Submitted by:

Chair of the Assembly at

the Request of the Acting Mayor

CLERK'S OFFICE

Prepared by:

Planning Department

AMENDED AND APPROVED

For reading:

March 24, 2009

ate: 4-21-09

Anchorage, Alaska AO 2009-39

AN ORDINANCE OF THE ANCHORAGE ASSEMBLY AMENDING THE **ZONING** MAP AND **PROVIDING** FOR THE REZONING OF APPROXIMATELY 13.8 ACRES FROM R-1A (SINGLE RESIDENTIAL DISTRICT) TO R-4 SL (MULTIPLE-FAMILY RESIDENTIAL DISTRICT WITH SPECIAL LIMITATIONS) FOR TRACTS B-1 AND B-2, GREEN SUBDIVISION, AN UNSUBDIVIDED PARCEL KNOWN AS THE SOUTH 80 FEET OF THE NORTH 320 FEET OF THE SOUTH 570 FEET OF THE WEST 150 FEET OF THE EAST 600 FEET, AND AN UNSUBDIVIDED PARCEL KNOWN AS NORTH 240 FEET OF SOUTH 570 FEET OF THE WEST 150 FEET OF THE EAST 600 FEET, IN T12N, R3W, SECTION 17, S.M. AK. GENERALLY LOCATED ON THE NORTH SIDE OF O'MALLEY ROAD. BETWEEN LAKE OTIS PARKWAY AND INDEPENDENCE DRIVE.

(Abbott Loop Community Council) (Planning and Zoning Commission Case 2007-077-2)

### THE ANCHORAGE ASSEMBLY ORDAINS:

<u>Section 1.</u> The zoning map shall be amended by designating the following described property as R-4 SL (Multiple-Family Residential with Special Limitations) District:

Tracts B-1 And B-2, Green Subdivision, an unsubdivided parcel known as the south 80 Feet of the north 320 feet of the south 570 feet of the west 150 feet of the east 600 feet, and an unsubdivided parcel known as north 240 feet of the south 570 feet of the west 150 feet of the east 600 feet, in T12N, R3W, Section 17, S.M. AK, Generally Located On The North Side Of O'Malley Road, between Lake Otis Parkway and Independence Drive, consisting of approximately 13.8 +/- acres as shown on Exhibit "A" attached.

### Section 2. Special Limitations.

The R-4 SL district shall be subject to the following Special Limitations:

1. Maximum Height of Structures is as follows:

The height shall not exceed 55 feet for the western five buildings, as shown on the approved concept plan, as shown on Exhibits "B" and "C" attached. Additionally, the height of the remaining units shall not exceed 41 feet. Measurements shall be determined per AMC 21.45.050.

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<u>Section 5</u>. This ordinance shall become effective 10 days after the Director of the Planning Department has received the written consent of the owners of the property within the area described in Section 1 above to the special limitations contained herein. The rezone approval contained herein shall automatically expire, and be null and void, if the written consent is not received within 120

	AO 2009-39 Page 3					
ļ	days after the date on which this ordinance is passed and approved. The Director of the Planning Department shall change the zoning map accordingly.					
	PASSED AND APPROVED by the Anchorage Assembly this day of April 2009.					
	ATTEST: Chair					
	Andre S. Smelent Municipal Clerk					
9	(Case 2007-077-2; Tax I.D. No. 016-061-13; -16; -17)					

## MUNICIPALITY OF ANCHORAGE Summary of Economic Effects -- General Government

AO Number: 2009-39

Title: AN ORDINANCE OF THE ANCHORAGE ASSEMBLY AMENDING

THE ZONING MAP AND PROVIDING FOR THE REZONING OF APPROXIMATELY 13.8 ACRES FROM R-1A (SINGLE FAMILY RESIDENTIAL DISTRICT) TO R-4 SL (MULTIPLE-FAMILY RESIDENTIAL DISTRICT WITH SPECIAL LIMITATIONS) FOR TRACTS B-1 AND B-2, GREEN SUBDIVISION, AN UNSUBDIVIDED PARCEL KNOWN AS THE SOUTH 80 FEET OF THE NORTH 320 FEET OF THE SOUTH 570 FEET OF THE WEST 150 FEET OF THE EAST 600 FEET, AND AN UNSUBDIVIDED PARCEL KNOWN AS NORTH 240 FEET OF THE SOUTH 570 FEET OF THE WEST 150 FEET OF THE EAST 600 FEET, IN T12N, R3W, SECTION 17, S.M. AK, GENERALLY LOCATED ON THE NORTH SIDE OF O'MALLEY ROAD, BETWEEN LAKE OTIS PARKWAY AND

INDEPENDENCE DRIVE.

Sponsor:

Acting Mayor

Preparing Agency:

Planning Department

Others Impacted:

CHANGES IN EXPENDITURES AND REVENUES:				(In Thousands of Dollars)			
FY09		FY10		FY11		FY12	
<del></del> \$		\$		<del></del> \$		\$	
\$	-	\$		\$	-	\$	-
			FY09 FY	FY09 FY10  \$ - \$ -	FY09 FY10 FY	FY09 FY10 FY11  \$ - \$ - \$ -	FY09 FY10 FY11 FY

#### **PUBLIC SECTOR ECONOMIC EFFECTS:**

Approval of this rezone should have no significant impact on the public sector.

#### PRIVATE SECTOR ECONOMIC EFFECTS:

Approval of this rezone should have no significant impact on the private sector.

Prepared by:	Jerry T. Weaver Jr.	Telephone: 343-7939
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## MUNICIPALITY OF ANCHORAGE ASSEMBLY MEMORANDUM

### No. AM 157-2009

Meeting Date: March 24, 2009

From: Acting Mayor

Subject: AN ORDINANCE OF THE ANCHORAGE ASSEMBLY

AMENDING THE ZONING MAP AND PROVIDING FOR THE REZONING OF APPROXIMATELY 13.8 ACRES FROM R-1A (SINGLE FAMILY RESIDENTIAL DISTRICT) TO R-4 SL (MULTIPLE-FAMILY RESIDENTIAL DISTRICT WITH SPECIAL LIMITATIONS), FOR TRACTS B-1 AND B-2. SUBDIVISION, AN UNSUBDIVIDED PARCEL KNOWN AS THE SOUTH 80 FEET OF THE NORTH 320 FEET OF THE SOUTH 570 FEET OF THE WEST 150 FEET OF THE EAST 600 FEET. AND AN UNSUBDIVIDED PARCEL KNOWN AS NORTH 240 FEET OF SOUTH 570 FEET OF WEST 150 FEET OR EAST 600 FEET, IN T12N, R3W, SECTION 17, S.M. AK., GENERALLY LOCATED ON THE NORTH SIDE OF O'MALLEY ROAD, BETWEEN LAKE OTIS PARKWAY AND INDEPENDENCE

DRIVE.

On January 5, 2008, the Planning and Zoning Commission recommended approval to rezone approximately 18.3 acres of the subject property owned by QM Development, LLC, from R-1A to R-4 SL.

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The subject property involves four parcels consisting of approximately 13.8 acres all under common ownership, generally located between Independence Drive (extended) and Lake Otis Parkway, north of O'Malley Road. The special limitations will limit residential density to 16.5 dwelling units per acre (a maximum of 228 units), with a height limitation of 55 feet for the western five buildings, with the remainder of the structures to not exceed 41 feet in height.

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AMC 21.05.080.B provides that "the Generalized Land Use Plan and the Residential Intensity Plan in the 1982 Anchorage Bowl Comprehensive Development Plan shall remain elements of the comprehensive plan for the Anchorage Bowl, but only to the extent not in conflict with the Anchorage 2020 Anchorage Bowl Comprehensive Plan, or until repealed or superseded by subsequent ordinances, including adoption of future plans." A new Land Use Plan Map has not yet been adopted by the Assembly. The June 28, 2006 draft Plan Map, approved in concept by the Planning and Zoning Commission, indicates the property as residential at 8 – 15 dwelling units per acre. The 1982

AM 157-2009 Page 2 1 Land Use Plan Map designates this property as 11-20 dwelling units per acre.  $^{2}$ The proposed request will allow a density of 16.5 dwelling units per acre. 3 4 As part of the Commission's review of the rezoning, they recommended special 5 limitation modifications to require internal parking for buildings exceeding 35 6 feet in height, and to require a public hearing site plan review by the Planning 7 and Zoning Commission. 8 9 The proposed rezoning is in compliance with the Anchorage 2020 Comprehensive Plan and zoning standards of AMC 21.20.090 Zoning 10 Standards for Approval. 11 12 The Planning and Zoning Commission recommends APPROVAL of the rezone 13 to R-4 SL for the subject property by a vote of seven yeas and zero nays. 14 15 THE ADMINISTRATION RECOMMENDS ADOPTION OF THE PROPOSED 16 17 ORDINANCE. 18 19 Prepared by: Jerry T. Weaver Jr., Zoning Administrator, Planning Department 20 Tom Nelson, Director, Planning Department 21 Concur: Mary Jane Michael, Executive Director, Office of 22 Concur:

Economic and Community Development

Concur: James N. Reeves, Municipal Attorney
Concur: Michael K. Abbott, Municipal Manager

Respectfully submitted, Matt Claman, Acting Mayor

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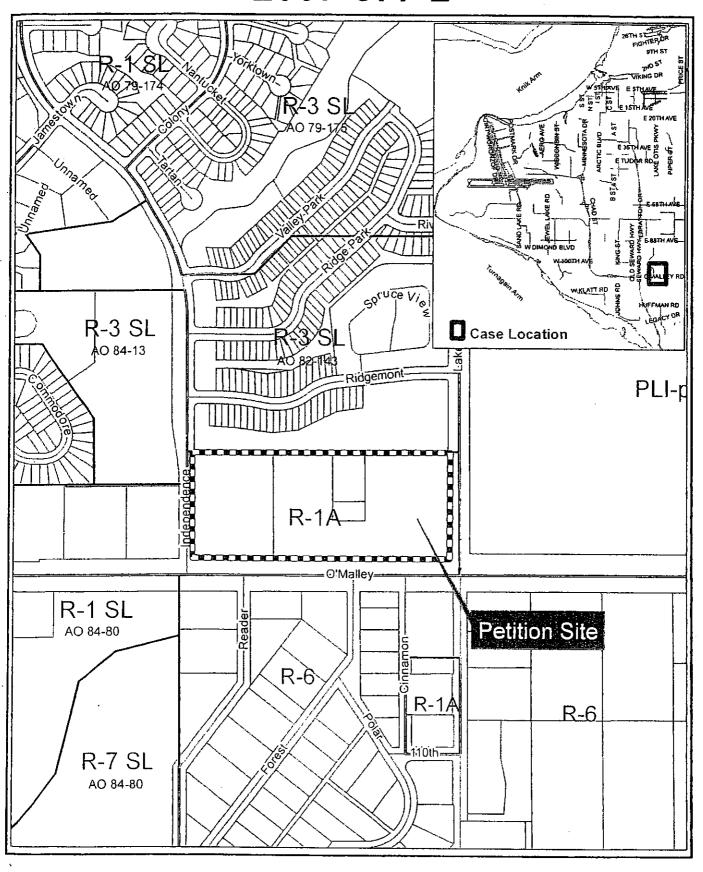
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(Case 2007-077-2; Tax I.D. No. 016-061-13; -16; -17)

## **2007-077-2** EXHIBIT A



Municipality of Anchorage Planning Department

Date: October 22, 2008







### MUNICIPALITY OF ANCHORAGE PLANNING AND ZONING COMMISSION RESOLUTION NO. 2009-003

A RESOLUTION RECOMMENDING APPROVAL OF A REZONE OF APPROXIMATELY 13.8 ACRES FROM R-1A (SINGLE FAMILY RESIDENTIAL DISTRICT) TO R-4 SL (MULTIPLE-FAMILY RESIDENTIAL DISTRICT WITH SPECIAL LIMITATIONS) FOR TRACTS B-1 AND B-2, GREEN SUBDIVISION ADDN. NO. 1, AN UNSUBDIVIDED PARCEL KNOWN AS SOUTH 80 FEET OF NORTH 320 FEET OF SOUTH 570 FEET OF WEST 150 FEET OF EAST 600 FEET, AND AN UNSBUDIVIDED PARCEL KNOWN AS NORTH 240 FEET OF SOUTH 570 FEET OF WEST 150 FEET OF EAST 600 FEET, IN T12N, R3W, SECTION 17, S.M. AK, GENERALLY LOCATED ON THE NORTH SIDE OF O'MALLEY ROAD, BETWEEN LAKE OTIS PARKWAY AND INDEPENDENCE DRIVE.

(Case 2007-077-2; Tax I.D. No. 016-061-13; -16; -17)

WHEREAS, a request has been received from QM Development, LLC, to rezone approximately 13.8 acres From R-1A (Single Family Residential District) to R-4 SL (Multiple-Family Residential District With Special Limitations), for Tracts B-1 and B-2, Green Subdivision, Addn. No. 1, an unsubdivided parcel known as South 80 feet of North 320 feet of South 570 feet of West 150 feet of East 600 feet, and an unsubdivided parcel known as North 240 feet of South 570 feet of West 150 feet of East 600 feet, in T12N, R3W, Section 17, S.M. AK., generally located on the north side of O'Malley Road, between Lake Otis Parkway and Independence Drive; and

WHEREAS, notices were published, posted, public hearing notices were mailed, and a public hearing was held on January 5, 2009.

NOW, THEREFORE, BE IT RESOLVED, by the Municipal Planning and Zoning Commission that:

- A. The Commission makes the following findings of fact:
  - 1. The subject property involves four parcels consisting of approximately 13.8 acres all under common ownership, generally located between Independence Drive (extended) and Lake Otis Parkway, north of O'Malley Road.
  - 2. AMC 21.05.080.B provides that "the Generalized Land Use Plan and the Residential Intensity Plan in the 1982 Anchorage Bowl Comprehensive Development Plan shall remain elements of the

comprehensive plan for the Anchorage Bowl, but only to the extent not in conflict with the Anchorage 2020 Anchorage Bowl Comprehensive Plan or until repealed or superseded by subsequent ordinances, including adoption of future plans." A new Land Use Plan Map has not yet been adopted by the Assembly. The June 28, 2006 draft Plan Map, approved in concept by the Commission, indicates the property as residential at >8 – 15 DUA.

- 3. The 1982 Land Use Plan map designates this property as 11-20 DUA. The proposed request will allow a density of 16.5 DUA.
- 4. The Commission recommended approval of the request, subject to Department proposed Effective Clause 1 and Special Limitations 1 through 4, amending special limitation 2 to add "For buildings exceeding 35 feet in height there shall be internal parking, either underground or under building parking, with a minimum of one parking space per residential unit," amending special limitation 3 to add "restaurants, grocery stores, and other vehicle-oriented retail uses with the intent to avoid creating a new commercial center in proximity or in competition with the nearby town centers at Abbott/Lake Otis and O'Malley/Seward Highway," and rewording special limitation 4 to read, "Prior to the issuance of any fill or building permits, the developer shall receive approval of a site plan by the Planning Department, ADOT and the Traffic Department." The Commission further amended special limitation 4 to add, "and have a public hearing site plan review by the Planning and Zoning Commission."
- 5. The Commission noted that members of the public testified that the R-4 zoning would allow a very different type and style of residential development than the existing R-3 zero lot line, single-family housing in the area.
- 6. The Commission finds that it is appropriate to rezone to a higher density, but the magnitude is significant. There is nothing comparable in scale along O'Malley Road or along Lake Otis Parkway. Given the magnitude of density change and the direction in the Comprehensive Plan to have compatible uses and good transitions adjoining one another, that should be achieved in style and scale with this development. This area is a gateway to the

- Hillside, so there would be interest in the appearance of this development by residents in the area.
- 7. The Commission finds that the petitioner does not object to a public site plan review and commended them for that. The work that has to be done and reviewed by Staff has to be done anyway, including a site plan, elevations, exteriors, landscaping plans, etc. The Commission further finds that this is not creating too much work for Staff, and stated that the Commissioners have all committed to work on this commission and the time it takes to make a better community.
- 8. The Commission finds that over time individual Commissioners have been to this site and did not think there is a significant difference in elevation between the zero lot line homes and the property being rezoned, and if one were to live in one of those zero lot line homes and several 24-unit buildings were going to be within 100 feet, one would like to have some input. Given the negative press in recent years about condo development, the Commission further finds that the community should have an opportunity to comment on the development on this property.
- 9. The Commission finds that it has been more than one year since the petitioner visited the community council, and further finds that there is a considerable difference between the two-story units in Ridgemont and the height allocations for the proposed buildings; they will be more than twice the height of the zero lot line homes to the north.
- 10. The Commission finds that R-1A works in this area, but there is a benefit to creating affordable housing. However, the rezoning to R-4 would allow anything permitted in the R-4 to be built on the property.
- 11. The Commission finds that this is a large project that is very visible from many angles in the neighborhood and, while there is no reason to question the petitioner's integrity, there is also no requirement that they meet the concept plan that has been submitted. History shows there should have been more site plan reviews of condos in Anchorage. The Commission further finds it is

- in the best interest of the public to have a chance to view the site plan for this development.
- 12. The Commission clarified special limitation 2, in that the language is "if buildings exceed 35 feet in height," so that if a future owner decided to construct to 35 feet or lower in height, they would not be required to build underground or under building parking.
- 13. The Commission finds that development of the site does incur costs, including the extension of Independence Park Drive, which helps to justify doing denser development. There may also be some benefit if this housing can be built with smaller footprints at a more affordable market rate. The density is similar to the areas to the north so there is not a substantial increase, but R-4 could allow a variety of retail and, in the interest of having vibrant and compact commercial centers, there is a desire to not allow this site to create another vehicle magnet and sprawl. A public hearing site plan review will help to make sure this is a higher density project that is compatible with surrounding areas. Part of the reason for the greater height limit is that the owner proposes under the building or underground parking and that trade-off is now tied to the rezone.
- 14. The Commission recommended approval of the request by a unanimous vote: 7-yes, 0-nea.
- B. The Commission recommends to the Anchorage Assembly that the subject property be rezoned to R-4 SL, subject to the following effective clauses and special limitations:
  - 1. Effective clause:
    - a. R-4 SL zoning shall not become effective until recordation of a final plat.
  - 2. Special Limitations:
    - a. Maximum Height of Structures is as follows:

The height shall not exceed 55 feet for the western half of the site. Additionally, the height shall not exceed 41 feet for the

Planning and Zoning Commission Resolution 2009-003 Page 5 of 5

eastern half of the site. Measurements shall be determined per AMC 21.45.050. See attached petitioner exhibits "B" and "C" for clarification. For buildings exceeding 35 feet in height there shall be internal parking, either underground or under building parking, with a minimum of one parking space per residential unit.

- b. Maximum 16.5 Dwelling Units per Acre (228 dwelling units).
- c. Prohibited Uses. The following R-4 uses are prohibited: hotels, motels and motor lodges; private clubs and lodges; mobile home parks; camper parks; convenience establishments; commercial P.U.D.s (Planned Unit Developments); gasoline service stations; snow disposal sites; restaurants; grocery stores; and other vehicle-oriented retail uses; with the intent to avoid creating a new commercial center in proximity or in competition with the nearby town centers at Abbott/Lake Otis and O'Malley/Seward Highway.
- d. Prior to the issuance of any fill or building permits, the developer shall receive approval of a site plan by the Planning Department, ADOT and the Traffic Department, and have a public hearing site plan review by the Planning and Zoning Commission.

PASSED AND APPROVED by the Municipal Planning and Zoning Commission on the 5th day of January, 2009.

ADOPTED by the Anchorage Municipal Planning and Zoning Commission this 25<sup>th</sup> day of February, 2009.

Tom Nelson

Toni M. Jones

Chair

(Case 2007-077-2; Tax I.D. No. 016-061-13; -16; -17)

### E. UNFINISHED BUSINESS AND ACTIONS ON PUBLIC HEARINGS

### F. REGULAR AGENDA

a. 2006-151 Closeout of zoning conditional use for a natural resource extraction

MS. CHAMBERS noted that this item is informational only.

### G. PUBLIC HEARINGS

1. 2007-077-2

QM Development LLC. A request to rezone approximately 12.88 acres from R-1A (Single Family Residential) to R-4SL (Multiple Family Residential with Special Limitations). Green Subdivision Addition. #1, Tracts B-1 & B-2 (per plat 82-211), an unsubdivided parcel (S80' of N320' of S570' of W150' of E600'), and an unsubdivided parcel (N240' of S570' of W150' of E600'), all located within the S1/2 SE1/4 of Section 17, T12N, R3W, S.M., Alaska. Generally located east of Independence Drive, north of O'Malley Road and west of Lake Otis Road.

Staff member ANGELA CHAMBERS explained that a special limitation has been requested by the petitioner to restrict the residential density to 16.5 dwelling units per acre (DUA), a maximum of 228 units, with a height limitation of 55 feet on the western half of the site and the remainder not to exceed 41 feet in height. Concept site plan drawings have been provided showing the build-out of the site at those density limitations. Multi-family residential development would have to be developed in accordance with AMCR 21.90, multiple dwelling unit residential development on a single lot or tract. However, this property is being replatted into three distinct tracts. There is an overall 6% southeast to northwest diagonal slope across the parcel. The elevation change begins at 200 feet with a 20-foot increase in height toward the east from the west over approximately half of the site, and from there the elevation change is even more significant, up to 270 feet. The Department believes this request meets the requirements for a rezoning. The request for R-4 is essentially a modified R-3 rezone in that the density fits in with the surrounding R-

3, with the difference lying primarily in the height. The Department recommends approval of the rezoning subject to 4 special limitations, which MS. CHAMBERS reviewed. The final site plan will ensure that necessary infrastructure improvements are coordinated correctly. The final elevations will be established with the final grading plan to ensure that height limitations are properly executed.

COMMISSIONER EARNHART asked why this parcel is so unique that a site plan review is required. MS. CHAMBERS explained that Staff does not feel there is need for a site plan review. The special limitation is intended to ensure that, prior to any permits being issued, all agencies are informed about the traffic impact analysis (TIA). The requested change in zoning is significant as the density rises from four to 228 units and traffic impacts need to be taken into account. The State and City agencies need to be involved and utilities coordinated. Staff concurs with the petitioner that height is important in terms of public impact.

COMMISSIONER PHELPS asked why this area was not zoned R-3SL at a previous time. MS. CHAMBERS replied that different parts of the area were rezoned at different times and under different ownerships. Last year the property came in for a rezoning to match the surrounding density of R-3, but the petitioner is requesting R-4 because of topography. Previously this was a commercial enterprise. specifically a childcare center. COMMISSIONER PHELPS asked why the rezoning is to R-4 rather than R-3. MS. CHAMBERS replied that there is a significant height difference between R-3 and R-4. Because the topography changes 41 to 51 feet in elevation, and with concerns related to placement of parking, the R-4 was requested. COMMISSIONER PHELPS asked what is the DUA on the R-3 property to the north. MS. CHAMBERS replied that the density is limited to 30 DUA; to the northwest the rezoning did not become effective and that land was recently dedicated as city parkland. COMMISSIONER PHELPS asked what is the effective density of the property to the north. MS. CHAMBERS replied that it was developed at 16 to 20 DUA.

COMMISSIONER PEASE asked if Special Limitation 4 should list PM&E so that agency is sure to see the drainage plan. MS. CHAMBERS replied that is handled as a part of the building permitting process. ADOT is not necessarily involved in that process, thus they were listed in this special limitation. COMMISSIONER PEASE asked if the special limitation should state "receive approval"

rather than "submit". MS. CHAMBERS concurred with this change. COMMISSIONER PEASE remarked that the calculations of students generated by this development were difficult to understand at 39 elementary, 0 junior high, and 9 senior high. MS. CHAMBERS stated this was brought up internally and the correct multiplier from the Anchorage School District was used. COMMISSIONER PEASE understood the height limitation is intended to be compatible with other heights in the area. She asked how those numbers were derived. MS. CHAMBERS replied that there is a 35-foot height limitation to the north, but the buildings on this site will be somewhat taller, albeit not readily discernible by passersby. The height slightly exceeds 35 feet due to the arrangement of parking on the site. COMMISSIONER PEASE asked whether, if the height limit is intended to allow underground parking, it should be tied to parking. MS. CHAMBERS clarified that parking would be either underground or under building. Parking was not tied to this approval because the final design is not completed. Staff reviewed the request and considered the requested height appropriate because it will also serve as a buffer to O'Malley Road. That additional height is not interfering with sunlight access for the properties to the north.

COMMISSIONER YOSHIMURA noted that from the aerial photographs and her observation, although the density may be similar to other development in this area, there is a difference in housing style and type. To the north appears to be zero lot line or townhouse style condominiums that are two-stories versus the four-story buildings and underground parking that is shown in the conceptual drawings for this development. MS. CHAMBERS stated there is a mix of styles in the area. The Department does not review concept drawings, but rather considers what the zoning would allow, which is a mix of styles. COMMISSIONER YOSHIMURA remarked regarding special limitation 4 that there is a general dissatisfaction amongst the public regarding condo development and their frustration that they do not have an opportunity to review condo developments. She asked if Staff concurs with this comment. MS. CHAMBERS responded that the Department's position is that an administrative or public hearing site plan review is not warranted on the basis of this review. The request meets the current code requirements and other projects in the area have been allowed under current code without that level of review. However, there have been public concerns with multi-family developments in recent years. Sometimes without additional requirements on a piece of property there is no way for municipal departments to weigh in on a development. This is a policy issue. The

Department did not feel it necessary to recommend to the Commission that a public hearing or administrative site plan be required.

CHAIR JONES asked if there is a prohibition about having a special limitation for site plan review. MS. CHAMBERS indicated that there is no such prohibition and the code does allow for the Commission to set special limitations that are in the interest of the public health, safety and welfare and to mitigate impacts to the surrounding area.

COMMISSIONER WEDDLETON remarked that on the north side of O'Malley Road passers by are looking down on rooftops, so this development will result in a dramatic change. He noted that the Department's discussion refers to the Comprehensive Plan goals for southeast Anchorage and that without further rezoning southeast Anchorage can meet the density goals in the Comprehensive Plan. He noted that this property is actually closer to the central area designated in the Comprehensive Plan. MS. CHAMBERS did not have the Comprehensive Plan to confirm the information contained in the packet. COMMISSIONER WEDDLETON stated that the Hillside is generally rural large lot and this development would be dramatically different than what is considered as Hillside living. To justify a rezone the goals of the Comprehensive Plan would need to be met. Southeast Anchorage is supposed to supply some affordable housing, which current zoning would not allow in great abundance; a change in zoning would help meet that goal.

MS. CHAMBERS clarified regarding her previous comment that indeed there will be a change because development of this property will be noticeable coming down O'Malley Road. She had meant that a difference of 5 to 10 feet in height is not always readily noticeable. The Hillside District Plan was not mentioned in the analysis because this area is considered a more urban part of town. COMMISSIONER WEDDLETON noted that to the south the density is R-6, which is very different from what is proposed on this property.

CHAIR JONES indicated that after Mr. Isham asks his questions, she would turn the Chair over to him and leave the meeting due to illness. She asked the petitioner whether anyone in her law firm, Dorsey and Whitney, represents the petitioner in any matter. TONY HOFFMAN, representing the petitioner, asked that the petitioner respond. HAROLD GREEN, petitioner, did not believe Ms. Jones had a conflict.

COMMISSIONER ISHAM asked if the height allowance is a result of the desire for underground parking or is it allowed in that zoning district. MS. CHAMBER replied that the height is greater than allowed in the R-4, but the requested height is the maximum that would be needed for underground or under building parking. COMMISSIONER ISHAM noted that there would not be a requirement for underground parking, however. MS. CHAMBERS replied that this is correct.

COMMISSIONER YOSHIMURA asked if the petitioner should be asked whether they wish to proceed, given that Ms. Jones would be departing, leaving seven remaining members to vote. MR. HOFFMAN did not object to continuing with seven members.

CHAIR JONES departed the meeting at 8:05 p.m.

COMMISSIONER EARNHART asked if the site condo ordinance is doing what was intended. MS. CHAMBERS replied that it addresses infrastructure, which was the intent. It does not address building design standards in terms of the look and feel of development. Building design is being addressed through the Title 21 code rewrite.

COMMISSIONER PHELPS stated that he thinks of the area of this proposal as more urban than rural. He asked for discussion whether or not this area is urban, as well as the applicability of the 1982 Comprehensive Plan and what are the densities in that plan versus the Draft Land Use Plan Map. MS. CHAMBERS replied that the Anchorage 2020 Land Use Policy Map shows this property as being within the conceptual boundary of an urban service area; it is not in a rural service area. However, there is approved no land use plan map; there is a concept land use plan that was approved to use with the Title 21 rewrite. AMC 21.05.080 for implementation of Anchorage 2020 states regarding the applicability of the 1982 Comprehensive Plan Map that this map shall remain an element only to the extent it is not in conflict with Anchorage 2020. This area was considered in the 1982 Comprehensive Plan Map as an urban area; it is still considered urban and is surrounded to the north by urban development. The Assembly approved a similar density on the parcel to the northwest; it recently came under municipal ownership. The concept land use map was not considered by Staff because it is not binding, but it also calls for a similar intensity. The Department understands that development of an undeveloped parcel will always have an impact. There is some R-6 and R-7 to the south, as well as R-1 and R-1A across O'Malley Road that is

at a different elevation. There is a large buffer between the two areas. COMMISSIONER PHELPS understood that in this instance the 1982 Comprehensive Plan Map applies. MS. CHAMBERS stated this is correct.

COMMISSIONER PHELPS asked if the new code deals with higher density development in a different way. MS. CHAMBERS stated there is a menu of options for various zonings, as well as prohibitions on certain things. In the current code there are options for development, such as cluster and planned unit development. There is also an opportunity to do a standard subdivision.

COMMISSIONER PEASE asked what is the supply and demand of R-4 in this area. MS. CHAMBERS explained that the R-4 was requested only because of height, so it is basically an R-3 zone. There is no other R-4 in the area, particularly vacant R-4. There is significant R-3 in the area, most of which is developed. COMMISSIONER PEASE noted that the proposed special limitations disallow large commercial-type enterprises. She asked if there is the likelihood that R-4 could include other kinds of commercial development. She noted there is a town center at Abbott Road and Lake Otis Parkway that has developed a core of services, as well as a commercial area that is becoming increasingly multi-faceted at O'Malley Road between the Old and New Seward Highways. She thought there might be a broad interest in this not becoming another commercial corner. MS. CHAMBERS stated the Department had the same concerns. The primary reasons for requesting R-4 are height or uses. The commercial uses that could otherwise occur have been prohibited by special limitations. It is possible that the Department, Administration, or Assembly could request an ordinance amendment that would change the zoning district use list, but that would have an associated public process. COMMISSIONER PEASE asked if the Title 21 Rewrite would allow other commercial uses in the R-4. MS. CHAMBERS stated that is one of the districts being eliminated in the Rewrite. In addition, no uses are proposed for addition to this type of district.

COMMISSIONER YOSHIMURA stated that although she may not agree philosophically with the type of housing being proposed in the conceptual site plan, she recognize the need for more moderately priced housing in southeast Anchorage. She felt that rezoning this property to higher density would accomplish that.

COMMISSIONER WEDDLETON stated he reviewed the Title 21 Rewrite list of uses for R-4 and R-1A and the list of allowed uses would include a restaurant, grocery store, extended stay lodging, hostel, police substation, schools, community centers, and others. There are things in the Rewrite that are not in the list included in the special limitation. MS. CHAMBERS agreed that this is an important issue to consider, however, this request must be reviewed under the existing code. COMMISSIONER WEDDLETON asked if these other uses should not be included in the special limitation. MS. CHAMBERS suggested that the special limitation could prohibit commercial uses and indicate that the intent is that the area not be used for commercial in the long run.

The public hearing was opened.

TONY HOFFMAN, representing the petitioner, voiced appreciation for the Staff's work on this project, which began with the initial application 1.5 years ago. There have been many meetings in 2008 with the Municipality and ADOT, as well as representatives from Independence Park. He stated the special limitations are acceptable as written. This piece of land is in a depressed area that is 10 to 50 feet lower than the road itself. The height limitation is designed to allow greater height where the property is significantly lower than the road. The proposed improvement to O'Malley Road should raise it 14 feet. The buildings to the north in Ridgemont are higher than the building elevation on the petition site. There is vegetative buffer as well as a height that will make the impact of these buildings minimal. The requested height is substantial only in the fact that it allows the buildings to be 3 to 4 stories above ground and three-quarters of a story below ground level for parking. Providing underground parking allows for less surface parking. He noted there are other large buildings in the area, including 3 and 4 story apartments along Lake Otis Parkway and multifamily to the northwest. The buildings being proposed are compatible with the character of development north of O'Malley Road. The existing allowed density is 16 to 20 DUA and this development is well within that range. The developer will need to help build Independence Park Drive and single-family homes could not sustain that financial burden. Furthermore, the developer does not feel that single-family homes are the best use of the land.

TIM MANWARING, area homeowner, stated that he lives in the Ridgemont Subdivision and will view this proposed development from his home. He was not opposed to development, but had concerns. He took exception to the statements that the level of the homes where he lives is significantly higher than the petition site; he looks directly at the petition site. He had concern

with the height of buildings being proposed, which is different than other development in the area and different than what he had thought would be done on this property when he built his home in 2001. He was aghast at the size of the proposed development. The units nearest the petition site are zero lot line, but they were built with the thought that if there was development between them and O'Malley Road, that development would be at the same density. He was somewhat distraught to see this request for increased density. His primary concerns were the height of the buildings and the number of units proposed.

COMMISSIONER YOSHIMURA asked if the petitioner attended a community council meeting where this request for rezone was discussed. MR. MANWARING was unaware whether or not this was the case.

COMMISSIONER WEDDLETON explained that sometimes grouping buildings allows for more open space and greater buffering. He asked if this is a benefit that might weigh toward him favoring this development. MR. MANWARING stated that sometimes planned or well built development is best. He explained he was overwhelmed by the proposal because it is more than he expected to see on this property. His primary concern was the height of the proposed buildings. He was aware there is some plan to build Independence Drive out to O'Malley Road and to increase the width of O'Malley Road. People not being able to get in and out onto O'Malley Road will use Ridgemont Drive and in front of his home. COMMISSIONER WEDDLETON asked if one story shorter would be agreeable. MR. MANWARING replied that he would prefer that, but regardless he would be looking at rooftops and maybe into units. There is some greenbelt along the Ridgemont Subdivision, as well as a wetland that will need to be maintained.

COMMISSIONER PEASE asked if the zero lot line homes along Ridgemont are two story. MR. MANWARING replied in the affirmative.
COMMISSIONER PEASE recalled that Ridgemont Drive does not have a light, but Ridgepark and Reevesport do. MR. MANWARING stated that Reevesport does have a light. COMMISSIONER PEASE asked if Ridgemont and Ridgepark are built to similar standards. MR. MANWARING replied that they are both two lanes with parking on both sides.

MAUREEN CHANDLER supported Mr. Manwaring's remarks, noting that she also lives in the Ridgemont neighborhood. She had concern with building height, drainage, and traffic, as she lives on the end of Ridgemont Drive.

KRISTIN REYNOLDS stated she lives on Commodore Drive and she felt adding this kind of density would have a great impact on the neighborhood.

Currently there are single-family units in the area. This kind of density in this location on this corner seems contrary to what is desirable as future planning. This sort of density seems to be more appropriate near a town center where there is more freedom of walking. This proposal adds density of vehicles by placing density further away from those walking areas. She also thought that the design of the buildings will result in them being affected by headlights coming down the road, which is not a comforting living situation. The traffic noise from both roads is also intense. She felt the property could be less dense and more similar to other housing in the area, which would be complementary and allow more green space around the buildings to mitigate car noise and light impacts. She also agreed with the comments of her neighbors.

In rebuttal, MR. HOFFMAN understood that height is a concern and that led him to believe that he did not prepare the appropriate schematics to represent the height impacts to the north. The buildings are situated at least 85 feet from the property line and the lots to the north are 50 to 80 feet from the lot line, so there will be over a 100-foot separation between buildings. While he is not familiar with the height of the trees, he presumed that the existing vegetation would buffer the development.

COMMISSIONER PEASE asked whether, if the reason behind the R-4 request and the height request is to accommodate under building parking, the applicant would object to a requirement that ties height to underground parking. She noted that the site plan shows more than one parking space per unit under the building. She suggested a requirement of one space per unit under the building so that the neighborhood could have more open space. MR. HOFFMAN agreed to that proposal. COMMISSIONER PEASE asked if the applicant would object to language prohibiting commercial retail high traffic uses with the intent to not create a new commercial center in competition with the nearby commercial centers. MR. GREEN clarified that these units are designed with under building parking as well as surface parking. The reason for the R-4 request is height and the reason for height is parking under the buildings. There is no intent to create a commercial center on this property. He had no objection to prohibiting commercial uses other than a manager's unit. He also suggested using the term "approximate" in order to allow for some flexibility. He added that CEA has issued a letter of non-objection.

COMMISSIONER YOSHIMURA stated she believes it is not in the best interest of the development to tie height to underground parking, as it is a long-term project that could change in the future. She noted that absorption in two-bedroom one or two bath condos with underground parking and interior corridor is the slowest in the marketplace. She stated she would not be surprised if over a period of time a variety of housing types might be put on this property to better meet absorption and market demand. She wondered whether this rezoning plan was presented to the community council. MR. HOFFMAN replied that this proposal was presented to the community council in 2007. COMMISSIONER YOSHIMURA asked if the petitioner would be opposed to a public site plan review after the development plan is finalized. MR. HOFFMAN did not object.

COMMISSIONER WEDDLETON understood that only four homes could be built on the property at this time. MR. HOFFMAN replied that one dwelling unit per lot is allowed under R-1A. Approximately 66 homes could fit on the R-1A if it were replatted. COMMISSIONER WEDDLETON asked if the petitioner is required to pay for part of Independence Park Drive. MR. HOFFMAN replied that to the developer will have to pay for a significant part of Independence Park Drive from the driveway access to O'Malley Road and water and sewer would have to be extended. The level of construction has not yet been determined. COMMISSIONER WEDDLETON noted that the zero lot line development to the north also had this requirement. MR. HOFFMAN explained that the road was not built to the standard that was desired; this petitioner is picking up the performance guarantees for Ridgemont. COMMISSIONER WEDDLETON asked what is the definition of "affordable" in relation to this housing. MR. HOFFMAN replied that currently an affordable housing unit is \$200,000 to \$400,000. COMMISSIONER WEDDLETON noted that in the Comprehensive Plan defines affordable as 30% of income for renters and 38% for homeowners. COMMISSIONER WEDDLETON asked which community council reviewed this request. MR. HOFFMAN believed it was Abbott Loop Community Council. MS. O'BRIEN stated that notices were sent to both Abbott Loop and Huffman/O'Malley Community Council. COMMISSIONER CHAMBERS indicated there was no comment from the councils in 2007 or this time.

COMMISSIONER PHELPS asked why the petitioner would be unable to develop in a land use pattern similar to the development to the north. MR. HOFFMAN stated the petitioners have owned this property since 1978 and their desire is not to build zero lot line units. He does not want to create a development similar to Ridgemont. MR. GREEN understood that this property could be subdivided into zero lot line houses and the tax base for the city would be one quarter or one fifth of the tax base of the proposed project. He stated that the standards for a rezone set forth in the Planning Staff analysis have been met. This development will be modern, for this century. He supported fewer but larger buildings with more green space. There is a large buffer between Ridgemont to the north and the buildings that will be

located on this site, including a wetland and trail. The proposal is 21st century and he felt the community would be proud of it. COMMISSIONER PHELPS understood that higher density is needed because of the cost of infrastructure and the petitioner prefers to develop the site in a more efficient way and in keeping with community desires. MR. GREEN also felt that the higher and better use of this property is the proposed housing type.

The public hearing was closed.

COMMISSIONER PEASE moved for approval of a rezoning to R-4SL, subject to Effective Clause 1 and Special Limitations 1 through 4, amending special limitation 2 to add "For buildings exceeding 35 feet in height there shall be internal parking, either under ground or under building parking, with a minimum of one parking space per residential unit," amending special limitation 3 add "restaurants, grocery stores, and other vehicle-oriented retail uses with the intent to avoid creating a new commercial center in proximity or in competition with the nearby town centers at Abbott/Lake Otis and O'Malley/Seward Highway," and rewording special limitation 4 to read, "Prior to the issuance of any fill or building permits, the developer shall receive approval of a site plan by the Planning Department, ADOT and the Traffic Department." COMMISSIONER EARNHART seconded.

COMMISSIONER PEASE moved to amend special limitation 4 to add, "and have a public hearing site plan review by the Planning and Zoning Commission." COMMISSIONER YOSHIMURA seconded.

COMMISSIONER PEASE noted that members of the public testified that the R-4 zoning would allow a very different type and style of residential development than the existing R-3 zero lot line, single-family housing in the area. She felt it was appropriate to rezone to a higher density, but the magnitude is significant. There is nothing comparable in scale along O'Malley Road or along Lake Otis Parkway. Given the magnitude of density change and the direction in the *Comprehensive Plan* to have compatible uses and good transitions adjoining one another, that should be achieved in style and scale with this development. This area is a gateway to the Hillside, so there would be interest in the appearance of this development by residents in the area.

COMMISSIONER PHELPS had concern with a requirement for a public hearing site plan review. He understood the petitioner had thought through the plan and noted that many aspects of the design are dealt with in the platting, which will be before the Commission next. He did not think the public would be served by a public site plan review. He believed the use proposed for this area is appropriate. He did not view this as a transition space. A transition area has always been at O'Malley Road. The area north of there was always anticipated to be urban in nature. He saw no need for transitioning to the north or south that would warrant a site plan review.

COMMISSIONER EARNHART stated that, given that the petitioner does not object to a public hearing site plan review, he would not object too strenuously to this amendment, but he did not think a public site plan review is required. That review takes tremendous staff time and expense, as well as time and expense on the part of the petitioner. This is a proper rezone; there is high density to the north. Given the height restriction of 45 and 55 feet, it is consistent with development to the north. He supported protecting the public and applauded the public for testifying, but he did not think this development needs to come back before the Commission.

COMMISSIONER YOSHIMURA stated the petitioner does not object to a public site plan review and she commended them for that. The work that has to be done and reviewed by Staff has to be done anyway, including a site plan, elevations, exteriors, landscaping plans, etc. She did not think that this is creating too much work for Staff. She stated that the Commissioners have all committed to work on this commission and the time it takes to make a better community. She stated she has been to this site and did not think there is a significant difference in elevation between the zero lot line homes and the property being rezoned. If she lived in one of those zero lot line homes and several 24-unit buildings were going to be within 100 feet of her, she would like to have some input. Given the negative press in recent years about condo development, she felt the community should have an opportunity to comment on the development on this property. She noted that it has been more than one year since the petitioner visited the community council. She added that there is a considerable difference between the two-story units in Ridgemont and the height allocations for the proposed buildings; they will be more than twice the height of the zero lot line homes to the north.

COMMISSIONER WEDDLETON stated that R-1A works in this area and he would be inclined to support that type of development, but there is a benefit to creating affordable housing. However, the rezoning to R-4 would allow anything permitted in the R-4 to be built on the property, therefore, he supported the amendment.

COMMISSIONER FREDRICK supported the rezone and its intent, but noted that this is a large project that is very visible from many angles in the neighborhood and, while there is no reason to question the petitioner's integrity, there is also no requirement that they meet the concept plan that

has been submitted. History shows there should have been more site plan reviews of condos in Anchorage. He felt it was in the best interest of the public to have a chance to view the site plan for this development.

### Amendment

AYE: Weddleton, Isham, Yoshimura, Fredrick, Pease

NAY: Phelps, Earnhart

### PASSED

COMMISSIONER WEDDLETON clarified that the Staff special limitation 2 remains in the motion. COMMISSIONER PEASE confirmed that this is the case.

COMMISSIONER YOSHIMURA objected to the requirement for underground parking spaces as an addition to special limitation 2. She felt that there would be a need for some flexibility to meet market conditions and did not want to see this restraint put on this development. COMMISSIONER PEASE explained that the language is "if buildings exceed 35 feet in height," so if a future owner decided to go up to 35 feet and not do underground parking, this would not be required. COMMISSIONER YOSHIMURA no longer objected.

COMMISSIONER PEASE stated that development of the site does incur costs, including the extension of Independence Park Drive, which helps to justify doing denser development. There may also be some benefit if this housing can be built with smaller footprints at a more affordable market rate. The density is similar to the areas to the north so there is not a substantial increase, but R-4 could allow a variety of retail and, in the interest of having vibrant and compact commercial centers, there is a desire to not allow this site to create another vehicle magnet and sprawl. A public hearing site plan review will help to make sure this is a higher density project that is compatible with surrounding areas. Part of the reason for the greater height limit is that the owner proposes under the building or underground parking and that trade-off is now tied to the rezone.

### Main Motion

AYE: Phelps, Weddleton, Isham, Yoshimura, Fredrick, Pease, Earnhart

NAY: None

### PASSED

# PLANNING DEPARTMENT PLANNING STAFF ANALYSIS REZONING

DATE:

January 5, 2009

CASE NO .:

2007-077-2

APPLICANT:

QM Development, LLC

Principal: Harold Green

PETITIONER'S

Lantech, Inc.

REPRESENTATIVE:

Rezoning R-1A to R-4 SL

LOCATION:

REQUEST:

Four parcels, as follows:

Tracts B-1 and B-2, Green Subdivision, an unsubdivided parcel known as South 80 feet of North 320 feet of South 570 feet of West 150 feet of East 600 feet, and an unsbudivided parcel known as North 240 feet of South 570 feet of West 150 feet or East 600 feet, in T12N, R3W,

Section 17, S.M. AK.

SITE ADDRESS:

2421 O'Malley Road; three parcels have no

assigned address.

COMMUNITY

Abbott Loop

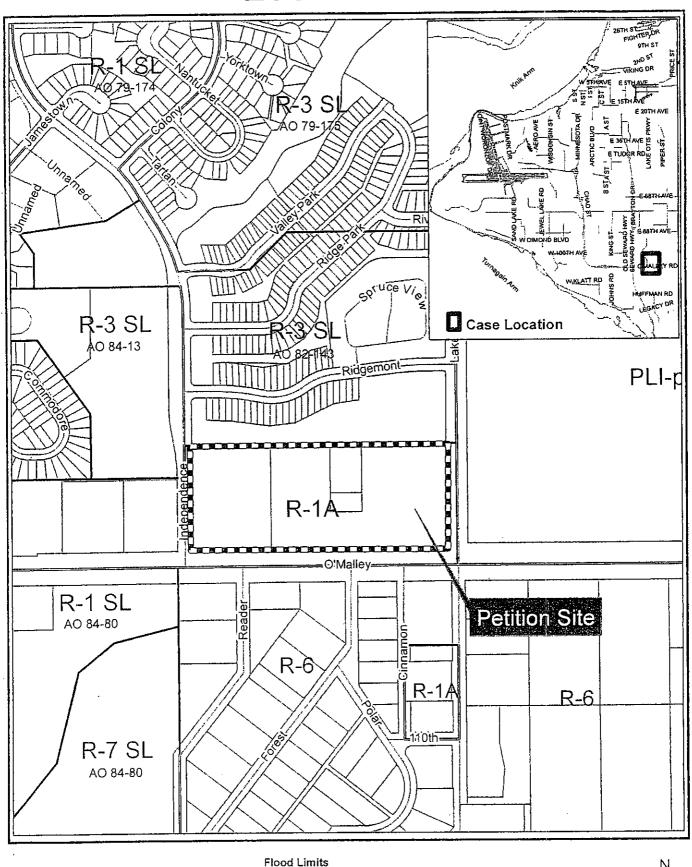
COUNCIL:

016-061-13; -16; -17.

## TAX NUMBER: ATTACHMENTS:

- 1. Zoning & Location Maps
- 2. Departmental Comments
- 3. Application
- 4. Posting Affidavit
- 5. Historical Information

## 2007-077-2



Municipality of Anchorage Planning Department

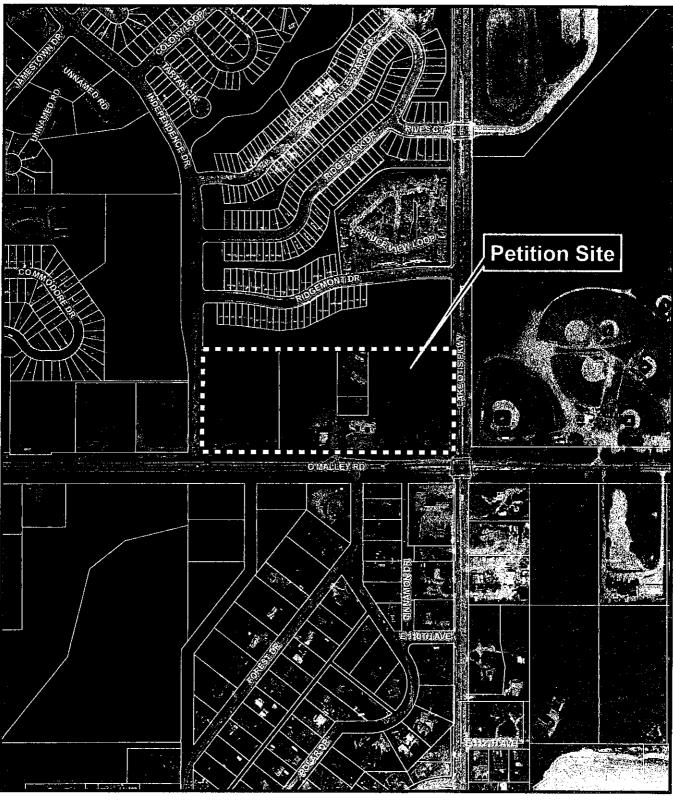
Date: October 22, 2008





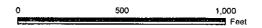


## 2007-077-2



Municipality of Anchorage Planning Department

Date: October 21, 2008



<u>RECOMMENDATION SUMMARY</u>: APPROVAL with special limitations and effective clause.

SITE:

Acres:

13.8 acres

Vegetation:

Some natural vegetation, portions cleared

Zoning:

R-1A

Topography:

Hilly on east half

Existing Use:

Former day care buildings
Public water and sewer

Soils:

Portion of Class A and C Wetlands

**COMPREHENSIVE PLAN:** 

Classification:

Not specifically designated in <u>Anchorage 2020</u>, although near the Lake Otis Parkway Transit

Supportive Corridor. The 1982 Comprehensive

Plan lists the property as residential.

Density:

11-20 DUA per the 1982 plan. The June 28, 2006

draft concept land use plan map, as approved by

the Commission, indicates > 8 - 15 dua.

SURROUNDING AREA

NORTH E

<u>EAST</u>

SOUTH

WEST

Zoning:

R-3 (SL)

PLI-p

R-6

R-1A/R-3 SL

Land Use:

Ridgemont Sub/Indep Section 16 Ruth Arcand O'Malley Road Undeveloped Single family

endence Park PUD Eguestrian Park

Single Family

PROPERTY HISTORY

08-01-72		Aerial photo from Aero-Metric, shows a structure with a playground and a building at the rear, and a smaller structure located on Tract B-2
05-17-73	Zoning	R-1A Area G-1 areawide rezoning GAAB OR 73-29
08-04-82	Plat 82-211	Created Tract B-1 and B-2, Green Subdivision
12-29-06		A Determination of Nonconforming Status letter for Tract B-2 Green Subdivision, prepared by the Planning department

05-24-07	S-11586	concluded that a child care center is not a Legal Nonconforming Use of a Structure and is in violation of AMC 21.40.030.  Richport Subdivision Tract 1: a subdivision of Tract is B-1 & B-2, Green Subdivision Addition No. 1 (Plat 82-211), & the S80' of the N320' of the S 570' of the W 150' of the E 600', located with the S1/2 of the SE ¼ of Section 17, T12N, R3W., S.M., AK containing 12.97 acres. Request postponed, to be heard 1/5/2009 as S-11586-2.
05-24-07	2007-077	Rezone application for the majority of the petition site (see legal description for S-11586 above). Request postponed, to be heard 1/5/2009 as case 2007-077-2.

### **Related History**

09-26-06	AO 2006-125	Assembly approved a rezone from R-3 SL (Multiple Family Residential District with Special Limitations) to R-3 SL (Multiple
		Family Residential District with Special
		Limitations) to amend the special limitations
		for Tract S, Independence Park Subdivision.
		The design standards established a maximum
		density of 30 dwelling units per acre (DUA)
		which was an increase from the 18 DUA
		previously allowed. The special limitations
		also required public hearing site plan review
		and resolution of the construction of
		Independence Drive fronting the property and
		the need for an updated Traffic Impact
		Analysis. The property was in default and
		reverted to the original owner. A letter
		accepting the special limitations was not
		received within 120 days of action by the
		Assembly and the rezone did not become
		effective (PZC case 2006-080, Resolution
		2006-039). Located northwest of the current
		petition site.

### SITE DESCRIPTION AND PROPOSAL:

### **Proposal**

Rezone from R-1A to R-4 SL: the special limitation will limit residential density to 16.5 DUA (a maximum of 228 units), with a height limitation of 55 feet for the western half of the site, with the remainder of the structures to not exceed 41 feet in height. The concept site plan delineates these structures for reference purposes. Exhibits A, B and C provided by the petitioner delineate the referenced special limitations in terms of height and number of units.

A conceptual site design drawing shows multi-family residential development in accordance with AMCR 21.90 - Multiple Dwelling Unit Residential Development on a Single Lot or Tract. The layout illustrates access driveways, internal driveway and eleven buildings. The five western buildings have 24 interior/underground parking spaces and 24 dwelling units, and the eastern six have 24 interior/underground parking spaces and 18 dwelling units. Surface parking shown is 183 spaces. The total number of required spaces (including the required 12% overflow parking) is 447, and 447 combined internal/underground/surface spaces have been shown on the concept plan. Driveway access is from Independence Drive and O'Malley Road.

The petitioner has also submitted a preliminary plat S11586-2 to combine the four subject parcels into a single tract as Richport Subdivision, Tract 1. This plat will be heard by the Planning and Zoning Commission at the same public hearing as this rezone case.

\*\* Note that these two requests were originally scheduled to be heard in June of 2007 as 2007-077 and S-11586. However, they were postponed in order to finalize a traffic impact analysis required by the Department. Since that time, the petitioner has gained control of the fourth unsubdivided parcel, located in the middle of the petition site, along the north boundary, comprised of approximately 0.8 acres in size.

### Site Description:

The subject property involves four parcels consisting of approximately 13.8 acres all under common ownership, generally located between Independence Drive (extended) and Lake Otis Parkway, north of O'Malley Road.

According to the 1996 Official Streets and Highways Plan, Lake Otis Parkway is a Class II Minor Arterial (10,000 – 20,000 average trips per day) and is a Municipal owned and maintained road; O'Malley Road is a Class IIIB 4-lane Major Arterial (over 20,000 average trips per day) and is a State owned and maintained road. Independence Drive is a Class IC Residential Collector (2,000 – 10,000 average trips per day).

Driveway access is presently provided off O'Malley Road via a 50 foot access and electrical easement<sup>1</sup> to the subject parcels and to a land locked parcel to the north (tax parcel number 016-061-12<sup>2</sup>). There is also a second access from O'Malley at the west end. An existing multi-use trail is located along the north side of O'Malley Road.

There are Class "A" and "C" designated wetlands on portions of the northern and western boundary.

There is an overall 6% southeast-northwest down slope diagonally across the parcel. However the east half of the subject parcels is more slope affected, 8.8%, than the west half that has the wetlands. There is a steep drop of 35-foot change in elevation at the southeast corner of the property (intersection of Lake Otis and O'Malley).

Development is proposed to follow Assembly approval of the rezoning and recordation of the subdivision plat.

#### FINDINGS:

21.20.090 Standards for Approval - Zoning map Amendments.

### A. Conformance to the Comprehensive Plan.

The standard is met.

The subject property has no specific designation shown on the Anchorage 2020 Land Use Policy map.

AMC 21.05.080.B provides that "the Generalized Land Use Plan and the Residential Intensity Plan in the 1982 Anchorage Bowl Comprehensive Development Plan shall remain elements of the comprehensive plan for

<sup>&</sup>lt;sup>1</sup> Plat 82-111

<sup>&</sup>lt;sup>2</sup> 2441 O'Malley Road; T12N, R3W, Section 17, N240' of S570' of W150' of E600', owned by James and Elizabeth Agre.

the Anchorage Bowl, but only to the extent not in conflict with the Anchorage 2020 Anchorage Bowl Comprehensive Plan or until repealed or superseded by subsequent ordinances, including adoption of future plans." A new Land Use Plan Map has not yet been adopted by the Assembly.

The 1982 Land Use Plan map designates this property as 11-20 DUA. The proposed request will allow a density of 16.5 DUA

Lake Otis Parkway is shown as a Transit Supportive Corridor.

Applicable policies include:

Policy #3. Assuming development as multi-family development occurs, it will provide residential infilling providing a possible 228 dwelling units at a medium high density of 16.5 DUA. The Plan calls for an additional 4,000 – 6,000 dwelling units for southeast Anchorage.

Policy #5. Rezones and variances shall be compatible in scale with adjacent uses and consistent with the Goals and Policies of *Anchorage* 2020.

Policy #9. "New residential development located within ¼ mile of the major street and the center of a Transit-Supportive Development Corridor shall achieve an overall average of equal to or greater than 8 dwelling units per acre."

Policy #12. "New higher density residential development, including that within Transit-Supportive Development corridors, shall be accompanied by the following:

- Building and site design standards
- Access to multi-modal transportation, to include transit, and safe pedestrian facilities; and
- Adequate public or private open space, parks or other public recreational facilities located on site or in close proximity to the residential developments."

Policy #17. Consolidating the three subject lots into a single parcel under common ownership permits infilling and unified design and development.

Policy #65, 67, 69. "Support preserving the functions and values of wetlands, and encourage conservation of greenbelts and riparian corridors to be protected as natural open space."

## B. A zoning map amendment may be approved only if it is in the best interest of the public, considering the following factors:

1. The effect of development under the amendment, and the cumulative effect of similar development, on the surrounding neighborhood, the general area and the community; including but not limited to the environment, transportation, public services and facilities, and land use patterns, and the degree to which special limitations will mitigate any adverse effects.

### Environment and Land Use Patterns

The Standard is met.

The 1996 Anchorage Wetlands Management Plan identifies wetland unit #67A, consisting of Class "A" and "C" wetlands and portions of a stream (headwaters of a former branch of Furrow Creek), along portions of the northwest corner of the subject property. Unit #67A requires a 65-foot minimum setback. The Class "A" wetlands are along the north boundary and the Class "C" wetlands are along the west and north boundaries. Prior to development, the parcels must be replatted into a single tract (S11586-2).

A final plat should reflect the stream meander centerline and noted as undisturbed stream corridor and coincide with the edge of the wetlands boundary, surveyed boundaries of the wetlands, and any required setback buffers.

If development occurs in accordance with AMCR 21.90 – Multiple Dwelling Unit Residential Development on a Single Lot or Tract, the site plan then must reflect the platted features previously mentioned and comply with the drainage requirements.

The current land use pattern and zoning districts are supportive of the proposed limited R-4 zoning density. The 1982 Residential Intensity Plan map shows property to the north as being 11-20 DUA and 21-35 DUA. Independence Park PUD includes single family, attached townhomes, and condominiums reflect densities within this range. Property to the north is

Planning and Zoning Commission Case 2007-077-2 Page 8

zoned R-3 SL; south of O'Malley Road property is zoned R-6; property to the west is zoned R-1A (undeveloped) and R-3 SL (undeveloped). Located to the east of Lake Otis Parkway, Abbot O'Rabbit ballfields and the Anchorage Golf Course. To the northeast is Hanshew Middle School with outdoor recreation facilities.

Ridgemont Subdivision abuts the north property boundary and was rezoned from R-1 (single family residential) to R-3 SL (Multiple Family Residential District with Special Limitations) with adoption of AO 82-143. The special limitations established a maximum density of 30 DUA for the parcel east of Independence Drive (which at that time was Tract A, Green Subdivision) adjoining the north boundary of the current petition site.

### Transportation/Drainage

The O'Malley Road upgrade (Seward Highway to Hillside) is an ADOTPF \$25 million project not scheduled until after 2012. The subject property fronts Lake Otis, O'Malley and Independence Drive. With the higher classification of O'Malley (IIIB – 4 lane Major Arterial) and Lake Otis (II-4 lane Minor Arterial) the major access for the project needs to be taken from Independence Drive (IC-2 lane Collector Street). The developer will need to work with ADOT, Traffic, Planning and PM&E in regards to the specific implementation plan for any development of this site prior to issuance of permits.

State Department of Transportation (ADOT) has reviewed and accepted the TIA for the project as an overall review of traffic performance for this site in terms of level-of-service. They require a final signed TIA by the engineer of record. Note that the TIA was based on maximum site development impact, which the maximum density is proposed under the SL's. Thus, the concept site plan was used for this purpose. The concept site plan is the basis for the following ADOT comments.

### ADOT specifically states as follows:

This study assumed right turns only at both access points, consistent with the original design intent of the Independence Drive Upgrade and O'Malley Road Reconstruction projects. However, given the size and density of the Independence Park neighborhoods and the limited travel routes, our Department reserves the option to allow left turns into Independence Drive. To do this, significant changes to the existing grade and width of both roads would have to

be resolved with the Municipality. IN the interim, under Richport development, only right turns will be allowed.

In addition to completing the TIA, the following traffic and safety conditions will need to be provided by the Richport project:

## Richport Access (between Lake Otis Parkway and Independence Drive):

- a) Relocate the access west to the other side of a planned building, to achieve sight distance. Existing sight distance east to the signal is 410 feet, which is undesirable based on traffic speeds and the downgrade of the road as traffic comes through the traffic signal. An improved sight distance of 600 feet west of the signal is achievable, and must be met.
- b) Design a right in/right out raised porkchop island and No Left Turn signing at the Richport access driveway to O'Malley Road.
- c) Reestablish accessible pathway crossings at the new Richport access following DOT standards in front of the stop bar.
- d) Submit guardrail plans for a redesigned approach at Richport.
- e) Submit a site plan showing design for future internal circulation in the event the O'Malley driveway is closed and rerouted to Independence.

### Independence Drive Access (to O'Malley Road):

A separate study of the Independence Drive connection to O'Malley Road is underway through the Municipal project.

- a) Review the building footprints with the Municipality to establish easements or dedications for permanent slope limits. Also establish building setbacks from Independence Drive, so future slopes for Independence Drive do not impact buildings.
- b) Widening and a raised center median will be necessary to restrict any access at Independence Drive to right in/right out only on O'Malley Road at current grades. Otherwise, interim

access will only be at the eastern drive using the porkchop island.

The building footprints as per the site plan have been reviewed with DOT to establish building setbacks, in an attempt to prevent future road slopes from impacting the developer's investment in new buildings.

Municipal Traffic Engineering provided comments, which were reviewed as a part of since accepted TIA. See above ADOT comments. Prior to any building permit applications they require an internal traffic circulation plan be approved by the Traffic Engineer, Project Management and Engineering (PM&E), and Fire Plan Review.

<u>Drainage</u> will be addressed during permitting. Prior to a final plat the developer will have to submit a comprehensive site grading and drainage plan, a storm water pollution prevention plan, erosion and sedimentation control plan. PM&E provided comments regarding the specifics which will be required through the permit and any subdivision agreement process (or improvement of private place agreement), which will be required as a part of development of the site.

Trails. There is an existing multi-use paved trail along the south property boundary adjacent to O'Malley Road. The Areawide Trails Plan map identifies a future grade separated crossing on O'Malley Road between Independence Drive and Lake Otis Parkway, and a future multi-use unpaved trail along the west side of the property (perhaps the Independence Drive alignment) and along the easterly portion of the site from the future grade separated crossing connecting with a trail system and existing pedestrian underpass on Lake Otis Parkway at Hanshew Middle School. These improvements are being addressed through the road improvement processes identified previously.

#### Public Services and Facilities

Public water and sewer services must be extended to the site. A 16-inch water transmission main is located within Lake Otis Parkway. On property water service extensions will require a private system review and permitting from the AWWU.

Public sanitary sewer is located within Independence Drive. A mainline extension will be required. A portion of the sanitary sewer mainline

required to serve this property was to be installed by Tide View Development, Inc. under the Ridgemont Phase 2A sanitary sewer mainline extension agreement (S00-42) (subdivision to the north). On March 1, 2000 the Platting Board required Tide View Development, Inc. to extend sewer within Independence Drive through platting requirements for the platting action Case S-10549. On June 6, 2006 the Platting Authority accepted the concept of payment to AWWU from Tide View Development, Inc. in lieu of extending sewer within Independence Drive. The amount of the payment is dependent on the resolution of design issues by AWWU and PM&E. Currently the design issues have not been fully resolved. Public facilities cannot be installed until issues have been resolved. However, the petitioner has been working diligently with AWWU, PM&E, Traffic, ADOT and Planning to resolve the public infrastructure methodology. This cannot be finalized until a development plan is finalized after rezoning. These are technical issues resolvable prior to site development.

Fire provided comments to the conceptual site design, but had no objection to the rezoning. Prior to the issuance of any building permits, Fire will have to review and approve access and internal circulation.

Schools: The petition site is located in the following attendance boundaries: Service High School, Hanshew High School and Spring Hill Elementary School. The school district applies a housing stock multiplier based on the individual school district attendance boundary to forecast new students from a given housing type.

The intended development is for an eleven-building multi-family condominium project, having eighteen to 24 units per building. Therefore it can be projected that 228 total units will generate a total of 39 elementary students (.17 multiplier), zero junior high student (.00 multiplier for this type of proposed development), and 9 senior high student (.04multiplier).

Actual school capacity for the 2006-07 school year for Service is 86% capacity; Hanshew is 116% and Spring Hill is 80%. Projected school capacity for the 2010-11 school year for Service is 86%; Hanshew is 96% and Spring Hill is 78%.

#### Special Limitations

Policy #12 calls for new higher density residential development, including within Transit-Supportive Development corridors, to be accompanied by building and site design standards.

To support this policy, the following special limitations are recommended by the Planning Department:

1. Maximum Height of Structures is as follows:

The height shall not exceed 55 feet for the western half of the site. Additionally, the height of the eastern half of the site shall not exceed 41 feet. Measurements shall be determined per AMC 21.45.050.

R-4 zoning allows for height to be based upon the floor area ratio of the site, but the intent of the Department is to ensure minimumimpact against the adjacent R-3 zoning. The height limitation variation between the western and eastern portions of the site takes into account the grade differential from east to west. This also allows elevating the building height to accommodate parking under the buildings, as the Department and petitioner intend to mitigate surface parking where possible. However, conditions may require elevated buildings in order to place parking under the buildings instead of subsurface parking. This also allows flexibility for the site design recognizing the site environmental constrains, and that development should greatly reduce the impervious surface area for parking lots.

2. Maximum 16.5 Dwelling Units per Acre (228 dwelling units).

This is in keeping with the 1982 Land Use Plan map designation for this property as 11-20 DUA, and compatible with uses throughout the area.

3. Prohibited Uses. The following R-4 uses are prohibited: hotels, motels and motor lodges; private clubs and lodges; mobile home parks; camper parks; convenience establishments; commercial P.U.D.s (Planned Unit Developments); gasoline service stations; snow disposal sites.

This list of prohibited uses will ensure that certain R-4 uses which are not as compatible with the surrounding multi-family residential districts are prohibited. Thus, it will enable site use conformance with surrounding area.

4. Prior to the issuance of any fill or building permits, the developer shall submit a site plan to the Planning Department, ADOT and the Traffic Department for review and approval.

The purpose of this site plan is primarily to ensure the methods of incorporating the requirements of the TIA and specifics of implementation and any necessary phasing of the traffic and utility improvements as will be required of the site plan.

As discussed previously, there are identified environmental conditions on the site, as well as necessary private development agreements which will need to be resolved. The MOA and ADOT have enough certainty about the required improvements to recommend approval of this request. However, the details will need to be finalized. As a rezoning is a long term use designation for a site, and as there is a technical possibility that site development proposal can change over time, the Department recommends this special limitation. It will allow for any changes in this concept site plan, or any future different development plan, to be reviewed and improvements required ahead of time, prior to any development or phasing of any development.

Note: A conceptual site plan is included in this application only for purposes of illustrating how buildings and parking could be placed on the subject property. This is a rezoning application and not a site plan review. Given the identified environmental conditions, and yet to resolved subdivision agreements, a very different site plan could emerge. Thus, the special limitations recommended by the Department were crafted to ensure requirements of height, density, and environmental buffering would occur regardless of the actual development plan. Technical requirements such as access, visitor parking, open space, etc. are already required through the R-4 zoning, and related zoning and building requirements.

2. The supply of land in the economically relevant area that is in the use district to be applied by the zoning request or in similar use districts, in relationship to the demand for that land.

There is an eight acre tract zoned R-3 SL on the west side of Independence Drive that is undeveloped and contains a large amount of developable Class "C" wetlands on this tract. This property will not be developed residentially as it is owned by the Municipality and is scheduled to be developed as a park in the future. It will likely be rezoned to PLI-p. A master plan for the park needs to be done.

The overall density of the area north of O'Malley, west of Lake Otis Parkway and south of Abbott Road, is medium density multi-family residential.

3. The time when development probably would occur under the amendment, given the availability of public services and facilities, and the relationship of supply to demand found under paragraph 2 above.

Development will follow a final plat, extension of public water and sewer and construction of Independence Drive. Actual timing and any phasing of the site development will be contingent on resolving the technical issues of coordination with the public road improvements and utility extension to the site.

4. The effect of the amendment on the distribution of land uses and residential densities specified in the Comprehensive Plan, and whether the proposed amendment furthers the allocation of uses and residential densities in accordance with the goals and policies of the Plan.

The proposed development is consistent with the comprehensive plan and furthers the policy for housing and population growth in southeast Anchorage.

#### COMMUNITY AND COMMUNITY COUNCIL COMMENTS

There were 109 public hearing notices mailed on December 12, 2008. At the time this report was prepared, no PHN's were returned. Written comments have not been received by the Abbott Loop Community Council.

#### DISCUSSION:

The four parcels will be replatted into a single parcel, and is anticipated to be developed under AMRC 21.90 – Multiple Dwelling Unit Residential Development on a Single Lot or Tract. Combining the parcels allows more efficient use of the land and control of site design. A traffic impact analysis has been accepted, and the requirements are noted previously under the traffic circulation discussion.

A conceptual site plan was provided with this rezoning request to illustrate density development of the subject property, but it is not a required submission of a rezoning.

Municipal agencies have identified wetland conditions which exist on the property, drainage and road and access issues that will be determined with a final plat and influence the ultimate design of development. A plat will also require a subdivision agreement concerning construction of sewer and water and determine the standard to which Independence Drive will be constructed.

The final site design will determine a final density and layout that accommodates these constraints, and the recommended special limitation on agency review of the final plan includes the Planning Department, to ensure zoning issues such as internal pedestrian circulation, open space, and other related code requirements for multifamily development are reviewed.

#### **DEPARTMENT RECOMMENDATION:**

The Department finds that the proposed rezoning is in conformance with the Comprehensive Plan and zoning standards AMC 21.20.090. The Department supports the rezoning of the subject property to R-4 SL with the following special limitations, subject to an effective clause.

#### Effective clause:

R-4 SL zoning shall not become effective until:

1. Recordation of a final plat.

#### **Special Limitations:**

1. Maximum Height of Structures is as follows:

The height shall not exceed 55 feet for the western half of the site. Additionally, the height shall not exceed 41 feet for the eastern half of the site. Measurements shall be determined per AMC 21.45.050.

- 2. Maximum 16.5 Dwelling Units per Acre (228 dwelling units).
- 3. Prohibited Uses. The following R-4 uses are prohibited: hotels, motels and motor lodges; private clubs and lodges; mobile home parks; camper parks; convenience establishments; commercial P.U.D.s (Planned Unit Developments); gasoline service stations; snow disposal sites.
- 4. Prior to the issuance of any fill or building permits, the developer shall submit a site plan to the Planning Department, ADOT and the Traffic Department for review and approval.

Reviewed by:

Prepared by:

Tom Nelson Director Angela C. Chambers, AICF

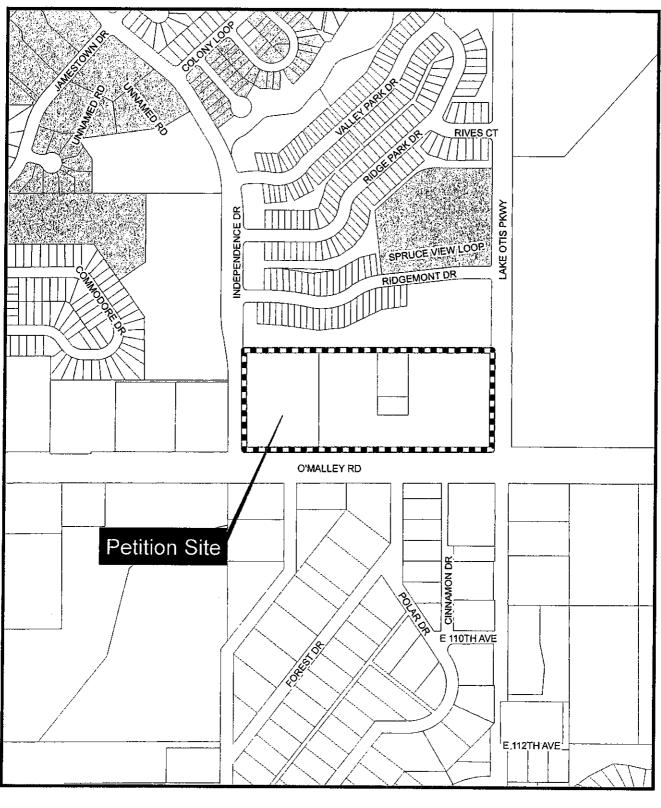
Senior Planner

(Case No. 2007-077-2) (Tax ID No. 016-061-13; -16; -17)



# HISTORICAL MAPS AND AS-BUILTS

### 2007-077-2

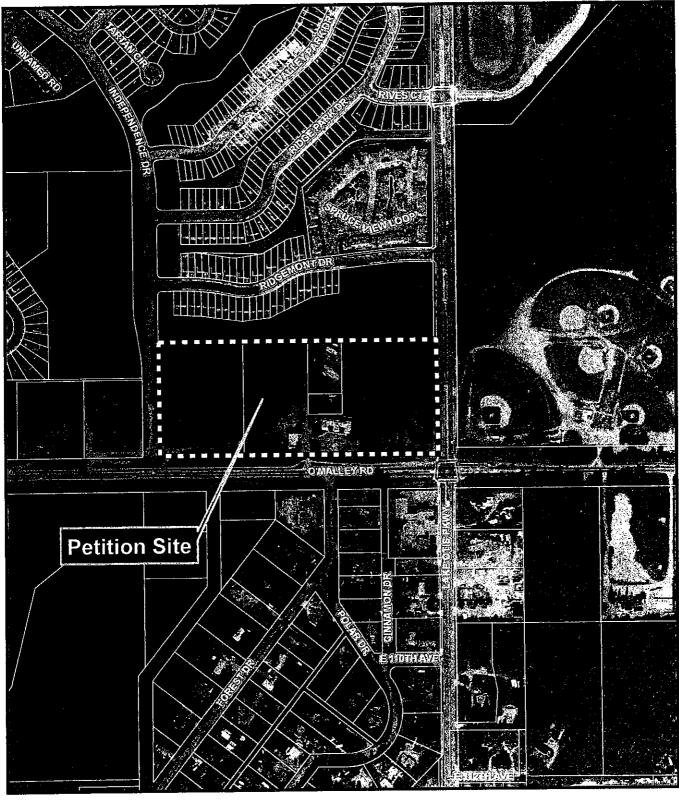


Municipality of Anchorage Planning Department

Date: October 21, 2008

Mobile Home Park
Multi-Family
Single Family

# 2007-077-2



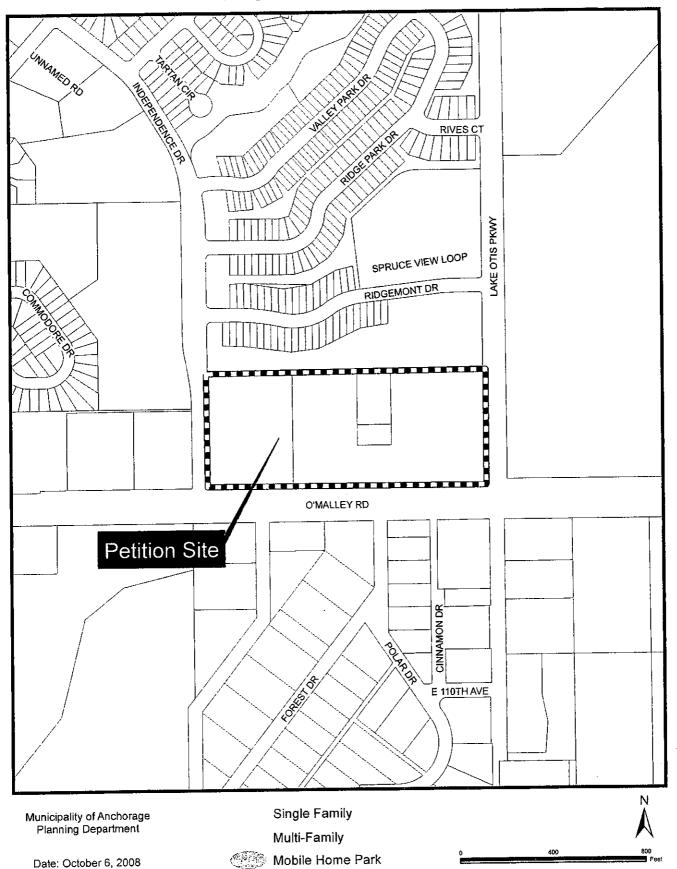
Municipality of Anchorage Planning Department

Date: October 6, 2008

0 390 780 Fee



# 2007-077-2





# DEPARTMENTAL

COMMENTS

SARAH PALIN, GOVERNOR

# STATE OF ALASKA

#### DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

CENTRAL REGION - DESIGN AND ENGINEERING SERVICES DIVISION TRAFFIC, SAFETY & UTILITIES 4111 AVIATION AVENUE P.O. BOX 196900 ANCHOARAGE, AK 99519-6900 (907) 269-0650 (FAX 907-269-0654) (TTY 269-0473)

December 09, 2008

Mr. Dave Krehmeier, P. E. Lounsbury & Associates 5300 A Street Anchorage, AK 99518

Subject: Richport Condominiums TIA Acceptance and Conditions DOT#19697

Dear Mr. Krehmeier,

The TIA for Richport Condominiums is accepted as an overall review of traffic performance for this site in terms of level-of-service. Please submit a final signed TIA by the Engineer, Lounsbury and Associates.

This study assumed right turns only at both access points, consistent with the original design intent of the Independence Drive Upgrade and O'Malley Road Reconstruction projects. However, given the size and density of the Independence Park neighborhoods and their limited travel routes, our Department reserves the option to allow left turns into Independence Drive. To do this, significant changes to the existing grade and width of both roads would have to be resolved with the Municipality. In the interim, under Richport development, only right turns will be allowed.

In addition to completing the TIA, the following traffic and safety conditions will need to be provided by the Richport project:

#### Richport Access (between Lake Otis Parkway and Independence Drive):

- a) Relocate the access west to the other side of a planned building, to achieve sight distance. Existing sight distance east to the signal is 410 feet, which is undesirable based on traffic speeds and the downgrade of the road as traffic comes through the traffic signal. An improved sight distance of 600 feet west of the signal is achievable, and must be met.
  - b) Design a right in/right out raised porkchop island and No Left Turn signing at the Richport access driveway to O'Malley Road.

<sup>&</sup>quot;Providing for the safe movement of people and goods and the delivery of state services."

- c) Reestablish accessible pathway crossings at the new Richport access following DOT standards in front of the stop bar.
- d) Submit guardrail plans for a redesigned approach at Richport.
- e) Submit a site plan showing design for future internal circulation in event the O'Malley driveway is closed and rerouted to Independence.

#### Independence Drive Access (to O'Malley Road):

A separate study of the Independence Drive connection to O'Malley Road is underway through the Municipal project.

- a) Review the building footprints with the Municipality to establish easements or dedications for permanent slope limits. Also establish building setbacks from Independence Drive, so future slopes for Independence Drive do not impact buildings.
- b) Widening and a raised center median will be necessary to restrict any access at Independence Drive to right in/right out only on O'Malley Road at current grades. Otherwise, interim access will only be at the eastern drive using the porkchop island.

The building footprints as per the attached site plan have been reviewed with DOT/PF to establish building setbacks, in an attempt to prevent future road slopes from impacting the developer's investment in new buildings.

Once we receive the final TIA and the questions above are addressed by the landowner, we will give consideration to a 5 year temporary access permit, subject to potential elimination when Independence Drive is built.

Sincerely,

Scott Thomas, P.E.

Regional Traffic Engineer

#### Attachment

Cc: Bob Kniefel, Municipal Traffic Engineer
Jacques Boutet, The Boutet Company, Project Manager, Independence Drive Project
Cynthia Ferguson, Project Manager, O'Malley Road Project
Alan Hartig, ROW Permits Supervisor
Anita Synan, AMATS Coordinator, DOT/PF
Harold Green, Woodhouse Drake, LTD, PO Box 111909 Anchorage, AK 99511
Tony Hoffman, Lantech, 440West Benson Blvd. Anchorage, AK 99503

#### DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

4111 AVIATION AVENUE P.O. BOX 196900 ANCHORAGE, ALASKA 99519-6900 (907) 269-0520 (FAX 269-0521) (TTY 269-0473)

CENTRAL REGION - PLANNING

November 3, 2008 RE: MOA Plat/Zoning Review

Mr. Jerry Weaver, Platting Officer Municipality of Anchorage P.O. Box 196650 Anchorage, Alaska 99519-6650 RECEIVED

NOV 0 5 2008

Municipally of Anchorage Zonwe Deviden

Dear Mr. Weaver:

The plat review committee of the Alaska Department of Transportation and Public Facilities, ADOT&PF, has reviewed S11586-2 and 2008-077-2, Green Subdivision. This development is also the subject of a traffic impact analysis that will elaborate on the following observations:

- The site plan driveway location on O'Malley Road is not going to be approved at the location shown. The final location will be determined by ADOT&PF based upon the sight distance and Traffic Impact Analysis. If sight distance is inadequate until Independence Drive, then a public use driveway will not be permitted. In that event, we will request the City permit a long internal cul-de-sac, as no new driveway will be permitted onto O'Malley Road that does not meet sight distance requirements for downhill traffic, as long as there is alternative access.
- All tracts need to have access to Independence Drive. The three tracts must have an agreement or a platted access shown to guarantee access to Independence Drive.
- Setback requirements are needed from Independence and O'Malley. Building 8 is
  especially a concern as Independence Drive, when constructed to meet the future grade of
  O'Malley Road, will be elevated and slope easements will need to be obtained to the
  east. Slope easements along the south boundary of the property also need to be
  established in order to allow these buildings to remain once O'Malley Road is upgraded.
  ADOT&PF and MOA PM&E will need to establish the recommended setback distances
  based on preliminary engineering to date.

Area Planner

/lm cc:

Louise Hooyer, RLS, Engineering and Survey Supervisor, Right of Way Tucker Hurn, Right of Way Agent, Right of Way Scott Thomas, P.E., Regional Traffic Engineer, Traffic Safety and Utilities Judy Dougherty, P.E. Chief Highway Design



#### MUNICIPALITY OF ANCHORAGE

Traffic Department



#### MEMORANDUM

RECEIVED

DATE:

October 27, 2008

OCT 2 7 2008

TO:

Jerry T. Weaver, Platting Supervisor, Planning Department of Anchorage

Zoning Dwision

THRU:

Leland R. Coop, Associate Traffic Engineer

FROM:

Mada Angell, Assistant Traffic Engineer

SUBJECT:

Traffic Engineering and Transportation Planning Comments for

December 1, 2008 Planning & Zoning Commission Public Hearing

Richport, Tract 1, 2 & 3; Resubdivision of Green Add #1, Tracts B-S-11586-2 1 & B-2; Grid 2533

- Coordinate construction of Independence Drive with Project Management and Engineering.
- Plat Note to read: There shall be no vehicular access to Lake Otis Parkway from this subdivision.
- Plat Note to read: All Tracts within this subdivision shall share one access to O'Malley Road. Design and location of vehicular access to O'Malley Road shall be approved by State DOT and Municipal Traffic Department.
- O'Malley Road is State owned right of way and an Approved Right of Way Permit is required prior to construction of driveway.
- Lake Otis is classified as a Minor Arterial II in the Municipal Official Streets and Highways Plan. As such it is required to have a minimum right of way width of 80'. Dedicate right of way, or a Public Use Easement, or call out a Building Set Back requirement to address the need for additional right of way.

07-077-2

Green; Rezone from R-1A to R-4SL; Grid 2533

Traffic Engineering and Transportation Planning have no comment on this rezone request.

Lancaster; Conditional Use for a Water Booster Station; Grid 2324 08-150

 Sand Lake Road is State owned right of way and will require a State DOT Approved Right of Way Permit to construct a driveway to the booster station.



### Municipality of Anchorage

Project Management & Engineering Department



### Comments to Miscellaneous Planning and Zoning Applications

OCT 3 1 2008

DATE:

October 30, 2008

Municipality of Anchorage Zonkie Division

TO:

Jerry Weaver, Platting Officer

FROM:

Sharen Walsh, P.E. - Private Development - Plan Review Engineer

SUBJECT:

Comments for Planning & Zoning Commission Public Hearing date:

December 1, 2008

<u>Case 2007-077-2 - Rezoning to R-4SL Multiple-family residential district with special limitations and Case S11586-2 - Plat for review by the Planning and Zoning Commission</u>

**Road Improvement Requirements:** 

AMC 21.85.070: Access and peripheral streets: The petitioner shall improve Independence Drive to municipal standards. This improvement shall be coordinated with the State of Alaska Dept. of Transportation's pending upgrade of O'Malley Road

Subdivision Agreement Requirement:

AMC 21.85.030: Prior to final plat approval the petitioner shall enter into a subdivision agreement with Private Development for the required road improvements and for the installation of sidewalks, walkways, street lighting, drainage facilities, and utilities

**Drainage Requirements:** 

The petitioner shall submit to PM&E a comprehensive site grading and drainage plan to resolve the need for drainage easements and drainage improvements and to demonstrate that post development drainage will not adversely impact adjacent properties or rights of way. Drainage plan shall also address measures to be taken in the event that excavation associated with the subdivision agreement or build-out of the lot exposes subsurface flows.

The petitioner is also alerted to the requirement to provide a drainage analysis and calculations to PM&E under land use permit processes. An analysis will be required to address quantity and quality of storm runoff as a result of the proposed changes to infrastructure and to permeable/impermeable surface treatments. Drainage calculations shall fully conform to the requirements of the 2007 Design Criteria Manual.

The preliminary analysis dated September 15, 2008 submitted with the application does not necessarily meet these requirements.

#### **Footing Drain Requirements:**

The petitioner shall resolve the need for footing drain stub-outs to all structures to be constructed within the proposed subdivision.

#### Development Setback Requirements for Creeks and Wetlands:

AMC 21.80.040: The petitioner shall dedicate a stream maintenance and protection easement for the existing stream.

#### Fill and Excavation Permit Requirements:

Advisory Comment: A fill and grade permit from Building Safety must be obtained by the applicant prior to the commencement of grading and/or excavation of on site material or the import of fill material in excess of fifty cubic yards. A site grading and drainage plan and an erosion and sediment control plan must be included with fill and grade permit application.

#### **Erosion and Sediment Control Requirements:**

Prior to final plat approval an erosion and sediment control plan for the required improvements must be submitted for review and approval. The plan must detail all measures to be implemented on site to prevent the transport of sediment beyond property boundaries or into existing development setbacks and/or stream maintenance and protection setbacks both during and after construction.

#### **Department Recommendations:**

Project Management and Engineering has no objection to the proposed vacations.

Project Management and Engineering recommends approval of the rezone and the plat subject to the above conditions.

FIRE

### Fire plan review has submitted comments on the following plats:

S11711-1	Sandy Beach Sub	No Objection	The forms Wheeler
2007-077-2 >		No Objection	NOV 1 4 2008
2008-150	Tract A Lancaster Sub	No Objection	
2008-151	Tract D Knik View Estates Sub	No Objection	Municipally of Anchorage Zaning Division
S11592-5	Scenic Park View Sub	No Objection	Zoning Division
S11714-1	Timberlane Park # 1	No Objection	
S11715-1	Fire Lake Heights Sub	No Objection	
S11713-1	Allen Combs Sub	No Objection	
2009-001	OT blk 70, 517 W 7th	No Objection	

### Municipality Of Anchorage ANCHORAGE WATER & WASTEWATER UTILITY

### RECEIVED

#### MEMORANDUM

NOV 0 5 2008

Muricipality of Anchorage
Zensis Dwision

DATE:

October 29, 2008

TO:

Jerry Weaver, Zoning Division Administrator, Planning Department

FROM:

Paul Hatcher, Engineering Technician III, AWWU PAH

SUBJECT:

**Zoning Case Comments** 

Planning & Zoning Commission Hearing December 1, 2008

Agency Comments due November 3, 2008

AWWU has reviewed the materials and has the following comments.

07-277-2 GREEN #1 TR B-1 & B2, T12N R3W SEC 17 N 240' OF S 570' OF W 150' OF E 600' & S 80' OF N 320' OF S 570' OF W 150' OF E 600', Rezoning to R-4SL Multiple-family residential district with special limitations, Grid SW2533

- 1. AWWU water main located in Lake Otis Parkway is currently available to proposed Tract 1.
- 2. AWWU sanitary sewer not available to these tracts.
- 3. AWWU has no objection to this rezoning.
- 08-130 T15N R1W POR IN SEC 5,7 & 8 TR 38 BIRCHWOOD PARCEL A,
  Rezoning to I-2SL Heavy industrial district with special limitations, Grid
  NW1356
  - 1. AWWU water and sanitary sewer not available to this parcel
  - 2. AWWU has no objection to this rezoning.
- 08-140 T15N R1W POR IN SEC 5, 7 & 8 TR 38 BIRCHWOOD PARCEL A, Zoning conditional use for a natural resource extraction, Grid NW1356
  - 1. AWWU water and sanitary sewer not available to this parcel
  - 2. AWWU has no objection to this conditional use.
- 08-150 LANCASTER TR A, Zoning conditional use for a Water Boosting Station, Grid SW2324
  - 1. AWWU water main located in Sand Lake Road is currently available to this property.
  - 2. AWWU sanitary sewer currently not available to this property.
  - 3. AWWU has no objection to this conditional use.



#### MUNICIPALITY OF ANCHORAGE

Development Services Department
Right of Way Division

Phone: (907) 343-8240 Fax: (907) 343-8250



DATE:

November 3, 2008

RECEIVED

TO:

Planning Department, Zoning and Platting Division

NOV 0 3 2003

THRU:

Jack L. Frost, Jr., Right of Way Supervisor

Municipality of Anchorage Zonisa Division

FROM:

Lynn McGee, Senior Plan Reviewer

SUBJ:

Request for Comments on Planning and Zoning Commission case(s) for December

1, 2008.

Right of Way Division has reviewed the following case(s) due November 3, 2008.

07-077-2

Green, Tracts B-1 & B-2 and S 80" of N 320' of the S 570' of W 150' of E 600' of Sec 17 T12N R3W, grid 2533

(Rezoning Request, R-1A to R-4)

Right of Way Division has no comments at this time.

Review time 15 minutes.

08-130

Section 8, T15N R1W, Tract 38, Birchwood Parcel A, grid NW1356

(Rezoning Request, I-1Sl & I-2Sl to I-2SL)

Correct, if necessary, the land description to include Sections 5, 7, & 8, T15N R1W. Correct, if necessary, the land description in the proposed ordinance omitting Section 6.

Review time 15 minutes.

08-140

Section 5, T16N R1W Birchwood Parcel A, Tract 38, grid NW1356

(Conditional Use, Natural Resource Extraction)

Correct in the parcel description in the report and on the application as part of this land

is in the NW 1/4 of Section 8, T15, and some is in Section 5, T16N, etc.

Review time 15 minutes.

08-150

Lancaster, Tract A, grid 2324

(Conditional Use, Water Boosting Station)

Right of Way Division has no comments at this time.

Review time 15 minutes.

08-151

Knik View Estates, Tract D, grid NW1558

(Conditional Use, Utility Substation)

Right of Way Division has no comments at this time.

Review time 15 minutes.

08-157

Ordinance Amendment

(Title 21 for Social Service Facilities in Various Zoning Districts)



#### FLOOD HAZARD REVIEW SHEET

RECEIVED

OCT 28 2008

Municipality of Anchorage Zoniva Division

Date: 10/28/08

Case: 2008-077-2

Flood Hazard Zone: C

Map Number: 0243C

Portions of this lot are located in the floodplain as determined by the Federal Emergency Management Agency.

Flood Hazard requests that the following be added as a condition of approval:

"Portions of this subdivision are situated within the flood hazard district as it exists on the date hereof. The boundaries of the flood hazard district may be altered from time to time in accordance with the provisions of Section 21.60.020 (Anchorage Municipal Code). All construction activities and any land use within the flood hazard district shall conform to the requirements of Chapter 21.60 (Anchorage Municipal Code)."

- A Flood Hazard permit is required for any construction in the floodplain.
- Other: COMMENTS FROM WATERSHED MANAGEMENT:
  - 1. Page 1 item 1c. This is a large complex project, since the discharge is to a first-order stream.
  - 2. Page 5 item 14. Extended detention is required by the Design Criteria for complex projects.
  - 3. Page 5 item b2. Some type of detention facility, even it is oversized underground pipes, will be required to meter the flow out and attenuate the 10-year peak flow from 4.74 cfs to 0.92 cfs (flood hazard protection) and to delay the centroid of the outflow hydrograph for the one-year event (extended detention). Although the detention facility need not be designed at this preliminary stage, it should be acknowledged.
  - 4. Page 8 Item 8 Open channel flow calculations. This appears to be a design for pipe, not channel, flow. The slope of 0.003 shown in the equation is assumed to be a typo, since the previous calculations show a pipe slope of

0.03 feet per foot and the given velocity (3.94 ft/sec) appears to be based on a slope of 0.03. With a velocity of 3.94 ft/sec and the given area of 0.0411 square feet, the resultant flow is 0.162 cubic feet per second. This value is well below any of the design flows previously presented. If this is the final design flow for site discharge, a detention facility will certainly be required.

I have no comments on this case.

Reviewer: Jeffrey Urbanus



#### Municipality of Anchorage Development Services Department Building Safety Division



#### **MEMORANDUM**

UC1 3 1 2008

DATE:

October 31, 2008

Muricipally of Anchorage Zoning Division

TO:

Jerry Weaver, Jr., Platting Officer, CPD

FROM:

Daniel Roth, Program Manager, On-Site Water and Wastewater Program

SUBJECT:

Comments on Cases due November 3, 2008

The On-Site Water & Wastewater Program has reviewed the following cases and has these comments:

2008 – 130 Rezoning to I-2SL Heavy industrial district with special limitations

No objection

2008 – 140 Zoning conditional use for a natural resource extraction

No objection

S11586 - 2 Plat for review by the Planning and Zoning Commission

No objection

2007 - 077 -

Rezoning to R-4SL Multiple-family residential district with special

limitations

No objection

2008 - 150

Zoning conditional use for a Water Boosting Station

No objection

2008 - 151

Zoning conditional use for a utility substation

No objection

Z

#### Graves, Jill A.

From:

Staff, Alton R.

Sent:

Tuesday, October 21, 2008 1:10 PM

To:

McLaughlin, Francis D.; Graves, Jill A.; Stewart, Gloria I.

Subject:

Planning and Zoning Case Reviews

2007-077-2 Case No. People Mover People Mover currently uses Independence Drive from Abbott Road south to Jamestown. We-then-take Jamestown to Commodore to O'Malley Road. When

the proposed Independence Drive Extension is complete, People Mover will use the extension of

Independence to O'Malley Road. Buses will be turning from southbound Independence Drive to westbound eastbound O'Malley to northbound Independence Drive. O'Malley and also

Case

2008-144

People Mover does not have bus service to the proposed school site. The closest bus

service is on Jewel Lake Road.

The Public Transportation Department has no comment on the following zoning cases:

2008-150

2008-151

The Public Transportation Department has no comment on short plat s11711-1.

Thank you for the opportunity to review.

RECEIVED

OCT 2 1 2008

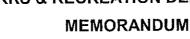
Municipality of Anchorage Zoning Division

Alton R. Staff Planning Manager Public Transportation Department 3650A East Tudor Road Anchorage, AK 99507 907-343-8230



#### MUNICIPALITY OF ANCHORAGE

### PARKS & RECREATION DEPARTMENT





FROM:

December 26, 2008

TO:

Jerry T. Weaver, Zoning Div. Administrator

Tom Korosei, Park Planner

SUBJECT:

Planning and Zoning Case Review

RECEIV

Healthy

DEC 2 9 2008

Manicipality of Anchorage Zoning Division

Anchorage Parks and Recreation has the following comments:

CASE NO.

**CASE** 

2007-077

Rezoning approx. 12.88 acres from R-1A one-family res. to R-4SL multiple family res. (2421 O'Malley Rd. at Independence Dr.; for proposed multifamily development)

S11586-2

Plat for review by Planning and Zoning Commission (2421 O'Malley Rd. at Independence Dr.: replat four parcels into three parcels, with vacation of access and elect. esmt.)

The Areawide Trails Plan shows multi-use paved trail, planned multiuse paved and unpaved trails, and planned grade-separated trail crossing in the vicinity of the subject property. Parks and Recreation recommends adequate control of increased storm water runoff from future development of the subject property to prevent potential adverse drainage impacts to properties nearby or down grade, including nearby Municipal parkland.

2009-003

Rezoning approx. 2.65 acres from R-3 multiple-family res. to B-3 general business.

(Muldoon Rd. vic. E. 10th Ave.; for proposed car wash)

The Areawide Trails Plan shows multi-use paved trail and planned bicycle route along adjoining

Muldoon Rd.

2009-004

Site plan review for a public roadway (Spenard Rd. reconstruction, Chester Crk. to Benson

Blvd.)

(Parks and Recreation has provided comments regarding this project to the Project

Management and Engineering Dept.)

2009-006

Site plan review for an office/retail complex (155 W. 1st Ave.; Alaska Railroad Corp. Freight

Shed Core & Shell)

The Areawide Trails Plan shows multi-use paved trail along adjoining W. 1st Ave.

PZ010509.doc



# APPLICATION

### **Application for Zoning Map Amendment**

Municipality of Anchorage Planning Department PO Box 196650 Anchorage, AK 99519-6650

Please fill in the information asked for below.

PETITIONER*	PETITIONER REPRESENTATIVE (if any)			
Name (last name first)	Name (last name first)			
QM Development LLC	Lantech, Inc.			
Mailing Address	Mailing Address			
PO Box 111312	440 West Benson Blvd., Suite 103			
Anchorage, Alaska 99511-1312	Anchorage, Alaska 99503			
Contact Phone: Day: 279-7350 Night:	Contact Phone: Day: 562-5291 Night:			
Fax:	Fax: 561-6626			
E-mail: hwgreen@msn.com	E-mail: mail@lantechi.com			

\*Report additional petitioners or disclose other co-owners on supplemental form. Failure to divulge other beneficial interest owners

	"是是是我们的,我们就是一个不是一个。" 第一章		
PROPERTY INFORMATION			
Property Tax # (000-000-00-000):	016-061-17-000, 016-	061-16-000, 016-061-13-000	
Site Street Address: 2421 O'Malley Ro	d, Anchorage, Ak.		
Current Legal Description (use additional sheet i	f necessary)		
Tracts B-1 and B-2 Green Subdivision,	As Shown on Plat 82-211, Ancho	rage Recording District, Alaska . And N3	20'
OF S570' OF W150' OF E600' T12N, F	R3W, SEC 17		
		·	
Zoning: R-1A	Acreage: 13.8 ACRES	Grid #: 2533	
I hereby certify that (I am) (I have been authorized to act	t for) owner of the property described above and	that I petition to rezone it in conformance with Title 21 of the	ne
	that necessary of the analication fee is population	lable and is to cover the costs associated with processing t	his

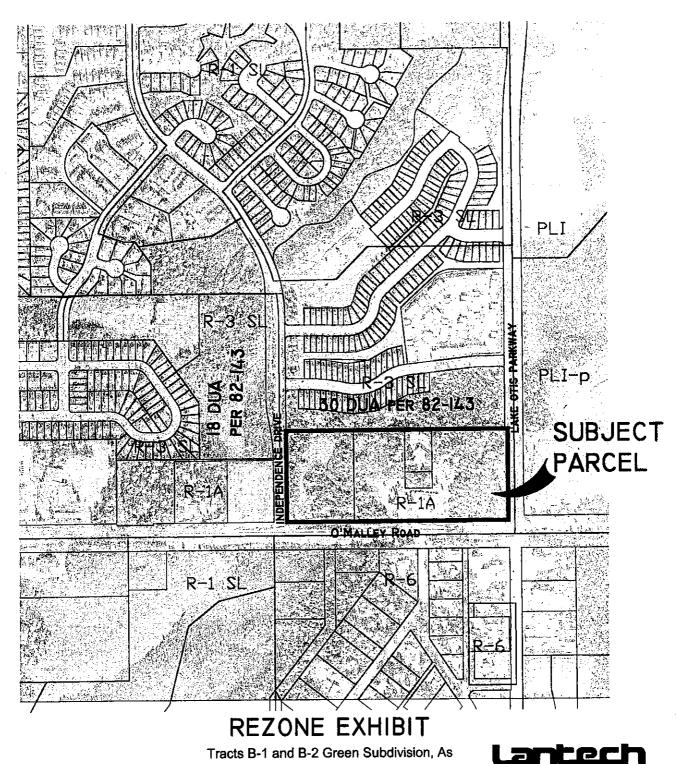
Anchorage Municipal Code of Ordinances, I understand that payn application, and that it does not assure approval of the rezoning. I also understand that assigned hearing dates are tentative and may have to be postponed by Planning Department Staff, the Planning and Zoning Commission, or the Assembly for administrative reasons.

Dopartinoni Otom, and Chamber		·		
9/12/02	(ah		TONY HOFFMA	N
Date	Signature (Agents must provide	le written proof of authorization)		
(	_			
			IO No	
Accepted by:	Poster & Affidavit:	Fee:	Case Number:	j
MA	6-95	reactivation	2007-077	
7 7 5				7 7

Application for Zoning Map Amendment continued

Page 2

COMPREHENSIVE	PLAN INFOR	MATION				
Anchorage 2020 Urba	n/Rural Service	s: 🔽 Urba	n 🔲 Rur	al		
Anchorage 2020 Wes	t Anchorage Pla	nning Area:	☐ Inside	☑ Outside		
Anchorage 2020 Majo	r Urban Elemen	its: Site is within	or abuts:			· <del></del>
☐ Major Employme	nt Center		☐ Redevelopment	/Mixed Use Area	Town Center	
☐ Neighborhood C	ommercial Cer	nter	Industrial Cente	r		
☑ Transit - Support	ive Developme	nt Corridor				
Eagle River-Chugia						
Commercial	☐ Industrial ☐ Parks/Open Space ☐ Public Land Insti			nstitutions		
Marginal land	☐ Alpine/	Slope Affected	Special Study			
Residential at		dwelling units pe	er acre.			
Girdwood-Turnagai						
☐ Commercial	☐ Industr		Parks/Open Sp	ace	☐ Public Land Institutions	
Marginal land	☐ Alpine/		Special Study			
☐ Residential at		dwelling units pe	er acre.			
ENVIRONMENTAL	INFORMATIO	N		<u> </u>	18 M 25 THE R. P. LEWIS CO., 18 HOURS AND ASSESSMENT	
Wetlands Classification	on:	None	<b>☑</b> "C"	<b>□</b> "B"	☑ "A"	
Avalanche Zone:		None	Blue Zone	Red Zone		
Floodplain:		✓ None	☐ 100 Year			;
Seismic Zone (Hardin	g/Lawson):	<b>☑</b> "1"	<b>"</b> 2"	<b>"</b> 3"	□ "4"	] "5"
					2 1 1 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
RECENT REGULA	TORY INFORM	MATION (Events	that have occurred in t	he last 5 years for a	Il or portion of site)	
Rezoning	Case Nu		s trial trave occurred in t	ne last o years for a	in or portion of sitey	
Preliminary Plat	Final Plat	Case	Number(s):		· · · · · · · · · · · · · · · · · · ·	
Conditional Use	Case Numb		` '	·		
Zoning Variance	Case Numb					
☐ Land Use Enforce		<del></del>				
☐ Building of Land						
☐ Wetland permit:		p of Engineers	Municipality of	Anchorage		
		,				
			社会是自然的			等等 化化二氯甲基
APPLICATION ATT	_	anadlaaatian w	<b>I</b> Pia	naturas of other r	atition are (if any)	
Required:	=	oned location m	<del>_</del> _	•	petitioners (if any)	uco
Narrative statement explaining need and justification for the rezoning; the proposed land use and development; and the probable time frame for development.						
į 🗹	Draft Assembly	y ordinance to ef	ffect rezoning.			
Optional:	Building floor p	lans to scale	Site plans to s	cale 🔲	Building Elevations	
	Special limitati		☐ Traffic impac	tanalysis 🔽	Site soils analysis	
	Photographs					<b>;</b>
L.					±++	<u></u>
	a og kraja	er i North Mark to State		garage and the state of the sta		manific <u>ation</u> meetin
ADDI ICATION CUI	CVLICT				"" 项目 4.4 国主主要统	資格 変形を研究的。 <b>達</b> むと
APPLICATION CHECKLIST  1. Zoning map amendments require a minimum of 1.75 acres of land excluding right-of-way or a boundary common to the						
	requested zone district.					
2. The petitioning property owner(s) must have ownership in at least 51% of property to be rezoned.						



Tracts B-1 and B-2 Green Subdivision, As Shown on Plat 82-211, Anchorage Recording District, Alaska, And N320' OF S570' OF W150' OF E600' T12N, R3W, SEC 17 9-10-08 1"=500'

# Tracts B-1, and B-2, Plat 82-211, Green Subdivision, Addition No. 1,

and the N'ly 320' of the S'ly 570' of the W'ly 150' of the E'ly 600', T12N, R3W, Sec 17 (Revised 8-22-08)

#### "ATTACHMENT A"

#### Introduction:

The intent of this Zoning Map Amendment Application is to change the current R-1A Zoning to to R-4 Zoning, which will allow 16.5 dwelling units per acre for the property described as Tracts B-1, and B-2, Plat 82-211, Green Subdivision, Addition No. 1, and the N320' OF S570' OF W150' OF E600', all which are located in Township 12N Range 3W Section 17, Seward Meridian, Alaska.

This parcel is located in South Anchorage, east of the Seward Highway, at the northeasterly corner of the intersection of O'Malley Road and Independence Drive. It is located within the urban service area and is also located adjacent to a Transit-Supportive Development Corridor (Lake Otis Road). The immediate surrounding area consists of multi-family and single-family residential developments with R1A, R3SL and PLI-p (Municipal Parklands) zoning.

Independence Park Subdivision was originally planned and approved as the highest density planned community in South Anchorage (an area of about 40 square miles). This was in the late 1970's when there was plenty of land to be developed in Anchorage. As a result, the property was developed far under what the zoning allows for. The availability of vacant land in the Anchorage community is rapidly becoming non-existent, and development of this parcel to its best use will benefit the Anchorage community as a whole.

Per AO 82-143, the adjoining R-3SL tracts are zoned to allow R-3 densities of up to 30 dwelling units per acre, but were developed at a much lower density. This request is especially relevant since vacant land is very scarce in Anchorage and all remaining vacant land should be developed to maximum density, as recommended by the re-draft of Title 21.

While evaluating the total number of housing units allowable under the current zoning and comparing it to the total number of housing units actually built in this

area, it becomes apparent that most of the surrounding land was greatly under developed in terms of allowed housing units. Additionally, it should be noted that the *Anchorage Comprehensive Plan* indicates a density between 11-20 DUA, which this proposal qualifies for.

This development, if approved, will consist of high density, three or four story affordable condominiums, with below ground parking, for entry level home buyers in the Anchorage community. If you look at the current housing market in Anchorage, there is an immediate demand for lower cost housing, so the sooner this land is developed in lower-cost condos, the better for the Anchorage community for affordable housing.

#### **Our Proposal:**

We are requesting a rezone of the current R-1A zoning to R-4 zoning, and we request a special limitation to the R-4 zoning density to 16.5 DUA, or a maximum of 228 units. We are requesting R-4 to allow the additional heighth required by these buildings. The buildings will all have below ground parking, to the maximum extent possible. The determing factor in the heighth is the suitability of the soils for construction of underground parking. That analysis will be the determining factor regarding the height of the buildings.

#### **History:**

1982: This property was rezoned from R-1SL to R-3SL (AO-82-143).

1982: Plat 82-211, Green Subdivision, Addition No. 1, is recorded.

2006: S80' OF N320' OF S570' OF W150' OF E600', T12N R3W SEC 17 was purchased by the petitioner.

2007: N240 OF N320' OF S570' OF W150' OF E600', T12N R3W SEC 17 was purchased by the petitioner.

#### **Narrative**

This proposed rezoning is appropriate for the following reasons:

A. Conformance to Comprehensive Plan.

1. If the proposed zoning map amendment does not conform to the land use classification map contained in the applicable Comprehensive Plan, explain

how the proposed rezoning meets one or more of the following standards:

- a. The proposed use is compatible because of the diversity of uses within the surrounding neighborhood or general area;
- b. The proposed use may be made compatible with conforming uses by special limitations or conditions of approval concerning such matters as access, landscaping, screening, design standards and site planning; or
- c. The proposed use does not conflict with the applicable Comprehensive Development Plan goals and policies.

The proposed zoning amendment conforms to the Land Use Classification Map and is consistent with the existing multifamily residential subdivisions in the surrounding neighborhoods.

The purpose of this application for rezone is to allow a higher density than the density allowed by the current zoning imposed on the property. The current zoning was enacted more than 20 years ago when land was more readily available in Anchorage, so limiting density made more sense at that time than it does now. We are asking to change the zoning to allow better use of the property.

- 2. If the proposed zoning map amendment does not conform to the generalized intensity (density) of the applicable Comprehensive Plan map, explain how the proposed rezoning meets the following standards:
- a. In cases where the proposed rezoning would result in a greater residential intensity (density), explain how the rezoning does not alter the plan for the surrounding neighborhood or general area, utilizing one of the following criteria:
- i. The area is adjacent to a neighborhood shopping center, other major high density mode, or principal transit corridor.
- ii. Development is governed by a Cluster Housing or Planned Unit Development site plan.
- ⇒ b: In cases where the proposed rezoning would result in a lesser residential intensity (density), explain how the rezoning would provide a clear and overriding benefit to the surrounding neighborhood.
  - c. Explain how the proposed residential density conforms with the applicable Comprehensive Development Plan goals and policies pertaining to the surrounding neighborhood or the general area.

The proposed zoning amendment will allow a density that is consistent with the multi-family type development of the surrounding property. It is also consistent with the Comprehensive Development Plan goals and policies in the area.

- B. A zoning map amendment may be approved only if it is in the best interest of the public, considering the following factors:
  - 1. Describe the effect of development under the amendment and the cumulative effect of similar development on (a) the surrounding neighborhood, (b) the general area, and (c) the community with respect to the following (The discussion should include the degree to which proposed special limitations will mitigate any adverse effect.):
  - a. Environment;

The proposed amendment will benefit the environment by allowing development at a higher density, as the development will allow more families to live within a smaller area, as opposed to the same number of families spread over a larger area.

b. Transportation;

The proposed amendment will not significantly impact the surrounding area in terms of transportation. The existing vehicular and pedestrian circulation system should be sufficient to accommodate the 16.5 dwelling units per acre that are proposed.

c. Public Services and Facilities;

The parcel will be serviced by public sewer, water, gas, telephone and electricity, which are all readily available near by.

C. Land Use Patterns;

2. Quantify the amount of undeveloped (vacant) land in the general area having the same zoning or similar zoning requested by this application. Explain why you feel the existing land is not sufficient or is not adequate to meet the need for land in this zoning category?

Immediately north of this parcel there is a large undeveloped parcel (Ridgemont Subd, Tract 2B): This parcel is zoned R-3SL (AO 82-143), and is limited to 30 dwelling units per acre. Additionally, Tract D of Section 36 Subdivision, located to the east of Green Subdivision, has been designated PLI-p (parklands) and will never be developed. Given the need for affordable condominiums for entry level home buyers, allowing a higher density development in this area would benefit the Anchorage community.

3. When would development occur under the processed zoning? Are public services (i.e., water, sewer, street, electric, gas, etc.) available to the petition site? If not, when do you expect that it will be made available and how would this affect your development plans under this rezoning?

The planned development for the property is planned to start in the Spring/Summer of 2008 or 2009, and should be completed within 3 to 7 years. Public utilities are readily available in the area, and should not be a factor in the timing of the project.

4. If the proposed rezoning alters the use of the property from that which is indicated in the applicable Comprehensive Plan, explain how the loss of land from this use category (i.e., residential, commercial, industrial) might be regained elsewhere in the community?

This rezoning does not effectively change the use or density of this parcel as envisioned by the Anchorage Comprehensive Plan or by the 2020 Anchorage Bowl Comprehensive Plan. It is a request to modify the zoning implemented more than 20 years ago that limits the density and building types.

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- b. The proposed use may be made compatible with conforming uses by special limitations or conditions of approval concerning such matters as access, landscaping, screening, design standards and site planning; or
- c. The proposed use does not conflict with the applicable Comprehensive Development Plan goals and policies.

The proposed zoning amendment conforms to the Land Use Classification Map and is consistent with the existing multifamily residential subdivisions in the surrounding neighborhoods.

The purpose of this application for rezone is to allow a higher density than the density allowed by the current zoning imposed on the property. The current zoning was enacted more than 20 years ago when land was more readily available in Anchorage, so limiting density made more sense at that time than it does now. We are asking to change the zoning to allow better use of the property.

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- i. The area is adjacent to a neighborhood shopping center, other major high density mode, or principal transit corridor.
- ii. Development is governed by a Cluster Housing or Planned Unit Development site plan.
- b. In cases where the proposed rezoning would result in a lesser residential intensity (density), explain how the rezoning would provide a clear and overriding benefit to the surrounding neighborhood.
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The proposed zoning amendment will allow a density that is consistent with the multi-family type development of the surrounding property. It is also consistent with the Comprehensive Development Plan goals and policies in the area.

- B. A zoning map amendment may be approved only if it is in the best interest of the public, considering the following factors:
  - 1. Describe the effect of development under the amendment and the cumulative effect of similar development on (a) the surrounding neighborhood, (b) the general area, and (c) the community with respect to the following (The discussion should include the degree to which proposed special limitations will mitigate any adverse effect.):

a. Environment;

The proposed amendment will benefit the environment by allowing development at a higher density, as the development will allow more families to live within a smaller area, as opposed to the same number of families spread over a larger area.

b. Transportation;

The proposed amendment will not significantly impact the surrounding area in terms of transportation. The existing vehicular and pedestrian circulation system should be sufficient to accommodate the 16.5 dwelling units per acre that are proposed.

Additionally, the proposed amendment will provide enough density to allow the developer to substantially assist the Municipality in its' efforts to upgrade Independence Park Road to Collector Standards. Independence Park Road and O'Malley Road are scheduled to have substantial improvements in the next 5 years, and the developer will be required to pay a substantive portion of those improvements.

c. Public Services and Facilities;

The parcel will be serviced by public sewer, water, gas, telephone and electricity, which are all readily available near by.

C. Land Use Patterns:

2. Quantify the amount of undeveloped (vacant) land in the general area having the same zoning or similar zoning requested by this application. Explain why you feel the existing land is not sufficient or is not adequate to meet the need for land in this zoning category?

Immediately north of this parcel there is a large undeveloped parcel (Ridgemont Subd, Tract 2B): This parcel is zoned R-3SL (AO 82-143), and is limited to 30

dwelling units per acre. Additionally, Tract D of Section 36 Subdivision, located to the east of Green Subdivision, has been designated PLI-p (parklands) and will never be developed. Given the need for affordable condominiums for entry level home buyers, allowing a higher density development in this area would benefit the Anchorage community.

3. When would development occur under the processed zoning? Are public services (i.e., water, sewer, street, electric, gas, etc.) available to the petition site? If not, when do you expect that it will be made available and how would this affect your development plans under this rezoning?

The planned development for the property is planned to start in the Spring/Summer of 2008 or 2009, and should be completed within 3 to 7 years. Public utilities are readily available in the area, and should not be a factor in the timing of the project.

4. If the proposed rezoning alters the use of the property from that which is indicated in the applicable Comprehensive Plan, explain how the loss of land from this use category (i.e., residential, commercial, industrial) might be regained elsewhere in the community?

This rezoning does not effectively change the use or density of this parcel as envisioned by the Anchorage Comprehensive Plan or by the 2020 Anchorage Bowl Comprehensive Plan. It is a request to modify the zoning implemented more than 20 years ago that limits the density and building types.

# **Richport Subdivision**

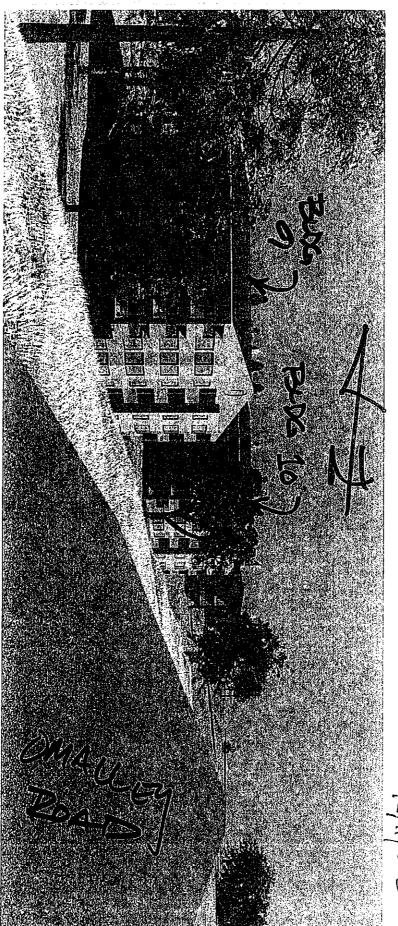
# Proposed Special Height Limitation Exhibit "A"

The height shall not exceed 55 feet for the western 5 buildings, as shown on the approved concept plan. Additionally, the height of the remaining units shall not exceed 41 feet. Measurements shall be determined per AMC 21.45.050. See attached exhibits "B" and "C" for clarification.

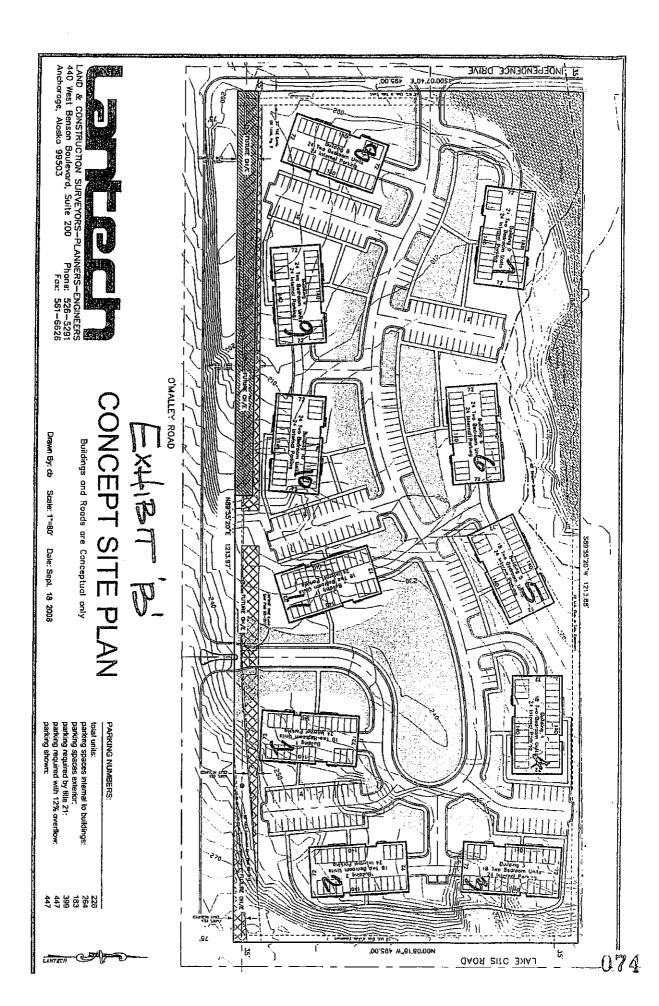
# TERRET PRINCE

7/11/200B

# 



2/11/200



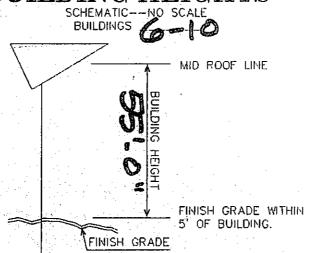
## RICHPORT SUBDIVISION

S-11586 & 2007-077

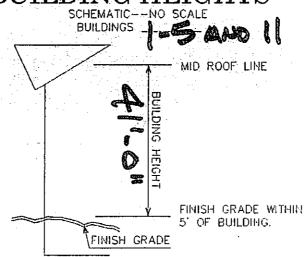
### **BUILDING HEIGHT DETERMINATIONS**

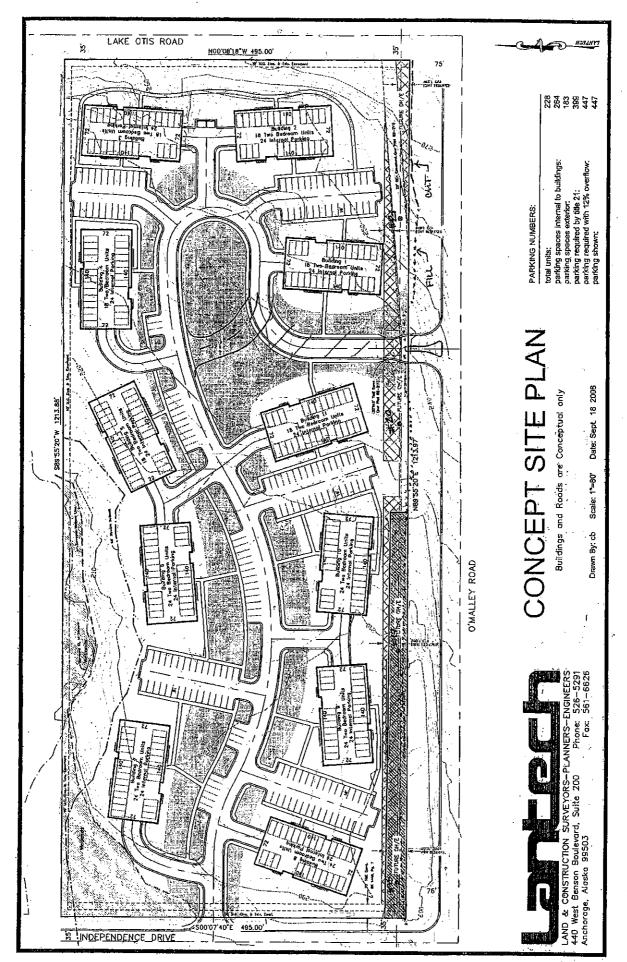
(DIMENSIONS PER AMC 21.45.050)

# BUILDING HEIGHTS



# BUILDING HEIGHTS







November 24, 2008

Harold Green, Esq. Woodhouse Drake, LTD C/O Green Law Offices, LLC P.O. Box 111312 Anchorage, AK 99511-1312

Subject:

Chugach Electric Association, Inc.

138 kV Transmission Line O'Malley Road to Abbott Road

Parcel Nos. 29 & 30

Dear Mr. Green:

During the course of negotiations for the purchase of right-of-way easements for parcels 29 and 30 for the O'Malley 138kV electric transmission you requested that Chugach Electric Association, Inc. (Chugach) provide Woodhouse Drake, LTD with assurances that the design of the electric transmission line facilities would not materially change from the plans submitted to you and also requested that Chugach indicate that it has no objection to the construction of condominiums on the property outside of the easements as part of the consideration for granting the easements. This letter agreement is to memorialize that agreement.

### 1. 138 kV Electric Transmission Line

As you are aware the right-of-way easement is for the purpose of granting Chugach the necessary property rights enumerated in the easement to, among other things, construct, operate, maintain, replace and improve the 138kV electric transmission line as indicated in the easement. During the life cycle of the 138kV electric transmission line facilities to be constructed as part of Chugach's 138 kV Transmission Line, Gravel Junction to O'Malley Junction, O'Malley Road Project, Chugach agrees it will not materially change the 138 kV transmission line facilities from the design as shown on the following plan sheets, copies of which are attached:

<u>Drawing Number</u>	Sheet	Revision Date
GJMJ-PP-00003/E0120201	Sheet 3 / 1 of 1	10/11/07
GJMJ-PP-00004/E0120201	Sheet 4 / 1 of 1	10/11/07
GJMJ-PP-00007/E0120201	Sheet 7 / 1 of 1	10/11/07

Woodhouse Drake, LTD November 24, 2008 Page 2 of 2

### 2. Underground Distribution and Sub-Transmission Facilities

The right-of-way easement is also for the purpose of granting Chugach the necessary property rights enumerated in the easement to, among other things, construct, operate, maintain, replace and improve underground distribution and sub-transmission facilities (sub-transmission being defined for this agreement as 35 kV or lower voltage) as may be necessary now to relocate the existing distribution and sub-transmission facilities or as may hereinafter be required in the sole determination of Chugach.

### 3. Non-objection to Condominium Development

Chugach has no objection to the construction of residential condominiums outside of the electric right-of-way easements across Tract B-1, and Tract B-2, Green Subdivision Addition No. 1, according to Plat 82-211, and the adjacent lands within the SE½NE½ of Section 17, Township 12 North, Range 3 West, Seward Meridian, acquired by Fern Alaska, Inc.

### 4. Benefits of this Agreement

This agreement shall inure to the benefit of Chugach and its successors and assigns, and to Woodhouse Drake, LTD, its successors and assigns.

Please acknowledge agreement to the terms of this letter agreement by signing in the space provided below.

Sincerely yours,

Jim K. Topolski, SR/WA Manager, Land Services

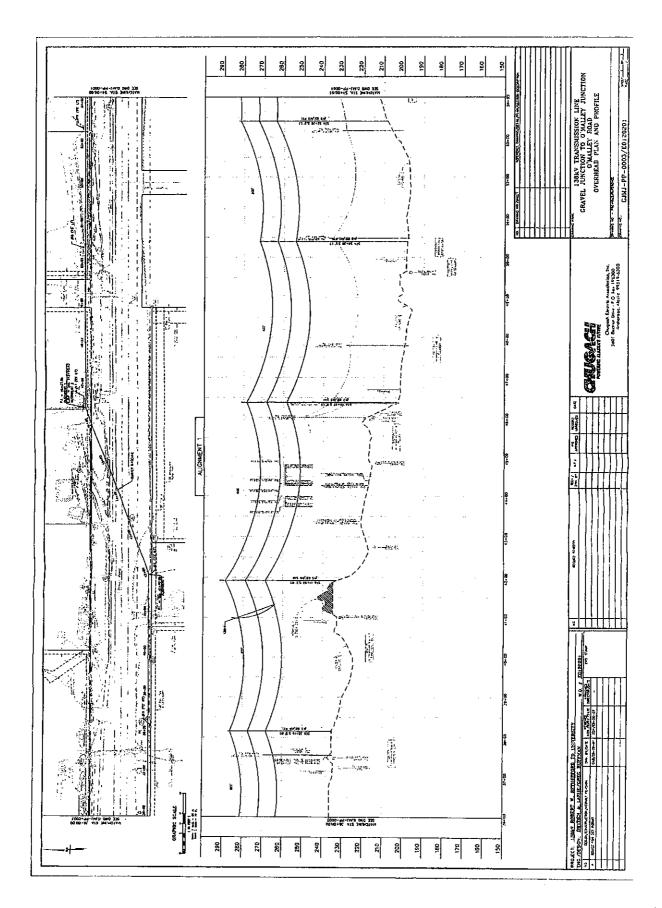
Chugach Electric Association, Inc.

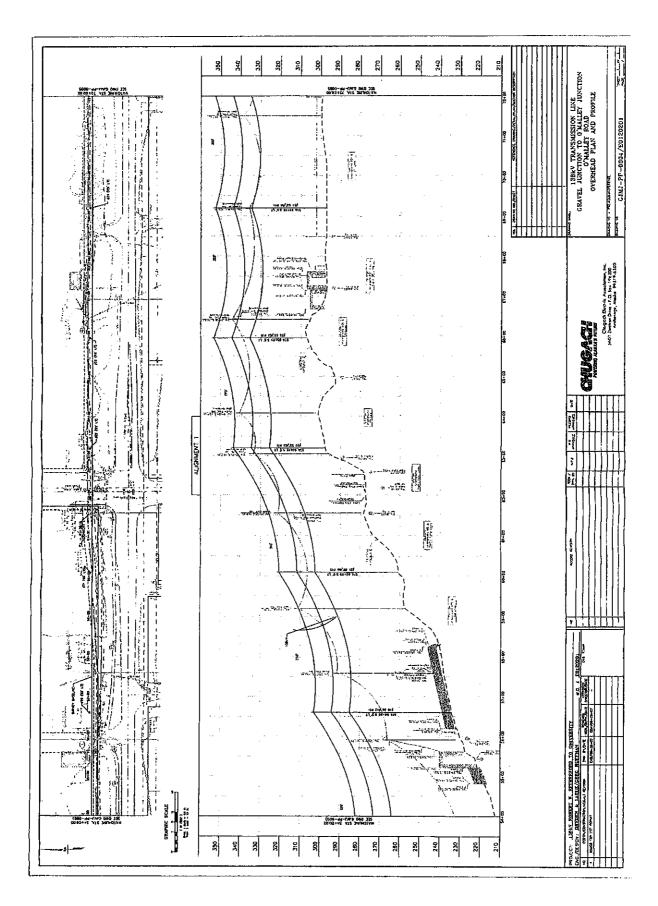
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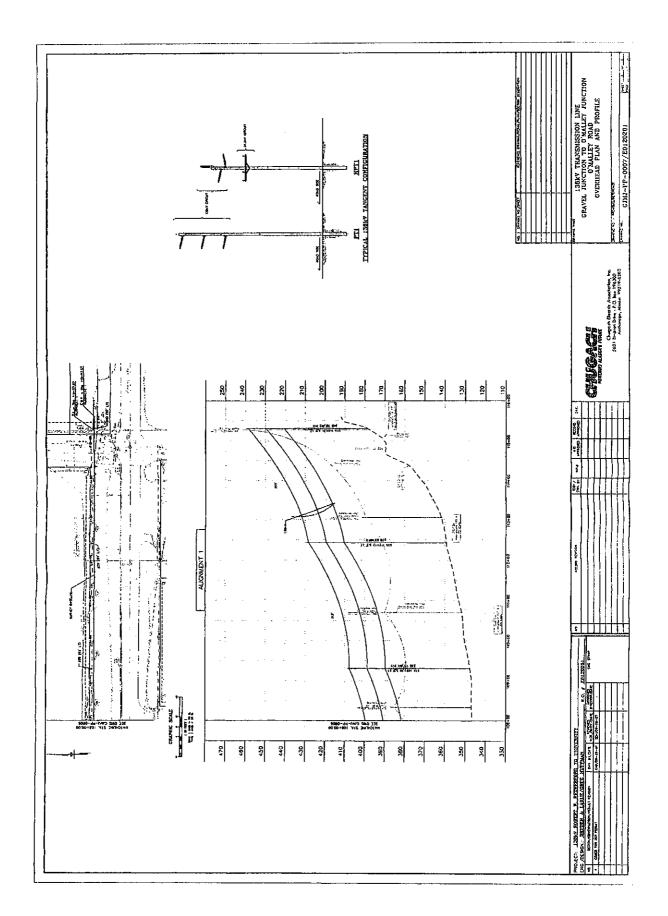
Enclosures: GJMJ-PP-00003,4&7/E0120201

Woodhouse Drake, LTD

Title: PNS







### **GREEN SUBDIVISION**

# PRELIMINARY DRAINAGE IMPACT ANALYSIS

Owner/Developer:

Alaska Green Realty, Inc. 1923 Switzerland Way Anchorage, Alaska 99503

Prepared By:

ENGINEERING
440 W. Benson Blvd., Suite 206
Anchorage, Alaska 99503

**September 15, 2008** 

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### 1. Project Description

### a. Location.

The proposed project is located in Anchorage, Alaska. Lake Otis Road, O'Malley Road and Independence Drive border the east, south and west boundaries respectively. The legal description as stated on the Preliminary Plat is as follows: A Subdivision of Tracts B-1 & B-2, Green Subdivision Addition No. 1 (Plat Number 82-211), & the S'ly 80' of the N'ly 320' of the S'ly 570' of the W'ly 150' of the E'ly 600', & the N'ly 240' of the S'ly 570' of the W'ly 150' of the E'ly 600' Located within the S1/2 of the SE1/4 of Section 17, T12N, R3W, S.M. AK, Anchorage Recording District, containing 13.8 acres. Based on the geographic location of the parcel a 1.10 orographic factor is used.

### b. Project Description.

The proposed project is a condominium development intended for-construction in 3 phases. Total site area is approximately 13.8 acres as stated on the Preliminary Plat. The following easements are existing on site: A 65' Stream Setback Easement located near the northern boundary, a 10' Underground Electric and Telephone Easement located along the east, north and west boundaries, a 20' T & E Easement located along the western boundary, a 10' utility easement located along the southern boundary, a 20' CEA easement located in the southeast corner of the site. Additional Right Of Way, Overhead Electrical, and CEA Easements located along the southern boundary are proposed in the Preliminary Plat.

### c. Category Determination.

The proposed project falls within the large project category. The project's total area is approximately 13.8 acres.

### 2. Basin Characterization.

### a. Pre-development conditions.

The majority of the site is unused. A small daycare facility and school exist in the middle of the parcel accompanied by gravel parking areas and drives. The site is heavily vegetated with low brush, grass, alder and birch trees. Class A and C wetlands exist along the northern border and northwest corner of the project. A stream is located along the northern boundary and runs east to west. A soils investigation was completed in June 2006 by Shannon and Wilson Inc. and is included with the submittal packet. Soils logs and locations can be found within that report.

### b. Post-development conditions.

Post development conditions will consist of 11 structures containing 228 units. A common road connecting Independence Road to O'Malley Road will serve as the main access for the development. Parking lots providing additional spaces to the covered parking within the buildings are shown throughout the site. Proposed slopes across the site will be within the 2 to 6 percent range.

### c. Contributing off-site drainage.

Lake Otis Road, O'Malley Road and Independence Drive act as barriers from the surrounding parcels. Overall site drainage is in the northwest direction therefore the property along the northern boundary is not considered contributory.

### d. Floodways, floodplains, and wetlands.

The proposed developed portion of the project is not located within a floodway or floodplain. Class A and C wetlands exist onsite along the northern border and the northwest corner of the project. These are delineated on the Preliminary Plat.

### e. Problem areas.

No problem areas are known to exist on the site. Downstream impact areas will involve wetlands.

### f. Pre-development runoff analysis.

### 1) Watershed area.

The watershed incorporates approximately 13.8 acres. A pre-development watershed map is provided in the appendix.

### 2) Time of concentration.

The methods used to determine the time of concentration were based on sheet flow and shallow concentrated flow provided in the Drainage Design Guidelines. The runoff path through the site gives a total time of 1.0 hour. This area is considered woodland with varying slopes and a total flow length of approximately 1270 lineal feet.

### 3) Precipitation model.

IDF curves from figure 6-1 of the Drainage Design Guidelines were used.

### 4) Rainfall loss method.

Not applicable this project.

### 5) Runoff model.

The Rational Method was used to model rainfall runoff.

### 6) Summary of pre-development runoff.

A = 13.8 acres

 $T_{Total}$  1.0 hrs

C = 0.16 (Forest Brush, Type C soils, +6%)

Conveyance Design

Q = 0.92 cfs

Wetland Retention

N/A

**Extended Detention** 

Q = 0.53 cfs

Flood Hazard Protection

Q = 0.92 cfs

**Project Flood Bypass** 

Q = 1.34cfs

**Downstream Impact Control** Q = 0.92 cfs (same as FHP above)

See Appendix for calculations.

### 3. Post-development runoff analysis.

### a. Watershed area.

For a preliminary analysis one drainage basin is used while the time of concentration and impervious areas represent the new development. (Final building and road locations are not known at this time). The increase in impervious area is roughly 40 percent due to the development. A post-development watershed map is included in the report appendix.

### h. Time of concentration.

Sheet, shallow and channel flow are utilized to provide a total time of concentration of 0.54 hrs. Total drainage length is approximately 1350 lineal feet as shown on the attached post-development watershed map.

### c. Precipitation model.

IDF curves from figure 6-1 of the Drainage Design Guidelines were used.

### d. Rainfall loss method.

Not applicable this project.

### e. Runoff model.

The Rational Method was used to model rainfall runoff.

### f. Summary of post-development runoff.

A = 13.8 acres

 $T_{Total} = 0.54 \text{ hrs}$ 

C = 0.60 (Residential, 2-6%)

Conveyance Design

O = 4.74 cfs

Wetland Retention

N/A

**Extended Detention** 

Q = 2.64 cfs

Flood Hazard Protection

Q = 4.74 cfs

**Project Flood Bypass** 

Q = 6.92 cfs

**Downstream Impact Control** 

O = 4.74 cfs (same as FHP above)

1) See attached for Table A-1 for subbasin characterization and discharge summary.

2) Difference between pre and post development flows.

Conveyance Design = 
$$4.74-0.92 = 3.82$$
 cfs

**Extended Detention** = 
$$2.64-0.53 = 2.11$$
 cfs

Flood Hazard Protection = 
$$4.74-0.92 = 3.82$$
 cfs

Project Flood Bypass = 
$$6.92-1.34 = 5.58$$
 cfs

**Downstream Impact Control** = 3.82 cfs

- 3) The difference in discharge rates between pre and post development will be controlled through a metered outfall.
- 4) Retention ponds are not anticipated for this project.

### 4. Stormwater Conveyance Design.

### a. Storm sewer.

Determine maximum flow quantities for full pipe:

$$Q = A[(1.49/n)(R_h^{2/3})(S^{1/2})]$$

$$A = pi(r^2) = 3.14(0.5^2) = 0.79 \text{ ft}^2$$

$$n = 0.011$$
 for CPEP

$$R_h = 0.79 \text{ ft2} / 2(pi)(r) = 0.79 / 3.14 = 0.25 \text{ ft (assume full pipe)}$$

$$S = 0.021 \text{ ft/ft}$$

$$Q = 0.79[(1.49/0.011)(0.25^{2/3})(0.03^{1/2})] = 7.60 \text{ cfs}$$

The maximum flow capabilities of the pipe installed are higher than the flow rates calculated in the post development conditions above.

### b. Culverts.

N/A

c. Open channel flow - swales and ditches.

N/A

### d. Storm drainage outlets and downstream analysis.

Soils onsite consist of a mix of gravels, sands and peat. Infiltration rates are expected to be moderate on the east side to low on the west side with the majority of storm runoff traveling offsite. The anticipated outfall for the site is located in the northwest corner within the Class C wetlands. This location is favored by the Corps of Engineers as it enhances the existing wetlands.

### e. Hydraulic model.

Hydraulic modeling will be done for the final drainage analysis.

### 5. Stormwater management design.

### a. Design Criteria

### 1) Water quality protection

A Stormceptor will be utilized to achieve oil and grease separation as well as the desired TSS removal rates. Hydraulic modeling, which will occur during the final analysis, will allow for proper sizing of the system.

### 2) Compliance with Corps of Engineers

Wetlands exist onsite however none will be filled under the proposed project.

### 3) Extended Detention

Extended detention will not be used for this project.

### 4) Flood Hazard Protection

The storm drain infrastructure will be sized to accommodate flood hazard flows.

### 5) Project Flood Bypass

Project flood bypass will be provided for during the final design process.

### 6) Downstream Impact Control

Runoff will be metered and allowed to enter the Class C wetlands at a rate that is allowable by the Corps. This will ensure minimal impact while still providing recharge water for the wetlands.

### b. Describe Infiltration/Detention/Retention facilities

### 1) Describe site and performance

The grading for this project will create a more uniform slope. Pre development slopes range from 5 to 10 percent and greater. Post development conditions will create a leveled site in the 3 percent range. Impervious area increases significantly over pre development conditions however reduced slopes will improve concentration times and help to reduce offsite flow rates.

### 2) Detention basins

Detention basins are not proposed for this project at this time.

### 3) Infiltration / Retention Facilities

See 2) above.

### 6. References.

Municipality of Anchorage, March, 2008 ver.1.07: Drainage Design Guidelines; Project Management and Engineering.

Municipality of Anchorage, March, 2008: Design Criteria Manual; Chapter 2 Drainage, Project Management and Engineering

Shannon & Wilson, Inc. (2006). Geotechnical Report, Green Subdivision Roads, Anchorage, Alaska.

U.S. Department of the Interior Bureau of Reclamation. Water Resources Research Laboratory: Water Measurement Manual. Washington DC, 2001.

Lindeburg, Michael R. 1992. Engineer In Training Reference Manual. Professional Publication, Inc. 8th Edition.

### 7. Drawings Appendix.

### a. Base Mapping

See attached.

### b. Downstream Mapping

Storm runoff will enter the Class C wetlands located in the northwest corner of the site. These wetlands will not require downstream mapping.

### c. Preliminary plat

The preliminary plat is included in this submittal packet.

### d. Proposed Drainage Map

See attached.

### 8. Calculations Appendix.

Provide calculations for:

### 1) Runoff coefficients and/or curve numbers

### **Pre Development**

$$C = 0.16$$
 (Forest Brush, Type C soils, +6%)

### **Post Development**

$$C = 0.60$$
 (Residential, 2-6%)

### 2) Total impervious area (square feet and % of total drainage area)

Pre Development = less than 5%

Post Development =  $257,000 \text{ ft}^2 / 600,300 \text{ ft}^2 = 43\%$ 

### 3) Times of concentration and lag times

### **Predevelopment**

$$T_{C1} = [0.007(NL)^{0.8}]/[(P2)^{0.5}(S)^{0.4}]$$

$$T_{C1} = [0.007(0.8*150)^{0.8}]/[(1.26)^{0.5}(0.10)^{0.4}] = 0.72 \text{ hrs}$$

$$T_{C2} V = 33kS^{0.5}$$

$$V = 33(0.152)(0.05)^{0.5} = 1.12 \text{ ft/s}$$

$$T_{C2} = L/V/3600 = 1120/1.12/3600 = 0.28 \text{ hrs}$$

$$T_{Total} = T_{C1} + T_{C2} = 0.72 + 0.28 = 1.0 \text{ hrs}$$

### **Post Development**

$$T_{C1} = [0.007(NL)^{0.8}]/[(P2)^{0.5}(S)^{0.4}]$$

$$T_{C1} = [0.007(0.24*150)^{0.8}]/[(1.26)^{0.5}(0.03)^{0.4}] = 0.45 \text{ hrs}$$

$$T_{C2}$$
  $V = 33kS^{0.5}$ 

$$V = 33(0.55)(0.033)^{0.5} = 3.30 \text{ ft/s}$$

$$T_{C2} = 600/3.30/3600 = 0.05 \text{ hrs}$$

$$T_{C3} V = [1.49/n][R^{2/3}][S^{1/2}]$$

$$V = [1.49/0.011][0.064^{2/3}][0.033^{1/2}] = 3.94 \text{ ft/s}$$

$$T_{C3} = 600/3.94/3600 = 0.04 \text{ hrs}$$

$$T_{Total} = T_{C1} + T_{C2} + T_{C3} = 0.45 + 0.05 + 0.04 = 0.54 \text{ hrs}$$

### 4) Peak flow rates and infiltration and detention volumes

### Predevelopment

**Conveyance Design** 
$$I = 0.3814(1.0)^{-0.5174} = 0.38 \text{ in/hr}$$

$$Q = (1.1)(0.16)(0.38)(13.8) = 0.92 \text{ cfs}$$

Wetland Retention N/A

**Extended Detention** 
$$I = 0.2155D^{-0.4911} = 0.2155(1.0)^{-0.4911} = 0.22 \text{ in/hr}$$

$$Q = CIA = (1.1)(0.16)(0.22)(13.8) = 0.53 \text{ cfs}$$

Flood Hazard Protection 
$$I = 0.3814(1.0)^{-0.5174} = 0.38 \text{ in/hr}$$

$$Q = (1.1)(0.16)(0.38)(13.8) = 0.92$$
 cfs

**Project Flood Bypass** 
$$I = 0.5484(1.0)^{-0.5283} = 0.55$$
 in/hr

$$Q = (1.1)(0.16)(0.55)(13.8) = 1.34 \text{ cfs}$$

**Downstream Impact Control** Q = 0.92 cfs (same as FHP above)

### Post Development

**Conveyance Design** 
$$I = 0.3814(0.54)^{-0.5174} = 0.52 \text{ in/hr}$$

$$Q = (1.1)(0.60)(0.52)(13.8) = 4.74 \text{ cfs}$$

Wetland Retention N/A

**Extended Detention** 
$$1 = 0.2155(0.54)^{-0.4911} = 0.29 \text{ in/hr}$$

$$Q = CIA = (1.1)(0.60)(0.29)(13.8) = 2.64 \text{ cfs}$$

Flood Hazard Protection 
$$I = 0.3814(0.54)^{-0.5174} = 0.52 \text{ in/hr}$$

$$Q = (1.1)(0.60)(0.52)(13.8) = 4.74 \text{ cfs}$$

**Project Flood Bypass**  $I = 0.5484(0.54)^{-0.5283} = 0.76 \text{ in/hr}$ 

Q = (1.1)(0.60)(0.76)(13.8) = 6.92 cfs

**Downstream Impact Control** Q = 4.74 cfs (same as FHP above)

5) Intake capacity, sewer design, and culvert design

See Stormwater Conveyance Design above.

6) Detention basin design – Show tabular stage-storage-discharge results and inflow/outflow hydrographs

N/A

7) Detention basin outlet design

N/A

8) Open channel flow calculations

Hydraulic Radius:

step	solve for	if flow depth < radius	if flow depth ≥ radius
		r	K K
1	circular segment height	h = d	h = 2r - d
2	central angle	$\theta = 2\arccos\left(\frac{r-h}{r}\right)$	$\theta = 2\arccos\left(\frac{r-h}{r}\right)$
3	circular segment area	$K = \frac{r^2(\theta - \sin \theta)}{2}$	$K = \frac{r^2(\theta - \sin \theta)}{2}$
4	arc length	$s = r \times \theta$	$s = r \times \theta$
5	flow area	A = K	$A = \pi r^2 - K$
6	wetted perimeter	$P_{W} = s$	$P_W = 2\pi r - s$
7	hydraulic radius	$R_{k} = \frac{A}{P_{W}}$	$R_k = \frac{A}{P_W}$

(http://www.ajdesigner.com/phphydraulic\_radius/hydraulic\_radius\_equation\_pipe.php also note references above)

1. Assumed depth is 0.1 feet (Diameter of pipe is 1 foot)

- 2. Central angle = 1.29 radians
- 3. Circular Segment Area =  $0.0411 \text{ ft}^2$
- 4. Arc Length = 0.645 ft
- 7. Hydraulic radius = 0.0637 ft

$$V = [1.49/n][R^{2/3}][S^{1/2}]$$

$$V = [1.49/0.011][0.0637^{2/3}][0.003^{1/2}] = 3.94 \text{ ft/s}$$

9) Erosion protection design

Armoring of the outfall with rip rap for the proposed project will be provided. Calculations for erosion protection will be completed during the final analysis.

### 9. Other Information Appendix

Soils report is attached.

### 11. Computer input and output.

N/A

Table A-1: Subbasin summary

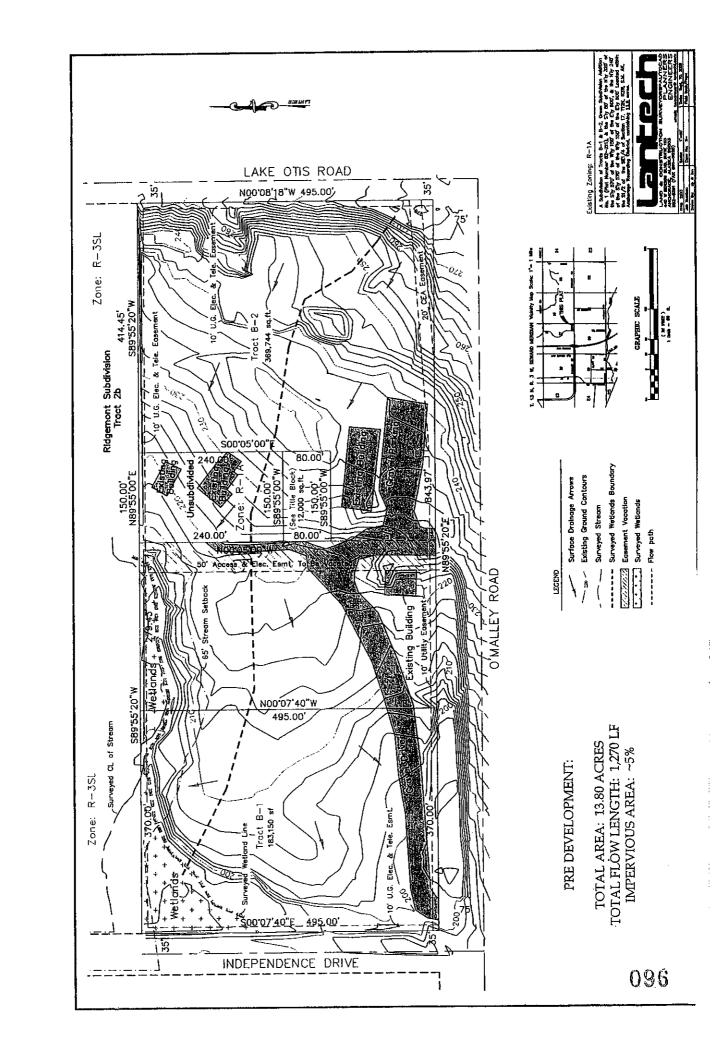
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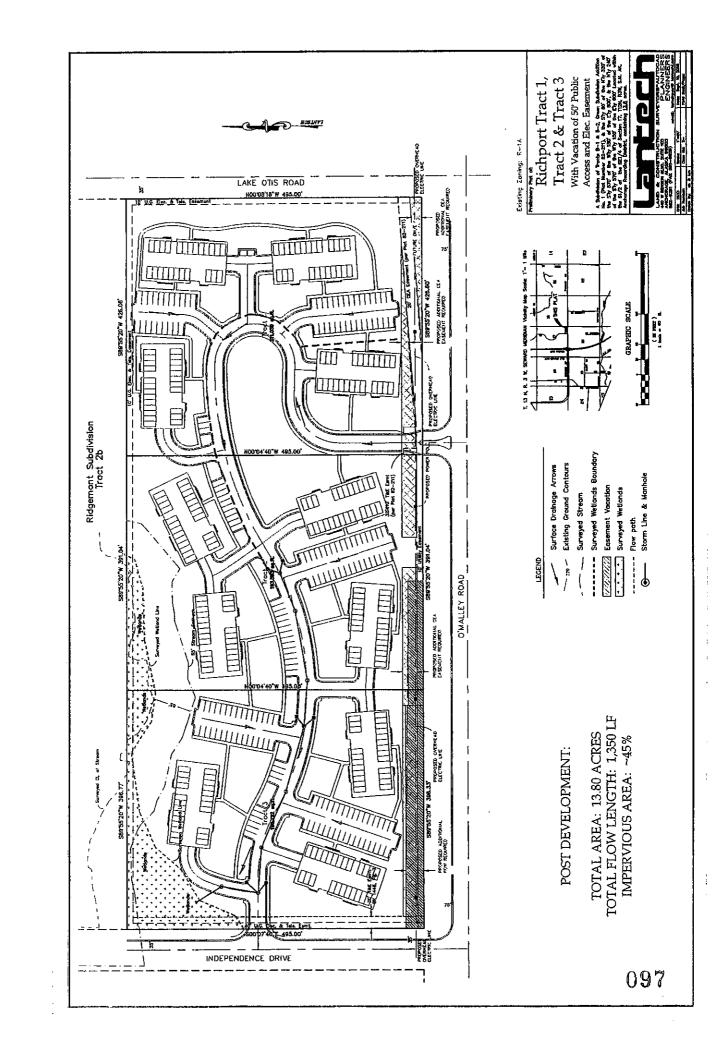
Orainade Area Name	Dre Development	SUBBASIN CHARACTERIZ	SUBBASIN CHARACTERIZATION AND DISCHARGE SUMWARY Total Drainage Area: 12 8 arrae	GE SUMWARY  Dra / Bost Development	Oromophic Doing Industrial	footor 11
<u> </u>	Soil Name and Hydrologic Soil Group A.B.C.D	Slope, fult or Cover Condition	1 8 5	Area agres	┤	) Hed
	Type C	%9 <del>+</del>	0.16		100%	0.16
			Total Area:	13.8 acres	Total Weighted CN or C:	0.16
inne or Concentration (Within Subbasin Kouting)	Subbasin Kounng)	n or k, Roughness	# Elow I specific	### acols legion#pac   S	### Average Volocity #/e	Travel time,
Channel Parameters. Cross Section Area so ff	Cross Section Area, soff	Wett		1120		
Sheet Flow		<u>ı                                    </u>			<u> </u>	
$T_t = 0.007 (nL)^{0.8} (P_2^{0.5} S)^{0.4}$ n from <i>Guidelines</i> Table 7-7	Woodland	0.80	150 ft	0.10 ft/ft	Subtotal, Sheet Flow Tt:	ow Tt: 0.72 hrs
Shallow Flow				100000000000000000000000000000000000000		
T <sub>t</sub> =V/L/3600; V=33k(S) <sup>0.5</sup>	Woodland	0.152	1120 ft	0.05 ft/ft	1.12 ft/s	0.28 hrs
k from Guidelines Table 7-8					Subtotal, Shallow Flow Tt:	ow Tt: 0.28 hrs
Channel Flow						
T <sub>t</sub> =V/L/3600;	またいできた。 では、これでは、 では、 では、 では、 では、 では、 では、 では、					を 一
V=(1.49/n)R <sup>0.67</sup> (S) <sup>0.5</sup>						
n from Guidelines Table 7-9						
					Subtotal, Channel Flow	
					Total Tt, hours	1.0 hrs
Runoff Summary				L.		S. V.
Storm	e in the company of t	Kurone.	Service distriction of the control o	Total Spiritoria Valumbia Total Sperioracontest		
1 Year	1.09		0.53 cfs			
2 Year (P <sub>2</sub> )	1.26		0.63 cfs			
10 Year	1.77		0.92 cfs			7.
100 Year	2.48		1.34 cfs			
(1) Table 7-7, 7-8, or 7-9		ss-section shape, e.g., t	(2) indicate cross-section shape, e.g., triangular, trapezoidal, rectangular		(3) indicate horizontal: vertical ratio of side slopes	ide slopes

Table A-1: Subbasin summary

ė,			_			$\neg$
2	factor 1.1	Weighted CN or C	0.60			09.0
	Orographic Rainfall factor 1.1	Area in percent	%			Total Weighted CN or C: 0.60
	ent		100%			
RGE SUNIWARY	Pre / Post Development	Area, acres	13.8 acres			Total Area: 13.8 acres
IZATION AND DISCHA	a: 13.8 acres	SCS CN from Table 7-4 or C from Table 7-5	0.60			Total Area:
SUBBASIN CHARACTERIZATION AND DISCHARGE SUMMARY	Total Drainage Area: 13.8 acres	Slope, ft/ft or Cover Condition	0-2%			
	Post Development	Soil Name and Hydrologic Soil Group A.B.C.D	Type C			
	Drainage Area Name:   Post Development	Cover description	Residential			

Time of Concentration (within Subbasin Routing)	Subbasin Routing)					
		n or k, Roughness				Travel time,
General Parameters:	General Parameters: Surface Cover	Factor (1)	L, Flow Length, ft	L, Flow Length, it S, Longitudinal Slope, iffit Average Velocity fits the research of the Change Share States it.	Average Velocity #/s	It, nrs
Sheet Flow						
$T_t=0.007(nL)^{0.6}(P_2^{0.5}S)^{0.4}$ n from Guidelines Table 7-7	Residential	0.24	150 ft	0.03 fVft	Subtotal, Sheet Flow Tt:	0.45 hrs
Shallow Flow						
T <sub>t</sub> =V/L/3600; V=33k(S) <sup>0.5</sup>	Curb	0.55	600 ft	0.033 ft/ft	3.30 ft/s	0.05 hrs
k from Guidelines Table 7-8					Subtotal, Shallow Flow Tt:	0.05 hrs
Channel Flow	Pipe (1' Dia)	0.011	600 ft	0.033 ft/ft	3.94 ft/s	0.04 hrs
T <sub>t</sub> =V/L/3600;		. 0.845.ft	Acircular - Feet	NIA	1/2690.0	
V=(1.49/n)R <sup>0.67</sup> (S) <sup>0.5</sup>						
n from Guidelines Table 7-9						
					Subtotal, Channel Flow	
					Total Tt, hours	0.54 hrs
Runoff Summary						
	Service Company of the Company of th	Runole Sul	F P Peak dischange	Total Storm volume		
Storm	Inches	Inches	cubic/feet per second:	able feet or acre feet		
1 Year	1.09		2.64 cfs			
2 Year (P <sub>2</sub> )	1.26		3.22 cfs			
10 Year	1.77		4.74 cfs			
100 Year	2.48		6.92 cfs			
(1) Table 7-7, 7-8, or 7-9		ss-section shape, e.g., t	(2) indicate cross-section shape, e.g., triangular, trapezoidal, rectangular		(3) indicate horizontal: vertical ratio of side slopes	sec





# **Preliminary Wetland Determination**

# Alaska Green Realty Property Anchorage, Alaska

March 27, 2008





Prepared by
Restoration Science and Engineering
911 West 8th Avenue, Suite 100
Anchorage, Alaska 99501
907.278.1023

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### Introduction

This report summarizes a wetland investigation delineation performed in the northwestern corner of the Lake Otis Road and O'Malley Road intersection in Anchorage, Alaska. The property is located in the Campbell Creek watershed area.

### Methods

Wetland determination and mapping was performed at the property during September and October of 2007 by Pat Athey and Staci Griffin of Restoration Science and Engineering (RSE) of Anchorage, Alaska. Determination of wetlands and the boundaries of wetlands with non-wetlands were made according to the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Alaska Region (February 2006) and the 1987 Corps of Engineers Wetland Delineation Manual.

The primary tasks for the work included: 1) a review of existing maps and ecological data, 2) collection of field data at observation points to determine the presence or absence of wetlands, and 3) field delineation of the boundaries separating wetlands and uplands.

The survey included the following parcels:

```
(MOA Parcel No.0160611600);
(MOA Parcel No.0160611700);
```

Location maps for the property are provided in Figures 1 and 2.

Existing data that was reviewed as part of this work included:

- Soil Survey of the Anchorage Area, Alaska published by the Natural Resources Conservation Service.
- National Wetlands Inventory (NWI) Maps Online
- Municipality of Anchorage Wetland Atlas
- USGS Topographic Series Maps
- NRCS Web Soil Survey site (http://websoilsurvey.nrcs.usda.gov/app/).

The National Wetland Inventory mapping for the area is provided in Figure 3 along with a key to the wetland types. The Municipality of Anchorage (MOA) Wetland Atlas mapping for the area is provided in Figure 4. Soil mapping by NRCS for the area is provided in Figure 5 along with a key to the soil map units. The location of determination points where soil, hydrology, and vegetation data were collected to make wetland/non-wetland determinations is provided in Figure 6.

The methodology used for delineating wetlands is known as the triple parameter approach. The premise of this approach is that the three essential characteristics of wetlands (hydrophytic vegetation, hydric soils, and wetland hydrology) must all be present to have a positive wetland determination. These methods were used to achieve accurate characterization of the wetland

community at specific observation points and to correlate the findings with existing data (aerial photography, soils mapping, and other maps where these were available). The determination points were numbered sequentially (e.g., "DP-1") for tracking on wetland determination data forms published in the Alaska Regional Supplement. Completed Wetland Data Forms are attached.

Soils were evaluated for hydric indicators by digging test pits and comparing the soil to the listed indicators provided in the Regional Guidance document. Correlations of observations with the soil type descriptions in the Anchorage Area soil survey were used to identify mapped soil types. Water must be present in order for wetlands to exist; however, it does not need to be present throughout the entire year. Wetland hydrology is considered to be present when there is permanent or periodic inundation or soil saturation for a significant period of time during the growing season, which is specified as two weeks or more by Alaska Regional guidance. Indicators of wetland hydrology include areas of ponding or soil saturation, evidence of previous water inundation such as dry algae on bare soil, watermarks on soils or leaves, and drainage patterns among others. Where positive indicators are observed, it is assumed that wetland hydrology occurs for a significant period of the growing season. Test pits were inspected to confirm the presence of indicators below ground surface (e.g., saturation, high water table).

### **Findings**

Potential jurisdictional wetlands were found within the property as determined by a detailed evaluation of vegetation, soils, and hydrology at established determination points and supported with observations throughout the area. The areas that are identified as wetland are flagged boundaries. The boundaries of the identified wetlands with adjacent uplands were flagged in the field and the positions recorded with a hand-held GPS unit. The resulting wetland polygons are presented on an aerial photo and provided in Attachment 1.

Data sheets for representative wetland determination points are provided in Attachment 2. The GPS coordinates and maps of the wetland boundary points flagged in the field are provided in Attachment 3 (digital data provided on CD). Pictures of the wetland areas and determination points are provided in Attachment 4 (on CD only). Selected pictures of wetlands and other relevant features are provided in the following section.



Image 1. Wetland "A" vegetation near DP-2

Wetland "A" is located in northwestern area of the property and is a riparian area that is surrounded by past fill. A small creek of approximately 1 to 3 feet wide flows throughout this area. The plant communities are dominated by paper birch (Betula papyrifera, FACU), black spruce (Picea mariana, FACW), and Sitka alder (Alnus sinuata, FAC) which are accompanied often by prickly rose (Rosa acicularis, FACU), bluejoint reed grass (Calamagrostis canadensis, FAC), field horsetail (Equisetum arvense, FACU), and bunchberry dogwood (Cornus canadensis, FAC). The vegetation is underlain by organic matter. These areas are ponded with surface water or are saturated near the surface for a significant time during the growing season.

The wetland type is mapped as a *Palustrine, Forested, Needle-Leaved, Saturated* (PFO4B) by the USFW system and is designated a Class A Wetland Municipality of Anchorage Wetlands Management Plan. Site conditions were found consistent with the Class A rating.

<u>Wetland "B"</u> is located in the northwest corner of the property and is characterized by a mixture of open grass-herb meadow and shrub-scrub wetland. This area is designated as a Class C wetland by the Anchorage Wetlands Management Plan; site conditions were found to be consistent with that designation.



Image 2. Vegetation in Wetland "B"

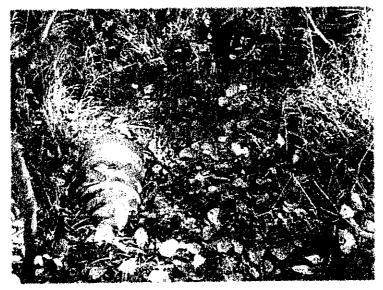


Image 3. Culvert near NW corner of property

## **Connectivity**

The wetlands on the Alaska Green Realty property include areas of surface water, saturation, and high water table that are directly connected or within wetlands adjacent to surface water features (e.g., seeps and streams) that discharge directly into culverts that flow towards Campbell Creek which discharges to the navigable water of the Cook Inlet. Therefore, these wetland areas are considered to be potentially jurisdictional under the Clean Water Act regulations.

#### References

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Figure 1. Location Map

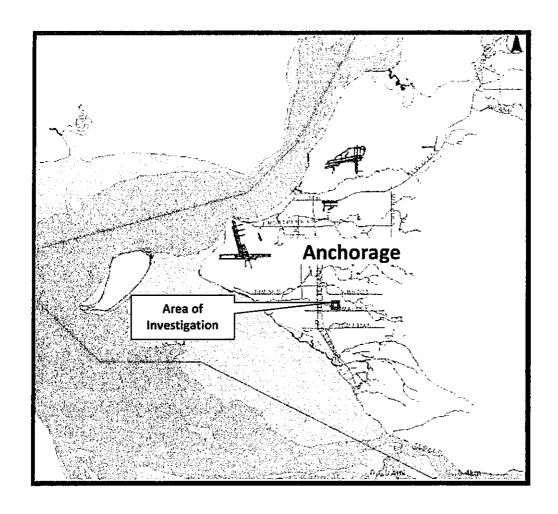


Figure 2. Vicinity Map

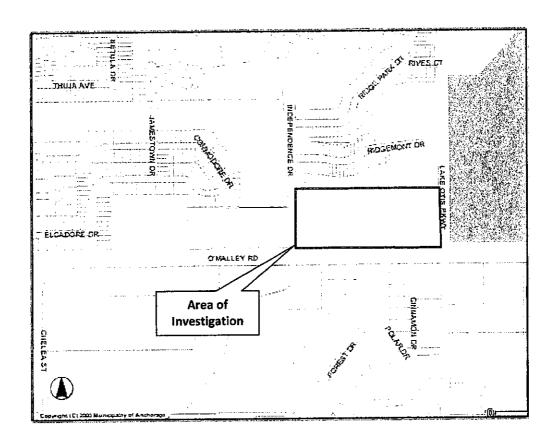


Figure 3. Wetland Map (NWI)

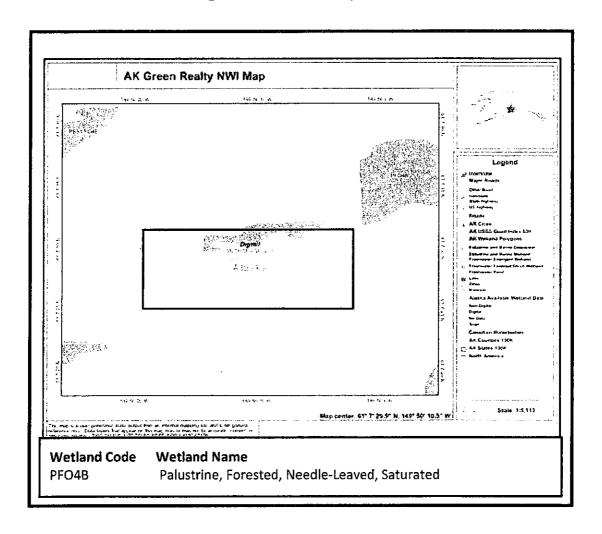


Figure 4. Anchorage Wetland Map (MOA)

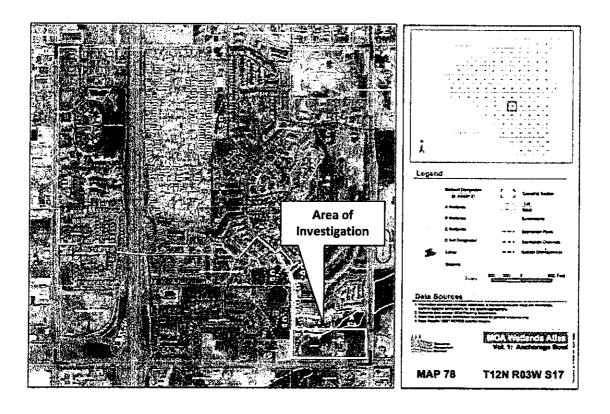
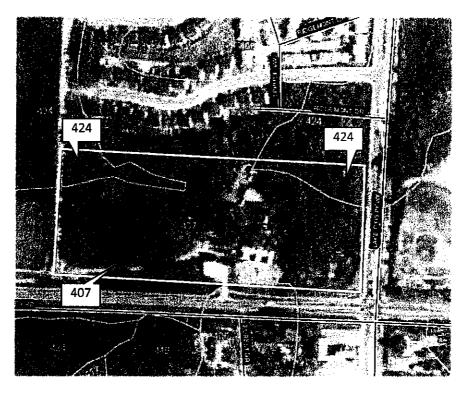


Figure 5. Soils Map (NRCS)



Map Unit Symbol

Map Unit Name

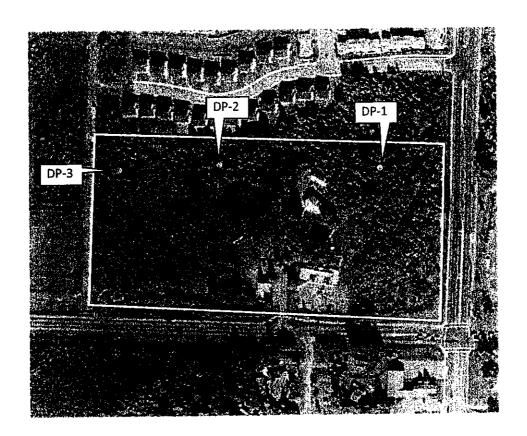
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Cyorthents and Urban land, 5 to 20 percent slopes

424

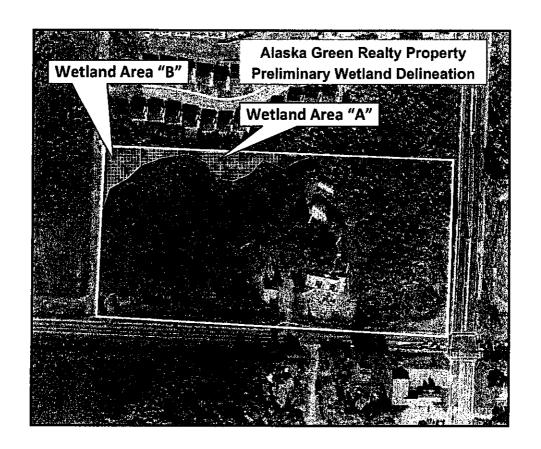
Icknuun peat, 0 to 3 percent slopes

Figure 6. Determination Points (DPs)



# Attachment 1 Wetland Delineation Map

Alaska Property
Preliminary Wetland Delineation



# Attachment 2 Data Sheets for Wetland Delineations

Alaska Realty Property
Preliminary Wetland Delineation

# Attachment 3 GPS Data and Map Printouts

# Alaska Realty Property Preliminary Wetland Delineation

(Provided in digital format on separate CD)

Name	Description	Position	Altitude
005	DP-1	N61.12510 W149.83351	354 ft
006	A-1 Boundary	N61.12518 W149.83528	205 ft
007	Creek Enters Property	N61.12525 W149.83542	220 ft
*008	A-2 Boundary	N61.12534 W149.83544	229 ft
*009	A-3 Boundary	N61.12523 W149.83590	306 ft
*010	A-4 Boundary	N61.12464 W149.83588	151 ft
011	A-5 Boundary	N61.12473 W149.83618	101 ft
012	DP-2	N61.12485 W149.83658	100 ft
013	A-6 Boundary	N61.12514 W149.83695	147 ft
014	A-7 Boundary	N61.12525 W149.83731	151 ft
015	A-8 Boundary	N61.12515 W149.83780	140 ft
016	A-9 Boundary	N61.12507 W149.83816	149 ft
017	DP-3	N61.12505 W149.83841	162 ft

<sup>\*</sup>Locations are accurate within 270 feet.

Grid Lat/Lon hddd.ddddd°

Datum: NAD27 Alaska

# Attachment 4 Pictures of Wetlands and Other Features

Alaska Realty Property
Preliminary Wetland Determination

(Provided only in digital format on separate CD)

# Richport Subdivision Rezone (2007-077) and Platting (S-11586) Additional and Revised Submittals

September 18, 2008

# **Background:**

Since our initial application on March 22, 2007, we have had multiple meetings with the Municipality of Anchorage Planning Staff, Traffic and Project Management. We discussed the timing of Independence Drive Construction with Boutet Company, and the timing of O'Malley construction with the State of Alaska. We have also met with Chugach Electric to discuss the planned upgrades to the transmission line on O'Malley, as well as their project schedule. Additionally, the petitioner has acquired title to the additional parcel in the middle of the property

#### **Submittals:**

- 42 copies of Revised Plat and Application
- 15 Copies of Revised Site Plan(11" by 17")
- Vacation form (Public Access Esmt.)
- Revised Rezone application and Narrative
- Draft Drainage Impact Analysis (DIA)
- Wetland Investigation by Restoration Sciences
- Traffic Impact Analysis (Already Submitted to State of Alaska and MOA Traffic for review)
- \$2,580 Fee (\$750 reactivation fee for both Platting and Rezone, \$800 for the vacation of the public use easement, and \$280 for the two additional lots added to preliminary plat)
- Current Certificate to Plat

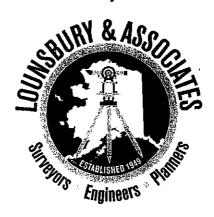
# TRAFFIC IMPACT ANALYSIS

# Richport Condominiums Anchorage, Alaska

Prepared for

Alaska Green Realty, Inc. P.O. Box 111909 Anchorage, AK 99511

Ву



5300 A Street Anchorage, AK 99518 (907) 272-5451

3161 E. Palmer-Wasilla Hwy, #2 Wasilla, AK 99654 (907) 357-9129

Project No. 08-041

**AUGUST 2008** 

## **NOTICE TO USERS**

This report is intended to document the methodologies, findings, and conclusions of a Traffic Impact Analysis completed for Alaska Green Realty, Inc. Changes frequently occur during the evolution of the design process. Persons who may rely on the information contained in this document should consult with Lounsbury & Associates for the most current design decisions. Please contact David Krehmeier, P.E., at (907) 272-5451 for this information.



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#### **EXECUTIVE SUMMARY**

Alaska Green Realty, Inc. proposes to construct 11 residential condominium buildings consisting of 228 units near the Lake Otis Parkway and O'Malley Road intersection. Based on the results of the traffic impact analysis, the proposed development can be constructed while maintaining current levels of service and safety at the intersections of Lake Otis Parkway and O'Malley Road as well as on Lake Otis Parkway and Rives Court. The primary findings and conclusions of this study, as described in this report, are summarized below.

#### **FINDINGS**

#### **Existing Conditions**

- The peak hour of the surrounding road network occurs on a weekday between 1700 and 1800.
- The signalized intersection of Lake Otis Parkway and O'Malley Road currently operates at level of service (LOS D). The south approach currently operates at a level of service (LOS E).
- The signalized intersection of Lake Otis Parkway and Rives Court currently operates at acceptable level of service (LOS A).

#### **Background Traffic Conditions**

- Background traffic volumes for 2010 and 2020 were developed by deriving an average annual growth rate from the most recent AMATS traffic model. The average annual growth rate was found to be 0.5%.
- The signalized Lake Otis Parkway and O'Malley Road intersection is anticipated to operate at level of service (LOS D) in 2010 and (LOS D) in 2020.
- The signalized intersection of Lake Otis Parkway and Rives Court is anticipated to operate a level of service (LOS A) in 2010 and 2020.
- The unsignalized proposed driveway and O'Malley Road SBR movement is anticipated to operate a level of service (LOS C) in 2010 and LOS B in 2020.
- The unsignalized Independence Drive and O'Malley Road SBR movement is anticipated to operate at a level of service (LOS B) in 2020.

# **Proposed Development Activities**

- Alaska Green Realty, Inc's proposed development activities include constructing 11 residential condominium buildings consisting of 228 units. Development is anticipated to begin in 2010.
- Access to the site is proposed via a driveway on O'Malley Road. After future road improvements on O'Malley Road and Independence Drive, the site will have access through a driveway on Independence Drive.
- The proposed O'Malley Road driveway access and the Independence Drive and O'Malley Road intersection are assumed to be restricted to right-in-right-out only.

#### **Total Traffic Conditions**

• The Richport Condominiums Site development is anticipated to generate 118 new peak hour trips in 2020.

- The signalized Lake Otis Parkway and O'Malley Road intersection is anticipated to operate at LOS E in 2010 and LOS D in 2020.
- The signalized Lake Otis Parkway and Rives Court intersection is anticipated to operate at LOS A in 2010 and LOS A in 2020.
- The unsignalized O'Malley Road Driveway SBR movement is anticipated to operate at LOS C in 2010 and LOS B in 2020.
- The unsignalized Independence Drive and O'Malley Road SBR movement is anticipated to operate at LOS B in 2020.

#### **CONCLUSIONS**

- The proposed O'Malley Road driveway is restricted to a right-in-right-out movement.
- No additional improvements to the road network are necessary.

#### 1.0 INTRODUCTION

#### 1.1 PURPOSE OF REPORT

This report documents the methodologies, findings, and conclusions of the Traffic Impact Analysis (TIA) completed for the proposed 11 residential condominium buildings consisting of 228 units. This development will be constructed in Anchorage, Alaska, on approximately 12 acres of land near the intersection of Lake Otis Parkway and O'Malley Road. The location of the site and its relation to the surrounding area are shown on Figure 1.

The Alaska Department of Transportation & Public Facilities (ADOT&PF) and the Municipality of Anchorage (MOA) require this Traffic Impact Analysis be completed to identify adverse impacts upon the transportation system and the risks presented to the traveling public by the proposed development. The scope of this study was developed based upon discussions with ADOT&PF and MOA staff, both agencies TIA policies, the requirements of 17 AAC 10.060, and a review of the conceptual site plan (Figure 2).

Key traffic-related issues discussed in this report include:

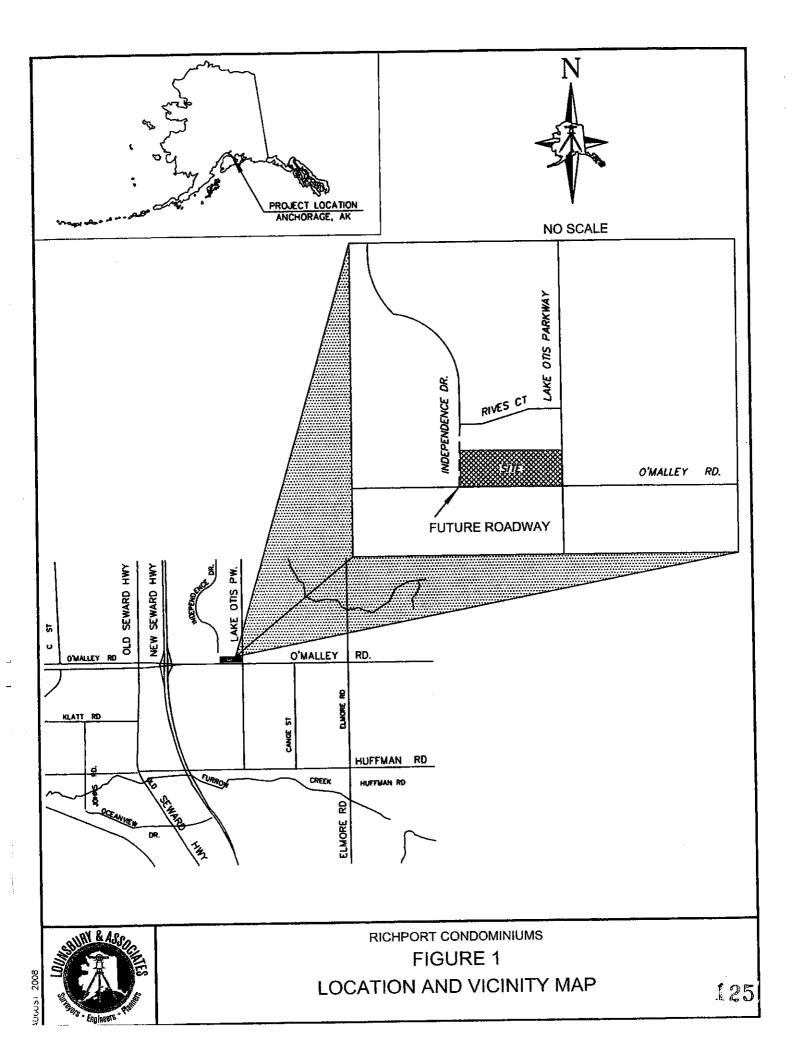
- · Existing traffic conditions during the weekday p.m. peak hour,
- Planned developments and transportation improvements in the study area,
- Trip generation and distribution estimates for the proposed development,
- · Project related traffic impacts at the study intersections, and
- Potential improvements needed to maintain acceptable traffic operations.

#### 1.2 PROJECT DESCRIPTION

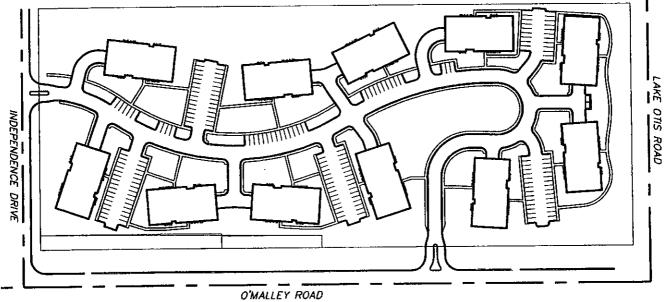
Alaska Green Realty, Inc. development plans include 11 residential condominium buildings consisting of 228 units. Construction for the proposed development is expected to begin in 2010. The development of this project is guided by existing market conditions and real-estate demand. For the purposes of this study, it is assumed that 50% (114 units) will be constructed during the initial year of 2010 with full buildout occurring in 2020.

#### 1.3 PREVIOUS STUDIES

Previous studies pertaining to this project include the O'Malley Road Reconstruction Project from New Seward Highway to Hillside Drive - Preliminary Engineering Report - O'Malley Road Reconstruction Project - May 2002, prepared by ADOT&PF.









RICHPORT CONDOMINIUMS FIGURE 2 **CONCEPTUAL SITE PLAN** 

#### 2.0 AREA CONDITIONS

Evaluating existing conditions provides a basis of comparison to future years. This comparison is based on existing land use, transportation facilities, and traffic operations in the site vicinity. This section outlines the existing conditions and known development plans in relation to the project.

## 2.1 EXISTING AREA CONDITIONS

# 2.1.1 LAND USE AND INTENSITY

The project site (zoned R-1 A) is a parcel of land bordered by residential development, and public lands. The zoning classification for this area is classified as residential (R-1A, R-3 SL, and R-6) to the north, west, and south, and public land (PLI-p) to the east.

Land use in the immediate vicinity of the project site consists of mostly residential along with public land to the east. Residential housing borders the project site on the north with access from Independence Drive, Ridgemont Drive, and Rives Court. Public land consists of a school and some ball fields to the east. The school can be accessed from Rives Court northeast of the project site.

## 2.1.2 TRANSPORTATION FACILITIES

## Existing Area Roadways

A summary of the existing transportation facilities in the site vicinity is presented in Table 1. Site access from existing roads will be provided via driveways on O'Malley Road and future entry can be accessed from Independence Drive.

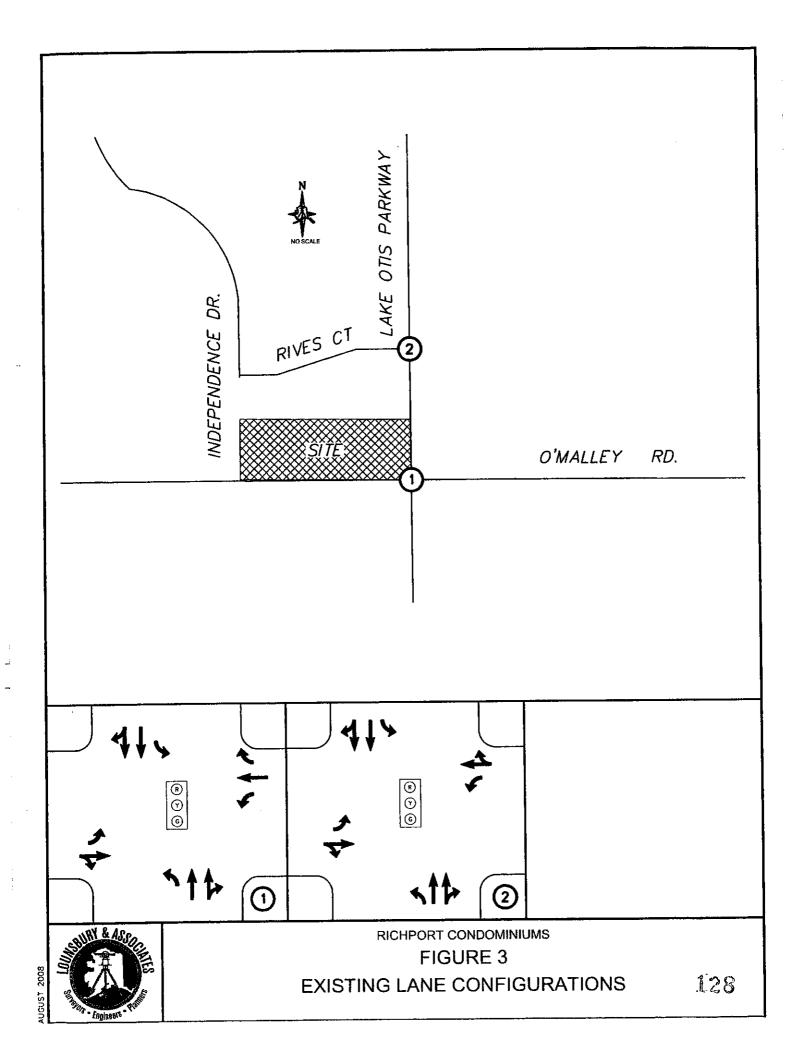
Table 1. Existing Transportation Facilities

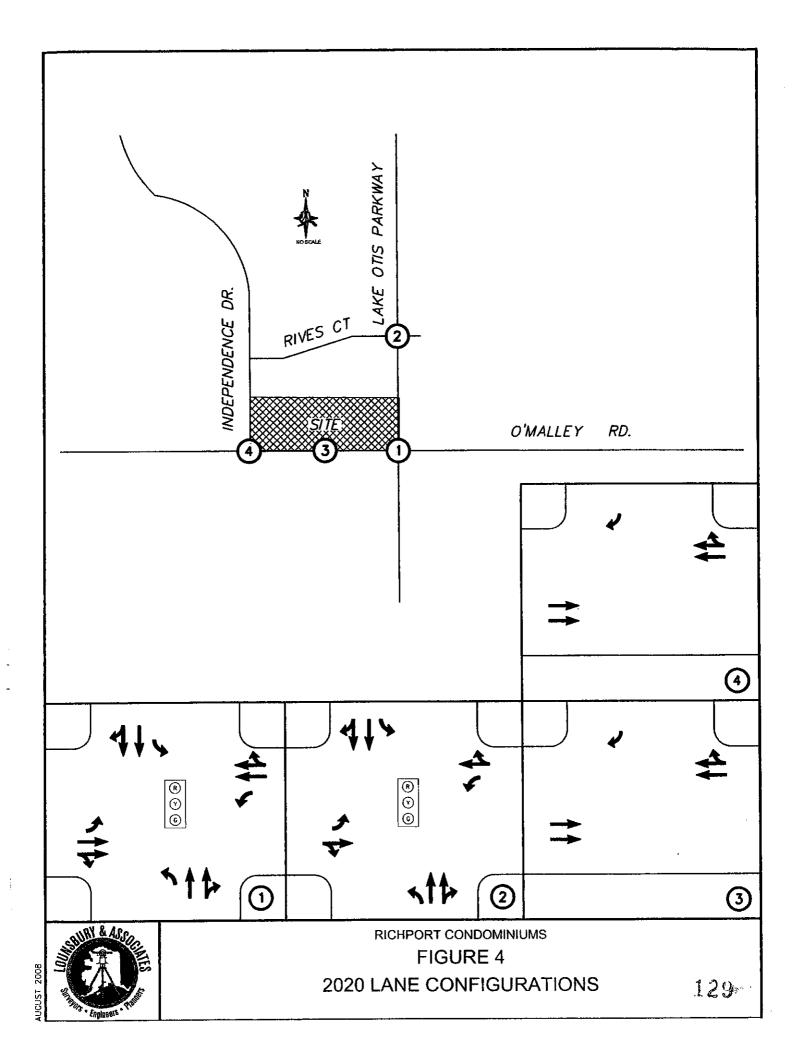
Table 1. Existing 1r Name	Classification	Cross Section	Speed (mph)	Sidewalks	Bicycle Lanes	On-Street Parking
Lake Otis Parkway	Arterial	5-Lane	45	Yes	No	No
O'Malley Road	Principal Arterial	2-Lane	45	Pathway (N Side)	No	No
Rives Court	Residential	2-Lane	25	Yes	No	Allowed

Based upon discussions with ADOT&PF and MOA staff, the road network identified for analysis includes the following:

- Lake Otis Parkway and O'Malley Road signalized intersection,
- Lake Otis Parkway and Rives Court signalized intersection, and
- Proposed site access to O'Malley Road.

Lane configurations for existing facilities and the intersection traffic control are shown on Figure 3. The MOA plans to extend Independence Drive to connect with O'Malley Road. Construction is anticipated in 2012. The ADOT&PF intends to upgrade O'Malley Road between the New Seward Highway and Lake Otis Parkway to a 5-lane roadway. Current project scheduling indicates that construction will occur in 2012. Current ADOT&PF plans indicate a raised median along O'Malley Road from Lake Otis Parkway through the proposed Independence Drive intersection. Lane configurations for future facilities and the intersection traffic control are shown on Figure 4.





#### Transit Service

No bus service is provided in area.

#### Pedestrian and Bicycle Facilities

Pedestrian and bicycle facilities on Lake Otis Parkway consist of detached pathways on the east and west sides of the road. Pedestrian and bicycle facilities on O'Malley Road consist of a detached pathway on the north side. Proposed O'Malley Road improvements include pedestrian facilities on both sides of the roadway.

#### Existing Traffic Volumes and Peak Hour Conditions

Effects on traffic conditions and the resulting design requirements are determined by analyzing peak traffic conditions generated by a development. The relationship between the peaking characteristics of the adjacent road network and those of the development are critical to this analysis. The time period that should be analyzed is that in which the combination of site-generated traffic and adjacent street traffic is at its maximum. This period is defined as the critical period.

Turning movement counts were conducted during July of 2008, at the two existing intersections identified for analysis. These counts were taken during the evening peak periods (1600-1800). The peak hour for each intersection is shown in Table 2. Traffic counts used in this analysis are provided in Appendix A.

Table 2. Intersection Peak Hour

Intersection	Date/Time Counted	Peak Hour		
Lake Otis Parkway and O'Malley Road	7/09/2008 1600 1800	1700 – 1800		
Lake Otis Parkway and Rives Court	7/10/2008 1600 – 1800	1700 – 1800		

#### Level Of Service Analysis

Current traffic operations at the study intersections were evaluated to determine existing roadway capacity. A Level-of-Service (LOS) analysis was used to assess traffic operations. The LOS analyses, as described in this report, were performed in accordance with the procedures stated in the *Highway Capacity Manual (2000 Update)*.

Although the grades of LOS are universally applicable to qualify traffic operations at both signalized and unsignalized intersections, the level of service criteria for unsignalized intersections are somewhat different than the criteria used for signalized intersections. A description of level of service and the criteria by which they are determined is presented in Appendix B.

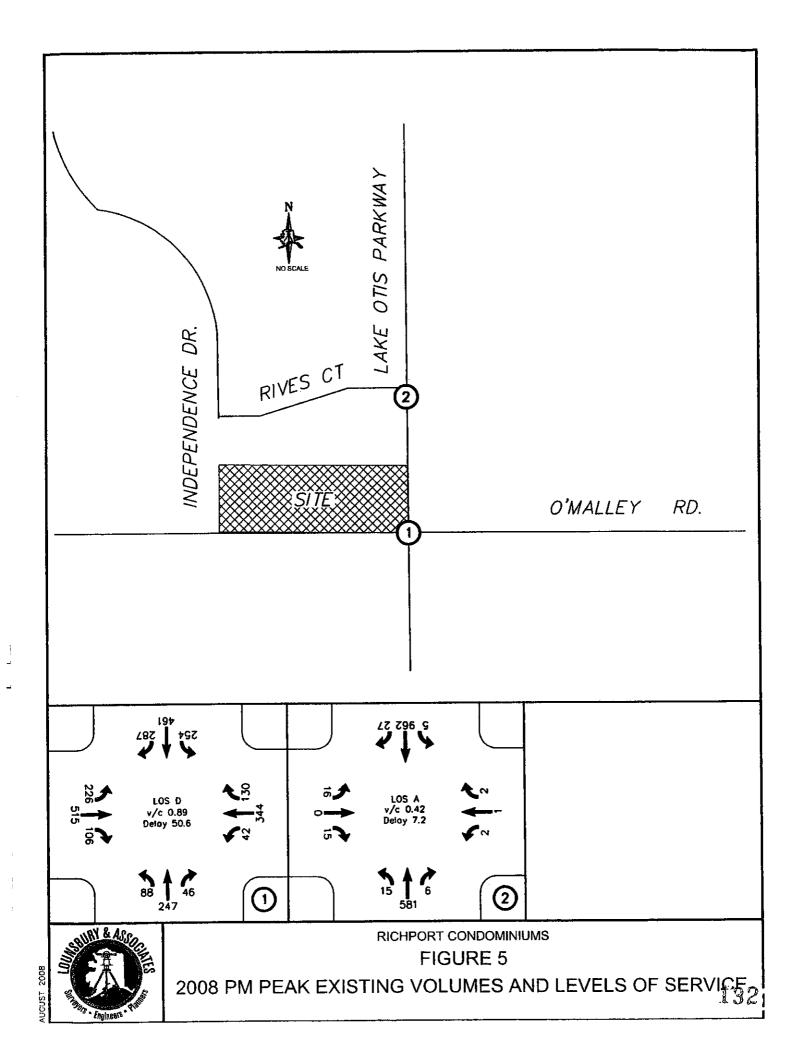
The peak 15-minute flow rate during the weekday p.m. peak hour was used in the evaluation of all intersection levels of service. This ensures that the analysis is based on a reasonable, worst-case scenario. The analyses reflect conditions that are likely only to occur for 15 minutes out of each average weekday. Traffic conditions during all other

weekday periods and throughout the weekend will likely operate under better conditions than those described in this report.

Peak hour traffic volumes and levels of service for the existing intersections during the weekday p.m. peak hour are shown in Figure 5. The volume/capacity ratio (v/c), average delay, and corresponding LOS are shown for the signalized intersections. The critical approach, average delay of the critical approach, and corresponding level of service are shown for the unsignalized intersections. Appendix C contains existing conditions level of service worksheets.

Analysis of the Lake Otis Parkway – O'Malley Road signalized intersection determined that, at present, this intersection operates at a level of service (LOS D) during the peak hour. The north approach operates at a level of service (LOS E).

Analysis of the Lake Otis Parkway – Rives Court signalized intersection determined that, at present, this intersection operates at an acceptable level of service (LOS A) during the peak hour.



#### Traffic Safety

No traffic safety analysis was performed for this TIA as the O'Malley Road Reconstruction project contains an extensive safety analysis with recommendations that are incorporated into the proposed design.

#### 3.0 TRAFFIC IMPACT ANALYSIS

This traffic impact analysis focuses on how the study intersections will operate once the proposed Richport Condominiums Site development is constructed. Effects of traffic generated by the project are analyzed as follows:

- Identifying and reviewing planned developments and transportation improvements in the site vicinity.
- Preparing a basis of comparison using peak hour estimates for 2010 and 2020 conditions without site development (referred to as "background" traffic).
- Estimating weekday p.m. peak period trips generated by the site.
- Developing a trip distribution pattern through a review of average annual daily traffic volumes (AADT) and turning-movement counts.
- Developing projected traffic volumes, consisting of site-generated traffic volumes plus background traffic (nonsite) volumes, for each intersection during the weekday p.m. peak hour.
- Evaluating traffic operations in terms of levels of service for both background and total traffic conditions.

The following sections present the results of the methodology summarized above.

#### 3.1 BACKGROUND TRAFFIC CONDITIONS

The background traffic analysis identifies how the study area's transportation system will operate in future years. This analysis includes traffic growth resulting from development within the study area and from general growth in the region, but does not include traffic generated by the proposed Richport Condominiums Site development.

ADOT&PF and MOA TIA policy requires this analysis to be adequately planned for future traffic volumes expected to occur in the design year. The design year is defined as ten years after the opening date of a development. The Richport Condominiums Site development is anticipated to open in 2010. Therefore, 2020 is designated as the design year for this project site.

#### 3.1.1 PLANNED DEVELOPMENTS AND TRANSPORTATION IMPROVEMENTS

Current development plans for O'Malley Road widening are anticipated to begin in 2012. Independence Drive is also planned for construction the same year as O'Malley Road.

#### 3.1.2 FUTURE TRAFFIC VOLUMES

Background traffic volumes were developed for the anticipated opening year of the Richport Condominiums Site development (2010) and a future design year (2020). The Future Traffic growth rates are based on the currrent AMATS traffic model (see Appendix D). Based on the AMATS traffic model, future traffic volumes are anticipated to grow at an average annual rate of 0.5%. Lake Otis showed no growth on the north end and a negative

growth on the south end. To be conservative, Lake Otis Parkway was given the same growth rate as O'Malley Road of 0.5%.

According to the AMATS traffic model, Independence Drive has an AADT of 371 with no projected number provided for Independence Drive from O'Malley Road to Rives Court. For purposes of this study an AADT of 3000 was assumed.

#### 3.1.3 LEVEL OF SERVICE ANALYSIS

An operational analysis was conducted at each intersection. The weekday p.m. peak hour turning movement volumes shown in Figures 6 and 7 were used to determine the 2010 and 2020 background traffic levels of service respectively. An acceptable level of service is defined as LOS D or higher. A summary of the level of service analysis results for each intersection is shown in Table 3. Proposed O'Malley Road improvements were included in the 2020 analysis.

Table 3, 2010 and 2020 Background Traffic Peak Hour Level of Service

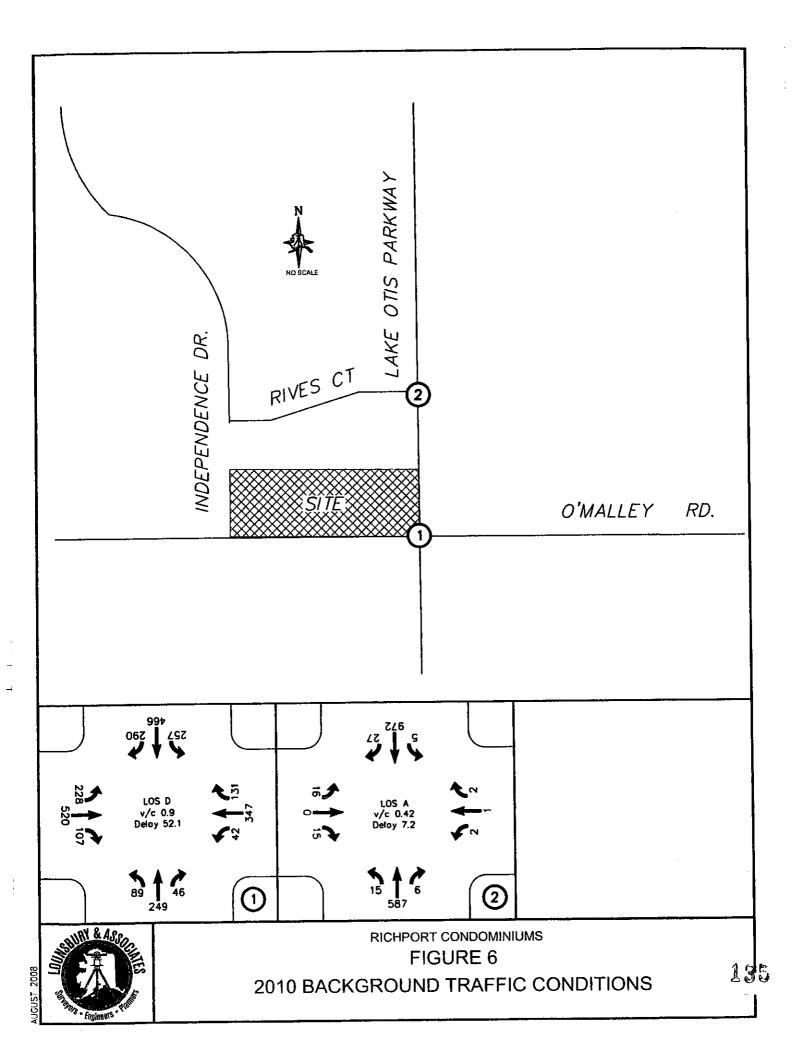
	2010 Background Conditions		2020 Background Conditions		
Intersection	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	
Signalized					
Lake Otis Parkway and O'Malley Road	52.1	D	36.1	D	
Lake Otis Parkway and Rives Court	7.2	A	9.4	Α	
Unsignalized			<u></u>		
Independence Drive and O'Malley Road SBR	-	-	13.5	В	

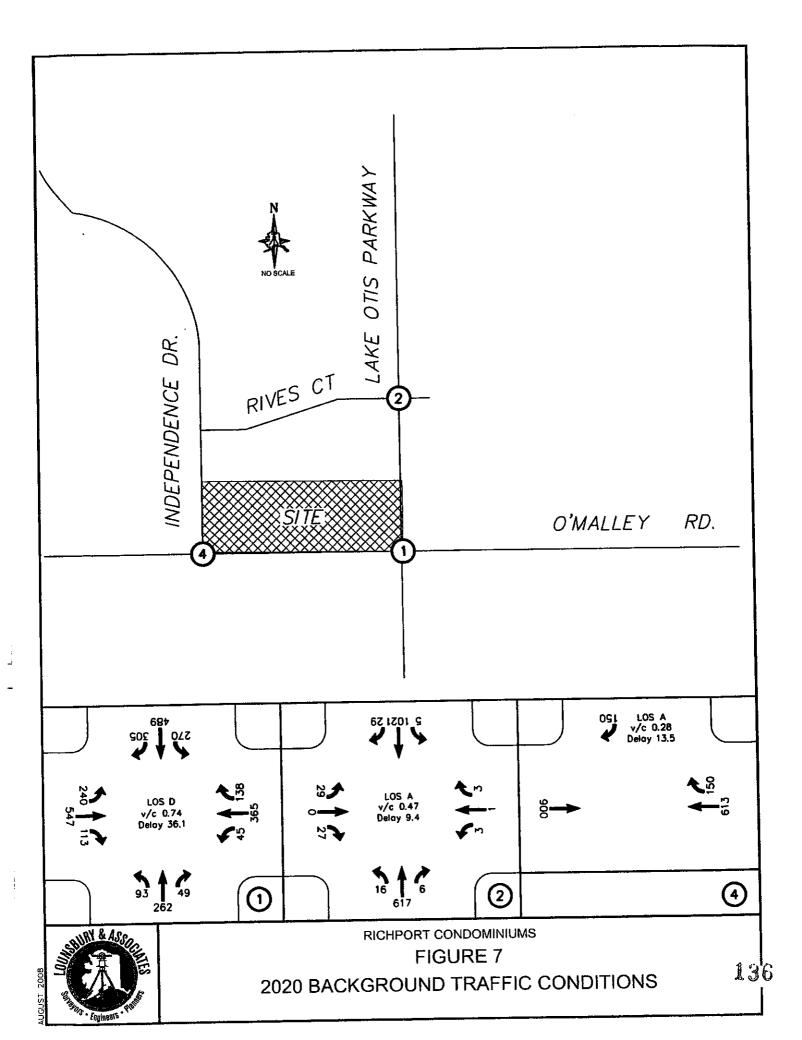
As shown in Table 3, the operational analyses determined that the Lake Otis Parkway and O'Malley Road intersection is expected to operate at LOS D during the peak hour in 2010 and LOS D in 2020.

Analyses of the Lake Otis Parkway and O'Malley Road intersection determined that the northbound/southbound approaches will operate at LOS E in 2010 and LOS D 2020, and the eastbound/westbound approaches will operate at LOS D in 2010 and 2020.

Analyses of the Lake Otis Parkway and Rives Court intersection determined that the intersection will operate at LOS A in 2010 and 2020.

Appendix E contains the 2010 and 2020 background level of service worksheets.





#### 3.2 TRIP GENERATION

An estimate of weekday p.m. peak hour vehicle trips for the proposed land use was developed from empirical observations. Observations based on similar facilities are summarized in the standard reference *Trip Generation Manual*, 7<sup>th</sup> Edition, published by the Institute of Transportation Engineers (ITE) (2003). Trip generation rates for the Richport Condominium developments were obtained from ITE's published trip generation rates and discussions with ADOT&PF and MOA staff. According to the Richport Condominium plans, 228 units will be available for purchase. The method agreed to use assumes 50% build-out for the construction year 2010 and a 100% build-out for the design year of 2020. The Richport Condominiums will generate approximately 67 trips during the PM peak in 2010 and approximately 118 trips during the PM peak in 2020.

Based on discussions with ADOT&PF and MOA, site access for the construction year of 2010 will be restricted to a driveway between the proposed Independence Drive extension and Lake Otis Parkway and limited to right-in-right-out. Upon completion of the Independence Drive and O'Malley Road projects, the site will also be allowed access via Independence Drive, also right-in-right-out.

According to ITE's Trip Generation Manual, site-generated traffic is divided into four basic trip types:

- · New Trips.
- · Pass-by Trips,
- · Internal Trips, and
- Diverted Trips.

For this analysis, only New Trips were considered.

A summary of the forecasted weekday p.m. peak hour trip generation characteristics of the proposed development is shown in Table 4 for 2010 and Table 5 for 2020. Appendix F contains the ITE Trip Generation Rate worksheet. ITE indicates that 33% of trips are shown leaving during the p.m. peak hour and 67% are arriving during the p.m. peak hour.

Table 4, 2010 Estimated Trip Generation

rabio i	LAND USE		Trips	PM Peak Hour		
ITE Code	Description	Unit		Total	ln	Out
230	RESIDENTIAL CONDOMINIUMS	114	67	67	45	22
ZOO TILOISEININE GOLDON		NET NE	NET NEW TRIPS		45	22

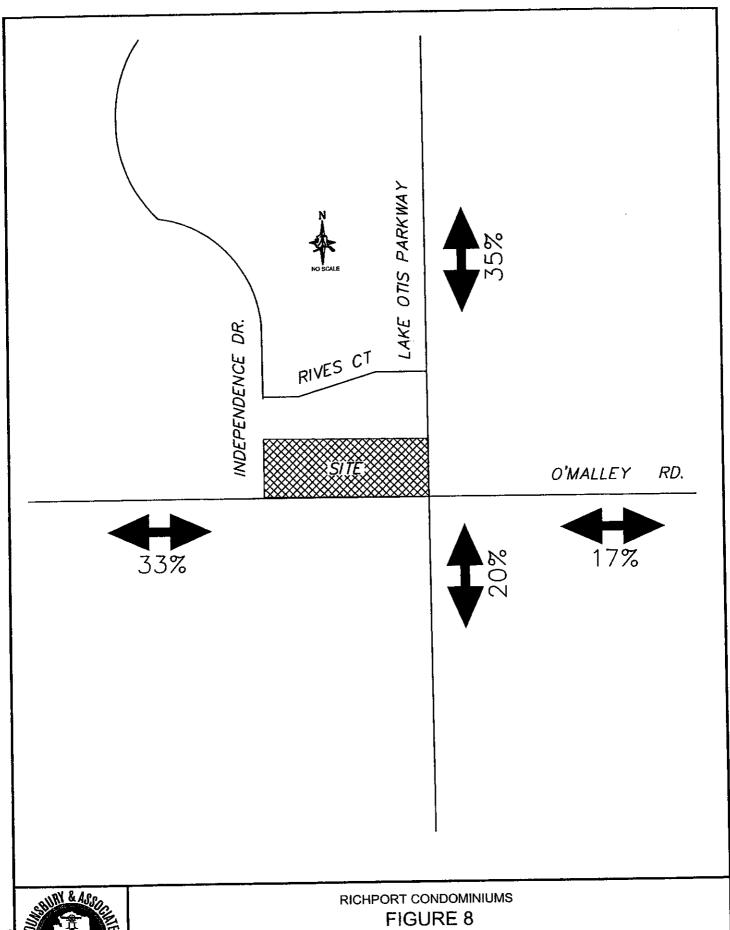
Table 5, 2020 Estimated Trip Generation

	LAND USE			PM Peak Hour		
ITE Code	Description	Unit	Trips	Total	ln	Out
230	RESIDENTIAL CONDOMINIUMS	228	118	118	79	39
200	THE OBJECT OF TH	NET NE	NET NEW TRIPS		79	39

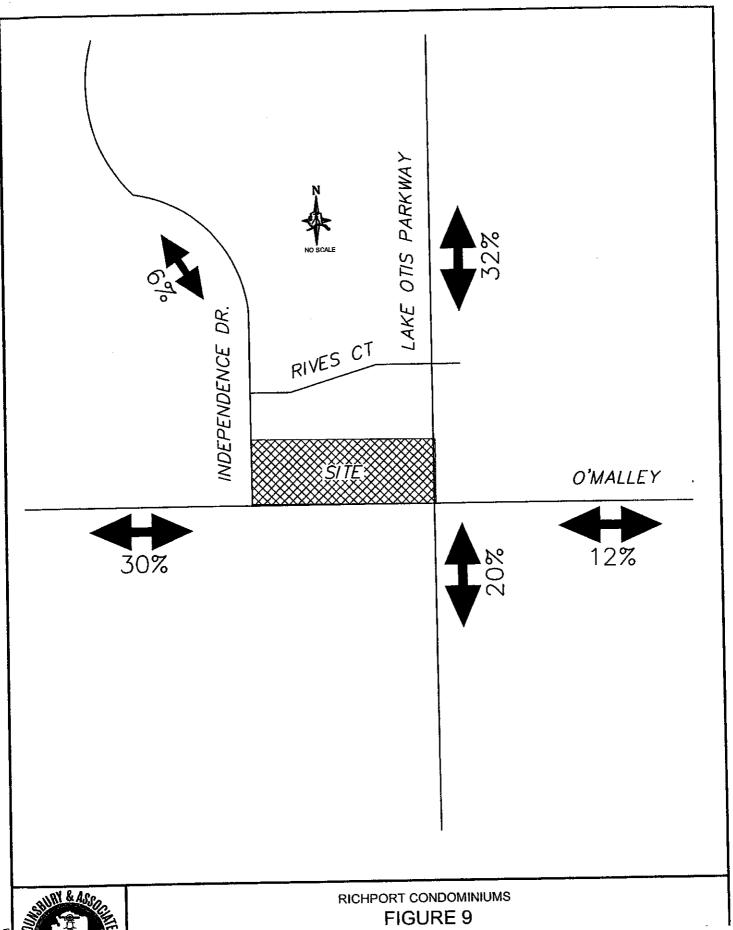
14

#### 3.3 TRIP DISTRIBUTION

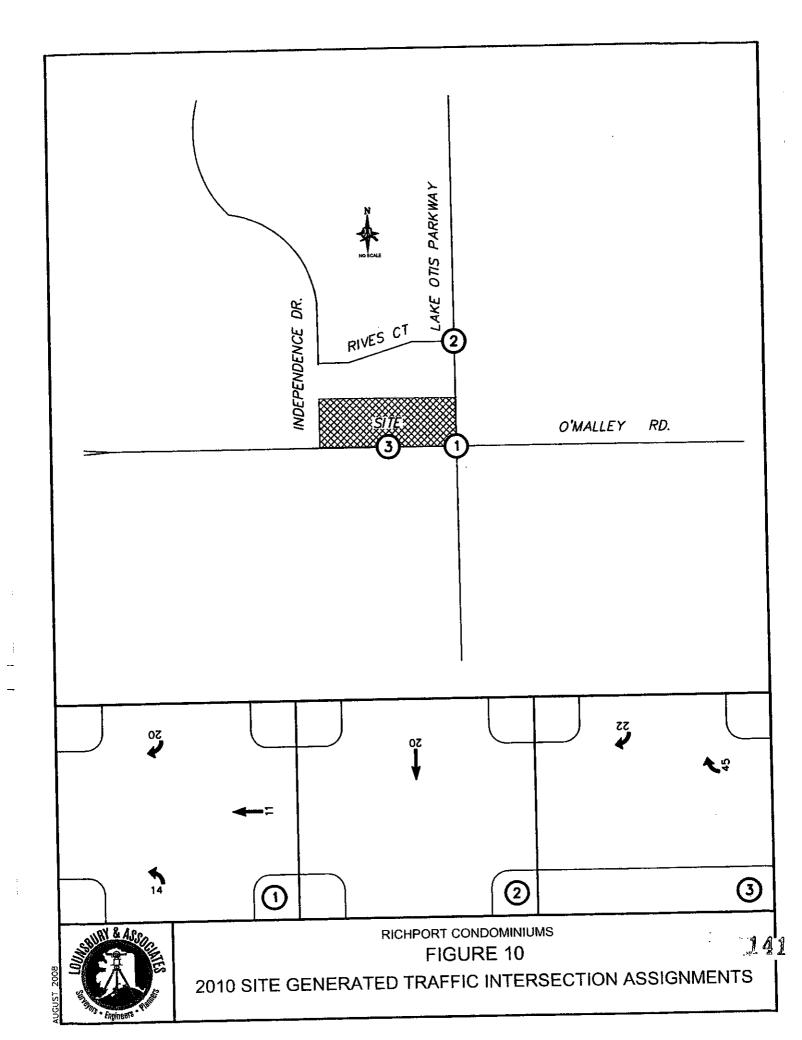
A trip distribution pattern was developed through a review of average annual daily traffic volumes (AADT), turning-movement counts, distribution patterns of similar developments, and distributions established in previous studies. The estimated trip distribution is shown in Figures 8 and 9. Site-generated traffic assignments for the weekday p.m. peak hour at the study intersections are shown in Figure 10 and 11.

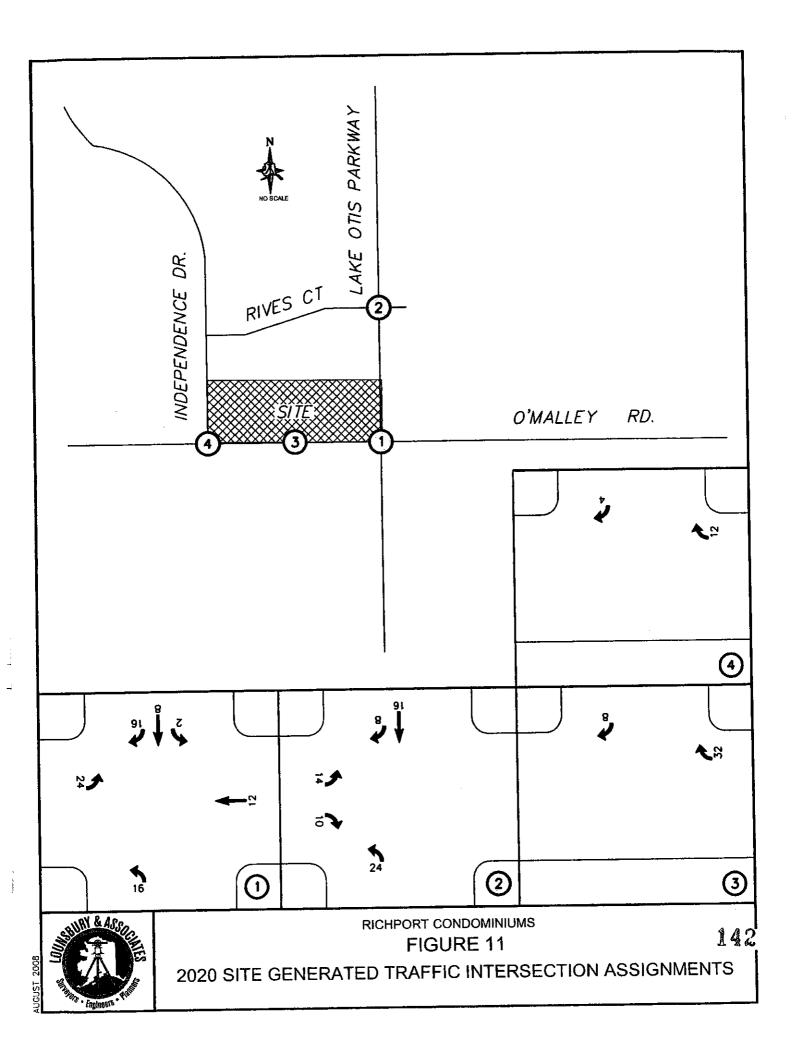


2010 ESTIMATED TRAFFIC DISTRIBUTION



2020 ESTIMATED TRAFFIC DISTRIBUTION





## 3.4 TOTAL TRAFFIC CONDITIONS

Total traffic volume is the number of vehicles, both as background and site generated, anticipated to be on the roadway in future years. The total traffic conditions analysis forecasts how the study area's existing transportation system will operate with the addition of traffic from the proposed development.

The 2020 total traffic volumes assume the O'Malley Road Reconstruction Project has been completed with O'Malley Road having 5 lanes with a left turn lane in each direction, and the Independence Drive extension has been completed. Also assumed is that Lake Otis Parkway will stay with the same lane configuration. The O'Malley Road Driveway was analyzed using only the site generated traffic.

#### 3.4.1 TRAFFIC VOLUMES

Total traffic volumes for 2010 and 2020 were calculated by adding the site generated traffic, as distributed on the anticipated road system, to the background traffic volumes of the respective years. Total traffic volumes are shown in Figure 12 and Figure 13 for 2010 and 2020 respectively.

#### 3.4.2 LEVEL OF SERVICE ANALYSIS

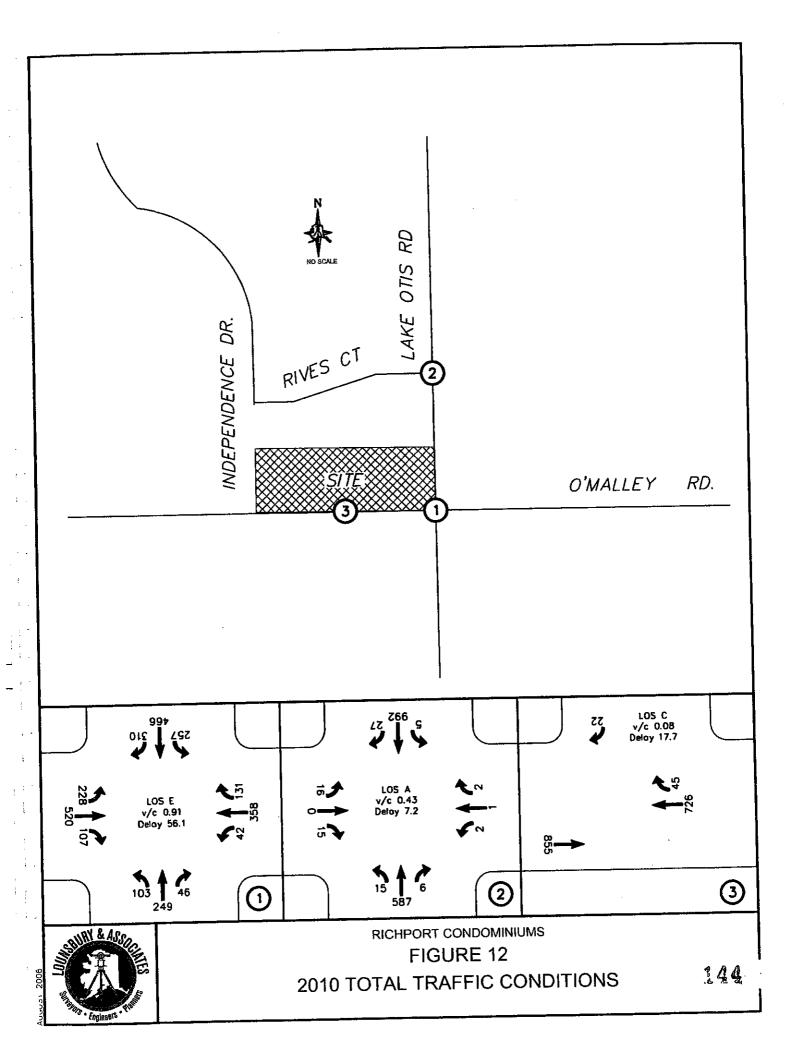
Intersection level of service analyses were completed for 2010 and 2020 using total traffic volumes for each of the study intersections. A summary of the level of service analysis results for each intersection is shown in Table 6.

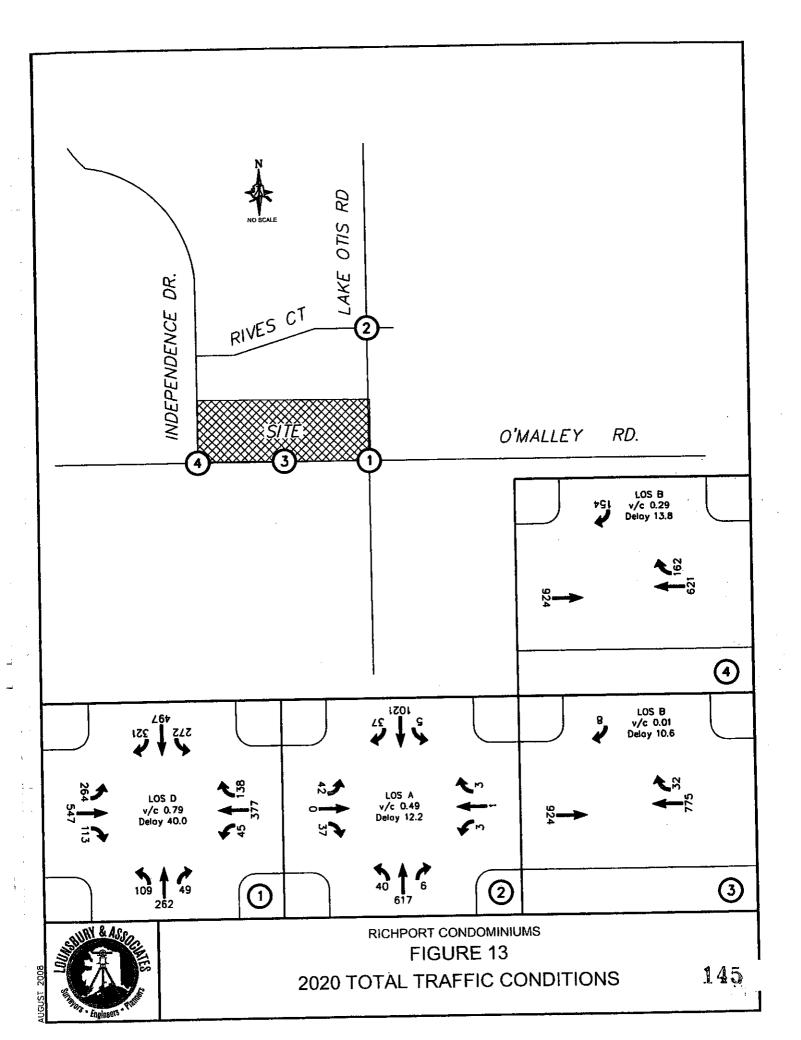
Table 6, Total Traffic Peak Hour Level of Service

	2010 with Site C	onditions	2020 with Site Conditions				
Intersection	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS			
Signalized							
Lake Otis Parkway and O'Malley Road	56.1	E	40.0	D			
Lake Otis Parkway and Rives Court	7.2	А	12.2	Α			
Unsignalized							
O'Malley Road Driveway SBR	17.7	С	10.6	В			
Independence Drive and O'Malley Road SBR	-	-	13.8	В			

As shown in Table 6, the operational analyses indicate that the signalized intersections are expected to operate at an acceptable level of service in 2020 under the O'Malley Road Reconstruction Project conditions. The southbound approach at the Lake Otis Parkway – O'Malley Road is anticipated to operate at LOS F in 2010, then after the completion of O'Malley Road reconstruction the approach is anticipated to operate at LOS D 2020. The eastbound approach at the Lake Otis Parkway – O'Malley Road intersection is anticipated to operate at LOS D in 2010 and 2020. The unsignalized O'Malley Road Driveway SBR is anticipated to operate at an acceptable level of service in 2010 and 2020. While Independence Drive – O'Malley Road SBR is anticipated to operate at an acceptable level of service in 2020.

Appendix G contains the 2010 and 2020 total traffic level of service worksheets.





## 4.0 FINDINGS AND CONCLUSIONS

Alaska Administrative Code (17 AAC 10.075) requires that improvements to roads and intersections be made to maintain acceptable levels of service. Improvements to the road network are necessary when 1) the addition of site generated traffic causes a facility currently operating at an acceptable level of service to operate at an unacceptable level of service, or 2) the addition of site generated traffic causes delay at a facility operating at an unacceptable level of service to increase more than ten percent.

## 4.1 TRAFFIC IMPACT ANALYSIS FINDINGS

The conditions identified in this study consider the worst-case scenarios as identified in the traffic impact analysis. Table 7 presents a summary of the conformance review results for the years 2010 and 2020 respectively.

**Table 7, Facility Conformance Review** 

Intersection	Backgro Traffic Cor			Traffic itions	Improvements							
meradanon	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Required?							
2010												
Lake Otis Parkway and O'Malley Road	52.1	D	56.1	E	NO							
Lake Otis Parkway and Rives Court	7.2	A	7.2	Α	NO							
O'Malley Road Driveway SBR	<del>-</del>	-	17.7	С	NO							
		2020										
Lake Otis Parkway and O'Malley Road	36.1	D	40.0	ā	NO							
Lake Otis Parkway and Rives Court	9.4	Α	12.2	Α	NO							
O'Malley Road Driveway SBR	-	<u>-</u>	10.6	В	NO							
Independence Drive and O'Malley Road SBR	13.5	В	13.8	В	NO							

## 4.2 ROADWAY IMPROVEMENTS

Based on the results of the traffic impact analysis, no additional improvements to the existing road network are necessary.

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## REFERENCES

- 1. Federal Highway Administration: Manual on Uniform Traffic Control Devices, 2000.
- 2. Institute of Transportation Engineers: Transportation and Land Development, 2<sup>nd</sup> Edition, 2002.
- 3. Institute of Transportation Engineers: Trip Generation Manual, 7th Edition, 2003.
- 4. Municipality of Anchorage, Design Criteria Manual, June 2005
- 5. State of Alaska, Department of Transportation and Public Facilities. *Preconstruction Manual*. March, 2001.
- 6. Transportation Research Board: Highway Capacity Manual, Special Report 209, 2000.
- 7. Transportation Research Board: NCHRP Report 279 Intersection Channelization Design Guide, 1985.
- 8. Transportation Research Board: NCHRP Report 457 Evaluating Intersection Improvements: An Engineering Study Guide, 2001.
- 9. Preliminary Engineering Report: O'Malley Road Reconstruction Project New Seward Highway to Hillside Drive, Project No. STP-0512(5)/53935, 2002

# **APPENDICES**

Traffic	Impact	Anal	ysis
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**APPENDIX A** 

**2008 TRAFFIC COUNTS** 

Richport TIA Project 08-041 Lake Otis & O'Malley Intersection

File Name: lakeotis-omalley\_total\_7-9-08 Site Code: 000000000 Start Date: 07/09/2008 Page No::1

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Richport TIA Project 08-041 Lake Otis & Rives Intersection

File Name: lakeotis-rives\_7-10-08 Site Code: 000000000 Start Date: 07/10/2008 Page No: 1

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Traffic	Impact	Analysis

Richport Condominiums

**APPENDIX B** 

**LEVEL OF SERVICE CRITERIA** 

## **Level of Service Concept**

Level of service (level of service) is a concept developed to quantify the degree of comfort (including such elements as travel time, number of stops, total amount of stopped delay, and impediments caused by other vehicles) afforded to drivers as they travel through an intersection or roadway segment. Six grades are used to denote the various levels of service from A to F.<sup>1</sup>

## Signalized Intersections

The six level of service grades are described qualitatively for signalized intersections in Table B1. Additionally, Table B2 identifies the relationship between level of service and average control delay per vehicle. Control delay is defined to include initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Using this definition, level of service D is generally considered to represent the minimum acceptable design standard.

Table B1, Level of Service Definitions (Signalized Intersections)

Table b I.	Level of Service Definitions (Signalized Intersections)
Level	
of Service	Average Delay per Vehicle
A	Very low average control delay, less than 10 seconds per vehicle. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most Vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
В	Average control delay is greater than 10 seconds per vehicle and less than or equal to 20 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for a level of service A, causing higher levels of average delay.
С	Average control delay is greater than 20 seconds per vehicle and less than or equal to 35 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
D	Average control delay is greater than 35 seconds per vehicle and less than or equal to 55 seconds per vehicle. The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle length, or high volume/capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Average control delay is greater than 55 seconds per vehicle and less than or equal to 80 seconds per vehicle. This is usually considered to be the limit of acceptable delay. These high delay values generally (but not always) indicate poor progression, long cycle lengths, and high volume/capacity ratios. Individual cycle failures are frequent occurrences.
F	Average control delay is in excess of 80 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with over saturation. It may also occur at high volume/capacity ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also contribute to such high delay values.

<sup>&</sup>lt;sup>1</sup> Most of the material in this appendix is adapted from the Transportation Research Board, *Highway Capacity Manual*, Special Report 209 (2000).

Table B2. Level of Service Criteria For Signalized Intersections

Level of Service	Average Control Delay per Vehicle (seconds)
A	≤10.0
В	>10 AND <u>&lt;</u> 20
С	>20 AND <u>≤</u> 35
D	>35 AND <u>≤</u> 55
E	>55 AND <u>≤</u> 80
F	>80

**Unsignalized intersections** 

Unsignalized intersections include two-way stop-controlled (TWSC) and all-way stop-controlled (AWSC) intersections. The 2000 Highway Capacity Manual provides models for estimating control delay at both TWSC and AWSC intersections. A qualitative description of the various service levels associated with an unsignalized intersection is presented in Table B3. A quantitative definition of level of service for unsignalized intersections is presented in Table B4. Using this definition, level of service E is generally considered to represent the minimum acceptable design standard.

Table B3. Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Delay per Vehicle to Minor Street											
Α	<ul> <li>Nearly all drivers find freedom of operation.</li> <li>Very seldom is there more than one vehicle in queue.</li> </ul>											
В	<ul> <li>Some drivers begin to consider the delay an inconvenience.</li> <li>Occasionally there is more than one vehicle in queue.</li> </ul>											
С	<ul> <li>Many times there is more than one vehicle in queue.</li> <li>Most drivers feel restricted, but not objectionably so.</li> </ul>											
D	<ul> <li>Often there is more than one vehicle in queue.</li> <li>Drivers feel quite restricted.</li> </ul>											
E	<ul> <li>Represents a condition in which the demand is near or equal to the probable maximum number of vehicles that can be accommodated by the movement.</li> <li>There is almost always more than one vehicle in queue.</li> <li>Drivers find the delays approaching intolerable levels.</li> </ul>											
F	<ul> <li>Forced flow.</li> <li>Represents an intersection failure condition that is caused by geometric and/or operational constraints external to the intersection.</li> </ul>											

Table B4. Level of Service Criteria For Unsignalized Intersections

evel of Service	Average Control Delay per Vehicle (seconds)
A	≤10
В	>10 AND ≤15
С	>15 AND ≤25
D	>25 AND ≤35
E	>35 AND ≤50
F	>50

It should be noted that the level of service criteria for unsignalized intersections are somewhat different than the criteria used for signalized intersections. The primary reason for this difference is that drivers expect different levels of performance from different kids of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than unsignalized intersection. Additionally, there are a number of driver behavior considerations that combine to make delays at signalized intersections less onerous than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, while drivers on the minor street approaches to TWSC intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized intersections than signalized intersections. For these reasons, it is considered that the control delay threshold for any given level of service is less for an unsignalized intersection than for a signalized intersection. While overall intersection level of service is calculated for AWSC intersections, level of service is only calculated for the minor approaches and major street left-turn movements at TWSC intersections. No delay is assumed to the major street through movements. For TWSC intersections, the overall intersection level of service remains undefined: level-of-service is only calculated for each minor street lane.

In the performance evaluation of TWSC intersections, it is important to consider other measures of effectiveness (MOE's) in addition to delay, such as v/c ratios for individual movements, average queue lengths, and 95<sup>th</sup> percentile queue lengths. By focusing on a single MOE for the worst movement only, such as delay for the minor-street left-turn, users may make inappropriate traffic control decisions. The potential for making such inappropriate decisions is likely to be particularly pronounced when the HCM level-of-service thresholds are adopted as legal standards, as is the case in many public agencies.

Richport Condominiums	Traffic Impact Analysis
	•
	APPENDIX C
	2008 LEVEL OF SERVICE ANALYSIS WORKSHEETS

Baseline %user\_name%

	*	-	•	1	4	•	4	<b>†</b>	<b>*</b>	-	1	4
Movements v		A CET		WBL	¢Wi€ii⊻	WEE	A NBIS	NBT#	NER	ZSB 5	e sein	SBR
Lane Configurations	7	<b>^</b> }		ሻ	<b>A</b>	7	7	<b>†</b> }	A ( ) A ( )	ሻ	<b>↑</b> ₽	
Ideal Flow (vphpl)	1850	1850	1850		1850	1850			1850	1850		1850
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1,00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	en aller
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.98		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1	0.95	1.00	e Profes
Satd. Flow (prot)	1627	1669		1627	1713	1456	1658	3238		1658	3125	
Flt Permitted	0.29	1.00		0.15	1.00	1.00	0.13	1.00		0.29	1.00	
Satd. Flow (perm)	489	1669		260	1713	1456	226	3238		507	3125	
Volume (vph)	226	515	106	42	344	130	88	247	46	254	461	287
Peak-hour factor, PHF	0.89	0.89	0.89	0.82	0.82	0.82	0.75	0.75	0.75	0.87	0.87	0.87
Adj. Flow (vph)	254	579	119	51	420	159	117	329	61	292	530	330
RTOR Reduction (vph)	Ó	4	0	0	Ò	55	0	7	0	0	43	0
Lane Group Flow (vph)	254	694	0	51	420	104	117	383	0	292	817	.0
Heavy Vehicles (%)	8%	8%	8%	8%	8%	8%	6%	6%	6%	6%	6%	6%
Turn Type	pm+pt			pm+pt		Perm	pm+pt		1	m+pt		
Protected Phases	1	6		5	2		7	4	,	3	8	
Permitted Phases	6			2	1977	2	4			8		
Actuated Green, G (s)	79.6	67.2		62.9	56.2	56.2	42.0	28.9		58.8	40.0	
Effective Green, g (s)	82.1	69.7		67.1	58.7	58.7	45.7	30.9	-	60.8	42.0	1.0
Actuated g/C Ratio	0.54	0.46		0.44	0.39	0.39	0.30	0.20		0.40	0.28	
Clearance Time (s)	5.7	6,5		5.7	6.5	6.5	5.7	6.0		5.7	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	412	771		192	666	566	209	663		402	870	7 7 7 7 7 7
v/s Ratio Prot	c0.08	c0.42		0.01	0.25		0.05	0.12		c0.12	c0.26	
v/s Ratio Perm	0.26			0.10	W.	0.07	0.11			0.17		
v/c Ratio	0.62	0.90		0.27	0.63	0.18	0.56	0.58		0.73	0.94	
Uniform Delay, d1	22.2		garanta a	28.8	37.3	30.3	41.3	54.1		33.8	53.2	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.7	13.6	Professional Control	0.7	2.0	0.2	3.2	1.2		6.4	17.3	
Delay (s)	25.0	51.0		29.5	39.3	30.5	44.5	55.3		40.2	70.5	
Level of Service	С	D		C	D	C	• D	E		D	Ε	
Approach Delay (s)		44.1			36.3			52.8			62.8	
Approach LOS		D			D	医抗乳毒素		· D			E	:
intersection Summary			New Aut									
HCM Average Control I		TENTE S	50.6	an mark	ICM Le	vel of S	ervice	. * Z*	D	n i Nei Aldell		SE TAIN
HCM Volume to Capaci			0.89			200. <b>3. 1.</b>	4.33		40.0			
Actuated Cycle Length		1 74	150.9		Sum of I				16.0			•
Intersection Capacity U	tilizatior	) 	82.0%		CU Leve	el of Se	rvice		D			
Analysis Period (min)		7.	15			-	•					

c Critical Lane Group

	۶	-	•	1	♣	•	4	†	1	<b>\</b>	1	1
Viovemient at a service	EBL.	e e e e	SEBER	Wei.	<b>WET</b>	WEAR	ANBL	Nei E	enisea	<b>SEL</b>	SBT	KSBR
Lane Configurations	7	Þ		7	<b>ጉ</b>		ሻ	<b>ሳ</b> ኑ		ሻ	<b>†</b> }	
Ideal Flow (vphpl)		1850	1850	1850	1850	1850	1850		1850	1850	1850	1850
Total Lost time (s)	4.0	4.0	14 150	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0,95		1.00	0.95	
Frt	1.00	0.85		1.00	0.90		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0,95	1.00		0.95	1.00		0.95	1,00	
Satd. Flow (prot)	1723	1542		1723	1632	and the second	1723	3312		1723	3306	
Fit Permitted	0,95	1.00	2 TA 619	0.95	1.00		0.95	: 1,00		0.95	1.00	·
Satd. Flow (perm)	1723	1542		1723	1632		1723	3312		1723	3306	
Volume (vph)	16	0		2		2	1000	581	6	5	962	27
Peak-hour factor, PHF	0.86	0.86	0.86	0.31	0.31	0.31	0.83	0.83	0.83	0.92	0.92	0.92
Adj. Flow (vph)	19	0	17	. 6	3	6	18	700	7	5	1046	29
RTOR Reduction (vph)	0	16	0	0	6	0	0	0	0	0		0
Lane Group Flow (vph)		1	. 0	6	3	0	-18	707	0	5	1074	. 0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	6%	2%	2%	6%	2%
Tum Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									\$ 1		00.0	٠.
Actuated Green, G (s)	1.4	2.0		1.1	1.6		1.4	64.2		1.1	63.6	
Effective Green, g (s)	3.6	4.7	r Program	3.3	4.4		3.3	66.1	*.	3.0	65.8	
Actuated g/C Ratio	0.04	0.05		0.04	0.05	4.4	0.04 -5.9	0.71		0.03	0.71 6.2	
Clearance Time (s)	6.2	6.7		6.2	6.8 3.0	1 N A W	3.0	5.9 3.0		5.9 3.0	3.0	
Vehicle Extension (s)	3.0	3.0	<del></del>	3.0 61	3.U 77	a journal and the		2351	ak in the			
Lane Grp Cap (vph)	67	78	• •				61	0.21		56	2337 c0.32	
v/s Ratio Prot	c0.01	0.00		0.00	c0.00	9.	c0.01	U.Z.I		0.00	CU.32	
v/s Ratio Perm v/c Ratio	0.28	0.01		0.10	0.04		0.30	0.30	. •	0.09	0.46	
Uniform Delay, d1	43.5	42.0		43.5	42.3		43.8	5.0		43.7		
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.3	0.1		0.7	0.2		2.7	0.1		0.7	0.1	
Delay (s)	45.8	42.0		44.2	42.6	•	46.5	5.0		44.4	6.1	
Level of Service	. D	. D		D	D	100	· . D	Α	,	Ď		
Approach Delay (s)	_	44.0		-	43.2		i na semen	6.1			6.3	
Approach LOS	25.	D			D.			Α			Α	
	3043303.0333		S0222447							e suosee		
idiensierkonistinimarys:							SEE SMA NAME	a su sus su				
HCM Average Control E				(4) 大学のオ	IUM Le	vel of S	ervice		A.		usa usas	1.2
HCM Volume to Capacit			0.42		na dan bara	ال کار فقائم مات در	. 1 686 E. J	i edieni.	400			
Actuated Cycle Length (			93.1					A WA	10.0		•	
Intersection Capacity Ut	ilization		43.2%	!	CU Lev	el of Se	rvice					
Analysis Period (min)			15		. 5	1 373	in state of					
c Critical Lane Group												

Traffic I.	mpact .	Anal	ysis
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**APPENDIX D** 

**AMATS TRAFFIC MODEL** 

D

Jay, attached is the AMATS traffic forecast.

David Krehmeier, P.E. Lounsbury & Associates, Inc. 5300 A Street Anchorage, AK 99518 907-272-5451

From: Brewer, Teresa M. [mailto:BrewerTM@ci.anchorage.ak.us]

Sent: Monday, July 14, 2008 9:55 AM

To: David Krehmeier

Subject: RE: O'Malley Richpoint TIA

Dear David,

Attached is a pdf of the O'Malley (13,790) and Lake Otis (10,990) area. This is from the 2027 forecast. If this is not what you are expecting, then please let me know.

Respectfully, Teresa Brewer

From: Kniefel, Robert E.

Sent: Monday, July 14, 2008 7:30 AM

To: 'David Krehmeier' Cc: Brewer, Teresa M.

**Subject:** RE: O'Malley Richpoint TIA

Contact Teresa Brewer at 343-7994 to get the latest AMATS numbers.

### Thanks

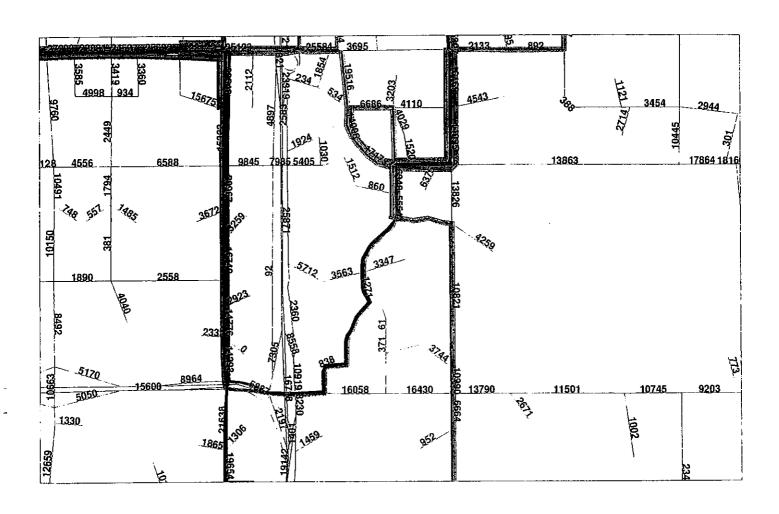
**Bob Kniefel** MOA Traffic Engineer 343-8410

From: David Krehmeier [mailto:d.krehmeier@LounsburyInc.com]

**Sent:** Friday, July 11, 2008 11:35 AM **To:** Kniefel, Robert E.; Scott Thomas **Subject:** O'Malley Richpoint TIA

Hello Bob/Scott. We will be projecting future traffic soon. Do you have future AADT volumes related to the most recent AMATS model or who do I contact to obtain this information. Thanks.

David Krehmeier, P.E. Lounsbury & Associates, Inc. 5300 A Street Anchorage, AK 99518 907-272-5451



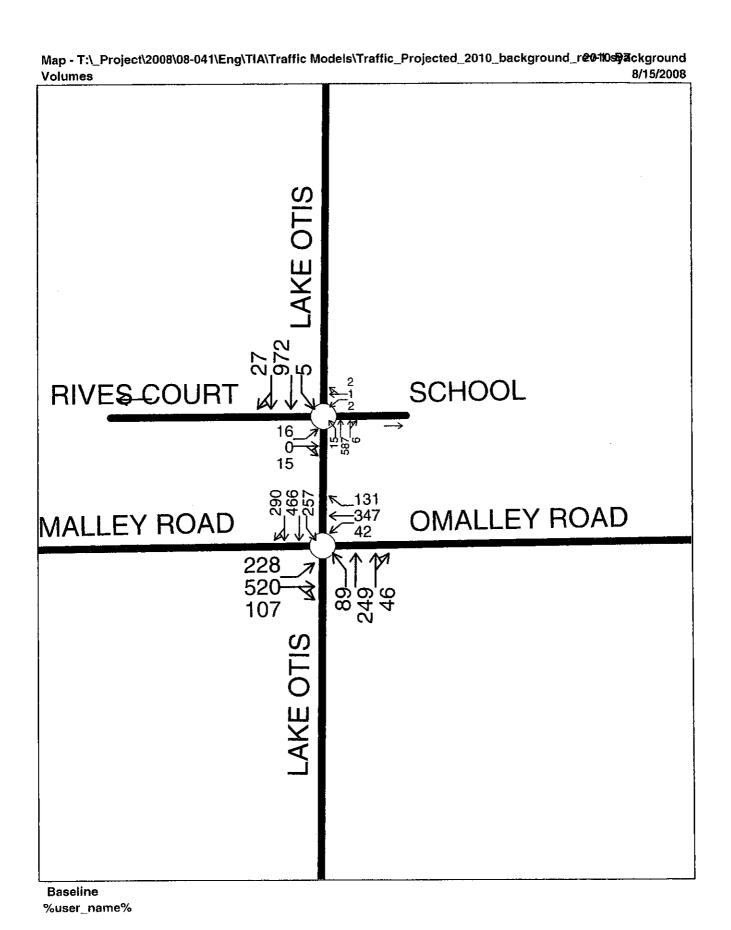
	Traffic Impact Analysis
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	APPENDIX E
BACKGROUND TRAFFIC LEVEL OF SERVICE	ANALYSIS WORKSHEETS

Richport Condominiums	
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Traffic Impact Analysis

2010 Background Traffic Level Of Service Analysis Worksheets

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Viovenienie au salvas	FEBR		MEBRI	SWBU.	AW B.T	awara	AN BE	A NBIA	enera	SEL	e setti	SPP
Lane Configurations	ነ	f)	- Anna Carlo	*	<u>*</u>	7	<u>,                                    </u>	<b>ት</b> ን	24.2	*	<b>†</b> ↑	***********
Ideal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850		1850	1850		1850
Total Lost time (s)	4.0	4.0	` .	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95	market parties	1.00		148.4
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.98		1.00	0.94	
Fit Protected	0.95	1.00	4 3	0.95	1.00	1.00	0.95	-1.00		0.95	1.00	2
Satd. Flow (prot)	1627	1669		1627	1713	1456	1658	3239		1658	3125	·
Fit Permitted	0.28	1.00		0.15	1.00	1:00	0.13	1.00	200	0.28	1.00	·
Satd. Flow (perm)	485	1669		253	1713	1456	227	3239	•	496	3125	
Volume (vph)	228	520	107	42	347	131	89	249	46	257	466	290
Peak-hour factor, PHF	0.89	0.89	0.89	0.82	0.82	0.82	0.75	0.75	0.75	0.87	0.87	0.87
Adj. Flow (vph)	256	584	120	51	423	160	119	332	61	295	536	333
RTOR Reduction (vph)	0	4	0	0	0	55	0	7	0	0	43	0
Lane Group Flow (vph)	256	700	0	51	423	105	119	386	0	295	826	0
Heavy Vehicles (%)	8%	8%	8%	8%	8%	8%	6%	6%	6%	6%	6%	6%
Turn Type	pm+pt		,	pm+pt		Perm.	pm+pt		Ī	om+pt		
Protected Phases	1	6		5	2		7	. 4	•	3	8	
Permitted Phases	6			2	Magazia Kangaria	2	4			8		
Actuated Green, G (s)	80.4	68.0		63.5	56.8	56.8	42.2	28.8		59.3	40.2	
Effective Green, g (s)	82.9	70.5		67.7	59.3		45.9	30.8	De la P	61.3	42.2	
Actuated g/C Ratio	0.54	0.46		0.44	0.39	0.39	0.30	0.20	•	0.40	0.28	
Clearance Time (s)	5.7	6.5		5.7	6.5	6.5	5;7	6.0		5.7	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	411	773		188	667	567	210	655		402	866	
v/s Ratio Prot	c0.08	c0.42		0.01	0.25		0.06	0.12	•	c0.13	c0.26	
v/s Ratio Perm	0.26		•	0.11		0.07	0.11			0.17		
v/c Ratio	0.62	0.91		0.27	0.63	0.19	0.57	0.59		0.73	0.95	
Uniform Delay, d1	22.5	37.8	.*	29.2		30.6	41.9	55.0		34.2	54.0	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.9	14.1		0.8	2.0		3.5	1.4		6.8	20.0	
Delay (s)	25.4	51.9		29.9	39.6	30.7	45.4	56.3		41.0	74.0	
Level of Service	С	· D		C	⊸.D	C	/ <b>D</b>	Æ		D	·. E	
Approach Delay (s)		44.8			36.6			53.8			65.7	
Approach LOS	<i>3</i>	. D			, D.		用的更高	, D			E	N.
miejsecion Sümmerv												
HCM Average Control D	elay		52.1		CM Le	vél of Se	ervice		Ď			AND THE
HCM Volume to Capacit	y ratio		0.90	¥	and the page of	ৰ সংখ্যালয় টো	er were the		for a consent of			
Actuated Cycle Length (			152.2	· §	um of I	ost time	(s)	4345	16.0	ng Garras.		
Intersection Capacity Uti			82.6%			el of Ser			E			
Analysis Period (min)			15					eg esse	nga Ting			
c Critical Lane Group												

	۶	-	*	<b>√</b>	4	4	4	<b>†</b>	~	1	<b>↓</b>	1
Movement and the second		Men.	EER	AWB L	<b>SWB</b>	AWEA.	NBE	MET	NBF#	48BK	S S B To	SER
Lane Configurations	7	<b>}</b> →		*	<b>^</b>		ሻ	<b>ሳ</b> ጐ		ሻ	<b>ት</b> ን	
ldeal Flow (vphpl)	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850		1850
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0	• •	4.0	4.0	
Lane Util. Factor	1:00	1.00		1.00	1:00		1.00	0.95	$f = \{x_1, \dots, x_{n-1}\}_{n=1}^n$	1.00	0.95	
Frt	1.00	0.85		1.00	0.90		1.00	1.00	•	1.00	1.00	
Flt Protected	0.95	1.00	grand of	0.95	1,00	Basil Nama	0.95	1.00		0.95	1.00	g- 1975
Satd. Flow (prot)	1723	1542		1723	1632		1723	3312		1723	3306	
Fit Permitted	0.95	1.00	A STATE OF STATE	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1723	1542		1723	1632		1723	3312		1723	3306	
Volume (vph)	16	ે 0∙	15	2	N. M	. 2	15	587	6	5	972	27
Peak-hour factor, PHF	0.86	0.86	0.86	0.31	0.31	0.31	0.83	0.83	0.83	0.92	0.92	0.92
Adj. Flow (vph)	19	0	17	6	3	6	18	707	7	5	1057	29
RTOR Reduction (vph)	0	16	O	0	6	Ó	0	Ó	Ó	0	1	0
Lane Group Flow (vph)	19	. 1	0	6	3	. 0	18	714	0	5	1085	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	6%	2%	2%	-6%	2%
Turn Type	Prot			Prot			Prot			Prot		:
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases					100		•	100			the proper	
Actuated Green, G (s)	1.4	2.0		1.1	1.6		1.4	65.0		1.1	64.4	
Effective Green, g (s)	3.6	4.7		3.3			3.3	66.9	કે ફ્રાફ્રેક્ટ્રેક્ટ્રેક્ટ્રેક્ટ્રેક્ટ્રેક્ટ્રેક્ટ્રેક્ટ્રેક્ટ્રેક્ટ્રેક્ટ્રેક્ટ્રેક્ટ્રેક્ટ્રેક્ટ્રેક્ટ્રેક્ટ	3.0	66.6	
Actuated g/C Ratio	0.04	0.05		0.04	0.05		0.04	0.71		0.03	0.71	
Clearance Time (s)	6.2	6.7	4	6.2	6.8	4	5.9	5.9		5.9	6.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	66	77		01	76		-61	2360		55	2345	XX
v/s Ratio Prot	c0.01	0.00		0.00	c0.00		c0.01	0.22		0.00	c0.33	
v/s Ratio Perm			4 + 1				• • •				-	
v/c Ratio	0.29	0.01		0.10	0.04		0.30	0.30		0.09	0.46	
Uniform Delay, d1	43.9	42.4		43.9	42.7	•	44.2	4.9		44.1	5.9	. •
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.4	0.1		0.7			2.7	0.1		0.7	0.1	
Delay (s)	46.3	42.4		44.6	43.0		46.9	5.0		44.8	6.1	
Level of Service	· D«	D	1. 1. 1.	D	D	£".	D	Α	ere fra 1950	D	Α	
Approach Delay (s)	5 70	44.5			43.6			6.0			6.2	
Approach LQS		D	2 1.01		. D			A			Α	
merecijos Silinineijos												
HCM Average Control D			7.2		ICM Le	vel of Se	ervice		A			7.707
HCM Volume to Capacit			0.42	•		: <del></del>		*** ** .**	e e feter			* * * * * .
Actuated Cycle Length (	£		93.9	. 6	Sum of I	ost time	(s)		16.0	100	1.5	
Intersection Capacity Ut			43.5%			el of Ser	vice		Α			
Analysis Period (min)			15							1.		
c Critical Lane Group									•	•		
•												

2020 Background Traffic Level Of Service Analysis Worksheets

Baseline T:\\_Project\2008\08-041\Eng\TlA\Traffic Models\Traffic\_Projected\_2020\_background\_rev-1.sy7 %user\_name%

	•	<b>→</b>	•	1	<b>←</b>	•	4	<b>†</b>	1	<b>\</b>	1	1
Movement	Z EBIG		e een	awa e	<b>Wer</b>	awen:	NEL	SENIETE		- SPL	a seta	CER
Lane Configurations	*	<b>4</b> †	200	<b>*</b>	<b>^</b> }	MARK X SECTION	No. of Concession, Name of	44		7	<b>^</b> }	THE CONTRACTOR OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TO THE PERSON
Ideal Flow (vphpl)	1850	1850	1850	1850	ា 1850	1850	1850		1850	1850	1850	1850
Total Lost time (s)	4.0	4.0	न् जरहरू	4.0	4.0		4.0	4.0		4.0	4.0	1,,000
Lane Util. Factor	1.00	0.95		1.00	0.95	, in gited	1.00			1.00	0.95	有效。
Frt	1.00	0.97		1.00	0.96		1.00	0.98		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	ful.
Satd. Flow (prot)	1627	3171	16. 11.5	1627	3121		1658	3238		1658	3125	
Fit Permitted	0.20	1.00		0.29	1.00		0.17	1.00		0.36	1.00	
Satd. Flow (perm)	336	3171		496	3121		292	3238		620	3125	
Volume (vph)	240	547	113	45	365	138	93	262	49	270	489	305
Peak-hour factor, PHF	0.89	0.89	0.89	0.82	0.82	0.82	0.75	0.75	0.75	0.87	0.87	0.87
Adj. Flow (vph)	270	615	127	55	445	168	124	349	65	310	562	351
RTOR Reduction (vph)	Ö	9	0	0	22	0	0	9	Ó	0	50	0
Lane Group Flow (vph)	270	733-	0-	55	591	0	124	405	0	310	863	. 0
Heavy Vehicles (%)	8%	8%	8%	8%	8%	8%	6%	6%	6%	6%	6%	6%
Turn Type	pm+pt			pm+pt	-7. Tyr		pm+pt			pm+pt		
Protected Phases	· 1	6		5	2		7	4		3	8	
Permitted Phases	6			2			4	+ ,		8		٠,
Actuated Green, G (s)	53.4	41.2	,	36.9	30.4		43.1	33.7		57.0	41.9	
Effective Green, g (s)	55.9	43.7	表的特别	41.1	32.9		46.8	35.7		59.0	43.9	•
Actuated g/C Ratio	0.45	0.36		0.33	0.27		0.38	0.29		0.48	0.36	
Clearance Time (s)	5.7	6.5		√-5.7	6.5		5.7	6.0		5.7	6.0	\$4
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	352	1128		241	835		235	941	-	461	1116	
v/s Ratio Prot	c0.12	0.23		0.02	0.19		0.05	0.13		c0.11	c0.28	
v/s Ratio Perm	c0.23	$(x,y,y)_{i\in I}$		0.06	r Ewile -		0.15			0.22	100	12.4
v/c Ratio	0.77	0.65		0.23	0.71		0.53	0.43		0.67	0.77	
Uniform Delay, d1	24.4	33.2		28.4	40.7		26.9	35.4		21.3	35.1	-
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	9.6	1.3		0.5	2.8		2.1	0.3		3.8	3.4	
Delay (s)	34.0	34.5		28.9	43.4		29.0	35.7		25.2	38.5	
Level of Service	С	C		C	D		, <b>C</b> ,	D		С	D	
Approach Delay (s)		34.4			42.2			34.2			35.1	
Approach LOS		C			D.	100	- Jan 7	С		1-1	D	4-1
melsesion Summary												
HCM Average Control L		ATOM STATE	36.1			vel of S			D		A TANK	11000000
HCM Volume to Capaci			0.74	en William Pa	,,, <b>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</b>	. O. O.	J. V.100				1 1 4 B	
Actuated Cycle Length			122.9		Sum of I	ost time	(s)		8.0			
Intersection Capacity Ut		i Siles	71.6%			el of Sei			C			
Analysis Period (min)			15									
c Critical Lane Group			,								•	

	•	<b>→</b>	•	1	+	•	1	<b>†</b>	<b>*</b>	<b>\</b>	1	1
McVemensals	s yeBL	& EBITO	16BH	WBB	.W.B.T.	aWalin	an Bu	(NET)	N. BRIS	nselk	SBR	SBA
Lane Configurations	ሻ	ĵ.		ሻ	1>		ኘ	<b>†</b> \$		7	<b>†</b> }	
ldeal Flow (vphpl)	1850	1850	1850	1850	1850	1.850	1850		1850	1850	1850	1850
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1:00	en interpre Carl	1.00	1.00	M. Johns	1.00	0.95		1.00	0.95	•.
Frt	1.00	0.85		1.00	0.88		1.00	1.00		1.00	1.00	
Fit Protected	0.95	1.00	34	0.95	1.00	<b>对国际</b> 国	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1723	1542		1723	1604		1723	3313		1723	3306	
Fit Permitted	0.95	1.00	edi, e.	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1723	1542		1723	1604		1723	3313		1723	3306	
Volume (vph)	29	0	27	3		3	16	617	6	- 5	1021	29
Peak-hour factor, PHF	0.86	0.86	0.86	0.31	0.31	0.31	0.83	0.83	0.83	0.92	0.92	0.92
Adj. Flow (Vph)	34	0	. 31	10	3	10	19	743	7	5	1110	32
RTOR Reduction (vph)	0	28	0	0	10	0	Ó	Ö	Ö	0	1	0
Lane Group Flow (vph)	34	3	0	10	3	0	19	750	0	5	1141	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	6%	2%	2%	6%	2%
Turn Type	Prot	a ji ka da da		Prot	rytania 13	A Street Line 1. Consideration	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4 %		3 1 1 E 3 8	ga Milli		$+ \cdots + \tau, \cdots$				
Actuated Green, G (s)	5.0	5.5		1,1	1.5	•	1.3	60.3		1.1	59.8	
Effective Green, g (s)	7.2	8.2	. 4 . 1	3.3	4.3		3.2	62.2	tall the	3.0	62.0	
Actuated g/C Ratio	0.08	0.09		0.04	0.05		0.03	0.67		0.03	0.67	
Clearance Time (s)	6.2	6.7	. 1 . 1	6.2	6.8		5.9	5.9	. 1 -	5.9	6.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	134	136		61	74		59	2223		56	2211	
v/s Ratio Prot	c0.02	c0.00		0.01	c0.00		c0.01	0.23		0.00	c0.35	
v/s Ratio Perm	7 - 2 - 2 - 2						14	11.19 <i>1</i> 7.13 11.191.13		$\mathcal{A}^{\star} = \mathcal{A}_{\chi}$		
v/c Ratio	0.25	0.02		0.16	0.05		0.32	0.34		0.09	0.52	
Uniform Delay, d1	40.2	38.6		43.4	42.2		43.7	6.5		43.5	7.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.0	0.1	- 1	1.3	0.3	·	3.2	0.1		0.7	0.2	
Delay (s)	41.2	38.6		44.6	42.5		46.8	6.6		44.2	8.0	
Level of Service	D.	- D		D	D		D	A.		D	A	
Approach Delay (s)		40.0			43.4			7.6			8.1	
Approach LOS	era (faza)	D	e grande de		<b>D</b>	Š.	4. 智慧的	Α.			Α .	
mesecon Surmay												
HCM Average Control L			9.4	L.	ICM L	vel of S	anvica		A A		COMPANIE OF	BESTED HEE
HCM Volume to Capaci		1 2 2 2	0.47		ICINI IEG	vei oi oi	SI VICE	Mark Articles	<b>-</b>	11. 4. 7		
Actuated Cycle Length (			92.7		Sum of 1	ost time	Ñ\	Asi da	20.0	: .		
Intersection Capacity Ut			44.9%			el of Se			20.0 A			
Analysis Period (min)	mzalivn		15	ľ	OO Lev	01 01 001	VICE		^			
c Critical Lane Group		•	-, 10	•			•	₹				
Cinical Lane Gloup												

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Wovenedeasy // Few EBN / CBB ESWED WEREX SEC	CSBR-	
Lane Configurations †† †\$	7	
Sign Control Free Free Stop		
Grade 0% 0% 0%	4-6	and the state of the tree and the second of
Volume (veh/h) 0 900 613 150 0	150 0.92	
Peak Hour Factor 0.92 0.92 0.92 0.92 0.92 Hourly flow rate (vph) 0 978 666 163 0	163	
Pedestrians	100	
Lane Width (ft)		
Walking Speed (ft/s)		
Percent Blockage		
Right turn flare (veh)		
Median type None		
Median storage veh)		Andrew State (1997)
Upstream signal (ft) pX, platoon unblocked		
vC, conflicting volume 829 1237	415	in the form of the second three
vC1, stage 1 conf vol	110	
vC2, stage 2 conf vol		
vCu, unblocked vol 829 1237	415	
tC, single (s) 4.1 6.8	6.9	
tC, 2 stage (s)	1 4 4	and the second of the second o
(F (s) 2.2 3.5	3.3	
p0 queue free % 100 100 cM capacity (veh/h) 798 168	72 587	s and the control of the second transfer of the control of the con
Constructive and was seen and the contraction powers and the contraction of the contracti	JU/	AND AND CONTRACTOR OF THE PROPERTY OF THE PROP
DREGIGATION AND THE BEST BEST WINDS WINDS SEELIN		
Volume Total 489 489 444 385 163		
Volume Left 0 0 0 0 0 0 Volume Right 0 0 0 0 163 163		to the first of the control of the c
Volume Right 0 0 0 163 163 cSH 1700 1700 1700 587		
Volume to Capacity 0.29 0.29 0.26 0.23 0.28		
Queue Length 95th (ft) 0 0 0 0 28		
Control Delay (s) 0.0 0.0 0.0 13.5	**	
Lane LOS B		
Approach Delay (s) 0.0 0.0 13.5		
Approach LOS B		
nietsectioniscummagy a des activités de la		
Average Delay 1.1		
Intersection Capacity Utilization 38.5% ICU Leve	el of Ser	vice in the A topic Application
Analysis Period (min) 15		

Traffic Impact Analysis

**APPENDIX F** 

ITE TRIP GENERATION RATE

# **Residential Condominium/Townhouse**

(230)

Average Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,

> Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.

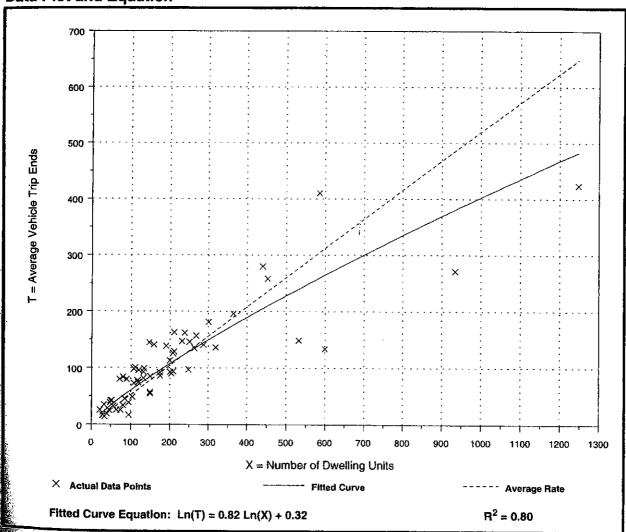
Number of Studies: 62 Avg. Number of Dwelling Units: 205

Directional Distribution: 67% entering, 33% exiting

# **Trip Generation per Dwelling Unit**

 	<u> </u>	
 Average Rate	Range of Rates	Standard Deviation
0.52	0.18 - 1.24	0.75

# **Data Plot and Equation**



Richport	Condom	iniums

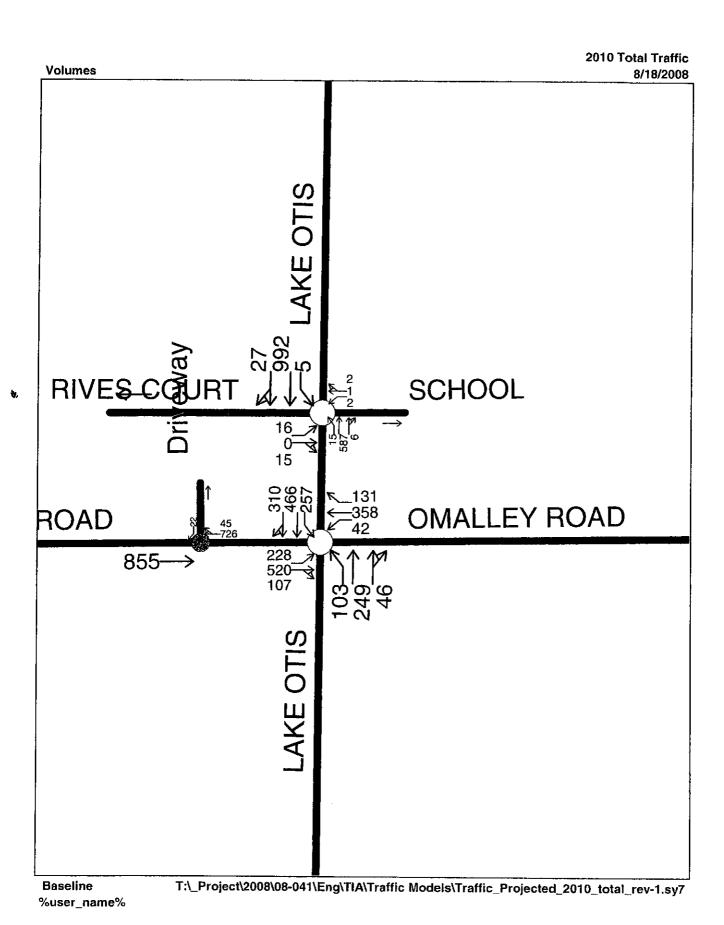
Traffic Impact Analysis

**APPENDIX G** 

TOTAL TRAFFIC LEVEL OF SERVICE ANALYSIS WORKSHEETS

2010 Total Traffic Level Of Service Analysis Worksheets

1



1.77

	*	<b>-</b>	•	<b>*</b>	◄	•	4	<b>†</b>	<i>&gt;</i>	<b>\</b>	<b>↓</b>	1
Movemental and a season	E EBO	A REIL	e Pie		dwei i		NE NE	WNS TO	Men.		e e la compa	e gen
Lane Configurations	7	<b>,</b>		<u> </u>	<u>†</u>	- The Control of the	**************************************	<u> </u>		ሻ	<b>ት</b> ጉ	ACCOUNT OF
Ideal Flow (vphpl)	1850		71850	1850	1850	1850			1850		1850	1850
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	481 B.785	4.0	4.0	*****
Lane Util. Factor	1.00	1.00	Agenta.	1.00	1.00	1.00	1.00	0.95			0.95	35-5
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.98	**	1.00	0.94	
Fit Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	vi <sub>s</sub> , kod	0.95	1.00	
Satd. Flow (prot)	1627	1669		1627	1713	1456	1658	3239		1658	3118	
FIt Permitted	0.27	24.		0.15	1.00	1.00	0.13	1.00		0.28	1.00	:
Satd. Flow (perm)	464	1669		255	1713	1456	226	3239	•	496	3118	
Volume (vph)	228	520	107	42	358	131	103	249	46	257	466	310
Peak-hour factor, PHF	0.89	0.89	0.89	0.82	0.82	0.82	0.75	0.75	0.75	0.87	0.87	0.87
Adj: Flow (vph)	256	584	120	51	437	160	137	332	61	295	536	356
RTOR Reduction (vph)	0	4	0	0	0	53	0	7	0	0	51	0
Lane Group Flow (vph)	256	700	0	51	437	107			0	295	841	0
Heavy Vehicles (%)	8%	8%	8%	8%	8%	8%	6%	6%	6%	6%	6%	6%
Turn Type	pm+pt		100	pm+pt	(1985年) (1987年)	Perm	pm+pt		7.7	pm+pt		
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6			2		2	4			8		
Actuated Green, G (s)	80.8	68.4		63.9	57.2	57.2	43.6	28.9		59.4	39.0	
Effective Green, g (s)	83.3	70.9		68.1	59.7	59.7	47.3	30.9	9-39-39-	61.4	41.0	
Actuated g/C Ratio	0.55	0.46		0.45	0.39	0.39	0.31	0.20		0.40	0.27	
Clearance Time (s)	5.7				⊹6.5	∵.6.5	5.7	6.0		5.7	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	402			189	670	569	224	655		401	837	
v/s Ratio Prot	c0.08	c0.42		0.01	0.26		0.07	0.12		c0.13	c0.27	
v/s Ratio Perm	0.27			0.11		0.07	0.12	5,15 pués :		0.17		
v/c Ratio	0.64	0.90		0.27	0.65	0.19	0.61	0.59		0.74	1.00	
Uniform Delay, d1		37.7		29,1	38.0	30.6	42.0	the state of the state of	Maria da Para	34.4	55.8	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.3	13.9		0.8	2.3	0.2	4.9			6.9	32.2	
Delay (s)	26.1	51.6		29.9	40.3	30.7	46.9	56.5		41.3	88.1	
Level of Service	C	D	-	С	D	. · · · · · · · ·	. D			D	F	
Approach Delay (s)		44.8			37.1	and the state		54.0			76.4	
Approach LOS		D		4.49	D			D			E	
intersection Summary							<b>前是现</b>					
HCM Average Control E	)elav	977 (M. 7)	56.1	5.7% PM 20	CM Lev	el of S	ervice		E			SERWING.
HCM Volume to Capacit			0.91	1. 1. 1. 1. 1. 1.	reas state of the n	Kilimorek perimany	- Argument	1. 1.00	yr a. T <del>err</del> na	e green in	ŕ	
Actuated Cycle Length (		Vive de	152.7	S	um of l	ost time	(s)	Sales Deli	16.0	44.14 · ·		
Intersection Capacity Ut			83.2%		CU Leve				E			
Analysis Period (min)			15			greek P			₩ <i>₫</i> .			
c Critical Lane Group				•								

	<b>*</b>	-	*	*	-	4	4	†	~	-	<b>↓</b>	1
Movements Lagrange					W.E.		MAN PRES		enie ek			<b>200</b>
Lane Configurations	A CONTRACTOR OF THE PARTY OF TH	<b>^</b>		'n	<b>^</b>	- CHARLES	*	<b>†</b> }		era ere esta	ብ <u>ት</u>	
Ideal Flow (vphpl)	1850	1850	1850	1850		1850	1850	1850	1850	1850		1850
Total Lost time (s)	4.0	4.0		4.0	4.0	.000	4.0	4.0	1000	4.0	4.0	Zali <b>noo</b>
Lane Util Factor	1.00	1.00			1.00	1887	1.00	0.95	er jarregi	1.00		gara ka
Frt	1.00	0.85	77.	1.00	0.90		1.00	1.00		1.00	1.00	
Fit Protected	0.95	1.00		0.95	1.00		0.95	1.00	. Langt	0.95	1.00	is Inc
Satd. Flow (prot)	1723	1542		1723	1632		1723	3312		1658	3306	
Fit Permitted	0.95	1.00	4.43 1.	0.95	1.00		0.95	1.00	in in the pro-	0.95	1.00	e jar
Satd. Flow (perm)	1723	1542		1723	1632		1723	3312		1658	3306	
Volume (vph)	16	0	15	2	1	2		587	6		992	27
Peak-hour factor, PHF	0.86	0.86	0.86	0.31	0.31	0.31	0.83	0.83	0.83	0.92	0.92	0.92
Adj. Flow (vph)	19	0	17	6	3	6		707	7	5		29
RTOR Reduction (vph)	Ö	16	0	0	6	0	0	0	0	0	1	0
Lane Group Flow (vph)	19	1	0	6	. 3	Ö	18	714	0.	5	1106	ō
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	6%	2%	6%	6%	2%
Turn Type	Prot			Prot	100		Prot	r egyr -		Prot	Salva Extension	
Protected Phases	7	4		3	8		5	2		1	6	-
Permitted Phases			+ 1				: *		*. *			
Actuated Green, G (s)	1.4	2.0		1.1	1.6		1.3	65.3		1.1	64.8	
Effective Green, g (s)	3.6	4.7		3.3	4.4		3.2	67.2		3.0		Line ti
Actuated g/C Ratio	0.04	0.05		0.04	0.05		0.03	0.71		0.03	0.71	
Clearance Time (s)	6.2	6.7	•	6.2	6.8		5.9	5.9	Maria de la	5.9	6.2	(v
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	•
Lane Grp Cap (vph)	66	77		60	76		59	2363	- 1	53	2351	
v/s Ratio Prot	c0.01	0.00		0.00	c0.00		c0.01	0.22		0.00	c0.33	
v/s Ratio Perm								en e		1/2/30		r e Na es
v/c Ratio	0.29	0.01		0.10	0.04		0.31	0.30		0.09	0.47	
Uniform Delay, d1	44.1	42.5		44.0	42.9		44.4	4.9	+ 4.	44.3	5.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.4	0.1		0.7	0.2		2.9	0.1	-	0.8	0.1	. •
Delay (s)	46.5	42.6		44.7	43.1		47.3	5.0		45.1	6.1	
Level of Service	D	D		D	D		D.	Α		D	Α	
Approach Delay (s)		44.6			43.8			6.0			6.2	
Approach LOS	din di	D			D		* * * *	Α			Α	
inieskosiosissummayer						a control						
HCM Average Control D		Some Court	7.2		ICM Lev	el of Se	rvice		A			Frankling St. Villa
HCM Volume to Capacit			0.43									
Actuated Cycle Length (		V.	94.2		Sum of lo				16,0	Port of the Control	1 13 1	4v
Intersection Capacity Ut	ilization		44.0%	10	CU Leve	l of Sen	vice		Α			
Trialyold Follow (Intilly	er i e	1	15				-		8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		1.41	
c Critical Lane Group												

5:00 pm Baseline Lounsbury & Associates, Inc.

	•	_	+	•	. \	1					
Movement											
Lane Configurations		*	î		A A SA	# # # # # # # # # # # # # # # # # # #					
Sign Control	43.548	Free			Stop		janianja ja	ASSESSED VENEZ		. 1 4	Control of San
Grade	*******	0%	0%		0%	" 4 1. A 4911"		41.	. '		
Volume (veh/h)	0	2 244 141 4				22	rivi os med	Parket Sec. V			nistika u ša
Peak Hour Factor	0.92	0.92	0.92			0.92		The state of the state of			and the second of the
Hourly flow rate (vph)		929					w	ric estati		1. 1. 1.	.jv
Pedestrians		ा ⊹वदण्ड	া প্রাক্ত	1.00		in a little party.			÷ '		
Lane Width (ft)	1.5	1.1. <u>2.</u> 111.1					must get	the Section		+	. 41-1
Walking Speed (ft/s)					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						- · · · · · · · · · · · · · · · · · · ·
Percent Blockage				44.0			40.0	1.5			4
Right turn flare (veh)					1						
Median type		100		A. 18	None						
Median storage veh)					,						
Upstream signal (ft)			652	100		egi i					
pX, platoon unblocked	0.75				0.75	0.75					
vC, conflicting volume	838		٠., .	1 1	1743	814	to the				
vC1, stage 1 conf vol				•	, ; . ; . ; .	7 ***					
vC2, stage 2 conf vol	1.14		· .	San San San		1 (1)	1.11	1.0			
vCu, unblocked vol	784				1992	751					
tC, single (s)	4.1				6.4	6.2	a tarati	3 2 C			
tC, 2 stage (s)											
tF (s)	2.2				3,5	3.3	1. 15.50	u Prosent		4.4	1 - 1 - 1 - 1
p0 queue free %	100				100	92					•
cM capacity (veh/h)	625	man, ta	Same		50	308				4.4	The state of
Digelonglane + : * * *		WBHI		6/24/2							DATE OF THE PARTY
Volume Total	929	(1.50) target (1.50)									
Volume Left	0	0	0	or in the state of	Kaban III	***	65 (175 A)				
Volume Right	· ŏ	. 49	24	a Assa	Barrier Barre	100					
cSH	1700	1700	308								
Volume to Capacity	0.55	0.49	0.08	grady et	11, 44.45						
Queue Length 95th (ft)	0	0	6								
Control Delay (s)	0.0	0.0	17.7					400			
Lane LOS			С		7 fs (1) f		•	•			
Approach Delay (s)	0.0	0.0	17.7	NASS.	1.4%SE						
Approach LOS			Ċ		• 1						
increedorsummer/											THE PARTY OF MANAGEMENT
and the second s											
Average Delay	imoti = =		0.2		കവർ ഒര	in ra	* at				
Intersection Capacity Util	ization.		52.0%		CU Leve	rot Sen	vice	*11 A 14	Α		ty d
Analysis Period (min)			15		e english in San						
•				e trought		:	* ***			-	

2020 Total Traffic Level Of Service Analysis Worksheets

Baseline T:\\_Project\2008\08-041\Eng\TIA\Traffic Models\Traffic\_Projected\_2020\_Total-Traffic\_rev-1.sy7 %user\_name%

	<b>*</b>		*	•	+	4	4	<b>†</b>	<u> </u>	<b>\</b>		1
Vovementus											v Morateuro	
Lane Configurations	ነ	<b>ተ</b> ጉ		*	**************************************	a second	STANISTA TO THE STANIST OF THE STANI		WIND D			
Ideal Flow (vphpl)	1850	1850	1850	1850		1000	า 1850	<b>ተ</b> ሴ 1850	* 4000	<b>ግ</b> ማሪ <b>ያ ሕንተ</b> ልናሪ	44	** f 4:A = A
Total Lost time (s)	4.0	4.0	1.000	4.0	4.0	, coo	1650 4.0	4.0	1000	1850		1850
Lane Util. Factor	1.00	0.95	gavillen ja	1.00	0,95	os tellijas	1,00		Sanga on Sie Aage	4.0 1.00	4.0 0.95	1.
Frt	1.00	0.97		1.00	0.96	respectable se	1.00	0.98		1.00	0.94	****
Fit Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.1	0.95	1.00	
Satd. Flow (prot)	1627	3171		1627	3124	Tag a serie a s	1658	3238		1658	3121	
Fit Permitted	0.18	1.00	nas. Birta da sa	0.30	1.00		0.12	1.00	100	0.36	1.00	
Satd. Flow (perm)	314	3171		521	3124	di in in ser	216	3238	1.5	628	3121	
Volume (vph)	264	547	113	45	377	138		262	49	272	497	321
Peak-hour factor, PHF	0.89	0.89	0.89	0.82	0.82	0.82	0.75	0.75	0.75	0.87	0.87	0.87
Adj. Flow (vph)	297	615		55	460		145	349	65	313	571	369
RTOR Reduction (vph)	0	9	0	0	21	0	0	8	0	0	56	. 0
Lane Group Flow (vph)	297	733	. 0	55	607		145	406	ŏ	313	884	-0
Heavy Vehicles (%)	8%	8%	8%	8%	8%	8%	6%	6%	6%	6%	6%	6%
Turn Type	pm+pt	·		pm+pt	7 E 7	2.7	pm+pt		<del>ar Tirir</del>	pm+pt		- 0.70
Protected Phases	1	6		5	2		7	4	: :	3	8	
Permitted Phases	6			2		25.54	4	医甲状腺		8	8 1 4	
Actuated Green, G (s)	57.6	45.3		39.0	32.4		49.9	37.2		60.9	42.7	
Effective Green, g (s)	60.1	47.8	. *	43.2	34.9		53.6	39.2	e, i e	63.1	44.7	
Actuated g/C Ratio	0.46	0.36		0.33	0.27		0.41	0.30		0.48	0.34	
Clearance Time (s)	5.7	6.5	:	5.7	6.5	14 / 14	5.7	6.0	ţ	5.7	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	356	1155		242	831		247	967		458	1063	
v/s Ratio Prot	c0.13	0.23		0.01	0.19		0.06	0.13			c0.28	
v/s Ratio Perm	c0.25			0.06	$< \langle \psi_{ij}^{(i)}, \psi_{ij}^{(j)} \rangle,$	Marie A. A.	0.18			0.22		
v/c Ratio	0.83	0.63		0.23	0.73		0.59	0.42		0.68	0.83	
Uniform Delay, d1	26.6	34.5		30.7	43.9	r Harry	28.0	36.9	, 1841. s	22.7	39.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	15.4	1.2		0.5	3.3		3.5		6 <u>5 1</u> 2 1	4.2	5.7	
Delay (s)	42.0	35.6		31.2	47.2		31.5	37.2		26.9	45.5	
Level of Service	D	D	٠	С	D		·C	D	412	С	D	
Approach Delay (s)		37.5			45.9			35.7			40.8	
Approach LOS		D	*	jak ku	<b>D</b>		Ye lel			$\mathbb{P}_{\mathcal{F}_{q}}^{2} = \mathbb{Q}$	D	÷
intelection Suitments		688711										
HCM Average Control D			40.0	KKKX H	CM Lev	el of Se	rvice	Marie Constitution	Ъ			Bernsein's
HCM Volume to Capacit	,		0.79				an mendili ili.	, et et fie	· · · · <del>· ·</del> ·		•	
Actuated Cycle Length (			131.2	s	um of k	st time	(s)		8.0	No. 1		
Intersection Capacity Ut	ilization	7	4.5%			l of Ser		7 1	D			
Analysis Period (min)	•		15	÷					•			
c Critical Lane Group												

	<b>≯</b>		•	1	♣—	•	4	<b>†</b>	~	-	<b>↓</b>	1
Movement as a retar	经国际		E BR		<b>XWBT</b>	Were	NRE	NBIE			SSRT	e spr
Lane Configurations	ሻ	ĵ.	and the state of t	ኣ	<b>ĵ</b> >	Paleston our activities	7	<b>ተ</b> ኑ	Sin Sarakesia	*	<b>4</b> 1	
Ideal Flow (vphpl)	1850		1850	1850	1850	1850	1850		1850	1850		1850
Total Lost time (s)	4.0	4.0	and the species of the	4.0	4.0		4.0	4.0	al desperation for	4.0	4.0	1,040
Lane Util Factor	1.00	1.00	<b>黎</b> 斯巴巴	1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.85		1.00	0.88		1.00	1.00	. 1969 W. Tell	1.00	0.99	
Fit Protected	0.95	1,00		0.95	1.00		0.95	1.00		0.95	1.00	(realed)
Satd. Flow (prot)	1723	1542		1723	1604		1723	3313	a an Shettern tre	1723	3303	ie Syen.
Fit Permitted	0.95	1,00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1723	1542		1723	1604	•	1723	3313	r to the	1723	3303	
Volume (vph)	42	0	37	3	## # <b>1</b>	3	40	617	6	5	1021	37
Peak-hour factor, PHF	0.86	0.86	0.86	0.31	0.31	0.31	0.83	0.83	0.83	0.92	0.92	0.92
Adj, Flow (yph)	49	Q.	43	10	<b>3</b>	10.	48	743	7	5	1110	40
RTOR Reduction (vph)	Ö	38	0	0	10	0	0	0	0	0	1	0
Lane Group Flow (vph)	49		0	10	. 3	0	48	750	0	- 5	1149	Ō
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	6%	2%	2%	6%	2%
Turn Type	Prot	WW.		Prot	(M. 77) 2 (3) 1 2 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		Prot			Prot		The state of
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			X				100	1000000				3 3 4 5 E
Actuated Green, G (s)	7.0	7.5		1.1	1.5		5.6	63.0		1.0	58.1	
Effective Green, g (s)	9.2	10.2		3.3	4.3	2.1	7.5	64.9	had siy	2,9	60.3	34. J. B
Actuated g/C Ratio	0.09	0.10		0.03	0.04		0.08	0.67		0.03	0.62	
Clearance Time (s)	6.2	6.7		6.2	∍ 6.8		5.9	5.9		5.9	6.2	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	163*	162		58	71		133	2210		51	2047	
	c0.03	0.00		0.01	c0.00		c0.03	0.23		0.00	c0.35	
v/s Ratio Perm					67.43°				4.3			
v/c Ratio	0.30	0.03		0.17	0.05		0.36	0.34		0.10	0.56	
Uniform Delay, d1	41.1	39.1		45.7	44.5		42.6	1 1 1 1 1 1		45.9	10.8	Elifare a
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.0	0.1	Marin Sir	1.4	0.3		1.7	0.1		0.8	0.4	4. 11
Delay (s)	42.1	39.2		47.1	44.8		44.3	7.1		46.8	11.1	
Level of Service	D	D		D	D		D	Α	ATT D	D	В	100
Approach Delay (s)	. 1911 - FALSE	40.7	y , 6-,		45.8 D			9.3			11.3	
Approach LOS											- B-	

intersection is trained by	
HCM Average Control Delay	12:2 HCM Level of Service B
HCM Volume to Capacity ratio	0.49
Actuated Cycle Length (s)	97.3 Sum of lost time (s)
Intersection Capacity Utilization 49	.9% ICU Level of Service A
Analysis Period (min)	
c Critical Lane Group	

<i>J</i> →	- 4 4 4
Mevenian (2007) ESPA ESPA	
Lane Configurations **	<b>†</b> }
Sign Control Free	Free Stop
Grade 0%	0% 0%
Volume (veh/h) 0 924	621 162 0 154
Peak Hour Factor 0.92 0.92	0.92 0.92 0.92 0.92
Hourly flow rate (vph) 0 1004	675 176 0 167
Pedestrians	
Lane Width (ft)	
Walking Speed (ft/s)	
Percent Blockage	
Right turn flare (veh)	
Median type	None None
Median storage veh) Upstream signal (ft)	en gût weweyente in the group groet the
pX, platoon unblocked	
vC, conflicting volume 851	1265 426
vC1, stage 1 conf vol	1203 420
vC2, stage 2 conf vol	
vCu, unblocked vol 851	1265 426
tC, single (s) 4.1	
tC, 2 stage (s)	
tF (s) 2.2	
p0 queue free % 100	100 71
cM capacity (veh/h) 783	577 577 5 577 5 5 5 5 5 5 5 5 5 5 5 5 5
Direction Lane was at legal server	WER WEAR EST
Principle April 19 (1901) The feature of the contract of the c	450 401 167
Volume Left 0 0	0 0 0
Volume Right 0 0	0 1176 167
cSH 1700 1700	1700 1700 577
Volume to Capacity 0.30 0.30	0.26 0.24 0.29
Queue Length 95th (ft) 0 0	0 0 30
Control Delay (s) 0.0 0.0	0.0 0.0 13.8
Lane LOS	В
Approach Delay (s) 0.0	<b>0.0</b> ; et a <b>k</b> urjut <b>13:8</b> ; et r
Approach LOS	В
niercecloreSummarv.	
Average Delay	1.1
ing the contract of the contra	39.4% ICU Level of Service A
Analysis Period (min)	15
,,	

•	→ ←	\ \ \	
Movement : State			
Lane Configurations	44 <b>4</b> 7	۲	
Sign Control Grade	Free Free	Stop	中国的自由国际的基础设施的
Volume (veh/h) 0	0% 0% 924 775 32	0% 0 8	
Peak Hour Factor 0.92	0.92 0.92 0.92		
	1004 842 35		
Pedestrians	Service and the Medical Control of		
Lane Width (ft) Walking Speed (ft/s)			
Percent Blockage	Contract to the contract of	en e	
Right turn flare (veh)			and the state of t
Median type		None	
Median storage veh)			
Upstream signal (ft) pX, platoon unblocked 0.91	602	0.91 0.91	· · · · · · · · · · · · · · · · · · ·
vC, conflicting volume 877		1362 439	1
νC1, stage 1 conf vol			
νC2, stage 2 conf vol	4		
vCu, unblocked vol 764 tC, single (s) 4.1		1298 282 6.8 6.9	The state of the s
tC, 2 stage (s)	e. f	6.8 6.9	[4] [1] [1] [1] [2] [2] [2] [2] [2] [2] [3] [3] [4] [4] [4] [4] [4] [4] [4] [4] [4] [4
tF (s) 2.2		3.5 3.3	
p0 queue free % 100		100 99	The second of th
cM capacity (veh/h) 767-		139 650	
Diecen Lase de Marie Esqu	EBZ:WEIGWE	8881	
Volume Total 502	502 562 316	9	
Volume Left 0 Volume Right 0	0 0 0	0 9	. The second section of the production
cSH 1700	1700 1700 1700	650	
Volume to Capacity 0.30	0.30 0.33 0.19	0.01	
Queue Length 95th (ft) 0	0 0 0	1	
Control Delay (s) 0.0 Lane LOS	0.0 0.0 0.0	10.6	
Approach Delay (s) 0.0	0.0	B 10.6	The Control of the Co
Approach LOS		В	
in cisearan Summersy (* 37.55)			
Average Delay	0.0		
Intersection Capacity Utilization		CU Level of Service	A CONTRACTOR OF A CONTRACTOR O
Intersection Capacity Utilization Analysis Period (min)		CU Level of Service	A TOTAL OF A TOTAL AND A STREET



### POSTING

## AFFIDAVIT



### AFFIDAVIT OF POSTING

111 Cal.

7(1300
CASE NUMBER: 7007-677
I, hereby certify that I have posted a Notice of Public Hearing as prescribed by Anchorage Municipal Code 21.15.005 on the property that I have petitioned for Plating in The notice was posted on 11-1-00, which is at least 21 days prior to the public hearing on this petition. I acknowledge this Notice(s) must be posted in plain sight and displayed until all public hearings have been completed.
Affirmed and signed this 6 day of, 2008  Signature
LEGAL DESCRIPTION
Tractor Lot B-1 & B-2

Block

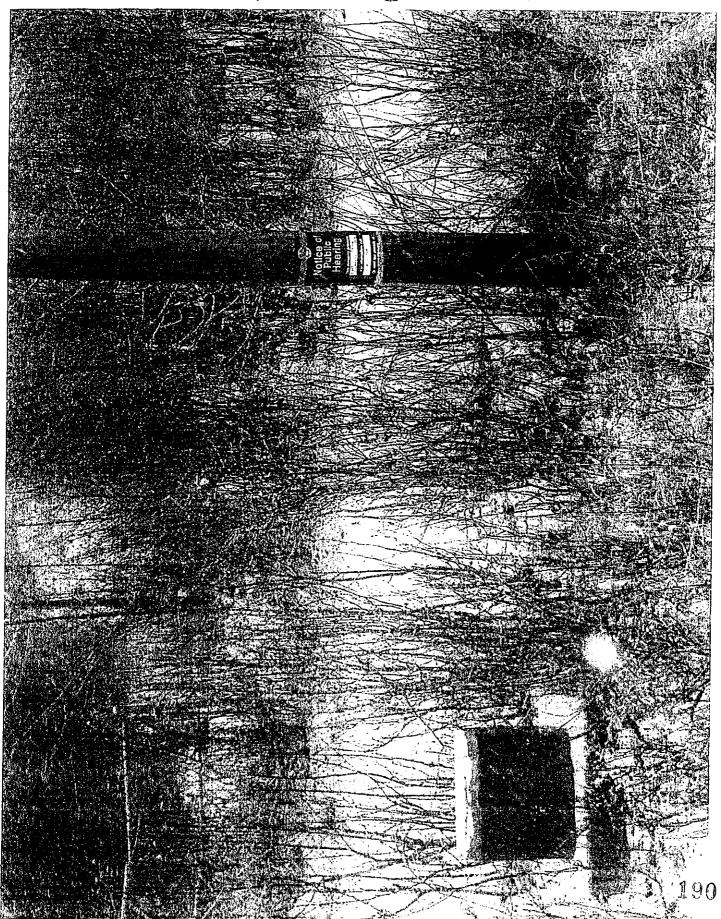
Subdivision ( 24)

th Document3

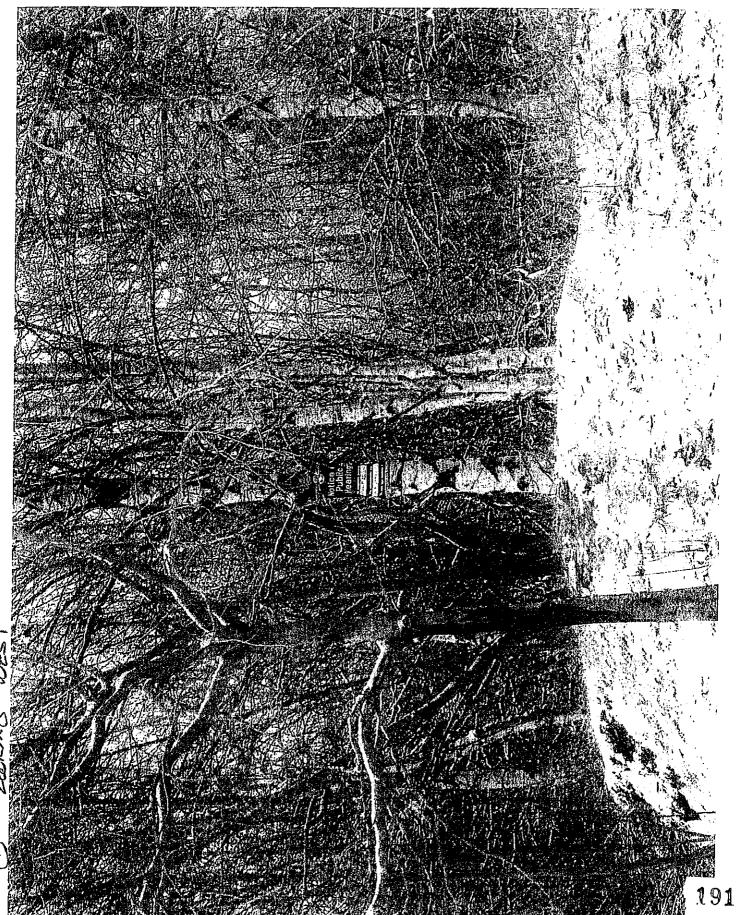
YEUNANICO DU HI

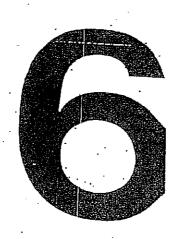
189

### DUALUS (UI) FORMIANCE



LOOKING MORTH





# HISTORICAL

# INFORMATION

# MUNICIPALITY OF ANCHORAGE D.5.a./5.b. MEMORANDUM

DATE:

November 19, 2008

TO:

Planning and Zoning Commission

THRU:

Jerry T. Weaver, Jr., Zoning Division Administrator

FROM:

Angela C. Chambers, AICP, Senior Planner

SUBJECT:

2008-077-2 and S-11586-2 Green Subdivision

Postponement Request

This memorandum is to advise the Commission that the Department requests a postponement of the public hearing for related Cases 2008-077-2 and S-11586-2. If approved by the Commission, the case will be rescheduled for January 5, 2009.

#### Chambers, Angela C.

From: Tony Hoffman [tonyhoffman@lantechi.com]

Sent: Tuesday, November 18, 2008 5:23 PM

To: Weaver Jr., Jerry T.

Cc: Chambers, Angela C.; O'Brien, Margaret R.; Harold W. Green; Dave Grenier

Subject: Richport (2007-077 and S-11586) Case Delay

#### Jerry,

As I told Angela earlier, we have no problem delaying the Richport hearing until the January 5<sup>th</sup> Planning and Zoning Hearing. We understand this delay will help the Municipality Planners resolve some of the timing and construction issues for Independence Park Drive, which will help us all. Also, we understand that there will be no delay fees or penalties to the developer for this delay of a month.

Thanks, and please don't hesitate to contact me if you have questions or need additional information regarding this case.

Tony Hoffman PLS Lantech Inc 907-770-9206 Office 907-317-7724 Cell 907-561-6626 Fax W

2008-066706-0

Recording Dist: 301 - Anchorage 12/8/2008 2:04 PM Pages: 1 of 1



#### STATUTORY WARRANTY DEED

A S

Κ

The Grantor, Fern Alaska, Inc. of 8680 Commodity Circle #200-B, Orlando, Florida 32819, for and in consideration of the sum of Ten Dollars and other good, valuable, and adequate consideration, in hand paid, Conveys and Warrants to Harold Green whose address is P. O. Box 111312, Anchorage, Alaska 99511, the following described real estate:

The North 240 feet of the South 570 feet of the West 150 feet of the East 600 feet of Section 17, Township 12 North, Range 3 West, Seward Meridian, in the records of the Anchorage Recording District, Third Judicial District, State of Alaska

STATE OF ALASKA THIRD JUDICIAL DISTRICT	) ) ss.	FERN ALASKA, INC. A Delaware/Corporation, Grantor  By: 12/8/08  Harola Green, its Pres. Date
THIS IS TO CERTIFY the		day of December, 2008, before the

THIS IS TO CERTIFY that on this 240 day of December, 2008, before the undersigned, a Notary Public in and for the State of Alaska, duly commissioned and sworn, personally appeared Harold Green, to me known to be the President of Fern Alaska, Inc., and he executed the above and foregoing instrument on behalf of Fern Alaska, Inc., and acknowledged to me said instrument is the free and voluntary act and deed of Advanced Advisors, Inc., for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I set my hand and official seal on the date above first written.

Return To: Harold Green P. O. Box 111312 Anchorage, AK 99511

Notary Public in and for Alaska
My Commission Expires: 10/43/22/1

Content ID: 007497

Type: Ordinance - AO

AN ORDINANCE OF THE ANCHORAGE ASSEMBLY AMENDING THE ZONING MAP AND PROVIDING FOR THE REZONING OF APPROXIMATELY 13.8 ACRES FROM R-1A (SINGLE FAMILY RESIDENTIAL DISTRICT) TO R-4 St. (MULTIPLE-FAMILY RESIDENTIAL DISTRICT WITH SPECIAL LIMITATIONS) FOR TRACTS B-1 AND B-2, GREEN SUBDIVISION, AN UNSUBDIVIDED PARCEL KNOWN AS THE SOUTH 80 FEET

Title: OF THE NORTH 320 FEET OF THE SOUTH 570 FEET OF THE WEST 150 FEET OF THE EAST 600 FEET, AND AN UNSUBDIVIDED PARCEL KNOWN AS NORTH 240 FEET OF SOUTH 570 FEET OF THE WEST 150 FEET OF THE EAST 600 FEET, IN T12N, R3W, SECTION 17, S.M. AK, GENERALLY LOCATED ON THE NORTH SIDE OF O'MALLEY ROAD, BETWEEN LAKE OTIS PARKWAY AND INDEPENDENCE DRIVE. (Abbott Loop

Community Council) (Planning and Zoning Commission Case 2007-077-2)

Author: weaverit

Initiating Planning

Dept:

Date 3/4/09 2:53 PM

Prepared:

Director Name: Tom Nelson

**Assembly** 

**Meeting 3/24/09** 

Date:

**Public** 

Hearing 4/21/09

Date:

Workflow Name	Action Date	Action	<u>User</u>	Security Group	Content ID
Clerk_Admin_SubWorkflow	3/12/09 3:26 PM	Exit	Joy Maglaqui	Public	007497
MuniMgrCoord_SubWorkflow	3/12/09 3:26 PM	Approve	Joy Maglaqui	Public	007497
MuniManager_SubWorkflow	3/12/09 9:43 AM	Approve	Michael Abbott	Public	007497
Legal_SubWorkflow	3/9/09 1:24 PM	Approve	Dean Gates	Public	007497
Finance_SubWorkflow	3/6/09 4:29 PM	Approve	Sharon Weddleton	Public	007497
OMB_SubWorkflow	3/6/09 4:09 PM	Approve	Wanda Phillips	Public	007497
ECD_SubWorkflow	3/5/09 10:27 AM	Approve	Tawny Klebesadel	Public	007497
Planning_SubWorkflow	3/5/09 10:09 AM	Approve	Jerry Weaver Jr.	Public	007497
AllOrdinanceWorkflow	3/5/09 10:09 AM	Checkin	Jerry Weaver Jr.	Public	007497
Planning_SubWorkflow	3/5/09 10:05 AM	Reject	Jerry Weaver Jr.	Public	007497
AllOrdinanceWorkflow	3/5/09 9:53 AM	Checkin	Jerry Weaver Jr.	Public	007497
ECD_SubWorkflow	3/4/09 4:56 PM	Reject	Tawny Klebesadel	Public	007497
Planning_SubWorkflow	3/4/09 3:07 PM	Approve	Jerry Weaver Jr.	Public	007497
AllOrdinanceWorkflow	3/4/09 2:56 PM	Checkin	Jerry Weaver Jr.	Public	007497