

Government Hill Community Traffic Calming Study

DRAFT

Prepared for:

Municipality of Anchorage
Traffic Department
3500 E. Tudor Road
Anchorage, AK 99507

Prepared by:

The Boutet Company
800 E. Dimond Boulevard, Ste. 3-520
Anchorage, AK 99515

April 2003

TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
1.1	Goals and Objectives	1
1.2	Project Area	1
1.3	Project Background	1
1.3	Project Methodology.....	1
2.0	EXISTING CONDITIONS	3
2.1	Streets.....	3
2.2	Land Use	6
2.3	Pedestrian and Trail Facilities.....	6
2.4	Schools	6
2.5	Traffic	6
2.5	Traffic Calming Devices	9
3.0	FUTURE CONDITIONS	10
3.1	Street/Land Use Development.....	10
3.2	Pedestrian and Trail Facilities.....	10
3.3	Schools	10
3.4	Traffic	10
4.0	SHORT-TERM TRAFFIC CALMING RECOMMENDATIONS	10
4.1	Traffic Control Reconfiguration/Clarification	10
4.2	Traffic Calming Devices	14
4.2.1	Additional Speed Humps	14
4.2.2	Crosswalks	14
4.2.3	Speed Hump Removal	14
4.3	Pedestrian and Bicycle Improvements	14
4.4	Additional Recommendations	15
5.0	LONG-TERM RECOMMENDATIONS	15
5.1	Additional Access.....	15
5.2	Reopening of Bluff Road.....	15
5.3	Other Issues and Recommendations	16

LIST OF FIGURES

Figure 1	Location and Vicinity Map.....	2
Figure 2	Existing Eastern Study Area.....	4
Figure 3	Existing Western Study Area	5
Figure 4	Eastern Study Area Zoning	7
Figure 5	Western Study Area Zoning	8
Figure 6	Trails Identified in the Current Trails Plan.....	11
Figure 7	Proposed Short Term Alternatives – Eastern Study Area	12
Figure 8	Proposed Short Term Alternatives – Western Study Area	13
Figure 9	Proposed Long-term Alternatives – Bluff Road Area	16

1.0 INTRODUCTION

1.1 Goals and Objectives

The purpose of this study is to identify areas where problems exist with traffic patterns in the Government Hill area and recommend solutions to resolve those problems. This study examines roadways to determine where there are problems with speeding and cut-through traffic in neighborhoods and recommend improvements to mitigate the identified problems. Pedestrian and other non-motorized uses are also examined as a component of this traffic calming study.

1.2 Project Area

This Government Hill Traffic Calming project is located in the Municipality of Anchorage (MOA), Alaska. Figure 1 shows the project location and a small inset aerial photo of the neighborhood. The study area is contained within the boundaries of the Government Hill Community Council (GHCC). These approximate boundaries are Elmendorf Air Force Base to the north, the eastern edge of the port to the west, the bluff to the south and Kumquat Place to the east. These unusual geographic boundaries have created a fairly isolated transportation system.

The study is primarily limited in scope to the impacts to the neighborhood streets and not the arterial that is located within the project boundary.

1.3 Project Background

Several traffic calming studies have been conducted in residential areas over the last decade, sponsored by the MOA Traffic Department. Upon the successful completion of studies in Mountain View, Airport Heights, Rogers Park and other communities, Government Hill was determined to have a high priority for traffic calming. This study was requested by the GHCC.

During the course of this study, two events occurred that impact the recommendations of the study. The first event occurred when West Bluff Drive was closed to traffic. This closure significantly reduced the cut-through in the neighborhood. The second event was the installation of three permanent speed humps on Harvard Avenue. One speed hump was constructed at a location where a temporary speed hump had resided for two previous summers. The other two humps were an attempt by the Traffic Department to expedite traffic calming in the Government Hill neighborhood.

1.3 Project Methodology

The project team used a methodology slightly different than the previous studies. Because the neighborhood is isolated from most interaction with traffic from the rest of the MOA, public participation was limited to interaction with the GHCC. Input was provided to and obtained from the GHCC on several occasions. The GHCC also formed a subcommittee to work on traffic calming issues.

The study area is bisected by Loop Road, the only roadway classified as an arterial within the study boundaries. The neighborhood and traffic characteristics are

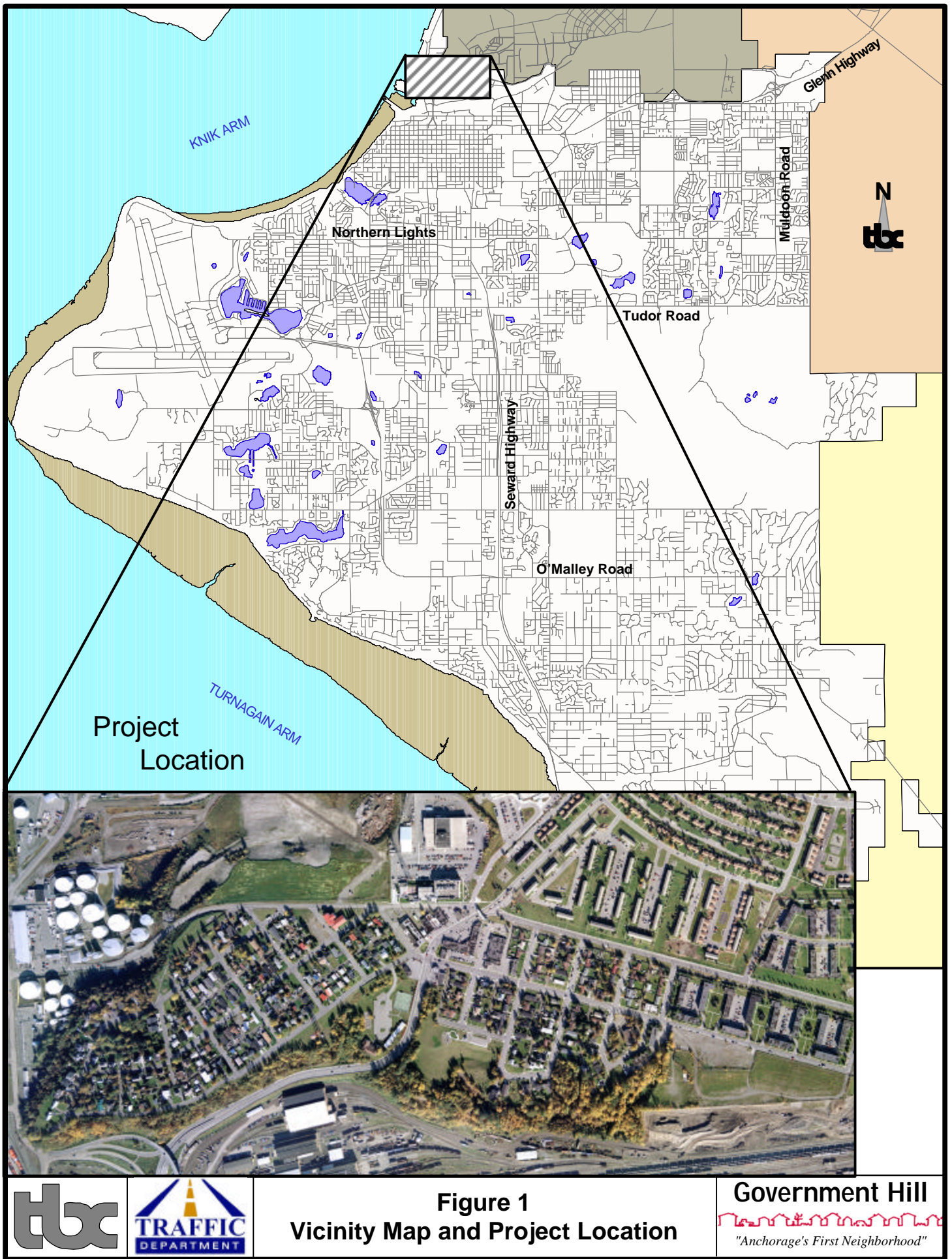


Figure 1
Vicinity Map and Project Location

Government Hill
"Anchorage's First Neighborhood"

different on each side of this road. Because all traffic flow between the neighborhoods is inhibited, the traffic analysis can be broken into two discrete sections. For the purposes of this report, the study area was divided into two sections. The eastern study area is the neighborhood located to the east of Loop Road. The western study area is to the west of Loop Road.

The original scope of the project was limited to obtaining input from the GHCC and carrying forward their recommendations. This approach, however, did not result in a plan that satisfied the GHCC or the MOA, so additional steps were taken.

Traffic counts were taken at four key intersections, two in the eastern portion and two in the western portion of the study area, to determine where the traffic problems are located within the neighborhood.

Anecdotal neighborhood input was combined with the traffic data to determine where traffic calming measures might be appropriate. Pedestrian and non-motorized traffic flows were also examined and recommendations for connections to other facilities are included as part of this study.

2.0 EXISTING CONDITIONS

2.1 Streets

All of the streets are paved, and most have curb and gutter. The single-family houses on both the east and west side primarily take access from alleys located at the midpoint between the streets. All alleys are gravel.

There is on-street parking throughout the project area with a few exceptions. On the western most edge of the study area, Delaney Street, Colwell Street and the westernmost portion of Manor Avenue are extremely narrow and have limited on-street parking. Harvard Avenue also narrows after the intersection with Anderson.

Loop Road is the only roadway in the study area that is classified as an Arterial in the Official Streets and Highways Plan. The remainder of the roadways are classified as residential streets.

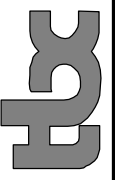
Because of the unusual geography of the neighborhood, some of the streets follow a standard grid pattern but there are several intersections that occur at non-perpendicular angles.

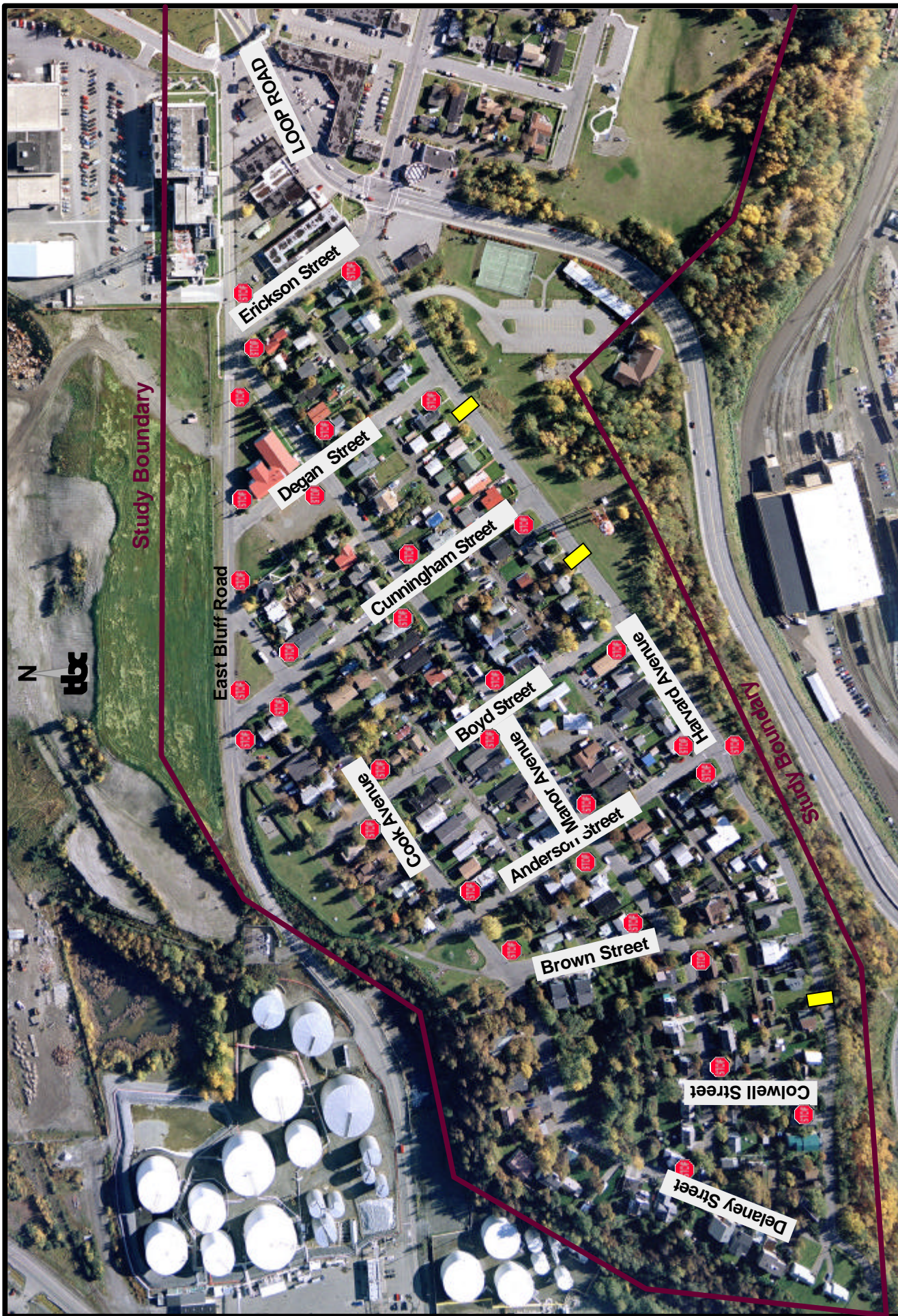
Figure 2 is an aerial photo of the eastern study area. The roadway layout in this study area is primarily a grid pattern with two connecting loops. The two main streets are Bluff Road and Hollywood Drive which are oriented primarily east-west. The intersecting streets are short and all of the Bluff and Hollywood intersections are right-angle intersections. The existing traffic control is also shown in Figure 2.

As shown in Figure 3, there are many intersections in the western study area that do not conform to the standard grid pattern. The road system was developed to maximize access to all of the development in the area. The existing traffic control for this study area is shown in Figure 3. The three permanent speed humps installed in the summer of 2002 are also shown in this figure.



Figure 2
Existing Eastern Study Area





Government Hill
"Anchorage's First Neighborhood"

Figure 3
Existing Western Study Area



2.2 Land Use

The primary two land uses in the study area are residential and parkland. A map of the zoning is shown in Figures 4 and 5. The residential zoning varies from single-family, primarily in the western area, to multi-family, located exclusively in the eastern study area. Many of the houses on the western side are older houses. The majority of the recent development has occurred in the eastern study area. Parks are located in both the east and west study areas and are displayed as green in Figures 4 and 5, respectively.

The commercial zoning is located in the center of the entire study area. It is primarily located on the Loop Road frontage, with the Alascom Telecommunications Facility, a major employment center, situated on Bluff immediately north of Bilbo Street. Government Hill Elementary School is located northeast of Alascom.

2.3 Pedestrian and Trail Facilities

The eastern study area has extensive sidewalk facilities. There is sidewalk on at least one side of all streets in the study area, and on both sides for the majority of these streets. Most of the sidewalks are set back from the curb. While the neighborhood is well connected for pedestrian access and non-motorized traffic, external connections are limited to the sidewalk on Bluff and Hollywood.

The western study area has only one sidewalk, located on Manor between Erickson Street and Degan Street. The on-street parking provides for some pedestrian and non-motorized traffic refuge. There are a couple of trails in the area; one connects off of the north end of Brown and extends to Bluff, the other is located in the park on the southwest corner.

2.4 Schools

Government Hill Elementary School is located in the study area for the project. The entire elementary population within the study area attends Government Hill Elementary. There is also a segment of the school boundary located below the bluff to the southeast of the project area. These students are bused or transported to the school by their parents.

Junior high school students from this area attend Central Junior High School. The area is also served by West High School. School bus service is available to both schools.

2.5 Traffic

The traffic volumes were collected after the closure of Bluff. Because both the eastern and western study areas are essentially limited to a single access at the intersection of Hollywood, Erickson, and Loop Road, only two points were collected in each study area. In the eastern study area, counts were taken on Hollywood and Bluff at Birch Street. In the western study area, counts were taken at Bluff and Harvard at Erickson. The combination of these counts provided a snapshot of the morning and evening peak hours of traffic in both study areas.

Roadway	Peak Hour Volume		Approximate Average Daily Traffic (vehicles per day)
	AM Peak	PM Peak	
Hollywood Drive (east)	221	274	2500
E Bluff Road (east)	105	138	1200
Harvard Avenue (west)	52	85	700
Erickson Street (west)	183	115	1400
E Bluff Road (west)	156	84	1200

The highest volume on the west side is on Erickson between Loop Road and Bluff, primarily due to the business and school traffic using that route. The peak hour of morning traffic occurred between 8:00 am and 9:00 am, which corresponds to the beginning of school. Many vehicles were observed traveling to and from the school during the traffic counts.

On the east side, both Bluff and Hollywood carry high volumes. Given that they are the only two access points for the neighborhood, all of the traffic must use one or the other. These volumes were taken at the closest intersection to Loop Road, so the volumes will drop off significantly as people reach their destinations. While the count on Hollywood is high, it is still within the bounds of what is considered acceptable for a residential street.

Speed counts were taken only on Bluff, between Cedar Street and Dogwood Street. The 85th percentile speed is the industry standard used to compare speeds. It corresponds to the maximum speed at which 85% of the vehicles are traveling and is used rather than an average or a mean to examine traffic speed. The 85th percentile speed eastbound on Bluff was 31 miles per hour. This is a normal 85th percentile road posted at 25 miles per hour in a primarily residential area. The 85th percentile speed for eastbound traffic was 33 miles per hour. This speed is slightly higher than a normal residential street.

2.5 Traffic Calming Devices

As previously discussed, three speed humps were installed on Harvard during the summer of 2002. These humps are located between Degan and Cunningham, Cunningham and Boyd, and Anderson and Colwell, as shown in Figure 3. The GHCC had initially requested that traffic calming devices, in the form of traffic circles, to be installed at the intersections of Cunningham and Boyd with Harvard. Because the MOA had additional funds and was implementing a speed hump program in that summer, they installed humps in the vicinity of the locations where other traffic calming measures were requested. They also installed an additional (third) hump in a location where they had placed temporary speed humps in the past.

3.0 FUTURE CONDITIONS

3.1 *Street/Land Use Development*

There are not many opportunities for the construction of additional roadway facilities or developments of significant impact. There are some opportunities for additional multi-family residential development at the east end of Hollywood. The property to the north of Bluff on the west side is zoned industrial. However, at this time there are no plans for additional development in those areas. If a development in either of those locations is proposed, a traffic analysis should be conducted to determine the impacts of that development. That analysis should include possible traffic calming solutions for changed traffic conditions.

3.2 *Pedestrian and Trail Facilities*

The MOA has adopted a trails plan to identify locations in the future where trails should be constructed. The plan identifies several locations within the study area for future trails. The trails that are currently identified in the plan are shown in Figure 6.

3.3 *Schools*

It is not anticipated that there will be a change to the enrollment boundaries that affect this area.

3.4 *Traffic*

A possible change in the traffic patterns that would have a significant impact on the western study area would be the reopening of Bluff to the west of the neighborhood. Currently Bluff is closed as a port access due to heightened security measures. Reopening Bluff will have two impacts; one positive, one negative.

The positive aspect of reopening Bluff Road is that it would provide an additional emergency access into the western portion of the Government Hill neighborhood. The potential negative impact of reopening the road is that it would provide an alternative route for port traffic to travel through the neighborhood, possibly increasing the cut-through volumes and likely increasing driving speeds on Bluff Road.

4.0 SHORT-TERM TRAFFIC CALMING RECOMMENDATIONS

4.1 *Traffic Control Reconfiguration/Clarification*

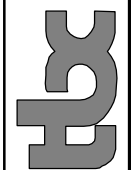
Part of any traffic calming study is to balance the traffic patterns through a neighborhood so that none of the residential streets carry too high of a percentage of the traffic from the neighborhood to the collectors or arterials. So, while stop signs are not typically considered a traffic calming devices, it is important to make sure that the traffic control, through stop signs or other devices, is consistent through the neighborhood.

Several stop sign reconfigurations are included as part of this study. The proposed changes are shown in Figures 7 and 8. Due to the limited sight distance at Delaney and Harvard, the westbound Harvard movement was stopped. Due to the proximity of the intersection, the GHCC requested three-way stop at Colwell and Harvard was not recommended.



Government Hill
"Anchorage's First Neighborhood"

Figure 6
Trails Identified in the Current Trails Plan

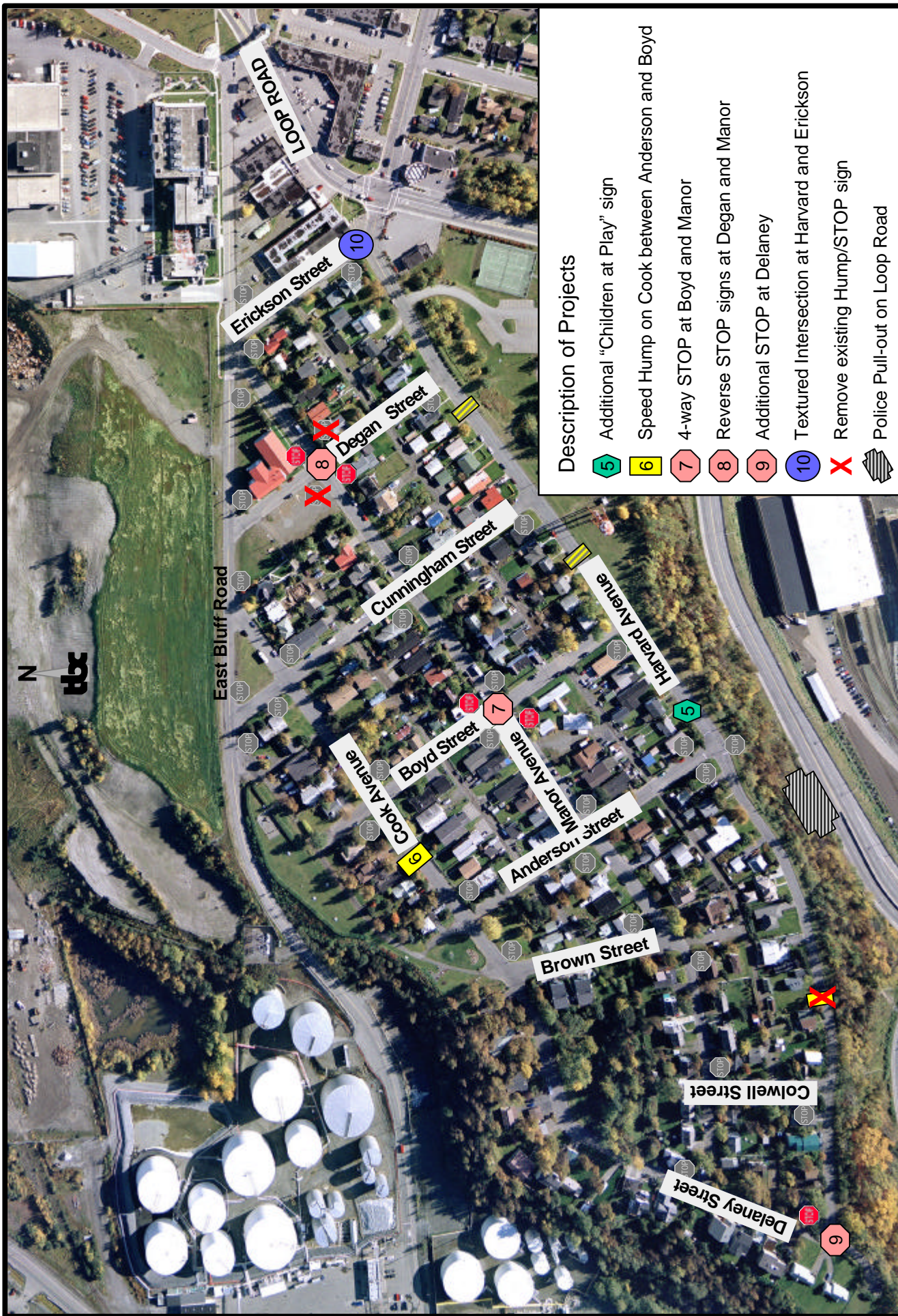












- Description of Projects**
- 1** Additional "Do Not Enter" and "No Left Turn" signs to clarify movements from the alley
 - 2** Speed Hump on Cook between Anderson and Boyd
 - 3** 3-way STOP at Bluff and Cedar
 - 4** 4-way STOP at Hollywood and Dogwood

Figure 7
Proposed Short Term Alternatives – Eastern Study Area





Description of Projects

-  Additional "Children at Play" sign
-  Speed Hump on Cook between Anderson and Boyd
-  4-way STOP at Boyd and Manor
-  Reverse STOP signs at Degan and Manor
-  Additional STOP at Delaney
-  Textured Intersection at Harvard and Erickson
-  Remove existing Hump/STOP sign
-  Police Pull-out on Loop Road

Government Hill
"Anchorage's First Neighborhood"

Figure 8
Proposed Short Term Alternatives – Western Study Area



4.2 Traffic Calming Devices

4.2.1 Additional Speed Humps

Two additional speed humps were requested by the GHCC. The first is located on Cook, between Boyd and Anderson. While this hump is not specifically warranted by the volumes or speeds on Cook, it is appropriate to balance the traffic patterns in the neighborhood. The second requested speed hump is on Bluff between Elm and Dogwood.

4.2.2 Crosswalks

The intersection of Harvard and Erickson is similar to a Y intersection. Since it does not follow a standard intersection configuration and drivers unfamiliar with the area are unsure where to appropriately stop, textured crosswalks are recommended at this intersection. The textured crosswalks will demark to drivers that there is a stop at the intersection in addition to providing tangible evidence of where to stop. The crosswalks will also highlight pedestrian activity in the area, making the crossing slightly safer. The proposed device is shown in Figure 8.

4.2.3 Speed Hump Removal

In addition to requesting two new speed humps, the GHCC also requested removal of one of the humps installed in the summer of 2002. The installation of the westernmost hump was driven primarily by a single resident, who no longer lives in the neighborhood. The remainder of the residents feel that the hump at this location is unnecessary given the curvature and narrowing of the road. The location is shown in Figure 8.

4.3 Additional Eastside Consideration

The two parallel roadways in the eastern study area, Bluff and Hollywood have different characteristics. Both are long and straight, however Bluff has no driveway access and an approximately thirty foot buffer to the sidewalk. Hollywood has many driveways and the property lines are immediately behind the sidewalk.

The GHCC has requested an additional all-way stop and speed hump on Bluff. The traffic calming may cause current users of this roadway to choose Hollywood as the preferred route, impacting more residents. An alternate configuration would be to not make any revisions to Bluff and place a speed hump on Hollywood, located immediately east of the intersection with Elm. While the alternate configuration would not significantly impact the traffic leaving the neighborhood, it would likely encourage the incoming traffic to use Bluff rather than Hollywood.

Leaving the existing Bluff traffic patterns the same does not impact pedestrians because the only crossing point is located at an existing all-way stop.

4.4 Pedestrian and Bicycle Improvements

As the Municipal Trail Plan is implemented in this area, additional consideration should be given to connections into the neighborhood. Currently the plan shows loops around both the east and west neighborhoods. Providing adequate access to

those loops from the neighborhoods would enhance the availability of those trails to the residents.

4.5 Additional Recommendations

The GHCC also requested that some sign configurations be modified. Consequently, an additional “Children at Play” sign is recommended on Harvard at Anderson. The signing on East Bluff at the exit from the alley behind the businesses on Loop will also be modified by installing additional one-way signs to clarify the available movements. The locations of the signing changes are also shown in Figures 7 and 8.

While Loop Road was not considered as part of the study area, discussions with the GHCC indicated that there is a speeding problem. One suggestion offered by the Council and recommended as part of this report is installation of at least one pullout along Loop Road at the bottom of the bluff below the western study area. The intent would be to provide a safe refuge for police officers to wait for speeders to come down the hill. Having a police officer present at this location would serve two purposes: speeders would be ticketed and the possibility of a speeding ticket would deter some of the speeders.

5.0 LONG-TERM RECOMMENDATIONS

While the recommendations in Section 4 of this report support balanced and safe traffic patterns for the existing neighborhood, additional considerations should be kept in mind if the circumstances change.

5.1 Additional Access

As previously mentioned, the access to the neighborhoods on both the east and west side of Loop Road is limited.

On the east side, the two neighborhood entry points are the signalized intersection at Erickson/Loop Road and Bilbo Street, a short roadway segment that links Bluff and Loop. Bilbo is poorly signed, striped, and doesn't have adequate queuing distance to provide a safe connection between the neighborhood and Loop Road. Given the proximity of the two access points, were the Erickson and Harvard intersection to be closed, access to the neighborhood would be extremely limited. As previously discussed, opening Bluff Road to the port area solves this problem, although it creates another series of problems and should not be implemented without a thorough study.

The west side is limited to a full access at the signalized intersection of Loop and Hollywood and a one-way in access at East Bluff. The circumstances compromising emergency access are the same as for the east side. An emergency access connection between the west end of Bluff Road and Elmendorf Air Force Base should be considered if an opportunity arises.

5.2 Reopening of Bluff Road

Given the high level of concern from the GHCC, several recommendations are presented for consideration should Bluff Road be reopened. The intersections of Erickson, Degan, Cunningham, Manor, and Cook with Bluff Road are oddly

configured. Given that the volumes on Bluff are likely to increase significantly, it is appropriate to look at reconfiguring these intersections to provide safer and more consistent access to Bluff from the residential streets. A schematic of one possible reconfiguration is shown in Figure 9. The highest priority of these intersections should be Erickson because it carries the additional ATU and school traffic.

Because Bluff is a long, fairly straight connector, if the road reopens, consideration should be given to some form of traffic calming as it transitions into the neighborhood.

5.3 Other Issues and Recommendations

No other recommendations are included at this time.

