parking		*$8,000*	*per space*		*$200,000*	*$152,000*	*76%*
Within building, above ground		*$35,000*	*per space*		*$1,820,000*	*$1,176,000*	*65%*
Within building, below ground		*$60,000*	*per space*		*$7,200,000*	*$4,800,000*	*67%*
Above grade structure		*$35,000*	*per space*		*$0*	*$0*	
Below grade structure		*$60,000*	*per space*		*$0*	*$0*	
Off-site		*$0*	*per space*		*$0*	*$0*	
Total Parking Construction					$9,220,000	$6,128,000	*66%*
Setbacks, Easements and Perimeter Landscaping							
Current Code	$	7.85	per square foot		$23,400		
Proposed Code - perimeter landsc.	*$*	*11.32*	*per square foot*			*$83,800*	
Proposed Code - easement landsc.	*$*	*2.00*	*per square foot*			*$3,500*	
Proposed Code - total						$87,300	*373%*
Parking Lot Interior Landscaping							
Current Code	$	7.85	per square foot		$0		
Proposed Code	$	11.32	per square foot			$0	
Site Enhancement Landscaping							
Current Code		$1.20	per square foot		$13,900		
Proposed Code		$2.00	per square foot			$7,700	*55%*
Loading Area	$	20.00	per square foot		$8,000	$8,000	*100%*
Lighting Current Code	$	0.08	per square foot		$800		
Proposed Code	$	0.10	per square foot			$800	*100%*
Private Open Space							*0%*
Current Code	$	7.85	per square foot		$78,500		
Proposed Code	$	11.32	per square foot			$125,900	*160%*
Snow Storage	$	11.32			$0	$0	
Pedestrian Connections	$	11.32	per square foot		$0	$32,200	
COST OF SITE DEVELOPMENT (Including structured parking)					**$9,344,600**	**$6,389,900**	*68%*
COST OF BUILDING CONSTRUCTION					**$13,133,000**	**$13,789,000**	*105%*
TOTAL COST OF DEVELOPMENT					**$22,477,600**	**$20,178,900**	*90%*

1	**ECONOMIC COST & BENEFIT COMPARISON WORKSHEET**			
2	**Title 21 Land Use Code**		CELL	Cells requiring direct input.
3	**Current Code vs. Proposed Code (2007 Public Hearing Draft)**		COLOR	Cells calculated by the model; can be overridden by direct input.
4	**Anchorage, Alaska**		CODES	Cells with drop-down answer menus.
5	**Current Title 21 Zoning District:**	**I-1**	**Light Industrial**	
6				
7	**Proposed Title 21 Zoning District:**	**I-1**	**Light Industrial**	
8				
9	**Name of Project:**	**Carr Gottstein Distribution Warehouse**		
10	**Address or Location of Project:**	6441 C Street		
11	**Current Zoning:**	I-1	Light Industrial	
12	**Proposed Zoning:**	I-1	Light Industrial	
13	**Is this project in Downtown vicinity?**	No	*Answer "Yes" if North of 15th Avenue, west of Gambell Street, east of L Street and south of Ship Creek*	
14	**If not, is this project in the Central City?**	No	*Answer "Yes" if North of Tudor Rd, east of Minnesota Dr and west of Seward Hwy, or in Fairview, Mt. View, or Gov't Hill neighborhood.*	
15				
16	**Written description of proposed project:**			
17	Commercial cold storage facility, distribution warehouse, multi-use office, and vehicle parts and maintenance. To simplify testing the shape of the parcel has been generalized to a rectangle by squaring off the south diagonal lot line along the Alaska Railroad utility corridor and simplifying the east boundary. The site area and general proportions, configuration of uses and facilities on-site and the site's surrounding context are generalizations of the actual development.			
18				

19	**Proposed Uses on the Site**				
20	**RESIDENTIAL**		Number of Dwelling Units	Square Feet	Square Feet GFA per Dwelling Unit
21		Dwellings, Multifamily or Mixed-use - Efficiency	-	-	600
22		Dwellings, Multifamily or Mixed-use - 1 Bedroom	-	-	800
23		Dwellings, Multifamily or Mixed-use - 2 Bedroom	-	-	1,000
24		Dwellings, Multifamily or Mixed-use - 3 Bedroom	-	-	1,400
25		*Total Dwelling Units*	-	-	
26					
27	**Bonus Potential:**	Dwellings from above that are qualified as Affordable Housing			Square Feet in ea. Affordable Unit
28	**Affordable Housing**	Efficiency	-	-	
29		1 Bedroom	-	-	600
30		2 Bedroom	-	-	700
31		3 Bedroom	-	-	800
32		TOTAL Affordable Units	-	-	1,100
33		*Added building floor area allowed (up to 0.5 added FAR)*		-	*0 sq. ft. per affordable housing sq. ft.*
34					
35	**Bonus Potential:**	*Potential bonus square feet from housing square feet (up to 0.5 added FAR)*		-	*0 sq. ft. per housing sq. ft.*
36	**Housing Square Feet**				
37					
38	**HOTEL**		Number of Hotel Rooms	Square Feet GFA per hotel room	
39			-	1,000	
40		*Total Hotel Rooms*	-	-	
41					
42	**COMMERCIAL USES**			Square Feet	
43		Office, business, professional and financial		6,000	
44		Office, health and medical		-	
45		Health Club, Fitness		-	
46		Restaurant		-	
47		Retail, grocery		-	
48		Retail, general - general, convenience store, building materials		-	
49		Retail, other - pharmacy, video rental, liquor store, wholesale, business service, vehicle parts stores			
50		Retail, large goods - furniture, home appliance, flooring		-	
51		Retail, large shopping mall		-	
52		Manufacturing, small		-	
53		Manufacturing, large		-	
54		Warehouse, small		-	
55		Warehouse, large		233,000	
56		Accessory storage/mechanical area		-	
57		*Total Commercial Square Feet*		*239,000*	
58					
59	**STRUCTURED PARKING**	Parking, above grade in the building or a separate structure		-	
60		Structured parking below grade or in the basement		-	
61	***Total Square Feet***			***239,000***	
62					

Proposed Building Dimensions

FLOORS

Number of Floors		Floor Height (ft)	Floorplate Size	
First Floor	1	25	233,000	square feet
Second Floor and/or Mezzanine	1	15	6,000	square feet
Third Floor	-	0	0	square feet
Fourth Floor	-	0	0	square feet
Fifth Floor	-	0	0	square feet
Number of Additional Floors	-	0	0	square feet
Mechanical Storage Penthouse	-	0	0	square feet
Attic or Sloping Roof (Above Eave)	-	0		
Total Floors Above Grade	*2*			
Basement Floors (Below Grade)	-	0	0	square feet

GROSS FLOOR AREA

Gross Floor Area (based on floor dimensions)	239,000	square feet
Gross Floor Area of proposed uses (from previous page)	239,000	square feet
Gross Floor Area excluding below grade structured parking	239,000	square feet
Gross Floor Area excluding all structured parking	239,000	square feet
Net Floor Area (useable or leasable) excluding parking	203,150	square feet
Floor Area Efficiency	85%	

BUILDING HEIGHT

Height of Proposed Building (based on floor dimensions)			40	feet
Allowable Height	Current code	I-1	Unlimited	feet
	Proposed Code	I-1	50	feet

Building height is in compliance with code.

LOT COVERAGE

Gross Building Footprint		233,000	square feet
Minimum Building Footprint Requirement		5,000	square feet
Gross Footprint as Percent of Site Area		36.7%	
Maximum Allowed Lot Coverage	I-1	Unrestricted	
	I-1	Unrestricted	

BUILDING LOCATION

Building Location Relative to Perimeter Lot Lines	Current Code	Proposed Code	
Near Front Lot Line, not set back behind vehicle area?	No	No	This lot line abuts a street and has the primary front setback
Length of Façade near Front Lot Line	0	0	feet
Near Side Lot Line, not set back behind vehicle area?	No	No	This lot line is located clockwise from the "Front Lot Line"
Length of Façade near Side Lot Line	0	0	feet
Near Other Side Lot Line, not set back behind vehicle area?	No	No	This is located counter-clockwise from the "Front Lot Line"
Length of Façade near Other Side Lot Line	0	0	feet
Near Rear Lot Line, not set back behind vehicle area?	Yes	Yes	This lot line is located opposite from the "Front Lot Line"
Length of Façade near Rear Lot Line	600	600	feet

FLOOR AREA RATIO (FAR)

Current Code	I-1				
Maximum FAR Allowed	Unrestricted	Maximum Floor Area Allowed:	NA	sq. ft.	
Proposed FAR	0.38	Proposed Floor Area	239,000	sq. ft.	
Proposed Code	I-1				
Maximum FAR By right	Unrestricted	Maximum Floor Area By right:	NA	sq. ft.	
Maximum FAR with bonuses	Unrestricted	Maximum Floor Area with Bonuses:	NA	sq. ft.	
Allowable FAR with bonuses proposed	Unrestricted	*Allowable floor area in this case:*	NA	sq. ft.	
Proposed FAR	0.38	*Proposed floor area:*	239,000	sq. ft.	

114									
115	**How many public streets border this property?**								
116	Two, corner lot								
117									
118	**Types of Streets along Boundaries**					**Street Name**	Driveways	Driveway Width	
119	Primary front lot line	Arterial Street				C Street			feet
120	Secondary street frontage	Local Street				64th Avenue	2	24	feet
121	Not Applicable	Not Applicable				None			feet
122	Not Applicable	Not Applicable				None			feet
123									
124	**Lot Dimensions in Feet**	Front lot line	1,220	feet	This lot line abuts a street and has the primary front setback				
125		Side lot line	520	feet	This lot line is located clockwise from the "Front Lot Line"				
126		Other side lot line	520	feet	This is located counter-clockwise from the "Front Lot Line"				
127		Lot line opposite front line (rear)	1,220	feet	This lot line is located opposite from the "Front Lot Line"				
128		Other		feet	This is an additional lot line for testing irregular shaped lots.				
129									
130	**Estimated land area**		634,400	square feet					
131	(*accept the calculation or enter exact*)		14.56	acres					
132									
133	**Adjacent and Abutting Properties**			Zoning					
134				Current Code	Proposed Code	Land Use	District		
135		Front lot line	Adjacent	I-1	I-1	Non-Residential	Non-Residential		
136		Side lot line	Adjacent	I-1	I-1	Non-Residential	Non-Residential		
137		Other side lot line	Abutting	I-1	I-1	Non-Residential	Non-Residential		
138		Lot line opposite front line (rear)	Abutting	I-1	I-1	Non-Residential	Non-Residential		
139									

140	**Parking Requirements and Land Utilization for Parking**								
141	**Current Title 21**	**I-1**	**Light Industrial**					Total Spaces	
142	Dwellings,					spaces per dwelling unit		-	
143	Dwellings, Multifamily or Mixed-use - 1 Bedroom				1.68	spaces per dwelling unit		-	
144	Dwellings, Multifamily or Mixed-use - 2 Bedroom				2.00	spaces per dwelling unit		-	
145	Dwellings, Multifamily or Mixed-use - 3 Bedroom				2.80	spaces per dwelling unit		-	
146	Hotel				1.00	space per room		-	
147	Office, business, professional and financial				3.33	spaces per 1,000 gross square feet		20.0	
148	Office, health and medical				4.00	spaces per 1,000 gross square feet		-	
149	Health Club, Fitness				3.33	spaces per 1,000 gross square feet		-	
150	Restaurant				13.33	spaces per 1,000 gross square feet		-	
151	Retail, grocery				5.00	spaces per 1,000 gross square feet		-	
152	Retail, general - general, convenience store, building materials				3.33	spaces per 1,000 gross square feet		-	
153	Retail, other - pharmacy, video rental, liquor store, wholesale, business service, vehicle parts stores				3.33	spaces per 1,000 gross square feet		-	
154	Retail, large goods - furniture, home appliance, flooring				3.33	spaces per 1,000 gross square feet		-	
155	Retail, large shopping mall				4.00	spaces per 1,000 gross square feet		-	
156	Manufacturing, small				2.50	spaces per 1,000 gross square feet		-	
157	Manufacturing, large				2.50	spaces per 1,000 gross square feet		-	
158	Warehouse, small				1.00	space per 1,000 gross square feet		-	
159	Warehouse, large				1.00	space per 1,000 gross square feet		233.0	
160	Accessory storage/mechanical area				1.00	space per 1,000 gross square feet		-	
161	**Total parking required**							**253**	spaces
162									
163	Parking space distribution							Gross Land Area per Space	
164	Surface parking					253	100.0%	400	square feet
165	Within building, above ground		*Number of levels:*	1		-	0.0%	-	square feet
166	Within building, below ground		*Number of levels:*	1		-	0.0%	-	square feet
167	Above grade structure		*Number of levels:*	1		-	0.0%	-	square feet
168	Below grade structure		*Number of levels:*	1		-	0.0%	-	square feet
169	Off-site					-	0.0%	-	square feet
170	TOTAL					253	100.0%	400	square feet
171	Total Land Area Requirement	101,200	square feet						
172		2.32	acres						
173	*Percent of Gross Site Area*	*16%*							

	Parking Requirements and Land Utilization Proposed Title 21 The private open space requirement increases by 40 square feet for every parking space that is subtracted as part of the Parking Reductions.	Spaces required per 1,000 GSF (non-resid.) or per dwelling or per hotel room	40% Reduction in parking requirement for Downtown vicinity Residential	10% Reduction in parking requirement for Central City Residential	10% Reduction in parking requirement in Mixed-use Zones - NMU, CMU, RMU or R-4A	5% Reduction in parking requirement for Uses Adjacent to Transit Service	Reduction in parking requirement for Shared Parking	10% Reduction for Transit Pass Benefits or Parking Cash-out	Total Parking Spaces Required (with Reductions)
			No	No	No	No	No	No	
177	Dwellings, Multifamily Efficiency	1.00	100%	100%	100%	100%	100%	100%	-
178	Dwellings, Multifamily 1 Bedroom	1.20	100%	100%	100%	100%	100%	100%	-
179	Dwellings, Multifamily 2 Bedroom	1.60	100%	100%	100%	100%	100%	100%	-
180	Dwellings, Multifamily 3 Bedroom	2.10	100%	100%	100%	100%	100%	100%	-
181	Hotel	0.90	100%	100%	100%	100%	100%	100%	-
182	Office, business, professional and financial	2.86	100%	100%	100%	100%	100%	100%	17.14
183	Office, health and medical	4.00	100%	100%	100%	100%	100%	100%	-
184	Health Club, Fitness	4.44	100%	100%	100%	100%	100%	100%	-
185	Restaurant	16.67	100%	100%	100%	100%	100%	100%	-
186	Retail, grocery	4.00	100%	100%	100%	100%	100%	100%	-
187	Retail, general	3.33	100%	100%	100%	100%	100%	100%	-
188	Retail, other	2.50	100%	100%	100%	100%	100%	100%	-
189	Retail, large goods	1.25	100%	100%	100%	100%	100%	100%	-
190	Retail, large shopping mall	3.33	100%	100%	100%	100%	100%	100%	-
191	Manufacturing, small	1.00	100%	100%	100%	100%	100%	100%	-
192	Manufacturing, large	0.67	100%	100%	100%	100%	100%	100%	-
193	Warehouse, small	0.80	100%	100%	100%	100%	100%	100%	-
194	Warehouse, large	0.67	100%	100%	100%	100%	100%	100%	155.33
195	Accessory storage/mechanical area	0.80	100%	100%	100%	100%	100%	100%	-
196	**Total parking required**								**173**
197									
198	Parking space distribution								Gross Land Area per Space
199	Surface parking					173	100%	400	square feet
200	Within building		*Number of levels:*	1		-	0%	-	square feet
201	Within building, below ground		*Number of levels:*	1		-	0%	-	square feet
202	Above grade structure		*Number of levels:*	1		-	0%	-	square feet
203	Below grade structure		*Number of levels:*	1		-	0%	-	square feet
204	Off-site					-	0%	-	square feet
205	**TOTAL**					**173**	100%	400	square feet
206	Total Land Area Requirement	69,200	square feet						
207		1.59	acres						
208	*Percent of Gross Site Area*	*10.9%*							
209									
210	**Bonus Potential: Below Ground Parking**								
211	Number of Below Ground Spaces					-	spaces		
212	Square feet of below ground parking					-	square feet		
213	Added building floor area allowed at		*2 sq. ft. per sq. ft. of below ground parking*			-	square feet (up to 1.0 added FAR)		

Minimum Setback Requirements		Current Code I-1		Proposed Code I-1	
Types of Streets along Boundaries					
Arterial Street	Front lot line	10	feet	10	feet
Local Street	Side lot line	5	feet	5	feet
Not Applicable	Other side lot line	5	feet	0	feet
Not Applicable	Lot line opposite front line (rear)	5	feet	0	feet

Site Perimeter Utility Easements		Current Code I-1		Proposed Code I-1	
Linear utility easements along perimeter of site.	Front lot line	25	feet	25	feet
	Side lot line	0	feet	0	feet
	Other side lot line	10	feet	10	feet
	Lot line opposite front line (rear)	0	feet	0	feet

Minimum Perimeter Landscaping Setbacks from Adjacent Uses		Current Code I-1		Proposed Code I-1			
	Adjacent Uses	Adjacent Zoning	Minimum Perimeter Landscaping Width (feet)	Adjacent Zoning	Site Perimeter Landscaping Level	Minimum Perimeter Landscaping Width (feet)	Landscaping Width with Utility Easement
Front lot line	Arterial Street	I-1	8	I-1	L2	8	29
Side lot line	Local Street	I-1	0	I-1	L2	8	8
Other side lot line	Non-Residential	I-1	0	I-1	None	0	0
Lot line opposite front line (rear)	Non-Residential	I-1	0	I-1	None	0	0

Minimum Parking Lot Perimeter Landscaping Setbacks	Current Code I-1			Proposed Code I-1				
	Adjacent Zoning	Perimeter Landscaping Width (feet)	Perimeter Landscaping Length (feet)	Adjacent Zoning	Parking Lot Perimeter Landscaping Level	Parking Landscaping Width (feet)	Parking Landscaping Length (feet)	Landscaping Width with Utility Easement
Front lot line	I-1	8	0	I-1	L2	8	0	0
Side lot line	I-1	8	318	I-1	L2	8	263	8
Other side lot line	I-1	8	0	I-1	L2	0	0	0
Lot line opposite front line (rear)	I-1	8	318	I-1	L2	8	263	8

Combined Minimum Landscaping and Setback Requirements from Lot Lines		Current Code I-1		Proposed Code I-1			
		Landscaping	Building Setback	Landscaping…	…with easements	Building Setback	
	Front lot line	8	25	8	29	29	feet
Greater of minimum zoning requirements or landscaping requirements.	Side lot line	8	5	8	8	8	feet
	Other side lot line	0	10	0	0	10	feet
	Lot line opposite front line (rear)	8	5	8	8	0	feet

Setback and Landscaping Site Area Requirements		Current Code I-1		Proposed Code I-1	
	Front lot line	9,760	square feet	35,380	square feet
	Side lot line	2,161	square feet	3,776	square feet
	Other side lot line	0	square feet	0	square feet
	Lot line opposite front line (rear)	5,545	square feet	2,104	square feet
	TOTAL	17,466	square feet	41,260	square feet

		Current Code I-1		Proposed Code I-1	
Parking Interior Lot Landscaping Requirements					
Number of surface parking spaces		253	spaces	173	spaces
Surface parking land area		101,200	square feet	69,200	square feet
Percent of parking area for landscaping		5%		10%	
Required Landscaping Area (in addtion to surface parking area)		5,060	square feet	6,920	square feet
Loading Area Requirements		Current Code I-1		Proposed Code I-1	
Berth Type		A		A	
Number of Berths Required		4		4	
Land Area per Berth		800	square feet	800	square feet
Total Loading Area Land Area Requirement		3,200	square feet	3,200	square feet
Lighting Requirements		Current Code I-1		Proposed Code I-1	
Surface parking land area		101,200	square feet	69,200	square feet
Private Open Space Requirements		Current Code I-1		Proposed Code I-1	
Required for Residential Dwellings		-	square feet	-	square feet
Required for Non-residential Uses		-	square feet	-	square feet
Required in return for Parking Reductions			square feet	-	
Total Required Private Open Space		**-**	**square feet**	**-**	**square feet**
Amount actually provided on or in the building(s)		-		-	sq. ft.
Amount actually provided on the land		-		-	sq. ft.
Total Private Open Space Provided				**-**	**sq. ft.**
Acres				-	acres
Percent of Site				*0.0%*	
Excess Private Open Space Provided (R-4)				-	sq. ft.
Bonus floor area allowed:					
0 sq. ft. of floor area per	1 sq. ft. of excess private open space			-	sq. ft. of added floor area
Snow Storage Area Requirement		Current Code I-1		Proposed Code I-1	
20% of multi-family surface parking requirements		No Requirement		-	square feet
less				less	
25% of private open space provided on the land				-	square feet
Total Snow Storage Requirement				**-**	**square feet**
				-	*acres*
Percent of Site				*0.0%*	

298	**Pedestrian Connections Requirements**			Current Code I-1	Proposed Code I-1	
299	**Required Walkways**			No Pedestrian Requirements	9,516	square feet
300	**Bus Stop** (may be required for transit-related parking reduction)				-	square feet
301	*Required in return for a Parking Reduction?*	No	*(Accept default or enter yes or no)*			
302	*Is it located along an Arterial class street?*	No	*(Enter yes or no)*			
303	*Additional area for on-site transit facilities*	0	square feet			
304	**Primary Pedestrian Walkways**				-	linear feet of primary pedestrian walkway
305					-	square feet of primary pedestrian walkway
306	**Bonus floor area allowed at**	0	square feet per lin. ft.		-	square feet of bonus floor area
307						
308	*Pedestrian Connections Square Feet*				9,516	square feet
309	*Pedestrian Connections in Acres*				*0.2*	*acres*
310	*Percent of Site*				*1.5%*	
311						
312						

313	**Other Facilities or Undeveloped Areas (Optional)**	Area (sf)	Brief Description of Facility	
314	Area of site encumbered by other facilities not necessarily required by the zoning ordinance	170,000	Tractor-trailer parking, loading and storage	
315	but needed by the use type. Such areas may include, for example, portions of the site left	70,000	Undeveloped portion(s) of site left in natural vegetation	
316	undeveloped, storage areas, trailer parking and storage, loading areas or fleet parking areas.			
317	The model provides the option to account for such areas to avoid unnecessarily counting			
318	them toward required site enhancement landscaping costs. TOTAL AREA	240,000	square feet	
319				

	Summary Site Area Requirements	Current Code I-1		Proposed Code I-1		
	Land Area in Square Feet					
	Building Footprint	233,000	square feet	233,000	square feet	
	Parking	101,200	square feet	69,200	square feet	
	Setbacks and Landscaping	17,466	square feet	41,260	square feet	
	Parking Interior Lot Landscaping	5,060	square feet	6,920	square feet	
	Loading Area	3,200	square feet	3,200	square feet	
	Lighting	Same as Parking	square feet	Same as Parking	square feet	
	Private Open Space	-	square feet	-	square feet	
	Snow Storage	-	square feet	-	square feet	
	Pedestrian Connections	-	square feet	9,516	square feet	
	TOTAL	**359,926**	**square feet**	**363,096**	**square feet**	1% higher
	Total Site Area	634,400	square feet	634,400	square feet	
	Percent of Total Site Area					
	Building Footprint	36.7%		36.7%		
	Parking	16.0%		10.9%		
	Setbacks and Landscaping	2.8%		6.5%		
	Parking Lot Landscaping	0.8%		1.1%		
	Loading Area	0.5%		0.5%		
	Lighting	NA		NA		
	Private Open Space	0.0%		0.0%		
	Snow Storage	0.0%		0.0%		
	Pedestrian Connections	0.0%		1.5%		
	TOTAL	**56.7%**		**57.2%**		
	Total Site Area	100.0%		100.0%		

	Summary Cost Requirements				Current Code I-1	Proposed Code I-1	
							Pct. of Current
	Surface parking		*$8,000*	*per space*	*$2,024,000*	*$1,384,000*	*68%*
	Within building, above ground		*$35,000*	*per space*	*$0*	*$0*	
	Within building, below ground		*$60,000*	*per space*	*$0*	*$0*	
	Above grade structure		*$35,000*	*per space*	*$0*	*$0*	
	Below grade structure		*$60,000*	*per space*	*$0*	*$0*	
	Off-site		*$0*	*per space*	*$0*	*$0*	
	Total Parking Construction				$2,024,000	$1,384,000	*68%*
	Setbacks, Easements and Perimeter Landscaping						
	Current Code	$	7.85	per square foot	$137,000		
	Proposed Code - perimeter landsc.	*$*	*11.32*	*per square foot*		*$181,400*	
	Proposed Code - easement landsc.	*$*	*2.00*	*per square foot*		*$50,500*	
	Proposed Code - total					$231,900	*169%*
	Parking Lot Interior Landscaping						
	Current Code	$	7.85	per square foot	$39,700		
	Proposed Code	$	11.32	per square foot		$78,300	*197%*
	Site Enhancement Landscaping						
	Current Code		$1.20	per square foot	$68,900		
	Proposed Code		$2.00	per square foot		$62,600	*91%*
	Loading Area	$	20.00	per square foot	$64,000	$64,000	*100%*
	Lighting Current Code	$	0.08	per square foot	$8,300		
	Proposed Code	$	0.10	per square foot		$6,900	*83%*
	Private Open Space						
	Current Code	$	7.85	per square foot	$0		
	Proposed Code	$	11.32	per square foot		$0	
	Snow Storage	$	2.00		$0	$0	
	Pedestrian Connections	$	11.32	per square foot	$0	$107,700	
	COST OF SITE DEVELOPMENT (Including structured parking)				**$2,341,900**	**$1,935,400**	*83%*
	COST OF BUILDING CONSTRUCTION				**$26,680,000**	**$26,680,000**	*100%*
	TOTAL COST OF DEVELOPMENT				**$29,021,900**	**$28,615,400**	*99%*