

CITY OF BOULDER
PLANNING BOARD AGENDA ITEM
MEETING DATE: May 5, 2016

AGENDA TITLE: CONCEPT PLAN & REVIEW – Proposal for a three story, 120-room Holiday Inn Express Hotel. Case no. LUR2016-00012 located at 3365 Diagonal Highway

Applicant: Nathan Anderson
Developer: Boulder Lodging Group LLC

REQUESTING DEPARTMENT:

Community Planning & Sustainability

David Driskell, Executive Director

Susan Richstone, Deputy Director

Charles Ferro, Development Review Manager: Land Use

Elaine McLaughlin, Senior Planner

OBJECTIVE:

1. Hear applicant and staff presentations
2. Hold public hearing
3. Planning Board discussion of Concept Plan. No action is required by Planning Board.

SUMMARY: CONCEPT PLAN & REVIEW - Proposal for a three story, 120-room Holiday Inn Express Hotel with a total of 54,510 square feet, indoor pool, exercise room, meeting space with 122 surface parking spaces and an addition 78 below grade parking spaces. Reviewed under case no. LUR2016-00012

Project Name: Holiday Inn Express
Location: 3365 Diagonal Highway
Size of Tract: 2.32 acres
Zoning: Business Transition-1 (BT-1)
Comprehensive Plan: Transitional Business
Key Issues: Staff is recommending three key issues for discussion of the Concept Plan:

- Consistency with the BVCP (per Concept Plan Review Criteria);
- Concept Plan responsiveness to City “Edge and Entryway” Design Considerations

I. INTRODUCTION AND BACKGROUND

The vacant 2.32 acre property was annexed and zoned Transitional Business in 1981. In 2014, the site was approved by the Planning Board for a Kum and Go Gas Station. The applicant for that proposal has since decided to not pursue that plan. Until recently the now vacant site had formerly contained a towing company, auto repair shop and a service station that included dilapidated and vacant buildings, outdoor storage of inoperable vehicles and auto parts, and a large, unmaintained surface parking lot with six access points. See **Figure 1** for an aerial image of the existing site.

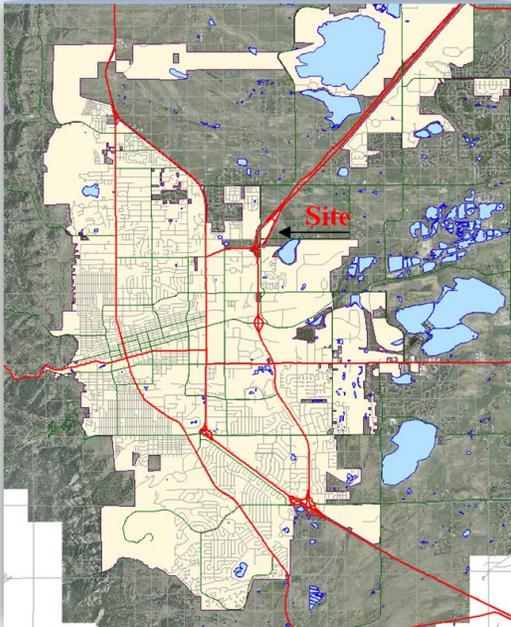


Figure 1: Regional Location



Figure 2: Site Vicinity

II. PROJECT DESCRIPTION

The Concept Plan consists of a 54,510 square foot Holiday Inn Express Hotel with surface and below-grade parking along with several on-site amenities including an indoor pool and fitness area; meeting space; and a breakfast room. There are 120 hotel rooms proposed in a three story building configured in an "L" shape. A concept sketch is shown below. While materials weren't specified in the application, the exterior materials on the hotel appear to consist of horizontal siding and colored stucco.



Figure 3: Proposed Site Plan



Figure 4: Concept Sketch Looking Northwest

III. CONCEPT PLAN REVIEW AND COMMENT per Section 9-2-13

(g) Guidelines for Review and Comment: The following guidelines will be used to guide the planning board's discussion regarding the site. It is anticipated that issues other than those listed in this section will be identified as part of the concept plan review and comment process. The Planning Board may consider the following guidelines when providing comments on a concept plan:

(1) Characteristics of the site and surrounding areas, including, without limitation, its location, surrounding neighborhoods, development and architecture, any known natural features of the site including, without limitation, mature trees, watercourses, hills, depressions, steep slopes and prominent views to and from the site;

Existing Site. As shown in the aerial the site is located on the northeast side of the main part of the city, in a prominent location and entryway from southbound Highway 119, the Diagonal Highway into the city and exiting the city. The site is flanked on both the east and west by the separated highway, as well as an access ramp on the north side of the site to the highway and Independence Road on the north side of the site. An elevated and bermed portion of 47th Street also flanks a portion of the western side of the site. From the east side of the site, views of the Flatirons can be seen.

The immediate area surrounding the subject site can be described as an eclectic mix of land uses, and serves as somewhat of a transition from residential to Open Space. The Diagonal Highway is a state highway. Across Diagonal Highway to the east are two large unincorporated parcels owned by the City of Boulder. To the southeast is the Boulder Emergency Squad and a medical office building. To the north of the site is a large, vacant parcel also zoned BT-1, and to the west across 47th Street and the Diagonal Highway off-ramp is the Boulder Jewish Community Foundation property and City of Boulder Pleasant View Ball Fields Sports Complex. Hayden Lake to the east is a man-made reservoir which is owned by Boulder & Left Hand Ditch Company where water is stored and then released later in the season into Boulder & Left Hand Ditch. A trailhead for the Cottonwood Trail east of Highway 119 is located on the north side of Hayden Lake. The property directly north is undeveloped. The area to the northwest of the subject site, is zoned RH-4 (Residential High – 4) with the low and medium density residential developments of Northfield Village and the Four Mile Creek neighborhoods.

The site's location makes it a highly visible gateway into the Boulder city limits. There are no natural features on this site with the exception of several trees located at the southwest corner of the site. The site is shown below in Figure 5, the buildings on the site have since been demolished. Figures 6a through 6d illustrate views of the site approaching the site from the Diagonal Highway. Figure 7 presents images of the surrounding context keyed to an aerial photo.



Figure 5: Site Looking West



Fig. 6a: Site approaching from the north



Fig. 6b: Site adjacent to Diagonal Highway



Fig. 6c: Site from intersection of 47th & Diagonal



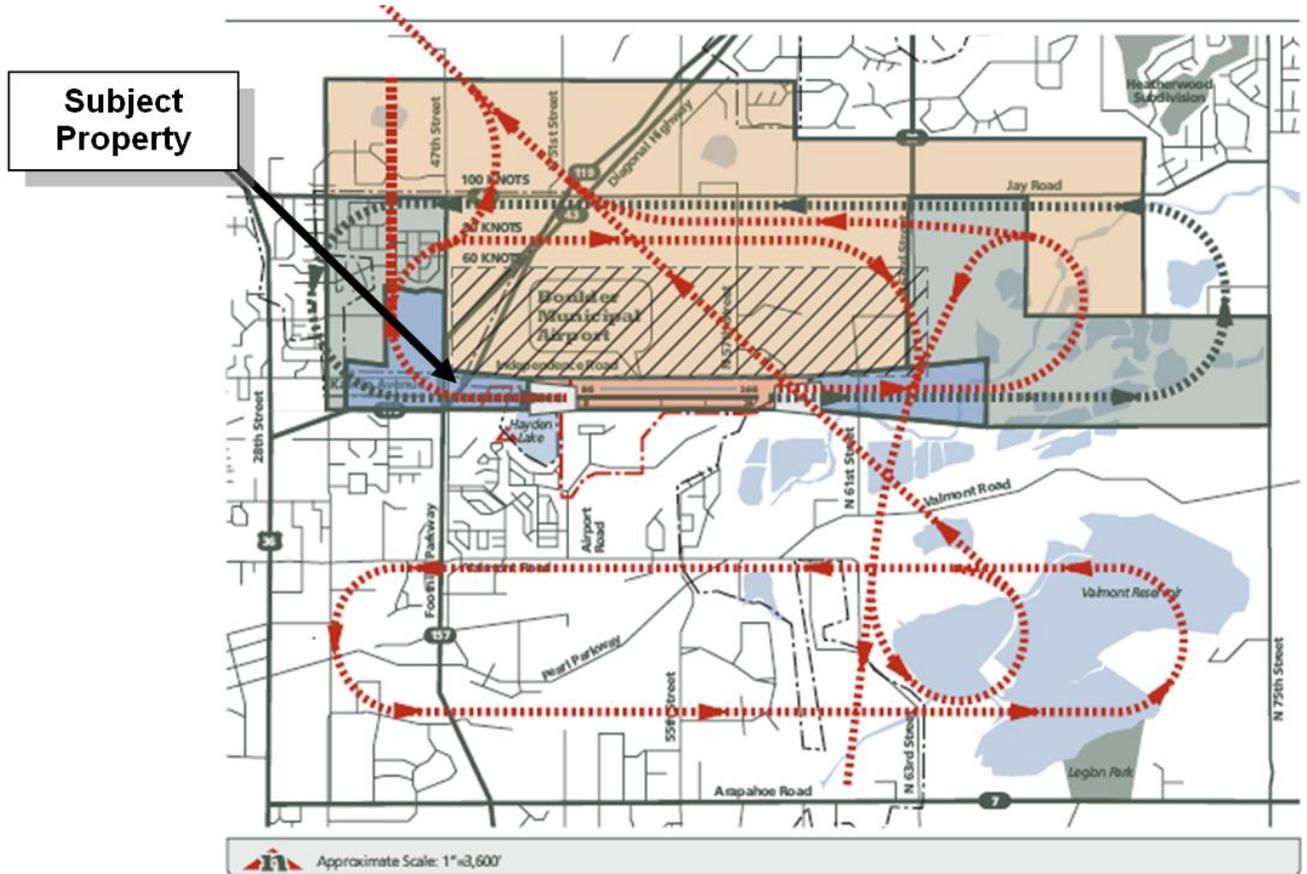
Fig. 56d: View limitations from Site to Flatirons at



Figure 7: Photos of Site Surrounding Context

Also located nearby is the Boulder Municipal Airport and the subject property is located within an Airport Influence Zone (AIZ) Zone 2, as shown in Figure 8, and would be required to comply with the Land Use Code section 9-3-10(e) for the AIZ zone 2 which is defined as and area where,

An aviation easement may be required as a condition of obtaining a new building permit, and all new utility lines will be placed underground. No new residential use is permitted, including nursing homes, group homes, congregate care facilities, group care facilities, and residential care facilities. Schools, hospitals, churches, libraries, hotels/motels, and day care facilities will be permitted only if permitted by the underlying zoning and determined to be situated and designed in a manner that alleviates safety concerns. All applications for development will be submitted to the Airport Manager for review and comment.



Airport Influence Overlay Zone Map with Flight Tracks

- | | | | |
|--|---------------|--|-------------------------------|
| | Zoning Area 1 | | Gliders |
| | Zoning Area 2 | | Powered Aircraft Flight Track |
| | Zoning Area 3 | | Glider/Tow Plane Flight Track |
| | Zoning Area 4 | | Helicopter Traffic |
| | City Boundary | | Runway Protection Zone |

**Boulder Municipal Airport
Airport Master Plan Update**

Figure 8: Site in Context of Airport Influence Overlay Zone Map

(2) Community policy considerations including, without limitation, the review process and likely conformity of the proposed development with the Boulder Valley Comprehensive Plan and other ordinances, goals, policies, and plans, including, without limitation, sub-community and sub-area plans;

The site is designated under the Boulder Valley Comprehensive Plan (BVCP) as “Transitional Business” land use defined as:

“along certain major streets of the valley. These are areas usually zoned for less intensive business uses than in the General Business areas, and they often provide a transition to residential areas.” The zoning on the site is consistent with the BVCP Land Use and is zoned Business Transition – 1 (BT-1) defined as, *“Transitional business areas which generally buffer a residential area from a major street and are primarily used for commercial and complementary residential uses, including, without limitation, temporary lodging and office uses”* (section 9-5-2(c)(2)(E))”

The BVCP policies help to inform development on this site. In particular, it is important to note that the site is considered a community edge and entryway and would need to be consistent with policy 2.05 as follows:

2.05 Design of Community Edges and Entryways

Well-defined edges and entryways for the city are important because they support an understanding and appreciation of the city's image, emphasize and preserve its natural setting, and create a clear sense of arrival and departure. Natural features are most effective as edges, but public open land, major roadways or heavy tree planting can also function as community edges. As new areas are developed, the definition of a community edge will be a design priority. Major entryways into the Boulder Valley will be identified, protected and enhanced.

The applicant would need to provide greater information on how to establish a feature that would establish an “effective” edge as is recommended in the policy. Today, just the roadway establishes the site as an edge. The previous site review approval on the site established a unique and iconic architectural style on the site along with tree plantings.

Boulder Valley Comprehensive Plan (BVCP) Land Use Designation. As shown in the map below, the property is located in the Transitional Business land use designation, which is defined in the BVCP as *“areas usually zoned for less intensive business uses than in the General Business areas, and they often provide a transition to residential areas.”* The 2010 BVCP can be found [here](#).

Zoning Designation. The site is zoned Business Transitional-1 (BT-1) and is adjacent to other properties zoned BT-1 to the north and south and unincorporated Boulder County parcels to the east and west. There are also high-density residential and industrial areas to the south of the subject site. Refer to the zoning map below. Per the Land Use Code section 9-5-2(c)(2)(E), B.R.C. 1981, the BT-1 zone district is defined as:

“Transitional business areas which generally buffer a residential area from a major street and are primarily used for commercial and complementary residential uses, including, without limitation, temporary lodging and office uses.”

Other Relevant BVCP Policies: The following policies have been identified by staff as relevant to the review of the proposed project when it moves into Site Review and other policies may be identified at the time of Site Review:

- 2.14 Mix of Complementary Land Uses
- 2.30 Sensitive Infill and Redevelopment
- 2.34 Importance of Street Trees and Streetscapes
- 2.35 Outdoor Lighting/Light Pollution
- 2.37 Enhanced Design for Private Sector Projects
- 5.03 Diverse Mix of Uses and Business Types
- 5.04 Vital and Productive Retail Base

6.03 Congestion

At the time of Site Review the applicant must demonstrate compliance with all applicable Site Review criteria found in section 9-2-14(h)(F), “*Building Design, Livability and Relationship to the Existing and Proposed Surrounding Area*,” B.R.C., 1981. If moving forward with a Site Review application, consideration should be given to the following with regard to site and building design:

- Emphasis on high quality architecture and screen plantings
- An emphasis on permeability and safely and efficiently moving pedestrians through and around the site;
- Activate the west façade to add transparency to the building and designing screening for service equipment, dumpsters, or any other back-of-building elements as an integral part of the overall design;
- Optimizing the arrangement of open space / landscaped area and minimizing the overall visual impact of the hotel, including providing significant screening of the parking through landscaping and other site design techniques;
- Treatment of the multi-use path along the north property line and preserving the opportunity for connectivity between Kalmia and Independence Rd. as shown on the Transportation Master Plan.
- Building efficiency

(3) Applicable criteria, review procedures, and submission requirements for a site review;

- Site Review Criteria of the Land Use Code section 9-2-14(f), B.R.C. found [here](#).
- Boulder Valley Comprehensive Plan policies
- Transportation Demand Management (TDM) plan consistent with section 2.03(l) of the DCS and section 9-2-14(h)(2)(D)(iv) and (v) of the Boulder Revised Code (BRC) which outlines strategies to mitigate traffic impacts created by the proposed development and implementable measures for promoting alternate modes of travel.

(4) Permits that may need to be obtained and processes that may need to be completed prior to, concurrent with, or subsequent to site review approval;

Assuming the applicant pursues a Site Review application after Concept Plan, other types of permits may be necessary as the project plans progress:

- Technical Document for final plans (i.e. landscape, irrigation, architecture, lighting, transportation and engineering)
- A CDOT access permit must be reviewed and approved through a separate Technical Document Review process.

(5) Opportunities and constraints in relation to the transportation system, including, without limitation, access, linkage, signalization, signage, and circulation, existing transportation system capacity problems serving the requirements of the transportation master plan, possible trail links, and the possible need for a traffic or transportation study;

The site is situated with State Highway 119 (Diagonal Highway), 47th Street and Independence Road along with highway access lanes surrounding property. The site is challenged by the lack of close proximity to transit

stops. As shown below, there are existing bus routes along the Diagonal Highway including the BOLT and the “J.” However, as indicated on the map, there is one bus stop located within one-quarter mile of the site for north bound BOLT route only. The City recently completed a project which added buffered bike lanes on the Diagonal Highway between 47th Street and Independence Road. In addition, given that the applicant is proposing a parking reduction, the challenge will be the preparation of a Transportation Demand Management plan without the benefit of transit services into the City conveniently close to the site.

(6) *Environmental opportunities and constraints including, without limitation, the identification of wetlands, important view corridors, floodplains and other natural hazards, wildlife corridors, endangered and protected species and habitats, the need for further biological inventories of the site and at what point in the process the information will be necessary;*

Environmental Opportunities: The site has broad views of the mountains to the west. To the extent possible, views could be captured and preserved through careful site design and building orientation. In addition, the size of the subject site is over two acres, which presents opportunities for creative landscaping and open space particularly related to stormwater runoff quality. The applicant must also consider various green building technologies and other forms of on-site alternative energy such as rooftop solar to meet the rigorous City of Boulder energy efficiency standards equivalent to the International Energy Efficiency Code 2012 plus 30 percent greater efficiency.

Environmental Constraints: The site has minimal vegetation, but does contain a number of mature deciduous trees to the south of the existing buildings. Additional information is required to determine whether the existing trees should be preserved. At the time of Site Review, it will be necessary to submit a tree inventory that includes the location, size, species and general health of all trees with a diameter of six inches and over measured fifty-four inches above the ground on the property or in the landscape setback of any property adjacent to the development.

(7) *Appropriate ranges of land uses (KEY ISSUE #1)*

Given that the former use of the site for decades was a gas station and auto repair area and given the site’s proximity to several major roadways, the proposed redevelopment of the site as visitor serving retail could be an appropriate use. Diagonal Highway is heavily used by commuters to and from Longmont and other areas to the north of Boulder, and the subject site provides a logical refueling place for commuters entering or leaving the city. In addition to the site’s enclosure by three roadways and the variety of nearby uses, the undeveloped property to the north of the subject site is also zoned BT-1 and thus will likely be developed with complimentary uses in the future. The caveat to this is the proximity to the Boulder Municipal Airport that presents challenges for various types of uses. Refer to the comment letter from the manager of the Boulder Municipal Airport in [Attachment A](#) who has plan review jurisdiction on plans within the Airport Master Plan area.

The existing Transitional Business zoning supports a mix of uses as the intent in the zoning is to provide a transition between business and residential uses. This site is unique and differs from most sites in the Transitional Business zone in that there’s little in the way of a built context surrounding the site with the exception of the highway. Typically, transitional business exists where there is a change in zoning from commercial or business uses and residential. The intent is to buffer the residential. The closest residential to this site, is ¼ to ½ mile away, as is the nearest business or office buildings. Therefore, while the existing zoning is intended to create a transition, there’s little in the way of land use to transition to or from. However, the BT-1 zoning has been utilized for hotel/motels in the City as well. Shown below are the ¼ to ½ mile distances surrounding the center of the site. As is noted, there’s little in the way of walkable proximity to services or employment as shown in Figure 9: that illustrates walking distances from the site.



Figure 9: Walking Distances from the Site

(8) The appropriateness of or necessity for housing.

While there is no housing associated with the Concept Plan proposal, there is an on-going need for residential within the city of Boulder. The property directly north of the site presented a Concept Plan for residential and input derived from the plan at the time noted that while there is demand for residential, the location between highways was not optimal for full-time residential uses. It was noted at the time that visitor serving retail such as a hotel or motel may be acceptable in the location.

KEY ISSUE 2: Does the Concept Plan respond to the Design of the Community Edge and Entryway context?

In past Concept Plan and Site Reviews for the site, reference has been made to the site being a “gateway” or at an “entryway” to the city as defined in BVCP Policy 2.05. This is evident in Figure 10, the aerial photo, as well as comparisons of “before” and “after” with images of the proposal onto the existing site in Figures 11

and 12. As can be seen, the site is not only an “edge” or “entryway” into the main part of the city, but also is in the foreground of significant views from Highway 119 of the Flatirons.

2.05 Design of Community Edges and Entryways

Well-defined edges and entryways for the city are important because they support an understanding and appreciation of the city’s image, emphasize and preserve its natural setting, and create a clear sense of arrival and departure. Natural features are most effective as edges, but public open land, major roadways or heavy tree planting can also function as community edges. As new areas are developed, the definition of a community edge will be a design priority. Major entryways into the Boulder Valley will be identified, protected and enhanced.

As shown in the “before and after” images of Figures 11 and 12, staff utilized a photo simulation as a means to evaluate the buildings massing and the change in the viewshed based upon the single perspective sketch that was provided as a part of the Concept Plan application. While the simulation was done only by superimposing the sketch onto a photo (less precise than a digital model such as SketchUp could produce) it is evident that the viewshed approaching the city is a highly visible location and one that is essentially a “foreground” to entry into the city. The viewshed would be distinctly different with the placement of a three story hotel in this location.

Because of the high visibility of this site from Highway 119, the development plans would need to make a strong statement for design excellence. In the previous Concept Plan on the site that resulted in an approved Site Review, emphasis was placed on the unique gateway context and that process drove a somewhat iconic yet understated building design that deferred to the Flatiron views. Similarly, in the Concept Plan discussions for the adjacent property to the north, suggestions included emphasis on vegetative screening and iconic landscaping.

As currently configured, there are parking areas that are shown to abut northbound Highway 119. While typically such an approach could provide a buffer for the buildings for the living/working areas of the site from a highway, in this case, surface parking lots would be a strong design response to the “entryway” context. Much of the parking on the site is proposed to be below grade, staff would highly recommend placing all of the parking below grade and utilizing the parking area as an open space amenity and landscaping.

Accessibility. Staff notes that with the surrounding highway impacts such as noise and air quality would challenge any future use. Similarly, non-automobile accessibility from the site to other areas of the city for hotel guests could be challenging. The BVCP policy 2.21, “*Commitment to a Walkable and Accessible City*” states,

“The city and county will promote the development of a walkable and accessible city by designing neighborhoods and business areas to provide easy and safe access by foot to places such as neighborhood centers, community facilities, transit stops or centers, and shared public spaces and amenities. The city will consider additional neighborhood-serving commercial areas where appropriate and supported by the neighbors they would serve.”

While the applicant is illustrating a 53,000 square foot hotel use, there is little in the way of services for hotel guests in this location. Additional in-house services or other retail functions on the site, along with a bike share program could optimize a hotel use in this location.



Figure 10: Birds Eye Aerial Showing Entryway Context of Site and in Relation to Flatiron Views



Figure 11a 11b: Existing South Viewshed (above in 11a) and Potential Viewshed (below in 11b)



Figure 12a & 12b: Existing Southbound Viewshed (above in 12a) and Potential Viewshed (below in 12b)



CONCLUSION:

The use of the site for a hotel appears to be consistent with the BVCP Land Use designation of Transitional Business. However, issues related the Boulder Municipal Airport flight paths; automobile accessibility from the surrounding roadways; and the visibility of the site from surrounding roadways require greater design sensitivity as project plans move forward.

PUBLIC COMMENT AND PROCESS:

Required public notice was given in the form of written notification mailed to all property owners within one-half mile of the subject site and a sign posted on the property for at least 10 days. It is important to note that while the Land Use Code standards for mailing are to property owners within 600 feet, given the surrounding open space to the site, staff determined that a radius of ½ mile would better serve the process by notifying the nearest neighbors. Therefore, all notice requirements of section 9-4-3, B.R.C. 1981 have been met. At the time of the memo preparation, a letter was sent to City Council inquiring about specific aspects of the site; staff provided a response letter that is provided in [Attachment A](#). In addition the letter received from the manager of Boulder Municipal Airport, a referral agency, is also provided in [Attachment A](#).

STAFF FINDINGS AND RECOMMENDATION:

No action is required on behalf of the Planning Board. Public comment, staff, and Planning Board comments will be documented for the applicant’s use. Concept Plan Review and comment is intended to give the applicant feedback on the proposed development plan and provide the applicant direction on submittal of the Site Review plans.

Approved By:



David Driskell, Executive Director
Department of Community Planning and Sustainability

ATTACHMENTS:

- [A: Comments Received](#)
- [B: Concept Plan Written Statement and Trip Generation](#)

Attachment A: Comments Received

From: Boulder Kimbles [<mailto:boulder.kimbles@gmail.com>]
Sent: Tuesday, March 29, 2016 11:47 PM
To: Council
Subject: CITY ZONING: requesting info on developing the property at 3365 Diagonal Highway

Hello,

I live in NE Boulder, and have been following the evolution of the property at 3365 Diagonal Highway (I think it used to be a Sinclair gas station/U-Haul rental facility) very closely. The previous establishment was so unsightly that the current empty lot is a significant improvement. But I believe that the location has potential for tasteful development of the space (possibly as a single entity, possibly as a retail park) that could really be an asset for NE Boulder.

The property has been on the market for almost a year (currently at \$650K), and I wanted to find out more how the city views the property with regard to what a new owner could or couldn't do in developing the property.

As such, a flood of questions come to mind to assess the feasibility for such a project. I list a small subset below, to give an idea of the sorts of issues I'm thinking about.

- 1) What is the zoning status of the property?
- 2) Would the property qualify under the Petroleum Cleanup and Redevelopment Fund?
- 3) Are there specific city guidelines for how to handle the underground storage tanks at the property?
- 4) Is there a way to develop the property such that a portion of it officially qualifies as a city park/green space, and are there tax implications for such a designation?
- 5) How might a developer work with the city to facilitate pedestrian access to the property from the Pleasant View Soccer Fields (e.g., tunnel, bridge, traffic signal)?

I'd be happy to discuss further with any city council member or discuss this at one of the regular council meetings.

Thank you.

Sincerely,

Dave Kimble
3980 Saint Petersburg St.
Boulder, CO 80301
303-442-2420

From: Reader, Lauren
Sent: Wednesday, April 20, 2016 1:58 PM
To: boulder.kimbles@gmail.com
Cc: McLaughlin, Elaine; Ferro, Charles; Council
Subject: RESPONSE_CITY ZONING: requesting info on developing the property at 3365 Diagonal Highway

Dear Dave Kimball-

Thank you for emailing City Council about the property at 3365 Diagonal Highway. While you may hear directly from one or more council members, the following information provided by city staff may also be helpful. It is a staff response and may or may not represent the

opinions of individual council members.

Currently, there is an active Concept Plan Review application for the property that will be discussed by the Planning Board at a public hearing on May 5, 2016. The Concept Plan is for a Holiday Inn Express and for Concept Plan review there is no approval or denial of the proposed project, rather the intent is to provide comments to the applicant on the conceptual plans prior to application for Site Review. Please check back at the Planning Board's website at this [link](#) after April 25th when the project plans and staff memorandum to the Planning Board will be uploaded for review.

Regarding your specific questions, please see the following responses:

1) What is the zoning status of the property?

The property is zoned Business Transition – 1 (BT-1) defined in the land use code as: “Transitional business areas which generally buffer a residential area from a major street and are primarily used for commercial and complementary residential uses, including, without limitation, temporary lodging and office uses” per the [land use code section 9-5-2\(c\)\(2\)\(E\), B.R.C. 1981](#).

2) Would the property qualify under the Petroleum Cleanup and Redevelopment Fund? AND

3) Are there specific city guidelines for how to handle the underground storage tanks at the property?

Presently, there are no underground storage tanks on the site. The tanks associated with the former Sinclair Gas Station were removed as part of the former plan of a Kum & Go Gas Station for redevelopment and no new USTs have been installed on the site due to a decision by the property owner to abandon further project development. The Petroleum Cleanup and Redevelopment Fund is a program administered by the State. Eligibility requirements and application materials can be found at the following location on the State Dept. of Labor and Employment, Division of Oil and Public Safety website: <https://www.colorado.gov/pacific/ops/BrownfieldsProgram>

4) Is there a way to develop the property such that a portion of it officially qualifies as a city park/green space, and are there tax implications for such a designation?

As indicated in the City's recent Parks and Recreation Master Plan, the city is currently meeting the level of service for park land in this area with several parks within a half mile radius. Secondly, this site potentially has many constraints including poor pedestrian access from neighborhoods, possible environmental challenges and too small of acreage for park standards.

5) How might a developer work with the city to facilitate pedestrian access to the property from the Pleasant View Soccer Fields (e.g., tunnel, bridge, traffic signal)?

The City's 2014 Transportation Master Plan update removed the planned multi-use path connection between Independence Road (McKenzie Junction) and Kalmia Road (soccer fields) via an underpass beneath 47th Street and the Foothills Freeway. That said, if there is interest to reestablish that link, coordination would begin in a meeting with Kathleen Bracke with Go-Boulder (BrackeK@bouldercolorado.gov) and Gerrit Slatter who is the Transportation Division Manager (SlatterG@bouldercolorado.gov) to discuss opportunities to jointly fund a multi-use underpass connection between McKenzie Junction and the soccer fields.

Please note that any future questions regarding land use and zoning can be directed to staff at 303-441-1880 or plandevlop@bouldercolorado.gov.

Sincerely,
Elaine

Elaine McLaughlin, Senior Planner

Department of Planning, Housing + Sustainability

City of Boulder

1739 Broadway, 3rd Floor

Boulder, CO 80306-0791

303-441-4130 (phone)

303-441-3241 (fax)

<http://www.boulderplandevlop.net> <http://www.bouldercolorado.gov/>

CITY OF BOULDER

Department of Public Works Transportation Division

Boulder Municipal Airport
3327 Airport Road
Boulder, Colorado 80301
TEL: 303-441-3108



February 26, 2016

Elaine McLaughlin, Senior Planner
City of Boulder Department of
Planning, Housing and Sustainability
PO Box 791
Boulder, CO 80306

Dear Elaine:

I have reviewed the concept plan for a Holiday Inn Express to be constructed at 3365 Diagonal Highway in Boulder, Colorado and have the following comments:

The location of this parcel is situated in Airport Influence Overlay Zone Two and directly under the landing and take-off path for every aircraft operating at the Boulder Municipal Airport (see attached Google Earth photo and overlay map). As such, page A.19 of the Airport Master Plan, approved by the Planning Board and City Council in 2007, requires the following:

“Zone Two: An aviation easement may be required as a condition of obtaining a new building permit, and all new utility lines will be placed underground. No new residential use is permitted, including nursing homes, group homes, congregate care facilities, group care facilities, and residential care facilities. Schools, hospitals, churches, libraries, hotels/motels, and day care facilities will be permitted only if permitted by the underlying zoning and determined to be situated and designed in a manner that alleviates safety concerns. All applications for development will be submitted to the Airport Manager for review and comment.”

Overlay Zone Two has these restrictions due to the inherent safety risks associated with aircraft that are about to land or have just departed and are still gaining altitude. As a result, I recommend that the developer hire an aviation safety consultant to fully consider the safety risks associated with this site, to include the following potential issues:

Land Use

The Federal Aviation Administration (FAA) and National Transportation Safety Board (NTSB) investigate aircraft accidents nation-wide and have shown that property near the extended runway centerline are involved in a significantly higher rate of aircraft mishaps and accidents. Although I am not aware of an aircraft mishap on the property at 3365 Diagonal Highway, we have had aircraft make emergency landings in the cemetery and soccer fields immediately adjacent to this property.

In order to protect residents on the ground, zoning of land in this overlay zone two is usually limited to non-occupied uses such as parks, sports fields, cemeteries, golf courses, parking lots, etc. The FAA does not recommend residential use of any kind, and although hotels are zoned commercial, the underlying safety concern is the same. In addition, the FAA land use planning tool kit recommends low density uses, of approximately 5 people per acre, in zone two.

Noise Compatibility

In addition to the safety concerns stated above, the FAA also requests that municipalities consider aircraft noise and the impact on associated land use. Using information from the 2007 Airport Master Plan, the parcel at 3365 Diagonal Highway lies in the airport's 60 decibel noise contour (see attached). Thus, a hotel at this location will be subjected to a 60 decibel day-night noise average (DNL), with peaks above that, especially when an aircraft is gaining altitude on departure directly over the hotel.

The FAA land use planning tool kit and Federal Aviation Regulation 150 states that a noise level of 65 decibels is *incompatible* with residential use. Given this information, the hotel would be located on a parcel that is only 5 decibels away from incompatible residential use and can expect that their customers will be impacted. In addition, the FAA asks communities to plan for future changes that may increase the noise level or frequency of flights. With only 5 decibels of buffer, the hotel may find itself inside a 65 decibel contour after it is constructed.

At a minimum, if the development is allowed to proceed, I recommend that noise proofing measures are mandated and an avigation easement is signed stating that the owners understand the current and future noise impact.

Airspace Obstruction / Structure Height

Based on the proposal for a three-story structure, the development will require a FAA obstruction clearance review. I've attached the FAA advisory circular (AC 70-7460-2K) that pertains to building structures near an airport. Since the Boulder Municipal Airport has a runway over 3,200 feet in length, please refer to page 2, paragraph 2.a.1. It states that if the proposed structure is within 20,000 feet of the runway and it's taller than a 100:1 slope from the runway, then permission must be obtained from the FAA. The obstruction evaluation review application can be found at: <https://oeaaa.faa.gov/oeaaa/external/portal.jsp>.

The parcel lies directly under the FAA Visual Approach, type A and B, airspace which ensures no obstructions exceed a slope of 20:1 from the end of the runway at Boulder Municipal Airport. At three stories, the hotel will not exceed the maximum height for the type of approach currently in use, but again the FAA recommends that airports consider future use and changes. Currently, the airport only has a visual approach for runway 8, but if the need arises for an instrument approach, this glide path slope will flatten significantly to 34:1 or lower. Allowing this structure, at its proposed 30+ foot height, could severely tie the hands of city planners in the future.

As part of the obstruction evaluation review, the FAA will examine existing obstacles in the immediate vicinity, such as the Foothills Parkway overpass. I would recommend that the hotel height remain below the height of the overpass, which is approximately 25 feet tall. This ensures flexibility and future FAA compliance, as well as provides a safer environment for aircraft making an emergency landing.

In conclusion, my professional opinion is that this is not an ideal, or safe, location for a hotel. The airport master plan already prohibits residential use due to safety and noise concerns, and although a hotel is zoned commercial, the issues remain just as important. As a result, I recommend that the applicants hire an aviation safety consultant to fully examine the issues listed above. If the location still meets their expectations, they should submit their findings and proposed solutions for further evaluation.

If you have any questions about the items mentioned above or wish to discuss the issue further, please do not hesitate to contact me at (303) 441-3108.

Sincerely,

A handwritten signature in black ink that reads "Timothy G. Head". The signature is written in a cursive style with a large, stylized initial 'T'.

Timothy G. Head
Airport Manager



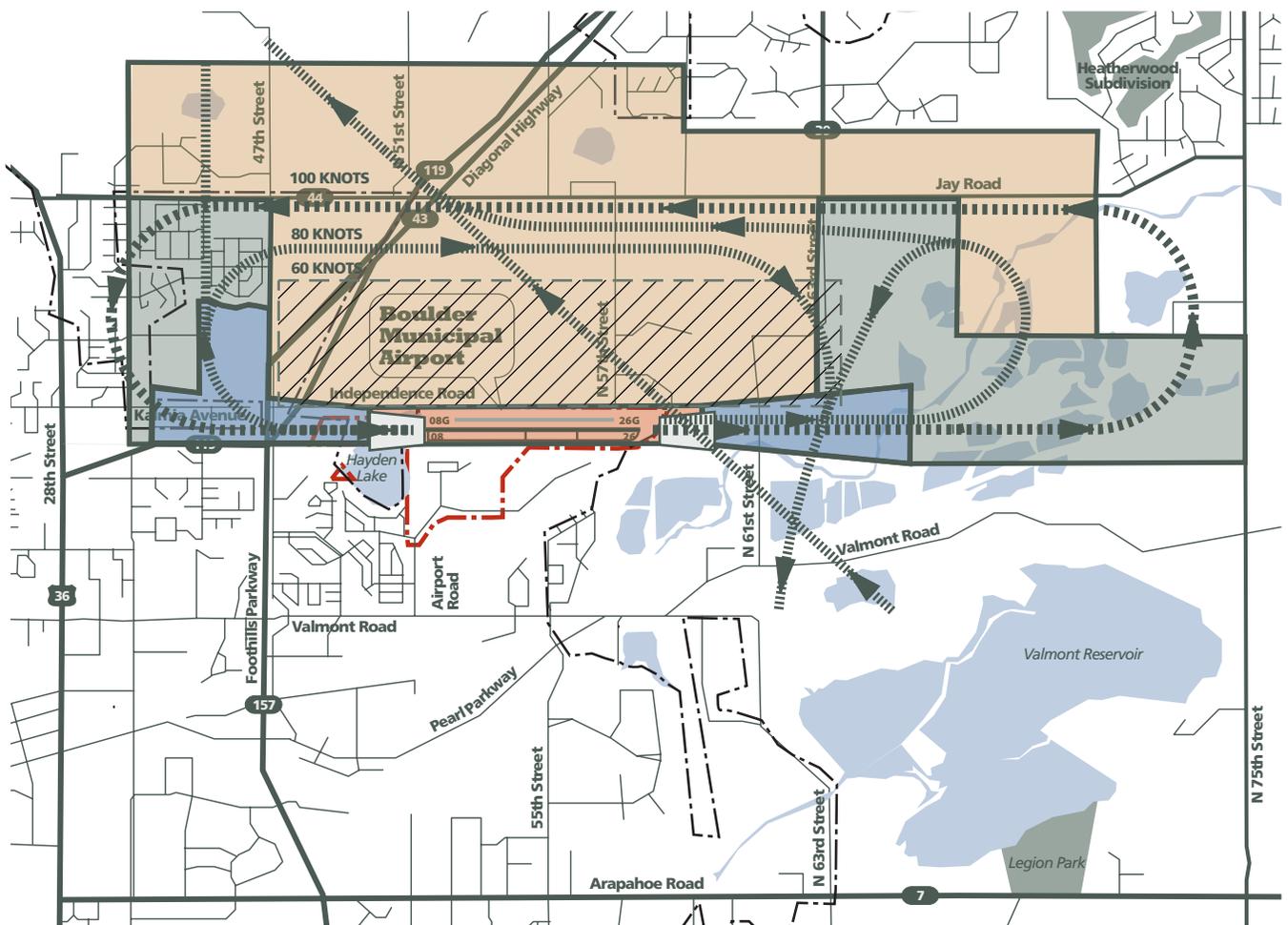
157

119

la Ave

© 2016 Google
Image Landsat

Google™ earth



Approximate Scale: 1"=3,600'

Source: Base Map: Microsoft Street & Trips 2006.
Influence Area: City of Boulder Airport Influence Overlay Zoning Map.

**Airport Influence Overlay Zone Map
with Flight Tracks**

- | | | | |
|---|---------------|---|-------------------------------|
|  | Zoning Area 1 |  | Gliders |
|  | Zoning Area 2 |  | Powered Aircraft Flight Track |
|  | Zoning Area 3 |  | Glider/Tow Plane Flight Track |
|  | Zoning Area 4 |  | Runway Protection Zone |
|  | City Boundary | | |

**Boulder Municipal Airport
Airport Master Plan Update**

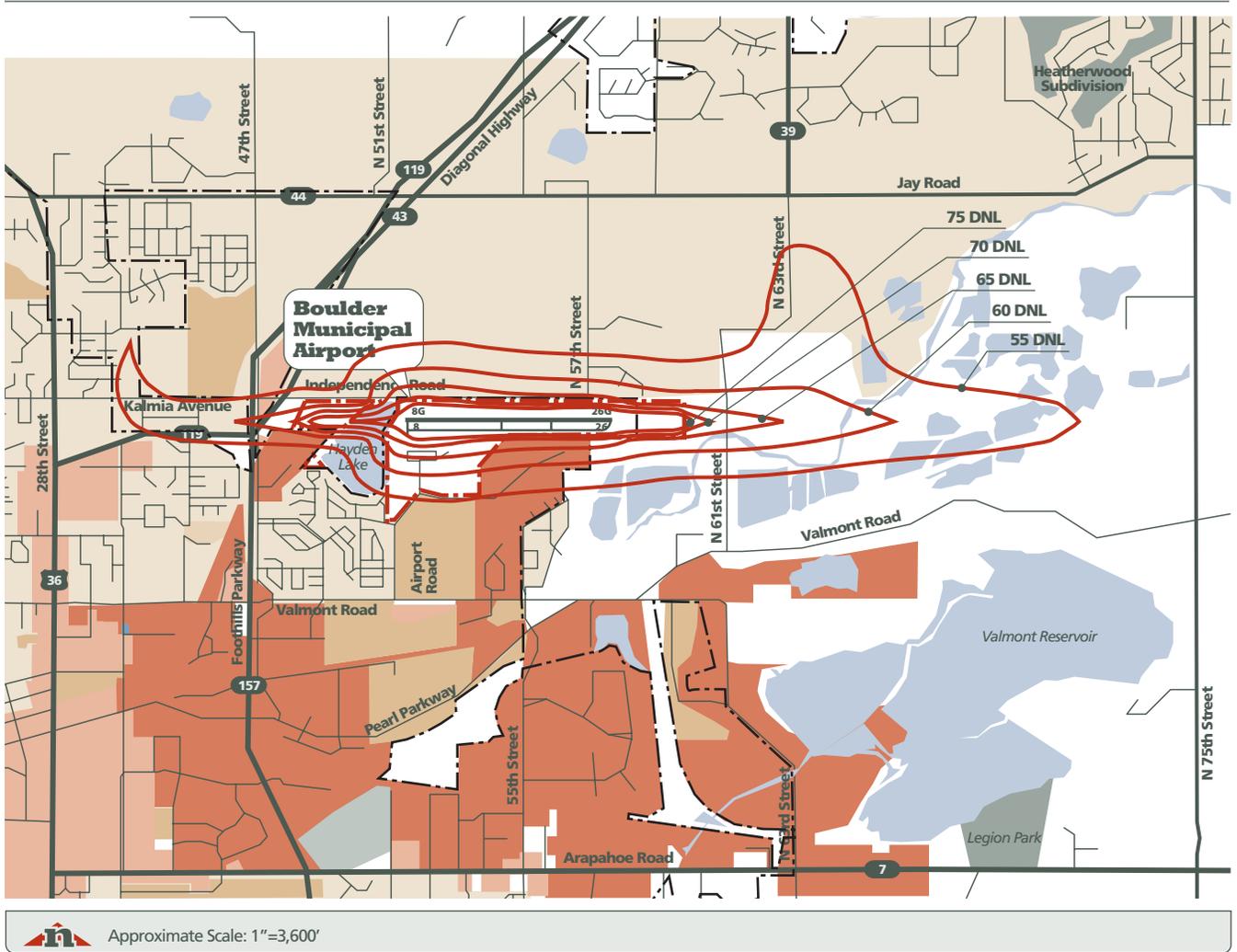


Figure F2 2003 Existing DNL Noise Contours with Generalized Existing Land Use

- | | |
|---------------------|------------------|
| Agricultural | Public |
| Industrial | Open Area |
| Commercial/Business | City Boundary |
| Residential | Airport Boundary |

Boulder Municipal Airport Airport Master Plan Update

DNL Noise Contours: Barnard Dunkelberg & Company.

Source: Base Map: Microsoft Street & Trips 2006. Existing Land Use: Barnard Dunkelberg & Company Land Use Survey, 2004.



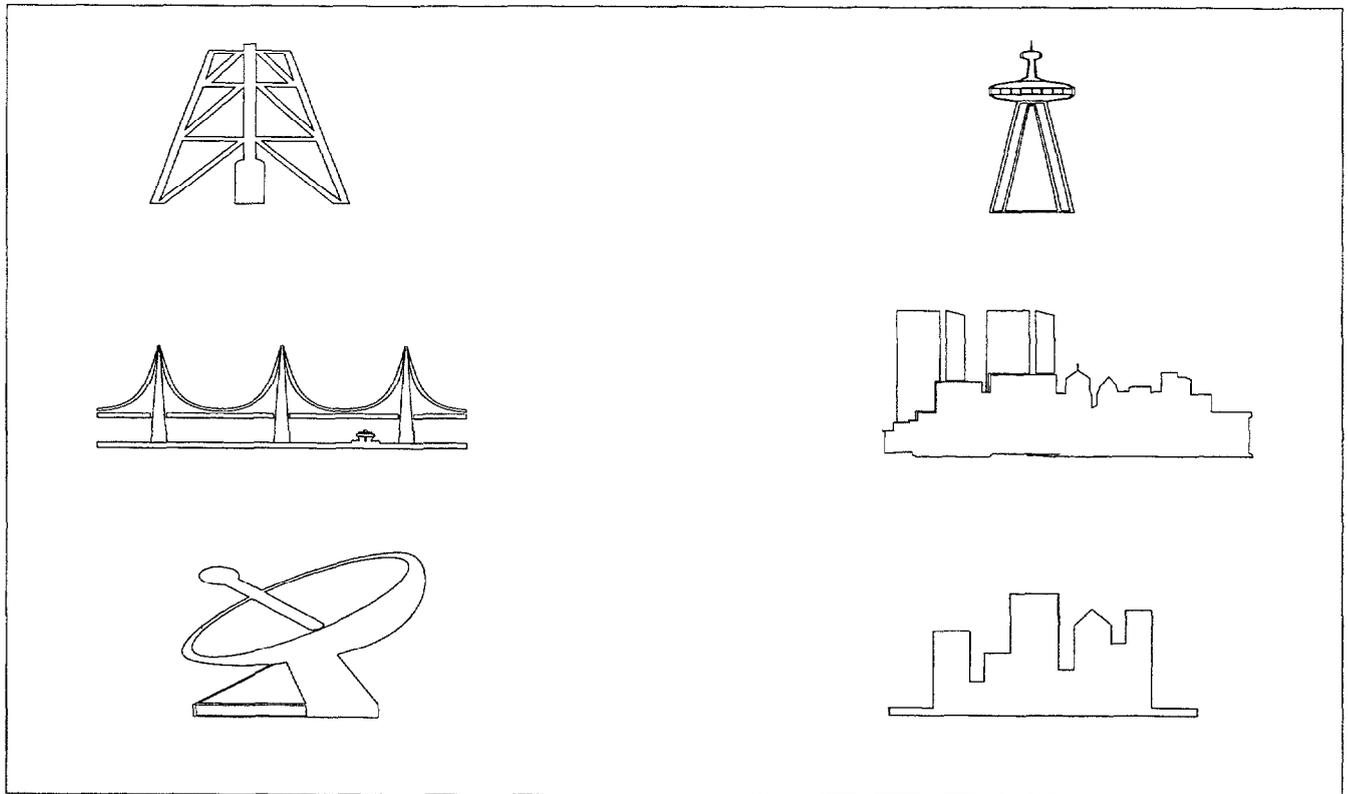
U.S. Department
of Transportation

**Federal Aviation
Administration**

ADVISORY CIRCULAR

AC 70/7460-2K

Proposed Construction or Alteration of Objects that May Affect the Navigable Airspace



Effective: March 1, 2000

Agenda Item 3
Prepared by the Air Traffic
Airspace Management Program



U.S. Department
of Transportation

Federal Aviation
Administration

ADVISORY CIRCULAR

Subject: PROPOSED CONSTRUCTION OR ALTERATION OF OBJECTS THAT MAY AFFECT THE NAVIGABLE AIRSPACE

Date: 3/1/00

AC No: 70/7460.2K

Initiated by: ATA-400

1. PURPOSE.

This Advisory Circular (AC) provides information to persons proposing to erect or alter an object that may affect the navigable airspace. The AC also explains the requirement to notify the Federal Aviation Administration (FAA) before construction begins and FAA's responsibility to respond to these notices in accordance with Title 14 Code of Federal Regulations (14 CFR) part 77, Objects Affecting Navigable Airspace. Additionally, the AC explains the process by which to petition the FAA's Administrator for discretionary review of the determinations issued by the FAA.

2. CANCELLATION.

AC 70/7460-2J, Proposed Construction or Alteration of Objects That May Affect the Navigable Airspace, dated 11/29/95, is cancelled.

3. BACKGROUND/AUTHORITY.

a. 49 U.S.C. Section 44718 mandates, in pertinent part, that "The Secretary of Transportation shall require a person to give adequate public notice...of the construction or alteration, establishment or extension, or the proposed construction, alteration, establishment, or expansion, of any structure...when the notice will promote:

- (1) safety in air commerce, and
- (2) the efficient use and preservation of the navigable airspace and of airport traffic capacity at public-use airports."

b. To this end, 14 CFR Part 77 was issued prescribing that notice shall be given to the Administrator of certain proposed construction or alteration.

4. EFFECTIVE DATE.

This advisory circular becomes effective March 1, 2000.

5. NOTICES.

a. WHY IS NOTIFICATION REQUIRED?

In administering 14 CFR Part 77, the FAA's prime objectives are to ensure the safe and efficient use of the navigable airspace. The FAA recognizes that there are varied demands for the use of airspace, both by aviation and nonaviation interests. When conflicts arise out of construction proposals, the FAA emphasizes the need for conserving the navigable airspace. Therefore, early notice of proposed construction or alteration provides the FAA the opportunity to:

(1) Recognize potential aeronautical hazards to minimize the adverse effects to aviation.

(2) Revise published data or issue a Notice to Airmen (NOTAM) to alert pilots to airspace or procedural changes made as a result of the structure.

(3) Recommend appropriate marking and lighting to make objects visible to pilots. Before filing FAA Form 7460-1, Notice of Proposed Construction or Alteration, construction sponsors should become knowledgeable in the different types of obstruction marking and lighting systems that meet FAA standards. Information about these systems can be obtained from the manufacturers. Proponents can then determine which system best meets their needs based on purchase, installation, and maintenance costs. The FAA will make every effort to accommodate the request.

(4) Depict obstacles on aeronautical charts for pilotage and safety.

b. WHO MUST FILE NOTICE?

Any person or an agent who intends to sponsor construction is required to submit notice to the Administrator if the proposed construction or alteration falls within any of the following categories:

(1) *Greater than 200 feet in height.* The proposed object would be more than 200 feet above ground level (AGL) at its location.

NOTE-

See FIG 1 and FIG 2.

Greater Than 200 Feet AGL at Object's Location [Over Land]

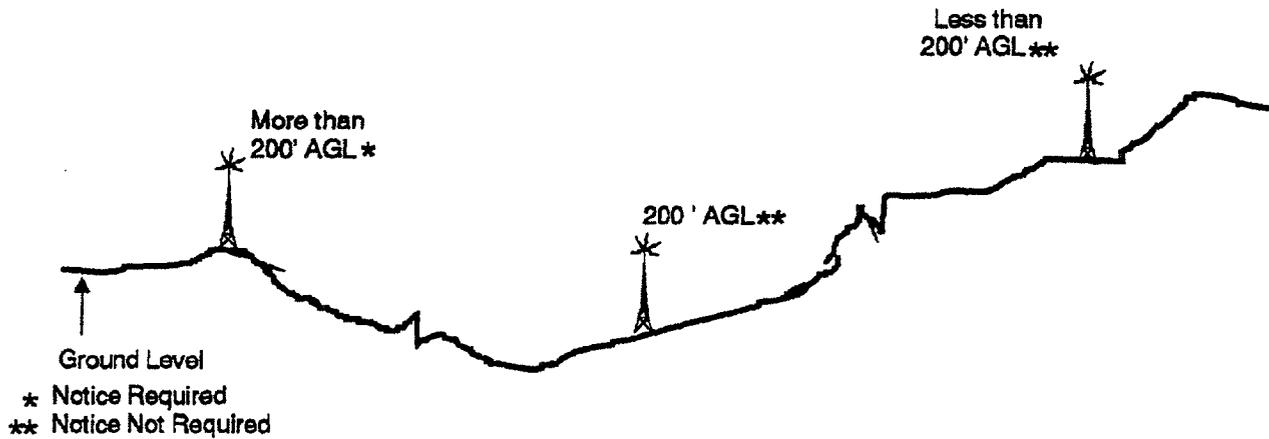


FIG 1

Greater Than 200 Feet AGL at Object's Location [Over Water]

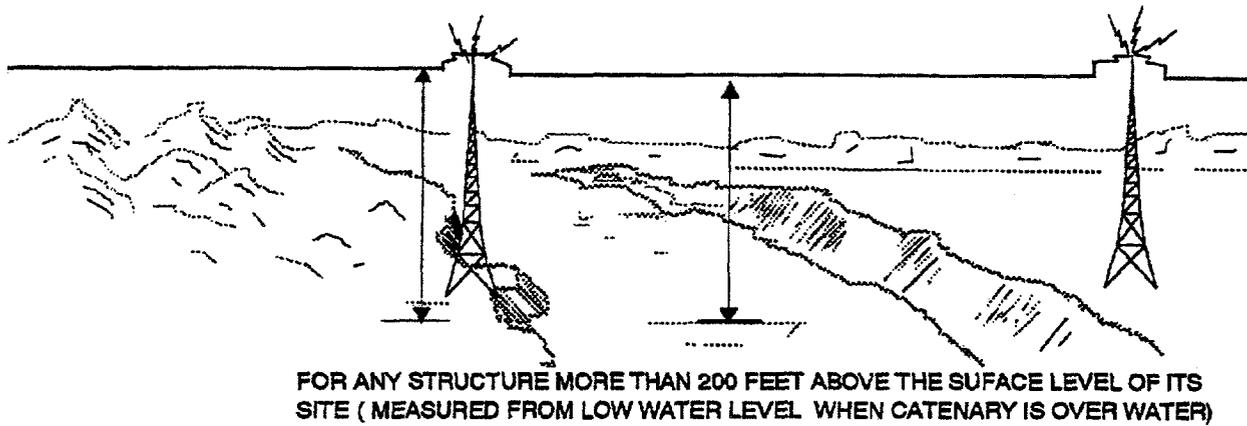


FIG 2

(2) Near a Public-Use or Military Airport, Heliport, or Seaplane Base. A public use airport, heliport or a seaplane base with visually marked seaplanes that is listed in the current Airport Facility Directory, the Alaska Supplement or the Pacific Chart Supplement, or near an airport operated by an armed force of the United States.

(a) Airport or Seaplane Base. The proposed object or alteration would be within:

(1) 20,000 feet of an airport or seaplane base with at least one runway more than 3,200 feet in length

and the object would exceed a slope of 100:1 horizontally (100 feet horizontally for each 1 foot vertically) from the nearest point of the nearest runway.

(2) 10,000 feet of an airport or seaplane base that does not have a runway more than 3,200 feet in length and the object would exceed a 50:1 horizontal slope (50 feet horizontally for each 1 foot vertically) from the nearest point of the nearest runway.

NOTE-
See FIG 3.

Object Penetrates Airport/Seaplanes Base Surface

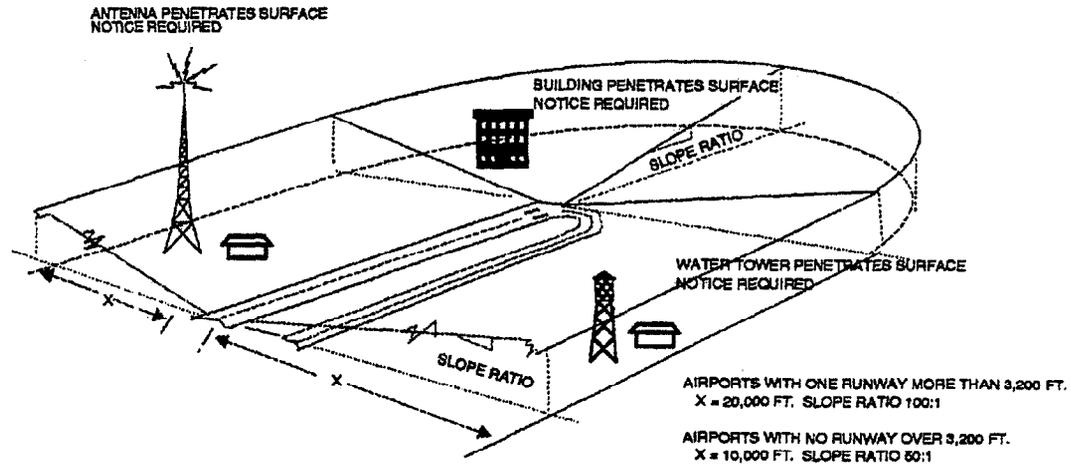


FIG 3

(b) *Heliport.* The proposed object would be within 5,000 feet of a heliport and would exceed a 25:1 horizontal slope (25 feet horizontally for each 1 foot vertically) from the nearest landing and takeoff area of that heliport.

NOTE-
See FIG 4.

Object Penetrates Heliport Surface

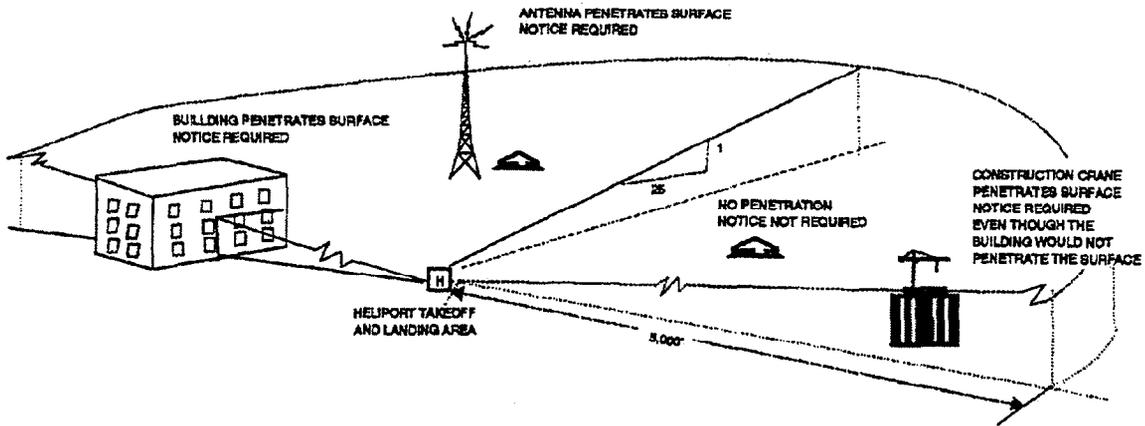


FIG 4

(3) Highways and Railroads. The proposed object is a traverse way which would exceed one or more of the standards listed in paragraphs a and b above, after the height of the object is adjusted upward as follows:

(a) Private road: 10 feet or the height of the highest mobile object that would traverse the roadway, whichever is greater.

(b) Other public roadways: 15 feet.

(c) Interstate Highways: 17 feet.

(d) Railroad: 23 feet.

(e) Waterway or any other thoroughfare not previously mentioned: an amount equal to the highest mobile object that would traverse the waterway or thoroughfare.

NOTE-
See FIG 5.

Proposed Object in a Traverse Way

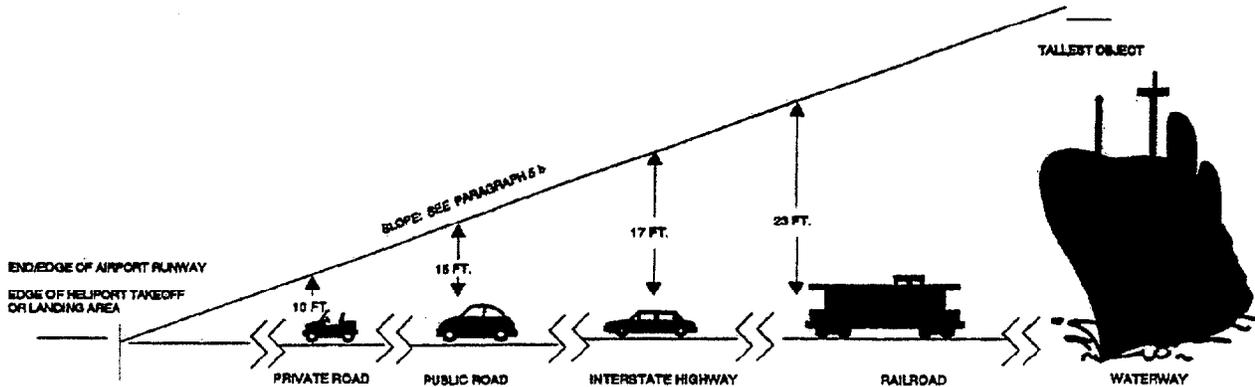


FIG 5

(4) *Objects on a Public-Use or Military Airport or Heliport.* The proposed construction or alteration would be on an airport or heliport, or any airport operated by an armed force of the United States, regardless of height or location.

(5) *When Requested by the FAA.* The FAA may request notice if available information indicates the proposal may exceed an obstruction standard or the proposal may cause electromagnetic interference to aircraft, particularly construction associated with an AM, FM, or TV station including a change in authorized frequency or transmitting power, may cause transmitted signals to be reflected upon ground-based or airborne air navigation communications equipment, or affect instrument procedures. In addition, notice may be requested when the proposal may affect an air traffic control procedure, may obstruct air traffic controllers' line of sight capability, or may affect air traffic control radar.

c. WHAT KIND OF STRUCTURES REQUIRE FAA NOTIFICATION?

The following are examples of structures requiring notice to the FAA.

- (1) Proposed construction or alteration of structures such as:
 - (a) Buildings.
 - (b) Antenna Towers.
 - (c) Roadways.
 - (d) Overhead communications and transmission lines as well as the height of the supporting structures.
 - (e) Water towers and the supporting structure.

(2) Construction equipment or other temporary structures such as:

- (a) Cranes.
- (b) Derricks.
- (c) Stockpiles of equipment.
- (d) Earth moving equipment.

d. WHEN MUST NOTICES BE FILED?

Notice must be submitted:

- (1) At least 30 days before the earlier of the following:
 - (a) The date the proposed construction or alteration is to begin, or
 - (b) The date the application for a construction permit will be filed.
- (2) On or before the date the application for construction is filed with the Federal Communications Commission (FCC), if the proposed structure is subject to FCC licensing requirements.
- (3) Immediately by telephone or other expeditious means to the nearest FSS, with written notification submitted within 5 days thereafter, if immediate construction or alteration is required as in cases involving public services, health or safety.
- (4) As early as possible in the planning stage but not less than 30 days before construction will begin.

e. HOW AND WHERE TO FILE NOTICE.

Notification of the proposal should be made on FAA Form 7460-1, Notice of Proposed Construction or Alteration. Additional information such as charts and/or drawings that accurately depict the proposed construction or alteration should be included to

facilitate the FAA's analysis of the project. The completed form should be mailed to the Manager, Air Traffic Division, of the regional office having jurisdiction over the area within which the construction or alteration will occur.

NOTE-

Information on regional addresses may be found on the FAA's website at www.faa.gov/ats/ata/ata-400/oeaaa.htm or contact the FAA listed in local telephone books under United States Government.

f. PENALTY FOR FAILING TO PROVIDE NOTICE.

Persons who knowingly and willfully violate the notice requirements of 14 CFR part 77 are subject to a civil penalty.

g. COMPLIANCE RESPONSIBILITY.

A notice filed with the FAA does not relieve the proponent of compliance with laws, ordinances or regulations of any other Federal, state or local governmental entity.

h. ASSOCIATED PUBLICATIONS.

The following publications contain obstruction criteria, marking and lighting standards and specifications for lighting and paint.

(1) *Federal Aviation Regulations 14 CFR, part 77, Objects Affecting Navigable Airspace*. This part sets forth the requirements for notice to the FAA of proposed construction or alteration and provides standards for determining obstructions to navigable airspace. 14 CFR, part 77 (Stock No. 050-007-00276-9) may be ordered from:

Superintendent of Documents
U. S. Government Printing Office
Washington, DC 20402

(2) *Advisory Circulars*. FAA advisory circulars are available free of charge from:

Department of Transportation
TASC
Subsequent Distribution Office,
SVC-121.23
Ardmore East Business Center
3341 Q 75th Avenue
Landover, MD 20785

(a) *AC 70/7460-1, Obstruction Marking and Lighting*, describes the standards for marking and lighting structures such as buildings, chimneys, antenna towers, cooling towers, storage tanks, supporting structures of overhead wires, etc.

(b) *AC 150/5190-4, A Model Zoning Ordinance to Limit Height or Objects Around Airports*, provides a

model-zoning ordinance to be used as a guide to control the height of objects around airports.

(c) *AC 150/5300-13, Airport Design*, includes planning information on electronic and visual navigational aids and air traffic control facility siting and clearance requirements that influence the physical layout of airports.

(d) *AC 150/5345-53, Airport Lighting Equipment Certification Program*, addendum lists equipment model numbers and manufacturer's part numbers in compliance with item (e) below. The addendum is located on the Internet at the Office of Airports homepage: <http://www.faa.gov/arp/arphome.htm> under Advisory Circulars.

(e) *AC 150/5345-43, Specification for Obstruction Lighting Equipment*, contains specifications for equipment used in obstruction lighting systems.

(3) *Marking Specifications and Standards*. Aviation colors and paint standards and specifications are available from:

General Services Administration
Specifications Section
470 L'Enfant Plaza, Suite 8214
Washington, DC 20407

(4) *FAA Forms*. FAA forms are available free of charge from all FAA regional offices.

(a) *FAA Form 7460-1, Notice of Proposed Construction or Alteration*, is used to notify the FAA of proposed construction or alteration of an object that may affect the navigable airspace.

(b) *FAA Form 7460-2, Notice of Actual Construction or Alteration*, is used to notify the FAA of progress or abandonment, as requested on the form. The FAA regional office routinely includes this form with a determination when such information will be required. The information is used for charting purposes, to change affected aeronautical procedures and to notify pilots of the location of the structure.

i. ADMINISTRATIVE ASSISTANCE TO CONSTRUCTION PROPONENTS.

(1) Airspace specialists are available in each regional office to assist proponents in filing their notice. Proponents are encouraged to call in advance for appointments. Limited resources often prevent the specialist from responding spontaneously without advanced planning or preparation.

(2) To insure timely determinations, construction proponents must submit complete and accurate data. Lack of complete and accurate data could result in the return of the form. United States Geological Survey quadrangle maps are available at nominal costs to aid in determining

the geographical coordinates (latitude/longitude) and site elevation above mean sea level. The latitude/longitude information should be submitted in North American Datum of 1983. The quadrangle maps can be obtained from:

U.S. Geological Survey
Reston, Virginia 22092
Telephone No. (703) 860-6045

U.S. Geological Survey
District Branch
P.O. Box 25286, Bldg. #41
Denver, Colorado 80225
Telephone No. (303) 844-4169

(3) Airport planners are available for assistance with construction proposals on Federally obligated airports.

(4) Proposals for electronic transmitting devices should include frequency, effective radiated power (ERP), radiation center height (RCAMSL), and antenna characteristics such as number of bays, beam tilt, and null fill.

6. FAA's RESPONSIBILITY.

a. The FAA will acknowledge receipt of the notice.

b. After initial screening, the outcome of the screening will be sent to the filer and may state one of the following:

(1) The proposal is not identified as an obstruction and would not be a hazard to air navigation, or

(2) The proposal would be an obstruction unless reduced to a specified height and is presumed to be a hazard to air navigation pending further study. When this is indicated, the acknowledgement will either specify that the FAA has initiated further study, or the proponent may elect to reduce the height or request further study within (sixty) 60 days, in which event, the FAA will begin the study when the proponent so advises.

c. If further aeronautical study is initiated, public notice may be prepared and distributed for comments to those agencies, organizations, or individuals with known aeronautical interests to determine if the proposal would be a hazard to air navigation. State and local aviation authorities, as well as various military organizations of the Department of Defense, are also offered the opportunity to comment on the aeronautical effects of the proposal.

d. All responses received by the end of the specified comment period are analyzed by the FAA regional specialists for valid aeronautical comments and objections.

e. The office conducting the study may decide to conduct an informal airspace meeting with interested parties to discuss the effects of the proposal and to gather additional facts or information relevant to the study.

f. The FAA specialists may negotiate with the proponent during the study process to resolve any adverse

effect(s) on aeronautical operations. Many times, a minor reduction in height and/or relocation of a proposed structure will eliminate or sufficiently minimize adverse aeronautical effects that would permit the issuance of a Determination of No Hazard to Air Navigation.

g. After the aeronautical study is completed, the regional office will normally issue a:

- (1) Determination of Hazard to Air Navigation; or
- (2) Determination of No Hazard to Air Navigation.

h. An FAA determination is a conclusion based on the study of a structure's projected impact on the safe and efficient use of the navigable airspace by aircraft. It should not be construed as an approval or disapproval of the project.

i. The FAA usually recommends marking and/or lighting of a structure when its height exceeds 200 feet above ground level (AGL) or exceeds Part 77 obstruction criteria. However, the FAA may recommend marking and/or lighting of a structure that does not exceed 200 feet AGL or Part 77 obstruction standards because of its particular location.

7. HOW TO PETITION THE ADMINISTRATOR FOR DISCRETIONARY REVIEW.

a. When a determination is issued under 14 CFR Section 77.19(except Section 77.19 c.(1)), or Section 77.35 or when a revision or extension is issued under Section 77.39 (c), you may petition the FAA Administrator for a review of the determination, revision, or extension if you:

(1) Are the sponsor of the proposed construction or alteration,

(2) Stated a substantial aeronautical objection to the proposal during an aeronautical study, or

(3) Have a substantial aeronautical objection but were not given an opportunity to state it.

b. The petition must be submitted within 30 days after the issue date of the determination, revision, or extension and must contain a full statement of the basis upon which it is made. Submit an original and two copies to:

Manager, Airspace and Rules
Division, ATA-400
Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591

Nancy Kalinowski

John S. Walker

Program Director, Air Traffic
Airspace Management Program

Attachment B: Written Statement

Estimated number of trips to site per day:
(Please indicate mode of transportation used to reach the site.)

Olsson Associates Traffic Study

Estimated number of trips to site per day:
(Please indicate mode of transportation used to reach the site.)

Olsson Associates Traffic Study

Uses on adjacent / surrounding properties:

Vacant properties to the North and East. Commercial to South. Industrial to Southeast. Not zoned to west, across Foothills Parkway. Residential to Southwest.

Narrative

In the space provided below or in an attached letter, please type or print a narrative describing the proposal in specific detail. Only one written narrative is necessary per development project.

We are pleased to offer the attached submittal for the proposed construction of a new Holiday Inn Express. Details include: three stories (54,510 square feet), 120+/- units with indoor pool, exercise room, meeting space, and continental breakfast. The amenities for this hotel are for patrons use only. The intent of this hotel is to be open 24 hours per day and 7 days a week. The hotel is a Type VA 1 hour construction, fully sprinkled NFPA13, wood frame with stone and E.F.I.S as exterior finish. The hotel will provide 122 surface parking spaces and an additional 78 underground parking spaces.

Date: February 3, 2016
To: David Thompson, City of Boulder
From: Shane King, PE, PTOE
RE: Trip Generation Determination
Holiday Inn Express
Project #: OA Project 016-0197
Cc: File



INTRODUCTION & OBJECTIVE

This memorandum documents the results of a trip generation for a proposed hotel in the northeast quadrant of the intersection of 47th Street & State Highway 119 (SH 119)/Diagonal Highway in Boulder, CO. The analysis is being completed to determine the number of expected trips and trip distribution for the proposed site.

SITE TRIP GENERATION AND DISTRIBUTION

To determine the impact of potential site traffic on the roadway network, trips expected to be associated with the site were generated and applied to the study network.

Trip generation is generally determined using rates found in the *ITE Trip Generation Manual* (9th Edition). Common Land Use Codes (LUC) are published with rates that can be applied to values related to the size of the proposed site to estimate the expected entering and exiting trips. The most similar LUC to the site is Hotel (LUC 310) which is expected to generate 980 Daily, 64 AM, and 72 PM trips as shown in **Table 1**. These additional trips are a very small percentage of the existing volumes on the adjacent roadways.

Typically, trips to most sites come in the form of personal vehicle only. The City of Boulder is proactive in efforts to reduce vehicular trips and promote other modes of transportation. A transportation demand management (TDM) reduction can be applied to the site trips to account for pedestrian trips, bicycle trips, or utilization of public transit. The existing bus stop at the intersection of 47th Street & SH 119/Diagonal Highway and bike lanes in both directions along 47th Street and along SH 119 near the site make other modes very feasible. Therefore, a 7% TDM reduction factor was applied to site trips as prescribed in Appendix B of the *Trip Generation Handbook* (2nd Edition).

The trip distribution and peak hour vehicular site trips can be seen in **Figure 1**. This figure shows only vehicular trips following the TDM reduction.

Table 1
ITE TRIP GENERATION
State Highway 119 (Diagonal Highway) & 47th Street
TRAFFIC IMPACT STUDY
BOULDER, CO

Daily Trip Generation											
ITE Code/Page	Land Use	Size		Trip Gen. Avg. Rate/Eq.	Daily Trips	TDM Reduction	Net Daily Trips	Trip Distribution		Total Daily Trips	
								Enter	Exit	Enter	Exit
310/613	Hotel	120	Rooms	8.17	980	7%	912	50%	50%	456	456
Total					980		912			456	456

AM Peak Hour Trips											
ITE Code/Page	Land Use	Size		Trip Gen. Avg. Rate/Eq.	AM Peak Trips	TDM Reduction	Net AM Peak Trips	Trip Distribution		Total AM Trips	
								Enter	Exit	Enter	Exit
310/614	Hotel	120	Rooms	0.53	64	7%	59	59%	41%	35	24
Total					64		59			35	24

PM Peak Hour Trips											
ITE Code/Page	Land Use	Size		Trip Gen. Avg. Rate/Eq.	PM Peak Peak Trips	TDM Reduction	Net PM Peak Trips	Trip Distribution		Total PM Trips	
								Enter	Exit	Enter	Exit
310/615	Hotel	120	Rooms	0.60	72	7%	67	51%	49%	34	33
Total					72		67			34	33

FIGURE 1

Trip Distribution and Site Trips

Hotel - SH 119 & 47th Street
Boulder, CO

LEGEND

- AM (PM) Entering Trips
- AM (PM) Exiting Trips
- XX% External Distribution

