PLANNING AND ZONING COMMISSION AGENDA
Monday, July 11, 2016
City Hall, 480 East Avenue North, Ketchum, ID

1. 5:30 PM - CALL TO ORDER: City Hall, 480 East Avenue North, Ketchum, Idaho

2. PUBLIC COMMENT - Communications from the public for items not on the agenda.

3. COMMUNICATIONS FROM STAFF
    a. *Continued from Monday, June 13, 2016 and June 27, 2016*- Bracken Station Conditional Use Permit Public Hearing: 911 North Main Street, Ketchum, ID (Ketchum AM Lot 5A Block 30 18,590 SF) The applicant is proposing to construct a motor vehicle fueling station with accessory food service. The property is 0.435 acres in size and zoned Light Industrial-1 (LI-1).
    b. *Continued from Monday, June 13, 2016 and June 27, 2016*- Bracken Station Pre-Application Design Review Public Hearing: 911 North Main Street, Ketchum, ID (Ketchum AM Lot 5A Block 30 18,590 SF) The applicant is proposing to construct a motor vehicle fueling station with accessory food service. The property is 0.435 acres in size and zoned Light Industrial-1 (LI-1).
    c. Zoning Ordinance Phase II Update: Public Hearing City Initiated text amendments to the City of Ketchum Municipal Code, Title 17, Zoning Ordinance, Chapter 17.12, Establishment of Districts and Zoning Matrices, and Chapter 17.127, Signage.

4. CONSENT CALENDAR
    a. FINDINGS OF FACT: Armour Residence Waterways Design Review and Flood Plain Development Permit
    b. APPROVAL OF MINUTES
        i. June 13, 2016: Minutes
        ii. June 27, 2016: Minutes

5. FUTURE PROJECTS AND NOTICING REQUIREMENTS

6. STAFF REPORTS & CITY COUNCIL MEETING UPDATE

7. COMMISSION REPORTS AND EX PARTE DISCUSSION DISCLOSURE

8. ADJOURNMENT

Any person needing special accommodations to participate in the meeting should contact the City Clerk's Office as soon as reasonably possible at 726-3841. All times indicated are estimated times, and items may be heard earlier or later than indicated on the agenda.

City of Ketchum
Planning & Building

July 11, 2016

Planning and Zoning Commission
City of Ketchum
Ketchum, Idaho

Commissioners:

STAFF REPORT
KETCHUM PLANNING AND ZONING COMMISSION
REGULAR MEETING OF JULY 11, 2016

PROJECT: Bracken Station Conditional Use Permit (CUP)

FILE NUMBERS: #16-034

OWNER: North Town Partners LLP

REPRESENTATIVE: Steve Cook, AIA

REQUEST: Conditional Use Permit (CUP) for a motor vehicle fueling station and food service establishment

LOCATION: 911 N. Main Street (Ketchum, AM Lot 5A, Block 30)

ZONING: Light Industrial District Number 1 (LI-1)

NOTICE: Property owners within 300 foot radius of subject property were mailed notice on May, 16, 2016. A public hearing notice was published in the Legal Notices of the Idaho Mountain Express on May 25, 2016. Notice was posted on the subject property and in three public City locations on May, 17, 2016. Continuation of the hearing to June 27, 2016 was announced during the June 13, 2016 hearing and continuation of the hearing to July 11, 2016 was announced during the June 27, 2016 meeting.

REVIEWER: Brittany Skelton, Associate Planner

INTRODUCTION

The applicant is requesting a Conditional Use Permit (CUP) to allow redevelopment of 911 N. Main for a motor vehicle fueling station and a food service establishment. Motor vehicle fueling stations and food service (subject to limitations on hours of operation and size) are only allowed in the LI-1 District if a Conditional Use Permit (CUP) is approved. The definition of motor vehicle fueling stations permits retail sales of items of

convenience to the motoring public. The Planning and Zoning Commission (Commission) has complete discretionary authority to approve, deny, or conditionally approve either use (fueling station or restaurant) or approve, deny, or conditionally approve both uses on the site, basing the decision upon findings of fact.

During the hearing on June 13, 2016 the Commission motioned to continue the hearing to June 27, 2016 and directed the applicant to submit additional studies and information. The entirety of additional information and studies were not available by June 27th, 2016; during the continuation of hearing on June 27, 2016 the Commission requested additional information and motioned to continue the hearing to July 11, 2016. A summary and analysis of the additional plans, studies and information submitted by the applicant is contained in Attachment B.

For the conditional use permit requested by North Town Partners LLP and the continuation of the hearing on July 11, 2016 city staff has prepared the following report that addresses the implications of these uses on the proposed location and recommendations for how the Planning and Zoning Commission may mitigate impacts. The report below contains new analysis based on the additional studies and information submitted by the applicant since the June 13, 2016 hearing.

Current Report

The location proposed for a motor vehicle fueling station and food service establishment is located on Lot 5A, Block 30, Ketchum Townsite, otherwise known as 911 N. Main Street. Three buildings currently exist on the site that are proposed to be substantially altered or removed for the project. Building "A" is the northernmost building, "B" is located in the center, and "C" is the southernmost building. The applicant proposes to partially demolish building "B" and to remodel and add an addition and a trellis patio to the remaining portion of the building. The applicant is also proposing to construct a canopy structure associated with the motor vehicle fueling station. The applicant is proposing to entirely demolish buildings "A" and "C" along with installing sidewalks, crosswalks, landscaping, lighting, parking, and drainage improvements to accommodate the development. The site does not currently meet city standards for the existing or proposed development and the site will require significant upgrades for the proposed project if the Planning and Zoning Commission determines a conditional use permit can be approved. Recommended improvements to meet city standards are contained within this report.

All city departments completed their review of the applicant's request and the analysis below, based on the plans as submitted for the July 11, 2016 Planning and Zoning meeting, reflect their comments and concerns. No new analysis has been included in this staff report. Attachment A. summarizes comments from all departments on the proposed development. Attachment B summarizes and analysis the new information received. Attachment C summarizes how the project complies with the Zoning Ordinance standards.

Currently there are three fueling stations in the LI District, two restaurants, and one food mart to service the area. In total there are five existing fueling stations within a 1.5 mile radius of the proposed site. The Commission must decide if the proposed uses are appropriate for the site and location and if the uses are necessary to serve the LI district.

Analysis

The Planning and Zoning Commission must determine if a Conditional Use Permit can be approved for the fueling station and restaurant proposed for the LI-1 district. According to the Zoning Ordinance, conditional uses by definition possess characteristics that require review and appraisal by the Commission to determine whether or not the use would cause any public health, safety or welfare concerns. Conditional uses may only be allowed if the Commission determines there would be no impact to the public health, safety and welfare of the community.

A conditional use permit may be granted by the commission only if the applicant demonstrates that:

- The characteristics of the conditional use will not be unreasonably incompatible with the types of uses permitted in the applicable zoning district;
- The conditional use will not materially endanger the health, safety and welfare of the community;
- The conditional use is such that pedestrian and vehicular traffic associated with the use will not be hazardous or conflict with existing and anticipated traffic in the neighborhood;
- The conditional use will be supported by adequate public facilities or services and will not adversely affect public services to the surrounding area, or conditions can be established to mitigate adverse impacts;
- The conditional use is not in conflict with the policies of the comprehensive plan or the basic purposes of the Zoning Ordinance.

Should the Commission agree a CUP can be approved, they may attach additional conditions to the application approval as it determines necessary in order to make the uses more compatible with the vicinity and adjoining uses, mitigate impacts, and allow for health, safety and welfare. Such conditions may include, but are not limited to:

A. Minimizing adverse impact on other development.
B. Controlling the sequence and timing of development.
C. Controlling the duration of development.
D. Assuring that development is maintained properly.
E. Designating the exact location and nature of development.
F. Requiring the provision for on site or off site public facilities or services.
G. Requiring more restrictive standards than those generally required in an ordinance.
H. Requiring mitigation of effects of the proposed development upon service delivery by any political subdivision, including school districts, providing services within the city. (Ord. 1135, 2015)

STAFF RECOMMENDATION

The Commission must consider the Bracken Station CUP application as it relates to the criteria used for evaluating conditional use permits and has the option of approval or denial. If the Planning and Zoning Commission chooses to approve the application, staff recommends requiring the conditions of approval as identified in this report as a minimum. The Commission may require additional conditions based on findings received through public comment, testimony, or other discovery.

COMMISSION OPTIONS

1. **Denial of the Application**: "Motion to deny the application from North Town Partners LLP for a Conditional Use Permit application for a motor vehicle fueling station and food service, finding the application **does not** meet the standards for approval under Chapter 17.116 of Ketchum Zoning Code Title 17, for the following reasons: [cite findings for denial]."
2. **Approval of the Application**: "Motion to approve the application from North Town Partners LLP for a Conditional Use Permit application for a motor vehicle fueling station and food service, finding the application meets the standards for approval under Chapter 17.116 of Ketchum Zoning Code Title 17 with the following conditions: [insert conditions of approval here]"
3. **Continuation of the Application**: "Motion to continue the application from North Town Partners LLP to a date certain of [insert date of meeting]."

RECOMMENDED CONDITIONS

Ketchum City Engineer, Streets, Utilities, Fire and Building Department requirements shall be met, including:

1. All departmental conditions as described in Table 1.
2. All building and fire code requirements as dictated by 2012 family of international building codes shall apply to all construction onsite.
3. Snow removal outside the travel lanes of Highway 75 shall be the responsibility of the property owner.
4. All light fixtures mounted on or recessed into the lower surface of the service station canopy shall be fully shielded and utilize flat lenses. Such shielding must be provided by the fixture itself; shielding by surrounding structures such as canopy edges is not permitted.
5. The applicant shall construct the public improvements recommended by staff described in Table 2.
6. The applicant shall construct the public improvements recommended by staff as described in Table 5.
7. The applicant shall construct the public improvement recommended by staff described in Table 6.
8. All storm water retention improvements shall meet the latest standards for motor vehicle fueling stations and shall be approved by the Public Works Director.
9. Per Title 17, Section 17.116.080: TERM OF PERMITS: Conditional Use Permit approval shall expire one (1) year from the date of approval if not acted upon within that time frame; and
10. This Conditional Use Permit approval is based on representations made and other components of the application presented and approved at the meeting on July 11th, 2016.

ATTACHMENTS:

A. Table 1: Requirements for All Applications
B. Table 2: Summary and Analysis of New Plans, Studies and Information Received
C. Table 3: Zoning Standards Analysis
D. Table 4: Conditional Use Permit Requirements
E. Table 5: Required Public Improvements
F. Table 6: Recommended Additional Public Improvements
G. Aerial Site Plan
H. Table 7: Uses in the LI-1 Zone
I. Table 8: Dimensional Standards in the LI-1 Zone
J. Table 9: Potential Build Out for 911 N. Main Street
K. Table 10: Summary of all public comments and materials for the written record received by the Planning Department through 11:00 a.m., July 8, 2016
L. New public comments and materials for the written record received by the Planning Department June 28, 2016 through 11:00 a.m., July 8, 2016
M. Application
N. Plans as submitted for the July 11, 2016 meeting
    a. A.0 – Coversheet, dated May 23, 2016
    b. Existing Site Plan
    c. A-2 – Conditional Use / Preapplication Site Plan, dated June 30, 2016
    d. A-2.1 – Overall Conditional Use / Preapplicaiton Site plan, dated June 30, 2016
    e. A.3 – North Elevation, dated May 23, 2016
    f. A.5 – Proposed Flood Plan and Proposed East Elevation, dated May 23, 2016
    g. A.6 – Proposed Retaining Walls at Alley, dated May 23, 2016
    h. EX – Preliminary Improvements Plan, dated June 3, 2016
    i. EX – Preliminary Grading & Drainage Plan, dated June 3, 2016
    j. On-Site Vehicle Turn Exhibit, dated July 11, 2016
    k. 10th Street Vehicle Turn Exhibit, dated July 11, 2016
    l. Highway 75 Frenchman Sidewalk Connection, dated July 11, 2016
    m. Profile From North of 10th Street to South of 10th Street, dated July 11, 2016
    n. L1.0 – Landscape Plan, dated July 1, 2016
    o. Proposed North Elevation – 10th Street View

p. L.1 – Lighting Plan, dated June 30, 2016
q. Site lighting fixtures, types A-F
r. Photometric Plan, black and white, dated June 20, 2016
s. Photometric Plan, color, no date
t. Radiosity Plan, dated June 20, 2016

O. Motor Fueling Station Pedestrian Analysis, dated June 29, 2016
P. Connector Sidewalk from Bracken Station to Frenchman's e-mail, dated June 27, 2016
Q. Retail S Analysis, dated January 2016
R. Existing conditions and proposed development renderings, north and south views
S. Chevron monument sign example
T. Idaho Department of Environmental Quality's Rules Regulating Underground Storage Tank Systems
U. Seismic Behavior of Xerxes Underground Tanks memorandum
V. Xerxes Fiberglass Underground Storage Tanks brochure
W. Ketchum – Bracken Station TIS, Additional Information memorandum, dated July 6, 2016
X. Traffic Impact Study, complete (64 p.), dated May 2016

Attachment A

Table 1: Requirements for All Applications

General Requirements for All Applications				
Compliant			**Standards and Staff Comments**	
Yes	**No**	**N/A**	**City Code**	**City Standards and *Staff Comments***
☒	☐	☐	**17.116.040(A)**	**Complete Application**
☐	☒	☐	**Department and Boards/ Commissions Comments**	**Public Works Department:** 1. The configuration of the sidewalk design creates a challenge for the City's snow removal operations. If the project is approved, a condition of approval will require the owner to remove the snow to the west of the valley gutter and the snow may not be placed back out in the roadway. 2. The additional crosswalk crossing Main Street at the northern end of the site, as proposed in the Motor Fueling Station Pedestrian Analysis and with ADA compliant ramps, is recommended. 3. Colored pedestrian areas, as proposed #4 in Figure 2 in the Pedestrian Analysis, is recommended; a Maintenance Agreement stating that owner shall maintain the pedestrian areas will be required if the conditional use permit is approved. 4. To address pedestrian traffic from the southwestern pedestrian catchment area referenced in the Pedestrian Analysis, further analysis of the need for the Rectangular Rapid Flashing Beacon at the intersection of Warm Springs Road and 10th is needed. 5. As proposed in the Pedestrian Analysis, further study of the feasibility of defining the gap in the sidewalk on the north side of 10th Street between Warm Springs Road and Main Street is needed. 6. The property owner will need to maintain the landscaping in the right-of-way, according to ITD standards.

				7. The current On Site Vehicle Turn Exhibit only illustrates turn movements in an empty parking lot, which does not adequately prove turn movements can be made in real world conditions. In order to recommend approval of the conditional use permit the On-Site Vehicle Turn Exhibit needs to be revised to include turn movements, vehicles in the parking lot, and the location(s) where vehicles can stack on site. 8. The Preliminary Grading and Drainage Plan has been reviewed and is acceptable. Prior to issuance of a building permit a seepage test will need to be conducted and clarification regarding the infiltration rate and storm intensity and number of dry wells will be required. 9. The 5' sidewalk connecting to Frenchman's Place is acceptable. The existing drywell indicated on the plan is a catch basin and it shall be abandoned after installation of the new drywells.
				Fire Department: 1. The project shall meet all 2012 International Fire Code requirements in addition to specific City Building and Fire Ordinances. 2. An approved fire detection system shall be installed per City of Ketchum Ordinance #1125 ***(www.ketchumfire.org)*** and the requirements of NFPA 72. Two (2) sets of alarm system plans shall be submitted to the Ketchum Fire Department for approval and a permit is required prior to installation of alarm systems. Inspections of fire detection systems by the Fire Chief or an appointee are required and shall be scheduled at least 48 hours in advance. 3. An approved access roadway per 2012 International Fire Code Appendix D ***(www.ketchumfire.org)*** shall be installed prior to any combustible construction on the site. The road shall be a minimum of twenty (20) feet in width and capable of supporting an imposed load of at least 75,000 pounds. The road must be an all weather driving surface maintained free, clear, and unobstructed at all times. 4. Fire extinguishers shall be installed and maintained per 2012 IFC Section 906 both during construction and upon occupancy of the building. 5. An approved key box shall be installed, with the appropriate keys, for emergency fire department access in a location approved by the fire department. The key box shall be a Knox box brand and sized to accommodate keys to every door of the project. 6. The underground fuel tanks will be installed and tested following the 2012 International Fire Code, Sections 5704.2.11 through Section 5704.2.12.2. 7. Motor fuel dispensing stations will be installed following the 2012 International Fire Code, Section 2306.7 through Section 2306.7.7.2. 8. The Liquefied Petroleum Gas fuel dispensing will be installed following the 2012 International Fire Code, Section 2307.1 through Section 2307.7
				Building: • Building plans must meet 2012 International Building Code.
				Police Department: • No comment.

				Utilities: • No comment.
				Parks/Arborist: 1. The owner shall maintain the landscaping in the right-of-way, which is managed by ITD. 2. The southeastern-most Abies lasiocarpa is in close proximity to the overhead transmission line, substitute a more hardy bristlecone pine. 3. The other species are good and the diversity and placement are appreciated. 4. Staff recommends retaining the tree that is adjacent to the existing power pole in the right-of-way on Main Street if ITD will allow it.

Attachment B

Table 2. Summary and Analysis of New Plans, Studies and Information Received

Information Requested by Commission	Submittal from applicant	Analysis
1. Produce a pedestrian study. a. Address the locations of all proposed crosswalks. b. Address the rapid flashing beacon. c. Address whether a different/additional location for a crosswalk may be better or feasible (across Main Street at Frenchman's, for example).	"Motor Vehicle Fueling Station Pedestrian Analysis", dated June 29, 2016, Alta Planning + Design	Three major pedestrian catchment areas were defined to be associated with the site: an eastern catchment area, a southwestern catchment area, and a northwestern catchment area. Major pedestrian routes were determined to be 10th Street and Main Street with the major crossings identified as Main Street at 10th Street and Main Street at 9th Street. Recommendations to accommodate pedestrian traffic were given for specific locations; some recommendations aligned with public improvements already proposed by the City and other recommendations were new or were alternatives to recommendations proposed by the City. **Eastern Catchment Area** In the eastern catchment area the study recommends a 5' wide sidewalk connection from the site to Frenchman's Place and the rapid flashing beacon, ramps, and crosswalk across Main Street near 9th Street. These improvements align with recommendations previously made by the City that the applicant has agreed to and are indicated in the site and civil plans that have been submitted. **Southwestern Catchment Area** The southwestern catchment area includes Hemingway Elementary School. A pedestrian route identified to the site is the northern side of 10th Street; the northern side is identified as being more desirable due to the existing sidewalk, which contains only a small gap between Warm Springs Road and Main Street. Among the study recommendations are defining a pedestrian zone through the gap in the sidewalk on the northern side of 10th Street. This will require further analysis to determine if this recommendation is feasible given the right of way and current conditions. Options to define the pedestrian zone may include changing the pavement material or color in order to increase visibility of the pedestrian zone. At this time, more analysis is necessary to determine feasibility. The study reaffirms the recommendation of a crosswalk at the intersection of Main Street and 10th Street that spans 10th Street, which the applicant has agreed to and indicates on the site and civil plans. The planning and public works departments concur with the recommendation to install an additional crosswalk spanning Main Street at the Main

		Street and 10th Street intersection. The study recommends crosswalks at the Warm Springs Road and 10th Street intersection as well as consideration of a rectangular rapid flashing beacon at the intersection; crosswalks at this location already exist. The feasibility and installation of a flashing beacon requires further study and pedestrian counts to determine if pedestrian use warrants this type of device. At this time, staff cannot recommend installation of the beacon without future study. **Northwest Catchment Area** The recommendations in the Pedestrian Analysis for the southwest catchment area cover the northwest catchment area as well. Recommendations for the northwestern catchment are the same as the recommendations for the southwestern catchment area. **Motor Fueling Station** Of the recommendations for the Motor Fueling Station, the Public Works Department agrees with the recommendation to install materials to differentiate the pedestrian zone and to install the crosswalk crossing Main Street at the intersection of Main Street and 10th Street already described in the southeastern catchment area improvements section. Due to the boulevard approach being ITD's standard, the rolled curbs described in the study are not recommended, and due to the proposed sidewalk and parking improvements on 10th Street being the city's standards, the landscaped area and reduced travel lane on 10th Street are not recommended. Finally, the applicant has proposed a slight realignment of the crosswalk crossing Main Street at the southern end of the site rather than moving the crosswalk further south; the Public Works Department recommends the realignment of the crosswalk as indicated on A.2 – Site Plan.
2. Obtain traffic counts at 10th Street/Main Street intersection in order to corroborate the 2008 data in the traffic study already conducted. If the traffic engineer wants to make the case that the need for new data is superfluous, and submits a narrative explaining why, that would be acceptable. However, the request for current data at the 10th Street/Main Street intersection is driven by	"Ketchum – Bracken Station TIS, Additional Information" memorandum, dated July 6, 2016	Peak hour turning movement counts were collected on June 29, 2016; when compared to the data from February 2008, which was adjusted 30% to reflect peak seasonal conditions and was adjusted at a 1.1% growth rate per year, the estimated counts were 5% higher than the volumes collected on June 29, 2016.

public comment and providing this data also serves the purpose of addressing public concern, so obtaining the new counts is recommended.		
3. Address the projected makeup of vehicles that will be using the gas station. **a.** What percentage will be oversized vehicles (RVs, construction trailers, et cetera)? **i)** Address how the proportion of oversized vehicles impacts the amount of vehicles that can queue in the turn lane. **b.** Address potential back-up of northbound traffic lining up to make a left turn into the gas station and the implications of exceeding the length of the turn lane (e.g. traffic backed up further south than the turn lane extends).	"Ketchum – Bracken Station TIS, Additional Information" memorandum, dated July 6, 2016	On Saturday, July 2nd, 2016 between 10 a.m. and 5 p.m. and on Sunday, July 3rd between 12 p.m. and 5 p.m. Roy Bracken analyzed vehicle types patronizing the Shell gas station located at 211 Lewis Street in the LI-1 zone and reported the findings to Hales Engineering. The memo from Hales Engineering reports that during those time periods 7% of vehicles observed were large vehicles (i.e. trucks pulling trailers or recreational vehicles) and 93% were passenger cars and pickup trucks. As such, Hales Engineering determined it was not necessary to modify their assumptions of 20' of length per vehicle queuing in the proposed turn lane. The memo reiterates that the traffic study found that with future (2020) conditions plus traffic conditions generated by the project the 95th percentile queue at the intersection would extend approximately 105' and that the proposed turn lane is more than adequate to accommodate queues of such length. The memo states that it is unlikely that the left-turn queue would overflow into the thru-traffic lane but in such cases, events would likely have minimal short-term impacts on thru traffic. Further, delays for northbound left-turning vehicles at the gas station access and for vehicles at 10th Street are anticipated to be short and that when delays are short queues dissipate quickly.
4. Obtain the Idaho Transportation Department (ITD)'s approval for the Frenchman's Place connector sidewalk.	Letter from Dave Jensen, ITD District 4 Permit Coordinator, dated June 27,	The letter from Dave Jenson of ITD confirms that the ITD permit committee has approved the design of the sidewalk proposed to connect Bracken Station to the Frenchmen's Place development.

	2016	
5. Address the potential for northbound (left) and southbound (right) turn lanes on 10th Street to facilitate left and right turns onto Main Street.	"Ketchum – Bracken Station TIS, Additional Information" memorandum, dated July 6, 2016	The memorandum states, "A separate right-turn lane is not recommended at this location. Turning movement wheel path analyses show that with the current approach geometry, larger vehicles are able to execute right-turn movements with minimal encroachments into opposing traffic lanes. It is likely that the addition of a separate right-turn lane would constrain the right-turn movement such as to require significant encroachment into opposing traffic lanes. The traffic impact study found that delays at this intersection are anticipated to be relatively low, and therefore a separate right turn lane would not provide significant benefit."
6. Provide information addressing fuel spillage onto snow and snow removal from the site; what are the implications and how will they be mitigated?	No exhibit submitted.	Applicant will address this issue during the hearing.
7. Provide site circulation/turning radii information for vehicles of various sizes within the site.	On-Site Vehicle Turn Exhibit, dated July 11, 2016	The exhibit depicts turning radii on the site for two vehicles: a 30' length single unit truck and a 48.7' camper trailer connected to a passenger car. The exhibit depicts the circulation of each vehicle entering the site, navigating around the fueling island canopy, and exiting the site. The exhibit illustrates unimpeded circulation of each of the two vehicle types when no other vehicles are present on the site and does not adequately prove turn movements can be made in real world conditions. In order to recommend approval of the conditional use permit the On-Site Vehicle Turn Exhibit needs to be revised to include turn movements, vehicles in the parking lot, and the location(s) where vehicles can stack on site.
8. Provide a section drawing showing Bracken Station site, canopy, and the Tenth Street Light Industrial development.	Site Profile, dated July 11, 2016	The site profile illustrates the grade change between the Tenth Street Light Industrial Development (491 E. 10th Street) and the proposed Bracken Station property (911 N. Main) at the 10th Street and Main Street intersection. The height of the proposed gas station canopy and the landscaping proposed to buffer the canopy are shown. This cross section was requested so that the height of the proposed canopy and the canopy lighting could be evaluated with respect to the lower grade of 491 E. 10th Street. The site profile, in conjunction with the new LS 1.1 plan illustrating additional landscaping and the revised L 1.0 plan, indicates that the majority of the 50' length of the canopy facing 10th Street will be screened and buffered by 9 Spartan Juniper trees that are 10' at the time of planting, 1 Lodge Pole Pine that is 14' at time of planting and 1 Lodge Pole Pine that is 16' at time of planting.

Information Requested by Staff	Submittal from applicant	Analysis
1. Provide a conceptual drainage plan that indicates the site has the capacity to retain all storm water.	C.2.1 Preliminary Drainage Exhibit, dated June 3, 2016	The Public Works Department has reviewed this plan and finds it acceptable. The drainage plans include a proposed oil/water separator at the southernmost corner of the site that the on-site drywell and catch basins drain to. However, prior to issuance of a building permit a seepage test will need to be conducted and clarification regarding the infiltration rate and storm intensity and number of dry wells will be required.
2. Indicate Frenchman's connector sidewalk on site plan and landscape and civil plans to the same level of detail as the already proposed sidewalks have been shown on those plans.	A.2.1 Overall Site Plan, dated June 30, 2016 and C.2.4 Preliminary Frenchman's Sidewalk Exhibit, dated July 11, 2016	Both plans indicate a new sidewalk connecting the proposed Bracken Station property to the Frenchmen's Place development to the south. The sidewalk is indicated on C.2.4 to be 5' in width. The Public Works Department finds the 5' width to be acceptable.
3. Provide photometric data for proposed site lighting, including canopy.	Photometric Lighting Proposal (black and white), Photometric Lighting Proposal (color), dated June 30, 2016, Radiosity exhibit dated June 30, 2016	The applicant submitted a Radiosity exhibit that illustrates illuminance from canopy lighting at night. The Photometric plans indicate foot-candles calculated at a grid of points overlaid on the site plan. The Photometric plans indicate a range of 0.0 to 0.9 foot-candles measured on the northern and western property lines and a range of 0.0 to 4.9 foot-candles along the eastern property line, nearest the canopy. The average foot-candles under the canopy are calculated to be 28.51, with the minimum measurement calculated at 11.3 and the maximum at 41.3. Ketchum code 17.132.020 J. states that the average foot-candle lighting level for new and existing service stations shall be no greater than 30 foot-candles, as set by the IESNA standards for urban service stations.
4. Provide a copy of Idaho Department of Environmental Quality (DEQ) /and Environmental Protection Agency (EPA) regulations for gas stations.	Idaho Department of Environmental Quality's "Rules Regulating Underground Storage Tank Systems", IDAPA 58.01.07, submitted June 20, 2016, Seismic Behavior of Xerxes	The applicant submitted IDAPA 58.01.07, "Rules Regulating Underground Storage Tank Systems". The rules establish standards and procedures necessary for the regulation of underground storage tank systems and the rules state compliance with IDAPA 58.01.07 shall not relieve persons from the obligation to comply with other applicable state or federal laws. IDAPA 58.01.07 contains rules for protecting ground water from contamination, rules for reporting when an underground storage tank releases (spills) petroleum, requirements for training of primary and daily on-site operators, and information on inspections and penalties for violations. The memorandum addresses seismic activity occurring at a

	Underground Tanks memorandum, Xerxes Fiberglass Underground Storage Tanks brochure	distance away from the tank, which the tanks can withstand, and seismic activity occurring at or very near the location of the tank, which would cause the tank to rupture just as the ground ruptures at and near the location of seismic activity. The brochure addresses construction and safety features of Xerxes double-wall underground storage tanks.

Attachment C

Table 3. Zoning Standards Analysis

Compliance with Zoning Standards				
Compliant			**Standards and Staff Comments**	
Yes	**No**	**N/A**	**Guideline**	**City Standards and *Staff Comments***
☒	☐	☐	**17.12.030.C**	**Lot Area**
			Staff Comments	*8,000 square feet minimum is required. The lot is 0.4267 acres or 18,590 square feet.*
☒	☐	☐	**17.12.030.C & 17.128.020.C**	**Setbacks and Supplementary Yard Requirements**
			Staff Comments	*Buildings "A" and "C" currently have non-conforming setbacks on the front (eastern) property line. Building "B" currently conforms to setbacks. The applicant is proposing to demolish buildings "A" and "C" and to build an addition to building "B" which will result in a site with structures that meet setback requirements.* *Proposed Front (north – 10th Street) –20'* *Proposed Side (east – Main Street) – 13–'4"* *Proposed Rear – (west 0 alley) – 0'* *The proposed setbacks meet setback requirements.*
☒	☐	☐	**17.12.030.C**	**Building Coverage**
			Staff Comments	*Permitted - 75% Proposed – 23% (including gas station canopy)*
☒	☐	☐	**17.12.030.C**	**Building Height**
			Staff Comments	*Maximum building height permitted is 35'; the existing buildings are 13'-8" above grade on Main Street and 24'-8" above grade on 10th Street; the proposed addition to building "B" is 13'-8" above grade on Main Street and 24-8" above grade on 10th Street. The proposed canopy is 18' above grade on Main Street and 20' above grade from 10th Street at the eastern edge of the structure and 24' above grade from 10th Street at the western edge of the structure.*
☒	☐	☐	**17.125.030.H**	**Curb Cut**
			Staff Comments	*A maximum of thirty five percent (35%) of the linear footage of any street frontage can be devoted to access off street parking.* *The curb cut design was recommended by ITD is 84' (40' entrance, 4' island, 4' exit) in width, which equates to 30.6% of the linear footage frontage of the lot. (The linear footage of lot frontage is 273.97'.)*
☒	☐	☐	**17.124.060.M**	**Parking Spaces**
			Staff Comments	*Required:*

				The off street parking standards apply when an existing structure or use is expanded or enlarged. Additional off street parking spaces shall be required only to serve the enlarged or expanded area, not the entire building or use. *2 spaces per fuel pump at fuel pump; 4 pumps require 8 spaces.* *1 space per 250 square feet retail;* *1 space per 250 square feet restaurant* *There is a 508 square foot addition to the existing 2,084 square foot building proposed; 3 spaces are required.* *Proposed:* *8 for temporary holding at the fuel pumps* *12 to serve retail/restaurant (4 spaces are lower level accessed from 10th Street)* *2 at vehicle charging station* *There are 4 additional lower level parking spaces accessed from 10th Street to serve the existing uses.*
☒	☐	☐	**17.125.050**	**Off Street Parking and Loading Areas**
				In the LI-1, LI-2 and LI-3 districts, off street loading areas (containing 180 square feet with no 1 dimension less than 10 feet) shall be required as an accessory use for new construction or major additions involving an increase in floor area, as follows: One off street loading space for floor area in excess of two thousand (2,000) square feet, provided no loading space occupies any part of a public street, alley, driveway or sidewalk; except, that where practicable to do so, an alley may be used in lieu of the requirement of this section if prior permission is granted by the commission. *The project consists of 2,592 square feet and 2 off-street loading spaces are required. The minimum size of an off-street loading space is 10' x 18'; the site plan indicates 1 off-street loading space 14' x 55' which exceeds the dimensions of 3 contiguous off-street loading spaces 10' x 18' in size.*
☒	☐	☐	***17.18.140, 17.12.020 and 17.08.020***	**Zoning Matrix & Definitions**
				17.18.140 - A. Purpose: The LI-1 light industrial district number 1 is established as a transition area providing limited commercial service industries, limited retail, small light manufacturing, research and development, and offices related to building, maintenance and construction and which generate little traffic from tourists and the general public. (Ord. 1135, 2015) *Staff notes that uses in the LI-1 district are intended to generate little traffic from tourists and the general public.* *17.12.020 – Motor Vehicle Fueling Stations are allowed in the LI-1 zone with a Conditional Use Permit. The applicant is proposing a motor vehicle fueling station with 4 fuel pumps, two electric vehicle charging stations, and retail sales for the convenience of the motoring public. Food Service is allowed in the LI-1 zone with a Conditional Use Permit when the conditions described in footnote #15 are adhered to.*

				The applicant is proposing to remodel the existing building, consisting of 2,084 square feet, and to add an addition of 508 square feet and an attached outdoor patio area with seating. The applicant is proposing to utilize the remodeled and expanded building for a retail store associated with the motor vehicle fueling station and for a deli service restaurant. The site plan indicates a food service area of 280 square feet. *Footnote #15 limits the hours of operation of restaurants that require a conditional use permit to no later than 9:00 p.m. but gives the Commission the authority to expressly permit operation of the restaurant past 9:00 p.m. as part of the conditional use permit approval.* *The zoning code does not specify hours of operation for fuel pumps or retail sales for the convenience of the motoring public that are associated with motor vehicle fueling stations. However, the Commission may condition hours of operation in order to minimize adverse impact on other development.* *17.08.020 – Definitions: Motor Vehicle Fueling Station - A facility providing the retail sale and direct delivery to motor vehicles of fuel, including electric charging stations, lubricants and minor accessories, and retail sales for the convenience of the motoring public.* *Food Service - An establishment where food and drink are prepared, served and consumed on site with associated outdoor dining, or distributed to customers through take out, delivery or catering. Typical uses include, but are not limited to restaurants, cafes, delis, catering services and brewpubs that do not distribute beer produced for off-site consumption.* *Footnote #15. Catering and food preparation is permitted. Restaurants require a conditional use permit and shall not exceed 1,000 square feet and serve no later than 9:00 P.M. unless expressly permitted through approval of the conditional use permit.*
☒	☐	☐	***17.132.020J & 17.132.020K***	***Dark Skies***
				J. The average foot-candle lighting for service stations is required to be no greater than 30 foot-candles, as set by the IESNA for urban service stations. *K. [Canopy lights] shall be recessed sufficiently as to ensure that no light source is visible from or causes glare on public rights of way or adjoining property.* *As indicated in the Photometric Plan, the average foot-candle lighting for the canopy is 28.51 foot-candle.* *As indicated by the Lighting Fixtures exhibit, all canopy lights are CRUS-SC-LED and CRUS-AC-LED fixtures. The light source Is recessed within the fixture and the fixtures themselves will be flush mounted to the underside of the canopy.*

Attachment D

Table 4: Conditional Use Permit Requirements

Conditional Use Requirements

1. EVALUATION STANDARDS: 17.116.030 and § 67-6512 of Idaho Code

A conditional use permit shall be granted by the commission only if the applicant demonstrates that:

Compliance and Analysis				
Yes	**No**	**N/A**	**Code**	**City Standards and *Staff Comments***
☐	☒	☐	**17.116.030(A) CONDITIONAL USE**	**The characteristics of the conditional use will not be unreasonably incompatible with the types of uses permitted in the applicable zoning district.**
			Staff Comments	*The LI-1 district allows for one of the widest varieties of uses in the zoning code use matrix; uses ranging from manufacturing to personal service to warehousing and wholesaling to automotive uses are permitted.* *The LI-1 and LI-2 districts are the only districts that permit motor vehicle fueling stations within the City of Ketchum and in both the LI-1 and LI-2 districts motor vehicle fueling stations are permitted only with a conditional use permit. The city has ten districts classified as commercial or light industrial; food service is permitted in six districts of those districts and is permitted conditionally in two districts (LI-1 and LI-2).* *The proposed uses of a motor vehicle fueling station with associated food service are generally compatible with the types of uses permitted in the LI-1 district. However, Ketchum zoning code section 17.18.140 defines the purpose of the Light Industrial District Number 1 as: "A. Purpose: The LI-1 light industrial district number 1 is established as a transition area providing limited commercial service industries, limited retail, small light manufacturing, research and development, and offices related to building, maintenance and construction and which generate little traffic from tourists and the general public. (Ord. 1135, 2015)"* *The Retail S Analysis, dated January 2016 and conducted by Gmap USA and provided by the applicant states, "The population is around 3,200 people within 2.0 miles and the median age is about 47 years old. The population is somewhat lighter than ideal for this type of site location and the median age is a little high for ideal C-store customer base population. However the focus for this site is the winter and especially the summer tourists that pass through the town."* *With respect to business projections, the Retail S Analysis states, "One of the keys for this site is to provide a good operation with a good offering that will bring in the commuter that passes by the intersection on a consistent basis…The focus on the merchandising should be having a quality offering that entices the commuter/tourist traffic that passes by the site on a regular basis. The site should have a large fountain and coffee offering to entice the commuters to use the site as their refreshment spot….Overall the site is on a good corner is[sic] the area and has good potential. The traffic passing by the*

				site is strong and along with the residential backup the location should do well." *As such, while the proposed uses are generally compatible with the types of uses permitted in the LI-1 zone, the proposed uses on this specific site are dependent on traffic from tourists and the general public, which is in conflict with the purpose of the LI-1 zone.*
☐	☒	☐	**17.116.030(B)**	**The conditional use will not materially endanger the health, safety and welfare of the community.**
			Staff Comments	*As analyzed in the Proposed Public and Private Improvements table, the majority of pedestrian and vehicular safety and welfare concerns could be addressed by the sidewalks, crosswalks, rapid flashing beacon, turning lane, and reduced curb cut width proposed by the applicant.* *However, concerns still exist regarding on-site circulation and potential negative externalities, as discussed in detail in the next section. The Public Works Department has requested additional information from the applicant to prove that on-site circulation of vehicles of various sizes can occur in real world conditions.* *In regards to health, safety and welfare concerns of the motor vehicle fueling station use, as noted by the Fire Department, the underground fueling tanks and fueling stations must be constructed to meet applicable Fire Code. Additionally, state and federal environmental standards for the construction of fuel storage tanks and operation of fuel pumps will have to be met. The applicant has provided a copy of the Idaho Department of Environmental Quality's "Rules Regulating Underground Storage Tank Systems", IDAPA 58.01.07.* *The applicant has also submitted an exhibit from J.M. Plenik, P.E., regarding the Xerxes Corporation underground fuel storage tanks proposed for the site. The exhibit states that seismic activity occurring at a distance away from the tanks could be withstood but that seismic activity occurring at or very near the tanks would rupture the tanks. The applicant has also submitted a brochure for the proposed Xerxes underground tanks, which notes safety features.* *However, concerns still exist regarding gas spillage from fuel pumps onto snow or ice, because the applicant proposes to remove snow from the site rather than permanently store all snow on site. While a drainage facility that separates oil and water has been proposed by the applicant as part of the drainage plan for the site, the impact of gasoline contaminating soil and/or groundwater due to off-site snow removal has not been addressed by an exhibit submitted by the applicant; the applicant states this concern will be addressed by an expert during the hearing.* *As such, at this time the applicant has not proved that the conditional use will not materially endanger the health, safety, and welfare of the community.*
☐	☒	☐	**17.116.030(C)**	**The conditional use is such that pedestrian and vehicular traffic associated with the use will not be hazardous or conflict with existing and anticipated traffic in the neighborhood.**
			Staff Comments	*The applicant has submitted a Traffic Study prepared by Hales Engineering which analyzes existing traffic levels of service at the Main Street and 10th*

				Street intersection based on existing conditions, projected future conditions without the proposed use, and projected future conditions with the proposed use. The Traffic Study recommends improvements, namely the proposed turning lane, in order to maintain level of service. *The applicant has also submitted a Pedestrian Study prepared by Alta Planning + Design. The Pedestrian Study analyzes three pedestrian catchment areas where pedestrians traveling to the site are anticipated to be drawn from and recommends specific improvements to enhance pedestrian safety. Some recommendations reinforce recommendations previously made by staff, some recommendations are new, and some are slight variations to recommendations previously made by staff. These recommendations are discussed in depth in Table 2, Summary and Analysis of New Plans, Studies and Information Receive. Staff finds that some of the recommended improvements in Tables 2 and 3 could adequately mitigate the majority of potential hazards or conflict with existing and anticipated pedestrian and vehicular traffic associated with the use in the context of travel to the site, however, some of the recommendations will require further study and analysis before staff can make a recommendation.* *However, on-site circulation is of concern, and constraints to on-site circulation may have negative externalities impacting pedestrian, and namely, vehicular traffic associated with the use. The applicant has submitted On-Site Vehicle Turn and 10th Street Turn exhibits produced by Benchmark Associates. The On-Site Vehicle Turn exhibit indicates on-site vehicle maneuvers for 30' and 48.7' vehicles and the Turn exhibit indicates turn radii for vehicles19', 48.7' and 30' in length turning southbound from 10th Street to Main Street. As noted by the Public Works Department's comments in Table 1 and reiterated in Table 2, the current On-Site Vehicle Turn Exhibit does not adequately prove turn movements can be made in real world conditions. In order to recommend approval of the conditional use permit the On-Site Vehicle Turn Exhibit needs to be revised to include turn movements, vehicles in the parking lot, and the location(s) where vehicles can stack on site.*
☒	☐	☐	**17.116.030(D)**	**The conditional use will be supported by adequate public facilities or services and will not adversely affect public services to the surrounding area or conditions can be established to mitigate adverse impacts.**
			Staff Comments	*Due to the proposed pedestrian and vehicular public improvements, and review of the proposed use and the site, the conditional uses can be supported by adequate public facilities or services and will not adversely affect public services to the surrounding area.*
☐	☒	☐	**17.116.030(E)**	**The conditional use is not in conflict with the policies of the Comprehensive Plan or the basic purposes of this Section.**
			Staff Comments	*The Comprehensive Plan designates the property for mixed-industrial use. Primary uses specified include Light manufacturing, wholesale, services, automotive, workshops, studios, research, storage, construction supply, distribution and offices make up the bulk of development within this district. Secondary uses specified include A limited range of residential housing types, and supporting retail are provided for within this category. Uses should generate little traffic from tourists and the general public.* *Similar to the compatibility of the proposed uses with the purpose of the LI-1 zone as stated in the zoning code, the proposed motor vehicle fueling station*

				and food service as uses are generally consistent with the Comprehensive Plan. However, due to the location of the specific site, the use proposed will generate additional traffic from both the public and visiting tourists. This is a conflict between the Comprehensive Plan and the zoning code, which only conditionally allow for the motor vehicle fueling station and food service uses in the LI-1 and LI-2 zones. *Further, the introduction of a new fueling station and restaurant into the LI-1 District is a discretionary decision. There are currently three fueling stations in the LI District, two restaurants, and one food mart to service the area. The Commission must decide if the uses proposed are appropriate for the site and the location and are necessary to serve the LI district.*

Attachment E

All developments are required to install a minimum amount of public infrastructure, however conditional uses may be required to contribute more than the minimum due to the nature of the use and projected impacts. The following table represents the public improvements as proposed by the applicant.

Table 5: Required Public and Private Improvements

Analysis of Proposed Public and Private Improvements	
Improvement	**Description**
Main Street – Sidewalk and Landscaping	The existing buildings "A" and "C" currently have a 0' setback from Main Street/Hwy 75. There is no defined curb cut on Main Street and the entire frontage is utilized for vehicular egress to the site and parking. No sidewalk currently exists. The applicant is proposing to construct a new 8' sidewalk and landscaping in the right-of-way adjacent to Main Street spanning the entire property frontage. The applicant proposes to maintain the landscaping. The 8' sidewalk will have a 84' gap between the northern and southern segments of the sidewalk in order to accommodate the boulevard approach for vehicles. The applicant is proposing to install a surface material that is 8' in width, in alignment with the sidewalk, and visually distinguishable from the surface of the parking lot in order to provide a visual cue to pedestrian and motorists that pedestrians will be utilizing the area.
Main Street – Turn Lane	The applicant retained Hales Engineering to prepare a traffic study for the proposed use and redevelopment of the site. The traffic study recommended constructing a new turn lane on Main Street to facilitate vehicular access to the site. The applicant is proposing to construct the turn lane and staff has accepted the design. An existing valley gutter on the eastern side of Main Street/Hwy 75 across from the southern end of the site prevents the turn lane from extending further south. Circulation at the 10th Street intersection prevents the turn lane from extending further north.
Main Street and 10th Street, southwest corner curb radius	The applicant has proposed reconfiguring the curb radius at the southwest corner of the Main Street and 10th Street intersection in order to better accommodate vehicular southbound turns from 10th Street to Main Street. ITD has approved the curb radius.
10th Street - Sidewalk	There is not currently a sidewalk on the 10th Street frontage of the site. The applicant is proposing to construct a 5' paved sidewalk in the right-of-way adjacent to the property for the length of the property frontage on 10th Street.
10th Street - Staircase	The applicant is proposing to construct a new staircase at the western property corner that will provide access to the sidewalk that will be constructed on 10th Street.

	The staircase will be lit with six (6) wall mounted 4" diameter, cylinder shaped light fixtures that point downward and fully shield the LED bulbs in order to enhance pedestrian safety and draw pedestrians from 10th Street to the staircase in order to access the site.

In addition to the public improvement the applicant is proposing in the table above, staff and the Pedestrian Analysis have identified several other necessary public improvements that are required to mitigate negative impacts of the proposed development. Staff recommends the following improvements as a minimum and other improvements or conditions may be appropriate or discovery through the public process.

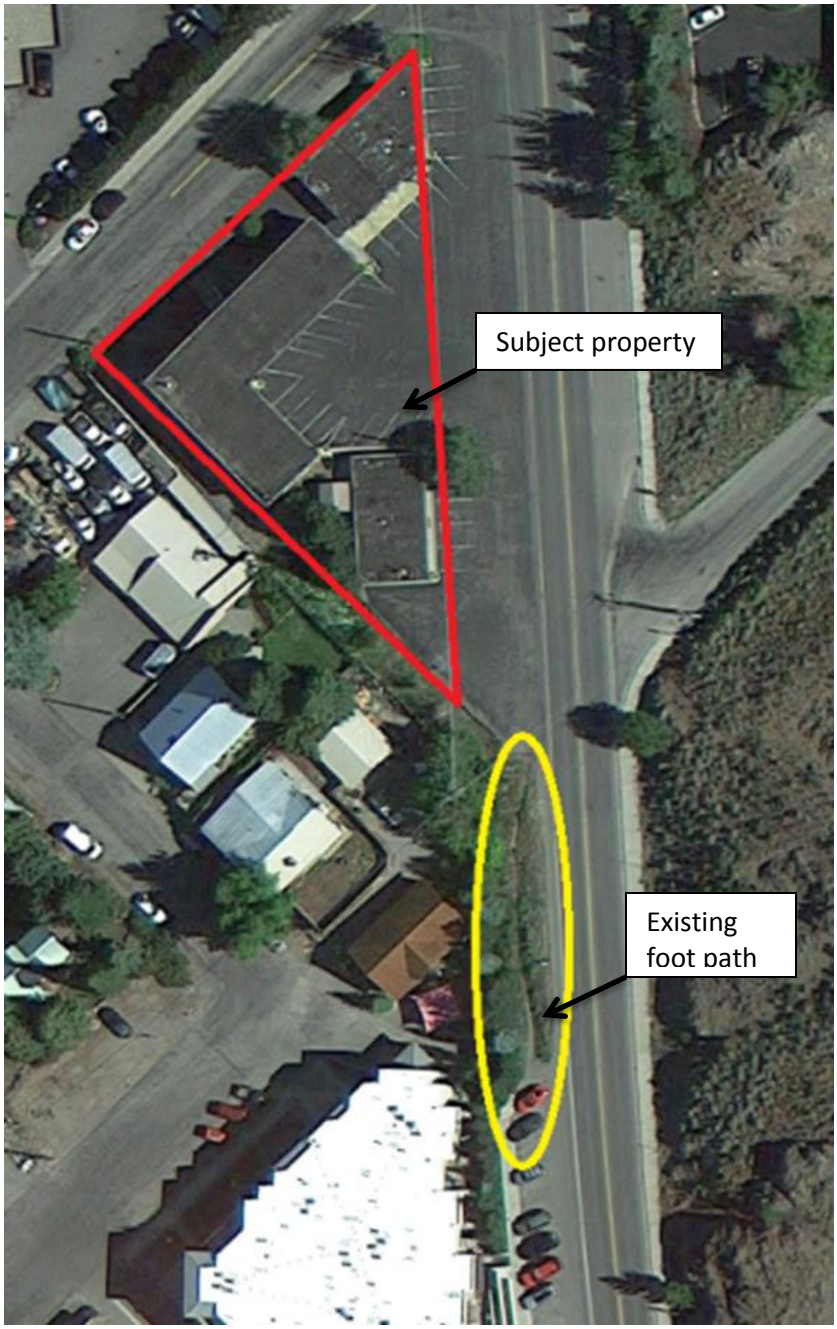
Attachment F

Table 6: Recommended Additional Public Improvements

Recommended Public Improvements to Mitigate Impacts of Development	
Public Improvement	**Description**
Boulevard Approach Pedestrian Definition	As proposed in the Pedestrian Analysis, staff recommends visually differentiating the pedestrian zone spanning across the boulevard approach with the use of color pavers or an alternative material. The owner shall enter into a Maintenance Agreement with the City to maintain the pedestrian zone. The applicant agrees to install this improvement as indicated on the Overall Site Plan (A-2.1).
Main Street – Pedestrian Crosswalk	Staff is recommending the applicant to construct a painted pedestrian crosswalk across Main Street/Hwy 75 at the southeast corner of the site. The crosswalk will include a new ADA compliant ramp to provide access to the sidewalk at the southeast corner of the site and will utilize an existing ramp on the opposite side of Main Street/Hwy 75. The applicant agrees to install this improvement as indicated on the Overall Site Plan (A-2.1).
Main Street & 9th Street – Rapid Flashing Beacon at Crosswalk	Staff is recommending the applicant to install a rapid flashing beacon at the Main Street/Hwy 75 crosswalk. The rapid flashing beacon will contain sensors that can be activated by pedestrians seeking to use cross. The applicant agrees to install this improvement as indicated on the Overall Site Plan (A-2.1).
Main Street & 10th Street Intersection – Pedestrian Crosswalk across 10th Street	Staff is recommending a painted pedestrian crosswalk across 10th Street at the intersection of 10th Street and Main Street/HWY 75. The applicant agrees to install this improvement as indicated on the Overall Site Plan (A-2.1).
10th Street & Main Street Intersection – Pedestrian Crosswalk	As proposed in the Pedestrian Analysis, staff is recommending a painted pedestrian crosswalk across Main Street at the intersection of 10th Street and Main Street/HWY 75.

across Main Street	
10th Street Pedestrian Zone definition	As proposed in the Pedestrian Analysis, this recommendation requires further review and analysis to determine feasibility in light of the existing right of way and current conditions.
10th Street and Warm Springs Road Rapid Flashing Beacon	As proposed in the Pedestrian Analysis, this recommendation requires further study and preparation of pedestrian warrants to assess if this is an appropriate device for this location.
Main Street Sidewalk Extension	Staff recommends extending the 5' sidewalk on Main Street an additional 175' in length (approximately) to connect to the existing public sidewalk located adjacent to the Frenchmen's Place condominium development. There is not currently a sidewalk connecting the two properties but there is an informally created and well-worn pedestrian foot path; the new uses proposed for the site will generate additional pedestrian trips and a 5', paved, and ADA compliant sidewalk is recommended for safety purposes. See Attachment F. The applicant agrees to install 5' sidewalk connecting to Frenchmen's Place, which has been approved by ITD, as indicated on the Overall Site Plan (A-2.1).

Attachment G.



Attachment H.

Table 7: Uses in the LI-1 Zone

Table 7: Uses in the LI-1 Zone

"P" = PERMITTED "C" CONDITIONAL "A" = ACCESSORY

	USES	LI-1
RES.	Dwelling, Multi-family	C[14]
	Dwelling, One-Family	
	Residential Care Facility	
COMMERCIAL	Agriculture, Commercial	
	Adult Only Business	
	Business Support Service	P
	Convenience Store	P[12]
	Daycare Center	C[17]
	Daycare Facility	C[17]
	Drive-Through Facility	
	Equestrian Facility	
	Food Service	PC[15]
	Golf Course	
	Grocery Store	
	Health and Fitness Facility	C
	Hotel	
	Hybrid Production Facility	P
	Instructional Service	P
	Kennel, Boarding	P
	Laundry, Industrial	P
	Lodging Establishment	
	Maintenance Service Facility	P
	Manufacturing	P
	Mortuary	
	Motor Vehicle Fueling Station	C
	Motor Vehicle Sales	C
	Motor Vehicle Service	P
	Office, Business	
	Outdoor Entertainment	
	Personal Service	P[13]
	Professional Service	P
	Recreation Facility, Commercial	
	Repair Shop	P
	Retail Trade	P[12]
	Self-Service Storage Facility	P
	Ski Facility	
	Storage Yard	P
	Studio, Commercial	P
	Tourist House	
	Tourist Housing Accommodation	
	Truck Terminal	P
	TV and Radio Broadcasting Station	P
	Veterinary Service Establishment	P
	Warehouse	P
	Wholesale	P
	Wireless Communication Facility	C[23]
PUBLIC & INSTITUTIONAL	Assembly, Place of	
	Cemetery	
	Cultural Facility	
	Geothermal Utility	
	Hospital	
	Medical Care Facility	
	Nature Preserve	P
	Parking Facility, Off-Site	
	Parking, Shared	
	Performing Arts Production	
	Public Use	C
	Public Utility	P
	Recreation Facility, Public	P
	Recycling Center	
	Semi-Public Use	
ACCESSORY	Agriculture, Urban	A[22]
	Daycare Home	C[4]
	Daycare, Onsite Employees	A
	Dwelling Unit, Accessory	
	Energy System, Solar	A
	Energy System, Wind	A
	Fallout Shelter	
	Guesthouse	
	Home Occupation	A
	Recreation Facility, Residential	A
	Equestrian Facility, Residential	
	Sawmill, Temporary	

1. A multi-family development containing up to two (2) dwelling units is permitted.

2. Two (2) one-family dwellings are permitted.

3. Religious institutions are allowed through the provision of a conditional use permit. No other assembly uses as defined in Chapter 17.08 are permitted.

4. Use is not permitted in the Avalanche Zone. Reference Zoning Map.

5. Retail trade is permitted but must not exceed 2,500 square feet.

6. Uses must be subordinate to and operated within tourist housing and not to exceed ten percent (10%) of the gross floor area of the tourist housing facility.

7. Utility for offsite use.

8. See section 17.125.070 for shared parking standards.

9. Drive-throughs are not allowed in association with food service establishments.

10. This is a permitted use, however offices and professional services on the ground floor with street frontage require a conditional use permit.

11. Tourist houses shall only be located in existing one-family dwellings. Additions to the home shall not exceed 20 percent (20%) of the existing square footage.

12. The following forms of retail trade are permitted: (a) Equipment rental, including sporting equipment and entertainment equipment, (b) Building, construction and landscaping materials; small engines with associated sales (c) Retail in conjunction with manufacturing, warehousing or wholesaling not to exceed 30% gross floor area or 800 square feet, whichever is less; no advertising is displayed from windows or building facades; and no access onto a major arterial is allowed if an alternative access is available.

13. Personal service is not allowed except for laundromats and dry cleaning establishments.

14. See section 17.124.090 of this title for industrial districts residential development standards.

15. Catering and food preparation is permitted. Restaurants require a conditional use permit and shall not exceed 1,000 square feet and serve no later than 9:00 P.M. unless expressly permitted through approval of the conditional use permit.

16. The following forms of retail trade are permitted: (a) Equipment rental, including sporting equipment and entertainment equipment (b) Building, construction and landscaping materials; small engines with associated sales (c) Furniture and appliances in conjunction with warehousing not to exceed 18% gross floor area or 900 square feet, whichever is less; (d) Other retail in conjunction with manufacturing, warehousing or wholesaling; it is limited to 10% gross floor area or 500 square feet, whichever is less. ---- Retail uses (c) & (d) shall have no advertising displayed from windows or building facades; and no access will be permitted onto a major arterial if an alternative access is available.

17. See section 17.124.120.C of this title for industrial districts daycare development standards.

18. See section 17.124.070 of this title for accessory dwelling unit development standards.

19. A maximum of five (5) dwelling units are allowed through a conditional use permit and shall be a minimum of 400 square feet and not exceed 1,200 square feet in size.

20. Indoor only.

21. Only allowed in conjunction with an equestrian facility.

22. See section 17.124.080 of this title for urban agriculture development standards.

23. See chapter 17.140 for wireless communications facility provisions.

24. Allowed on the ground floor only.

25. See section 17.124.050 of this title for hotel development standards.

26. Ground floor street frontage uses are limited to retail and/or office uses. In subdistrict A office uses require a conditional use permit.

27. Ground floor only.

28. Through the provision of a conditional use permit, the planning and zoning commission may approve a 20% increase to the total existing square footage of an existing nonconforming one-family dwelling.

29. Use is allowed as an accessory use through the provision of a conditional use permit.

Attachment I.

Table 8: Dimensional Standards for the LI-1 Zone

Table 8: Dimensional Standards for the LI-1 Zone

Dimensional Standards for LI-1

Minimum Lot Area	Minimum Lot Area w/ PUD. *See Title 16.*	Minimum Lot Area, Townhouse Sublot	Lot Width	Building Height	Maximum Building Coverage	Minimum Open Space	Front Setback	Side setback	Rear Setback	Lot Lines created by Townhouse Sublots	Setbacks from Hwy 75	Any setback along Warm Springs Road	Setbacks along 200' Former Railroad ROW
8,000 SF	N/A	N/A	80' Min.	35'	75%	N/A	20'	Zero (0')[1] for internal side yards and a min. of 10' for street side yards.	Zero (0')[1]	N/A	N/A	N/A	N/A

1. If the lot adjoins a more restrictive district on the side or rear, the more restrictive setbacks of that district shall apply.

Attachment J.

Table 9: Potential Build Out for 911 N. Main Street

Lot size	18,590 square feet
Maximum coverage in LI-1 zone	75%
Potential Lot Coverage	13, 942 square feet
Proposed Project, Lot Coverage	23%
Proposed Project, Lot Coverage Square Footage	2,592 square feet ground floor building; 1,720 square foot canopy. Total lot coverage 4,312 square feet.

Maximum building height in LI-1 zone	35'
Proposed building height, Main Street grade	13’-8”
Proposed building height, 10th Street grade	24’-8”
Proposed canopy height, Main Street grade	18'
Proposed canopy height, 10th Street grade	20' at eastern edge of canopy and 24' at western edge of canopy

Attachment K.

Table 10: Summary of all public comments and materials for the written record received by the Planning Department through 11:00 a.m., July 8, 2016

Table 10: Summary of all public comments and materials for the written record received by the Planning Department through 11:00 a.m., July 8, 2016

Bracken Station - Conditional Use Permit application public hearing continuation July 11, 2016

Written public comment received by the Planning Department from June 27, 2016 through 11:00 a.m., July 8, 2016 for the July 11, 2016 hearing continuation

#	Date Submitted	Person/Entity	In Favor	Against	Neutral	Main Points
1	6/29/16	Steve Shafran	☐	☒	☐	Gas station at gateway location conflicts with the Comprehensive Plan's support for "visual quality of the entryway corridor"; concerned about substantial traffic problems - large vehicles and site access, relevancy of data from winter 2008 in traffic study; gas station will make cycling on 10th Street more dangerous - Comprehensive Plan supports pedestrian and cyclist safety.
2	6/29/16	Casey Finegan	☐	☒	☐	Frenchmen's Place resident; concern about light trespass from the proposed project to Frenchmen's/Dark Skies.
3	6/30/16	Barbi Reed	☐	☒	☐	Commercial tenants on the lower elevation, western portion of 10th Street can attest to surface water flow patterns down 10th Street, gas station runoff could cause contaminated water to flow off site; incremental spill from fuel pumps onto concrete can percolate through the concrete and contaminate ground water
4	7/5/16	Leslie Andrews	☐	☒	☐	Concerned about loss of community character.
5	7/5/2016	Johnny Bolton	☐	☒	☐	Survey response; Gas station at gateway location undesirable, no need for additional gas stations in Ketchum, environmental hazard concerns, proposal conflicts with LI-1 zone intent to generate little traffic from tourists and general public, new use will attract children to site and pedestrian routes to site are hazardous, traffic will dramatically increase, site could be converted to a chain gas station or fast food restaurant, proposal conflicts with Comprehensive Plan's intent to promote the health, safety and general welfare of present and future inhabitants
6	7/5/16	Valerie Ashbaugh	☐	☒	☐	Survey response; Gas station at gateway location undesirable, no need for additional gas stations in Ketchum, environmental hazard concerns, proposal conflicts with LI-1 zone intent to generate little traffic from tourists and general public, new use will attract children to site and pedestrian routes to site are hazardous, traffic will dramatically increase, site could be converted to a chain gas station or fast food restaurant, proposal conflicts with Comprehensive Plan's intent to promote the health, safety and general welfare of present and future inhabitants
7	7/5/16	Brian Emerick	☒	☐	☐	Proposal is a significant improvement to non-conforming and dangerous site layout on the oddly-shaped parcel, motor vehicle fueling stations and food service are permitted in the zone with conditions and ample conditions have been agreed to by the applicant, concerns raised by those against the proposal can be mitigated by proposed improvements and existing city ordinance such as Dark Skies, denial of the application after extensive effort has gone into mitigating potential impacts of the use discourages another potential buyer from attempting to redevelop the property
8	7/5/2016	Jack Burgess	☐	☒	☐	Owns a unit in the Tenth Street Light Industrial Center and has been driving the 10th/Main intersection since 1989; 10th Street often has icy conditions during the winter and the proposed project will add to the existing traffic conditions; the additional traffic will make driving on icy 10th Street more challenging, requests a site-specific traffic count, line-of-sight concerns for traffic turning north-bound from 10th Street.
9	7/5/2016	Janet Gentile	☒	☐	☐	Property owners in the industrial zone should be able to develop within reason, gas station location will be convenient for visitors traveling through Ketchum.

10	7/6/2016	Nick and Kathy Gyurkey	☒	☐	☐	Owners of subject property; believe that the applicant has satisfied all conditions that could be identified in order to conform to the code and that ability to redevelop property per code must be relied on, proposed development will have conforming setbacks rather than non-conforming and access to site, including sidewalks, will be engineered to conform to standards whereas existing access does not, proposed use in a visible location is needed since other gas stations are not easily accessed by visitors, proposed gas station will be easier for vehicles to maneuver than existing gas stations, questions motives of nearby owners concerned with safety issues, LI uses should not be subject to residential sensibilities rather than zoning code for LI.
11	7/6/2016	Richard Sharbinin	☒	☐	☐	Proposed gas station will be of higher quality than existing gas stations and a better experience for visitors who are accustomed to nicer gas stations, existing gas stations are difficult to find for visitors and/or difficult to navigate, location is ideal for a gas station.
12	7/6/2016	Susan Scovell	☐	☒	☐	The proposal contravenes the existence of the Dark Sky ordinance and will undo any good the Dark Sky ordinance has done; opposes character of use and the design, with aluminum roofing, at the entrance to town
13	7/7/2016	Barbi Reed	☐	☒	☐	Allowing a gas station on Main Street will attract large vehicles, which will endanger bicyclists and contradicts city policies that encourage bicycle and pedestrian activity; if the city intends to encourage bicycling the city should make it safer to ride bikes, large vehicles have extensive blind spots; diagrams illustrating blind spots were submitted.
14	7/7/2016	J. Kevin Lawler	☐	☒	☐	Frenchman's Place condo owner; Does not believe applicant demonstrated all criteria for granting a conditional use permit have been met, purpose of the LI-1 district is to contain uses that generate traffic from tourists and general public, there is not sufficient need for an additional gas station in Ketchum, health, safety and welfare concerns have not been fully addressed
15	7/8/2016	Roy Bracken	☒	☐	☐	Developer of proposed project; submitted petition with 60 signatures collected between July 6th and July 7th identifying citizens who support approval of the proposed project. Signatures were largely collected in the LI-2 zone at the site of Mr. Bracken's existing business.
16	7/8/2016	Graeme and Norah Bretall	☐	☒	☐	Survey response; Gas station at gateway location undesirable, no need for additional gas stations in Ketchum, traffic will dramatically increase, site could be converted to a chain gas station or fast food restaurant, character of town would be negatively impacted by gas station at that location.
17	7/8/2016	Dusty Wendland	☐	☒	☐	Addresses effects of gas stations upon adjacent real estate and properties across the street from gas stations, architecture of underground tanks and their impact on air space, and relevant sections of the city's zoning code. Addendums include a letter from D.L. Evans bank regarding underwriting for gas stations and properties adjacent to gas stations and diagrams depicting vapor vent pipes associated with gas stations.
18	7/8/2016	Barbi Reed	☐	☒	☐	Conditional Use Permit and definition of the LI-1 zone are not being met by this proposal.

☐ Comments received prior to meeting packet for July 11, 2016 was distributed; included in packet

Independent studies received June 27, 2016 through July 7, 2016 for July 11, 2016 hearing continuation

#	Date Submitted	Person/Entity	Main Points
1	7/7/16	Richard Klein, Community & Environmental Defense Services	Gas station needs analysis; based on local resident population and per capita fuel usage, area is already over-supplied with gas stations and there is no need for an additional gas station.

2	7/7/16	Richard Klein, Community & Environmental Defense Services	Health effects; refueling releases benzene into the air and near-source exposures can be significant; there are two sensitive-receptor sites within 1,000' of the proposed gas station, Hemingway Elementary School and the YMCA and there are already two existing gas stations within 1,000' as well. The combined impact of 3 gas stations within 1,000' significantly elevates the health threat to school children and the young and elderly who utilize the YMCA; the EPA recommends screening gas stations proposed for sites within 1,000' of a school for potential health effects due to pollutants released to the atmosphere.
3	7/7/16	Richard Klein, Community & Environmental Defense Services	Groundwater; three existing gas stations appear to be up-groundwater-gradient to three out of six of the City's wells and the proposed gas station will also be up-groundwater-gradient to three wells; a Johns Hopkins University study finds that gasoline spilled onto concrete pads at gas stations leaks through the concrete to potentially contaminate groundwater; Best Management Practices for the proposed gas station have not been indicated; potential increase of contamination to City's wells would endanger the community's health.

Bracken Station - Conditional Use Permit application public hearing continuation June 27, 2016

Written public comment received June 13, 2016 through June 27, 2016 for public hearing continuation

#	Date Submitted	Person/Entity	In Favo	Against	Neutral	Main Points
1	6/20/16	Helcia Graf	☐	☒	☐	Concern about the visual impact of the gas station and the rapid flashing beacons on Main Street and when juxtaposed against the mountains
2	6/25/16	Yelena Chestnov and	☐	☒	☐	Owners of Wood River Lock; concerns about traffic, Dark Sky impacts, visual
3	6/26/16	Gary Lipton	☐	☒	☐	Owns property directly north of the site; Dark Sky/glare and light trespass from canopy exacerbated by height differential between canopy and the lower grade of his property, glare from headlights of vehicles patronizing the gas station will shine north directly toward his property
4	6/27/2016	Leo Brieske	☐	☒	☐	Adjacent property owner; Dark Sky/light trespass from new patio into his property at a lower grade, lack of landscaping along western property line to provide a buffer, suggests incorporating existing trees into patio design and/or adding additional landscaping on patio on western property line, hours of operation of restaurant, rear setback concerns, is financing for future sales of adjacent properties contingent upon EPA studies?

Comments received prior to meeting packet for June 27, 2016 meeting was distributed; included in packet.

Comments received after meeting packet for June 27, 2016 was distributed; comments printed for Commissioners and displayed on the projector screen during meeting.

Bracken Station - Conditional Use Permit application public hearing June 13, 2016

Written public comment received prior to June 13, 2016 public hearing

#	Date Submitted	Person/Entity	In Favo	Against	Neutral	Main Points
1	5/27/16	Kathleen Nichols and Douglas Holen	☐	☒	☐	Nearby property owner; Impact on nearby residential property values, area is already adequately served by nearby gas stations
2	6/1/16	Edward Jacobs	☐	☒	☐	Nearby property owner; Increased traffic congestion, impact on nearby residential property values, area is already adequately served by nearby gas stations
3	6/2/16	Sara Gorham	☐	☒	☐	Increased traffic volume and congestion, incompatibility of gas station with nearby residential uses
4	6/2/16	Liz Roquet	☐	☒	☐	Increased traffic volume and congestion, current relevancy of 2008 data cited in traffic study was collected, pedestrian and cyclist safety, potential contaminated water and impaired drainage due to surface run-off and underground storage tanks
5	6/2/16	J. Kevin Lawler	☐	☒	☐	Nearby property owner; Incompatibility of gas station with nearby residential uses and hotel uses, area is already adequately served by nearby gas stations
6	6/6/16	Gary Lipton	☐	☐	☒	Nearby property owner; Dark Sky/glare and light trespass, opportunity to underground utility lines, current relevancy of 2008 data cited in traffic study was collected, hours of restaurant operation, fire access in alley, drainage and snow removal mitigation,

7	6/7/16	Barbi Reed	☐	☒	☐	Nearby property owner; Increased traffic congestion, vehicular, pedestrian and cyclist safety, environmental externalities and health concerns, incompatibility with nearby residential, hotel, commercial/office, and cemetery uses, incompatibility with Comprehensive Plan, impact on nearby property values and commercial operations, noise, dark sky, and nuisance concerns; need for additional study
8	6/8/16	Jody Vering	☐	☒	☐	Frenchman's Place condo owner; High number of existing gas stations relative to
9	6/9/2016	Joel Brazil	☐	☒	☐	Area already adequately served by nearby gas stations, desire to see buildings and businesses with a different character on Main Street
10	6/13/2016	Richard Walsworth	☐	☒	☐	Nearby property owner; stressed importance of maintaining access in rear alley, concern about number of restaurants/retail in the LI-1 zone

Comments received prior to meeting packet for June 13, 2016 meeting was distributed; included in packet.
Comments received after meeting packet for June 13, 2016 was distributed; comments printed for Commissioners and displayed on projector screen during meeting.

Bracken Station - Conditional Use Permit application

Correction of record - written public comment received for June 13, 2016 Public Hearing

#	Date Submitted	Person/Entity	In Favo	Against	Neutral	Main Points
4	6/2/16	Liz Roquet	☐	☒	☐	Owns Lizzy's Fresh Coffee, currently located on subject property; increase in traffic in and out of site, concerns over chronic speeding around site and collisions, difficulty turning into site from 10th Street due to angle and southbound on Main Street due to timing of turning on a turn signal, relevancy of traffic data collected in 2008 as it relates to safety and access to site, 10th Street bicycle and pedestrian safety in respect to pedestrian traffic from Hemingway elementary and turning angle and speeds and parked vehicles, drainage and concerns over potential contamination from surface runoff as well as below ground water

Previously summarized comment - included in June 13, 2016 presentation

4	6/2/16	Liz Roquet	☐	☒	☐	Increased traffic volume and congestion, current relevancy of 2008 data cited in traffic study was collected, pedestrian and cyclist safety, potential contaminated water and impaired drainage due to surface run-off and underground storage tanks

From: Steven Shafran [mailto:Steven@theshafrans.com]
Sent: Wednesday, June 29, 2016 9:15 AM
To: Micah Austin <maustin@ketchumidaho.org>
Subject: Bracken Station

Micah:

I hope this note finds you well. I am writing this note to you to express my negative feelings about the proposed development of a Gas Station/Convenience Store on the corner of 10th Street and Highway 75.

At this point, based on the information that I have seen prepared by the applicant, it appears that the development is a really bad idea. I have the following concerns:

1. The idea that the northern gateway to the town should be a gas station is completely at odds with the letter and spirit of our Comprehensive Plan. We spend so much time developing and maintaining these plans for precisely this type of situation. The citizens have spoken through the Plan about what is important to them. Words like "Visual quality of the entryway corridor" are in the plan, and should be respected. I have spoken to numerous residents who live in the city and North of town. No one thinks a gas station should be our "Welcome to Ketchum" visual.
2. I think that this development is going to create substantial traffic problems at the north end of town. How are all the RVs and Trailer pulling vehicles heading north for the Stanley Basin going to turn left across the highway to get to the last gas station for 35 miles? And what will it do to traffic when all those vehicles need to turn left again to get back on the road heading north? I read the traffic study prepared for the P&Z in connection with this proposal. While I respect the professionalism of Hales, why does anyone think a study performed in the winter of 2008 during the recession will be helpful in determining traffic in the summer of 2017? There are no RVs or trailers heading north in the winter. How can we possibly use this data to understand the impact of the proposed development?
3. The Comprehensive Plan also talks at length about pedestrian and bike safety. We all know we have a serious safety issue from the north edge of town to Saddle road, where no sidewalks or bike paths exist. When I bike to warm springs from my home, I go down 10th street to get to the bike path. A gas station on this site will make the current dangerous situation more treacherous for pedestrians and bikers.

I look forward to attending the July 11th meeting. I expect the P&Z to be considering this application in accordance with our Comprehensive Plan and thoughtful public policy.

Best
Steve Shafran

From: Jeff Lamoureux
Sent: Wednesday, June 29, 2016 11:02 AM
To: Casey Finegan <casey@alarycs.com>
Cc: Micah Austin <maustin@ketchumidaho.org>
Subject: Re: Gas Station

Casey,

Thanks for your comments. I am forwarding to Micah Austin, Planning Director and the will be included in the public record. We have received several similar comments and have requested additional info from the applicant to evaluate. This will be discussed at our next meeting on 7/27.

I shouldn't discuss details with you prior to the meeting but you can call Micah to discuss further. He can be reached at (208) 727-5084

Jeff Lamoureux

On Jun 29, 2016, at 9:07 AM, Casey Finegan <casey@alarycs.com> wrote:

Hi Jeff,

I'm not sure of how to figure out something in relation to the new Gas Station project and thought you would have a pretty good idea. My concerns are numerous but one of them is the Gas Station lighting. My unit in Frenchman's looks directly at the proposed site and I'm thinking that a gas station will be flooding nearly all windows of my unit and others with light at night which would be pretty unfortunate. As the President of the Frenchman's board, I have been asked many similar questions. I'm not sure if this is a conflict for you to respond, I just don't know how to find out.

Thanks,

Casey Finegan
Alary Computer Services
208-721-3044
Casey@alarycs.com

From: Barbi Anne Reed <barbi@annereedgallery.com>
Subject: others to talk to re. water contamination
Date: June 30, 2016 at 4:27:51 PM MDT
To: Brittany Skelton <bskelton@ketchumidaho.org>, Micah Austin <maustin@ketchumidaho.org>
Cc: pzcomments@ketchum.org

Micah and Brittany, Although everyone in town is jamming and busy with the beginning of the summer season, those who rent or own at the bottom of 10th Street can perhaps find a few moments to fill you in on water rushing down 10th Street in heavy rains (and maybe big snow melts?). Did not realize this, but Kelly Bird of Bird & Co and I think the people at Pella Windows (which I understand had a huge flood in their space) can attest to water coming down 10th Streeté if that water is contaminated by benzene and other toxic spills and leakage from the proposed Bracken Station, the problem becomes even worse as now people are dealing with petroleum contamination surface water that could become contaminated ground water and more difficulty in remediation.

Iôm sure both of them, if they have a moment, will tell you about Warm Springs flooding, 10th Street water run off and water coming into their spaces.

OMGé the more I look into this the more frightening a gas station on top of a hill (is the station going to built on what is fill? if so, what is that fill? if not, what is the soil like? I am speaking now to what happens with gas spillage and leaks from vehicles at the pumps. Is a soil study necessary?

http://www.nbcnews.com/science/environment/gas-station-spills-could-pollute-water-drips-drops-study-n221736

The dribbles and drops of gas splattering onto the ground at your local filling station could contaminate your water, a new study suggests.

Johns Hopkins researchers determined that a substantial proportion of that spilled gasoline could be percolating through the service stationsôconcrete pads, according to the study, published in the Journal of Contaminant Hydrology.

In fact, he estimates that at a typical gas station, youôre talking about 1,500 liters being spilled over a 10-year period, including 7 or 8 liters of benzene, a carcinogenic component of gasoline.

Hilpert also worries about spills that are carried off the concrete by rain water.

ñThe clean water may flow over the concrete and pick up the spilled gasoline and move it to someplace else,òHilpert said. ñIt could infiltrate the soil, go down storm drains and end up in the natural surface water.ò

B. (Barbi) Anne Reed
ANNE REED GALLERY

barbi@annereedgallery.com
208-841-9200
208-774-0400 (cabin)

PO Box 597
100 Sage Road - A
Ketchum, ID 83340

11 Yellow Ferry Harbor
Sausalito, CA 94965

www.annereedgallery.com

From: leslie andrews
Sent: Tuesday, July 05, 2016 7:53 AM
To: Participate <participate@ketchumidaho.org>
Subject: Please. No Bracken Station!

Oh, please, no! Ketchum has already lost too much of it's small town charm and allure. Please don't add another gaping wound to our sweet town.

Leslie Andrews
Hailey

SURVEY

Proposed

BRACKEN GAS STATION and CONVENIENCE STORE

MAIN STREET KETCHUM between 10th Street and East 9th Street
(opposite Knob Hill Inn on site of Lizzy's Coffee)

Check all that you feel apply

☑ There are enough gas stations in Ketchum. Ketchum does not need another.

☑ Bracken Station will be permanent, visual blight at Ketchum's Northern Gateway

☑ Bracken Station will create a toxic environment (air and soil contamination) creating a health hazard, especially for nearby Ketchum residents, workers, businesses

☑ Bracken Station is not in compliance with stated LI-1 Zoning purpose: **"generate little traffic from tourists and the general public"**

☑ Bracken Station's convenience store will lure children from Hemingway and YMCA, onto 10th St. (incredibly dangerous now even without the addition of more vehicles generated by Bracken Gas Station). Bus stop riders will be lured across highway from the bus stop located directly opposite of proposed Bracken Station.

☑ Bracken Station will dramatically increase traffic on North Main, 10th Street and other adjacent streets endangering pedestrians and bicyclists. (Note: Bracken Station is designed for use by extra heavy trucks (e.g.dump trucks, tractor-trailers with long hitches, semis, 5th wheels, large RVs, snowmobile /horse trailers, etc.)

☑ If Bracken Station is approved, I understand that City of Ketchum could not prevent sale to a large gas station e.g. Stinker Store, Exxon, Chevron, etc. or the opening of a Fast Food franchise, such as Subway, McDonald's, Sonic, Arby's, etc.

☑ Bracken Station does not comply with Ketchum's Comp Plan: **"to promote the health, safety and general welfare of present and future inhabitants of Ketchum"**

☑ All of the above ☐ None of the above

ADDITIONAL COMMENT: (or submit to: pzcomments@ketchumidaho.org)

Signature Johnny Bolton

Print JOHNNY BOLTON

☑ I disapprove of Bracken Station on Main Street, Ketchum. You may list my name among others who oppose this development. City of Residence KETCHUM

☐ Remind me about the next P&Z meeting, Monday, 11 July, 5:30 PM
Contact info

SURVEY

Proposed

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MAIN STREET KETCHUM between 10th Street and East 9th Street
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☑ All of the above ☐ None of the above

ADDITIONAL COMMENT: (or submit to: pzcomments@ketchumidaho.org)

Signature Valerie Ashbaugh

Print Valerie J. Ashbaugh

☑ I disapprove of Bracken Station on Main Street, Ketchum. You may list my name among others who oppose this development. City of Residence Ketchum

☐ Remind me about the next P&Z meeting, Monday, 11 July, 5:30 PM
Contact info _____

TO: Planning and Zoning Commission, City of Ketchum **July 5, 2016**
FROM: Brian Emerick
RE: Bracken Station Conditional Use Permit

Dear Planning and Zoning Commission,

I am writing in strong support of the Bracken Station Conditional Use Permit as proposed for the 911 N. Main Street location. From an objective review of criteria for CUP's within the LI-1 District, the application goes above and beyond what is required for this zoning district and has to date answered and met every condition that has been placed before it – and there have been many such conditional "hoops" that the applicant has professionally and politely jumped through. From a more subjective measure of the value of the application to the LI-1 District specifically and the City of Ketchum in general, the proposal for a first rate motor vehicle fueling station and food service establishment can only be seen as a significant and undeniable improvement over the non-conforming, dangerous, and unsightly use that is currently occupying the oddly-shaped and challenging parcel. Although there have been numerous emotional plea's made to the Commission to deny the Bracken Station Conditional Use Permit application, those shrill voices that are primarily objecting from plain positions of immediate self-interest are not compelling when answered by the fact-based information as compiled and presented by the applicant and the professionals reporting on the application and duly recognized by the Planning and Zoning Staff in its Staff Report dated June 13, 2016. **In short, the Planning and Zoning Commission must consider the Bracken Station CUP application using the criteria for evaluating conditional use permits – not emotional-based cries -- and when it does so, the Commission must find that motor vehicle fueling stations and food service establishments are allowed within the LI-1 District and that the application, having again and again answered and agreed to the conditions placed before it, should be unanimously approved by the Commission with the result being a clear improvement over existing conditions at the site and a useful and attractive feather in the cap of a growing and prosperous City of Ketchum!**

Briefly, here are some facts in regard to the Bracken Station Conditional Use Permit application:

- Motor vehicle fueling stations and food service establishments are allowed within the LI-1 District (if a CUP is approved) . . . and the property in question is within the LI-1 District, not a residential nor commercial district, for example, so the CUP does not need to comply with criteria for districts other than LI-1, even if those other districts are neighboring to the LI-1;
- According to the Zoning Ordinance, CUP's may only be allowed if the Commission determines that there would be no impact to the public health, safety, and welfare of the community, and per the professional opinion as clearly stated in the Planning and Zoning Staff Report, "As identified in Attachment C, staff believes a conditional use permit can be granted subject to the conditions and improvements identified in the attachments." At Attachment C, it is noteworthy that Staff shows that four of the five criteria listed are plainly met for the CUP, with the lone mention of a question being whether the conditional use is in conflict with the Comprehensive Plan, but notes that the Comprehensive Plan designates the property for mixed-industrial use . . . for which the application falls within the guidelines for mixed-industrial use. As noted, the Commission would need to make a *discretionary* decision that a new fueling station and restaurant are not needed within the LI-1 District, but such a subjective determination would be a very slippery slope for the Commission to stand on, essentially determining that the Commission knows that a certain number of given business types are "good" or "bad," needed or not needed, and who is to say that in a given part of the City that there should not be a new restaurant or a new book store or a new real estate office or a new coffee shop or a new clothing store or a new fueling station . . . providing the business is approved for the particular zoning district in question? If a business person is willing to embark upon a business venture and that business venture is to be situated in an already-approved part of town, how could the Commission deny that decision by the business person? Such a decision would be a heavy cross for the Commission to bare and would blatantly invalidate the much more professional and objective findings of Staff that the first four criteria for a CUP are met by the applicant. And, such a decision that denies the objective criteria presented leaves the City open to charges of being arbitrary and capricious in its decision making, which would present potential grounds for legal action against the City that would be costly to defend, a situation which no City office would want to be the cause of.

And what are the voices against the applicant saying?

- That the application will create new and increased traffic and that previously-cited traffic studies are outdated and not applicable. Indeed, the applicant is in many ways proposing to make the current traffic situation much more safe and orderly, a true benefit to this currently dicey traffic area where there is a real need for safety improvements. And he has paid for a new traffic study that shows that there will not be traffic problems associated with the development. And, let us not forget

that one of the loudest voices from the June 13, 2016 meeting crying out about traffic studies would like to see the property remain just as it is because they use the property for after business hours parking, blatantly "borrowing" the private property for their own use! Another voice decrying the unsafe vehicle and pedestrian traffic situation in the area is a current tenant at the Northtown Center – the current name of the property -- who from a self-interested perspective would like to see no change at the property as change would mean that she would need to relocate. And, this is not to mention that she would like to see the application denied as she herself is known to desire to purchase the Northtown Center property, albeit at a fraction of its market value. For these self-serving reasons, these "no" vote commenters would have the Commission deny the application and continue with the status quo of unsafe vehicle and pedestrian traffic, denying the much safer traffic solutions as proposed by the applicant!

- That by improving the 10th Street area with sidewalks and lighting and cross walks that this will be a safety hazard, encouraging people to traverse up and down the street! Indeed, the applicant will need to make many costly and necessary improvements to the 10th Street area and this will be a very good thing! But, it is not the applicants obligation to improve neighboring properties along 10th Street that are currently not in compliance with numerous zoning regulations having been "grandfathered" in ahead of the current rules – if and when those neighboring properties seek to change or re-develop, they, too, will have to toe the line and improve their sites, but in the meantime, the applicant will be greatly improving this part of the neighborhood from what it currently is and this can only be seen as a positive contribution to 10th Street and the City.
- That there will be light pollution from the new business. The applicant will have to abide by all necessary rules and codes in regard to this subject and has even taken extra and additional steps to be a good neighbor and limit the potential for after dark lighting. And, the applicant has taken these extra efforts to appease the cries from a neighbor across 10th Street who is not even open for set hours of business during the day time, much less during non-business hours at night!
- That gas stations are inherently unsafe to be around. In a perfect world, we would not need nor use cars. But it is not a perfect world and we as Americans use cars every day . . . a lot! And to use our cars, we need fuel. We are not going to change this nation-wide fact by giving a thumbs up or a thumbs down to this local permit application, but to make fueling stations as safe as possible, we entrust numerous governmental agencies to protect the public welfare and those governmental agencies will oversee this fueling station as they do all other such facilities. And we are thankful for this professional oversight. But, for those who are potentially hyper sensitive to living near the LI-1 District where fueling stations are allowed, perhaps those individuals should choose not to buy condominiums that are already near other fueling stations at Warm Springs Road and 10th Street . . . or to not build new homes that are on 9th Street just across the road from the LI-1 District!

But what if the Bracken Station Conditional Use Permit was miraculously denied? What would happen at what is now called the Northtown Center? There have been suggestions that another good buyer would come along and re-develop the property and all would be right and proper. But to date that has not been the case as the property has been for sale for more than 10 years with nary a helpful buyer. And if the current applicant were denied after jumping through so many conditional "hoops", how likely would another potential buyer be willing to be subjected to the same gauntlet, spending time and money with the outcome of their efforts very much in doubt? And how does that bode for a city that is trying to find its economic footing, trying to encourage change and growth and vitality? The answer is, it would be discouraging to a potential future buyer of the property and it would not be productive for the City as it seeks to shed its reputation as being unfriendly to development and progress and finding ways for businesses to succeed and provide opportunities for residents to find gainful employment in Ketchum.

The current owners of Northtown Center are good people who have already added to the prosperity of Ketchum at this and other locations within the City, but they are not young and they are not wealthy and they do not have the time nor the money to re-develop Northtown Center to make it a more vibrant and safe property than it currently is. Indeed, if the Bracken Station Conditional Use Permit is denied and the current owners are forced to retain the property, it will not be improved and it will not be safer and it will not be a positive contribution to Ketchum moving forward – at best, will remain as is, but it could easily become worse than it currently is with fractured pavement and peeling paint and dangling wires, no great example of a welcome to Ketchum.

For all the right reasons, I politely urge the Ketchum Planning and Zoning Commission to approve the Bracken Station Conditional Use Permit and help to move the City forward toward improvement and prosperity.

Sincerely,

Brian Emerick

Brian Emerick

From: Jack Burgess
Sent: Tuesday, July 05, 2016 1:19 PM
To: Participate <participate@ketchumidaho.org>
Subject: Bracken Station

Planning & Zoning committee members,

I attended the last P&Z meeting and listened to the arguments pro & con concerning the Bracken Station development. I own one of the units in the Tenth Street Center across the street from the proposed gas station. Access to 10TH St. from the lower level units in the winter when there is ice cover on the street is difficult as it can be very slick on the slope of Tenth St. I drive a 4x wheel vehicle and access to 10TH street is precarious either entering or leaving. Ketchum Automotive has many parked vehicles on the street and many cars coming and going from their business, many times a day. Evergreen Landscaping has many service trucks backing in and out in the mornings with trailers. Vehicular traffic backed up in the winter with ice on the sloping hill will create problems for stationary drivers trying to move up the hill from a full stop, it's just too slick. People will have to back down the hill but there is nowhere to pull off to the side during the winter as the snow is piled from roofs and snow plows.

I listened intently to hear more about the IDT report concerning traffic. But that was not fully laid out. I believe we should have a real traffic count at the actual site. I believe the council members need to understand the difficulties and potential danger created by the slope of the street if several vehicles are waiting for access to the highway if they can't see oncoming traffic due to a center turn lane that has several trucks and/or trailers waiting to turn into the proposed gas station. I may be wrong in my assessment without measuring "off" the line of sight looking S from Tenth St. I hope someone has really taken this into consideration. If there are 2 or 3 pickups pulling trailers stopped in the center lane waiting to turn into the gas station, how will drivers trying turning left or N onto Hwy 75 from Tenth St. be able to see oncoming traffic from the South. In the winter this scenario is going to create a dangerous intersection in my opinion. I have been driving this intersection since 1989 and know the hazards well.

I plan to attend the next meeting and would like to hear this concern addressed. Other than that, I don't and an opinion for or against the station.

--
Jack Burgess
Ketchum, Id. 83340
208 720 4462

Subject: Gas station and convenience store on 10th Ave

I would like to express my position in favor of the gas station on the corner of the highway and 10th Ave. A property owner who purchases land in the " Industrial Zone" should be able to develop what he wishes within reason, and for out of town people passing through Ketchum not knowing where to get gas, would have the opportunity to gas up and purchase items before heading north. In reading the article in the Mountain Express about the decision being on hold because of a homeowner building a residence across the street from the proposed site, should have known the Industrial zone was there when they decided to build.
Thank you for your consideration.

Janet Gentile
Homeowner - Ketchum

Wednesday July 7, 2016, 10 am MST

To: Ketchum P&Z
From: Kathy and Nick Gyurkey
owners, North Town Center
corner of Tenth Street & Highway 75

Re: In support of gas station proposal

We are the owners of North Town Center, a property under consideration by the P&Z for redevelopment as a gas station and convenience store. Given that these are conditional uses in the LI, our understanding is that the applicant has satisfied every condition that he could identify for conforming to existing codes and ordinances. Our question is this: If people who would redevelop and improve substandard properties in clearly delineated city zones cannot rely upon the written rules in planning a project, how will the city ever move forward to correct deficiencies and provide higher quality services for residents and visitors?

As you know, the property in question sits at the northern perimeter of the city right on Highway 75, a Scenic Byway that our town hopes will bring increasing numbers of visitors into our tourist-based economy. Anyone who owns property adjacent to a scenic byway, and adjacent to a Light Industrial zone as well, should be prepared for and should welcome new development that will improve convenience, traffic flow and safety for the entire community and its guests. The subject application, which was put together over a year of consultation with all manner of experts including city officials, surveyors, engineers, hired consultants and legal minds, is specifically intended to fulfill those conditions as anticipated by the zoning code. For example:

As it sits, a grandfathered building abuts the property line (no setbacks) at the corner of Tenth Street and Highway 75, partially occluding the view of traffic arriving up Tenth to access the highway. With the proposed redevelopment, that building would be gone. In its place would be newly engineered access to the property as well as sidewalks and appropriate lighting. Thus, not only will a new gas station conveniently provide a modern service for people who are looking for that very thing as they arrive in or exit the town, but because of its compliance with modern zoning ordinances, designed and written into the zoning code for just that purpose by elected officials and hired experts, it will be a decisive improvement over existing traffic and safety conditions at its own location or at any of the existing gas stations in the LI (none of which could come close to qualifying under current codes.)

Our understanding is that this is what Ketchum's zoning codes and city ordinances are supposed to be for: moving the town forward using periodically updated guidelines to induce developers to put in higher-quality installations to keep our community current and attractive while answering the obvious needs of our residents and visitors. Gasoline could hardly be a more obvious need, and right now the only gas stations in the north end must be accessed by secondary streets with whom guests are unfamiliar, rolling them through numerous intersections that could and do have frequent pedestrian use. (We see almost no pedestrians at

the corner of Tenth Street and Highway 75). Some larger vehicles, when they do locate existing gas stations, have a hard time navigating the substandard, not-to-code layouts of the pumps, sometimes causing traffic jams as they attempt to maneuver in tight spaces. Even worse, vehicles servicing the convenience store called Base Camp are frequently seen stopped in the middle of the street holding up traffic in more than one direction.

Aren't unsafe situations like these what the zoning ordinances are designed to correct over time? This project would seem to fulfill that purpose because many individuals on the city's staff have gone on record to note that Roy Bracken has complied with every objectively-achievable city ordinance governing conditions for fueling stations - and he proposes it at a location where people new to town won't have to go searching through side streets for something as essential as gasoline.

Conditional uses have conditions that are specifically designed to further the goals of the community such as safety. I've seen much comment in the press about safety safety safety from people who clearly haven't studied the matter in light of the fact that the applicant has satisfied all those conditions. This calls into question what their real motives might be for attempting to obstruct Roy Bracken's CUP application. One late comer to the Scenic Byway "neighborhood," Barbie Reed, purports to be worried about safety while she constructs a multi-million dollar residence that, in light of her NIMBY attitudes, probably should have been located across the street from other residences rather than from the LI zone. I'm told that another "neighbor" alludes to safety concerns - but maybe is more worried about the continued availability of free overflow parking for his employees and the vehicles of his valet-parking patrons.

You have a bunch of objectors who are affiliated with one of our tenants worrying about "safety" too. Putting aside such obfuscations, we sympathize with her desire for her business to enjoy easy access and visibility at a low rent rate. But that advantage is not some kind of tenant right that she is entitled to assert by virtue of having a lot of friends who will show up at P&Z meetings. Put another way, property rights belong to owners and should be something that can be identified within zoning codes and building ordinances, not defined by popularity contests or sentiments about maintaining the status quo so that some small businesses won't have to relocate.

I hear too that residents at Frenchman's Place condos do not want a CUP issued, as if denying this will somehow offset the fact that their own complex is built in the LI and has LI tenants right on the premises. Maybe they think that our part of the LI should now become subject to their more residential sensibilities rather than to the zoning code.

Then there's the objector who operates a gallery across Tenth Street and is outraged because the proposed canopy lighting will filter in to his place of business - even though according to a sign on the door his establishment is not even open when the lights would be on. Some say he's part of the above-referenced pressure group that would like to buy the property if Roy Bracken's good faith application for a CUP for some reason fails. Trust me, no one who is part of that group is going to buy the property for what they want to pay; we prefer to keep it, status

quo.

To that point, let me conclude by saying that we have owned North Town Center (the newspaper for some reason thinks it's called "the building that houses Lizzy's Fresh Coffee") for about fifteen years and have kept it in as good a shape as our means permit. It is not exactly "an eyesore" but parts of it are pretty obsolete and can't undergo meaningful upgrading even if the rents could provide funds for that. There's also the fact that parts of it can't be improved because they are grandfathered struactures. The only way this property can be improved is by redevelopment. If the current attempt to sell our property fails for reasons that can't be found in the ordinances, it will be difficult for us to find another buyer who will risk being turned down by the city after spending huge amounts of time and money to comply with every guideline in the Planning Department's book, as Roy Bracken has done. But should that eventuality come to pass, whenever it is that another project arrives before this body of public servants, I confidently expect that it will NOT be something that Barbie Reed likes any better - and I hope that however far down the road that day will be our public servants will recognize that Ketchum is ready and willing to follow its own written rules rather than unwritten laws of NIMBY-ism, emotion and in-crowd opportunism.

My husband and I, locals of long standing ourselves, sincerely hope that people dedicated to good planning, fair play and the rule of law will swiftly approve this application.

Nick and Kathy Gyurkey
PO Box 21
Ketchum ID 83340

208-720-0599

Tuesday, July 5, 2016

To the Ketchum P&Z
In favor of the gas station application for conditional use permit

I think you have a deadline, and I would like to put in my two cents about the gas station. This is a much needed improvement for Ketchum. As it is now, nobody can find a gas station in town if they don't know their way around. About as close as we can come to a visible, easily-located gas station would be south of town at Mountain View. It's old and run down and unattractive, hardly the kind of place that well-off visitors are accustomed to going for gas.

If you're headed out north, you've got to detour off of main street and go searching around down in the LI, looking for a place that you can fuel up - and probably paying more than the going rate to boot. The first place you find is more convenience store than gas station with limited pumps and not enough room to get around if trucks are using one of the pumps. So you wait and you're blocking the next guy from trying to get in too. Or you go to the car wash place, if you can find it…. I mean, how many self-respecting towns put their tourists through that kind of effort just to get gas?

Corner of Tenth and Highway 75 is just an ideal place for a gas station. It's not such a great place for a NIMBY palace like the one going up on the other side of the highway. If that woman was looking for views she should have realized that the LI was going to be part of her views.

Let's approve this, for all of us.,

Rick Sharbinin
307 S. Main St.
Ketchum ID 83340

208-481-0496

From: Scovell Susan [mailto:sscovell@gmail.com]
Sent: Wednesday, July 06, 2016 11:08 AM
To: Micah Austin <maustin@ketchumidaho.org>
Subject: Bracken Gas Station

Dear Planning and Zoning Commission,

As a past member of the Ketchum Planning and Zoning Commission for 5 plus years, and as a practicing architect in this area for over 35 years, I would like to make a very strong statement against the proposal for the Bracken Station.

Since I was on the commission which created the Dark Sky Ordinance, with the help of Dr. Stephen Pauley, I am aghast at this proposal ! It strikes at the heart of the dark sky legislation and contravenes the very reason we have this important ordinance. As you may recall the dark sky ordinance allows us to see our stunning evening starry skies. And to ñprotect and promote the public health, safety and welfare, the quality of life and the ability to view the beauty of the night sky". This gas station will undue ANY of the good that the dark sky ordinance has done.

And on another level I am against this because it will be the first thing people see when they approach our town. The huge reflective expanse of aluminum roofing up at a high level, along with he glaring lights of a gas station roof is not representative of our Small, Western, High Mountain town.

Please deny this proposal.

Sincerely yours, Susan Scovell, Ketchum

From: Barbi Anne Reed
To: Brittany Skelton
Subject: two further comments on the Bracken Station...a contradiction and dangerous blind spots!
Date: Thursday, July 07, 2016 2:48:17 PM

Brittany, two points:

1. It is my understanding that the City of Ketchum is encouraging bicyclists and pedestrian walking on its city streets. In view of this, I have heard and it was verified by your department that builders of new buildings are exempt paying an in lieu fee of approximately $40,000 and being forgiven the requirement for one parking space if they install bike racks and a shower in their building to allow employees and employers the opportunity to shower before or after physical activity or after riding to walk.

Allowing a gas station on Main Street attracting large vehicles which will endanger bicyclists is a clear contradiction to what the City is attempting to do by offering "forgiveness" at a substantial figure!

This is ironical at the very least and confusing.

2. If the City's intention is to create more more people on bikes, the burden is on the city to make it a safer place to ride bikes! See the attached re. the dangers for bicyclists (and this does not count bicycles with kid trailers and recumbent bicyclists and inexperienced bicyclists). In addition bicyclists are forced by the proposed gas station site as there is a gap in the bike path. With a bike shop down the street and vehicles on the highway traveling north and south, turning into and out of Cemetery, Knob Hill Inn, 10th Street Light Industrial, 10th Street, 9th Street, Frenchmen's allowing a business whose main purpose is to attract high volume of traffic and necessitates that vehicles cross lanes **will invite accidents.**

See blind spot info below which P&Z should consider as major safety risk to both pedestrians walking to the convenience store as well as bicyclists using the road.

ALL OF THESE BIKES ARE IN THE DRIVER'S BLIND SPOT



If you're a cyclist approaching an intersection in a bike lane where a car is already waiting to turn right, there is a pretty good likelihood that they will not be able to see you before they make the turn due to the vehicle's blindspots--even if they are actively looking for a cyclist

With large vehicles anxious to turn left and or right into or out of the gas station on this busy stretch of Main Street (Highway), with vehicles going more than 25 MPH

Top Ways Cyclists Get Hit By a Car

The majority of collisions between cyclists and vehicles happen in the following situations. All of these are driver error largely because they don't know the cyclist is there.

The Pull Out

This is where a car is pulling out onto the roadway from a side street, driveway, parking lot, or other area. The driver will look quickly and not see a cyclist approaching thus hitting them.

Cyclist's Action

This will happen most often on busy roadways as the driver is intent on quickly getting into the travel lane before any approaching cars which minimizes the time they spend looking in either direction to make sure it is clear.

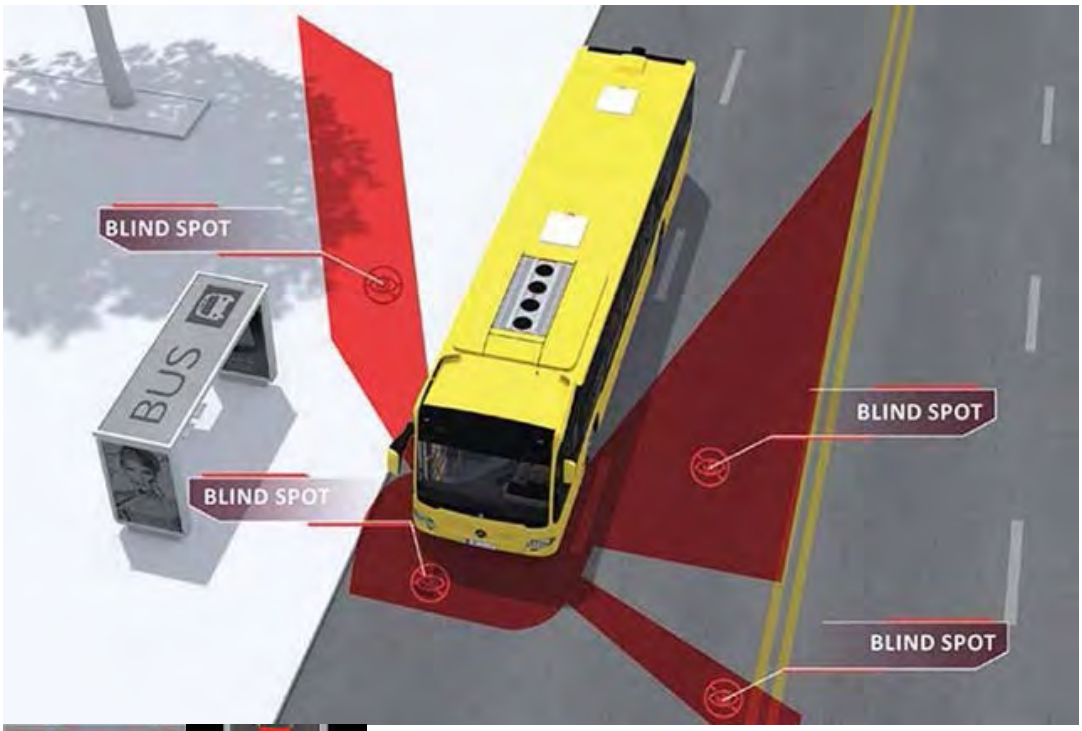
The Left Cross

A vehicle turning left across the roadway is one of the most dangerous maneuvers that a cyclist can be on the wrong end of. This is because the speed is higher and movement is more in opposing directions multiplying the forces should an impact occur. Vehicles will look up the lane to see if it is clear and not necessarily across the lane to see if a cyclist is there.

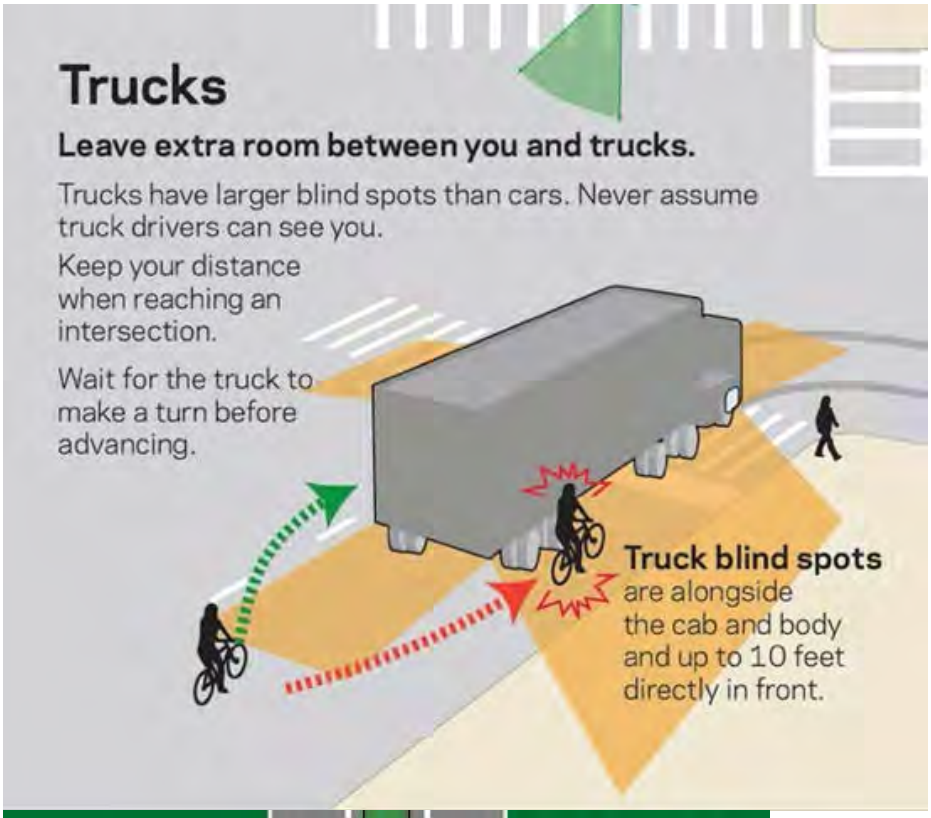
Traffic Lights

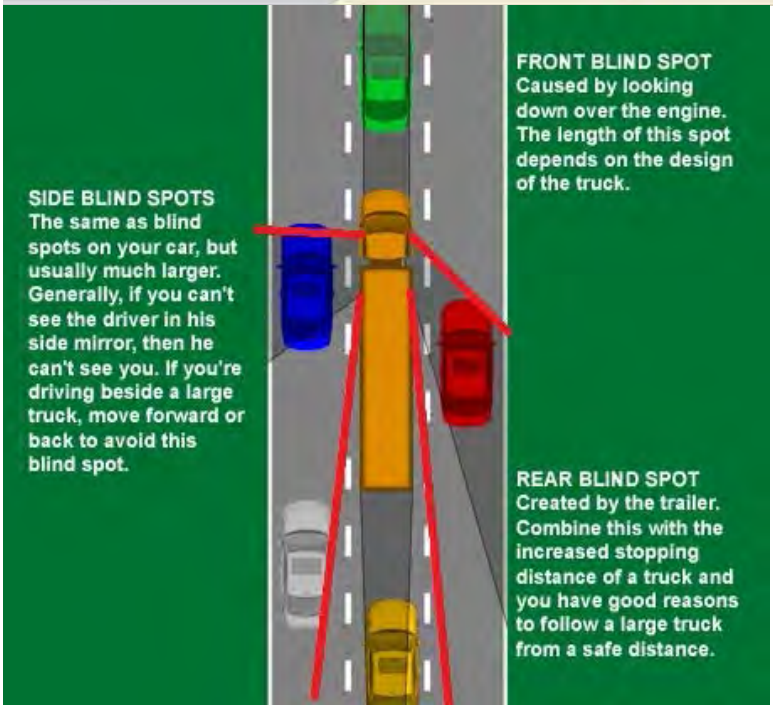
Traffic lights can be a potential hazard because of the close proximity of a lot of vehicles and the speed some may still be carrying.

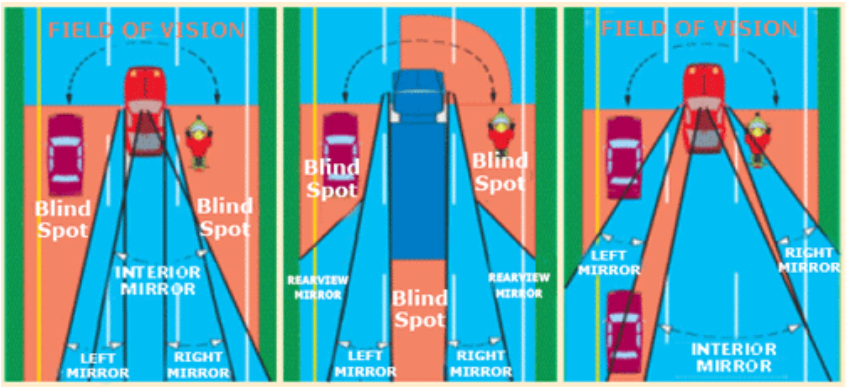
see: http://www.ilovebicycling.com/how-to-not-get-hit-by-a-car-riding-your-bike/






Trucks
Leave extra room between you and trucks.
Trucks have larger blind spots than cars. Never assume truck drivers can see you.
Keep your distance when reaching an intersection.
Wait for the truck to make a turn before advancing.
Truck blind spots are alongside the cab and body and up to 10 feet directly in front.


SIDE BLIND SPOTS
The same as blind spots on your car, but usually much larger. Generally, if you can't see the driver in his side mirror, then he can't see you. If you're driving beside a large truck, move forward or back to avoid this blind spot.
FRONT BLIND SPOT
Caused by looking down over the engine. The length of this spot depends on the design of the truck.
REAR BLIND SPOT
Created by the trailer. Combine this with the increased stopping distance of a truck and you have good reasons to follow a large truck from a safe distance.


FIELD OF VISION
Blind Spot
Blind Spot
INTERIOR MIRROR
LEFT MIRROR
RIGHT MIRROR
Blind Spot
Blind Spot
REARVIEW MIRROR
REARVIEW MIRROR
Blind Spot
LEFT MIRROR
RIGHT MIRROR
FIELD OF VISION
LEFT MIRROR
RIGHT MIRROR
INTERIOR MIRROR


keltbray.com


VIA 9GAG.COM


LOOK RIGHT



B. (Barbi) Anne Reed
ANNE REED GALLERY

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208-841-9200
208-774-0400 (cabin)

PO Box 597
100 Sage Road - A
Ketchum, ID 83340

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Sausalito, CA 94965

www.annereedgallery.com

J. KEVIN LAWLER

July7, 2016

Planning and Zoning Commission
Department of Planning and Building
City of Ketchum
PO Box 2315
Ketchum, ID 83340

Via email to:participate@ketchumidaho.org

RE: Bracken Station – CUP Continuation Hearing

To Staff and Planning Commissioners:

I am again writing to strongly object to the proposed Bracken Station project at 911 N. Main. At the time of my previous correspondence I did not have the benefit of examining the applicant's submission for two Conditional Use Permits ("CUP"), or reviewing the June 13th Staff Report or observing P&Z hearing on June 14th on this matter.

My objections to the Bracken Station CUP application are as follows:

1. The applicant's submission for a CUP appended to the Staff Report is materially deficient. The plain text of the Code, Section 17.116.030 requires: "A conditional use permit shall be granted by the commission only if the applicant demonstrates". There is nothing in the record indicating the applicant has attempted to address nor can they satisfy all of the 5 criteria for either of proposed Conditional Uses for the proposed Bracken Station project.
2. The Staff Report (File # 16-34) is incomplete and thus has a bias in favor of the Bracken Station's CUP application. Appendices B and C of the Staff Report conspicuously fails to consider the defined purpose of the LI-1 zone, Section 17.18.140: "Purpose. The LI-1 light industrial district number 1 is established as a transition area providing limited commercial service industries, limited retail, small light manufacturing, research and development, and offices related to building, maintenance and construction and which generate little traffic from tourists and the general public.
3. Competent verbal and written testimony has been provided, and thus far largely ignored that there is not a "necessity" for an additional gas station in the LI-1 District or the City of Ketchum, in general. A representative of Base Station testified at the Commission's June 13th meeting that the

volumes of fuel sales in Ketchum are anemic compared to Hailey. The Staff Report clearly indicates there are 3 existing gas stations serving the LI-1 District. A report prepared by Richard Klein, Community Environmental Defense Services ('CEDS') documents the LI-1 District is currently over-supplied with gas stations.

4. Neither Planning Department staff nor the Commission has yet to fully evaluate the proposed Bracken Station project relative to the standard of "health, safety and general welfare". Specially not yet evaluated are:
   - ✓ The potential negative environmental impact on proximate residents and businesses from toxic fueling fumes and elevated exhaust associated with increased traffic generation attributable to the Bracken Station project. Reference: *Journal of Environmental Management*, 2010; 91 (12): 2754 DOI: 10.1016/ j.jenvman.2010.08.009 and Health Effects, Community & Environmental Defense Services, CEDS.org.
   - ✓ The potential decrease in residential property values proximate to the Bracken Station project, and the corresponding difficulty and increased costs owners will incur in selling, refinancing and insuring their residences Reference: HUD Handbook 4000.1 II.B.3.c. iii.(C)(7).

As an owner in Frenchman's Place for nearly a decade, I am deeply concerned the proposed Bracken Station project, if approved via Conditional Use Permits, will substantially diminish the value of my residence and irreparably damage the lifestyle I have enjoyed residing in the City of Ketchum.

Respectfully,

J. Kevin Lawler

Wed July 6th

THE BRACKEN STATION

PETITION IN SUPPORT OF A SERVICE STATION ON

LOT 5A BLOCK 30 KETCHUM IDAHO

Be it known, that those persons as listed below, declare in favor, for a Motor Vehicle Fueling Station known as the BRACKEN STATION, be granted a Conditional Use Permit on Lot 5A Block 30 Ketchum Idaho. We support this Allowed Use in the LI-1 Zone and request the Ketchum Planning and Zoning Commission rule in favor of the Applicant.

Name	Address
Scott Lucas	220 Lewis St Ketchum
Rob Breier	po 6257 Ketchum
Keith Morgan	po 10185 Ketchum
Pablo Zavala	PO BOX 1192
Juan Giraldo	PO Box 1192
BRENDA IBARRA	P.O. BOX 3153
Kyle Moore	P.O Box 1601 Sun Valley
Josh Morrill	601 Canyon Rd.
Connor Hall	241 2nd Ave S. #2
David Marks	P.O. Box 1605
Mel Prin	Box 513 Sun Valley Reconstruction
~~Kathy Koren-Prior~~	360 East 9th St condo 17 Ketchum
Vicky Nichols	BOX 553 Kost Rd.
Brett Mollenberg	Box 4227 Ketchum
[illegible] Burke	Box 1482 Ketchum
Kevin Wade	BOX 1896 Ketchum
Natalie Battistone	Box 1896 Ketchum

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Name	Address
ENRIQUE [illegible]	P.BOX 4 Hailey 83333
Shawn Meehan	Box 5305 Ketchum
[illegible]	P.O. 520 Hailey, ID 83333
[illegible]	Box 2607
[illegible]	Box 2786 Hailey
[illegible]	Box 4821 Hailey
[illegible]	P.O. Box 4 Hailey
[illegible]	PO Box 1555 KETCHUM
[illegible]	P.O. Box 6885 83340
Fernando H.	PO Box 264 Bellevue ID
Marco Alvarez	Carey Idaho
Harry Schultz	412 N 3rd street Bellevue ID
Mel Prior	PO Box 1171 Ket
Perry Boyle	P.O BOX 4200 Ketchum
[illegible]	P.O Box 6890 Ketchum
[illegible]	~~P.O. Box~~ 202 S. 3rd Ave Hailey 83333
[illegible]	P.O. Box 880 SV.

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Name	Address
Patrick Jay	920 Buckhorn dr. Hailey ID. 83333
Esmer Sluy	2121 W Hailey
Sam Huntsman	2713 Golf Rush Ave Helena, MT 59601
Christopher Cook	105 Red Cliff Rd Ketchum
JOEL R. EVANS	P.O. BOX 2002 KETCHUM, ID
JON TRAPP	BOX 381, KETCHUM ID
Alberto Lopez	403 3rd Ave W. Jerome, ID
Paula Lopez	208 Hailey, Id
Eric Farwell	2630 Woodside blvd.
MICHAEL WHYTE	2545 WOODSIDE BLVD.
Stephen Golden	2630 Woodside blvd
Billy Whittenberg	491 East Av. N
Tony Warner	155 TOWNSEND ROAD
BRUCE SMITH	2114 WARM SPGS RD. KETCHUM
Mark Phillips	941 Cherry Creek Dr., Hailey
Karla Agnew	P.O. Box 4676 Hailey
David Hattenj	P.O. BOX 725 KETCHUM IDAHO

THE BRACKEN STATION

PETITION IN SUPPORT OF A SERVICE STATION ON

LOT 5A BLOCK 30 KETCHUM IDAHO

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Name	Address
Bill Flanagan	PO Box 1059 Ket
Cindy Cashburn	Box 1246 K
[illegible]	331 Melrose St.
[illegible]	Box 357. Bellevue,
[illegible]	Box 3956 Ketchum

THE BRACKEN STATION

PETITION IN SUPPORT OF A SERVICE STATION ON

LOT 5A BLOCK 30 KETCHUM IDAHO

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Name	Address
Kent Brown	Bellevue
Alaine Woodall	Hailey
Mike Williamson	Fairfield
Scott Noel	Hailey

SURVEY

Proposed

BRACKEN GAS STATION and CONVENIENCE STORE
MAIN STREET KETCHUM between 10th Street and East 9th Street
(opposite Knob Hill Inn on site of Lizzy's Coffee)

Check all that you feel apply

- [x] There are enough gas stations in Ketchum. Ketchum does not need another.
- [x] Bracken Station will be permanent, visual blight at Ketchum's Northern Gateway
- [ ] Bracken Station will create a toxic environment (air and soil contamination) creating a health hazard, especially for nearby Ketchum residents, workers, businesses
- [ ] Bracken Station is not in compliance with stated LI-1 Zoning purpose: **"generate little traffic from tourists and the general public"**
- [ ] Bracken Station's convenience store will lure children from Hemingway and YMCA, onto 10th St. (incredibly dangerous now even without the addition of more vehicles generated by Bracken Gas Station). Bus stop riders will be lured across highway from the bus stop located directly opposite of proposed Bracken Station.
- [x] Bracken Station will dramatically increase traffic on North Main, 10th Street and other adjacent streets endangering pedestrians and bicyclists. (Note: Bracken Station is designed for use by extra heavy trucks (e.g.dump trucks, tractor-trailers with long hitches, semis, 5th wheels, large RVs, snowmobile /horse trailers, etc.)
- [x] If Bracken Station is approved, I understand that City of Ketchum could not prevent sale to a large gas station e.g. Stinker Store, Exxon, Chevron, etc. or the opening of a Fast Food franchise, such as Subway, McDonald's, Sonic, Arby's, etc.
- [ ] Bracken Station does not comply with Ketchum's Comp Plan: **"to promote the health, safety and general welfare of present and future inhabitants of Ketchum"**
- [ ] All of the above [ ] None of the above

ADDITIONAL COMMENT: (or submit to: pzcomments@ketchumidaho.org)
Construction of this gas station for all residents north of town + tourists would give the appearance of a commercial truck stop which is not in keeping with the personality of the town.

- [x] I disapprove of Bracken Station on Main Street, Ketchum. You may list my name among others who oppose this development. City of Residence_____
Signature GRAEME and Norah Bretall
Print GRAEME and Norah BRETALL

- [ ] Remind me about the next P&Z meeting, Monday, 11 July, 5:30 PM
Contact info_____

Dusty Wendland
600 N. Main St.
Hailey ID 83333

July 7, 2016

Planning & Zoning Commission
City of Ketchum
Box 2315
Ketchum ID 83340

Re: Bracken Station CUP Application

To the City of Ketchum and Planning & Zoning Commisioners,

The intention of this letter is to assist the P&Z Commission in deciding the permissiblity of the CUP application brought forth by Bracken et al., especially by providing for the public record certain factual and relevant information that may provide a framework for a legal and judicious decision by the Commission in this matter. In so doing, it is also my intention to empower the Commission to decide the matter for itself, rather than to permit the presupposition to stand that these Public Hearings are only *pro forma*, because the matter has already been decided *for* the Commission and *for* the City by the applicant and his legal counsel --which is simply unacceptable and insulting to the Commissioners and the public alike.

There are three subject matters that I would like to attend to in some detail, if you will provide my contribution to the discussion with a patient and attentive eye and ear. Here are the subjects I wish to cover:

1. The effects upon adjacent real estate if the proposed use, a gas station, is permitted by the Commission.

2. The architecture of underground tanks and their impact on air space.

3. The relevant zoning code of the City of Ketchum.

I have attached two addendums at the end of this letter, which will be referenced in the subsequent analysis.

1. The effects upon adjacent real estate if the proposed use, a gas station, is permitted by the Commission.

I indicated in the public commentary at the last Bracken Station Hearing that properties adjacent to a gas station could have their real estate values adversely affected as a consequence of additional difficulties and costs in obtaining a loan because of their proximity to a gas station. I personally had this experience on property I own adjacent to a gas station just last year on the south side of Ketchum. To

substantiate the validity of my experience, I contacted the lending banks with whom I had inquired and requested a written explanation of their underwriting requirements for lending on properties adjacent to a gas station. Please see Addendum A, a letter from the commercial lending officer at D.L. Evans bank.

If the Bracken Station is granted a CUP, there are two substantial consequences that follow from the development of the subject property as a gas station, which are indicated in this letter:

1. Consequences to the subject property itself: The subject property itself becomes more difficult and more expensive to redevelop for a future use in the event that the current developer fails. Please recall, as I indicated at the first Bracken Station Hearing, that based on the real fuel volumes and the size of the overall pie in Ketchum, which I know intimately, failure is a definite possibility for this development. Consider, for purposes of understanding the implications here, that this is effectively the "Hitchrack situation" in Hailey, where a fueling station failed and the property is now encumbered by its former usage. Any potential buyers of that former fuel site, who are not all-cash purchasers, would be required by a bank to jump through the expensive, requisite hoops of EPA studies and, potentially, subsequent remediation prior to securing financing. Consequently, the property becomes "damaged goods," difficult and expensive to secure a mortgage upon, and, therefore, has a significant reduction in potential future buyers for redevelopment. This is why the Hitchrack location has been for sale for 8 years and remains perhaps the greatest eyesore in the city of Hailey. It is damaged and encumbered beyond cost-effective redevelopment. Ketchum could be herein permitting the erection of its own Hitchrack at one end of town: book-ending the valley, for sure, as Mr. Cook stated, but perhaps not in the manner in which he was suggesting.

2. Consequences to adjacent landowners: Whether surrounding properties be commercial or residential in usage, those properties are also impacted by the development of an adjacent property as a gas station. A lending bank could require Phase 1 and Phase 2 EPA studies and subsequent remediation *on the adjacent properties* prior to lending on said properties. Because these studies are prohibitively expensive and time-sensitive, sellers of adjacent properties may need to pay for and provide such "clean soil" studies for their potential buyers at the time of each potential sale. Should the sellers choose not to incur this cost when listing their properties for sale, the buyers could be required by their lenders to pay such costs prior to securing a mortgage or closing a sale on an adjacent property. This functions as an encumbrance to the adjacent properties, making the sale and transfer of such properties more costly and more difficult. Again, such costs and difficulties reduce the number of potential buyers, decreasing demand and driving down the values of all adjacent properties.

Finally, this bank letter indicates that the necessity of such EPA studies would be dependent upon an appraiser's environmental impact analysis of the adjacent property's proximity to a fuel-dispensing site. Considering that fuel, like water, flows down hill, I would suspect that adjacent property owners, most of whom are downhill from the proposed site, could very likely find themselves subject to expensive EPA studies and remediation at the behest of the appraiser and, hence, of the lending bank.

I also spoke with Melissa Humphreys at US Bank's commercial lending department. While she would not provide a letter for me, she did provide a great deal of relevant information regarding her bank's lending processes in these circumstances. She informed me:

1. Lending on commercial property is more stringent and is, thus, far more likely to affect adjacent commercial properties than to affect the residential properties nearby. Phase 1 and Phase 2 EPA studies would likely become necessary for bank underwriting on commercial loans for "adjacent properties." I

have placed that "adjacent property" in quotations because she subsequently provided an example of a real "adjacent property" scenario in which the subject property was *across the street* (across the four lanes of Main St. in Hailey, no less) and *two lots south* of a dry cleaner. She did the commercial loan on this "adjacent property" and required Phase 1 & 2 studies to mitigate risk for loan underwriting because the property was deemed potentially impacted by the dry cleaner--even at that distance (four lanes and two lots away) from the impacting property. She said the concern in that case was both the nature of the chemicals used at the dry cleaners coupled with the subject "adjacent property" being located *downhill* for purposes of both rain water and ground water.

2. Residential lending has more lenient standards at her bank and likely would not need such studies unless otherwise noted by the appraiser. She encouraged calling appraisers for both commercial and residential property, however, as they likely would indicate that adjacent properties will be significantly negatively affected for a multitude of reasons--all of which they take into account when they determine the appraised value of the property--which of course is used for the loan-to-value ratio for a potential buyer of the property.

3. She pointed out that even though the Frenchman's condos are currently used as residential and thus subject to the residential lending standards--this might not always be the case. Whether it's currently zoned for mixed use or for light industrial, she said, its future usage could certainly change years down the road. If, at any future point, it changes to mixed use with commercial or to a light industrial usage, it will become subject to the commercial lending standards and absolutely require such EPA studies for underwriting then.

2. The architecture of underground tanks and their impact on air space.

Please see Addendum B, which comprises three images referenced herein.

The first image below reveals the underlying architecture of an underground storage tank. The link directly below the photo will direct you to a website that explains each item in the configuration. Let me point out that letter "M", the pipe sticking up above the rooftop of the store, is the underground tank vapor vent pipe. The proposed Bracken Station likely has *two* 12,000 gallon underground tanks slated for installation. A fuel transporter (which is the standard full-size fuel tanker you see on the road and which usually pulls a pup trailer in addition to the main truck, see second picture in Addendum B) carries 12,000 gallons of fuel *for a single delivery*. Having two underground fuel storage tanks is like having two Greyhound buses buried in the parking lot; the proportion is a bit hard to grasp when referencing the gallon capacity. These are very large tanks. A single fuel transport delivery will fill *one* of the two underground tanks, not both.

For each compartment in an underground tank--which is determined by how many different fuel products you carry--so 85, 91, and diesel would be three compartments in the underground tank--for each one of these, the tank needs a vent pipe to release its vapors from that compartment as the transporter drops the fuel down into the ground. The third photo in Addendum B shows a real gas station with multiple vent pipes for multiple compartments. When a transporter drops 12,000 gallons of fuel into an underground storage tank, it results in the evacuation of 12,000 gallons of vapor via the fuel vent pipes. These vent pipes are typically located alongside the store and reach above the roofline (as drawn in the first photo) or along the canopy (as pictured in the third photo, thus protruding from the top of the canopy and releasing the vapors above it). They extend quite high, usually about 17 feet, as the fuel vapors they emit are toxic and highly flammable. Venting the pipe above the eave of the store or atop the canopy places the vapor-release process a fair distance from customers and allows the

vapors to dissipate at a distance deemed safe for the general public. However, as anyone who works at a service station knows, when there is no wind, the vapors simply cascade down and settle into the parking lot, accumulating all 12,000 gallons of gas vapor in the parking lot. It is not uncommon to fear, on those days, that a customer might try to light a cigarette in the parking lot. I'm not sure what the consequence would be during such windless fuel deliveries. On the other hand, if the prevailing winds are in the direction of nearby residences with open windows, I'm confident that they would be the ones unpleasantly impacted by these vapors.

As for what is meant here by vapors, just consider that these underground tanks are no different than giant gas cans. When the quantity of liquid in the tank diminishes, a greater quantity of gas evaporates to fill the empty cavity. These are *not* pressurized tanks (which would maintain the fuel's liquid status). They are just holding tanks with open breathing "vent pipes." When the underground tank inventory is quite low, the full volume of the tank is filled with flammable gas fumes. When the transporter suddenly drops 12,000 gallons of fuel, 12,000 gallons of this vapor-vested air needs to get out of the way of the incoming fuel quickly. This air--all of it--evacuates via the vent pipes and wends whither the wind bears it.

Gas cans now frustrate us every time we fill our lawn mowers precisely because they now have vapor-loss prevention systems--which also make it tremendously difficult to get the gas to come out of the gas can even when you want it to--perhaps some of you are familiar with this new frustration. In the case of a 12,000 gallon gas tank, however, no such requirement is in place, and the architectural design of the underground tank precisely intends for a free-flow evacuation of the 12,000 gallons of vapor with every 12,000 gallon fuel drop.

3. The relevant zoning code of the City of Ketchum.

While I'm extremely reluctant to be pedantic, let alone presume to educate the Commission regarding their job or concerning the City of Ketchum Municipal Code, I fear the applicant has provided substantially misleading information to the Commission that requires redress. Please forgive the extent to which the following analysis may rehearse ad nauseam certain portions of the code with which you are no doubt already quite familiar.

Please *carefully* review the following stated purpose of the zoning ordinance of the City of Ketchum:

17.04.020: PURPOSE:

These regulations are designed and enacted in accordance with Idaho Code, chapter 65, title 67 for the purpose of promoting the health, safety and general welfare of the present and future inhabitants of Ketchum, Idaho, by accomplishing, among others, the following specific purposes:

A. Residential areas should be protected against fire, explosion, noxious fumes, floods, avalanches, and other hazards; offensive noise, vibration, smoke, dust, odors, heat, glare and other objectionable influences; the invasion of abnormal vehicular traffic; and excessive congestion of buildings.

B. Residential and tourist areas should have space off public streets for parking; access for light and air to windows; privacy by means of controls over the location of buildings; usable open space on the same lot; land to meet the needs of probable expansion, appropriate sites for those public services which are needed; and tracts for quasi-public uses which provide essential health and welfare services.

C. Business and industrial developments should be protected against the establishment of uses which would create serious hazards or exceptional noise, vibration, smoke, dust, odors, heat or glare.

D. Business and industrial developments should have area in appropriate locations for the transaction of all types of activities; space off public streets for parking and unloading; and opportunities to concentrate for the mutual advantage of merchants, customers and employees. (Ord. 1135, 2015)

A few important and relevant items from the above stated Purpose merit our careful attendance:

1. A relevant *definition of what is meant by the "general welfare"* is stated in the Purpose of the code. As we already know, the Conditional Use Permit, per section 17.116.030 of the city code, requires that the applicant meet five requirements. The second of these requirements (B) reads as follows: "The conditional use will not materially endanger the health, safety and welfare of the community." What is the P&Z Commission to take into consideration under the purview of the "health, safety and welfare of the community"? Lacking a specific definition provided in the "Definitions" section of the City Code, *they will be legally required to use the definition supplied elsewhere in the same codified document*. The above, then, is the legal definition of the "general welfare," and it constitutes the criteria that the P&Z Commission is obliged to consider in respect to this requirement for a Conditional Use Permit. The terms "health, safety, and welfare of the community" are not ambiguous; they are specific, and they specifically include the following two relevant items:

2. Criterion A: Residential areas should be protected against noxious fumes...odors...glare...the invasion of abnormal vehicular traffic. As already detailed in the previous section, nearby residences *will be impacted* with noxious fumes and odors. A further argument can be made that nearby residences will be adversely affected by abnormal vehicular traffic and glare, not just from vehicular headlamps, but also from the canopy lights. The city is legally required to protect the residents from this impact.

3. Criterion C: Business and industrial developments should be protected against the establishment of uses which would create serious hazards...odors...glare. As with the residences, nearby businesses will be exposed to the fuel vapor odors and excessive vehicular headlamp and canopy glare. Additionally, the heightened risk to pedestrian and vehicular traffic, if this usage is permitted in this location, could be tantamount to a serious hazard for employees and customers of nearby businesses—a hazard from which the city is legally required to protect them.

Next, let us read the rules of interpretation of the code as stated by the City of Ketchum code itself:

17.04.040: INTERPRETATION:

In the interpretation and application of the provisions of this title, the following regulations shall govern:

A. Provisions Are Minimum Requirements: In their interpretation and application, the provisions of this title shall be regarded as the minimum requirements for the protection of the public health, safety, comfort, morals, convenience, prosperity and welfare. All provisions shall be liberally construed to further its underlying purposes.

B. Application Of Overlapping Regulations: Whenever the provisions of this title, or a provision in this title and any provision in any other ordinance, resolution, rule or regulation of any kind, contain any restrictions covering the same subject matter, the more restrictive or higher standards or requirements shall govern. All uses and all locations and bulk permitted under the terms of this title shall be in conformity with all other provisions of law.

C. Existing Permits And Private Agreements: This title is not intended to abrogate or annul:
1. Any permits issued before the effective date hereof; or
2. Any easement, covenant or any other private agreement. (Ord. 1135, 2015)

Of significant note here are the following points:

1. In their interpretation and application, the provisions of the code are minimums for the protection of the public health, safety, welfare, etc., and *all provisions shall be liberally construed to further its underlying purpose*. The meaning of this is that the P&Z Commission and the City of Ketchum are obligated to abide by the written statutes of the code as a minimum level of protection of the general welfare and that all written provisions *shall* be interpreted *liberally*, i.e., with latitude, by the Commission and the Council to effect the stated Purpose of the municipal code: to protect and promote the safety and general welfare of the community, including specific protections against noxious fumes, odors, glare, traffic congestion, and serious hazards. The code herein requires that the City bias its interpretation of the code in favor of protecting and promoting the basic purpose and intention of the whole document: i.e., the general welfare.

2. If there are any two or more ordinances, resolutions, rules, regulations or restrictions of any kind affecting a subject matter or proposal, the P&Z Commission and the City is herein instructed by the code to follow the highest available standard, not the lowest permissible standard that an applicant can root out in favor of a proposal. In effect, an applicant for a CUP must meet the highest standard available in the city code *when this standard is liberally interpreted by the Commission in favor of protecting the general welfare, as defined above*. This is the City's obligation and its duty to its citizens.

Lest there is any question regarding this, the document itself does define its usage of the word "shall" as follows (17.08.010 C): "The word 'shall' is always mandatory and not directory."

Next, let us read the zoning district's purpose specific to the LI-1 district:

17.18.140: LIGHT INDUSTRIAL DISTRICT NUMBER 1 (LI-1):

A. Purpose: The LI-1 light industrial district number 1 is established as a transition area providing limited commercial service industries, limited retail, small light manufacturing, research and development, and offices related to building, maintenance and construction and which generate little traffic from tourists and the general public. (Ord. 1135, 2015)

Of significant note here, we must review the following points:

1. The district is intended to be transitional and provide *limited* commercial services, *limited* retail, etc., *related to building, maintenance and construction*. This is a technical, legal sentence that must be read, understood, and interpreted correctly by the P&Z Commission and the City. While the LI-1 district does permit *limited* commercial services and *limited* retail--it does so *only if those services and retail are related to the uses subsequently detailed*: building, maintenance and construction. In effect, commercial services and retail are permissible in the district *only* if they are related to building, maintenance, and construction in their nature--e.g., a paint store, a tile store, or a lumber yard. A toy store and a grocery store, on the other hand, are not permissible retail uses in the LI-1 district, as they are not, in their nature, related in any way to building, construction, or maintenance. Any proposed retail or commercial use not specifically related to these industrial uses *is not permitted in the LI-1 district per the city code.* The applicant in no way has suggested that the proposed use would service the building, construction, or maintenance industries; in fact, he has stated the opposite.

2. The permitted LI-1 uses *must generate little traffic from tourists and the general public*. As the applicant has clearly and repeatedly stated on the record, the proposed gas station is specifically intended to service tourist traffic and the general public. Furthermore, the proposed station will undoubtedly generate substantial traffic from these tourists and the general public alike: hence the outpouring of public concern for the safety of pedestrian traffic walking to the proposed station and the public outrage that the proposed use would produce significant traffic congestion at surrounding intersections. The proposed use is a high-traffic, public, and tourist destination and is specifically intended to be so, per the applicant's own statements and per the proposed business's nature and necessity. Consequently, the proposed usage is not permitted in the LI-1 district, per the municipal code.

In connection with these limited uses in the LI-1 district, it bears mentioning that the uses are limited *with cause*: the intention of limiting uses in the industrial districts is specifically to keep the number of businesses competing for space down, which effectively lowers demand for leasable spaces in the industrial zone. As a consequence of the diminished demand resulting from the limited uses, the rent values in the industrial area remain reasonable for local business operators, allowing them to continue to conduct business in the City of Ketchum. If the allowed uses in the industrial districts are permitted to balloon, so, too, will the number of tenants bidding on available space. As a consequence, rent values go up, and businesses (and their jobs) move to a more affordable city with a more affordable industrial zone. The zoning code limits the uses of the LI-1 and LI-2 districts with intentionality toward this end. It is not the prerogative of the Commission, under the purview of a CUP application, to modify the permitted uses of the industrial zone. In fact, this particular application is bound by the uses permitted in the zoning code at the time of the filing of this CUP application, as has already been determined in the Idaho Supreme Court Case, Urrutia v. Blaine County, 134 Idaho 353 (2000).

And, finally, let us read the codified definition of the Conditional Use Permit itself:

17.116.010: CONDITIONAL USE PERMIT:

Conditional uses by definition possess characteristics such as to require review and appraisal by the commission to determine whether or not the use would cause any public health, safety or welfare concerns. Accordingly, conditional uses, as have been designated throughout this title, shall be allowed only upon the approval of the commission, subject to such conditions as the commission may attach. Such approval shall be in the form of a written permit. (Ord. 1135, 2015)

17.116.030: CONDITIONAL USE PERMIT CRITERIA:

A conditional use permit shall be granted by the commission only if the applicant demonstrates that:

A. The characteristics of the conditional use will not be unreasonably incompatible with the types of uses permitted in the applicable zoning district;

B. The conditional use will not materially endanger the health, safety and welfare of the community;

C. The conditional use is such that pedestrian and vehicular traffic associated with the use will not be hazardous or conflict with existing and anticipated traffic in the neighborhood;

D. The conditional use will be supported by adequate public facilities or services and will not adversely affect public services to the surrounding area, or conditions can be established to mitigate adverse impacts; and

E. The conditional use is not in conflict with the policies of the comprehensive plan or the basic purposes of this chapter. (Ord. 1135, 2015)

The Conditional Use Permit is conditional and allowed only by the approval of the Commission. Such approval is contingent upon one overarching principal: safeguarding the general welfare of the citizens. The applicant's legal counsel, Mr. Williamson, somewhat threateningly informed the Commission that there is nothing to consider and that the Commission "must approve" the CUP application because the applicant "clearly" meets the first four criteria (A-D) and the fifth criterion (E) lacks legal standing. Mr. Williamson therein implied that he and the applicant will bring legal action against the City should the Commission deny the CUP on the grounds of the 5th criterion. While the intention of this “schooling” of the Commission was no doubt to put the City in a corner and to strong-arm the Commission into an immediate, if not reluctant, approval of the CUP, the Commission, not the applicant or his attorney, is in the seat of authority, and the Commission has the legal right and the duty to do its job with due diligence. The Commission has both the right to exercise its discretion and the latitude to interpret *and to construe* the written code specifically to the ends of promoting the municipal code's stated underlying purpose: "protection of public health, safety, and welfare." This clause recurs in the city code over and over as the highest aim of the document--and it clearly defines what is intended by that clause. Mr. Cook's and Mr. Williamson's claims notwithstanding, the Commission has a great deal to consider relevant to the CUP criteria, and the Commission has ample legal ground and, indeed, even a legal obligation to the citizens of its city, to deny the application with cause--not because the application

fails the fifth criterion of the CUP, but *because it fails all of the other four criteria as well*. This is a country of laws and not of men, and for this reason, the Commission and City have an obligation to follow their own laws. Mr. Williamson has indicated that the City and the Commission *must* approve the application because the City *must* follow its own laws. I couldn't agree more: the City must follow its own laws, even if that means denying this application.

Regards,

Dusty Wendland

ADDENDUM A:

D. L. Evans Bank
"Idaho's Hometown Community Bank Since 1904"

7/7/16

Re: Lending and environmental risk

To Whom it May Concern:

Thank you for your inquiry regarding how banks consider environmental risk when assessing lending on real property. All lending institutions are faced with financial risks created by adverse environmental factors such as hazardous waste contamination, asbestos insulation, underground storage tanks for fuel, surface impoundment's, septic tank systems or oil and gas wells.

A Gas Station would be considered a high risk property and would require a Phase I Environmental Report be completed. This report is typically paid for by the borrower. Depending on the findings of that report a Phase II might be required. Depending on the findings of the Phase II the lender may require remediation work be complete at the expense of the borrower prior to any loan approval.

I would advise you contact ACS-Assessment / Jane Rosen at 208-788-5649 who performs these type of reports to inquire about cost of these reports as they can vary widely.

Our residential mortgage department handles requests on a case by case basis and their level of due diligence into a any particular mortgage loan request on a property located near a gas station would be highly dependent on the appraisal report. You may want to contact a local appraiser to inquire about their environmental risk reporting requirements.

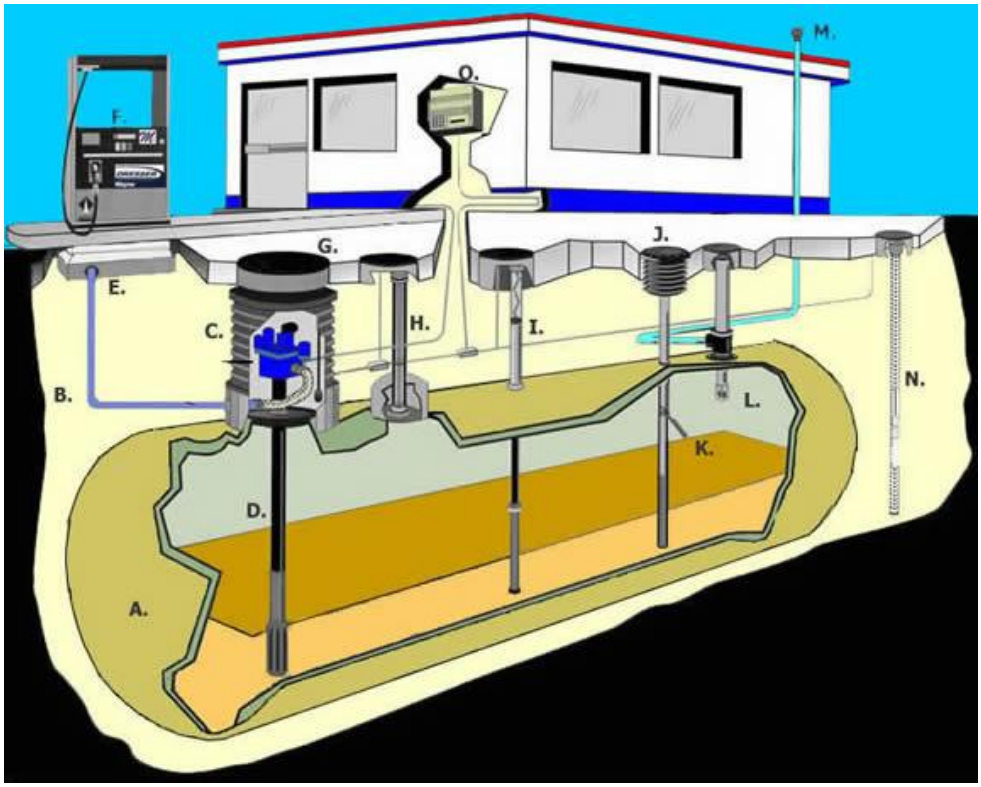
Please feel free to contact me should you have any questions.

Sincerely,

Mike Schlatter

Mike Schlatter
Vice President
D.L. Evans Bank
208-788-2130

ADDENDUM B:



http://www.mascottec.com/UST%20layout.html





From: Barbi Anne Reed [mailto:barbi@annereedgallery.com]
Sent: Friday, July 08, 2016 10:56 AM
To: Brittany Skelton
Subject: short and to the point! Hope you can include...not a single criterion of CUP requirements is met and in direct conflict with zoning Purpose

It seems a bit crazy that the development of this project is still being considered when not one of the CUP criteria is being met and the project is in direct conflict with one of the stated purposes established for zoning of LI-1. See below:

17.18.140: LIGHT INDUSTRIAL DISTRICT NUMBER 1 (LI-1): A. Purpose. The LI-1 light industrial district number 1 is established as a transition area providing limited commercial service industries, limited retail, small light manufacturing, research and development, and offices related to building, maintenance and construction and which generate little traffic from tourists and the general public.

IMPOSSIBLE AS BOTH A CONVENIENCE STORE AND GAS STATION ARE HIGH TRAFFIC DEPENDENT

17.116.030: CONDITIONAL USE PERMIT CRITERIA: A conditional use permit shall be granted by the Commission only if the applicant demonstrates that:

A. The characteristics of the conditional use will not be unreasonably incompatible with the types of uses permitted in the applicable zoning district;

THE FACT THAT THIS PROPERTY AS DIRECTLY ADJACENT TO 5 OTHER ZONES (LI-2, TOURIST, LIMITED RESIDENTIAL, COMMUNITY CORE, RECREATION USE)

SHOULD BE CONSIDERED AS A GAS STATION IS INCOMPATIBLE WITH THE TYPES OF USES FOR FOUR OF THESE ZONES

B. The conditional use will not materially endanger the health, safety and welfare of the community;

STRONG, DOCUMENTED, UNBIASED AND LENGTHY INFORMATION HAS BEEN SUBMITED TO P&Z TO SUBSTANTIATE THAT THIS PROJECT WILL MATERIALLY ENDANGER THE HEALTH, SAFETY AND WELFARE OF THE COMMUNITY

C. The conditional use is such that pedestrian and vehicular traffic associated with the use will not be hazardous or conflict with existing and anticipated traffic in the neighborhood;

PEDESTRIAN, VEHICULAR TRAFFIC HAS BEEN DOCUMENTED TO BE HAZARDOUS AND WILL CONFLICT WITH EXISTING TRAFFIC AND ANTICIPATED

TRAFFIC AS A RESULT OF THE DEVELOPMENT OF BRACKEN STATION AND DEVELOMENT OF THE PROPERTY ON WARMSPRINGS AND 10TH STREET WILL ONLY FURTHER ADD TO THIS CONDITION NOT BEING MET

D. The conditional use will be supported by adequate public facilities or services and will not adversely affect public services to the surrounding area, or conditions can be established to mitigate adverse impacts

BACKED UP TRAFFIC GOING SOUTH AT NIGHT/NORTH DURING THE DAY, TRAFFIC ON 10TH STREET ARTERY (A 77' TRUCK (DOCUMENTED AS USING THIS STREET ON JUNE 28); LARGE TRUCKS FROM 5 LANDSCAPE COMPANIES IN THE IMMEDIATE NEIGHBORHOOD, SUPPLY TRUCKS TO KNOB HILL INN (DOCUMENTED PARKING FACING THE WRONG WAY IN FRONT OF KNOB HILL INN AND UNLOADING ALONG SIDE CURRENT SITE), ETC. COULD CAUSE POTENTIAL BLOCKAGE SLOWING DOWN EMERGENCY VEHICLES

E. The conditional use is not in conflict with the policies of the comprehensive plan or the basic purposes of this chapter.

IN DIRECT CONFLICT IN MULTIPLE PAGES AS SUBMITTED IN DETAIL BY BARBI REED PRIOR TO P&Z'S MEETING JUNE, 13.

B. (Barbi) Anne Reed
ANNE REED GALLERY

barbi@annereedgallery.com
208-841-9200
208-774-0400 (cabin)

PO Box 597
100 Sage Road - A
Ketchum, ID 83340

From: Richard D. Klein [mailto:Rklein@ceds.org]
Sent: Tuesday, June 21, 2016 9:38 AM
To: Andrew Wall <awall@Knobhillinn.com>
Subject: Ketchum - Other Issues Researched

WELL CONTAMINATION

Attached is a modified Map 2 from the City of Ketchum Comprehensive Plan. The modifications are the addition of labels showing the location of the Bracken Station site and three existing gas stations which appear to be up-groundwater-gradient of three of the Cities six wells. In other words, groundwater may flow from the four locations towards the three wells.

Depending upon the type of proposed stormwater Best Management Practices (BMPs) and activities at the station, a significant potential may exist of increasing the probability of causing contamination of these water supply wells.

The applicant's plans contained in the Conditional Use Permit Staff Report did not show any proposed BMPs. According to Ketchum planner Brittany Skelton (208.726.7801), the City has asked the applicant to submit a drainage report showing what BMPs are needed.

As I'm sure you'll recall, I was concerned that the area shown on the lower level of the proposed site plan would be for vehicle maintenance and repair. Past studies have shown that the stormwater runoff from vehicle maintenance-repair facilities contains unusually high levels of pollutants. Ms. Skelton told me yesterday that no maintenance-repair services are proposed.

However, I believe a well contamination concern still exists.

Research conducted by Johns Hopkins University faculty has shown that significant quantities of gasoline spilled onto the concrete pads at gas stations leaks through the concrete to potentially contaminate groundwater.

Again, the attached modified Map 2 shows the location of the Bracken Station site and three existing gas stations. All three existing stations are arguably up-groundwater-gradient of three of the City's six wells. Approving the Bracken Station project would add a fourth station, which elevates the probability of causing contamination of half the wells providing water to the people of Ketchum. It is unlikely the applicant could propose conditions that would resolve this threat.

This threat conflicts with the following Section 17.116.030: Conditional Use Permit Criteria, of the City of Ketchum Zoning Regulations which requires that:

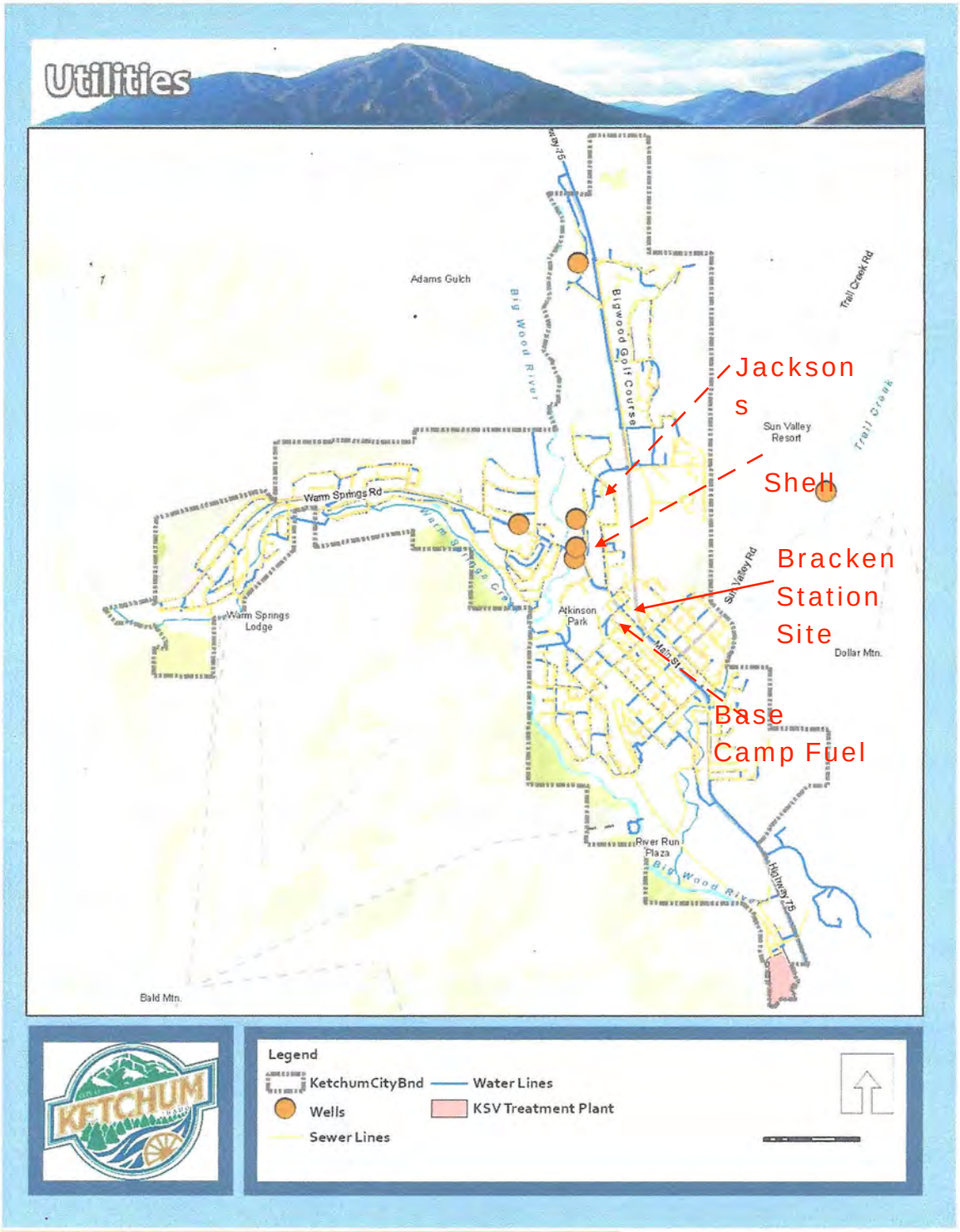
"A conditional use permit shall be granted by the commission only if the applicant demonstrates that:

B. The conditional use will not materially endanger the health, safety and welfare of the community;" [Emphasis added]

Posing a potential threat of increasing contamination of the City's wells would certainly materially endanger the community's health.

Richard D. Klein
Community & Environmental Defense Services
21300 Heathcote Road
Freeland, Maryland 21053
410-654-3021
Main Website: ceds.org
CEDS News Service: cedsnews.com

MAP 2: WATER AND WASTEWATER UTILITIES



Originals or larger scale versions are available at Community and Economic Development Department, City Hall and on City website.

Source: Blaine County Planning Department

ScienceDaily®
Your source for the latest research news

Science News from research organizations

Small spills at gas stations could cause significant public health risks over time

Date: October 7, 2014
Source: Johns Hopkins Bloomberg School of Public Health
Summary: A new study suggests that drops of fuel spilled at gas stations ð which occur frequently with fill-ups ð could cumulatively be causing long-term environmental damage to soil and groundwater in residential areas in close proximity to the stations.

Share:

FULL STORY

A new study suggests that drops of fuel spilled at gas stations -- which occur frequently with fill-ups -- could cumulatively be causing long-term environmental damage to soil and groundwater in residential areas in close proximity to the stations.

Few studies have considered the potential environmental impact of routine gasoline spills and instead have focused on problems associated with large-scale leaks. Researchers with the Johns Hopkins Bloomberg School of Public Health, publishing online Sept. 19 in the Journal of Contaminant Hydrology, developed a mathematical model and conducted experiments suggesting these small spills may be a larger issue than previously thought.

"Gas station owners have worked very hard to prevent gasoline from leaking out of underground storage tanks," says study leader Markus Hilpert, PhD, a senior scientist in the Department of Environmental Health Sciences in the Johns Hopkins Bloomberg School of Public Health. "But our research shows we should also be paying attention to the small spills that routinely occur when you refill your vehicle's tank."

Over the lifespan of a gas station, Hilpert says, concrete pads underneath the pumps can accumulate significant amounts of gasoline, which can eventually penetrate the concrete and escape into underlying soil and groundwater, potentially impacting the health of those who use wells as a water source. Conservatively, the researchers estimate, roughly 1,500 liters of gasoline are spilled at a typical gas station each decade.

"Even if only a small percentage reaches the ground, this could be problematic because gasoline contains harmful chemicals including benzene, a known human carcinogen," Hilpert says. Hilpert and Patrick N. Breysse, PhD, a professor in the Department of Environmental Health Sciences, developed a mathematical model to measure the amount of gasoline that permeates through the concrete of the gas-dispensing stations and the amount of gasoline that vaporizes into the air.

The model demonstrates that spilled gasoline droplets remain on concrete surfaces for minutes or longer, and a significant fraction of spilled gasoline droplets infiltrate into the pavement, as concrete is not impervious.

"When gasoline spills onto concrete, the droplet will eventually disappear from the surface. If no stain is left behind, there has been a belief that no gasoline infiltrated the pavement, and all of it evaporated," Hilpert says. "According to our laboratory-based research and supported by our mathematical model, this assumption is incorrect. Our experiments suggest that even the smallest gasoline spills can have a lasting impact."

Since the health effects of living near gasoline stations have not been well studied, Breysse says there is an urgency to look more closely, especially since the new trend is to build larger filling stations with many more pumps. These stations continue to be located near residential areas where soil and groundwater could be affected.

"The environmental and public health impacts of chronic gasoline spills are poorly understood," says Breysse. "Chronic gasoline spills could well become significant public health issues since the gas station industry is currently trending away from small-scale service stations that typically dispense around 100,000 gallons per month to high-volume retailers that dispense more than 10 times this amount."

"In a perfect world, it would be ideal to avoid chronic spills," Hilpert says. "However, if these spills do occur, it is also important to prevent rainwater from flowing over the concrete pads underneath the pumps. Otherwise, storm runoff gets contaminated with benzene and other harmful chemicals and can infiltrate into adjacent soil patches or form stormwater that may end up in natural bodies of water."

Story Source:

The above post is reprinted from materials provided by Johns Hopkins Bloomberg School of Public Health. Note: Materials may be edited for content and length.

Journal Reference:

1. Markus Hilpert, Patrick N. Breysse. Infiltration and Evaporation of Small Hydrocarbon Spills at Gas Stations. Journal of Contaminant Hydrology, 2014; DOI: 10.1016/j.jconhyd.2014.08.004

Cite This Page: MLA APA Chicago

Johns Hopkins Bloomberg School of Public Health. "Small spills at gas stations could cause significant public health risks over time." ScienceDaily. ScienceDaily, 7 October 2014. <www.sciencedaily.com/releases/2014/10/141007103102.htm>.

Share This Page:

From: Richard D. Klein [mailto:Rklein@ceds.org]
Sent: Tuesday, June 21, 2016 8:21 AM
To: Andrew Wall <awall@Knobhillinn.com>
Subject: Ketchum - Health Effects Research Results

Andrew

Following is the second of two messages detailing the results of my research into issues regarding the Bracken Station project.

This research shows that the proposed gas station poses an excessive threat to the health of those attending Ernest Hemingway Elementary School and the Wood Valley Community YMCA. Other*sensitive-receptors* in the area may be at risk as well.

The health threat is posed by benzene and other pollutants released to the atmosphere while gasoline is being dispensed. As explained below, USEPA guidance calls for assessing the potential effects of this exposure for any *sensitive-receptor* within 1,000 feet of a proposed gas station. The attached aerial photo shows that at least two such receptors are present within 1,000 feet of the Bracken Station site – the school and the YMCA. The aerial photo also shows that two existing gas stations are within 1,000 feet. Adding a third station would greatly increase the potential health impact. The basis for this analysis is presented in the remainder of this message.

In the Executive Summary of the *Air Quality and Land Use Handbook: A Community Health Perspective*, the California Air Resources Board (ARB) states:

"Also, ARB community health risk assessments and regulatory programs have produced important air quality information about certain types of facilities that should be considered when siting new residences, schools, day care centers, playgrounds, and medical facilities (i.e., sensitive land uses). Sensitive land uses deserve special attention because children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the non-cancer effects of air pollution. There is also substantial evidence that children are more sensitive to cancer-causing chemicals."

The following text appears on pages 30-31, of the ARB Handbook:

"Refueling at gasoline dispensing facilities releases benzene into the air. Benzene is a potent carcinogen and is one of the highest risk air pollutants regulated by ARB. Motor vehicles and motor vehicle-related activity account for over 90 percent of benzene emissions in California. While gasoline-dispensing facilities account for a small part of total benzene emissions, near source exposures for large facilities can be significant.

Since 1990, benzene in the air has been reduced by over 75 percent statewide, primarily due to the implementation of emissions controls on motor vehicle vapor recovery equipment at gas stations, and a reduction in benzene levels in gasoline. However, benzene levels are still significant. In urban areas, average benzene exposure is equivalent to about 50 in one million.

Gasoline dispensing facilities tend to be located in areas close to residential and shopping areas. Benzene emissions from the largest gas stations may result in near source health risk beyond the regional background and district health risk thresholds. The emergence of very high gasoline throughput

at large retail or wholesale outlets makes this a concern as these types of outlets are projected to account for an increasing market share in the next few years."

By high gasoline throughput, ARB is referring to stations that dispense 3 million gallons per year or more. The attached need analysis shows that on average Idaho gas stations dispense about 1.5 million gallons of gasoline per year. The attached aerial photo shows that there are two existing gas stations in the immediate vicinity of the Bracken Station site. This could raise the gasoline throughput to 4.5 million gallons per year within this rather small area.

The ARB Handbook (page 2) recommended against siting new gas stations in the vicinity of locations where sensitive individuals are present for extended periods:

"Sensitive individuals refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). Land uses where sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses)."

In *School Siting Guidelines* (page 59) the U.S. Environmental Protection Agency recommends screening gas stations proposed for sites within 1,000 feet of a school for potential health effects due to pollutants released to the atmosphere.

As shown in the attached aerial photo, there are at least two sensitive land uses within 1,000 feet of the Bracken Station site:

- Ernest Hemingway Elementary School; and
- Wood River Community YMCA.

Both are also within 1,000 feet of two existing stations – the Shell and Base Camp Fuel. Adding a third – Bracken Station – would significantly elevate the health threat to the children attending the elementary school and the young-elderly who frequent the YMCA as well as those living in the area.

Section 17.116.030: Conditional Use Permit Criteria, of the City of Ketchum Zoning Regulations requires that:

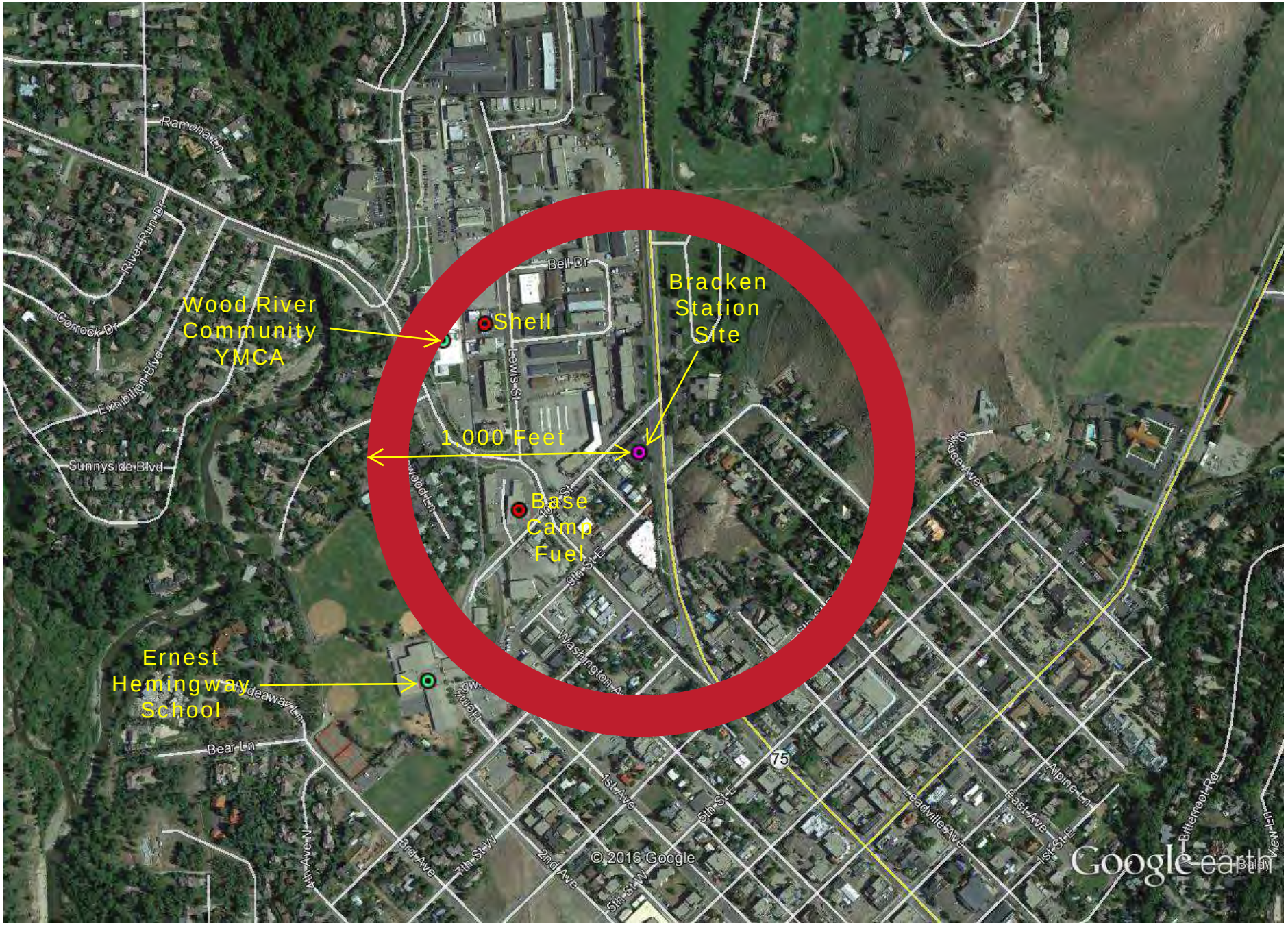
"A conditional use permit shall be granted by the commission only if the applicant demonstrates that:

B. The conditional use will not materially endanger the health, safety and welfare of the community;" [Emphasis added]

This text indicates the Commission can and should consider the health effects of a gas station, then deny the Conditional Use Permit since even if Bracken Station complies with all current air pollution control requirements it will still elevate the health risk to an unacceptable level. There are no conditions that could accompany approval which would resolve the risk.

Richard D. Klein
Community & Environmental Defense Services

21300 Heathcote Road
Freeland, Maryland 21053
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CEDS News Service: cedsnews.com



Google earth

feet 3000
km 1

Bracken Station Potential Health Impact Zone

RECEIVED
APR 29 2016
CITY OF KETCHUM

File No.: 16-034
Reference Design Review 16-035

CITY OF KETCHUM CONDITIONAL USE PERMIT APPLICATION

Name of Applicant: RRJ.LLC

Name of Owner of Record: NORTH TOWN PARTNERS LLC

Mailing Address: P.O. BOX 5277 KETCHUM, ID. 83340

Contact Phone Number: 208.721.0080

Street Address of Property Requiring a CUP: 911 N MAIN STREET

Legal Description of Property Requiring a CUP: KETCHUM AMENDED LOT 5A BLK 30 RPK0000030005A

Description of Proposed Conditional Use: MOTOR VEHICLE FUELING STATION AND RETAIL STORE

Description of Proposed and Existing Exterior Lighting: PROPOSED: RECESSED SOFFIT DN LIGHTS IN EXISTING ROOF OVERHANG/NEW LED, FLUSH MOUNT 16"x16" SQ FIXTURES IN CANOPY - 6 TO 8 IN NUMBER - SOFT WARM COLOR AS PER (KELVIN TEMP.)

Zoning District: LI.1

Overlay District: Flood_____ Avalanche_____ Pedestrian_____ Mountain_____

The Applicant agrees in the event of a dispute concerning the interpretation or enforcement of the Conditional Use Permit Application in which the City of Ketchum is the prevailing party to pay reasonable attorney fees, including attorney fees on appeal, and expenses of the City of Ketchum. **I hereby acknowledge** I have filled in this application accurately and provided the required information to the best of by knowledge.

Applicant's Signature

Date 4-28-16

Pursuant to Resolution No. 08-123, any direct costs incurred by the City of Ketchum to review this application will be the responsibility of the applicant. Costs include but are not limited to: engineer review, attorney review, legal noticing, and copying costs associated with the application. The City will require a retainer to be paid by the applicant at the time of application submittal to cover said costs. Following a decision or other closure of an application, the applicant will either be reimbursed for unexpended funds or billed for additional costs incurred by the City.

From: Richard D. Klein [mailto:Rklein@ceds.org]
Sent: Tuesday, June 21, 2016 7:15 AM
To: Andrew Wall <awall@Knobhillinn.com>
Subject: Ketchum - Need Research Results

Andrew

Following is the first of several messages detailing the results of my research into issues regarding the Bracken Station project. The attached analysis shows that the Ketchum area is already very over-supplied with existing gas stations. The basis for this analysis is presented in the remainder of this message.

Due to increasing miles per gallon and the trend towards more fuel pumps per new station, the need for gas stations has been declining in the U.S. as well as Idaho.

The attached Census Bureau data shows that in 2008 there were 114,144 gas stations in the U.S. which declined by 2.2% to 111,583 by 2014. In Idaho the same trend has occurred. In 2008 there were 674 gas stations in Idaho then 666 (1.2% less) by 2014.

Census Bureau data also shows that in 2014, Idaho had a population of 1,634,806 *(see attached pdf)*. With 666 gas stations statewide, this data shows that it takes about 2500 residents to support one gas station. These residents must be present within a realistic market area for a proposed station.

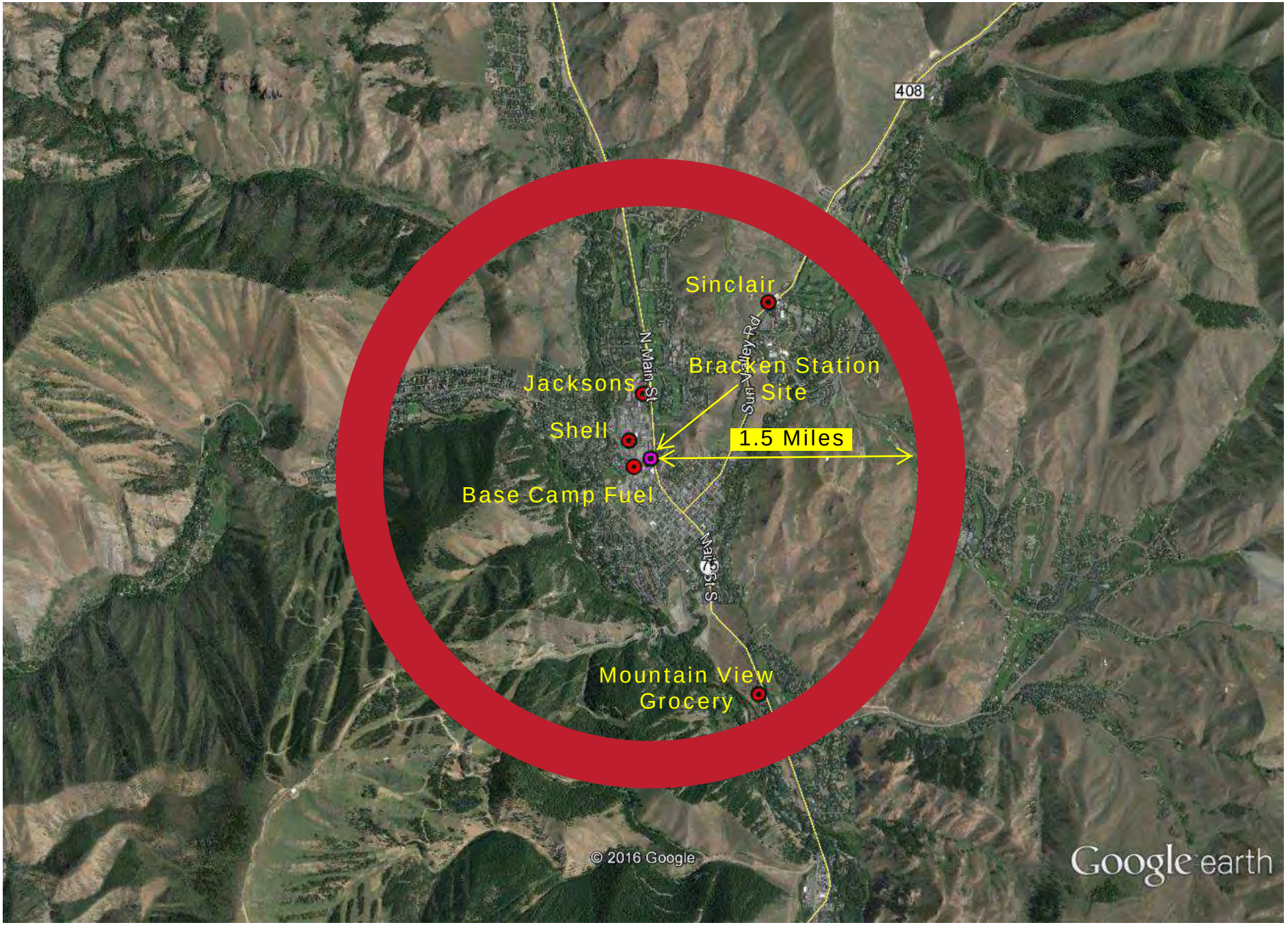
The outer limits of a gas station market area is usually about 1.5 miles. The attached analysis shows that there are 5,826 residents within 1.5 miles of the Bracken Station site. This would be sufficient to support two gas stations. However, the attached map shows there are presently five stations within 1.5 miles of the Bracken Station site. Therefore the Ketchum area is already very over-supplied with existing gas stations.

The following text from page 2 of the Conditional Use Permit Staff Report provides a basis for the Planning & Zoning Commission to deny approval based on the need analysis:

Currently there are three fueling stations in the LI District, two restaurants, and one food mart to service the area. The Commission must decide if the proposed uses are appropriate for the site and location and if the uses are necessary to serve the LI district. [Emphasis added]

This text indicates the Commission can and should consider the need for an additional gas station and/or convenience store.

Richard D. Klein
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Google earth

miles 4
km 7

Existing Gas Stations Within 1.5 Miles of Bracken Station Site

A Preliminary Analysis of the Need for Additional Gas Stations in the Market Area of the Bracken Station Proposed for Ketchum, Idaho

ROW	VARIABLE	BASE VALUES	MARKET AREA RADIUS - MILES 0.5	1.0	1.5	REFERENCE/EQUATION
A	**Market Area (Square Miles):**		0.8	3.1	7.1	$Miles^2$ x 3.14
B	Ketchum City, Idaho area (square miles)	3.3				1
C	Ketchum City, Idaho Resident Population	2,680				1
D	Ketchum City, Idaho Resident Population per Square Mile	825				C ÷ B
E	Resident Population		647	2,589	5,826	A x D
F	Annual Gasoline Consumed Per Resident (Gallons)		600	600	600	Row E - Motor Fuel Volume Worksheet
G	**Total Annual Gasoline Demand For Market Area (Gallons)**		388,536	1,554,146	3,496,828	E x F
H	Number of Existing Gasoline Stations Within Market Area		3	3	5	
I	Average Annual Gas Sold Per Existing Station (Gallons)		1,473,339	1,473,339	1,473,339	Row G - Motor Fuel Volume Worksheet
J	**Estimated Annual Gas Supply From Existing Stations (Gallons)**		**4,420,017**	**4,420,017**	**7,366,695**	**H x I**
K	**Existing Supply Exceeds Demand Byé**		**4,031,480**	**2,865,871**	**3,869,867**	J - G
L	**Number of Additional Gas Stations Needed**		**0**	**0**	**0**	

References:

1 City of Ketchum Economic Profile
http://www.ketchumidaho.org/DocumentCenter/View/1300

Ketchum, Idaho Motor Fuel Sales & Volume

	VARIABLE	VALUE		SOURCE - EQUATION
A	2014 Idaho Motor Fuel Tax Revenue	$245,310,930		http://tax.idaho.gov/reports/EPB00033_12-02-2014.pdf
B	2014 Idaho Motor Fuel Tax Rate Per Gallon	$0.25		http://tax.idaho.gov/reports/EPB00033_12-02-2014.pdf
C	Gallons of motor fuel sold in 2014 in Idaho	981,243,720	A õ B	
D	2014 Idaho population	1,634,806		http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=PEP_2015_PEPANNRES&prodType=table
E	2014 Idaho per capita motor fuel consumption	600	C õ D	
F	2014 Number of gas stations in Idaho	666		http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=BP_2014_00A1&prodType=table
G	2014 average gallons of motor fuel sold per station	1,473,339	C õ F	
H	Number of people required to support one station	2,455	D õ F	

U.S. Census Bureau

AMERICAN FactFinder

PEPANNRES

Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2015

2015 Population Estimates

Geography	April 1, 2010		Population Estimate (as of July 1)			
	Census	Estimates Base	2010	2011	2012	2013
Idaho	1,567,582	1,567,652	1,570,986	1,584,134	1,596,097	1,612,785

Geography	Population Estimate (as of July 1)	
	2014	2015
Idaho	1,634,806	1,654,930

Notes:
The estimates are based on the 2010 Census and reflect changes to the April 1, 2010 population due to the Count Question Resolution program and geographic program revisions. See Geographic Terms and Definitions at http://www.census.gov/popest/about/geo/terms.html for a list of the states that are included in each region and division. All geographic boundaries for the 2015 population estimates series except statistical area delineations are as of January 1, 2015. The Office of Management and Budget's statistical area delineations for metropolitan, micropolitan, and combined statistical areas, as well as metropolitan divisions, are those issued by that agency in February 2013 http://www.whitehouse.gov/sites/default/files/omb/bulletins/2013/b13-01.pdf . An "(X)" in the 2010 Census field indicates a locality that was formed or incorporated after the 2010 Census. Additional information on these localities can be found in the Geographic Boundary Change Notes (see http://www.census.gov/geo/reference/boundary-changes.html). For population estimates methodology statements, see http://www.census.gov/popest/methodology/index.html .

The 6,222 people in Bedford city, Virginia, which was an independent city as of the 2010 Census, are not included in the April 1, 2010 Census enumerated population presented in the county estimates. In July 2013, the legal status of Bedford changed from a city to a town and it became dependent within (or part of) Bedford County, Virginia. This population of Bedford town is now included in the April 1, 2010 estimates base and all July 1 estimates for Bedford County. Because it is no longer an independent city, Bedford town is not listed in this table. As a result, the sum of the April 1, 2010 census values for Virginia counties and independent cities does not equal the 2010 Census count for Virginia, and the sum of April 1, 2010 census values for all counties and independent cities in the United States does not equal the 2010 Census count for the United States. Substantial geographic changes to counties can be found on the Census Bureau website at http://www.census.gov/geo/reference/county-changes.html.
Suggested Citation:
Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2015
Source: U.S. Census Bureau, Population Division
Release Dates: For the United States, regions, divisions, states, and Puerto Rico Commonwealth, December 2015. For counties, municipios, metropolitan statistical areas, micropolitan statistical areas, metropolitan divisions, and combined statistical areas, March 2016. For Cities and Towns (Incorporated Places and Minor Civil Divisions), May 2016.

AMERICAN FactFinder

CB0800A1 | 2008 County Business Patterns: Geography Area Series: County Business Patterns

2008 Business Patterns

Table Name
Geography Area Series: County Business Patterns: 2008
Release Date/Status
6/30/11 - Complete
Key Table Information
Beginning with reference year 2007, CBP data are released using the Noise disclosure methodology to protect confidentiality. See Survey Methodology (http://www.census.gov/econ/cbp/methodology.htm) for complete information on the coverage and methodology of the County Business Patterns data series.
Universe
The universe of this file is all operating establishments with one or more paid employees. This universe includes most establishments classified in the North American Industry Classification System (NAICS) Codes 11 through 813990. For specific exclusions and inclusions, see Industry Classification of Establishments.
Geography Coverage
The data are shown at the U.S. level and by State, County, and Metropolitan and Micropolitan Statistical Areas. Also available are data for the District of Columbia, Puerto Rico, and the Island Areas (American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands) at the state and county equivalent levels.
Industry Coverage
The data are shown at the 2- through 6-digit NAICS code levels for all sectors with published data.
Data Items and Other Identifying Records
This file contains data on the number of establishments, total employment, first quarter payroll and annual payroll.
Sort Order
Data are presented in ascending geography by NAICS code sequence.
FTP Download
Download the entire table at http://www2.census.gov/econ2008/CB/sector00/CB0800A1.zip (Approx. 500 MB).
Contact Information
U.S. Census Bureau
Economic Planning & Coordination Division
Register Analysis Branch
Tel: (301)763-2580
Email: epcd.county.business.patterns@census.gov
NOTE: Data based on the 2008 County Business Patterns.
CBP html tables and download files can be found at the County Business Patterns Website. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see Survey Methodology. Data in this table represent those available when this report was created; data may not be available for all NAICS industries or geographies. Excludes most government employees, railroad employees, and self-employed persons.

Geographic area name	2007 NAICS code	Meaning of 2007 NAICS code	Year	Number of establishments	Paid employees for pay period including March 12 (number)	Noise range for paid employees for pay period including March 12 (%)	First-quarter payroll ($1,000)	Noise range for first-quarter payroll (%)
United States	4471	Gasoline stations	2008	114,144	896,590	G	3,678,691	G
United States	447110	Gasoline stations with convenience stores	2008	95,093	725,298	G	2,825,398	G
Idaho	4471	Gasoline stations	2008	674	6,387	G	23,401	G
Idaho	447110	Gasoline stations with convenience stores	2008	574	5,033	G	17,028	G

Geographic area name	2007 NAICS code	Meaning of 2007 NAICS code	Year	Annual payroll ($1,000)	Noise range for annual payroll (%)
United States	4471	Gasoline stations	2008	15,313,367	G
United States	447110	Gasoline stations with convenience stores	2008	11,801,425	G
Idaho	4471	Gasoline stations	2008	99,536	G
Idaho	447110	Gasoline stations with convenience stores	2008	72,935	G

G Low noise infusion

U.S. Census Bureau

AMERICAN FactFinder

CB1400A11 | Geography Area Series: County Business Patterns

2014 Business Patterns

Table Name
Geography Area Series: County Business Patterns: 2014
Release Schedule
The data in this file were released on April 21, 2016.
Key Table Information
Beginning with reference year 2007, CBP data are released using the Noise disclosure methodology to protect confidentiality. See Survey Methodology (http://www.census.gov/econ/cbp/methodology.htm) for complete information on the coverage and methodology of the County Business Patterns data series.
Universe
The universe of this file is all operating establishments with one or more paid employees. This universe includes most establishments classified in the North American Industry Classification System (NAICS) Codes 11 through 813990. For specific exclusions and inclusions, see Industry Classification of Establishments.
Geography Coverage
The data are shown at the U.S. level and by State, County, Metropolitan and Micropolitan Statistical Areas, and Congressional District. Also available are data for the District of Columbia, Puerto Rico, and the Island Areas (American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands) at the state and county equivalent levels.
Industry Coverage
The data are shown at the 2- through 6-digit NAICS code levels for all sectors with published data.
Data Items and Other Identifying Records
This file contains data on the number of establishments, total employment, first quarter payroll and annual payroll.
Sort Order
Data are presented in ascending geography by NAICS code sequence.
FTP Download
Download the entire table at http://www2.census.gov/econ2014/CB/sector00/CB1400A11.zip.
Contact Information
U.S. Census Bureau
Economy-Wide Statistics Division
Enterprise Statistics Branch
Tel: (301)763-2580
Email: ewd.county.business.patterns@census.gov
Release Date : 04/21/2016

NOTE: Data based on the 2014 County Business Patterns. CBP html tables and download files can be found at the County Business Patterns Website.
For information on confidentiality protection, sampling error, nonsampling error, and definitions, see Survey Methodology.
Data in this table represent those available when this report was created; data may not be available for all NAICS industries or geographies. Excludes most government employees, railroad employees, and self-employed persons.

Geographic area name	2012 NAICS code	Meaning of 2012 NAICS code	Year	Number of establishments	Paid employees for pay period including March 12 (number)	First-quarter payroll ($1,000)	Annual payroll ($1,000)
United States	4471	Gasoline stations	2014	111,583	904,084	4,043,091	17,274,524
United States	447110	Gasoline stations with convenience stores	2014	96,473	756,076	3,237,130	13,816,749
Idaho	4471	Gasoline stations	2014	666	6,562	28,611	123,115
Idaho	447110	Gasoline stations with convenience stores	2014	585	5,428	22,317	96,222

Source: U.S. Census Bureau, 2014 County Business Patterns.

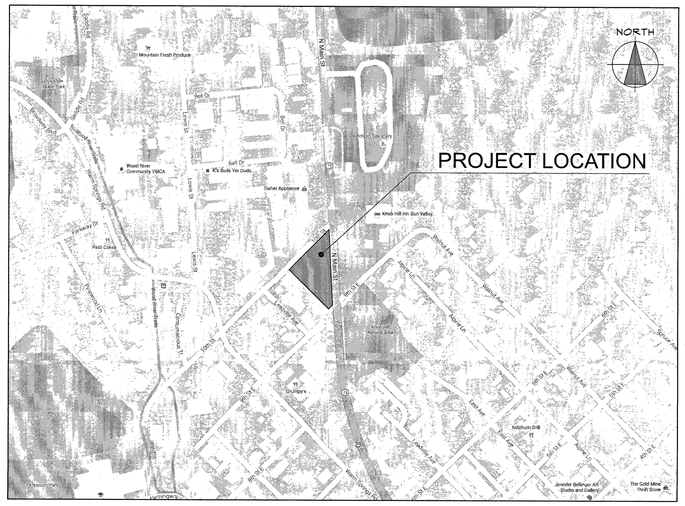
BRACKEN STATION

A CONDITIONAL USE PERMIT / DESIGN REVIEW APPLICATION

FOR:

A MOTOR VEHICLE FUELING STATION

LOT 5A / BLK 30 / ZONE LI-1



LOCATOR MAP



SITE PHOTO

DRAWING INDEX	
A.0	COVER PAGE.
A.1	EXISTING SITE PLAN. 1"= 10'
A.2	PROPOSED SITE PLAN. 1"= 10'
A.3	10TH STREET VIEW: EXISTING AND PROPOSED. 1/8"= 1'
A.4	ALLEY VIEW: EXISTING AND PROPOSED. 1/8"= 1'
A.5	STORE FRONT ELEVATION AND FLOOR PLANS WITH AREA SQ. FOOTAGE CALCULATIONS. 1/4"= 1'
A.6	ENLARGED VIEW - ALLEY RETAINING WALLS. 1/4"= 1'
C.1	SITE SURVEY.
C.2	CIVIL ACCESS PLAN TO HWY 75.
L.1.0	LANDSCAPE PLAN.
	COMPUTER GENERATED MODELS: • NORTH VIEW – BEFORE / AFTER • SOUTH VIEW – BEFORE / AFTER • NORTH ENLARGED VIEW • SOUTH ENLARGED VIEW

GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO ASSURE ALL WORK CONFORMS TO NATIONAL, STATE, AND LOCAL CODES THAT APPLY TO THIS PROJECT. WHEN INCONSISTENCIES EXIST BETWEEN DRAWINGS OR SPECS. AND APPLICABLE CODE REQUIREMENTS, CONFORMANCE TO ALL CODES SHALL HAVE PRECEDENCE OVER DRAWINGS AND SPECS.

STEVE R. COOK, ARCHITECT
323 SOUTH LEWIS ST. SUITE H, P.O. BOX 680, KETCHUM ID, 83340
PH#: (208) 725-5566
FX#: (208) 725-5568
■ ■ ■ MEMBER AMERICAN INSTITUTE OF ARCHITECTS ■ ■ ■

GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO ASSURE ALL WORK CONFORMS TO NATIONAL, STATE, AND LOCAL CODES THAT APPLY TO THIS PROJECT. WHEN INCONSISTENCIES EXIST BETWEEN DRAWINGS OR SPECS AND APPLICABLE CODE REQUIREMENTS, CONFORMANCE TO ALL CODES SHALL HAVE PRECEDENCE OVER DRAWINGS AND SPECS.
THE DRAWINGS, SPECIFICATIONS, AND OTHER DOCUMENTS ARE COPYRIGHT INSTRUMENTS OF THE ARCHITECT. THE ARCHITECT SHALL BE DEEMED THE AUTHOR OF THESE INSTRUMENTS AND WILL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS IN ADDITION TO THE COPYRIGHT. THE DRAWINGS, SPECIFICATIONS, AND OTHER DOCUMENTS PREPARED BY THE ARCHITECT ARE FOR USE SOLELY WITH RESPECT TO THIS PROJECT.

[redacted] - LOT 5A BLK 30

LOT 5A / BLK 30 / ZONE LI - 1

KETCHUM, ID

REVISION RECORD		
NO.	DATE	BY

DRAWING NAME: COVER PAGE

DATE OF ISSUE: 5.23.16 SUPERSEDES ALL PREVIOUS DRAWINGS

SCALE: NONE

PLOT DATE: 4/27/16

SHEET NO. A.0

PROPERTY

50' R.O.W.

STATE HIGHWAY 75

STATE HIGHWAY 75

APPROX EDGE OF EXISTING TRAVEL LANE

APPROX EDGE OF EXISTING TRAVEL LANE

9TH STREET ±

S 3°9'9" E
273.97'

-4.52-

TRASH

PARKING (ASPHALT)

LOT 5A

BUILDING C
(EXISTING FLAT ROOF)

+5384.0 AT ROOF

+5384.8

STOP

BUILDING A
(EXISTING FLAT ROOF)

WOOD DECK

GAS METER

GAS METER

PARKING AREA

SHED

EXISTING PLANTING

RAILROAD TIE RETAINING WALL

SLOPE

SINGLE STORY

TWO (2) STORY

BUILDING B
(EXISTING FLAT ROOF)

ENTRANCE

10TH STREET

TENTH STREET CENTER

16% - 17% SLOPE

11.41% GRADE UNDER

PARKING (ASPHALT)
N 89°40'02" W
180.51'

PARKING

SLOPE

591.4'

+5383.7

8% - 9% SLOPE

ALLEY

EXIST. BLDG

LOT 4

TOOL SHED

EXISTING BUILDINGS

EQUIPMENT STORAGE PARKING

LOT 3

LOT 1

ALLEY

20'-0"

LOT 4

STEVE R. COOK, ARCHITECT

323 SOUTH LEWIS ST., SUITE H, P.O. BOX 680, KETCHUM ID, 83340

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GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO REVIEW ALL WORK, DRAWINGS & DIMENSIONS, & NOTIFY ARCHITECT OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK. DRAWINGS ARE NOT TO BE SCALED. WRITTEN DIMENSIONS SHALL GOVERN. ALL CODES SHALL HAVE PRECEDENCE OVER DRAWINGS AND SPECS. WHEN INCONSISTENCIES EXIST BETWEEN DRAWINGS OR SPECS AND APPLICABLE CODE REQUIREMENTS, CONFORMANCE TO ALL CODES SHALL BE REQUIRED. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES AND REGULATIONS FOR THE CONSTRUCTION OF THIS PROJECT.

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REVISION RECORD

NO.	DATE	BY

DRAWING NAME:

SCALE: 1"=10'-0"

DATE OF ISSUE:

PLOT DATE:

SHEET NO.

PROPERTY LINE

EXISTING SIDEWALK

EXISTING SIDEWALK

EXISTING PARKING

EXISTING BUS STOP

CITY DRY WELL

50' ROW

APPROX EDGE OF EXISTING TRAVEL LANE (FOG LINE)

NORTH BOUND 25 MPH

13'-10"

PROPOSED TURNING LANE

13'-0"

APPROX EDGE OF EXISTING TRAVEL LANE (FOG LINE)

NORTH BOUND 25 MPH

STATE HIGHWAY 75

PROPOSED CROSS WALK RAPID FLASH WARNING LIGHTS

STATE HIGHWAY 75

PROPOSED TURNING LANE

13'-0"

25 MPH SOUTH BOUND

APPROX EDGE OF EXISTING TRAVEL LANE (FOG LINE)

SOUTH BOUND

APPROX EDGE OF EXISTING TRAVEL LANE (FOG LINE)

25 MPH

VALLEY GUTTER

VALLEY GUTTER

PROPOSED SIDEWALK (8'-0")

8'-0"

PERMITTED LANDSCAPE - SEE LS.1

PERMITTED LANDSCAPE - SEE LS.1

64'-2"

31'

50' ROW

40'-0"

3'-0"

40'-0"

BOULEVARD APPROACH PEDISTRIAN SURFACE MATERIAL

EL. 5846.8 ±

EL. 5846.8 ±

EXISTING TREE TO REMAIN

POWER POLE

PROPERTY LINE S03°28'40"E 273.97'

PROPOSED SIDEWALK (8'-0")

8'-0"

PATH

EDGE OF EXISTING ASPHALT

EXISTING DRY WE

EL. 5846.8 ±

PROPOSED CROSS WALK

EL. 5846.8 ±

SIGN

POWER POLE TO BE REMOVED

9 CHARGING STATION

10 CHARGING STATION

LOGO

LOGO

3'-0"

1

2

3'-0"

FUELING ISLANDS

26'-0"

40'

3

4

3'-0"

DEMO EXIST. BLDG

RETAINING WALL (NEW)

NEW PROPOSED PARALLEL PKG

PROPERTY LINE N45°16'21"E 180.52'

SNOW STORAGE = 857 SF

FUEL GRADE #1

FUEL GRADE #2

FUEL GRADE #3

FUEL GRADE #4

DEMO THIS PORTION OF EXIST. BLDG

43' CANOPY LINE

PROPOSED STAIRWAY

+42

+47

+36.7

PROPOSED SIDEWALK 5'-0"

5%

5%

5%

SLOPE = 7%

SLOPE = 10%

10TH ST

℄ 10TH ST

40'-0" EXT'G CURB CUT

(Install below grade fuel tanks)

SIDEWALK

PROPERTY LINE

ENTER

LOWER

TENTH STREET CENTER PARKING

LOT 5A

.4267 AC (18,590 S.F.)

13'-4" SETBACK

OFF-STREET LOADING 14' X 55'

43'-0"

DEMO THIS EXIST. BLDG

BIKE RACK

SCREENED RECYCLE/ STO

GARBAGE

PROPANE LOCATION

RETAINING WALL (NEW)

EXISTING GRADE - NOT ASPHALT

℄ ALLEY

LOT 1

LOT 2

20' X 25.5' PROPOSED ADDITION 508 SQ. FT.

PROPOSED PATIO ROOF

RR TIE WALL

RR TIE WALL

EL. 5838.5 ±

EL. 5838.5 ±

EL. 5838.72 ±

EL. 5839.0

EL. 5839.0

POWER POLE

13'-3 1/2"

FUTURE EXPANSION

EL. 5836.5 ±

PROPOSED LOWER LEVEL ACCESS FROM ALLEY

END OF EXISTING BUILDING

REPURPOSE EXT'G RETAIL BLD'G TO INCLUDE STORE WITH DELI SERVICE 2,084 SQ. FT.

EL. 5835.2 ±

EL. 5835.2 ±

PROPERTY LINE S44°41'44"E 205.99'

72'-0"

EXISTING BLD'G TO REMAIN - 72'

LOT 3

LOT 4

20' SETBACK

EXISTING LOWER LEVEL ENTRY

EL. 5835.4 ±

℄ ALLEY

EL. 5835.4 ±

+ EL. 34.2

1 2 3 4 5 6 7 8 BELOW

SNOW STORAGE 350+/- SF

SIGN

EL. 5843.8 ±

REVISED 6-30-16

N DRAWING NORTH

1 A-2 0

CONDTIONAL USE/ PREAPPLICATION SITE PLAN

NOTE: SEE CIVIL ENGINEERING DRAWINGS FOR ALL SITE DRAINAGE AND STREET GRADING DESIGN

scale: 1" = 10'

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PRELIMINARY DESIGN PHASE - LOT 5A BLK 30

LOT 5A / BLK 30 / ZONE LI - 1

KETCHUM, ID

REVISION RECORD		
NO.	DATE	BY

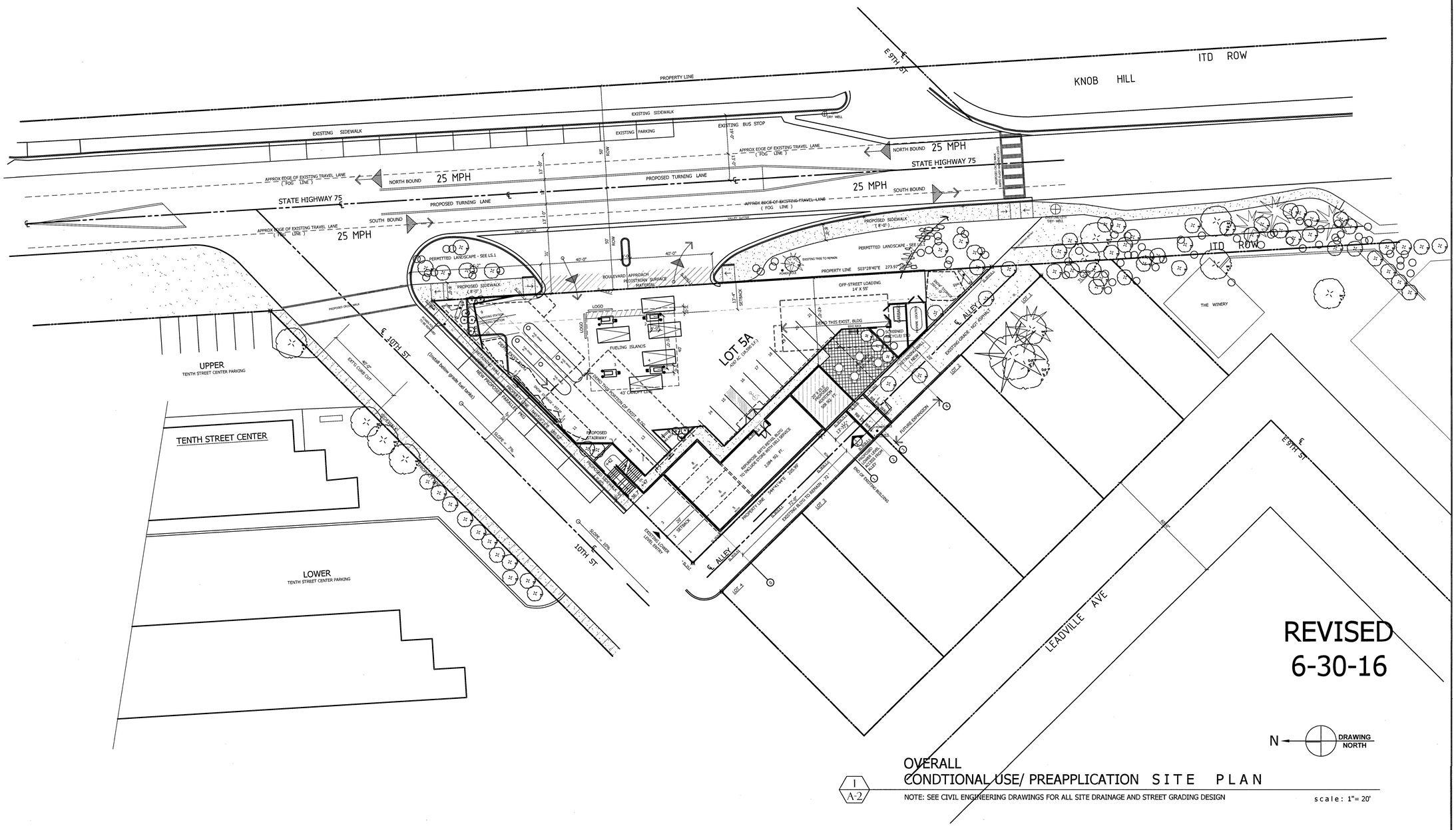
DRAWING NAME: SITE PLAN

DATE OF ISSUE: 6/23/16 (SUPERSEDES ALL PREVIOUS DRAWINGS)

PLOT DATE: 6/23/16

SCALE: 1"=10'

SHEET NO.: A-2



REVISED
6-30-16

1 / A-2

OVERALL
CONDTIONAL USE/ PREAPPLICATION SITE PLAN

NOTE: SEE CIVIL ENGINEERING DRAWINGS FOR ALL SITE DRAINAGE AND STREET GRADING DESIGN

scale: 1"= 20'

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PRELIMINARY DESIGN PHASE - LOT 5A BLK 30

LOT 5A / BLK 30 / ZONE LI - 1

KETCHUM, ID

REVISION RECORD		
NO.	DATE	BY

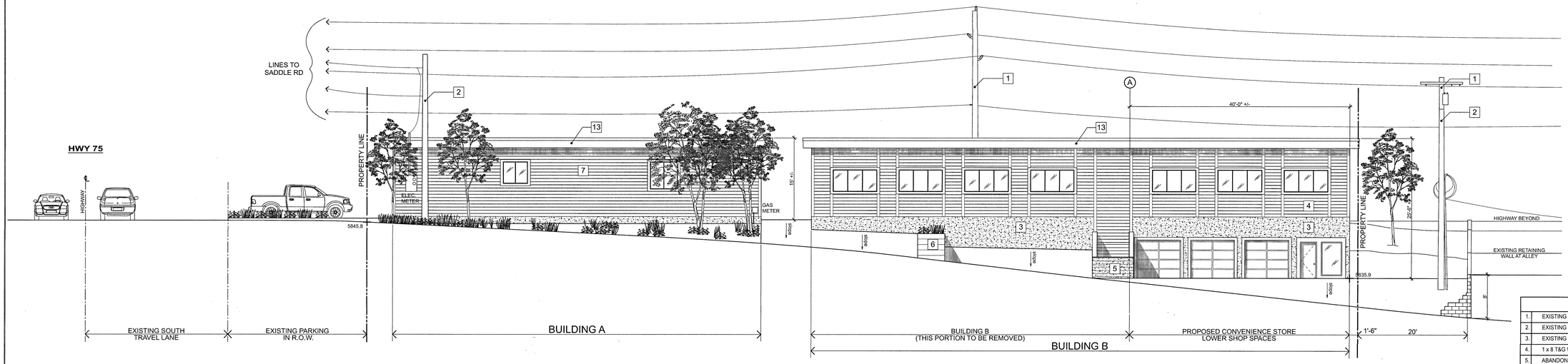
DRAWING NAME: SITE PLAN

DATE OF ISSUE: SUPERSEDES ALL PREVIOUS DRAWINGS

PLOT DATE: 6/23/16

SCALE: 1"=20'

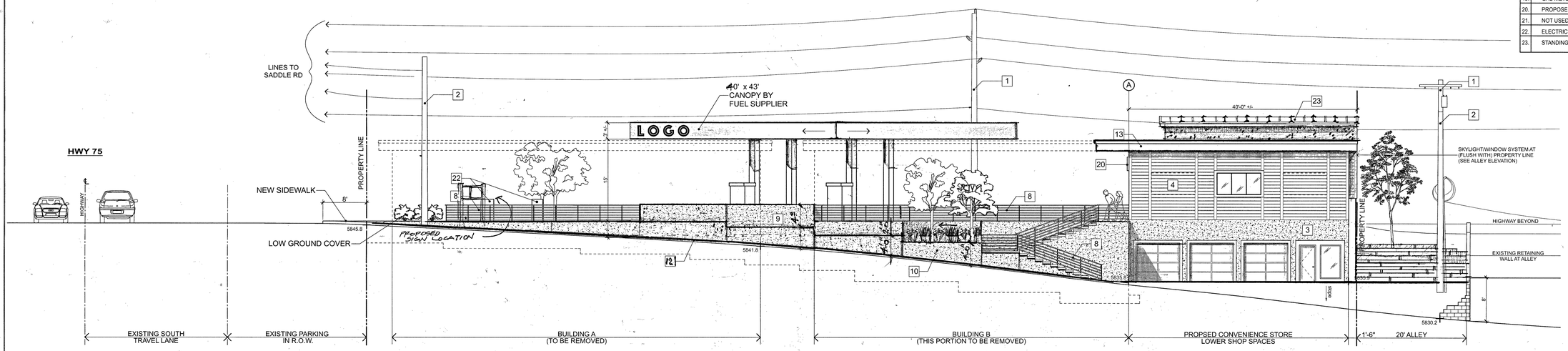
SHEET NO. A-2.1



1 EXISTING NORTH ELEVATION - 10th STREET VIEW

scale: 1/8"= 1'-0"

KEY INDEX	
1.	EXISTING POWER POLE- HWY 75.
2.	EXISTING POWER POLE- 10TH STREET/ALLEY.
3.	EXISTING CONC. WALL (MARINA GREY #1599).
4.	1 x 8 T&G WD SIDING (ROLLING HILLS #1497).
5.	ABANDONED STAIRWAY.
6.	ABANDONED RAILROAD PLANTER.
7.	EXISTING HORIZ. WOOD SIDING.
8.	NEW METAL GUARDRAIL/HANDRAIL- BLACK.
9.	NEW POURED-IN-PLACE RETAINING WALL- SANDBLAST (MARINA GREY STAIN).
10.	NEW STAIR - MID LANDING PLANTER.
11.	EXISTING RAILROAD RETAINING WALL AT ALLEY.
12.	PROPOSED SIDWALK.
13.	EXISTING FASCIA.
14.	MATCH EXISTING FASCIA.
15.	NEW SKYLIGHT.
16.	ELEC. METERS.
17.	RAIN GUTTER / DOWNSPOUT.
18.	ROOF DRAIN (INTERNAL).
19.	GAS METERS.
20.	PROPOSED SIGN.
21.	NOT USED.
22.	ELECTRIC CHARGING STATION(S).
23.	STANDING SEAM METAL ROOF SKYLIGHT.



2 PROPOSED NORTH ELEVATION - 10th STREET VIEW

scale: 1/8"= 1'-0"

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CUP APPLICATION AND DESIGN REVIEW – PRE-APP

LOT 5A / BLK 30 / ZONE LI - 1

KETCHUM, ID

REVISION RECORD		
NO.	DATE	BY

DRAWING NAME: EXTERIOR ELEVATIONS: NORTH

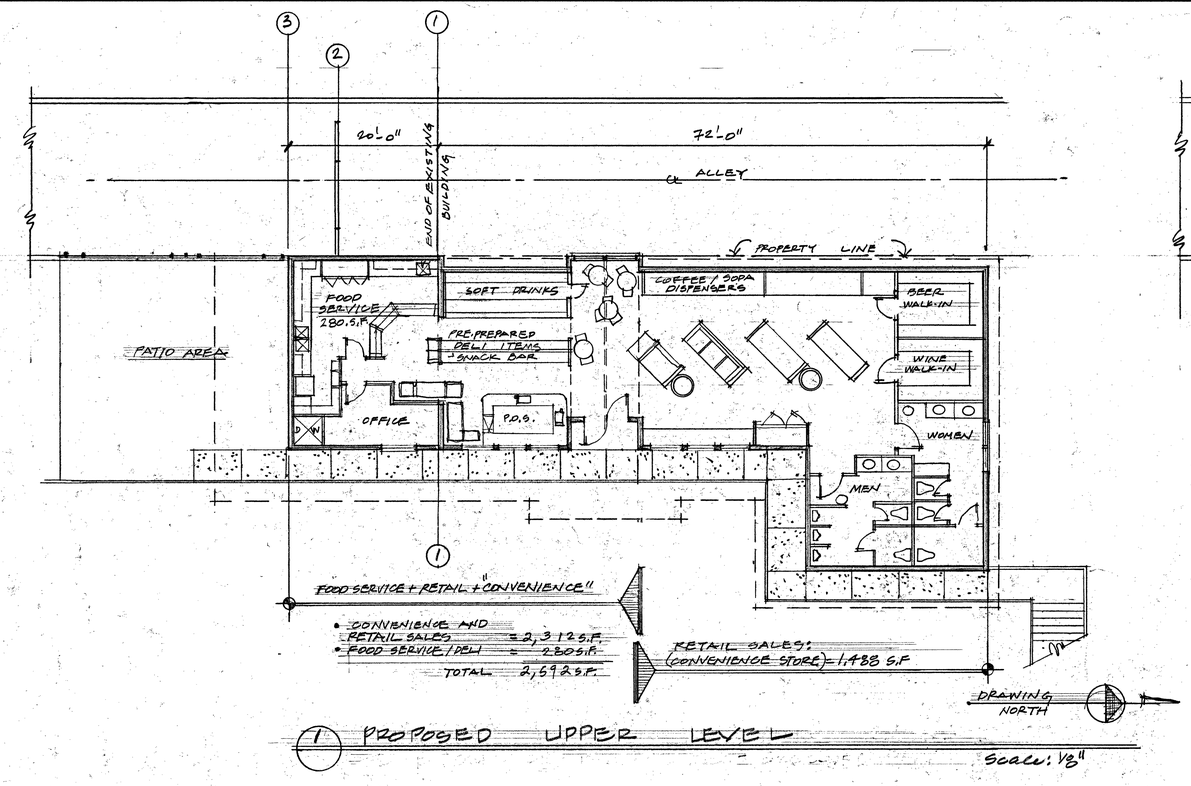
DATE OF ISSUE: 5.23.16 (SUPERSEDES ALL PREVIOUS DRAWINGS)

SCALE: 1/8" = 1'-0"

PLOT DATE: 4/27/16

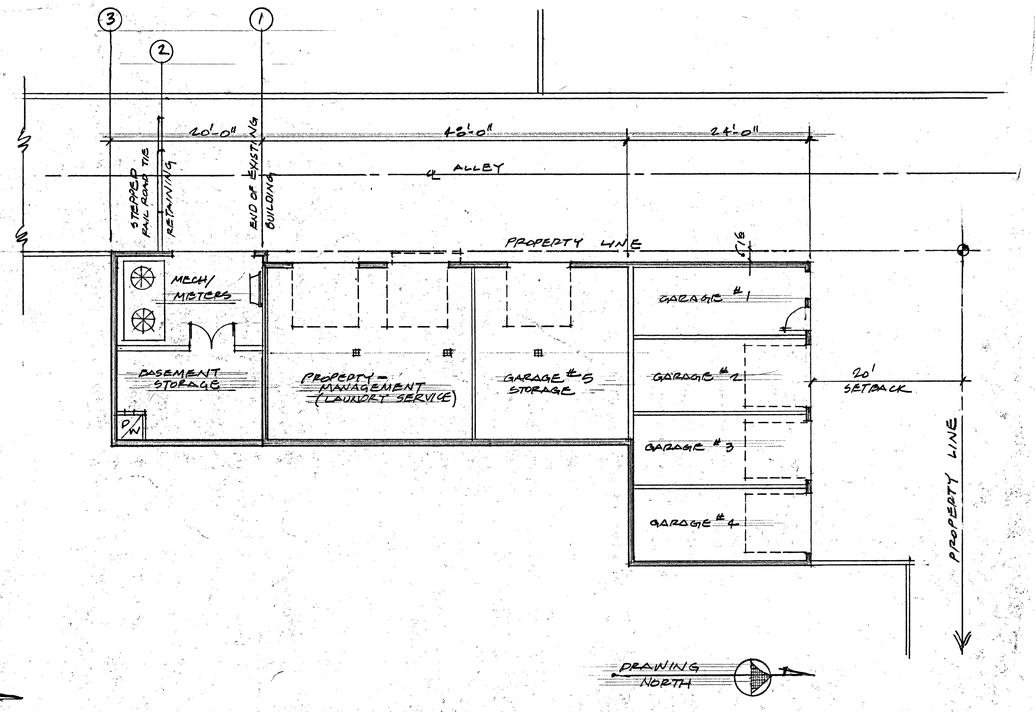
SHEET NO. A.3

5/10/16 / 5/19/16 Δ1



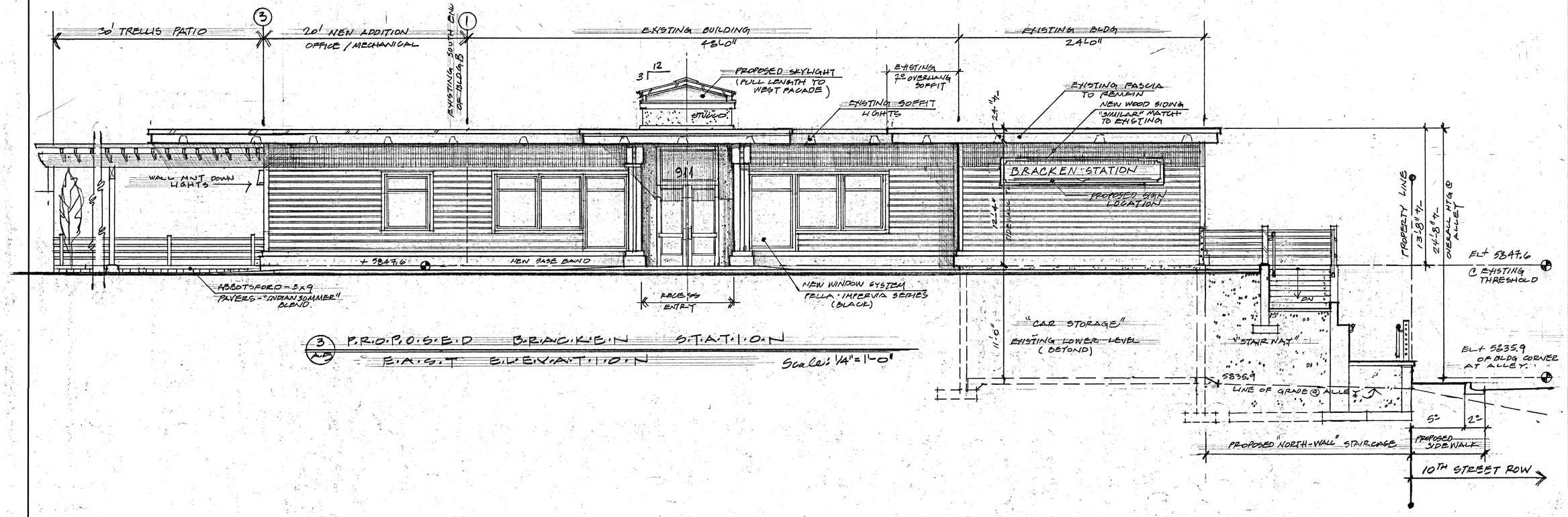
1 PROPOSED UPPER LEVEL

Scale: 1/8"



2 PROPOSED LOWER LEVEL

Scale 1/8"



3 PROPOSED BRACKEN STATION

EAST ELEVATION

Scale: 1/4"=1'-0"

THE BRACKEN STATION
LOT 5A, BLK 30, L.T.I.
KETCHUM • IDAHO

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REVISION RECORD

NO.	DATE	BY

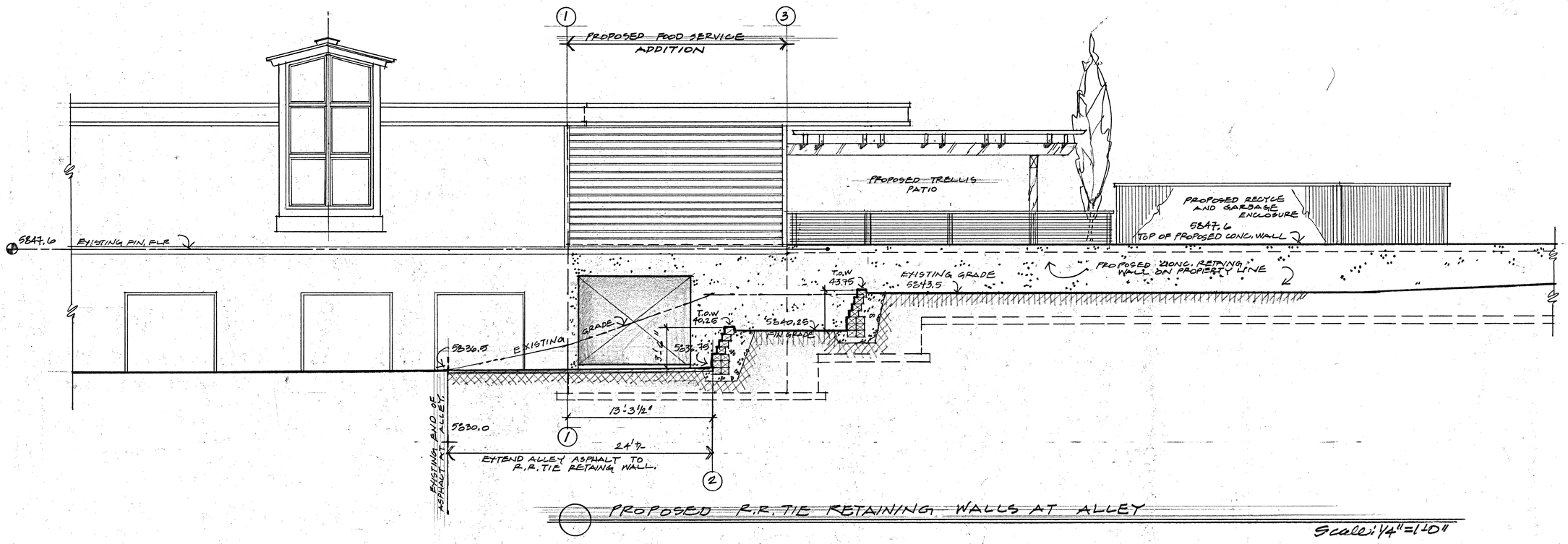
DRAWING NAME: PROPOSED FRONT ELEVATION

SCALE: 1/4"=1'-0"

DATE OF ISSUE: 5.23.16

PLOT DATE:

SHEET NO. A-5



PROPOSED R.R. TIE RETAINING WALLS AT ALLEY

Scale: 1/4"=1'-0"

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BRACKEN STATION
LOT 6A - BLK 32
KETCHUM, IDAHO
CUP APPLICATION AND DESIGN REVIEW - PREAPP

REVISION RECORD

NO.	DATE	BY

DRAWING NAME: ALLEY R.R.TIE RETAINING WALLS

SCALE: 1/4"=1'-0"

DATE OF ISSUE: 5. 23. 16

PLOT DATE:

SHEET NO. A·6

LEGEND:
EXISTING PROPERTY LINE
EXISTING ADJOINER
EXISTING CENTERLINE
PROPOSED CONCRETE CURB & GUTTER
PROPOSED CONCRETE
PROPOSED ASPHALT
PROPOSED PAVERS

0 20 40 Feet

KETCHUM BLOCK 50 LOT 1AA
KETCHUM BLOCK 50 LOT 2A
KETCHUM BLOCK 29 LOT 1 & 2
E 9TH STREET ℄
RECTANGULAR RAPID FLASHING BEACON
EXISTING PARALLEL PARKING
62.5'
EXISTING STRIPING
PROPOSED STRIPING
50'± 13' 13' 12' 13'
100'± R.O.W.
STATE HWY 75 ℄
71.2' (50' MIN.)
62.5'
25' 35' 23' 19'
R480'
R200'
R30'
R50'
40' 40'
13.9'
4'
R3' TYP.
50'±
PROPOSED 2' VALLEY GUTTER
ITD SNOW STORAGE AND PERMITTED LANSCAPING; SEE LANSCAPE PLANS
RETAIN AND PROTECT EXISTING TREE
ITD SNOW STORAGE AND PERMITTED LANSCAPING; SEE LANSCAPE PLANS
CONNECT TO EXISTING SIDEWALK
RETAIN AND PROTECT EXISTING POWER POLE
RECTANGULAR RAPID FLASHING BEACON
EXISTING STRIPING
PROPOSED ℄ STRIPING
8'
24'
12.9'
10' TYP.
13'
20' TYP.
KETCHUM BLOCK 30 LOT 5A
PROPOSED ADDITION
EXISTING BUILDING
ALLEY
LOT 1
LOT 2
LOT 3
LOT 4
60'
E 10TH STREET ℄
N LEADVILLE AVENUE ℄
TENTH ST LIGHT INDUSTRIAL COMPLEX
TL 4808



1 EX VICINITY MAP
SCALE: N.T.S.

PRELIMINARY ONLY NOT FOR CONSTRUCTION

REVISIONS

No.	DESCRIPTION	DATE	BY
1	EXTEND TURN LANE SOUTH	6/3/16	SKS
2	ADD DRAINAGE IMPROVEMENTS	6/28/16	SKS

PREPARED BY:
BENCHMARK ASSOCIATES, P.A.
P.O. BOX 733 100 BELL DRIVE
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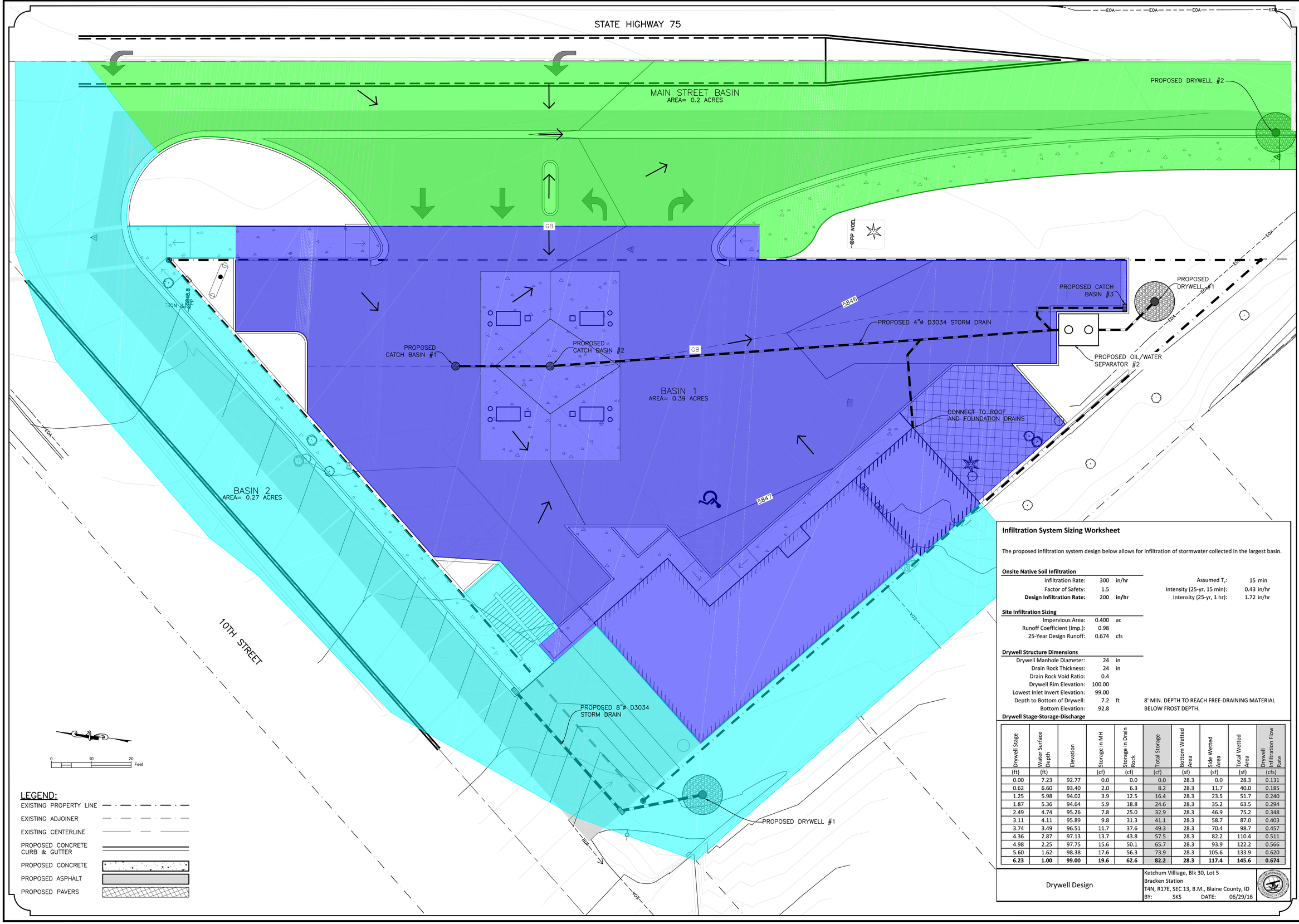
PRELIMINARY IMPROVEMENTS PLAN

KETCHUM TOWNSITE BLOCK 30, LOT 5A
T4N, R17E, SEC 13, B.M., BLAINE COUNTY, IDAHO

PREPARED FOR: ROY BRACKEN

DRAWN BY: SKS
DESIGNED BY: JPG
CHECKED BY: SB
DATE: 05/03/16
PROJECT NO.: 16051

SHEET NUMBER
EX



LEGEND:

- EXISTING PROPERTY LINE
- EXISTING ADJOINER
- EXISTING CENTERLINE
- PROPOSED CONCRETE CURB & GUTTER
- PROPOSED CONCRETE
- PROPOSED ASPHALT
- PROPOSED PAVERS

Infiltration System Sizing Worksheet

The proposed infiltration system design below allows for infiltration of stormwater collected in the largest basin.

Onsite Native Soil Infiltration

Infiltration Rate:	300	in/hr
Factor of Safety:	1.5	
Design Infiltration Rate:	200	**in/hr**

Assumed T_c:	15 min
Intensity (25-yr, 15 min):	0.43 in/hr
Intensity (25-yr, 1 hr):	1.72 in/hr

Site Infiltration Sizing

Impervious Area:	0.400	ac
Runoff Coefficient (Imp.):	0.98	
25-Year Design Runoff:	0.674	cfs

Drywell Structure Dimensions

Drywell Manhole Diameter:	24	in
Drain Rock Thickness:	24	in
Drain Rock Void Ratio:	0.4	
Drywell Rim Elevation:	100.00	
Lowest Inlet Invert Elevation:	99.00	
Depth to Bottom of Drywell:	7.2	ft
Bottom Elevation:	92.8	

8' MIN. DEPTH TO REACH FREE-DRAINING MATERIAL BELOW FROST DEPTH.

Drywell Stage-Storage-Discharge

Drywell Stage	Water Surface Depth	Elevation	Storage in MH	Storage in Drain Rock	Total Storage	Bottom Wetted Area	Side Wetted Area	Total Wetted Area	Drywell Infiltration Flow Rate
(ft)	(ft)		(cf)	(cf)	(cf)	(sf)	(sf)	(sf)	(cfs)
0.00	7.23	92.77	0.0	0.0	0.0	28.3	0.0	28.3	0.131
0.62	6.60	93.40	2.0	6.3	8.2	28.3	11.7	40.0	0.185
1.25	5.98	94.02	3.9	12.5	16.4	28.3	23.5	51.7	0.240
1.87	5.36	94.64	5.9	18.8	24.6	28.3	35.2	63.5	0.294
2.49	4.74	95.26	7.8	25.0	32.9	28.3	46.9	75.2	0.348
3.11	4.11	95.89	9.8	31.3	41.1	28.3	58.7	87.0	0.403
3.74	3.49	96.51	11.7	37.6	49.3	28.3	70.4	98.7	0.457
4.36	2.87	97.13	13.7	43.8	57.5	28.3	82.2	110.4	0.511
4.98	2.25	97.75	15.6	50.1	65.7	28.3	93.9	122.2	0.566
5.60	1.62	98.38	17.6	56.3	73.9	28.3	105.6	133.9	0.620
6.23	**1.00**	**99.00**	**19.6**	**62.6**	**82.2**	**28.3**	**117.4**	**145.6**	**0.674**

Drywell Design

Ketchum Villiage, Blk 30, Lot 5
Bracken Station
T4N, R17E, SEC 13, B.M., Blaine County, ID
BY: SKS DATE: 06/29/16

PRELIMINARY ONLY NOT FOR CONSTRUCTION

REVISIONS

No.	DESCRIPTION	DATE	BY
1	EXTEND TURN LANE SOUTH	6/3/16	SKS

PREPARED BY:
BENCHMARK ASSOCIATES, P.A.
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MAIL: WWW.BMA5B.COM

PRELIMINARY GRADING & DRAINAGE PLAN

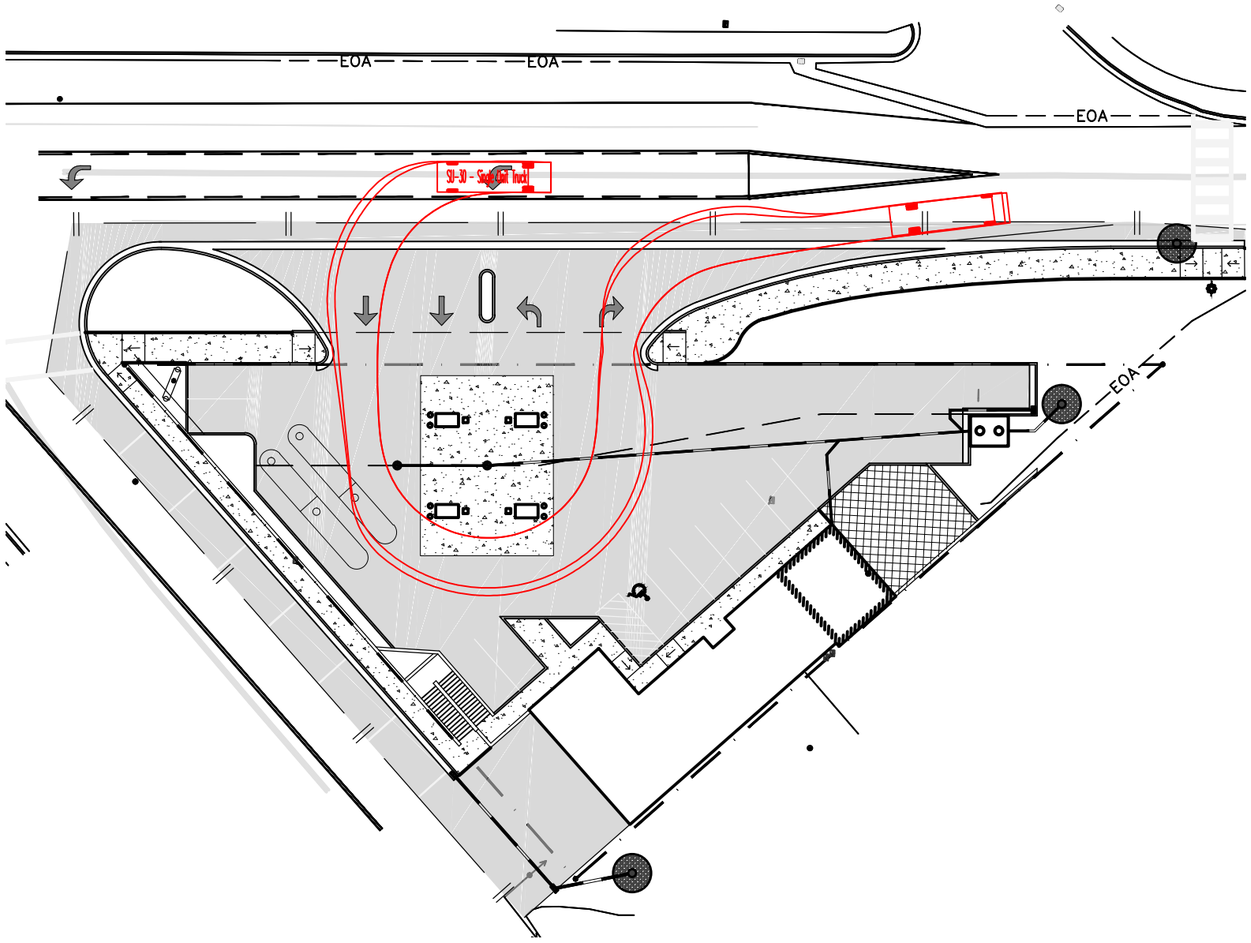
KETCHUM TOWNSITE BLOCK 30, LOT 5A
T4N, R17E, SEC 13, B.M., BLAINE COUNTY, IDAHO

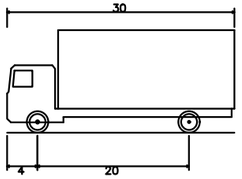
PREPARED FOR: ROY BRACKEN

DRAWN BY: SKS
DESIGNED BY: JPG
CHECKED BY: SB
DATE: 05/03/16
PROJECT NO.: 16051

SHEET NUMBER

EX

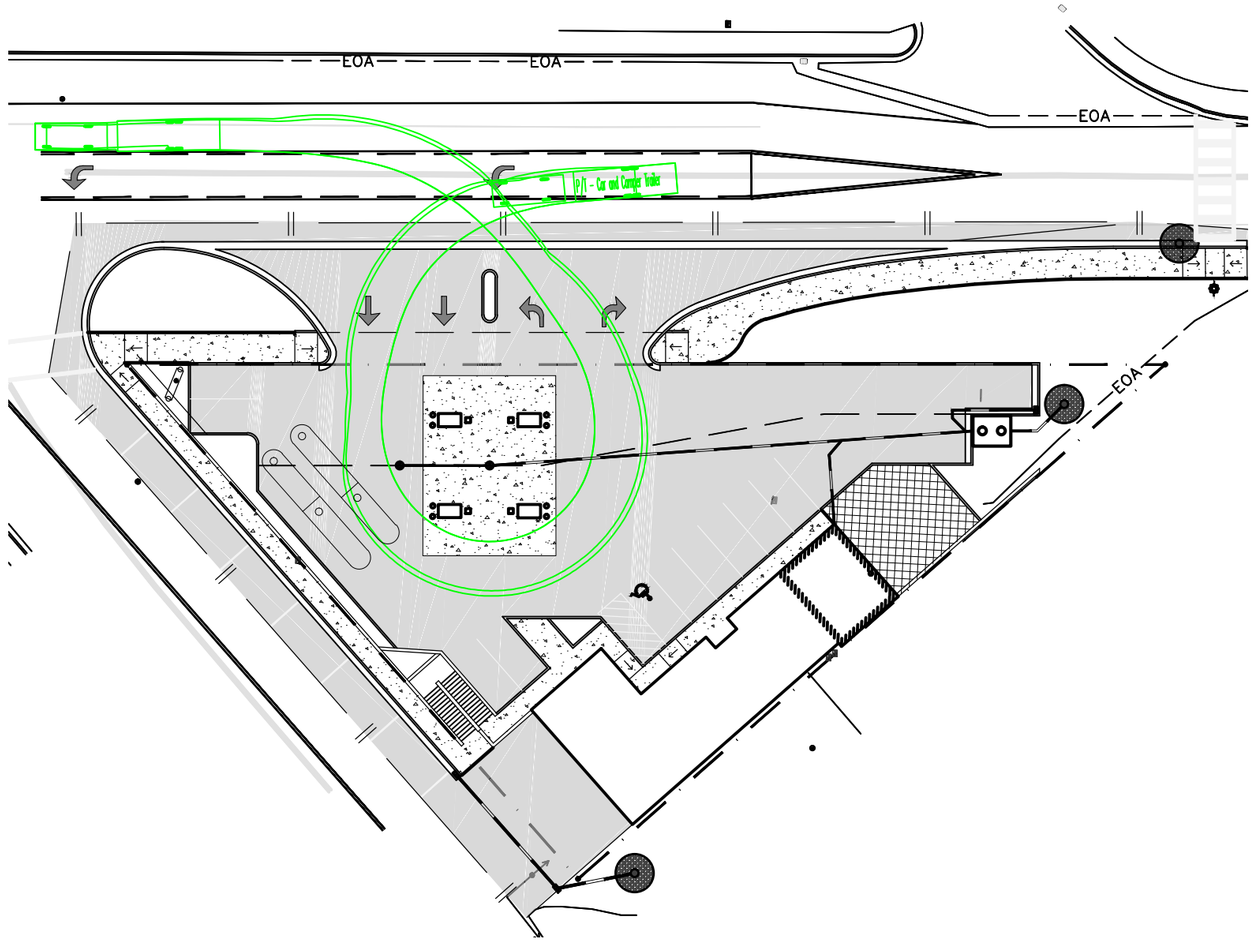


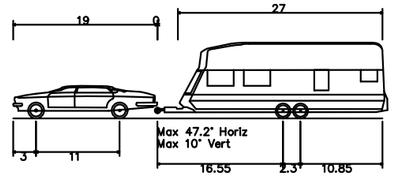


SU–30 – Single Unit Truck

Overall Length	30.000ft
Overall Width	8.000ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.367ft
Track Width	8.000ft
Lock–to–lock time	5.00s
Max Steering Angle (Virtual)	31.80°

1 — BOX TRUCK TURN
SCALE: SCALE





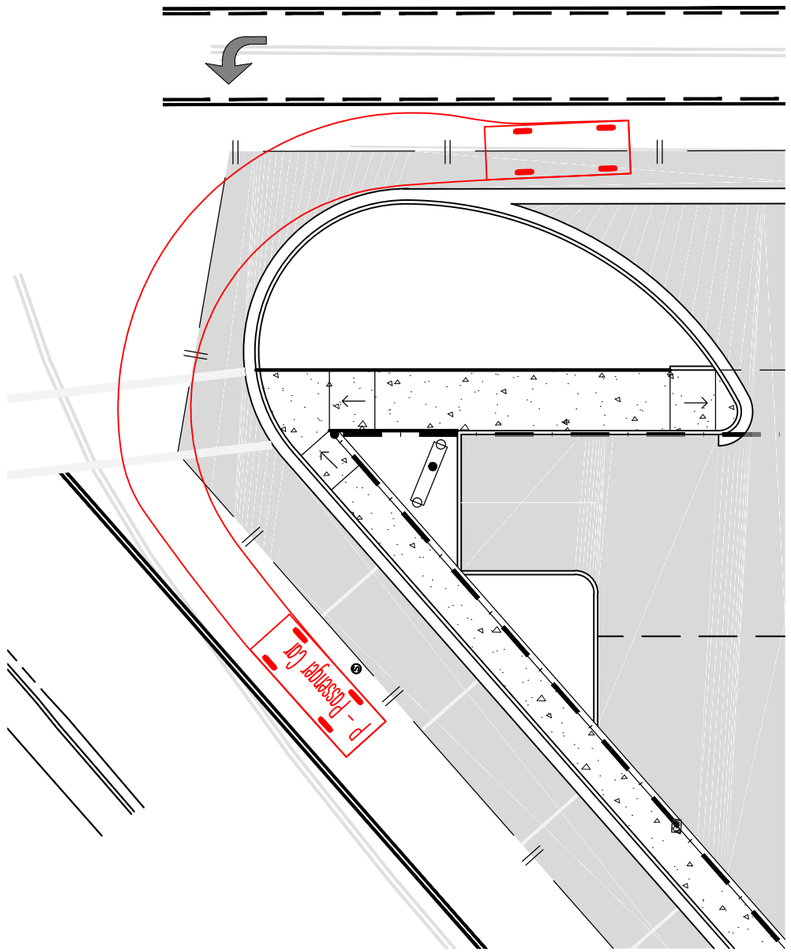
P/T – Car and Camper Trailer

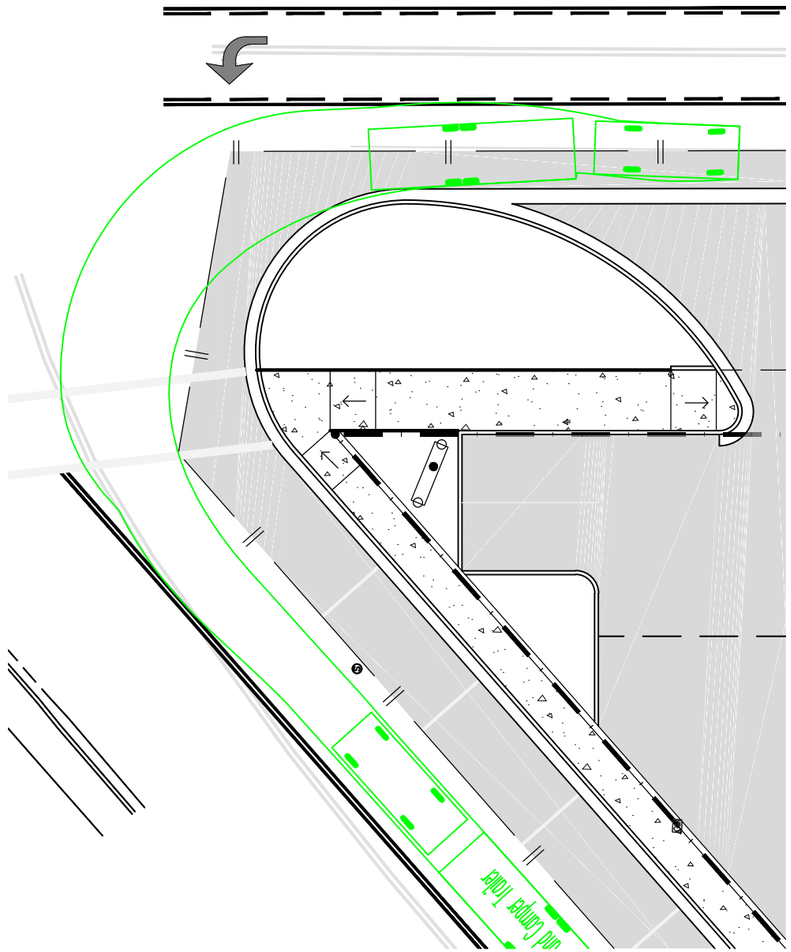
Overall Length	48.701ft
Overall Width	8.000ft
Overall Body Height	10.008ft
Min Body Ground Clearance	0.795ft
Max Track Width	8.000ft
Lock–to–lock time	4.00s
Max Steering Angle (Virtual)	21.50°

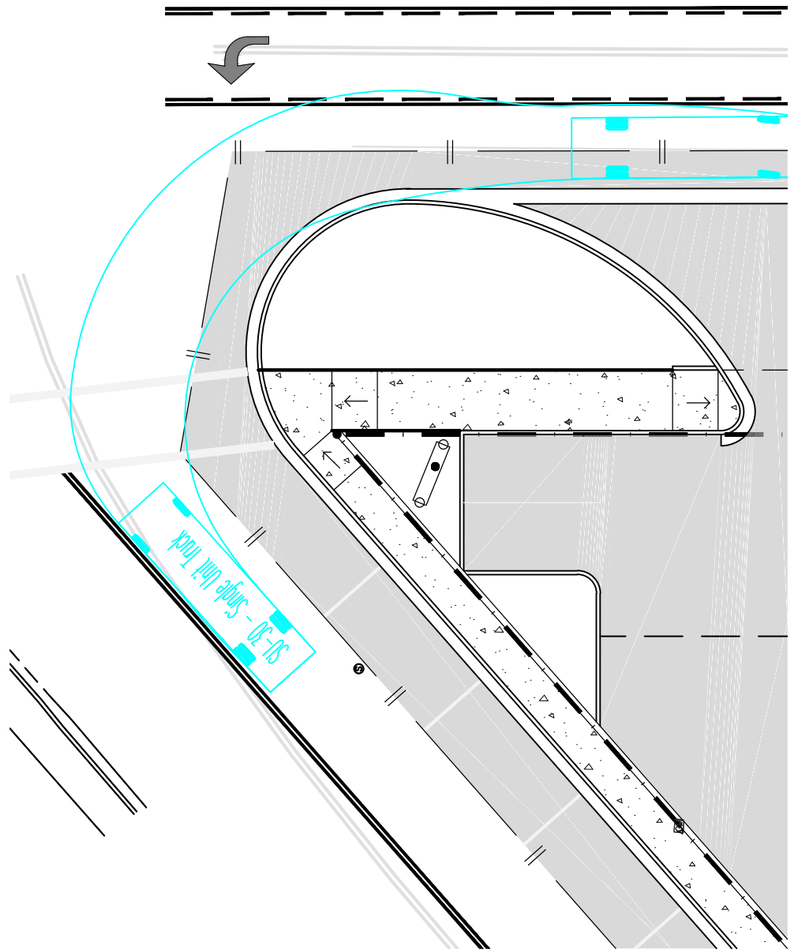
2 — PASSENGER CAR WITH TRAILER TURN
SCALE: SCALE

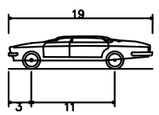
ON–SITE VEHICLE TURN EXHIBIT

JULY 11TH, 2016





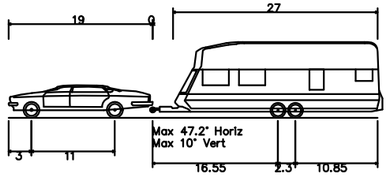




P – Passenger Car

Overall Length	19.000ft
Overall Width	7.000ft
Overall Body Height	4.300ft
Min Body Ground Clearance	1.115ft
Track Width	6.000ft
Lock–to–lock time	4.00s
Max Steering Angle (Virtual)	31.60°

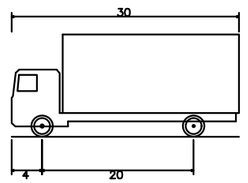
1 — PASSENGER CAR TURN
SCALE: SCALE



P/T – Car and Camper Trailer

Overall Length	48.701ft
Overall Width	8.000ft
Overall Body Height	10.008ft
Min Body Ground Clearance	0.795ft
Max Track Width	8.000ft
Lock–to–lock time	4.00s
Max Steering Angle (Virtual)	21.50°

2 — PASSENGER CAR WITH TRAILER TURN
SCALE: SCALE



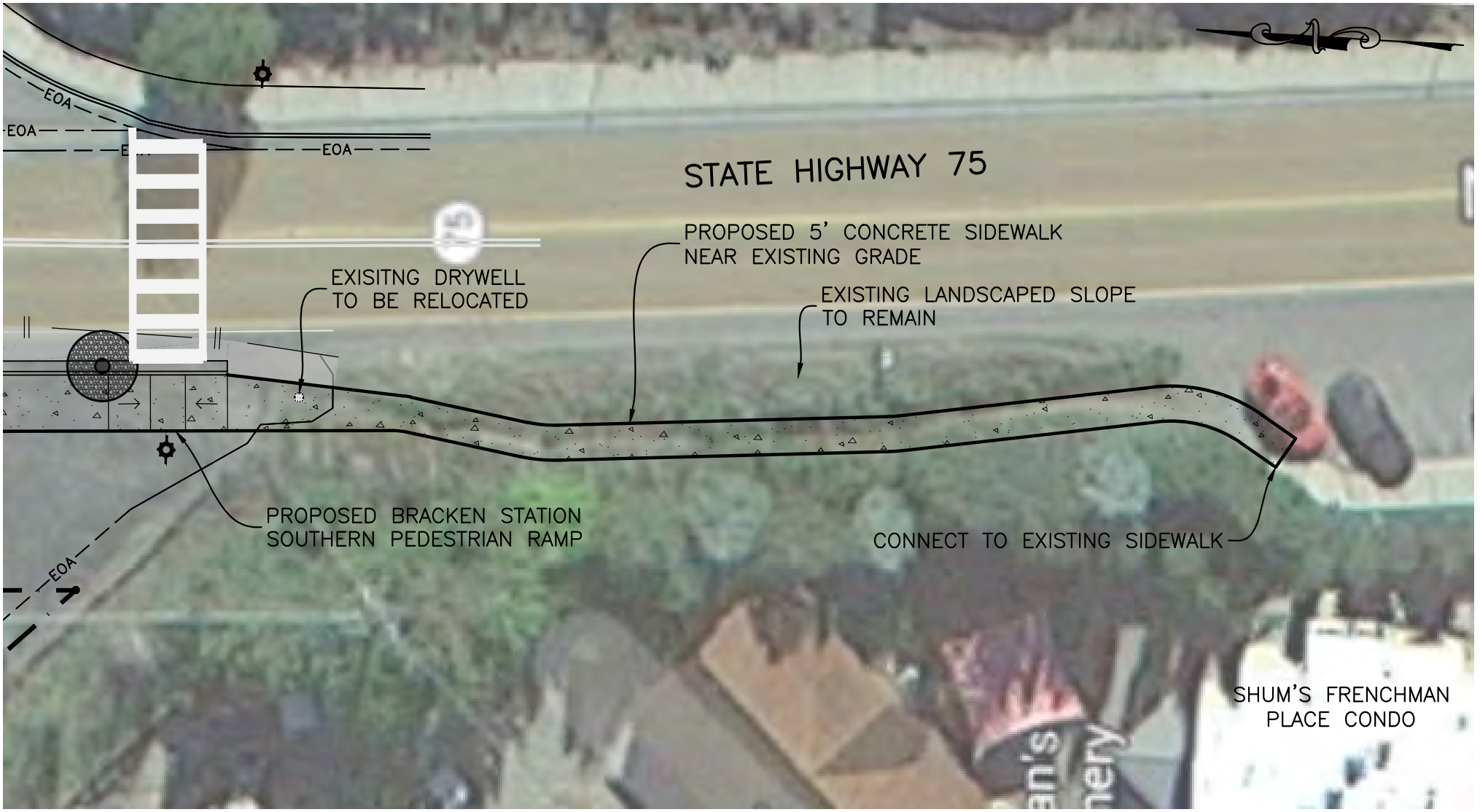
SU–30 – Single Unit Truck

Overall Length	30.000ft
Overall Width	8.000ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.367ft
Track Width	8.000ft
Lock–to–lock time	5.00s
Max Steering Angle (Virtual)	31.80°

3 — BOX TRUCK TURN
SCALE: SCALE

10TH STREET VEHICLE TURN EXHIBIT

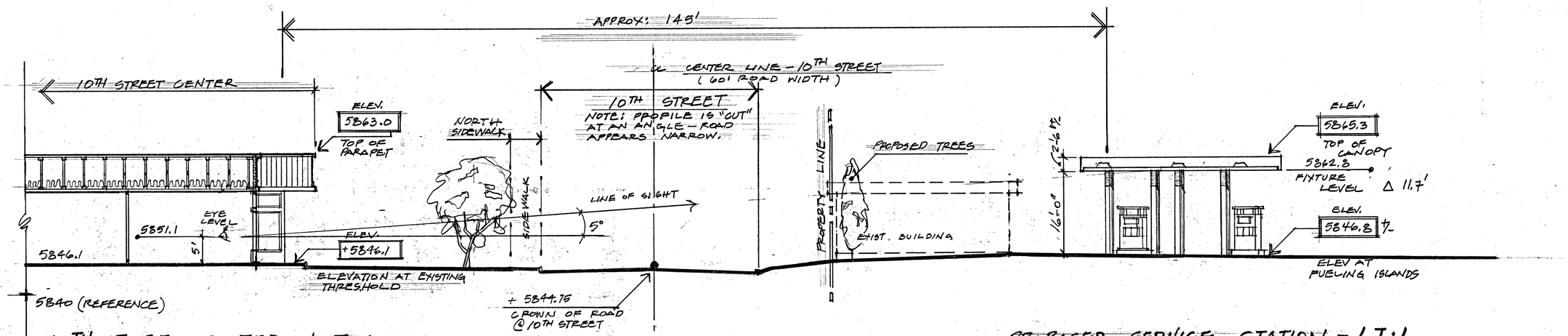
JULY 11TH, 2016



0 20 40 Feet

HIGHWAY 75 FRENCHMAN SIDEWALK CONNECTION

JULY 11TH, 2016



10TH STREET CENTER - L.I.1

PROPOSED SERVICE STATION - L.I.1

1 A.P.F EXISTING PROFILE - FROM NORTH OF 10TH STREET TO SOUTH OF 10TH STREET

Scale: 1" = 10'-0"

GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO ASSURE ALL WORK CONFORMS TO NATIONAL, STATE, AND LOCAL CODES THAT APPLY TO THIS PROJECT. WHEN INCONSISTENCIES EXIST BETWEEN DRAWINGS OR SPECS, AND APPLICABLE CODE REQUIREMENTS, CONFORMANCE TO ALL CODES SHALL HAVE PRECEDENCE OVER DRAWINGS AND SPECS.

STEVE R. COOK, ARCHITECT
323 SOUTH LEWIS ST. SUITE H, P.O. BOX 680, KETCHUM ID. 83340
PH: (208) 725-5566
FAX: (208) 725-5568
■ ■ ■ MEMBER AMERICAN INSTITUTE OF ARCHITECTS ■ ■ ■

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BRACKEN - STATION
HOT SPA - KETCHUM, ID.
SITE PROFILE

REVISION RECORD

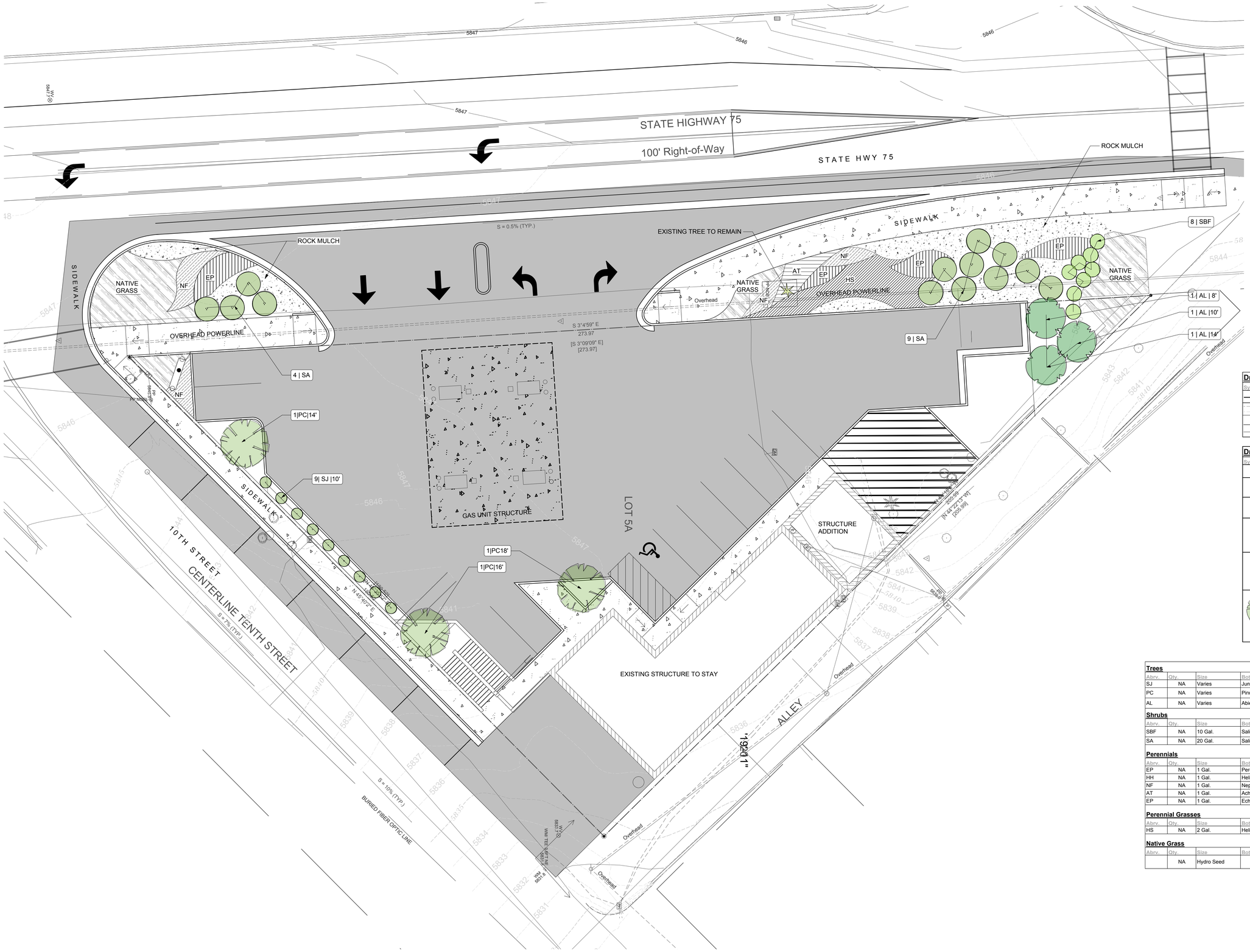
NO.	DATE	BY

DRAWING NAME: SITE PROFILE
SVCARLOUGHBLD.DWG

SCALE: 1:10

DATE OF ISSUE: 7.11.16
SUPERSEDES ALL PREVIOUS DRAWINGS
PLOT DATE:

SHEET NO. A-PF



Drawing Legend

Symbol	Definition
	Property Line
(80) (79)	Existing Contours
80 79	Proposed Contours

Drawing Legend

Symbol	Definition
	Concrete Walkeway
	River Rock Mulch
	Proposed Perennials: See Planting Schedule
	Existing Trees To Remain
	Proposed Shrubs: See Planting Schedule
	Proposed Evergreen Trees: See Planting Schedule

Trees

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
SJ	NA	Varies	Juniperus chinensis 'Spartan	Spartan Juniper	Per Plan
PC	NA	Varies	Pinus contorta	Lodge Pole Pine	Per Plan
AL	NA	Varies	Abies lasiocarpa	Sub Alpine Fir	Per Plan

Shrubs

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
SBF	NA	10 Gal.	Salix brachycarpa 'Blue Fox'	Blue Fox Willow	Per Plan
SA	NA	20 Gal.	Salix arctica	Arctic Willow	Per Plan

Perennials

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
EP	NA	1 Gal.	Perovskia atriplicifolia	Russian Sage	Per Plan
HH	NA	1 Gal.	Heliopsis helianthoides	Sun Flower	Per Plan
NF	NA	1 Gal.	Nepeta x faassinni	Catmint	Per Plan
AT	NA	1 Gal.	Achillea millefolium 'Terracotta'	Yarrow	Per Plan
EP	NA	1 Gal.	Echinacea	Purple Cone Flower	Per Plan

Perennial Grasses

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
HS	NA	2 Gal.	Helictotrichon sempervirens	Blue Oat Grass	Per Plan

Native Grass

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
	NA	Hydro Seed		Native Grass Mix	Per Plan

N

0 10 20 30 40 FT

SCALE: 1"= 10'-0"

BYLA
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323 Lewis , | Ketchum, ID
(208) 726 5997 - (208) 720 0215
www.byla.us

No.	Description	Signature	Date

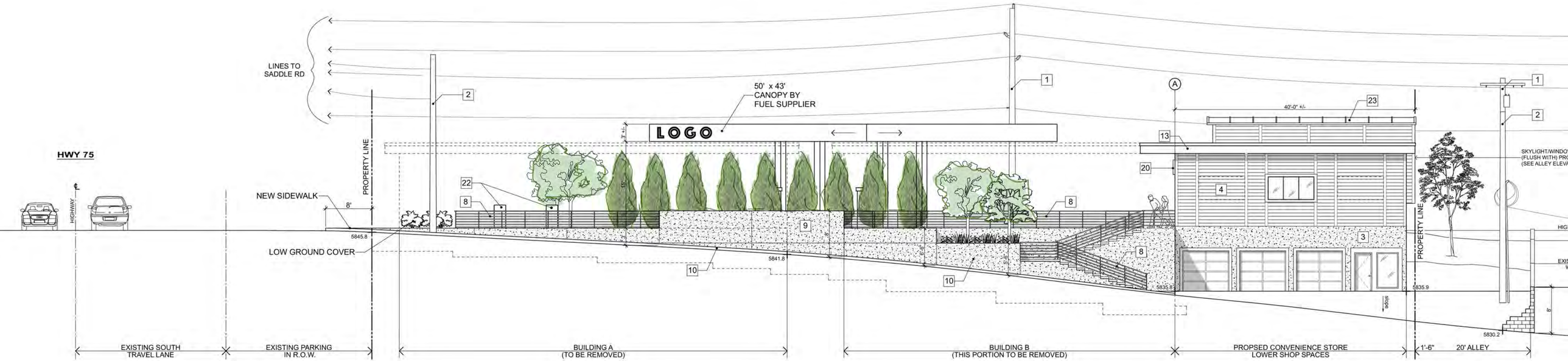
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ben young landscape architect

BRACKEN STATION
BRACKEN BUILDING
LOT 5A | BLK 30 | SONE LI-1, KETCHUM, ID

LANDSCAPE OVERVIEW

Date: 07.01.2016
Drawn By: TB
Checked By: CG
File: Filename

Sheet No.
L1.0
1



2 PROPOSED NORTH ELEVATION - 10th STREET VIEW

scale: 1/8"= 1'-0"

PROPERTY LINE
E 9TH ST
KNOB HILL
EXISTING SIDEWALK
EXISTING PARKING
EXISTING BUS STOP
CITY DRY WELL
APPROX EDGE OF EXISTING TRAVEL LANE (FOG LINE)
NORTH BOUND 25 MPH
STATE HIGHWAY 75
PROPOSED TURNING LANE
50' ROW
13'
12'
31'
SOUTH BOUND 25 MPH
PROPOSED CROSS WALK RAPID FLASH BEACON WARNING LIGHTS
PERMITTED LANDSCAPE - SEE LS.1
PROPOSED SIDEWALK (8'-0")
BOULEVARD APPROACH
EXISTING TREE TO REMAIN
POWER POLE
PROPERTY LINE S03°28'40"E 273.97'
SNOW STORAGE 330+/- SF
SIGN
EL.5840.5
CITY DRY WELL
LOGO
FUELING ISLANDS
CHARGING STATION
43' CANOPY LINE
LOT 5A
4267 AC (18,590 S.F.)
BIKE RACK
SCREENED RECYCLE/ STO
GARBAGE
RETAINING WALL (NEW)
EXISTING GRADE - NOT ASPHALT
LOT 1
LOT 2
LOT 3
LOT 4
20' X 25.5' PROPOSED ADDITION 508 SQ. FT.
RR RTE WALL
POWER POLE
FUTURE EXPANSION
PROPOSED LOWER LEVEL ACCESS FROM ALLEY
END OF EXISTING BUILDING
REPURPOSE EXT'G RETAIL BLDG TO INCLUDE STORE WITH DELI SERVICE
2,084 SQ. FT.
PROPERTY LINE S44°41'44"E 205.99'
EXISTING BLD'G TO REMAIN - 72'
20' SETBACK
EXISTING LOWER LEVEL ENTRY
E ALLEY
E 10TH ST
TENTH STREET CENTER PARKING
EXT'G CURB CUT
SIDEWALK
TENTH STREET CENTER
PROPERTY LINE
(Install below grade fuel tanks)
NEW PROPOSED PARALLEL PKG
PROPERTY LINE N45°15'21"E 180.52'
RETAINING WALL (NEW)
SLOPE = 7%
SLOPE = 10%
PROPOSED SIDEWALK (8'-0")
POWER POLE TO BE REMOVED
PROPOSED CROSS WALK

LIGHTING SCHEDULE	
TYPE	MANUFACTURER / STYLE
A	CRUSE: ASYMMETRIC - LED: FLUSH MTD/ CUT OFF
B	CRUSE: SYMMETRIC - LED: FLUSH MTD/ CUT OFF
C	HALO : 6" RECESSED -LED
D	HALO: INDY 4" LED DOWN LIGHT CYLINDER
E	ELITE: ST4 STEP LIGHT SINGLE LOUVER
F	ACCULITE: PL7 LED BOLLARD

ALL LIGHT FIXTURE TO MEET DARK SKY ORDINANCE AS PER KETCHUM ORDINANCE CH. 17.132

REVISED
6-30-16

N DRAWING NORTH

LIGHTING PLAN
CONDTIONAL USE/ PREAPPLICATION SITE PLAN

1/A-2

NOTE: SEE CIVIL ENGINEERING DRAWINGS FOR ALL SITE DRAINAGE AND STREET GRADING DESIGN

scale: 1"= 10'

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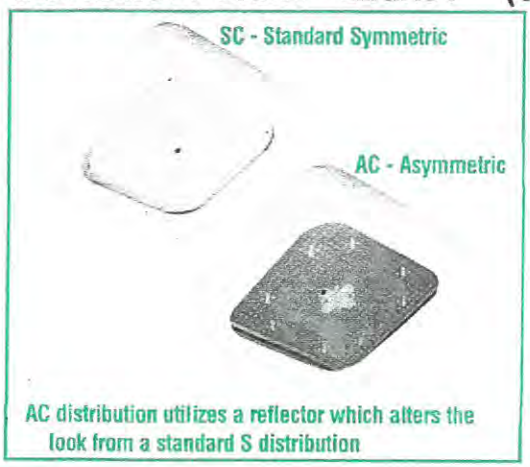
STEVE R. COOK, ARCHITECT
323 SOUTH LEWIS ST. SUITE H, P.O. BOX 680, KETCHUM ID, 83340
MEMBER AMERICAN INSTITUTE OF ARCHITECTS

PRELIMINARY DESIGN PHASE - LOT 5A BLK 30
LOT 5A / BLK 30 / ZONE LI-1
KETCHUM, ID

REVISION RECORD		
NO.	DATE	BY

DRAWING NAME: LIGHTING PLAN
DATE OF ISSUE: (APPLICATION DRAWING)
PLOT DATE: 6/23/16
SCALE: 1"=10'
SHEET NO.: L.1

LED CANOPY LIGHT - LEGACY™ (CRUS)



AC distribution utilizes a reflector which alters the look from a standard S distribution

DOE LIGHTING FACTS

Department of Energy has verified representative product test data and results in accordance with its Lighting Facts Program. Visit www.lightingfacts.com for specific catalog strings.

US & Int'l. patents pending.

HOUSING - Low profile, durable die-cast, aluminum construction, providing a reliable weather-tight seal.

LEDS - Features an array of select, mid-power, high brightness, high efficiency LED chips; 5000K color temperature, 70 CRI (nominal).

DRIVE CURRENT - Choice of Very Low Wattage (VLW), Low Wattage (LW), Super Saver (SS), High Output (HO) or Very High Output (VHO).

OPTICS / DISTRIBUTION - Choice of Symmetrical or Asymmetrical, which directs light through a clear tempered glass lens, to provide a uniform distribution of light to vertical and horizontal surfaces.

OPTICAL UNIT - Features an ultra-slim 7/8" profile die-cast housing, with a flat glass lens. Unit is water-resistant, sealed to an IP67 rating. Integral designed heat sink does not trap dirt and grime, ensuring cool running performance over the life of the fixture.

PRESSURE STABILIZING VENT - Luminaire assembly incorporates a pressure stabilizing vent breather to prevent seal fatigue and failure.

HAZARDOUS LOCATION - Designed for lighter than air fuel applications. Product is suitable for Class 1 Division 2 only when properly installed per LSI installation instructions (consult factory).

DRIVER - State-of-the-art driver technology superior energy efficiency and optimum light output. Driver components are fully encased in potting for moisture resistance. Complies with IEC and FCC standards. 0-10 V dimming supplied standard with all drive currents.

DRIVER HOUSING - Die-cast aluminum, wet location rated driver/electrical enclosure is elevated above canopy deck to prevent water entry, provide easy "knock-out" connection of primary wiring and contributes to attaining the lowest operating temperatures available. Seals to optical housing via one-piece molded silicone gasket.

OPERATING TEMPERATURE - -40°C to 50°C (-40°F to +122°F)

ELECTRICAL - Universal voltage power supply, 120-277 VAC, 50/60 HZ input. Drivers feature two-stage surge protection (including separate surge protection built into electronic driver) meets IEEE C62.41.2-2002, Scenario 1, Location Category C.

FINISH - Standard color is white and is finished with LSI's DuraGrip® polyester powder coat process. DuraGrip withstands extreme weather changes without cracking or peeling.

INSTALLATION - One person installation. No additional sealant required. Installs in a 12" or 16" deck pan. Deck penetration consists of a 4" hole, simplifying installation and water sealing. Unit is designed to quickly retrofit into existing Scottsdale (4") hole as well as openings for Encore and Encore Top Access and to reconnect wiring for the SC/ECTA without having to relocate the conduit. Retro'panels are available for existing Encores (see back page) as well as kits for recessed and 2x2 installations (see separate spec sheets). Support brackets are provided standard, to prevent sagging of deck.

SHIPPING WEIGHT - 27 pounds (single pack), 48 pounds (double pack).

EXPECTED LIFE - Minimum 60,000 to 100,000 hours depending upon the ambient temperature of the installation location. See LSI web site for specific guidance.

WARRANTY - Limited 5-year warranty.

LISTING - UL and ETL listed to UL 1598, UL 8750 and other U.S. and International safety standards. Suitable for wet locations.

PHOTOMETRICS - Please visit our web site at **www.lsi-industries.com** for detailed photometric data.

Consult Factory

Class 1, Division 2 – Standard on SS & LW.

T5 Temperature Classification – The surface temperature of this product will not rise above 100°C., within a 40°C ambient.

Gas Groups A,B,C, and D – Group A: Acetylene / Group B: Hydrogen / Group C: Propane and Ethylene / Group D: Benzene, Butane, Methane & Propane.

This product, or selected versions of this product, meet the standards listed below. Please consult factory for your specific requirements.

RoHS COMPLIANT · ETL Intertek wet location · IP67 · CE · cULus LISTED wet location · DLC

Project Name _____ **Fixture Type** _____

Catalog # _____

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A1B

LED CANOPY LIGHT - LEGACY™ (CRUS)

LUMINAIRE ORDERING INFORMATION

TYPICAL ORDER EXAMPLE: **CRUS SC LED HO 50 UE WHT**

Prefix	Distribution[1]	Light Source	Drive Current	Color Temperature	Input Voltage	Finish	Options
CRUS	SC - Standard Symmetric AC - Aymmetric	LED	VLW - Very Low Watt LW - Low Watt SS - Super Saver HO - High Output VHO - Very High Output	50 - 5000K	UE - Universal Voltage (120-277V) 347 - 480V	WHT - White BRZ - Bronze BLK - Black	None

FOOTNOTES:
1- AC distribution utilizes a reflector which alters the look from a standard S distribution.

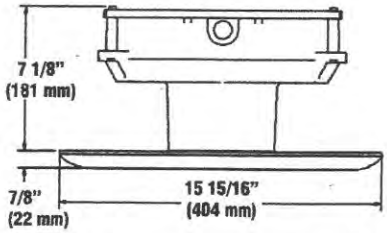
ACCESSORY ORDERING INFORMATION (Accessories are field installed)

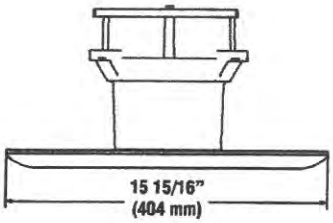
Description	Order Number
Retrofit Panels - EC / ECTA / SCF to CRU, for 16" Deck Panel	525946
Retrofit Panels - ECTA / SCF to CRU, for 12" Deck Panel	530281
Retrofit 2x2 Cover Panel Blank (no holes)	357282
Retrofit RIC Cover Panel Blank (no holes)	354702

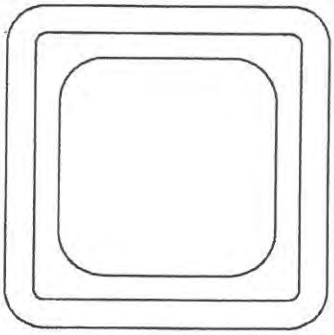
Description	Order Number
Kit - Hole Plugs and Silicone (enough for 25 retrofits)[1]	1320540

1- Consists of (25) 7/8" hole plugs and (1) 10.3 oz tube of RTV

DIMENSIONS







LIGHT OUTPUT - CRUS

		Lumens		Watts		LPW	
		SC	AC	SC	AC	SC	AC
Cool White	VLW - Very Low Watt	8842	–	79	–	112	–
	LW - Low Watt	10871	8746	88	83	124	105
	SS - Super Saver	13554	11518	114	111	119	104
	HO - High Output	18633	–	132	–	141	–
	VHO - Very High Output	22418	17262	159	157	141	110

Project Name _____ Fixture Type _____

Catalog # _____

04/29/16

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Choose Brand

Halo (1)

Shower Trim

No (1)

Adjustable Trim

No (1)

Color

Tuscan Bronze (1)

Size

6-Inch (1)

Job Usage

For 120V Housing (1)

Style Of Trim

Your Search For: 353TBZ

Only show: Bundle Items

Sort by: Relevance

BUNDLE ITEM



$21.99 /each
As low as: $21.11

Halo 353TBZ
Halo Recessed Lighting Trim, 6" Line Voltage Baffle Trim - Tuscan Bronze

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Print

Halo H7ICT 6" Recessed Lighting Can, AIRTITE Housing for New Construction

BRAND: HALO MODEL: H7ICT CONDITION: NEW WARRANTY: 1 YEAR SKU: 166218 CLEARANCE ITEM!

STATUS: IN STOCK



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HALO View All Halo Recessed Lighting

Promo: 10% Off recessed cans when you buy at least 10 Lutron Li... ...mmers

Feedback

Description
Features
Specifications
Warranty
Customer Reviews
Questions & Answers

Description

The **Halo H7ICT** is a 6" insulated recessess housing capable of beuing installed againat ceiling insulation. Its self regulating thermal protector deactives the light should overheating occur. Many homeowners who are looking to retrofit their homes with new accent lighting often run into challenges when installing new fixtures: insulation in their ceilings that results in a potential fire hazard when exposed to a light fixture's excess heat.

The Halo H7ICT remedies this problem by utilizing Halo's integral thermal protector technology. The Halo H7ICT is also easy to install no matter where you're going to use it. The wiring connections cab be made outside the junction box. Automatic flange leveling aligns the housing allowing one to hold the housing in one hand while simultaneously drive in nails with your otehr hand. Its a snap.

Allows wiring connections to be made outside thejunction box. It features simple captive bar hangers, which enable the housing to be used anywhere within the full 24" joist span. The socket also fastens tightly into the unit's trim for proper lamp positioning.

Perfect for any home's established décor, this unit is offered in a variety of colors, including black, bronze, copper, white and brushed nickel. The Halo H7ICT is also UL listed and CSA certified, making it one of the most popular choices for modern homes.

Use with 6" Lighting Recessed Trims

- Black
- Bronze
- Brushed Nickel
- Copper
- White

Features

- Thermally Protected IC Housing
- Housing may be covered with insulation
- For use with 120V Incandescent lamps

Specifications

- 10 1/2" Long
- 7 1/2" Wide
- 7 1/2" Tall

Warranty
One (1) year through the manufacturer

Customer Reviews
There are no reviews for this product yet. Be the first to review the product!

Write Your Own Review:

Nickname*

Summary of Your Review*

Review Text*

1 star 2 stars 3 stars 4 stars 5 stars
Quality
Price
Value

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Indy 4in LC4B Series, LED, Wall Mount Cylinder



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FINISHES / TYPES



Black Silver White

LINE ART



Pin it Tweet

Indy™ 4-inch L-Series LED Cylinders are part of the latest generation of Indy L-Series luminaires, offering a fully coordinated family of commercial-grade quality luminaires, from LED color rendering to aperture sizes and trim finishes. These cylinders can be surface, cable, pendant, or wall-mounted. They are the energy-efficient choice for a wide range of commercial applications. Efficacies up to 111lm/W.

- Compact light source delivers uniform illumination without pixilation, enabling excellent beam control. Light levels range from 800 to 2,300 lumens
- LEDs are energy-efficient and offer exceptionally long service life
- Available in CCT's of 2700K, 3000K, 3500K and 4000K, high CRI of 80 lm/w. Optional 90 CRI and 97 CRI availble
- Lumen packages suitable for ceiling heights ranging from 8' to over 35'
- L-Series Cylinder fixtures offer hyperbolic, parabolic, baffle or wall wash reflectors and multiple trim color and finish options
- One piece heavy gauge aluminum with white, black or silver backed textured powder coat finish
- Passive Cooling; cast aluminum heat sink integrated directly with housing provides superior thermal management to ensure the long life of the LED
- LEDs contain no environmentally harmful mercury, lead, or PCBs and generate no UV or IR emissions
- LED driver accommodates 120V, 277V, or 347V inputs with 0-10V dimming standard; also available with DMX, DALI, phase cut, forward and reverse phase and Lutron drivers for use with EcoSystem®
- U/CSA Listed; RoHS compliant; ARRA compliant; ENERGY STAR® qualified

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ACCULITE™
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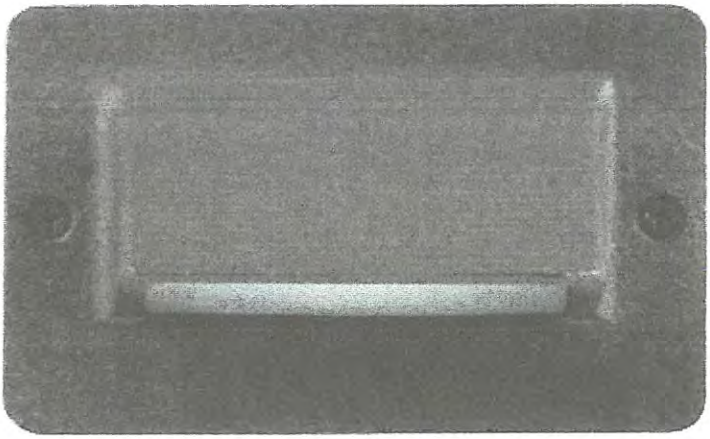
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ST403

ST4 Series Single Louver Face Plate



Housing only:

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Features | Technical | Colors | Housing

Application
For concrete use only
Body
High grade die-cast aluminum with 0.3% Copper to prevent corrosion in concrete applications.
Supplied standard with four 3/4? NPS holes.
Face Plate
High-grade die-cast aluminum
Gasket
Single piece molded silicon for wet location
Lens
Frosted tempered glass
External Louver
Anodized 45" cut-off louver
Reflector
High performance aluminum reflector assembly for superb light output
Listing
UL/cUL for wet locations

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AccuLite PL7 Series, LED, Parklume Bollards



View Larger

FINISHES / TYPES



Black Bronze White

LINE ART



Pin it Tweet

AccuLite™ Parklume area lighting bollards provide effective, energy-efficient pathway lighting in a variety of attractive styles. PL7- LED Series bollards offer a clean, contemporary look with a slim 7-inch diameter that blends easily with the landscape. LED version provides up to 1,000 lumens from just 25W input, while other efficient alternatives include HID and CFL light sources. All bollards feature vandal-resistant polycarbonate lenses and durable powder coat finishes.

- LEDs feature a top reflector that collects light and a lower cone that spreads it to the surroundings; anodized reflectors smooth light for uniform distribution
- LEDs have an aluminum heat sink that reduces heat and helps assure rated service life of 50,000 hours; universal 120-277VAC LED driver, 60Hz input
- 7-inch diameter housings feature rugged extruded-aluminum construction with cast-aluminum top and base plate
- 160-degree house-side shield is optional
- 15W or 25W LED light source; other models accept HID or CFL lamps of various types and wattages
- UL/CSA Listed; suitable for wet locations

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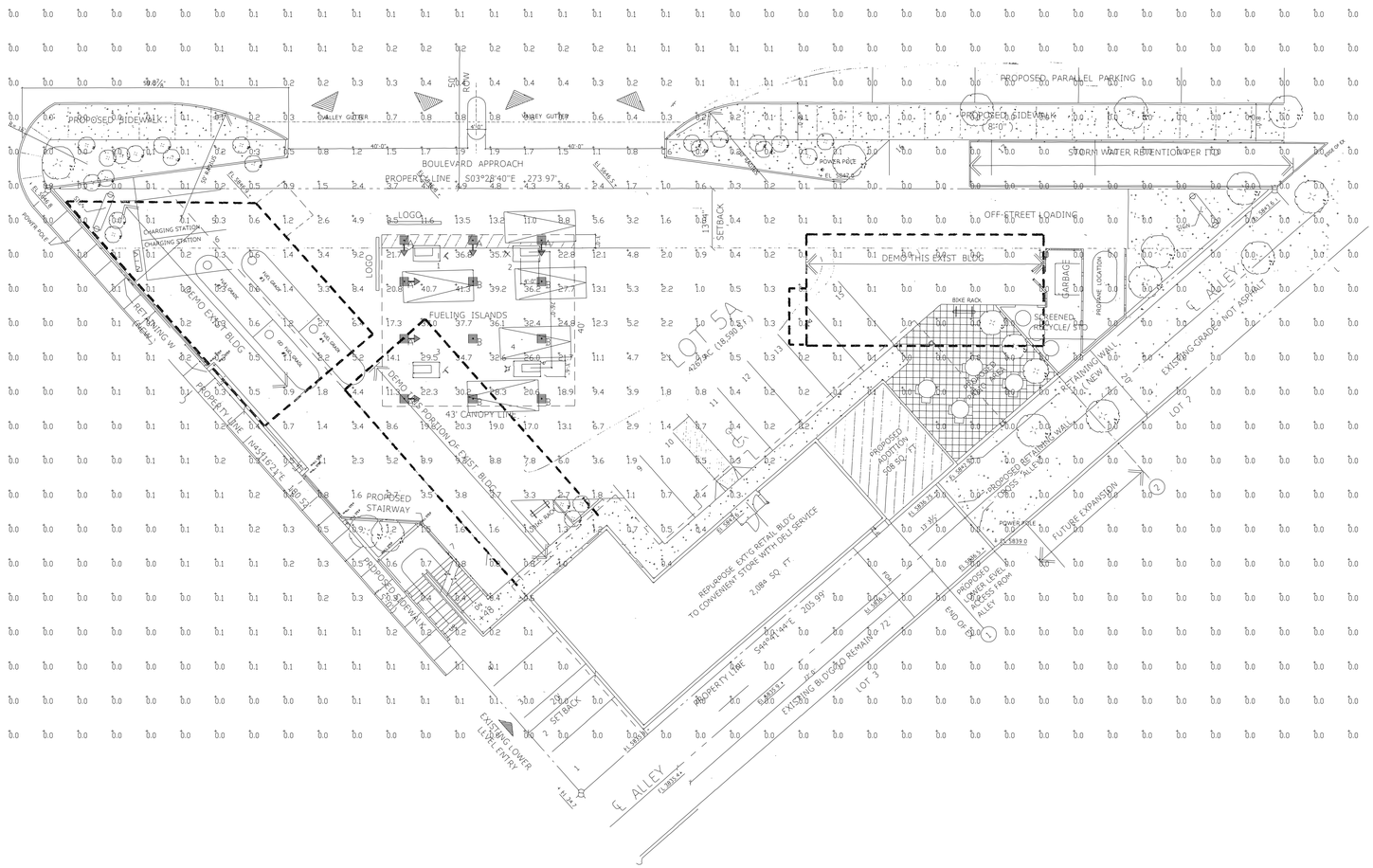
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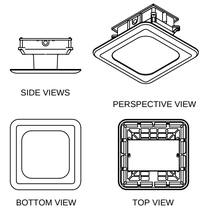
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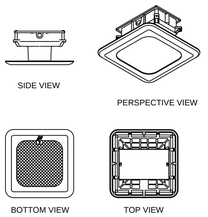
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CRUS-SC-LED
LED CANOPY LIGHT - LEGACY



CRUS-AC-LED
LED CANOPY LIGHT - LEGACY



Luminaire Schedule								
Symbol	Qty	Label	Arrangement	Description	LLF	Lumens/Lamp	Arr. Lum. Lumens	Arr. Watts
	6	A	SINGLE	CRUS-AC-LED-LW-CW DIMMED 15% MTD @ 15'	0.850	N.A.	8746	82.9
	6	B	SINGLE	CRUS-SC-LED-VLW-CW DIMMED 15% MTD @ 15'	0.850	N.A.	8842	78.7

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
ALL CALC POINTS	Illuminance	Fc	1.62	41.3	0.0	N.A.	N.A.
CANOPY	Illuminance	Fc	28.51	41.3	11.3	2.52	3.65

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine the applicability of the layout to existing or future field conditions.

This lighting plan represents illumination levels calculated from laboratory data taken under controlled conditions in accordance with The Illuminating Engineering Society (IES) approved methods. Actual performance of any manufacturer's luminaires may vary due to changes in electrical voltage, tolerance in lamps/LED's and other variable field conditions. Calculations do not include obstructions such as buildings, curbs, landscaping, or any other architectural elements unless noted.

Total Project Watts
Total Watts = 969.6

3998 ALLMER RD. CINCINNATI, OHIO 45242 USA
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LIGHTING PROPOSAL LD-133509-2

43 X 40 CANOPY
STATE HWY 75
KETCHUM,ID

BY:MWE	DATE:6-20-16	REV:6-30-16	SHEET 1 OF 1

SCALE: 1"=16' 0 16

PROPERTY LINE

+1.0

+1.4

+1.5

+.80

BOUNDARY

BOULEVARD APPROACH

PROPERTY LINE S03°28'40"E 273.97'

VALLEY GUTTER

VALLEY GUTTER

50' ROW

PROPOSED PARALLEL PARKING

PROPOSED SIDEWALK (8'-0")

STORM WATER RETENTION PER LTD

POWER POLE

EL 5847.8

SETBACK

OFF-STREET LOADING

DEMO THIS EXIST BLDG

GARBAGE

BIKE RACK

SCREENED RECYCLE/ S

PROPANE LOCATION

SIGN

EL 5843.6

LOGO

LOGO

CHARGING STATION

CHARGING STATION

DEMO EXIST BLDG

FUEL GRADE #1

FUEL GRADE #2

FUEL GRADE #3

FUEL GRADE

EVELING ISLANDS

40

30

20

10

5

1

43' CANOPY LINE

PORTION OF EXIST BLDG

DEMO

LOT 5A

4260 SQ FT (18,590 SF)

PROPOSED ADDITION 508 SQ FT

REPURPOSE EXT'G RETAIL BLDG TO CONVENIENT STORE WITH DELI SERVICE

2,084 SQ FT

EL 5836

EL 5836.3

EL 5836.5

EL 5839.0

EL 5836.75

EL 5847.8

PROPERTY LINE S44°04'44"E 205.90'

EXISTING BLDG TO REMAIN

LOT 3

LOT 7

PROPOSED RETAINING WALL

CROSS ALLEY

POWER POLE

EL 5839.0

PROPOSED LOWER LEVEL ACCESS FROM ALLEY

FUTURE EXPANSION

END OF EXIST

RETAINING WALL (NEW)

20'

EXISTING GRADE NOT ASPHALT

C ALLEY

PROPOSED SIDEWALK

PROPOSED STAIRWAY

SETBACK

EXISTING LOWER LEVEL ENTR

EL 5836

EL 5838.9

EL 5838.3

EL 5838.1

EL 5838.0

EL 5838.4

EL 5838.6

EL 5838.7

EL 5838.8

EL 5838.9

EL 5839.1

EL 5839.2

EL 5839.3

EL 5839.4

EL 5839.5

EL 5839.6

EL 5839.7

EL 5839.8

EL 5840.0

EL 5840.1

EL 5840.2

EL 5840.3

EL 5840.4

EL 5840.5

EL 5840.6

EL 5840.7

EL 5840.8

EL 5840.9

EL 5841.0

EL 5841.1

EL 5841.2

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EL 5842.0

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EL 5843.0

EL 5843.1

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EL 5843.3

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EL 5843.5

EL 5843.6

EL 5843.7

EL 5843.8

EL 5843.9

EL 5844.0

EL 5844.1

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EL 5845.0

EL 5845.1

EL 5845.2

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EL 5845.6

EL 5845.7

EL 5845.8

EL 5845.9

EL 5846.0

EL 5846.1

EL 5846.2

EL 5846.3

EL 5846.4

EL 5846.5

EL 5846.6

EL 5846.7

EL 5846.8

EL 5846.9

EL 5847.0

EL 5847.1

EL 5847.2

EL 5847.3

EL 5847.4

EL 5847.5

EL 5847.6

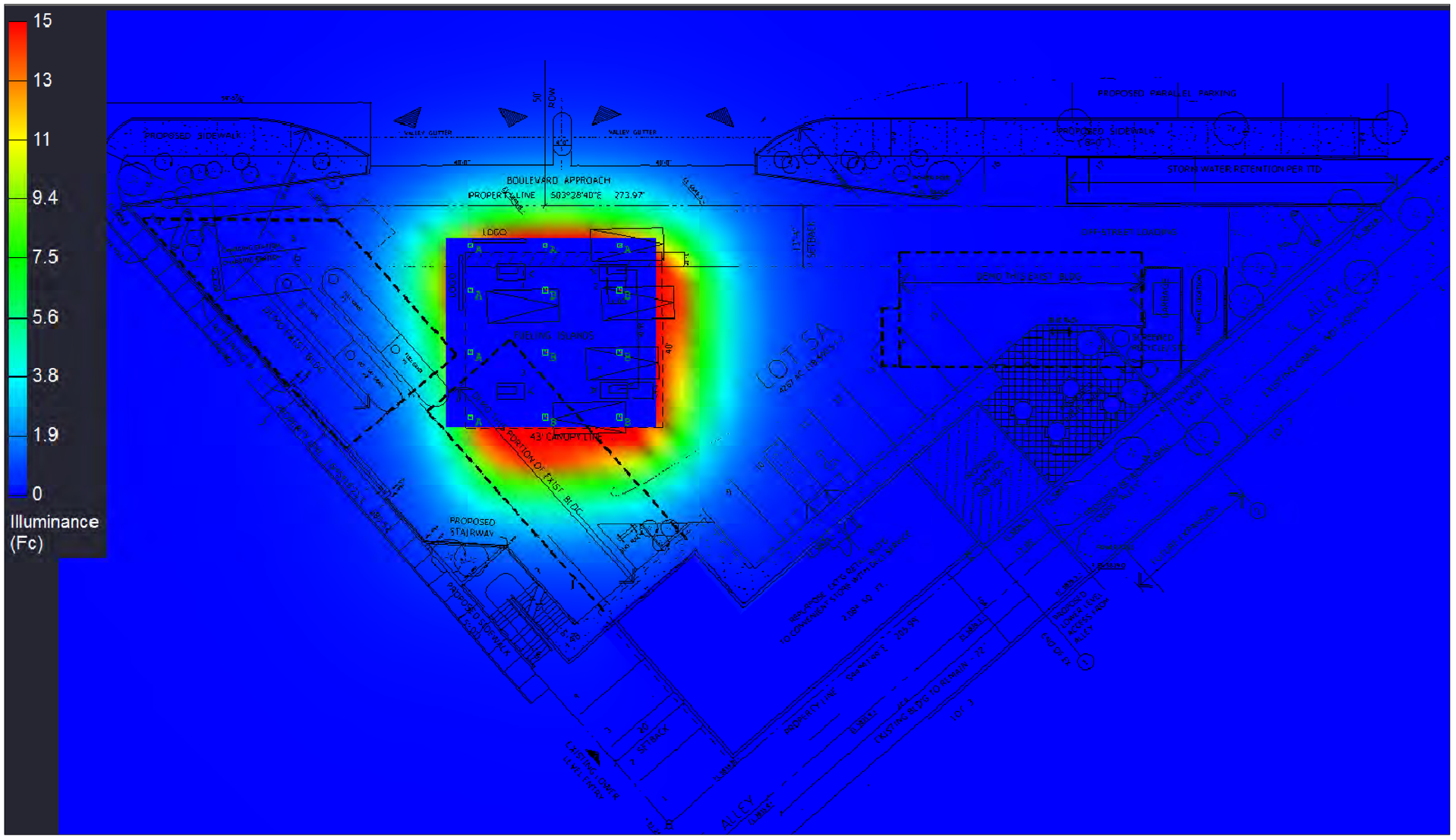
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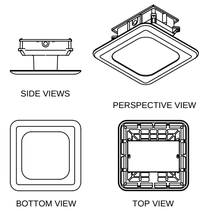
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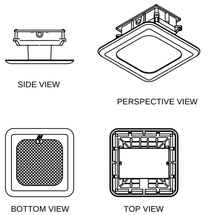


PSEUDO COLOR RADIOSITY - TOP VIEW - 15 FC SCALE

CRUS-SC-LED
LED CANOPY LIGHT - LEGACY



CRUS-AC-LED
LED CANOPY LIGHT - LEGACY



Luminaire Schedule								
Symbol	Qty	Label	Arrangement	Description	LLF	Lumens/Lamp	Arr. Lum. Lumens	Arr. Watts
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LIGHTING PROPOSAL LO-133509-2

43 X 40 CANOPY RADIOSITY
STATE HWY 75
KETCHUM,ID

BY:MWE	DATE:6-20-16	REV:6-30-16	SHEET 1 OF 1

SCALE: 1"=16' 0 16

123

MEMORANDUM

125 West Main Street
Bozeman, MT 59715
(406) 624-6117
www.altaplanning.com

To: Roy Bracken
North Town Partners Lot 5A Ketchum Idaho

From: Joe Gilpin, Principal

Date: June 29, 2016

Re: Motor Fueling Station Pedestrian Analysis

Introduction

This preliminary analysis of pedestrian access at the proposed Motor Fueling Station summarizes the site, pedestrian issues and design recommendations for the site as well as an approximately 3-block area study area.

To the Station Context and Recommendations

Located at the intersection of 10th Street and North Main Street, there are three major pedestrian catchment areas associated with the motor fueling station (illustrated in Figure 1). Pedestrians from these catchment areas will primarily access the site via North Main Street and 10th Street. Major pedestrian crossing points will include the intersections of:

- North Main Street and 9th Street
- North Main Street and 10th Street

Figure 1 illustrates catchment areas and major pedestrian access routes to the motor fueling station. The catchment areas and specific pedestrian issues and design recommendations areas are described below.

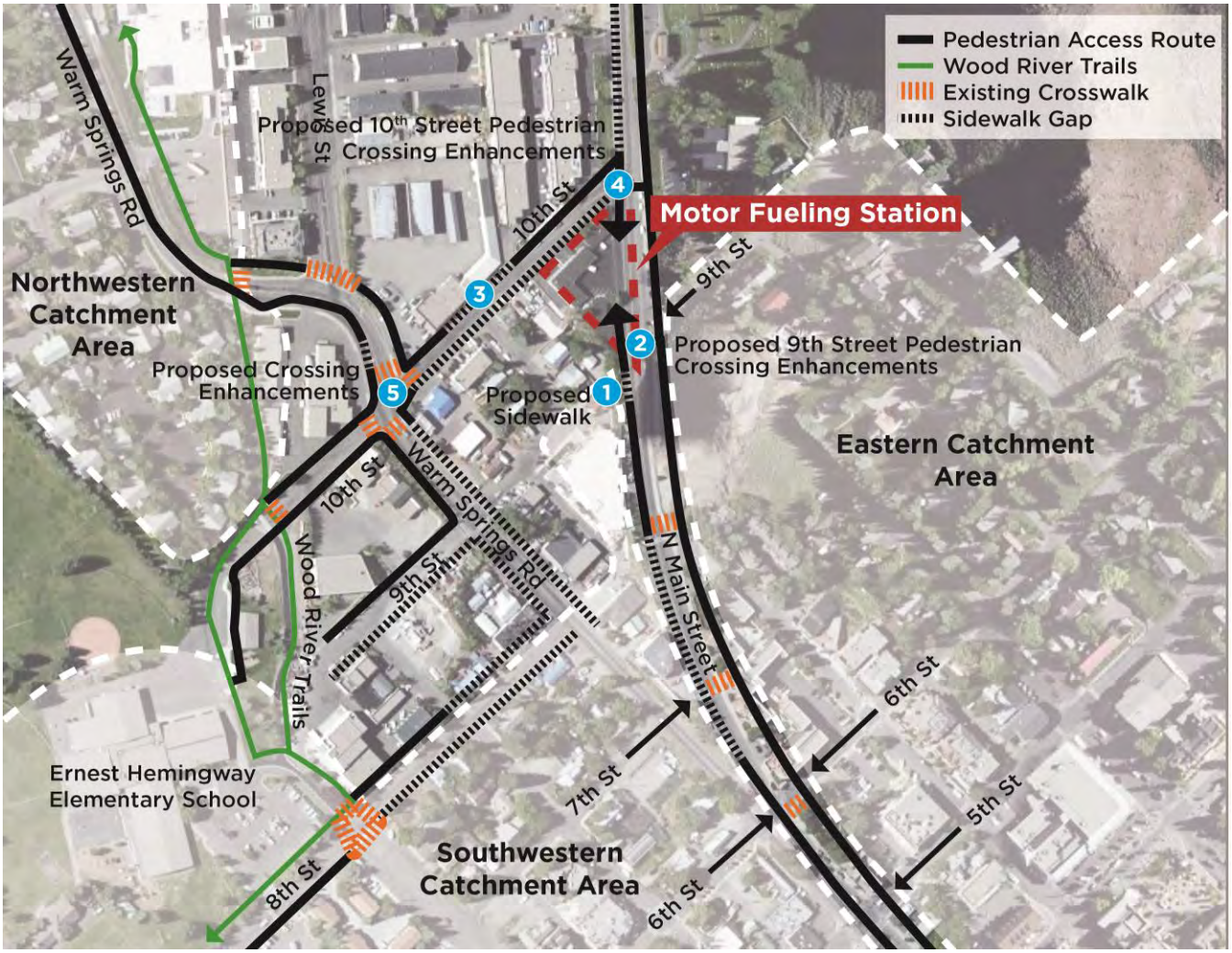


Figure 1: Pedestrian Catchment Areas and Circulation

Eastern Catchment Area Context and Recommendations

The eastern catchment area is comprised of a residential area and commercial district along North Main Street (State Highway 75). Pedestrians are likely to travel to the site along the eastern side of North Main Street and cross to the site at 9th Street. The sidewalk along the eastern side of North Main Street provides a connection from perpendicular streets to the site, with less g aps and driveway crossing than the western sidewalk. To address the existing gap in pedestrian facilities, a 5' concrete sidewalk (1) is proposed to connect pedestrians from Shum's Frenchman Place Condo to the motor fueling station.

A rectangular rapid flashing beacon (2), crosswalk and dedicated pedestrian ramps are proposed at the 9th Street crossing. The rectangular rapid flashing beacon (RRFB) would establish a high-visibility strobe-like warning to drivers when pedestrians are using the crosswalk, increasing motorist yielding compliance and pedestrian safety.

Southwestern Catchment Area Context and Recommendations

The southwestern catchment area is comprised of a residential area, commercial district along North Main Street, and the Ernest Hemingway Elementary School. Pedestrians are likely to travel to the motor fueling station along the western side of North Main Street or 10th Street. Driveways and parking along the length of 10th Street create large gaps in pedestrian facilities on both the north and south side of 10th Street. While the potential for pedestrian and vehicle conflicts are high along both sides of 10th, the north side is more desirable for pedestrian travel as only one large gap in sidewalk exists. There is no existing sidewalk on the south side of 10th, additionally the street is served with long banks of parallel parking, however there are two significant frontages where front-in perpendicular parking is present on both sides of the street. This is the least compatible parking type with pedestrians as the driver does not have any view of street conditions behind before backing up.

Options for clearly defining a pedestrian zone through this gap (3) are recommended. Converting the pull-in parking to angle parking bays would create space to establish a sidewalk between the business front and parking. If existing parking through this area prohibits a dedicated sidewalk facilities signage, changes in pavement material or color could help to define and increase visibility of pedestrian through this area.

Pedestrian crosswalks are recommended at the intersection of North Main Street and 10th Street (4) and Warm Springs Road and 10th Street (5). A RRFB should also be considered to increase pedestrian safety.

Northwestern Catchment Area Context and Recommendations

The northwestern catchment area is comprised of a residential area connected to the southwestern catchment area and motor fueling station via the Wood River Trail and existing sidewalks. Traveling along the trail or sidewalks, pedestrians are likely to travel to the motor fueling station along 10th Street.

Sidewalk and crossing improvement enhancements reflect recommendations along 10th Street outlined for the Southwestern Catchment Area.

Major Pedestrian Access Routes

Pull-in parking exists along many of the major pedestrian access routes and creates gaps in connectivity. While establishing continuous pedestrian facilities along these routes is outside of the scope of the Motor Fueling Station project, future initiatives should engage property and business owners to discuss converting pull-in spaces to angled parking bays. This would create space for the establishment of clear pedestrian zones between the angled parking and front of business, enhancing building fronts and connections to the surrounding area.

Another strategy for establishing continuous pedestrian facilities could include narrowing travel lanes and/or replacing pull-in parking with parallel parking. This would also allow for the establishment buffer area between the sidewalk and travel lanes, enhancing pedestrian comfort. The buffer area could be landscaped and act as snow storage in the winter. This strategy would result in significant loss of parking.

Motor Fueling Station Issues and Recommendations

Proposed plans (figure 2) for the Motor Fueling Station include pedestrian connections to and through the site. Existing proposals illustrate crosswalks across 10th Street and North Main Street, as described in previous catchment area recommendations. Proposed improvements also include ADA ramps at crosswalk sites and a sidewalk along North Main Street. A pedestrian crossing (1) should be considered south of the site in a location that it can be straight and moved away from the lane taper. A second pedestrian crossing should be considered in the illustrated location (2) unless moving to the north where the roadway is narrower could align with Knob Hill Inn Access. The northern crossing location would also require a pedestrian landing/sidewalk area.

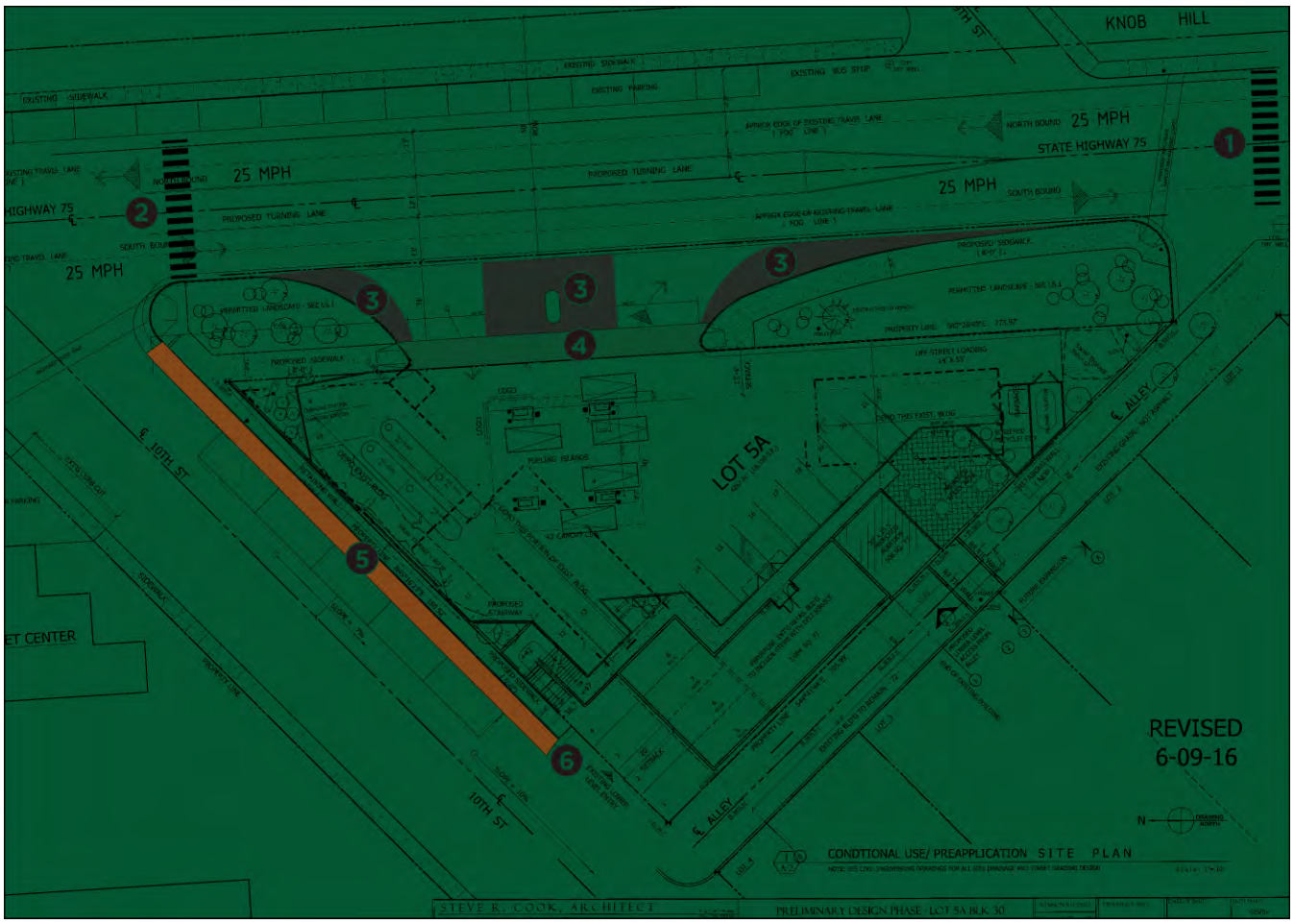


Figure 2: Proposed Site Plan

Pedestrian access to the site could be further enhanced by more clearly defining the pedestrian zone across the vehicle entrance through changes in the hardscape. One strategy is to better define the path for the most common vehicle to access the gas station (the passenger vehicle), while still allowing for the larger fueling trucks and other users to negotiate the entrance. The pictures below (figure 3) illustrate how the visibility of a pedestrian zone is enhanced through the use of colored/stamped pavement. Similar to the treatment below, the combination of rolled curbs and colored/stamped pavement (3) would maintain the wide turning radii required for large vehicles to access the site while lessening the gap in a dedicated pedestrian zone. Colored pedestrian areas (4) would also provide heightened awareness of walkers through primary vehicle access areas.



Figure 3: Stamped/colored pavement with rolled curb

Reducing the eastbound travel lane to 12' would allow for the addition of a 5' landscape area (5). The landscape area would serve as a year-round buffer between pedestrian and vehicle travel and in the winter serve as snow storage. West of this area (6), engineering solutions should be explored to continue the sidewalk beyond the retaining wall.

Gmail by Google

Steve Cook <steve@stevecookarchitect.com>

Connector Sidewalk from Bracken Station to Frenchmans

Dave Jensen <Dave.Jensen@itd.idaho.gov> Mon, Jun 27, 2016 at 10:41 AM
To: Josh Gilder <josh@bma5b.com>
Cc: Steve Cook <steve@stevecookarchitect.com>, Sam Stahlnecker <sam@bma5b.com>

The sidewalk design connecting Bracken Station to businesses to the South has been approved by the ITD permit committee.

Thank you,

Dave Jensen TTS

Permit Coordinator

Idaho Transportation Department, D-4

216 South Date Street

Shoshone ID 83352 1521

208-886-7853 office

208-886-7895 fax

208-316-6449 cell

dave.jensen@itd.idaho.gov

From: Josh Gilder [mailto:josh@bma5b.com]
Sent: Monday, June 27, 2016 9:54 AM
To: Dave Jensen
Cc: Steve Cook; Sam Stahlnecker
Subject: Connector Sidewalk from Bracken Station to Frenchmans

[Quoted text hidden]

Retail S Analysis

- **Hwy 75 & 10th Street**
- **Sun Valley ID**
- **January 2016**
- **Scenario- Store with Gas**
- **GmapUSA**

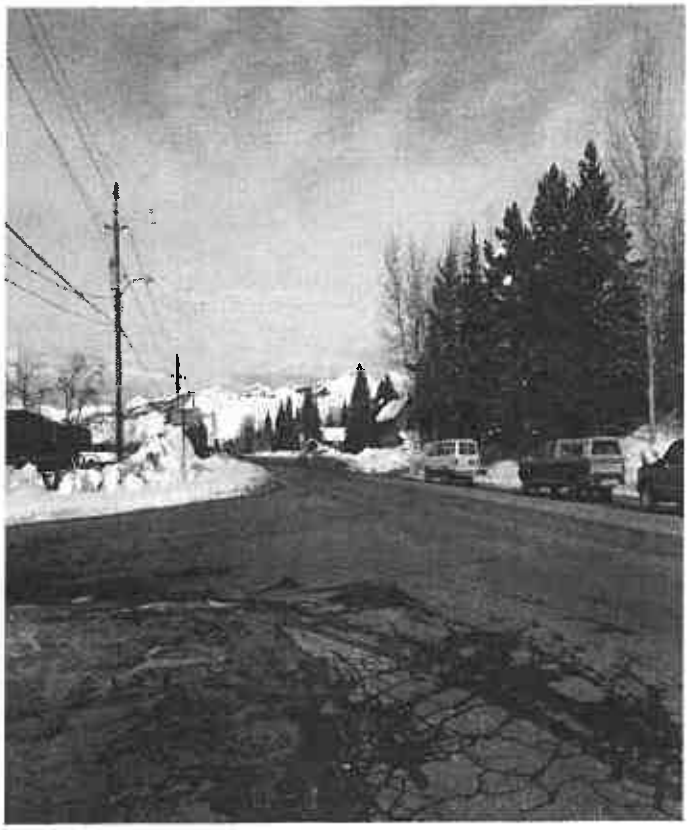


GmapUSA
1023 Hartland Dr Lawrence KS 66049
703 919 2430

Retail S Analysis

- **Visibility and Access to Site**
- **Good Visibility - Open view on corner**
- **Good Access - Direct access to site from Hwy 75**





GmapUSA
1023 Hartland Dr Lawrence KS 66049
703 919 2430

Retail S Analysis

Investment Parameters

Site-type: Total New Site
Brand: Gas = Sinclair Store = Sun Valley Mart

The scope of this analysis will include the potential of a Gas and C-store site with front parking in Ketchum Idaho.

The analysis was based on a location that will offer 8 gas fueling positions. The store will be 2200 square foot with 7 front parking spots.

Data Field Review

This study is based on survey data collected for competitive retail sites within 1.00 miles of the focus site, which has no direct competition at this time.

A full site survey was completed for each of these sites. Additional demographic, and income data, as well as traffic count information, were utilized in the completion of the study.

Trade Area

The site is located at the corner of Highway 75 and 10th Street in Ketchum Idaho. It is an intersection that does not have a stoplight. The Site will have good visibility and will have good access due to wide open curb cuts and pace of traffic.

The layout with the new store and gas pumps should focus on traffic that travels on Hwy 75, which should continue to carry the main traffic flow past the site.

The population is around 3,200 people within 2.0 miles and the median age is about 47 years old. The population is somewhat lighter than ideal for this type of site location and the median age is a little high for ideal C-store customer base population. However the focus for this site is the winter and especially the summer tourists that pass through this town.

The traffic count for Hwy 75 is estimated to be about 12,000 cars a day.

There are major seasonal variations affecting this trade area.

Competitive Environment- Fuel and C-store

There is no real competition in the local trade area for this location. There are some locations off the main street but offer no real competition to the main traffic flow of this location. They are small format sites and the trade area is completely different that this location's in terms of potential customers.

So overall there is no real competition in the trade area, the opportunity exists to capture some good business at this location.

Site Layout Options

The Layout should focus on Hwy 75 and if possible the store should face the highway. The key for this site is to have a unique design and graphic package outside and inside the store. We would highly recommend using the design firm that has the ability to create a statement store for this area.

It is important that all retail options fit on the lot without interference to each other Convenience of use becomes a high priority when you are creating a new market area.

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Business Projections

One of the keys for this site is to provide a good operation with a good offering that will bring in the commuter that passes by the intersection on a consistent basis. The store size is typically an important factor but in this area the offering and the access to the store are more important. However even more key will be the visibility and access to both the gas and store.

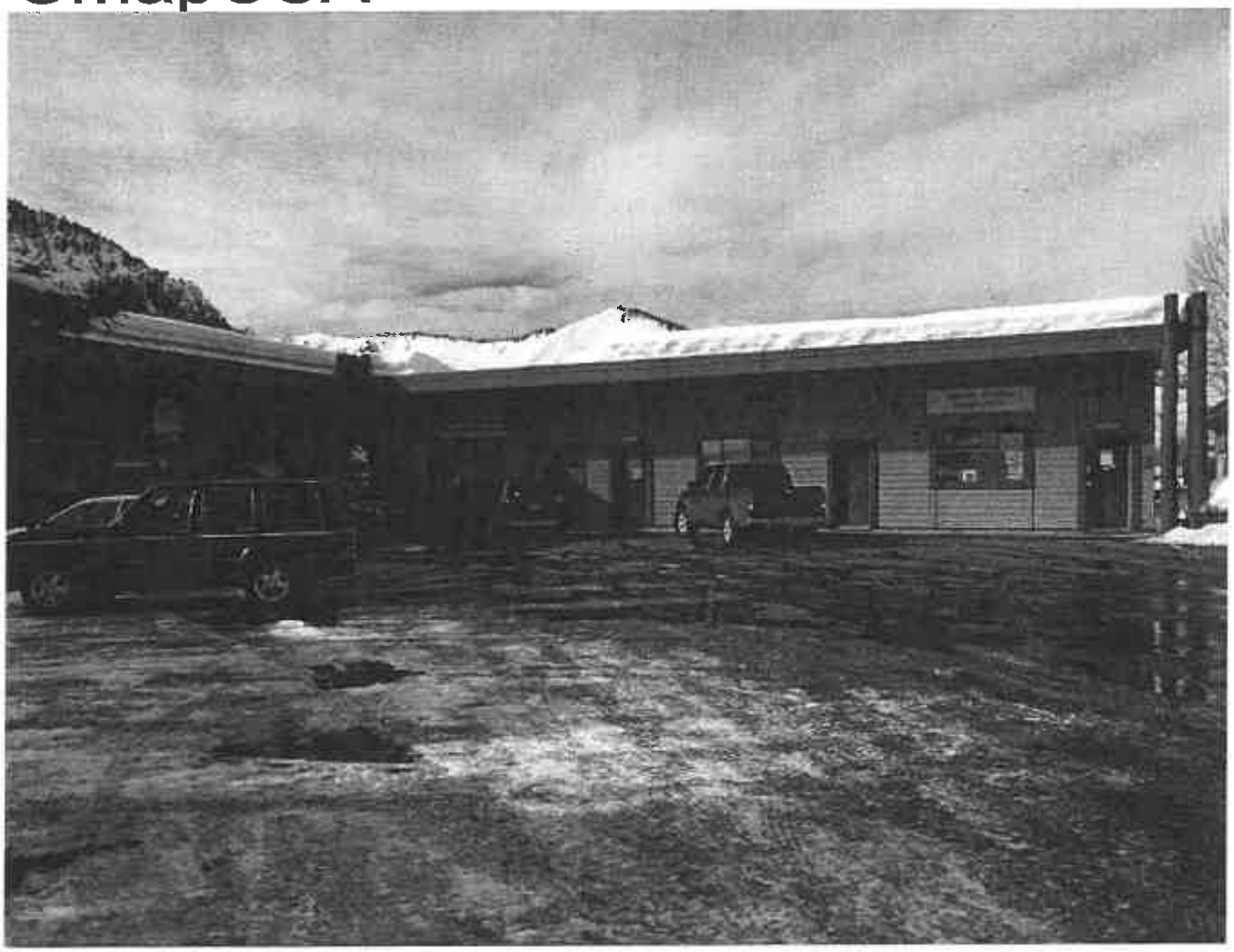
The focus on the merchandising should be having a quality offering that entices the commuter/tourist traffic that passes by the site on a regular basis. The site should have a large fountain and coffee offering to entice the commuters to use this site as their refreshment spot.

The site is on a key intersection in the local trade area, where there is no real competition within area this location, so care needs to be taken to make sure the car access points for the fuel islands and store are nice and easy with no negative impacts so this site can become a destination stop.

Overall the site is on a good corner is the area and has good potential. The traffic passing by the site is strong and along with the residential backup the location should do well. It might take a while to ramp up this location since the customer has not been conditioned to stop here, but an aggressive pricing posture would speed up the ramp up process.

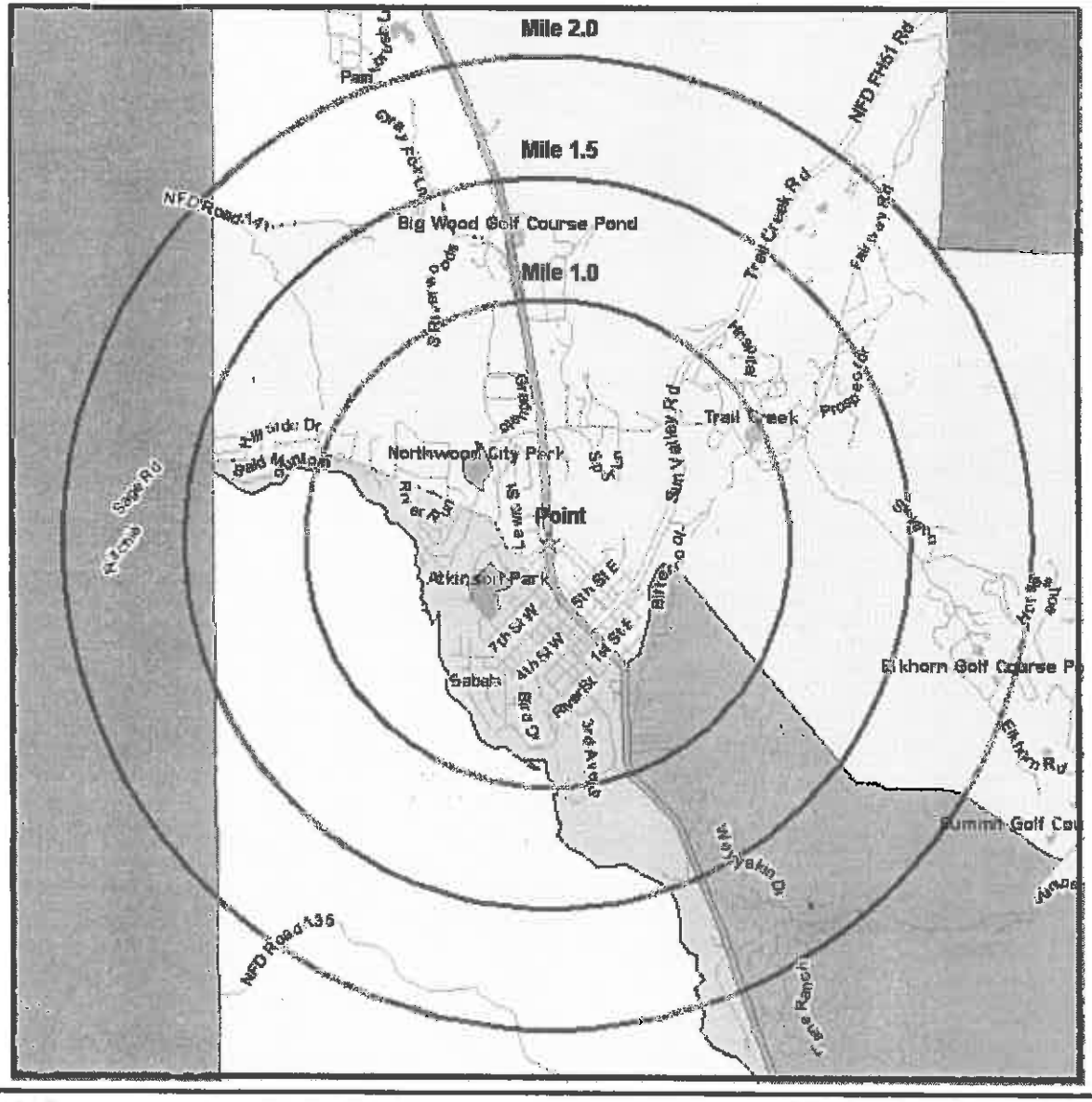
Field Survey Section Sun Valley Idado

- Hwy 75 & 10th Street
- January 2016
- GmapUSA



Population Current-Year

Sun Valley Site



N MAIN ST AT 10TH ST E
KETCHUM,ID 83340
Coord: 43.685806, -114.367549
Radius - See Appendix for Details

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Prepared For: Roy Bracken

Prepared By: GmapUSA

GmapUSA

Appendix: Area Listing

Area Name:

Type: Radius 1

Radius Definition:

N MAIN ST AT 10TH ST E	Center Point:	43.685806		-114.367549
KETCHUM, ID 83340	Circle/Band:	0.00	-	1.00

Area Name:

Type: Radius 2

Radius Definition:

N MAIN ST AT 10TH ST E	Center Point:	43.685806		-114.367549
KETCHUM, ID 83340	Circle/Band:	0.00	-	1.50

Area Name:

Type: Radius 3

Radius Definition:

N MAIN ST AT 10TH ST E	Center Point:	43.685806		-114.367549
KETCHUM, ID 83340	Circle/Band:	0.00	-	2.00

Project Information:

Site: 2

Order Number: 975616310

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Prepared By: GmapUSA
GmapUSA

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Sun Valley Site

Radius 1: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate
Radius 2: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate
Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles *Radius 1*	%	0.00 - 1.50 miles *Radius 2*	%	0.00 - 2.00 miles *Radius 3*	%
Population						
2020 Projection	1,771		2,390		2,989	
2015 Estimate	1,892		2,533		3,153	
2010 Census	2,099		2,782		3,442	
2000 Census	2,369		3,097		3,786	
Growth 2015-2020	-6.39%		-5.65%		-5.22%	
Growth 2010-2015	-9.84%		-8.95%		-8.38%	
Growth 2000-2010	-11.42%		-10.17%		-9.09%	
2015 Est. Population by Single-Classification Race	1,892		2,533		3,153	
White Alone	1,694	89.53	2,290	90.41	2,850	90.39
Black or African American Alone	4	0.21	4	0.16	5	0.16
Amer. Indian and Alaska Native Alone	5	0.26	7	0.28	10	0.32
Asian Alone	30	1.59	38	1.50	46	1.46
Native Hawaiian and Other Pac. Isl. Alone	0	0.00	1	0.04	2	0.06
Some Other Race Alone	137	7.24	163	6.44	204	6.47
Two or More Races	22	1.16	30	1.18	37	1.17
2015 Est. Population by Hispanic or Latino Origin	1,892		2,533		3,153	
Not Hispanic or Latino	1,704	90.06	2,303	90.92	2,862	90.77
Hispanic or Latino:	188	9.94	230	9.08	291	9.23
Mexican	111	59.04	138	60.00	177	60.82
Puerto Rican	4	2.13	5	2.17	6	2.06
Cuban	0	0.00	0	0.00	0	0.00
All Other Hispanic or Latino	72	38.30	87	37.83	109	37.46
2015 Est. Hisp. or Latino Pop by Single-Class. Race	188		230		291	
White Alone	38	20.21	51	22.17	67	23.02
Black or African American Alone	1	0.53	1	0.43	2	0.69
American Indian and Alaska Native Alone	4	2.13	5	2.17	7	2.41
Asian Alone	5	2.66	6	2.61	6	2.06
Native Hawaiian and Other Pacific Islander Alone	0	0.00	0	0.00	0	0.00
Some Other Race Alone	135	71.81	160	69.57	200	68.73
Two or More Races	5	2.66	7	3.04	9	3.09

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Sun Valley Site

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Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles *Radius 1*	%	0.00 - 1.50 miles *Radius 2*	%	0.00 - 2.00 miles *Radius 3*	%
2015 Est. Pop by Race, Asian Alone, by Category	30		38		46	
Chinese, except Taiwanese	0	0.00	0	0.00	0	0.00
Filipino	14	46.67	18	47.37	22	47.83
Japanese	6	20.00	8	21.05	10	21.74
Asian Indian	0	0.00	0	0.00	0	0.00
Korean	1	3.33	1	2.63	1	2.17
Vietnamese	0	0.00	0	0.00	0	0.00
Cambodian	0	0.00	0	0.00	0	0.00
Hmong	0	0.00	0	0.00	0	0.00
Laotian	0	0.00	0	0.00	0	0.00
Thai	9	30.00	11	28.95	13	28.26
All Other Asian Races Including 2+ Category	0	0.00	0	0.00	0	0.00
2015 Est. Population by Ancestry	1,892		2,533		3,153	
Arab	0	0.00	0	0.00	0	0.00
Czech	35	1.85	44	1.74	54	1.71
Danish	10	0.53	16	0.63	22	0.70
Dutch	25	1.32	32	1.26	40	1.27
English	266	14.06	372	14.69	473	15.00
French (except Basque)	48	2.54	62	2.45	76	2.41
French Canadian	0	0.00	0	0.00	0	0.00
German	208	10.99	283	11.17	355	11.26
Greek	4	0.21	5	0.20	6	0.19
Hungarian	1	0.05	2	0.08	4	0.13
Irish	129	6.82	170	6.71	210	6.66
Italian	55	2.91	72	2.84	88	2.79
Lithuanian	0	0.00	0	0.00	0	0.00
United States or American	82	4.33	111	4.38	139	4.41
Norwegian	101	5.34	130	5.13	159	5.04
Polish	18	0.95	22	0.87	26	0.82
Portuguese	0	0.00	1	0.04	1	0.03
Russian	4	0.21	6	0.24	7	0.22
Scottish	41	2.17	57	2.25	71	2.25
Scotch-Irish	47	2.48	58	2.29	70	2.22
Slovak	0	0.00	1	0.04	2	0.06
Subsaharan African	0	0.00	0	0.00	0	0.00
Swedish	30	1.59	39	1.54	47	1.49
Swiss	5	0.26	7	0.28	8	0.25
Ukrainian	0	0.00	0	0.00	0	0.00
Welsh	0	0.00	0	0.00	0	0.00
West Indian (except Hisp. groups)	0	0.00	0	0.00	0	0.00
Other ancestries	698	36.89	933	36.83	1,161	36.82

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Pop-Facts: Demographic Snapshot 2015 Report

Sun Valley Site

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Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles *Radius 1*	%	0.00 - 1.50 miles *Radius 2*	%	0.00 - 2.00 miles *Radius 3*	%
2015 Est. Population by Ancestry						
Ancestry Unclassified	85	4.49	110	4.34	135	4.28
2015 Est. Pop Age 5+ by Language Spoken at Home	1,825		2,448		3,048	
Speak Only English at Home	1,465	80.27	1,972	80.56	2,459	80.68
Speak Asian/Pac. Isl. Lang. at Home	5	0.27	12	0.49	19	0.62
Speak IndoEuropean Language at Home	48	2.63	61	2.49	74	2.43
Speak Spanish at Home	307	16.82	402	16.42	496	16.27
Speak Other Language at Home	0	0.00	0	0.00	0	0.00
2015 Est. Population by Sex	1,892		2,533		3,153	
Male	975	51.53	1,305	51.52	1,624	51.51
Female	917	48.47	1,228	48.48	1,529	48.49
2015 Est. Population by Age	1,892		2,533		3,153	
Age 0 - 4	67	3.54	85	3.36	105	3.33
Age 5 - 9	85	4.49	107	4.22	131	4.15
Age 10 - 14	85	4.49	110	4.34	139	4.41
Age 15 - 17	47	2.48	64	2.53	81	2.57
Age 18 - 20	41	2.17	57	2.25	73	2.32
Age 21 - 24	48	2.54	71	2.80	93	2.95
Age 25 - 34	269	14.22	342	13.50	396	12.56
Age 35 - 44	270	14.27	344	13.58	410	13.00
Age 45 - 54	289	15.27	376	14.84	459	14.56
Age 55 - 64	304	16.07	419	16.54	539	17.09
Age 65 - 74	260	13.74	371	14.65	483	15.32
Age 75 - 84	101	5.34	150	5.92	198	6.28
Age 85 and over	24	1.27	36	1.42	46	1.46
Age 16 and over	1,638	86.58	2,209	87.21	2,750	87.22
Age 18 and over	1,607	84.94	2,167	85.55	2,697	85.54
Age 21 and over	1,566	82.77	2,110	83.30	2,624	83.22
Age 65 and over	385	20.35	557	21.99	727	23.06
2015 Est. Median Age	46.1		47.3		48.2	
2015 Est. Average Age	44.6		45.5		46.0	

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Sun Valley Site

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Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles Radius 1	%	0.00 - 1.50 miles Radius 2	%	0.00 - 2.00 miles Radius 3	%
2015 Est. Male Population by Age	975		1,305		1,624	
Age 0 - 4	34	3.49	43	3.30	54	3.33
Age 5 - 9	45	4.62	55	4.21	66	4.06
Age 10 - 14	38	3.90	51	3.91	67	4.13
Age 15 - 17	25	2.56	33	2.53	42	2.59
Age 18 - 20	23	2.36	32	2.45	40	2.46
Age 21 - 24	26	2.67	39	2.99	51	3.14
Age 25 - 34	139	14.26	177	13.56	207	12.75
Age 35 - 44	155	15.90	197	15.10	232	14.29
Age 45 - 54	144	14.77	186	14.25	225	13.85
Age 55 - 64	156	16.00	214	16.40	275	16.93
Age 65 - 74	128	13.13	184	14.10	241	14.84
Age 75 - 84	47	4.82	72	5.52	98	6.03
Age 85 and over	15	1.54	21	1.61	27	1.66
2015 Est. Median Age, Male	45.2		46.4		47.4	
2015 Est. Average Age, Male	44.4		45.2		45.8	
2015 Est. Female Population by Age	917		1,228		1,529	
Age 0 - 4	33	3.60	42	3.42	52	3.40
Age 5 - 9	41	4.47	52	4.23	65	4.25
Age 10 - 14	47	5.13	59	4.80	72	4.71
Age 15 - 17	22	2.40	31	2.52	39	2.55
Age 18 - 20	18	1.96	25	2.04	33	2.16
Age 21 - 24	23	2.51	33	2.69	42	2.75
Age 25 - 34	130	14.18	164	13.36	190	12.43
Age 35 - 44	115	12.54	148	12.05	178	11.64
Age 45 - 54	145	15.81	190	15.47	233	15.24
Age 55 - 64	148	16.14	204	16.61	264	17.27
Age 65 - 74	131	14.29	187	15.23	242	15.83
Age 75 - 84	54	5.89	78	6.35	100	6.54
Age 85 and over	10	1.09	15	1.22	20	1.31
2015 Est. Median Age, Female	47.0		48.2		49.0	
2015 Est. Average Age, Female	44.8		45.7		46.2	

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Sun Valley Site

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Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles *Radius 1*	%	0.00 - 1.50 miles *Radius 2*	%	0.00 - 2.00 miles *Radius 3*	%
2015 Est. Pop Age 15+ by Marital Status	1,654		2,230		2,778	
Total, Never Married	584	35.31	730	32.74	849	30.56
Males, Never Married	368	22.25	462	20.72	539	19.40
Females, Never Married	215	13.00	268	12.02	310	11.16
Married, Spouse present	639	38.63	914	40.99	1,210	43.56
Married, Spouse absent	83	5.02	123	5.52	161	5.80
Widowed	52	3.14	87	3.90	116	4.18
Males Widowed	22	1.33	33	1.48	44	1.58
Females Widowed	30	1.81	53	2.38	71	2.56
Divorced	296	17.90	377	16.91	443	15.95
Males Divorced	111	6.71	154	6.91	192	6.91
Females Divorced	186	11.25	223	10.00	251	9.04
2015 Est. Pop Age 25+ by Edu. Attainment	1,518		2,038		2,531	
Less than 9th grade	69	4.55	85	4.17	101	3.99
Some High School, no diploma	37	2.44	45	2.21	53	2.09
High School Graduate (or GED)	181	11.92	231	11.33	277	10.94
Some College, no degree	281	18.51	385	18.89	493	19.48
Associate Degree	28	1.84	60	2.94	87	3.44
Bachelor's Degree	701	46.18	921	45.19	1,130	44.65
Master's Degree	164	10.80	210	10.30	251	9.92
Professional School Degree	38	2.50	64	3.14	85	3.36
Doctorate Degree	17	1.12	37	1.82	55	2.17
2015 Est. Pop Age 25+ by Edu. Attain., Hisp./Lat.	114		140		173	
No High School Diploma	80	70.18	98	70.00	120	69.36
High School Graduate	20	17.54	25	17.86	30	17.34
Some College or Associate's Degree	9	7.89	13	9.29	17	9.83
Bachelor's Degree or Higher	4	3.51	5	3.57	6	3.47
Households						
2020 Projection	899		1,198		1,484	
2015 Estimate	962		1,272		1,566	
2010 Census	1,071		1,401		1,712	
2000 Census	1,208		1,550		1,867	
Growth 2015-2020	-6.55%		-5.78%		-5.25%	
Growth 2010-2015	-10.17%		-9.24%		-8.55%	
Growth 2000-2010	-11.35%		-9.61%		-8.27%	

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Sun Valley Site

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Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles *Radius 1*	%	0.00 - 1.50 miles *Radius 2*	%	0.00 - 2.00 miles *Radius 3*	%
2015 Est. Households by Household Type	962		1,272		1,566	
Family Households	416	43.24	571	44.89	734	46.87
Nonfamily Households	546	56.76	701	55.11	832	53.13
2015 Est. Group Quarters Population	8		49		76	
2015 HHs by Ethnicity, Hispanic/Latino	58	6.03	70	5.50	87	5.56
2015 Est. Households by HH Income	962		1,272		1,566	
Income < $15,000	90	9.36	127	9.98	162	10.34
Income $15,000 - $24,999	83	8.63	106	8.33	132	8.43
Income $25,000 - $34,999	151	15.70	193	15.17	229	14.62
Income $35,000 - $49,999	113	11.75	150	11.79	189	12.07
Income $50,000 - $74,999	203	21.10	258	20.28	310	19.80
Income $75,000 - $99,999	125	12.99	157	12.34	184	11.75
Income $100,000 - $124,999	93	9.67	120	9.43	140	8.94
Income $125,000 - $149,999	25	2.60	37	2.91	52	3.32
Income $150,000 - $199,999	25	2.60	44	3.46	65	4.15
Income $200,000 - $249,999	13	1.35	20	1.57	27	1.72
Income $250,000 - $499,999	27	2.81	39	3.07	51	3.26
Income $500,000+	15	1.56	21	1.65	25	1.60
2015 Est. Average Household Income	$76,207		$78,250		$79,592	
2015 Est. Median Household Income	$55,476		$55,759		$55,671	
2015 Median HH Inc. by Single-Class, Race or Eth.						
White Alone	57,037		57,277		57,228	
Black or African American Alone	106,680		104,375		100,504	
American Indian and Alaska Native Alone	62,500		62,500		62,500	
Asian Alone	58,370		58,753		59,672	
Native Hawaiian and Other Pacific Islander Alone	0		56,250		56,250	
Some Other Race Alone	39,903		39,667		39,133	
Two or More Races	14,999		14,999		14,999	
Hispanic or Latino	58,723		58,516		57,610	
Not Hispanic or Latino	54,989		55,369		55,388	
2015 Est. Family HH Type by Presence of Own Child.	416		571		734	
Married-Couple Family, own children	115	27.64	152	26.62	194	26.43

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Sun Valley Site

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Description	0.00 - 1.00 miles Radius 1	%	0.00 - 1.50 miles Radius 2	%	0.00 - 2.00 miles Radius 3	%
Married-Couple Family, no own children	222	53.37	320	56.04	422	57.49
Male Householder, own children	19	4.57	23	4.03	27	3.68
Male Householder, no own children	10	2.40	13	2.28	16	2.18
Female Householder, own children	32	7.69	40	7.01	47	6.40
Female Householder, no own children	18	4.33	22	3.85	26	3.54
2015 Est. Households by Household Size	962		1,272		1,566	
1-person	396	41.16	519	40 80	629	40.17
2-person	358	37.21	484	38.05	605	38.63
3-person	110	11.43	141	11.08	170	10.86
4-person	66	6.86	85	6.68	108	6.90
5-person	24	2.49	32	2.52	41	2.62
6-person	5	0.52	7	0.55	9	0.57
7-or-more-person	3	0.31	4	0.31	5	0.32
2015 Est. Average Household Size	1.96		1.95		1.97	
2015 Est. Households by Presence of People Under 18	962		1,272		1,566	
Households with 1 or More People under Age 18:	173	17.98	224	17.61	279	17.82
Married-Couple Family	116	67.05	154	68.75	197	70.61
Other Family, Male Householder	21	12.14	26	11.61	30	10.75
Other Family, Female Householder	33	19.08	42	18.75	50	17.92
Nonfamily, Male Householder	1	0.58	1	0.45	1	0.36
Nonfamily, Female Householder	1	0.58	1	0.45	1	0.36
Households with No People under Age 18:	789	82.02	1,048	82.39	1,286	82.12
Married-Couple Family	221	28.01	318	30.34	420	32.66
Other Family, Male Householder	8	1.01	11	1.05	13	1.01
Other Family, Female Householder	17	2.15	21	2.00	24	1.87
Nonfamily, Male Householder	294	37.26	376	35.88	448	34.84
Nonfamily, Female Householder	249	31.56	322	30.73	382	29.70
2015 Est. Households by Number of Vehicles	962		1,272		1,566	
No Vehicles	68	7.07	80	6.29	87	5.56
1 Vehicle	328	34.10	442	34.75	537	34.29
2 Vehicles	380	39.50	502	39.47	627	40.04
3 Vehicles	175	18.19	232	18.24	290	18.52
4 Vehicles	8	0.83	11	0.86	16	1.02
5 or more Vehicles	4	0.42	5	0.39	9	0.57
2015 Est. Average Number of Vehicles	1.7		1.7		1.8	

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Radius 2: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate
Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles *Radius 1*	%	0.00 - 1.50 miles *Radius 2*	%	0.00 - 2.00 miles *Radius 3*	%
Family Households						
2020 Projection	391		541		699	
2015 Estimate	416		571		734	
2010 Census	460		624		797	
2000 Census	484		649		826	
Growth 2015-2020	-5.98%		-5.17%		-4.75%	
Growth 2010-2015	-9.67%		-8.60%		-7.94%	
Growth 2000-2010	-4.94%		-3.89%		-3.56%	
2015 Est. Families by Poverty Status	416		571		734	
2015 Families at or Above Poverty	410	98.56	563	98.60	723	98.50
2015 Families at or Above Poverty with Children	107	25.72	146	25.57	187	25.48
2015 Families Below Poverty	5	1.20	7	1.23	10	1.36
2015 Families Below Poverty with Children	1	0.24	1	0.18	2	0.27
2015 Est. Pop Age 16+ by Employment Status	1,638		2,209		2,750	
In Armed Forces	0	0.00	0	0.00	0	0.00
Civilian - Employed	1,044	63.74	1,403	63.51	1,744	63.42
Civilian - Unemployed	119	7.26	154	6.97	188	6.84
Not in Labor Force	474	28.94	652	29.52	819	29.78
2015 Est. Civ. Employed Pop 16+ by Class of Worker	1,061		1,423		1,769	
For-Profit Private Workers	648	61.07	888	62.40	1,104	62.41
Non-Profit Private Workers	53	5.00	64	4.50	79	4.47
Local Government Workers	26	2.45	42	2.95	59	3.34
State Government Workers	27	2.54	39	2.74	47	2.66
Federal Government Workers	2	0.19	4	0.28	6	0.34
Self-Employed Workers	302	28.46	385	27.06	470	26.57
Unpaid Family Workers	1	0.09	2	0.14	4	0.23
2015 Est. Civ. Employed Pop 16+ by Occupation	1,061		1,423		1,769	
Architect/Engineer	44	4.15	57	4.01	66	3.73
Arts/Entertainment/Sports	55	5.18	74	5.20	96	5.43
Building Grounds Maintenance	70	6.60	91	6.39	110	6.22
Business/Financial Operations	13	1.23	21	1.48	30	1.70
Community/Social Services	16	1.51	20	1.41	22	1.24
Computer/Mathematical	2	0.19	6	0.42	8	0.45
Construction/Extraction	115	10.84	142	9.98	169	9.55
Education/Training/Library	36	3.39	55	3.87	69	3.90

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Sun Valley Site

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Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles *Radius 1*	%	0.00 - 1.50 miles *Radius 2*	%	0.00 - 2.00 miles *Radius 3*	%
Farming/Fishing/Forestry	2	0.19	6	0.42	11	0.62
Food Prep/Serving	63	5.94	101	7.10	135	7.63
Health Practitioner/Technician	18	1.70	27	1.90	38	2.15
Healthcare Support	27	2.54	31	2.18	34	1.92
Maintenance Repair	19	1.79	27	1.90	39	2.20
Legal	16	1.51	19	1.34	22	1.24
Life/Physical/Social Science	1	0.09	2	0.14	3	0.17
Management	150	14.14	221	15.53	284	16.05
Office/Admin. Support	96	9.05	122	8.57	146	8.25
Production	20	1.89	27	1.90	38	2.15
Protective Services	15	1.41	21	1.48	27	1.53
Sales/Related	190	17.91	232	16.30	272	15.38
Personal Care/Service	47	4.43	67	4.71	85	4.80
Transportation/Moving	45	4.24	56	3.94	65	3.67
2015 Est. Pop 16+ by Occupation Classification	1,061		1,423		1,769	
Blue Collar	199	18.76	252	17.71	311	17.58
White Collar	637	60.04	855	60.08	1,057	59.75
Service and Farm	224	21.11	317	22.28	401	22.67
2015 Est. Workers Age 16+ by Transp. to Work	1,052		1,411		1,753	
Drove Alone	672	63.88	870	61.66	1,070	61.04
Car Pooled	97	9.22	127	9.00	157	8.96
Public Transportation	2	0.19	5	0.35	9	0.51
Walked	76	7.22	125	8.86	162	9.24
Bicycle	74	7.03	89	6.31	102	5.82
Other Means	11	1.05	16	1.13	21	1.20
Worked at Home	120	11.41	178	12.62	233	13.29
2015 Est. Workers Age 16+ by Travel Time to Work *						
Less than 15 Minutes	753		984		1,188	
15 - 29 Minutes	177		252		333	
30 - 44 Minutes	6		12		22	
45 - 59 Minutes	3		4		6	
60 or more Minutes	6		9		14	
2015 Est. Avg. Travel Time to Work in Minutes	10.20		10.53		11.00	
2015 Est. Occupied Housing Units by Tenure	962		1,272		1,566	
Owner Occupied	568	59.04	778	61.16	989	63.15
Renter Occupied	394	40.96	494	38.84	576	36.78

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Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles *Radius 1*	%	0.00 - 1.50 miles *Radius 2*	%	0.00 - 2.00 miles *Radius 3*	%
2015 Owner Occ. HUs: Avg. Length of Residence	17.3		17.3		17.4	
2015 Renter Occ. HUs: Avg. Length of Residence	7.9		7.8		7.7	
2015 Est. Owner-Occupied Housing Units by Value	568		778		989	
Value Less than $20,000	2	0.35	2	0.26	3	0.30
Value $20,000 - $39,999	7	1.23	8	1.03	11	1.11
Value $40,000 - $59,999	4	0.70	10	1.29	14	1.42
Value $60,000 - $79,999	2	0.35	3	0.39	6	0.61
Value $80,000 - $99,999	9	1.58	12	1.54	14	1.42
Value $100,000 - $149,999	16	2.82	21	2.70	27	2.73
Value $150,000 - $199,999	32	5.63	42	5.40	50	5.06
Value $200,000 - $299,999	29	5.11	40	5.14	49	4.95
Value $300,000 - $399,999	44	7.75	60	7.71	78	7.89
Value $400,000 - $499,999	18	3.17	34	4.37	46	4.65
Value $500,000 - $749,999	143	25.18	187	24.04	224	22.65
Value $750,000 - $999,999	102	17.96	137	17.61	172	17.39
Value $1,000,000 or more	160	28.17	222	28.53	294	29.73
2015 Est. Median All Owner-Occupied Housing Value	$711,172		$710,229		$718,271	
2015 Est. Housing Units by Units in Structure	2,322		3,297		4,211	
1 Unit Attached	72	3.10	110	3.34	142	3.37
1 Unit Detached	1,159	49.91	1,565	47.47	2,010	47.73
2 Units	151	6.50	235	7.13	310	7.36
3 or 4 Units	414	17.83	622	18.87	773	18.36
5 to 19 Units	374	16.11	581	17.62	754	17.91
20 to 49 Units	122	5.25	148	4.49	167	3.97
50 or More Units	19	0.82	22	0.67	26	0.62
Mobile Home or Trailer	10	0.43	13	0.39	29	0.69
Boat, RV, Van, etc.	0	0.00	0	0.00	0	0.00
2015 Est. Housing Units by Year Structure Built	2,322		3,297		4,211	
Housing Units Built 2010 or later	7	0.30	8	0.24	8	0.19
Housing Units Built 2000 to 2009	430	18.52	540	16.38	637	15.13
Housing Units Built 1990 to 1999	325	14.00	466	14.13	629	14.94
Housing Units Built 1980 to 1989	338	14.56	499	15.13	653	15.51
Housing Units Built 1970 to 1979	782	33.68	1,172	35.55	1,498	35.57
Housing Units Built 1960 to 1969	180	7.75	276	8.37	372	8.83
Housing Units Built 1950 to 1959	171	7.36	207	6.28	238	5.65

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Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles		0.00 - 1.50 miles		0.00 - 2.00 miles	
	Radius 1	*%*	*Radius 2*	*%*	*Radius 3*	*%*
Housing Units Built 1940 to 1949	29	1.25	43	1.30	63	1.50
Housing Unit Built 1939 or Earlier	61	2.63	85	2.58	113	2.68
2015 Est. Median Year Structure Built**	1979		1979		1979	

*This row intentionally left blank. No total category data is available.

**1939 will appear when at least half of the Housing Units in this reports area were built in 1939 or earlier.

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Sun Valley Site

Appendix: Area Listing

Area Name:

Type: Radius 1 | Reporting Detail: Aggregate | Reporting Level: Block Group

Radius Definition:

N MAIN ST AT 10TH ST E
KETCHUM, ID 83340

Latitude/Longitude 43.685806 -114.367549
Radius 0.00 - 1.00

Area Name:

Type: Radius 2 | Reporting Detail: Aggregate | Reporting Level: Block Group

Radius Definition:

N MAIN ST AT 10TH ST E
KETCHUM, ID 83340

Latitude/Longitude 43.685806 -114.367549
Radius 0.00 - 1.50

Area Name:

Type: Radius 3 | Reporting Detail: Aggregate | Reporting Level: Block Group

Radius Definition:

N MAIN ST AT 10TH ST E
KETCHUM, ID 83340

Latitude/Longitude 43.685806 -114.367549
Radius 0.00 - 2.00

Project Information:

Site: 1

Order Number: 975616310

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WARM SPRINGS
ROAD
BRACKEN STATION
WARM SPRINGS
ROAD


WARM SPRINGS
ROAD
BRACKEN STATION

Monument Signs

The modular primary ID sign system is also available in a monument structure. The system comprises a Hallmark, price sign and an APC sign panel. Monument signs are installed where local ordinances prohibit pole signs or require smaller signs.

- Mount monument signs in masonry, stucco, metal or wood.
- Paint the masonry, stucco, metal or wood Chevron GY-210 Gray (Dark) (Dark Gray) unless prohibited by local architectural controls.
- Install the vertical column adjacent to the Hallmark and closest to the street.
- Monument signs are available in the three sizes noted.
- Only 3-product price signs are available.
- Both numeral and product grade panels are changeable.
- When using monument signs with Grand Entrance architecture, paint the base Dark Gray or Havana Cream.

◀ Street Side



The monument primary ID includes the Hallmark and price sign.

Type	Width	Height	Area Sq. Ft.
C-30M (Hallmark and price sign)	5'-1 ¾"	2'-10 ¾"	14.9
C-30M APC	5'-1 ¾"	0'- 8 ½"	3.6
C-32M (Hallmark and price sign)	6'-11 ½"	3'-10"	26.2
C-32M APC	6'-11 ½"	0'- 9 ¾"	5.7
C-45M (Hallmark and price sign)	8'- 5 ½"	4'- 8"	38.8
C-45M APC	8'- 5 ½"	0'- 9 ¾"	6.9

Primary ID Sign - Monument Retrofit

Before



After



Legacy Monument Sign (Retrofit)

- Replace legacy Hallmark faces with new Hallmark face panels across all levels.
- The new Hallmark logo and 'with TECHRON' logo panel are required.
- Replace APC faces with new design faces. Short height/ Long APCs should be refaced and converted to 2 individual faces side by side, separated by an "H" bar divider.
- Replace legacy LPS faces with new Illuminated Price Sign faces.
- In cases where Chevron branded Diesel is available at the facility, install a new Green Pricer panel below the LPS, or reface the existing diesel pricer.
- Paint monument bases Dark Gray or to match building wainscot color if the C-Store is done in the Chevron approved color scheme.

Introduction
Conversion Process
Site Level Determination and Support Programs
Site Level Overview
Decision Trees
Signage
Canopy
Fueling Dispensers and Fixtures
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IDAPA 58
TITLE 01
CHAPTER 07

58.01.07 - RULES REGULATING UNDERGROUND STORAGE TANK SYSTEMS

000. LEGAL AUTHORITY.
Chapters 1 and 88, Title 39, Idaho Code, grant authority to the Board of Environmental Quality to promulgate rules for the regulation of underground storage tank systems within the state of Idaho. (4-2-08)

001. TITLE AND SCOPE.

01. Title. These rules shall be cited as IDAPA 58.01.07, "Rules Regulating Underground Storage Tank Systems." (4-2-08)

02. Scope. These rules establish standards and procedures necessary for the regulation of underground storage tank systems. Compliance with these rules shall not relieve persons from the obligation to comply with other applicable state or federal laws. (4-2-08)

002. WRITTEN INTERPRETATIONS.
As described in Section 67-5201(19)(b)(iv), Idaho Code, the Department of Environmental Quality may have written statements which pertain to the interpretation of these rules. If available, such written statements can be inspected and copied at cost at the Department of Environmental Quality, 1410 N. Hilton, Boise, Idaho 83706-1255. (4-2-08)

003. ADMINISTRATIVE PROVISIONS.
Persons may be entitled to appeal agency actions authorized under these rules pursuant to IDAPA 58.01.23, "Rules of Administrative Procedure Before the Board of Environmental Quality." (4-2-08)

004. INCORPORATION BY REFERENCE.
Any reference to any document identified in Subsection 004.01 shall constitute the full adoption by reference into IDAPA 58.01.07. (4-2-08)

01. Documents Incorporated by Reference. Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks, 40 CFR Part 280, revised as of July 1, 2007. (4-2-08)

02. Hazardous Substance Underground Storage Tank Systems. (4-2-08)

a. The following items only apply to hazardous substance underground storage tank systems and do not apply to petroleum underground storage tank systems: (4-2-08)

i. The definition of "Hazardous substance UST system" in 40 CFR 280.12 and use of this term or regulations regarding hazardous substance in 40 CFR Part 280; and (4-2-08)

ii. 40 CFR 280.42 and any reference to 40 CFR 280.42 in 40 CFR Part 280. (4-2-08)

b. All other provisions of 40 CFR Part 280 and all provisions of IDAPA 58.01.07 shall apply to hazardous substance underground storage tank systems. (4-2-08)

03. Consistency. In the event of conflict or inconsistency between the language in IDAPA 58.01.07 and that found in 40 CFR Part 280, IDAPA 58.01.07 shall prevail. (4-2-08)

04. Stringency. IDAPA 58.01.07 shall be no more stringent than federal law or regulations governing underground storage tank systems. (4-2-08)

05. Availability of Referenced Material. The federal regulations adopted by reference can be obtained at the following locations: (4-2-08)

a. U.S. Government Printing Office, www.ecfr.gov; and (4-2-08)

b. Department of Environmental Quality, Hearing Coordinator, 1410 N. Hilton, Boise, ID 83706-1255, (208)373-0502. (4-2-08)

005. OFFICE HOURS -- MAILING ADDRESS AND STREET ADDRESS.
The state office of the Department of Environmental Quality and the office of the Board of Environmental Quality are located at 1410 N. Hilton, Boise, Idaho 83706-1255, (208) 373-0502, www.deq.idaho.gov. The office hours are 8 a.m. to 5 p.m. Monday through Friday. (4-2-08)

006. CONFIDENTIALITY OF RECORDS.
Information obtained by the Department under these rules is subject to public disclosure pursuant to the provisions of Title 74, Chapter 1, Idaho Code, and IDAPA 58.01.21, "Rules Governing the Protection and Disclosure of Records in the Possession of the Idaho Department of Environmental Quality." (4-2-08)

007. -- 009. (RESERVED)

010. DEFINITIONS.
For the purpose of the rules contained in IDAPA 58.01.07, "Rules Regulating Underground Storage Tank Systems," the following definitions apply: (4-2-08)

01. Board. The Idaho Board of Environmental Quality. (4-2-08)

02. Community Water System. A public water system that serves at least fifteen (15) service connections used by year-round residents of the area served by the system or regularly serves at least twenty-five (25) year-round residents. (4-2-08)

03. Department. The Idaho Department of Environmental Quality. (4-2-08)

04. Director.The Director of the Idaho Department of Environmental Quality or his authorized agent. (4-2-08)

05. Existing. Solely for purposes of determining when secondary containment is required, existing is when a petroleum underground storage tank, piping, motor fuel dispensing system, facility, public water system or potable drinking water well is in place when a new installation or replacement of a tank, piping, or motor fuel dispensing system begins. (4-2-08)

06. EPA. The United States Environmental Protection Agency. (4-2-08)

07. Installation of a New Motor Fuel Dispenser System. The installation of a new motor fuel dispenser and the equipment necessary to connect the dispenser to the petroleum underground storage tank system. This equipment may include flexible connectors, risers, or other transitional components that are beneath the dispenser, below the shear valve, and connect the dispenser to the piping. It does not mean the installation of a motor fuel dispenser installed separately from the equipment needed to connect the dispenser to the petroleum underground storage tank system. (4-2-08)

08. Installer. Any person who installs a new or replacement petroleum underground storage tank system. (4-2-08)

09. Motor Fuel. Petroleum or a petroleum-based substance that is motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any grade of petroleum-blended gasohol, and is typically used in the operation of a motor engine. This includes blended petroleum motor fuels such as biodiesel and ethanol petroleum blends. (4-2-08)

10. New Underground Storage Tank. Has the same meaning as "underground storage tank or UST" in 40 CFR 280.12, except that such term includes tanks that have been previously used and meet the requirements of 40 CFR 280.20(a). (4-2-08)

11. Non-Community Water System. A public water system that is not a community water system. A

non-community water system is either a transient non-community water system or a non-transient non-community water system. (4-2-08)

12. **Person**. An individual, trust, firm, joint stock company, federal agency, corporation, state, municipality, commission, political subdivision of a state, or any interstate body. "Person" also includes a consortium, a joint venture, a commercial entity, and the United States government. (4-2-08)

13. **Piping**. A hollow cylinder or a tubular conduit constructed of non-earthen materials that routinely contains and conveys regulated petroleum substances from the petroleum underground storage tank(s) to the dispenser(s) or other end-use equipment. It does not mean vent, vapor recovery, or fill lines that do not routinely contain regulated petroleum substances. (4-2-08)

14. **Potable Drinking Water Well**. Any hole (dug, driven, drilled, or bored) that extends into the earth until it meets ground water which supplies water for a non-community public water system or otherwise supplies water for household use (consisting of drinking, bathing, and cooking, or other similar uses). Such wells may provide water to entities such as a single-family residence, group of residences, businesses, schools, parks, campgrounds, and other permanent or seasonal communities. (4-2-08)

15. **Product Deliverer**. Any person who delivers or deposits product into a petroleum underground storage tank. This term may include major oil companies, jobbers, petroleum transportation companies, or other product delivery entities. (4-2-08)

16. **Public Water System**. A system for the provision to the public of water for human consumption through pipes or, after August 5, 1998, other constructed conveyances, if such system has at least fifteen (15) service connections or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year. Such term includes: any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system; and, any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. Such term does not include any "special irrigation district." A public water system is either a "community water system" or a "non-community water system." (4-2-08)

17. **Red Tag**. A tamper-resistant tag, device, or mechanism attached to the tank's fill pipes that clearly identifies a petroleum underground storage tank as ineligible for product delivery. The tag or device shall be visible to the product deliverer and shall clearly state that it is unlawful to deliver to, deposit into, or accept product into the ineligible petroleum underground storage tank. (4-2-08)

18. **Repair**. Solely for purposes of determining when secondary containment is required, as it applies to petroleum underground storage tanks, piping, and motor fuel dispensers systems, repair means any activity that does not meet the definition of replace. (4-2-08)

19. **Replace**. As it applies to petroleum underground storage tanks and piping, replace is defined as follows: (4-2-08)

a. Petroleum Underground Storage Tank. Replace means to remove an existing tank and install a new tank. (4-2-08)

b. Piping. Replace means to remove and put back in one hundred (100) percent of the piping, excluding connectors, connected to a single petroleum underground storage tank system. This definition does not alter the requirement in 40 CFR 280.33(c) to replace metal pipe sections and fittings that have released product as a result of corrosion or other damage. A replacement of metal pipe section and fittings pursuant to 40 CFR 280.33(c) shall be considered a replacement under this definition only if one hundred (100) percent of the metal piping, excluding connectors, is replaced. (4-2-08)

20. **Secondary Containment**. A release detection and prevention system that meets the requirements of 40 CFR 280.43(g). The piping shall have an inner and outer barrier and a method of monitoring the space between the inner and outer barriers for a leak or release. (4-2-08)

21. Under-Dispenser Spill Containment. Containment underneath a dispenser that will prevent leaks from the dispenser from reaching soil or ground water. Such containment must: (4-2-08)

a. At installation or modification, be liquid-tight on its sides, bottom, and at any penetrations; and (4-2-08)

b. Be compatible with the substance conveyed by the piping; and either (4-2-08)

c. Allow for visual inspection and access to the components in the containment system; or (4-2-08)

d. Be monitored for releases using a release detection method that meets the requirements of 40 CFR 280.43(g). (4-2-08)

011. – 099. (RESERVED)

100. ADDITIONAL MEASURES TO PROTECT GROUND WATER FROM CONTAMINATION.

01. Notification. An owner, operator or designee must: (4-2-08)

a. Provide written notice to the Department thirty (30) days prior to the installation of a new piping system or a new or replacement petroleum underground storage tank. (4-2-08)

b. Provide notice to the Department twenty-four (24) hours prior to the installation of a replacement piping system. (4-2-08)

02. Notification Forms. The written notice required in Subsection 100.01.a. shall be made upon forms provided by the Department. (4-2-08)

03. Requirements for Petroleum UST Systems. Owners, operators, and installers of a new or replacement petroleum underground storage tank or piping system shall comply with the following requirements. (4-2-08)

a. Each new petroleum underground storage tank, or piping connected to any such new tank, installed after February 23, 2007, or any existing petroleum underground storage tank, or existing piping connected to such existing tank, that is replaced after February 23, 2007, shall have secondary containment and be monitored for leaks if the new or replaced petroleum underground storage tank or piping is within one thousand (1,000) feet of any existing public water system or any existing potable drinking water well. At a minimum, secondary containment systems must be designed, constructed, and installed to contain regulated substances released from the tank system until they are detected and removed, prevent the release of regulated substances to the environment at any time during the operational life of the petroleum underground storage tank system, and be checked for evidence of a release at least every thirty (30) days. The following conditions are excluded: (4-2-08)

i. Suction piping that meets the requirements of 40 CFR 280.41(b)(2)(i) through (v); (4-2-08)

ii. Piping that manifolds two (2) or more petroleum underground storage tanks together; (4-2-08)

iii. Existing piping to which new piping is connected to install a dispenser; and (4-2-08)

iv. Tanks identified in 40 CFR 280.10(b). (4-2-08)

b. If the owner installs, within one (1) year, a potable drinking water well at the new facility that is within one thousand (1,000) feet of the petroleum underground tanks, piping, or motor fuel dispenser system as part of the new underground storage tank facility installation, secondary containment and under-dispenser containment are required, regardless of whether the well is installed before or after the petroleum underground tanks, piping, and motor fuel dispenser system are installed. (4-2-08)

c. The notice required in Subsection 100.01 shall indicate whether the new or replacement installation

is within one thousand (1,000) feet of an existing public water system or any existing potable drinking water well. If the owner and installer certify that the installation is not within one thousand (1,000) feet of an existing public water system or any existing potable drinking water well, the owner, operator or designee shall provide and maintain documentation showing that a reasonable investigation of water systems and drinking water wells was undertaken. A reasonable investigation includes, but is not limited to, a search of the records of: (4-2-08)

i. The public or private water service provider in the area which the new or replacement installation is located (if any); (4-2-08)

ii. The city or county in which the new or replacement installation is located; (4-2-08)

iii. The Idaho Department of Water Resources; and (4-2-08)

iv. The Idaho Department of Environmental Quality. (4-2-08)

d. In the case of a replacement of an existing petroleum underground storage tank or existing piping connected to the petroleum underground storage tank, Section 100 shall apply only to the specific petroleum underground storage tank or piping being replaced, not to other petroleum underground storage tanks and connected pipes comprising such system. (4-2-08)

e. Each installation of a new motor fuel dispenser system shall include under-dispenser spill containment if the new dispenser is within one thousand (1,000) feet of any existing public water system or any existing potable drinking water well. (4-2-08)

04. Requirements for Hazardous Substance UST Systems. Owners, operators, and installers of a new or replacement hazardous substance underground storage tank or piping system shall have secondary containment as required in 40 CFR 280.42. (4-2-08)

05. Certification. Owners and operators shall also comply with the certification requirements of 40 CFR 280.22(f) as incorporated by reference into these rules. (4-2-08)

101. -- 199. (RESERVED)

200. RELEASE REPORTING REQUIREMENTS.

01. Information to be Reported. (4-2-08)

a. In addition to the requirements in IDAPA 58.01.02, "Water Quality Standards," Subsection 851.01, owners or operators shall report the following information regarding confirmed petroleum underground storage tank releases to the Department on forms provided by the Department: (4-2-08)

i. The release source; and (4-2-08)

ii. The release cause. (4-2-08)

b. Releases less than twenty-five (25) gallons that are cleaned up within twenty-four (24) hours, and which do not cause a sheen on nearby surface water, do not need to be reported. (4-2-08)

02. Release Sources. Release sources may include, but are not limited to the following: (4-2-08)

a. Petroleum Underground Storage Tanks; (4-2-08)

b. Piping; (4-2-08)

c. Dispensers, which include the dispenser and equipment used to connect the dispenser to the piping. A release from a suction pump or components located above the shear valve would be an example of a release from the dispenser; (4-2-08)

d. Submersible turbine pump area, which includes the submersible turbine pump head (typically located in the tank sump), the line leak detector, and the piping that connects the submersible turbine pump to the petroleum underground storage tank; and (4-2-08)

e. Delivery problem, which identifies releases that occurred during product delivery to the petroleum underground storage tank. Typical causes associated with this source are spills and overfills. (4-2-08)

03. Release Causes. Release causes may include, but are not limited to the following: (4-2-08)

a. Spills which may occur when the delivery hose is disconnected from the fill pipe of the petroleum underground storage tank or when the nozzle is removed from the vehicle at the dispenser; (4-2-08)

b. Overfills which may occur from the fill pipe at the petroleum underground storage tank or when the nozzle fails to shut off at the dispenser; (4-2-08)

c. Physical or mechanical damage of all types except corrosion. Examples include a puncture of the petroleum underground storage tank or piping, loose fittings, broken components, and components that have changed dimension like elongation or swelling; (4-2-08)

d. Corrosion of a metal tank, piping, flex connector, or other component; and (4-2-08)

e. Installation problem that occurs specifically because the underground storage tank system was not installed properly. (4-2-08)

04. Requirements. The reporting required in Section 200 shall be reported to the Department within ninety (90) days of a confirmed release. The reporting requirement in Section 200 shall not relieve owners or operators from the obligation to comply with IDAPA 58.01.02, "Water Quality Standards," Section 851, "Petroleum Release Reporting, Investigation, and Confirmation," and IDAPA 58.01.02, "Water Quality Standards," Section 852, "Petroleum Release Response and Corrective Action." (4-2-08)

201. -- 299. (RESERVED)

300. TRAINING REQUIREMENTS.

01. Requirements. The Department shall adopt a training program to help owners and operators comply with the requirements of these rules. The training program requirements shall: (4-2-08)

a. Be consistent with 42 U.S.C. 6991i(a), as amended by the Underground Storage Tank Compliance Act, (Pub.L. 109-58, title XV, sec. 1524(a), Aug. 8, 2005); (4-2-08)

b. Be developed in cooperation with petroleum underground storage tank owners and tank operators; (4-2-08)

c. Take into consideration training programs implemented by petroleum underground storage tank owners and operators as of August 8, 2005; (4-2-08)

d. Provide for training to be conducted on site or at another mutually convenient location; and (4-2-08)

e. Be appropriately communicated to petroleum underground storage tank owners and operators. (4-2-08)

02. Operator Designation. For each petroleum underground storage tank system regulated under these rules, the owner or operator shall: (4-2-08)

a. Designate: (4-2-08)

i. The class A operator, who is the individual(s) having primary responsibility for on-site operation

and maintenance of the petroleum underground storage tank system. This does not require that the class A operator be on site; (4-2-08)

ii. The class B operator, who is the individual(s) having daily on-site responsibility for the operation and maintenance of the petroleum underground storage tank system. This does not require that the class B operator be on site at all times; and (4-2-08)

iii. The class C operator, who is the daily, on-site individual(s) having primary responsibility for addressing emergencies presented by a spill or release from the petroleum underground storage tank system. The class C operator can be designated by the class A or B operator. (4-2-08)

b. Maintain a record at the facility where the petroleum underground storage tank is located listing each person designated in Subsections 300.02.a.i., 300.02.a.ii., and 300.02.a.iii. (4-2-08)

c. Notify the Department in writing of the individual(s) designated in Subsections 300.02.a.i. and 300.02.a.ii. within thirty (30) days of the designation. (4-2-08)

03. Training. The owner or operator of each petroleum underground storage tank system regulated under these rules shall ensure that the individual(s) identified in Subsections 300.02.a.i. and 300.02.a.ii. participate in the training conducted by the Department or a state of Idaho approved third party. (4-2-08)

a. The individual(s) identified in Subsections 300.02.a.i. or 300.02.a.ii. shall provide training to the persons identified in Subsection 300.02.a.iii. (4-2-08)

b. The individual(s) identified in Subsection 300.02.a.iii. must be trained before assuming responsibility for responding to emergencies. (4-2-08)

c. The individual(s) identified in Subsections 300.02.a.i. and 300.02.a.ii. shall repeat the training within thirty (30) days if the petroleum underground storage tank system for which they have responsibility is determined to be out of compliance with these rules. (4-2-08)

04. Unattended Sites. In the case of unattended sites, a sign must be posted in a location visible from the dispensers indicating emergency shut-off procedures and emergency contact phone numbers. (4-2-08)

301. -- 399. (RESERVED)

400. INSPECTIONS.

01. Department Authority. In order to fulfill the statutory requirements of Chapter 88, Title 39, Idaho Code, officers, employees or representatives of the Department, or third-party inspectors as described in Subsection 400.02, are authorized to inspect petroleum underground storage tanks, contents of the tanks, and associated equipment and records relating to such tanks, contents, and associated equipment. (4-2-08)

02. Third-Party Inspections. (4-2-08)

a. Third-party inspectors must be certified, licensed, or registered by an approved state program to perform on-site inspections. At a minimum, third-party inspectors must meet the requirements listed in Subsections 400.02.a.i. through 400.02.a.v.: (4-2-08)

i. Be trained in the state-specific inspection protocols and procedures, and perform inspections pursuant to such protocols and procedures; (4-2-08)

ii. Successfully complete the state's required training program. The training program for third-party inspectors must be comparable to the training program for Department inspectors; (4-2-08)

iii. Not be the owner or operator of the petroleum underground storage tank, an employee of the owner or operator of the petroleum underground storage tank, or a person having daily on-site responsibility for the operation and maintenance of the petroleum underground storage tank; (4-2-08)

iv. Use an inspection report form developed by the Department. Review of applicable records and other activities that can be accomplished off-site may be combined with activities conducted at the site to fulfill the on-site inspection requirement; and (4-2-08)

v. Complete and submit the inspection report to the Department in the manner and time frame established by the Department. All third-party inspection reports must be submitted electronically to the Department for review and for the Department to make a compliance determination for each site. If requested by the Department, third-party inspectors shall provide all supporting documentation for its inspection reports. (4-2-08)

b. Third-party inspection procedures must contain an audit program, developed by the Department, to monitor third-party inspectors on a routine basis. The audit program must include a sufficient number of on-site inspections to effectively assess inspector performance. (4-2-08)

c. If a third-party inspector fails to demonstrate to the approved state program adequate competence and proficiency to perform petroleum underground storage tank inspections, or the approved state program otherwise determines it is not appropriate for the third-party inspector to conduct on-site inspections as part of a third-party inspection program, the approved state program must take appropriate action against the third-party inspector as provided by law. (4-2-08)

03. Inspections. All inspections shall be done in accordance with the provisions of Section 39-108, Idaho Code. At a minimum, an on-site inspection must assess compliance with the following: (4-2-08)

a. Notification; (4-2-08)

b. Corrosion protection; (4-2-08)

c. Overfill prevention in place and operational; (4-2-08)

d. Spill prevention in place and operational; (4-2-08)

e. Tank and piping release detection; (4-2-08)

f. Reporting suspected releases; (4-2-08)

g. Records of tank and piping repairs; (4-2-08)

h. Secondary containment where required; (4-2-08)

i. Financial responsibility; and (4-2-08)

j. Temporary closure. (4-2-08)

401. -- 499. (RESERVED)

500. DELIVERY PROHIBITION.

01. Prohibition. Effective August 8, 2007, it shall be unlawful for any person to deliver to, deposit into, or accept a regulated petroleum substance into a petroleum underground storage tank at a facility which has been identified by the Department to be ineligible for such delivery, deposit, or acceptance. (4-2-08)

02. Classification as Ineligible. The Department shall classify a petroleum underground storage tank as ineligible for delivery, deposit, or acceptance of a regulated petroleum substance as soon as practicable after the Department determines one or more of the following conditions exists: (4-2-08)

a. Required spill prevention equipment is not installed; (4-2-08)

b. Required overfill protection equipment is not installed; (4-2-08)

c. Required leak detection equipment is not installed; or (4-2-08)

d. Required corrosion protection equipment is not installed. (4-2-08)

03. Warning of Violations. The Department may classify a petroleum underground storage tank as ineligible for delivery, deposit, or acceptance of a regulated petroleum substance if the owner or operator of the tank has been issued a written warning for any of the following violations, and the owner or operator fails to initiate corrective action within thirty (30) days of the issuance of the written warning, unless the deadline is extended by the Department: (4-2-08)

a. Failure to properly operate or maintain leak detection equipment; (4-2-08)

b. Failure to properly operate or maintain spill, overfill, or corrosion protection equipment; or (4-2-08)

c. Failure to maintain financial responsibility. (4-2-08)

04. Service of Notice. If the Department classifies a petroleum underground storage tank as ineligible for delivery, deposit, or acceptance of a regulated petroleum substance pursuant to Subsections 500.02 or 500.03, the Department shall provide a written notice of the determination to the owner or operator prior to prohibiting the delivery, deposit, or acceptance of a regulated petroleum substance. Notice is considered properly served by the Department in any of the following ways: (4-2-08)

a. The notice is personally delivered to the owner or operator; or (4-2-08)

b. The notice is clearly posted at a public entrance to the facility where the petroleum underground storage tank is located and a copy of the notice is also sent by certified mail to the last known address of the owner or operator. (4-2-08)

05. Red-Tagging. Once service of the written notice of the ineligible determination is complete, the Department shall then attach a red tag to each fill pipe of the ineligible petroleum underground storage tank clearly identifying the tank as ineligible. The Department shall also maintain a list of all petroleum underground storage tanks that are classified as ineligible for delivery, deposit, or acceptance of a regulated petroleum substance. The Department shall make the list available to the public by posting the list on the Department's website at www.deq.idaho.gov. (4-2-08)

06. Written Notice. The written notice required by Subsection 500.04 must include: (4-2-08)

a. The specific reasons or violations that led to the ineligible classification; (4-2-08)

b. A statement notifying the owner and operator that the petroleum underground storage tank is ineligible for delivery and it is unlawful for any person to deliver to, deposit into, or accept a regulated petroleum substance into the petroleum underground storage tank; (4-2-08)

c. The effective date the petroleum underground storage tank is deemed ineligible for delivery; (4-2-08)

d. The name and address of the department representative to whom a written request for re-inspection can be made, if a re-inspection is necessary; (4-2-08)

e. A statement regarding the right to appeal the Department's action regarding ineligible classification pursuant to IDAPA 58.01.23, "Rules of Administrative Procedure Before the Board of Environmental Quality"; and (4-2-08)

f. The option to request a compliance conference pursuant to Subsection 500.07. (4-2-08)

07. Compliance Conference. The owner or operator may request a compliance conference with the Department within fifteen (15) days of receipt of the notice. A compliance conference shall be scheduled within twenty (20) days and conducted in an informal manner by the Department. At the compliance conference, the owner or operator may explain why he believes the petroleum underground storage tank should not be classified as ineligible. During the compliance conference, the owner or operator and the Department will identify and establish appropriate acts and a time schedule for compliance as necessary. (4-2-08)

08. Duration of Ineligible Classification. The classification of a petroleum underground storage tank as ineligible shall remain in effect until the conditions cited in the notice no longer exist. If the Department determines that an ineligible storage tank has returned to compliance and is now eligible for delivery, deposit, or acceptance of a regulated petroleum substance, the Department or an authorized designee shall, as soon as practicable, remove the red tag from the petroleum underground storage tank and also remove the petroleum underground storage tank from the ineligible list posted on its website. The Department will also send a written notice to the owner and operator that an ineligible storage tank has returned to compliance and is now eligible for delivery, deposit, or acceptance of a regulated petroleum substance. (4-2-08)

09. Declining Classification. The Director may decline to classify a petroleum underground storage tank as ineligible if the Director decides that classifying the petroleum underground storage tank as ineligible for delivery, deposit, or acceptance is not in the best interest of the public. (4-2-08)

a. The Director may only defer application of delivery prohibition for up to one hundred eighty (180) days after determining a petroleum underground storage tank is ineligible for delivery, deposit, or acceptance of a regulated petroleum substance. (4-2-08)

b. The Director may authorize the delivery, deposit, or acceptance of product into an ineligible petroleum underground storage tank if such activity is necessary to test or calibrate the underground storage tank or dispenser system. (4-2-08)

10. Department Authority. Nothing in Section 500 shall affect or preempt the authority of the Department to prohibit the delivery, deposit, or acceptance of a regulated petroleum substance to a petroleum underground storage tank under other existing authorities. (4-2-08)

11. Proper Notice. A person shall not be in violation of Subsection 500.01 if the Department fails to provide the notice required by Subsections 500.04 and 500.05. (4-2-08)

12. Unlawful to Tamper with Red Tag. It shall be unlawful for any person to tamper with and/or remove the red tag without the Department's approval. (4-2-08)

501. -- 599. (RESERVED)

600. PETROLEUM UNDERGROUND STORAGE TANK DATABASE.

01. Maintenance. The Department shall maintain a database which provides details on the status of all petroleum underground storage tanks in the state of Idaho which are subject to regulation. The database shall be updated no less than the end of each calendar quarter. (4-2-08)

02. Identification. The database shall identify any tanks subject to delivery prohibition. (4-2-08)

03. Petition. Petroleum underground storage tank owners or operators may petition the Department to correct any inaccurate information for their tanks and the Department shall correct any such inaccurate information within thirty (30) days after verification. (4-2-08)

04. Availability. The database shall be available to the public on the Department's website at www.deq.idaho.gov. (4-2-08)

601. -- 999. (RESERVED)

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MEMORANDUM

TO: Jim Anderson
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FROM: J.M. Plecnik
Consultant
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(562) 985-4406

DATE: September 11, 2007

SUBJECT: Seismic Behavior of Xerxes Underground Tanks

The behavior of Xerxes underground tanks under seismic loading can best be summarized in two different categories. The first category would consider seismic loads occurring at some distance away from the tank, so that the rupture of the earth's crust is not in the immediate vicinity of the underground tank. That is, any rupture in the earth's crust is not occurring directly at the site of the tank. In this case, the behavior of the seismic tank is similar to that of a ball in the ocean that is subjected to an oncoming wave. Since the size of the ball is much smaller than the wave, the ball will simply move up and down with the wave motion. Likewise, in the case of an earthquake which also emits energy waves (ground waves similar to that of water in the ocean), the underground tank simply rides this energy wave without causing large localized forces on the tank itself. The second category is more critical and it consists of the rupture (fault lines) of the earth's crust occurring at or very near the location of the tank. In this case, the tank is incapable of surviving the rupture of the earth's crust and, like the soil, will also rupture.

In mid 1990's, Xerxes Corporation commissioned the CSULB Structures Lab, under the direction of J.M. Plecnik, to analyze 8 ft. diameter Xerxes underground tanks subjected to

seismic loading. This research effort culminated in several lengthy reports, including the May 28, 1997 report titled *Evaluation of 8 ft. Diameter Xerxes Underground Tanks Under Seismic Loading*. This report was utilized to obtain a design US Patent, number US 6,397,168 B1, dated May 28, 2002. The basic conclusions of this research effort are summarized in the above two categories.

The underground fiberglass storage tanks usually come with additional components, including straps and deadmen. The straps and the deadmen are intended only for uplift forces caused by buoyancy when the underground tanks are located below the water table. Hence, the straps and the deadmen are not intended to mitigate or reduce the seismic loads imposed on the underground gasoline storage tanks.

In conclusion, the seismic loads in underground tanks, located away from the fault, consist of added lateral and vertical pressures on the tank wall, which are not significant in relation to stresses produced by external soil and external hydrostatic loads, as well as internal vacuum or internal hydrostatic loads. Seismic loads are relatively short term and these added seismic loads on the tank do increase the stress levels in the tank shell. However, the increase is not critical, due to the fact that the safety factors for fiberglass underground tanks under non-seismic load conditions exceed 5.0.

XERXES®
a ZCL company

Fiberglass Underground Storage Tanks for Petroleum Applications



making a lasting difference®

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Xerxes® Corporation – A trusted brand for more than 30 years





Xerxes History

Xerxes Corporation is widely viewed today as the leading manufacturer of underground storage tanks in the United States. Established in 1979, Xerxes has forged strong brand loyalty built on a reputation for innovation and the highest quality products and services.

Like most market leaders, we have a long history of design innovation including development of the first UL-listed double-wall fiberglass tank. We followed that with the introduction of a second-generation double-wall design, which for the first time incorporated a factory-installed hydrostatic monitoring system. This method of leak detection has become the most popular form of monitoring fiberglass underground tanks. More recently, we further improved our tank design by incorporating Parabeam®, a unique and proprietary three-dimensional glass fabric. Parabeam bonds the primary and secondary walls of our double-wall tank together for greater structural integrity, while also allowing for a free-flowing, clearly defined interstice between the two walls. Industry-leading innovations such as these, plus many others, are why petroleum equipment distributors, fuel marketers and commercial accounts rely on Xerxes for safe underground storage tank products.

One Company – Two Trusted Brands

Today, Xerxes is part of the ZCL® Composites group of companies manufacturing underground and aboveground fiberglass tanks for a wide range of applications, primarily petroleum products. ZCL Composites (ZCL) is a publicly traded company on the Toronto Stock Exchange (TSX: ZCL). Established in 1987, ZCL began manufacturing fiberglass tanks in Canada. Like Xerxes in the United States, ZCL's growth and the popularity of fiberglass tanks in Canada has been steady. Combined, the Xerxes brand in the United States and the ZCL brand in Canada make us North America's largest manufacturer of underground storage tanks. We service our underground storage tank customers from six strategically located North American manufacturing plants, four in the United States and two in Canada. Our extensive geographic coverage gives us unmatched ability to cost-effectively deliver tanks anywhere in North America. With more than 200,000 tanks installed, our position as the industry's leading manufacturer of underground storage tanks strengthens each year.

Benefits of Xerxes fiberglass underground storage tanks





Why choose a fiberglass tank?

Since their introduction in the 1960s, fiberglass underground tanks have rapidly grown in popularity. It was becoming clear that rusting steel tanks were leaking and creating serious environmental damage. Therefore, the initial focus of fiberglass manufacturers was to design storage vessels that weren't vulnerable to the effects of external corrosion.

Throughout the 1980s, major oil companies and other large fuel marketers quickly began to realize the benefits of fiberglass over steel underground tanks. Today the preference for fiberglass tanks reaches across all segments of the market and includes those who specify, install and own underground storage tanks. Further, the recognized benefits of fiberglass extend well beyond external corrosion protection. Today, with a greater industry-wide understanding of the increased regulatory burden and risks associated with storage tanks, tank buyers are much more educated and sophisticated in their product selection.

Consider the following features and benefits:

Corrosion Resistance – External corrosion protection will always be a concern, but, with the widespread use of ethanol-blended gasoline (E10, E15, E85), biodiesel fuels and ultra-low sulfer diesel (ULSD), the focus has shifted to internal corrosion protection. These new biofuels are creating increasing incidents of aggressive microbial-induced corrosion (MIC) of metal components in fueling systems. Fiberglass tanks are not vulnerable to internal corrosion caused by MIC. Neither do they rust externally due to corrosive soil environments.

Fuel Compatibility – In addition to creating corrosive conditions in tanks, new ethanol-blended fuels today also raise questions regarding compatibility of the stored fuel with tank materials. Xerxes double-wall fiberglass tanks are not only warranted for the full range of ethanol-blended gasoline, they are also UL-tested and UL-listed as compatible with 0-100 percent ethanol storage. This is a very clear and distinct difference from steel storage tanks.

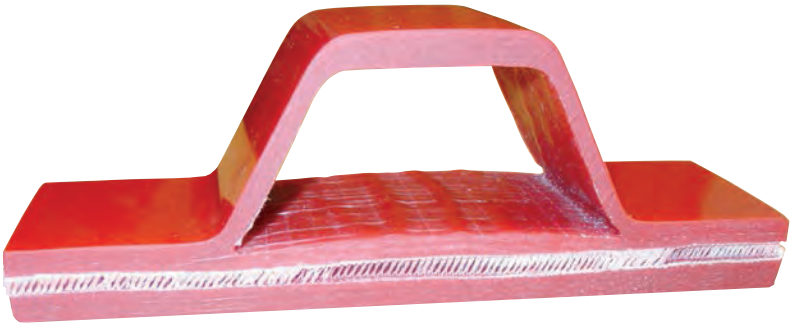
Track Record – With hundreds of thousands of tanks installed thoughout North America during the last three decades, fiberglass tanks have an outstanding record of both protecting the environment and minimizing tank owners' risk. The great majority of new underground tanks installed today for North America's largest fuel retailers and commercial fleet facilities are fiberglass tanks. After exploring their options and evaluating years of product performance, these tank owners overwhelmingly continue to choose fiberglass.

Why choose a Xerxes tank?

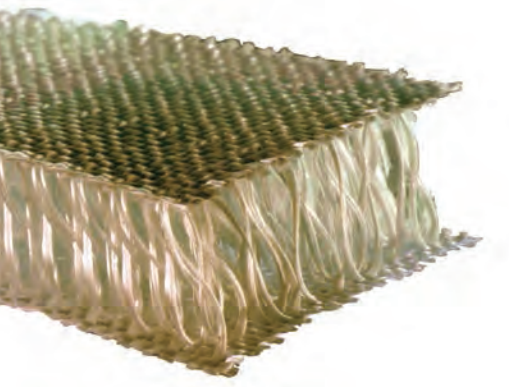
During the last three decades, Xerxes has gained a worldwide reputation as a leader in underground storage tank technology. Since its inception in 1979, Xerxes has steadily grown from a tank manufacturer with a small market share to its role today as the market leader. This recognition can be attributed to the many experienced Xerxes employees who strive to not only meet but to exceed our customers' requirements. Equally significant is the quality of the tanks and related products that we manufacture.

Underground storage tanks are not commodity products. Xerxes storage tanks offer customers a number of unique and significant design and performance differences superior to both competitive fiberglass tanks and steel tanks.

Consider the following:



Rib Design – Circumferential ribs are an important design element of any fiberglass underground vessel. Therefore, the rib geometry and how it's incorporated into the cylinder, or tank itself, is an important consideration for designers and customers as they compare products. In the Xerxes design, with its consistent, high-profile rib structure, ribs are fabricated directly into the tank cylinder – not as a secondary step in the process. This increases the overall strength of the tank and results in a structurally superior product.



Parabeam® Construction – As part of our history of continuous improvement, Xerxes introduced Parabeam, a unique and proprietary three-dimensional glass fabric, into its underground tank design. Parabeam enhances overall structural integrity by creating a bond between the primary and secondary cylinder walls, while providing a free-flowing interstitial space for monitoring capabilities. Another important benefit is the elimination of false alarms created by fluctuating reservoir levels that can be a recurring problem in other manufacturers' hydrostatically monitored tanks.

Maintenance-Free – Many manufacturers of steel tanks have reduced their warranty duration from 30 years to 10 years, and have incorporated language that requires ongoing maintenance and removal of water bottoms as a condition of warranty coverage. The presence of water in the bottom of fuel tanks is a common condition. Maintenance to frequently remove it can be expensive over both the short-term and long-term life of a tank, and can also leave an owner vulnerable to denied warranty claims should a steel tank corrode internally. Xerxes offers a 30-year limited warranty with no restrictions regarding water-bottom monitoring and removal.

Company Stability – Over the last 30 years, tank manufacturers have gone out of business or filed for bankruptcy and no longer provide warranty coverage. Customers who purchase underground tanks do so with the expectation that their tank will provide many years of trouble-free service, and that the manufacturer will be around to suppport its products and its warranties. Xerxes has a three-decade record of doing just that.

TRUCHEK®– State-of-the-art continuous monitoring



TRUCHEK® hydrostatic tank monitoring for double-wall tanks is an easy, precise and reliable method for continuous leak detection and for tank-tightness testing. For two decades, TRUCHEK has been successfully monitoring thousands of tanks in many different types of installations.

Continuous Monitoring

When you order a Xerxes double-wall tank with the TRUCHEK option, the interstice between the two tank walls is filled at the factory with a calcium-chloride fluid that also partially fills a reservoir, creating hydrostatic pressure throughout the interstice. An electronic probe placed in the tank's reservoir alarms when the fluid level either falls below or rises above the acceptable level. This increasingly popular method of leak monitoring gives tank owners greater peace of mind than the alternative method of using a simple liquid sensor, which often never detects an outer-wall breach. TRUCHEK has become the industry standard as a state-of-the-art technique for continuous monitoring.

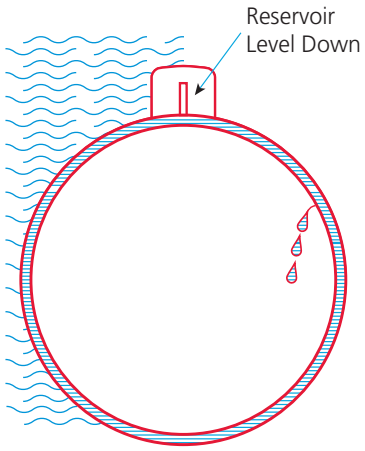
Changing regulations in some markets now require that new double-wall tanks have continuous leak detection using a constant vacuum, air pressure or hydrostatic pressure in the interstice. TRUCHEK is the ideal solution to this growing regulatory requirement.

Tank Tightness

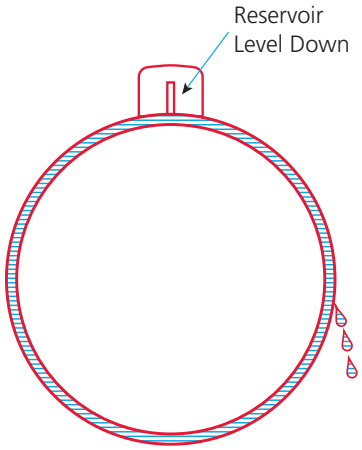
TRUCHEK also provides a simple, precise and reliable method to perform a tank-tightness test. The 10-hour tightness-test procedure meets the strict NFPA329 criteria. A shorter 4-hour test (while product is dispensing) exceeds EPA's criteria for a tank-tightness test.

How does TRUCHEK work?

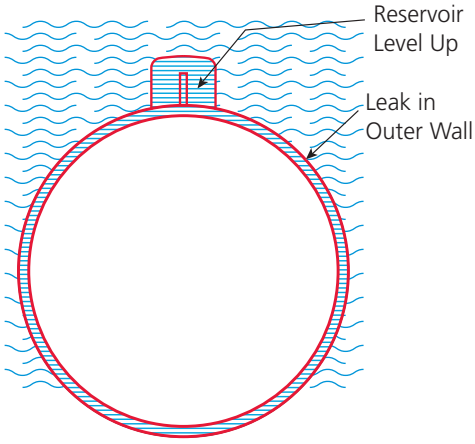
Primary-Tank Leak in Wet Hole or Dry Hole



Secondary-Tank Leak in Dry Hole



Secondary-Tank Leak in Wet Hole

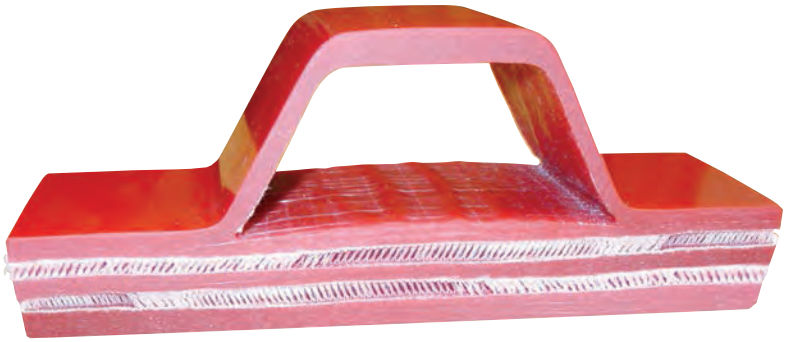


Additional underground storage tank solutions

When a customer's needs go beyond the standard double-wall tank, Xerxes offers products that address a wide range of requirements. With a full line of tank accessories, we offer customers the most comprehensive range of solutions found in the petroleum equipment industry today. Please visit www.xerxes.com for additional information on each of these products.

Multicompartment Tanks – These Xerxes tanks are a popular choice among retail gasoline marketers and fleet fueling owners. The ability to store two or three grades of fuel, or gasoline and diesel, in a single tank is particularly appealing when the amount of onsite space needed for multiple tanks is either not available or difficult to obtain. Customers may also find installation and insurance cost savings when using multicompartment tanks. The Xerxes double-wall multicompartment tank comes standard with a double-wall bulkhead, while other tank manufacturers require an upgrade to a double-wall bulkhead. Xerxes offers a wide range of capacity options in 6-, 8- and 10-foot-diameter models.





Triple-Wall Tanks – Some customers and regulatory agencies now require even more enhanced protection than double-wall tanks provide. Conditions that lend themselves to considering a triple-wall tank are sensitive groundwater aquifers, or nearby lakes or streams. The Xerxes UL-listed triple-wall tank, with an additional Parabeam interstice, is the innovative and cost-effective answer when this level of containment is required.

The ZCL Phoenix System® – In some situations, single-wall tanks that need to be upgraded to double-wall tanks offer site challenges that make removal of existing tanks either cost-prohibitive or extremely difficult. For instance, tanks are sometimes covered or surrounded by buildings, roads or rail lines. In such cases, converting a single-wall tank (either fiberglass or steel) into a double-wall tank might be done most efficiently with ZCL's Phoenix System. This ULC-listed system consists of two corrosion-resistant laminates with the proprietary Parabeam glass fabric between the laminates creating an interstitial space. The interstice can be either dry or hydrostatically monitored. The Phoenix System, applied onsite by trained installers, is biofuels compatible, including ethanol-blended fuels and biodiesels.



Additional underground storage tank solutions

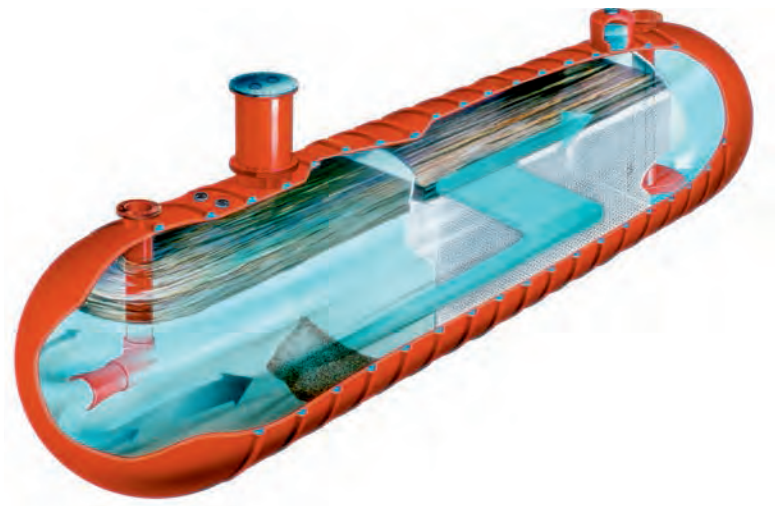


Diesel Exhaust Fluid Tanks – Demand for diesel exhaust fluid (DEF) is growing significantly as increasing numbers of commercial, passenger, rail and marine diesel engines that require the use of DEF enter the market. A Xerxes underground tank is the ideal solution for the very unique storage requirements that DEF presents. Unlike carbon steel tanks, a Xerxes fiberglass tank does not require special coatings or linings to protect the purity of the DEF product. Extensive testing with third-party laboratories was conducted to verify the suitability of long-term storage while maintaining product quality.

Xerxes uses stainless steel fittings, manway covers and striker plates on all tanks designed for DEF storage. A UL label is attached to all tanks that meet listing criteria. Each tank interior is thoroughly cleaned and then sealed to prevent contamination during shipping and installation.

In the relatively brief period of time that DEF has been used in North America, Xerxes has established a leadership role in introducing fiberglass tanks as the bulk storage vessel of choice. With more than 1,000 DEF tanks in service, customers are clearly putting their trust in Xerxes' design innovation capabilities.





Oil/Water Separators – With a fiberglass underground tank at the heart of the design, a Xerxes oil/water separator incorporates unique refinements within the vessel to create a separator that removes free-floating oils and settleable sands from oil/water mixtures. A properly sized polypropylene vertical-tube coalescer is designed to produce effluent quality of 10 ppm free-floating oil. A Xerxes oil/water separator is an excellent choice for managing water runoff from parking lots or equipment washdown stations. This product is also available with a UL 2215 listing.

Storage tank accessories

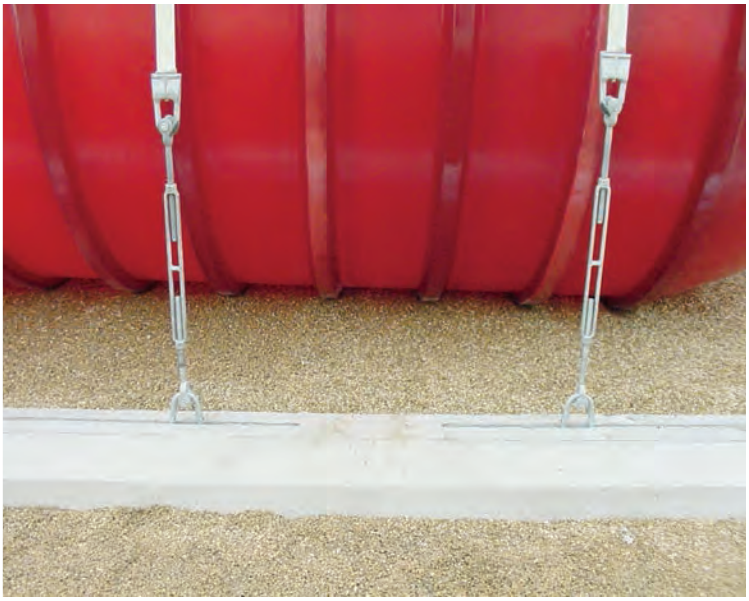
Today's retail and commercial fueling facilities are sophisticated systems that are installed in a highly regulated environment. While the storage tank is the critical component in an underground fuel system, other important accessories are necessary in order to provide spill containment, tank anchoring, tank-top corrosion protection, leak detection and other important functions. Xerxes engineers have designed innovative, complimentary products that provide system designers and installers with cost-effective, easy-to-install accessories. Not all tank manufacturers provide the wide range of accessories that Xerxes offers. This is another example of how Xerxes' innovative spirit benefits customers.

As with many products, Xerxes tanks and accessories require proper installation to ensure that the customer receives the long-lasting, trouble-free performance that its products are designed for. To that end, Xerxes provides a comprehensive Installation Manual and Operating Guidelines document that outlines the easy, yet proper, steps necessary for a successful installation.



Storage tank accessories





Containment Sumps and Collars – Sumps and collars are common accessories found on virtually all double-wall tanks installed today. Xerxes supplies optional, factory-installed containment collars that provide secondary containment around tank fittings and manways. Designed to be a custom match to the collar, the Xerxes containment sump comes in a variety of models and sizes, all engineered to accommodate different customer preferences and needs. Xerxes sumps and collars are also available in double-wall models that can be monitored with the reliable TRUCHEK hydrostatic monitoring system.

Anchoring System – Site-specific installation conditions generally dictate whether a tank-anchoring system is necessary. Some customers choose to anchor all their tanks. Xerxes offers a complete tank-anchoring system, including reinforced precast concrete deadman (designed to American Concrete Institute standards), fiberglass anchoring straps and galvanized turnbuckles. Each component is engineered to specific tank sizes and for ease of installation. In most cases concrete deadmen can be delivered on the same trailer as the tank. This both minimizes the shipping cost and assures that deadmen are ready for use when the tank is set.

Hydrostatic Monitoring – The image on page 8 illustrates the functional design of the highly effective TRUCHEK hydrostatic monitoring system. A "jacket" of calcium-chloride solution is factory-installed in the tank interstice and connected to a tank-top reservoir where the fluid level is monitored with a simple level sensor. The unique Parabeam construction of a Xerxes double-wall tank eliminates false leak alarms that can occur with other tank designs. In addition to its simple, yet highly effective, monitoring capabilities, TRUCHEK provides true continuous monitoring of both tank walls regardless of site conditions. This continuous-monitoring feature is increasingly attractive to state and federal regulators, and may become a requirement for all new double-wall tanks in the future.

Guide Specifications for Xerxes Underground Petroleum Storage Tanks

Short form:
The contractor shall provide a double-wall or triple-wall fiberglass reinforced plastic (FRP) UL-listed underground storage tank as shown on the drawings. The tank size, fittings and accessories shall be as shown on the drawings. The fiberglass tank shall be manufactured by Xerxes Corporation.

The tank shall be tested and installed according to the Xerxes Installation Manual and Operating Guidelines for Fiberglass Underground Storage Tanks in effect at time of installation.

Long form:

Part I: General

1.01 Quality Assurance

A. Acceptable Manufacturer: Xerxes Corporation

B. Governing Standards, as applicable:

1. Underwriters Laboratories (UL) Standard for Safety 1316 Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures. A UL label shall be attached to each tank.
2. National Fire Protection Association (NFPA) Standards: NFPA 30: Flammable and Combustible Liquids Code, NFPA 30A: Code for Motor Fuel Dispensing Facilities and Repair Garages, NFPA 31: Standard for the Installation of Oil-Burning Equipment.
3. City of New York Department of Buildings M.E.A., #161-89-M.
4. American Concrete Institute (ACI) standard ACI 318-11, Building Code Requirements for Structural Concrete.

C. Submittals

1. Contractor shall submit ___ copies of shop drawings, manufacturer's product brochures, and Installation Instructions.

Part II: Products

2.01 Double-Wall and Triple-Wall Fiberglass Reinforced Plastic (FRP) Underground Storage Tanks:

A. Loading Conditions – Tank shall meet these design criteria:

1. **Interstitial Pressure** – The interstitial space of the tank shall withstand a minimum 20-psig pressure test.
2. **Internal Load** – Tank shall withstand a 5-psig air-pressure test with a 5:1 safety factor.
3. **Surface Loads** – Tank shall withstand surface H-20 and HS-20 axle loads when properly installed according to Xerxes' current Installation Manual and Operating Guidelines.
4. **External Hydrostatic Pressure** – Tank shall be designed for 7' of overburden over the top of the tank, the hole fully flooded and a safety factor of 5:1 against general buckling.

B. Product Storage:

1. The primary compartment of double-wall and triple-wall tanks shall be vented and operated at atmospheric pressure only.
2. Tank shall be capable of storing liquids with a specific gravity up to 1.1.
3. Tank shall be capable of storing products identified in the manufacturer's standard limited warranty in effect at the time of purchase.

C. Materials:

1. The primary and secondary walls of the tank shall be manufactured with 100% premium resin and glass-fiber reinforcement. No sand or silica fillers shall be added to the resin.
2. The interstitial space between the primary and secondary walls shall be constructed with a glass reinforcement material such as Parabeam®, which provides a structural bond between the two tank walls, while creating a defined interstice that allows for free flow of liquid.

D. Tank Dimensions (Refer to Xerxes literature on gallonage):

1. Tank shall have nominal capacity of _____ gallons.
2. Tank shall have nominal outside diameter of _____ feet.
3. Tank shall have a nominal overall length of _____ feet/inches.

2.02 Tank Monitoring System

A. General

1. Tank shall be continuously monitored with the TRUCHEK® hydrostatic leak monitoring system.
2. The continuous monitoring system shall include monitoring fluid factory-installed in the interstitial space and within a fiberglass tank-top mounted reservoir.
3. The monitoring system shall be recognized by the National Work Group on Leak Detection Evaluations (NWGLDE) as continuous leak detection and as a precision tank test.
4. The monitoring system shall be independently tested by a qualified third party and verified to be capable of detecting leaks as small as .05 gallons per hour when TRUCHEK tank-tightness test procedures are followed.

B. Design

1. The continuous monitoring system shall be designed to detect a leak in either the primary or secondary wall at all times, regardless of the water-table conditions at the installation site.
2. The interstice of the tank shall be designed for a 5:1 safety factor beyond normal hydrostatic operating pressure to ensure structural integrity and to prevent false leak alarms.

2.03 Accessories

A. Tank Anchoring

1. Anchor straps shall be as supplied by tank manufacturer and designed for a maximum load of 25,000 lbs.
2. Galvanized turnbuckles (two per anchor strap) shall be supplied by the tank manufacturer.
3. Prefabricated concrete anchors shall be supplied by the tank manufacturer, designed to the ACI 318-11 standard, manufactured with 4,000 psi concrete, and shall have adjustable anchor points.

B. Manways

1. The standard manway shall be flanged, 22" I.D. and complete with UL-listed gaskets, bolts and covers as shown on tank drawings.

C. Threaded Fittings

1. All threaded fittings shall be NPT half or full couplings, in 2", 4" or 6" diameters.
2. Fittings shall be installed on the tank-top centerline or in the cover of the manway as shown on the tank drawings.

D. Containment Collars & Sumps

1. The tank shall have factory-installed 42"-or 48"-diameter containment collars as shown on the tank drawings.
2. Containment sumps in 42"-or 48"-diameter, provided by the tank manufacturer and designed for mounting on the containment collars, shall be supplied as shown on the tank drawings.
3. Adhesive shall be provided by the tank manufacturer with each containment collar and sump.
4. Containment collars and sumps shall be designed and supplied as a containment system. Only sumps provided by the manufacturer shall be allowed.

Part III: Testing and Installation

3.01 Testing

A. Testing – Tank shall be tested according to the Xerxes Installation Manual and Operating Guidelines in effect at time of installation.

3.02 Installation

A. Installation – Tank shall be installed according to the Xerxes Installation Manual and Operating Guidelines in effect at time of installation.

Part IV: Limited Warranty

4.01 Limited Warranty

A. Limited Warranty – Warranty shall be manufacturer's standard limited warranty in effect at time of purchase.

Xerxes Underground Double-Wall Tank Data

	Nominal Capacity (gallons)	Actual Capacity (gallons)	Tank Length (feet/inches)	Nominal Shipping Weights (lbs) (dry interstitial)	Nominal Shipping Weights (lbs) (wet interstitial)	Number of Anchor Straps Required
4-foot-diameter	600	602	7′-3 1/2″	900	1,100	2
	1,000	1,009	11′-7 1/2″	1,400	1,700	2
	2,000	2,013	22′ -3 5/8″	2,800	3,400	2
6-foot-diameter	2,500	2,324	13′-5 3/4″	2,200	2,800	2
	3,000	2,910	16′-4 1/4″	2,600	3,300	2
	4,000	3,789	20′-8″	3,600	4,400	2
	5,000	4,961	26′-5″	4,300	5,200	4
	6,000	5,840	30′-8 3/4″	5,000	6,100	4
8-foot-diameter	4,000	4,190	15′- 1/2″	2,700	3,600	2
	5,000	5,089	17′-8 1/2″	3,200	4,200	2
	6,000	6,044	20′-6 1/2″	3,700	4,900	2
	8,000	7,899	26′- 1/2″	4,800	6,200	4
	10,000	9,753	31′-6 1/2″	5,900	7,500	4
	12,000	11,608	37′- 1/2″	7,000	8,800	4
	15,000	14,881	46′- 9″	9,100	11,200	6
10-foot-diameter	10,000	10,420	21′-5 1/4″	4,900	6,400	4
	12,000	11,904	24′- 1/4″	5,600	7,200	4
	15,000	15,041	29′-5 3/4″	7,000	8,900	4
	20,000	19,782	37′-8 3/4″	9,000	11,300	6
	25,000	25,431	47′-6 3/4″	11,800	14,600	8
	30,000	30,172	55′-9 3/4″	14,000	17,200	10
	35,000	34,912	64′- 3/4″	16,500	20,100	12
	40,000	40,443	73′-8 1/4″	19,000	23,100	14
12-foot-diameter	20,000	20,638	29′ -4″	14,000	16,700	6
	25,000	25,381	35′ -7″	16,600	19,700	8
	30,000	31,072	43′ -1″	19,900	23,500	10
	35,000	35,815	49′ -4″	22,500	26,500	12
	40,000	39,609	54′ -4″	24,600	28,900	12
	45,000	44,352	60′ -7″	27,400	32,100	16
	48,000	48,146	65′ -7″	29,500	34,500	18
	50,000	50,044	68′ -1″	30,500	35,700	18

Notes:

1. Tank data for single-wall and multicompartment tank models is available at www.xerxes.com.
2. Actual height of the tank may be greater than the actual diameter due to fittings and accessories. Load height during shipping may vary due to tank placement on the shipping trailer.
3. If an overfill-protection device is installed in the tank, the actual capacity will be reduced.

North American Manufacturing Facilities



ZCL Manufacturing Facilities

Edmonton, AB
Drummondville, QC

Xerxes Manufacturing Facilities

Anaheim, CA
Hagerstown, MD
Seguin, TX
Tipton, IA

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MEMORANDUM

Date: July 6, 2016

To: Brittany Skelton
City of Ketchum Department of Planning and Building

From: Hales Engineering

Subject: Ketchum – Bracken Station TIS, Additional Information

UT16-851

The purpose of this memorandum is to address requests for additional information from the City of Ketchum Planning Commission regarding the proposed Bracken Station in Ketchum, Idaho. This memo will address only requests regarding traffic related issues. Each request is stated as received in italics, followed by the response from Hales Engineering.

1. *Obtain traffic counts at 10th Street/Main Street intersection in order to corroborate the 2008 data in the traffic study already conducted. If the traffic engineer wants to make the case that the need for new data is superfluous, and submits a narrative explaining why, that would be acceptable. However, the request for current data at the 10th Street/Main Street intersection is driven by public comment and providing this data also serves the purpose of addressing public concern, so obtaining the new counts is recommended.*

   Hales Engineering utilized peak-hour turning movement count data collected in February 2008 for a previous traffic impact study performed in the area. Using historical traffic data for SH-75 obtained from the Idaho Transportation Department (ITD), a growth rate of 1.1% per year was calculated based on recent trends. This 1.1% growth rate as well as a 30% seasonal adjustment, to reflect peak season traffic conditions, were used to estimate 2016 traffic conditions. These estimated traffic data were used for the traffic impact study.

   In order to address concerns raised at the planning commission meeting held on June 13, 2016, additional peak hour turning movement counts were collected on June 29, 2016. When compared with the previously discussed estimated data, it was found that the traffic volumes used in the traffic impact study were **5% higher** than the volumes collected on June 29th.

2. *Address the projected makeup of vehicles that will be using the gas station.*
    a. *What percentage will be oversized vehicles (RVs, construction trailers, et cetera)?*
        i. *Address how the proportion of oversized vehicles impacts the amount of vehicles that can queue in the turn lane.*
    b. *Address potential back-up of northbound traffic lining up to make a left turn into the gas station and the implications of exceeding the length of the turn lane (e.g. traffic backed up further south than the turn lane extends).*

Vehicle classification data were collected at a local gas station over two days. Only 7% of vehicles observed during data collection activities were larger vehicles (i.e. trucks pulling trailers or recreational vehicles). The remaining 93% of vehicles observed were passenger cars or pickup trucks. Using these data, we project that the vast majority of vehicles that will use the Bracken Station will be passenger cars and pickup trucks.

Standard practice for queuing analyses is to assume an average 20 feet of queuing length per vehicle. Obviously, larger vehicles (i.e. tractor trailers, RVs, etc.) will occupy more than 20 feet of queuing length. However, the projected vehicle classification does not suggest that it would be necessary to modify the 20 feet per vehicle assumption.

The proposed left-turn lane would serve vehicles turning left from Main Street (SH-75) into the gas station, as well as vehicles turning left onto 10th Street. The traffic impact study found that with future (2020) plus project traffic conditions, the 95th percentile queue at the intersection would extend for approximately 105 feet. The proposed left-turn lane is more than adequate to accommodate queues of this length.

Although it is unlikely that the left-turn queue would overflow into the thru lane, such an event would likely have minimal short-term impacts on thru traffic. Delay for northbound left-turning vehicles at the gas station access, as well as at 10th Street are anticipated to be quite short. When delays are short, queues tend to dissipate quickly. As soon as the queue is shortened to a length that can be accommodated by the left-turn lane, the flow of thru traffic is restored.

3. *Address the potential for northbound (left) and southbound (right) turn lanes on 10th Street to facilitate left and right turns onto Main Street.*

Separate right- and left-turn lanes at stop-controlled approaches to unsignalized intersections can help to mitigate delay on the approach by allowing right-turning vehicles to execute a right-turn movement while bypassing waiting left-turning vehicles, or vice versa.

A separate right-turn lane is not recommended at this location. Turning movement wheel path analyses show that with the current approach geometry, larger vehicles are able to execute right-turn movements with minimal encroachments into opposing

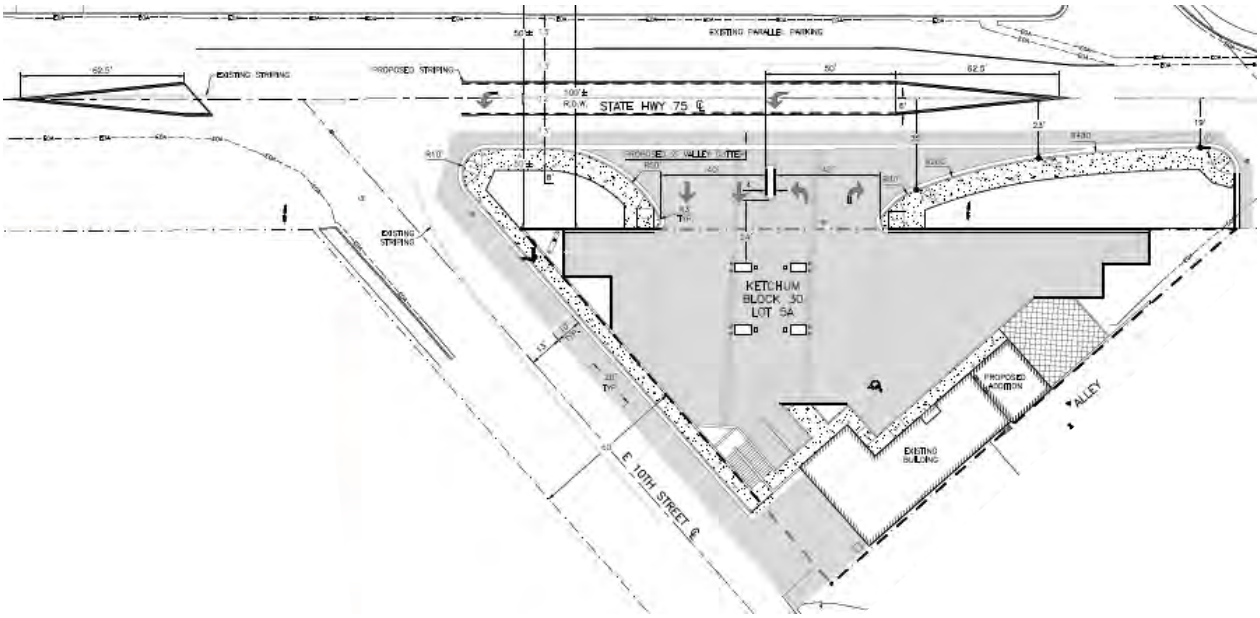
traffic lanes. It is likely that the addition of a separate right-turn lane would constrain the right-turn movement such as to require significant encroachment into opposing traffic lanes. The traffic impact study found that delays at this intersection are anticipated to be relatively low, and therefore a separate right-turn lane would not provide significant benefit.

If you have any questions regarding this memo, please feel free to contact us.

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Ketchum Gas Station

Traffic Impact Study *UPDATED*



Ketchum, Idaho

May 2016

UT16-851

1220 North 500 West, Ste. 202 Lehi, UT 84043 p 801.766.4343
www.**hales**engineering.com

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EXECUTIVE SUMMARY

This study addresses the traffic impacts associated with the proposed gas station in Ketchum, Idaho. The proposed gas station will be located on the southwest corner of the Main Street (SH-75) / 10th Street intersection.

Included within the analyses for this study are the traffic operations and recommended mitigation measures for existing conditions and plus project conditions (conditions after development of the proposed project) at key intersections and roadways in the vicinity of the site. Future 2020 conditions are also analyzed.

TRAFFIC ANALYSIS

The following is an outline of the traffic analysis performed by Hales Engineering for the traffic conditions of this project.

Existing (2016) Background Conditions Analysis

Hales Engineering used previous data for weekday morning (7:00 to 9:00 a.m.) and afternoon (4:00 to 6:00 p.m.) peak period traffic counts at the following intersections:

- Main Street (SH-75) / 10th Street

These counts were performed for a previous project on Wednesday, February 13, 2008. Data from an automatic traffic recorder (ATR 68) was used to determine an annual growth rate of 1.1% and a seasonal adjustment of 30% for this segment of SH-75. Using these adjustments, peak period traffic volumes were calculated for the study intersection. The a.m. peak hour was determined to be between the hours of 8:00 and 9:00 a.m., and the p.m. peak hour was determined to be between the hours of 4:15 and 5:15 p.m. Detailed count data are included in Appendix A. The traffic volumes at this intersection was approximately 15% higher during the p.m. peak hour than during the a.m. peak hour. Therefore, the p.m. peak hour was chosen for detailed analysis as this represents the worst-case scenario.

As shown in Table ES-1, the Main Street (SH-75) / 10th Street intersection is currently operating at LOS A during the p.m. peak hour. The 95th percentile queues on the north- and eastbound approaches to the 10th Street / Main Street (SH-75) intersection was observed extend for approximately 80 feet. No other significant queuing was observed.

Project Conditions Analysis

The proposed land use for the development has been identified as follows:

- Gasoline/Service Station with Convenience Market 8 Vehicle Fueling Positions

Trip generation for the development was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation (9th Edition, 2012)*. Trip generation for the proposed project is as follows:

- Weekday Daily Trips: 1,304
- a.m. Peak Hour Trips: 82
- p.m. Peak Hour Trips: 110

Existing (2016) Plus Project Conditions Analysis

As shown in Table ES-1, all study intersections are anticipated to operate at acceptable levels of service during the p.m. peak hour. During the p.m. peak hour, the 95th percentile queue length on the on the eastbound approach to the Main Street (SH-75) / 10th Street intersection is anticipated to extend for approximately 80 feet with project traffic added. Some queuing on northbound Main Street (SH-75) is also anticipated, which is likely attributed to left-turning vehicles blocking through traffic at the Main Street (SH-75) / 10th Street intersection as well as at the project access.

Future (2020) Background Conditions Analysis

As shown in Tables ES-1, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C during the p.m. peak hour with future (2020) background traffic conditions. The 95th percentile queues on the north- and eastbound approaches to the Main Street (SH-75) / 10th Street intersection are anticipated to extend for approximately 110 feet. No other significant queuing is anticipated.

Future (2020) Plus Project Conditions Analysis

As shown in Tables ES-1, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C with project traffic added, while the proposed access is anticipated to operate at LOS A during the p.m. peak hour. During the p.m. peak hour, the 95th percentile queue length on the northbound approach to the Main Street (SH-75) / 10th Street intersection is anticipated to extend for approximately 50 feet. All other queuing is anticipated to be nominal.

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TABLE ES-1 P.M. Peak Hour ID Ketchum Gas Station TIS				
Intersection	Projected 2016 Background	Projected 2016 Plus Project	Future 2020 Background	Future 2020 Plus Project
Description	LOS (Sec/Veh[1])	LOS (Sec/Veh[1])	LOS (Sec/Veh[1])	LOS (Sec/Veh[1])
Main Street (ID-75) / 10th Street	**A (9.7) / EB**	**B (10.9) / EB**	**C (15.9) / EB**	**C (17.8) / EB**
Main Street (ID-75) / Access 1	**-**	**A (6.5) / EB**	**-**	**A (9.2) / EB**

1. Intersection LOS and delay (seconds/vehicle) values represent the overall intersection average for signalized and all-way stop controlled intersections and the worst approach for all other unsignalized intersections.

2. This is a project intersection and is only analyzed in the plus project scenarios.

Source: Hales Engineering, May 2016

RECOMMENDATIONS

The following mitigation measures are recommended:

Existing (2016) Background Conditions Analysis

No mitigation measures are recommended.

Existing (2016) Plus Project Conditions Analysis

It is recommend that a two-way left-turn lane be constructed from a location north of 10th Street to a location south of the project. No other mitigation measures are recommended.

Future (2020) Background Conditions Analysis

No additional mitigation measures are recommended.

Future (2020) Plus Project Conditions Analysis

No additional mitigation measures are recommended.

SUMMARY OF KEY FINDINGS/RECOMMENDATIONS

The following is a summary of key findings and recommendations:

- The Main Street (SH-75) / 10th Street intersection is currently operating at LOS A during the p.m. peak hour.
- With project traffic added, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS B, and the proposed project access is anticipated to operate at LOS A.
- It is recommended that a two-way left-turn lane be constructed on Main Street (SH-75) from a location north of 10th Street to a location south of the project.
- With future (2020) traffic conditions, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C during the p.m. peak hour.
- With project traffic added, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at an acceptable level of service, as well as the project access.

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I. INTRODUCTION

A. Purpose

This study addresses the traffic impacts associated with the proposed gas station in Ketchum, Idaho. The proposed gas station will be located on the southwest corner of the Main Street (SH-75) / 10th Street intersection. Figure 1 shows a vicinity map of the proposed development.

Included within the analyses for this study are the traffic operations and recommended mitigation measures for existing conditions and plus project conditions (conditions after development of the proposed project) at key intersections and roadways in the vicinity of the site. Future 2020 conditions are also analyzed.

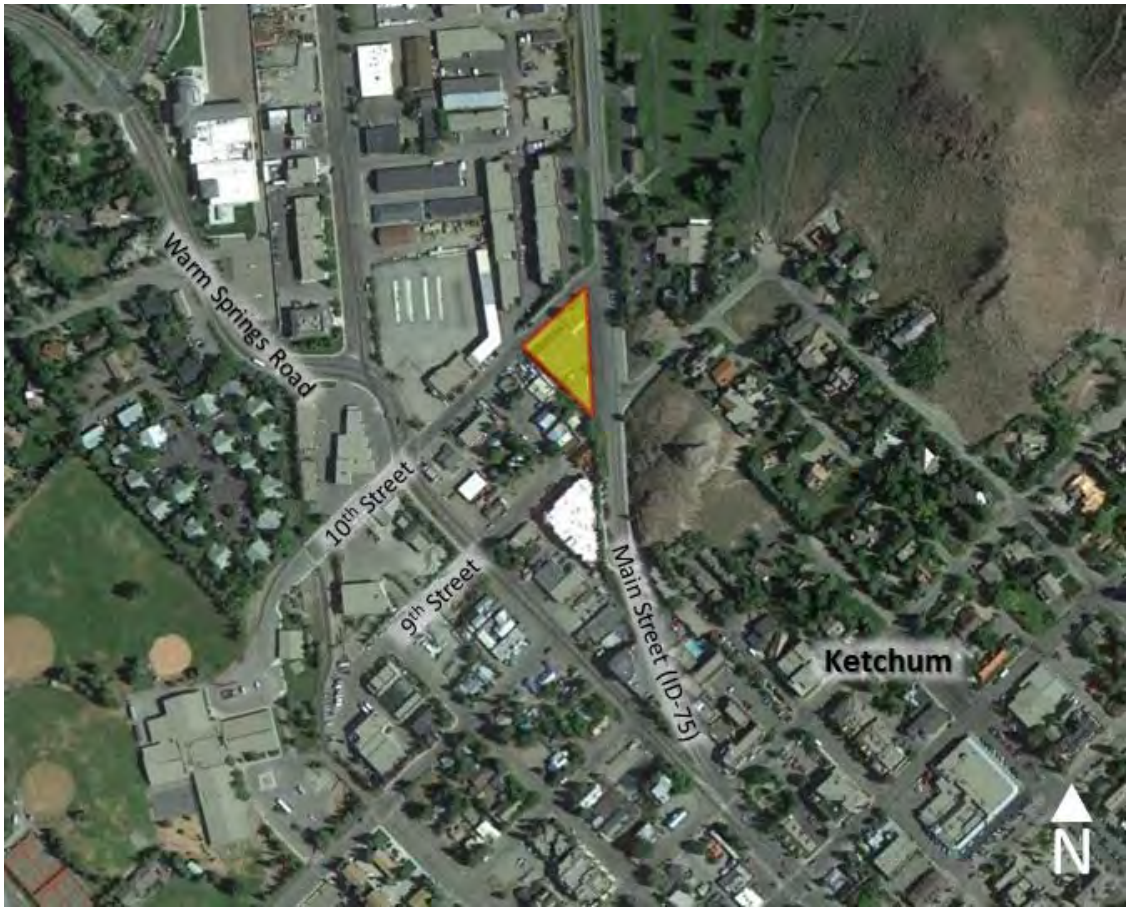


Figure 1 Vicinity map showing the project location in Ketchum, Idaho

B. Scope

The study area was defined based on conversations with the development team, following general guidelines for traffic impact studies. This study was scoped to evaluate the traffic operational performance impacts of the project on the following intersection:

- Main Street (SH-75) / 10th Street

C. Analysis Methodology

Level of service (LOS) is a term that describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. Table 1 provides a brief description of each LOS letter designation and an accompanying average delay per vehicle for both signalized and unsignalized intersections.

The Highway Capacity Manual 2010 (HCM 2010) methodology was used in this study to remain consistent with "state-of-the-practice" professional standards. This methodology has different quantitative evaluations for signalized and unsignalized intersections. For signalized and all-way stop intersections, the LOS is provided for the overall intersection (weighted average of all approach delays). For all other unsignalized intersections LOS is reported based on the worst approach.

D. Level of Service Standards

For the purposes of this study, a minimum overall intersection performance for each of the study intersections was set at LOS D. However, if LOS E or F conditions exist, an explanation and/or mitigation measures will be presented. An LOS D threshold is consistent with "state-of-the-practice" traffic engineering principles for urbanized areas.

Table 1 Level of Service Descriptions

Level of Service	Description of Traffic Conditions	Average Delay (seconds/vehicle)
	Signalized Intersections	**Overall Intersection**
A	Extremely favorable progression and a very low level of control delay. Individual users are virtually unaffected by others in the traffic stream.	0 ≤ 10.0
B	Good progression and a low level of control delay. The presence of other users in the traffic stream becomes noticeable.	> 10.0 and ≤ 20.0
C	Fair progression and a moderate level of control delay. The operation of individual users becomes somewhat affected by interactions with others in the traffic stream.	>20.0 and ≤ 35.0
D	Marginal progression with relatively high levels of control delay. Operating conditions are noticeably more constrained.	> 35.0 and ≤ 55.0
E	Poor progression with unacceptably high levels of control delay. Operating conditions are at or near capacity.	> 55.0 and ≤ 80.0
F	Unacceptable progression with forced or breakdown operating conditions.	> 80.0
	Unsignalized Intersections	**Worst Approach**
A	Free Flow / Insignificant Delay	0 ≤ 10.0
B	Stable Operations / Minimum Delays	>10.0 and ≤ 15.0
C	Stable Operations / Acceptable Delays	>15.0 and ≤ 25.0
D	Approaching Unstable Flows / Tolerable Delays	>25.0 and ≤ 35.0
E	Unstable Operations / Significant Delays	>35.0 and ≤ 50.0
F	Forced Flows / Unpredictable Flows / Excessive Delays	> 50.0

Source: Hales Engineering Descriptions, based on Highway Capacity Manual, 2010 Methodology (Transportation Research Board, 2010)

II. EXISTING (2016) BACKGROUND CONDITIONS

A. Purpose

The purpose of the existing (2016) background analysis is to study the intersections and roadways during the peak travel periods of the day with background traffic and geometric conditions. Through this analysis, background traffic operational deficiencies can be identified and potential mitigation measures recommended. This analysis will provide a baseline condition that may be compared to the build conditions to identify the impacts of the development.

B. Roadway System

The primary roadways that will provide access to the project site are described below:

Main Street (SH-75) – is a state-maintained roadway that is classified by ITD as a "regional" route in the vicinity of the project. SH-75 is a north/south route connecting Ketchum, as well as other communities such as Sun Valley and Hailey, to US-20 to the south. As a regional route in an urban area with a speed limit less than 35 mph, this roadway has minimum signal spacing of 2,640 feet, and a minimum street spacing of 660 feet. The minimum driveway distance from an upstream intersection is 250 feet, the minimum distance from a downstream intersection is 660 feet, and the minimum distance between accesses is 250 feet. Main Street (SH-75) has one travel lane in each direction and the posted speed limit in the vicinity of the proposed project is 25 mph.

C. Traffic Volumes

Hales Engineering performed weekday morning (7:00 to 9:00 a.m.) and afternoon (4:00 to 6:00 p.m.) peak period traffic counts at the following intersections:

- Main Street (SH-75) / 10th Street

These counts were performed for a previous project on Wednesday, February 13, 2008. Data from a nearby automatic traffic recorder (ATR 68) was used to determine an annual growth rate of 1.1% and a seasonal adjustment of 30% for this segment of SH-75. Using these adjustments, peak period traffic volumes were calculated for the study intersection. The a.m. peak hour was determined to be between the hours of 8:00 and 9:00 a.m., and the p.m. peak hour was determined to be between the hours of 4:15 and 5:15 p.m. Detailed count data are included in Appendix A. The traffic volumes at this intersection were approximately 15% higher during the p.m. peak hour than during the a.m. peak hour. Therefore, the p.m. peak hour was chosen for detailed analysis as this represents the worst-case scenario.

Figure 2 shows the existing p.m. peak hour volume as well as intersection geometry at the study intersection.

D. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the p.m. peak hour LOS was computed for the study intersection. The results of this analysis are reported in Table 2 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the intersection. These results serve as a baseline condition for the impact analysis of the proposed development during existing (2016) conditions. As shown in Table 2, the Main Street (SH-75) / 10th Street intersection is currently operating at LOS A during the p.m. peak hour.

E. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. The 95th percentile queues on the north- and eastbound approaches to the 10th Street / Main Street (SH-75) intersection was observed extend for approximately 80 feet. No other significant queuing was observed.

F. Mitigation Measures

No mitigation measures are recommended.

Table 2 Existing (2016) Background p.m. Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
Main Street (SH-75) / 10th Street	EB Stop	EB	9.7	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop, roundabout, and signalized intersections.
3. Southbound = Southbound approach, etc.

Source: Hales Engineering, May 2016

ID Ketchum Gas Station TIS
Existing (2016) Background

p.m. Peak Hour
Figure 2



III. PROJECT CONDITIONS

A. Purpose

The project conditions analysis explains the type and intensity of development. This provides the basis for trip generation, distribution, and assignment of project trips to the surrounding study intersections defined in the Introduction.

B. Project Description

This study addresses the traffic impacts associated with the gas station in Ketchum, Idaho. The proposed gas station will be located on the southwest corner of the Main Street (SH-75) / 10th Street intersection. A site plan for the proposed development can be found in Appendix C.

The proposed land use for the development has been identified as follows:

- Gasoline/Service Station with Convenience Market 8 Vehicle Fueling Positions

C. Trip Generation

Trip generation for the development was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation (9th Edition, 2012)*. Trip Generation for the proposed project is included in Table 3.

D. Trip Distribution and Assignment

Project traffic is assigned to the roadway network based on the type of trip and the proximity of project access points to major streets, high population densities, and regional trip attractions. Existing travel patterns observed during data collection also provide helpful guidance to establishing these distribution percentages, especially in close proximity to the site. The resulting distribution of projected generated trips is as follows:

To/From Project:

- 15% North
- 85% South

These trip distribution assumptions and the prevailing movements at each intersection were used to assign the evening peak hour generated traffic at the study intersections to create trip assignment for the proposed development. Trip assignment for the development is shown in Figure 3.

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Table 3
ID Ketchum Gas Station TIS
Trip Generation

Weekday Daily Land Use[1]	Number of Units	Unit Type	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting	Total Daily Trips
Gasoline/Service Station with Convenience Marke	8	Vehicle Fueling Positions	1,304	50%	50%	652	652	**1,304**
Project Total Daily Trips						**652**	**652**	**1,304**
A.M. Peak Hour Land Use[1]	Number of Units	Unit Type	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting	**Total a.m. Trips**
Gasoline/Service Station with Convenience Marke	8	Vehicle Fueling Positions	82	50%	50%	41	41	**82**
Project Total a.m. Peak Hour Trips						**41**	**41**	**82**
P.M. Peak Hour Land Use[1]	Number of Units	Unit Type	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting	**Total p.m. Trips**
Gasoline/Service Station with Convenience Marke	8	Vehicle Fueling Positions	110	50%	50%	55	55	**110**
Project Total p.m. Peak Hour Trips						**55**	**55**	**110**

1. Land Use Code from the Institute of Transportation Engineers Trip Generation Manual (9th Edition - 2012)

SOURCE: Hales Engineering, March 2016

E. Access

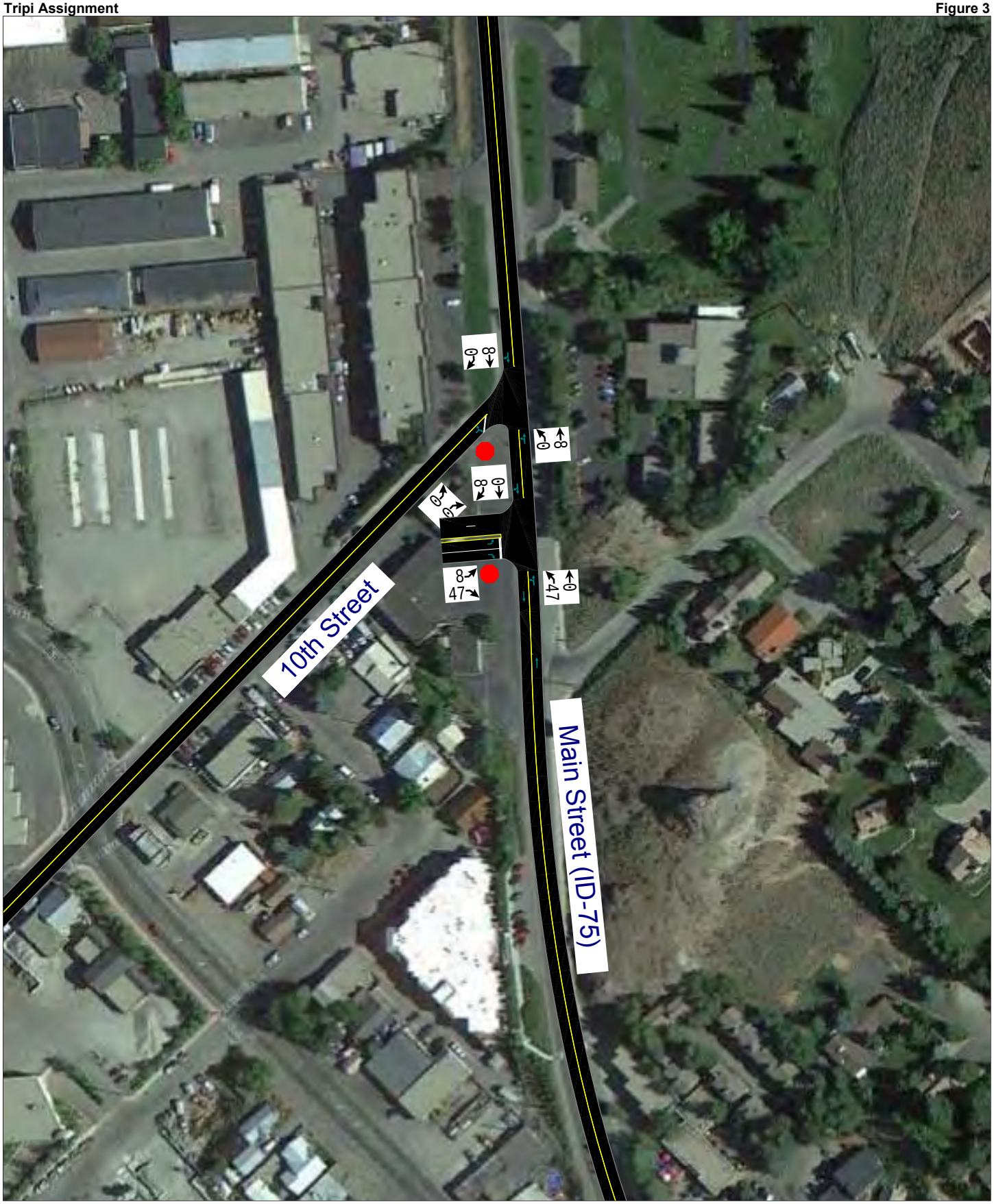
The proposed access for the site will be gained at the following locations (see also site plan in Appendix C):

Main Street (SH-75):

- One full-movement "boulevard approach" accesses is proposed on Main Street (SH-75), one approximately 60 feet south of 10th Street. A "boulevard approach" consists of two forty foot wide openings in the curb separated by a small island. One opening is for ingress movements, and the other for egress movements.

ID Ketchum Gas Station TIS
Tripi Assignment

p.m. Peak Hour
Figure 3



Hales Engineering
1220 North 500 West, Ste. 202 Lehi UT 84043

801.766.4343
5/3/2016

IV. EXISTING (2016) PLUS PROJECT CONDITIONS

A. Purpose

This section of the report examines the traffic impacts of the proposed project at each of the study intersections. The net trips generated by the proposed development were combined with the existing background traffic volumes to create the existing plus project conditions. This scenario provides valuable insight into the potential impacts of the proposed project on background traffic conditions.

B. Traffic Volumes

Project trips were assigned to the study intersections based on the trip distribution percentages discussed in Chapter III and permitted intersection turning movements. The existing (2016) plus project p.m. peak hour volumes were generated for the study intersections and are shown in Figure 4.

C. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the p.m. peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 4 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. As shown in Table 4, all study intersections are anticipated to operate at acceptable levels of service during the p.m. peak hour.

D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. During the p.m. peak hour, the 95th percentile queue length on the on the eastbound approach to the Main Street (SH-75) / 10th Street intersection is anticipated to extend for approximately 80 feet with project traffic added. Some queuing on northbound Main Street (SH-75) is also anticipated, which is likely attributed to left-turning vehicles blocking through traffic at the Main Street (SH-75) / 10th Street intersection as well as at the project access.

E. Mitigation Measures

It is recommend that a two-way left-turn lane be constructed from a location north of 10th Street to a location south of the project. No other mitigation measures are recommended.

Table 4 Existing (2016) Plus Project p.m. Peak Hour Level of Service

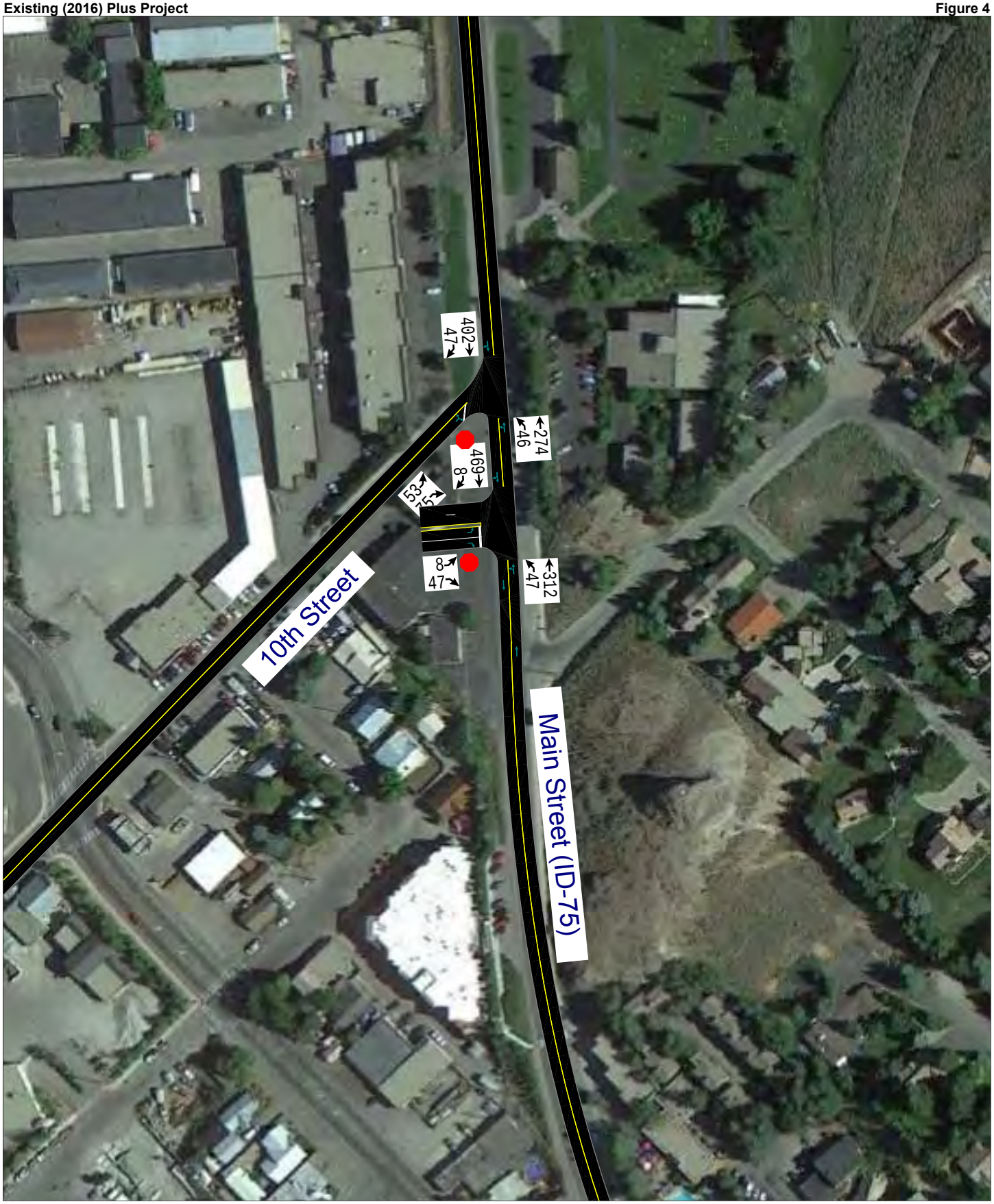
Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
Main Street (SH-75) / 10th Street	EB Stop	EB	10.9	B	-	-
Main Street (SH-75) / Access 1	EB Stop	EB	6.5	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop, roundabout, and signalized intersections.
3. Southbound = Southbound approach, etc.

Source: Hales Engineering, May 2016

ID Ketchum Gas Station TIS
Existing (2016) Plus Project

p.m. Peak Hour
Figure 4



V. FUTURE (2020) BACKGROUND CONDITIONS

A. Purpose

The purpose of the future (2020) background analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions. Through this analysis, future background traffic operational deficiencies can be identified and potential mitigation measures recommended.

B. Roadway Network

Based on information received, no improvements are planned for any of the roadways or intersections within the study area before 2020.

C. Traffic Volumes

Hales Engineering used the calculated annual growth rate discussed in Chapter II to project future (2020) traffic volumes for the study intersection. Future 2020 p.m. peak hour turning movement volumes are shown in Figure 5.

D. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the p.m. peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 5 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. These results serve as a baseline condition for the impact analysis of the proposed development for future (2020) conditions. As shown in Table 5, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C during the p.m. peak hour with future (2020) background traffic conditions.

E. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. The 95th percentile queues on the north- and eastbound approaches to the Main Street (SH-75) / 10th Street intersection are anticipated to extend for approximately 110 feet. No other significant queuing is anticipated.

F. Mitigation Measures

No additional mitigation measures are recommended.

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Table 5 Future (2020) Background p.m. Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
Main Street (SH-75) / 10th Street	EB Stop	EB	15.9	C	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop, roundabout, and signalized intersections.
3. Southbound = Southbound approach, etc.

Source: Hales Engineering, May 2016

ID Ketchum Gas Station TIS
Future (2020) Background

p.m. Peak Hour
Figure 5



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VI. FUTURE (2020) PLUS PROJECT CONDITIONS

A. Purpose

The purpose of the future (2020) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on future background traffic conditions.

B. Traffic Volumes

Trips were assigned to the study intersections based on the trip distribution percentages discussed in Chapter III and permitted intersection turning movements. It was also assumed that the previously recommended center TWLTL had been constructed along the project frontage.

The future (2020) plus project p.m. peak hour volumes were generated for the study intersections and are shown in Figure 6.

C. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the p.m. peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 6 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. As shown in Table 6, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C with project traffic added, while the proposed access is anticipated to operate at LOS A during the p.m. peak hour.

D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. During the p.m. peak hour, the 95th percentile queue length on the northbound approach to the Main Street (SH-75) / 10th Street intersection is anticipated to extend for approximately 50 feet. All other queuing is anticipated to be nominal.

E. Mitigation Measures

No additional mitigation measures are recommended.

Table 6 Future (2020) Plus Project p.m. Peak Hour Level of Service

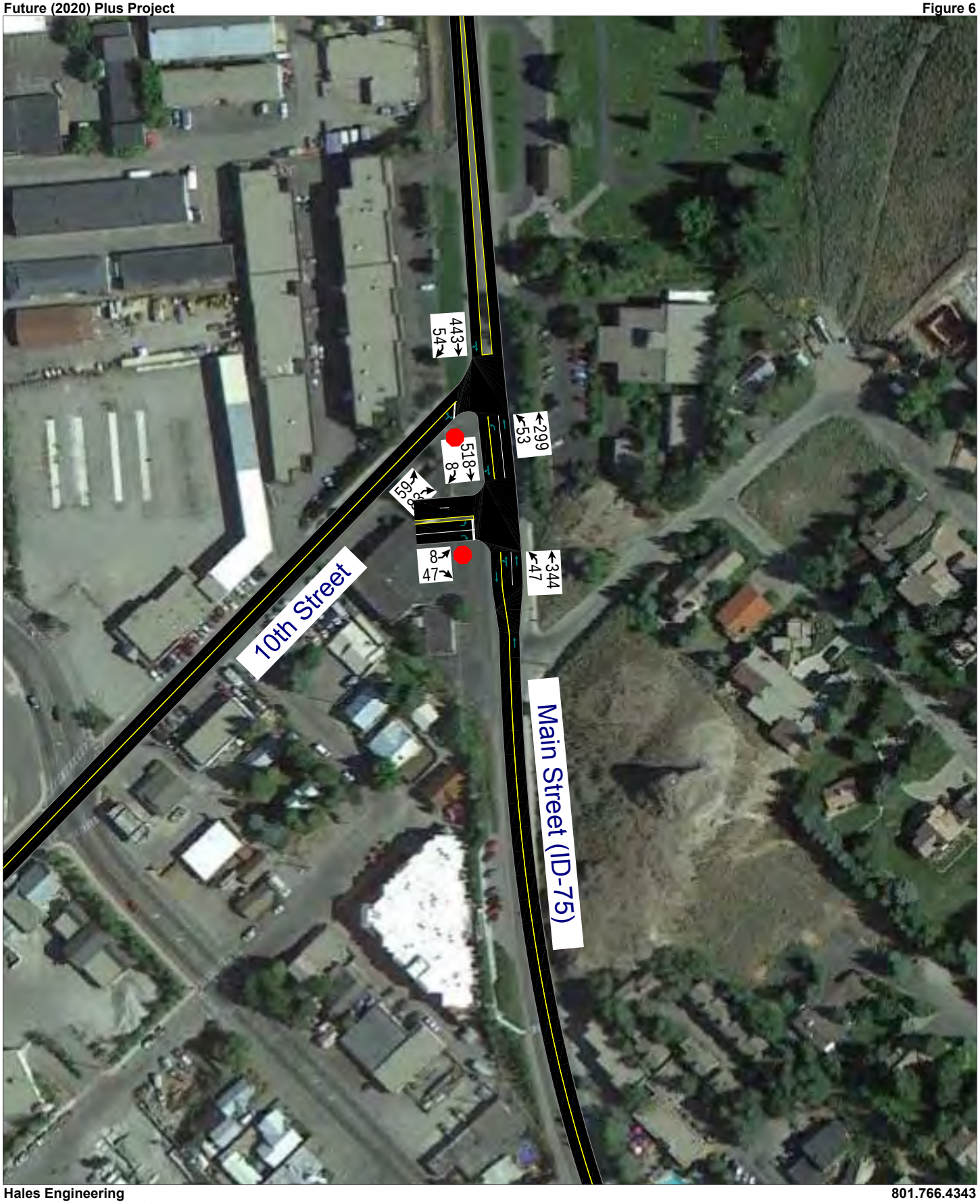
Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
Main Street (SH-75) / 10th Street	EB Stop	EB	17.8	C	-	-
Main Street (SH-75) / Access 1	EB Stop	EB	9.2	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop, roundabout, and signalized intersections.
3. Southbound = Southbound approach, etc.

Source: Hales Engineering, May 2016

ID Ketchum Gas Station TIS
Future (2020) Plus Project

p.m. Peak Hour
Figure 6



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APPENDIX A

Turning Movement Counts

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

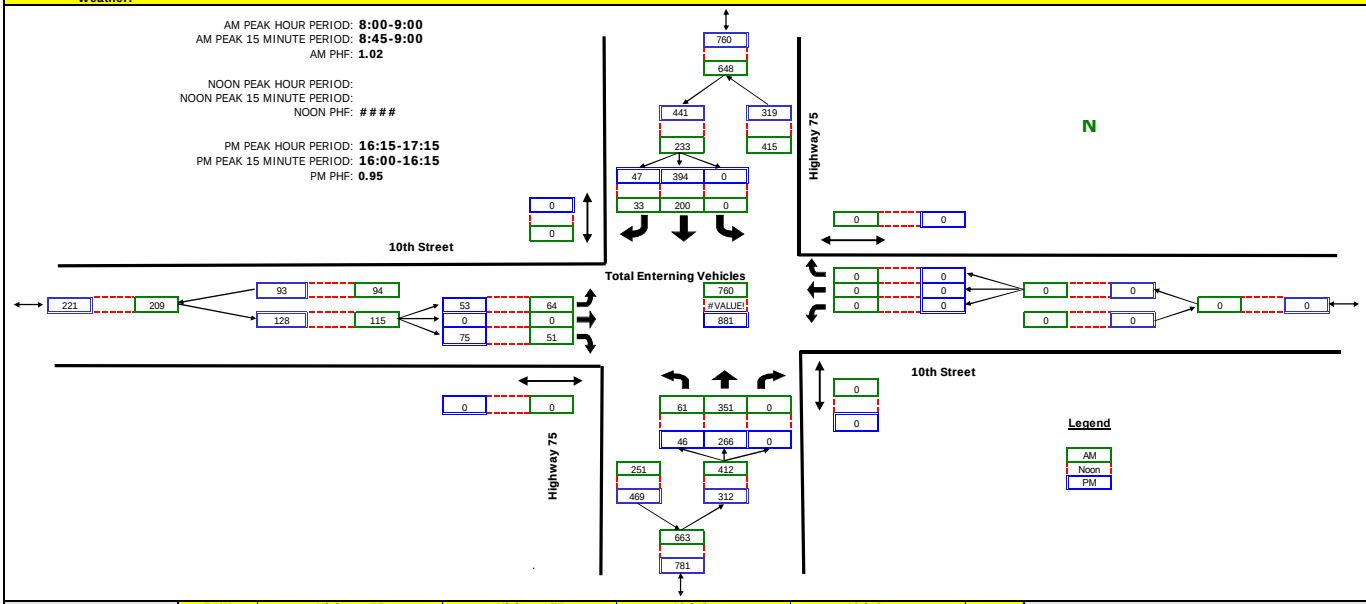
Intersection: Highway 75 / 10th Street
North/South: Highway 75
East/West: 10th Street
Jurisdiction: Ketchum, Idaho
Project Title: Ketchum - Warm Springs Road
Project No: P112
Weather:

Date: 2-13-08, Wed
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 70.0%
Adjustment Station #: 68
Growth Rate: 1.1%
Number of Years: 8

AM PEAK HOUR PERIOD: **8:00-9:00**
AM PEAK 15 MINUTE PERIOD: **8:45-9:00**
AM PHF: **1.02**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: **####**

PM PEAK HOUR PERIOD: **16:15-17:15**
PM PEAK 15 MINUTE PERIOD: **16:00-16:15**
PM PHF: **0.95**



RAW COUNT SUMMARIES	Highway 75 Northbound				Highway 75 Southbound				10th Street Eastbound				10th Street Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15-7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30-7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45-8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00-8:15	18.5714	68.5714	0	0	0	38.571	7.1429	0	15.714	0	10	0	0	0	0	0	158.5714
8:15-8:30	17.1429	81.4286	0	0	0	45.714	7.1429	0	15.714	0	10	0	0	0	0	0	177.1429
8:30-8:45	10	82.8571	0	0	0	48.571	8.5714	0	14.286	0	10	0	0	0	0	0	174.2857
8:45-9:00	10	88.5714	0	0	0	50	7.1429	0	12.857	0	17.143	0	0	0	0	0	185.7143

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:00-11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15-11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	10	64	0	0	0	114	11	0	17	0	16	0	0	0	0	0	232
16:15-16:30	10	76	0	0	0	77	11	0	17	0	16	0	0	0	0	0	207
16:30-16:45	7	43	0	0	0	114	14	0	16	0	19	0	0	0	0	0	213
16:45-17:00	11	59	0	0	0	87	7	0	6	0	14	0	0	0	0	0	184
17:00-17:15	14	66	0	0	0	83	11	0	10	0	20	0	0	0	0	0	204
17:15-17:30	7	44	0	0	0	67	4	0	10	0	6	3	0	0	0	0	138
17:30-17:45	7	47	0	0	0	69	3	0	11	0	6	0	0	0	0	0	143
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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APPENDIX B

Level of Service Results

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SimTraffic LOS Report

Project: ID Ketchum Gas Station TIS
Analysis Period: *Existing (2016) Background*
Time Period: *p.m. Peak Hour* **Project #:** *UT-16-851*

Intersection: 10th Street & Main Street (ID-75)
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	46	45	98	5.2	*A*
	T	266	263	99	1.0	*A*
	Subtotal	312	308	99	1.6	*A*
SB	T	394	396	101	0.8	*A*
	R	47	44	94	0.4	*A*
	Subtotal	441	440	100	0.8	*A*
NE	L	53	49	92	14.2	*B*
	R	75	76	101	6.8	*A*
	Subtotal	***128***	***125***	***98***	***9.7***	***A***
Total		880	873	99	2.4	*A*

Intersection:
Type:

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
Total						

3: 10th Street & Main Street (ID-75) Performance by movement Interval #1 4:15

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.3	0.3	0.2	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	5.7	1.0	0.8	0.5	12.0	6.0	2.2
Vehicles Entered	10	66	98	12	12	18	216
Vehicles Exited	10	66	97	12	12	19	216
Hourly Exit Rate	40	264	388	48	48	76	864
Input Volume	45	261	387	46	52	74	865
% of Volume	89	101	100	104	92	103	100

3: 10th Street & Main Street (ID-75) Performance by movement Interval #2 4:30

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.3	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.7	0.9	0.8	0.3	12.7	6.6	2.2
Vehicles Entered	11	66	96	11	13	20	217
Vehicles Exited	11	66	96	11	12	19	215
Hourly Exit Rate	44	264	384	44	48	76	860
Input Volume	45	261	387	46	52	74	865
% of Volume	98	101	99	96	92	103	99

3: 10th Street & Main Street (ID-75) Performance by movement Interval #3 4:45

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	5.8	1.4	0.9	0.5	18.7	7.8	2.9
Vehicles Entered	13	66	107	11	12	20	229
Vehicles Exited	13	66	108	12	13	20	232
Hourly Exit Rate	52	264	432	48	52	80	928
Input Volume	48	280	415	49	56	79	927
% of Volume	108	94	104	98	93	101	100

3: 10th Street & Main Street (ID-75) Performance by movement Interval #4 5:00

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.3	0.2	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.5	0.7	0.7	0.3	12.4	5.7	2.0
Vehicles Entered	11	65	96	10	13	18	213
Vehicles Exited	10	65	95	10	12	18	210
Hourly Exit Rate	40	260	380	40	48	72	840
Input Volume	45	261	387	46	52	74	865
% of Volume	89	100	98	87	92	97	97

3: 10th Street & Main Street (ID-75) Performance by movement Entire Run

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.3	0.2	0.2	0.2
Total Delay (hr)	0.1	0.1	0.1	0.0	0.2	0.1	0.6
Total Del/Veh (s)	5.2	1.0	0.8	0.4	14.2	6.8	2.4
Vehicles Entered	45	263	396	44	49	76	873
Vehicles Exited	45	263	396	44	49	76	873
Hourly Exit Rate	45	263	396	44	49	76	873
Input Volume	46	266	394	47	53	75	880
% of Volume	98	99	101	94	92	101	99

Total Network Performance By Interval

Interval Start	4:15	4:30	4:45	5:00	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.3	0.3	0.3	0.3
Total Delay (hr)	0.2	0.2	0.3	0.2	0.9
Total Del/Veh (s)	3.4	3.4	4.3	3.3	3.8
Vehicles Entered	216	218	230	210	872
Vehicles Exited	216	217	231	209	872
Hourly Exit Rate	864	868	924	836	872
Input Volume	2497	2497	2676	2497	2542
% of Volume	35	35	35	33	34

Intersection: 3: 10th Street & Main Street (ID-75), Interval #1

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	82	73
Average Queue (ft)	27	40
95th Queue (ft)	80	72
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), Interval #2

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	66	77
Average Queue (ft)	25	44
95th Queue (ft)	73	84
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), Interval #3

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	85	2	88
Average Queue (ft)	35	0	46
95th Queue (ft)	93	5	91
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: 10th Street & Main Street (ID-75), Interval #4

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	64	67
Average Queue (ft)	24	39
95th Queue (ft)	66	70
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), All Intervals

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	105	2	99
Average Queue (ft)	28	0	42
95th Queue (ft)	79	2	80
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty, Interval #1: 0
Network wide Queuing Penalty, Interval #2: 0
Network wide Queuing Penalty, Interval #3: 0
Network wide Queuing Penalty, Interval #4: 0
Network wide Queuing Penalty, All Intervals: 0

HALES ENGINEERING
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SimTraffic LOS Report

Project: ID Ketchum Gas Station TIS
Analysis Period: *Existing (2016) Plus Project*
Time Period: *p.m. Peak Hour* **Project #:** *UT-16-851*

Intersection: 10th Street & Main Street (ID-75)
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	46	45	98	5.1	*A*
	T	274	271	99	1.0	*A*
	Subtotal	320	316	99	1.6	*A*
SB	T	402	404	100	0.9	*A*
	R	47	52	111	0.6	*A*
	Subtotal	449	456	102	0.9	*A*
NE	L	53	52	98	15.2	*C*
	R	75	73	97	7.8	*A*
	Subtotal	***128***	***125***	***98***	***10.9***	***B***
Total		897	897	100	2.5	*A*

Intersection: Main Street (ID-75) & Access 1
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	47	44	94	3.5	*A*
	T	312	309	99	0.7	*A*
	Subtotal	359	353	98	1.0	*A*
SB	T	469	470	100	0.4	*A*
	R	8	8	100	0.2	*A*
	Subtotal	477	478	100	0.4	*A*
EB	L	8	7	88	11.8	*B*
	R	47	50	107	5.8	*A*
	Subtotal	***55***	***57***	***104***	***6.5***	***A***
Total		891	888	100	1.1	*A*

1: 10th Street & Main Street (ID-75) Performance by movement Interval #1 4:15

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	4.8	0.9	0.8	0.5	16.1	7.5	2.4
Vehicles Entered	10	69	101	13	12	18	223
Vehicles Exited	10	70	100	13	13	18	224
Hourly Exit Rate	40	280	400	52	52	72	896
Input Volume	45	270	395	46	52	74	882
% of Volume	89	104	101	113	100	97	102

1: 10th Street & Main Street (ID-75) Performance by movement Interval #2 4:30

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.3	0.3	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.5	0.9	0.8	0.6	12.7	6.6	2.2
Vehicles Entered	12	64	96	13	12	17	214
Vehicles Exited	12	64	97	13	12	17	215
Hourly Exit Rate	48	256	388	52	48	68	860
Input Volume	45	270	395	46	52	74	882
% of Volume	107	95	98	113	92	92	98

1: 10th Street & Main Street (ID-75) Performance by movement Interval #3 4:45

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.1	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	6.4	1.2	1.0	0.5	14.5	8.3	2.8
Vehicles Entered	12	69	106	16	15	18	236
Vehicles Exited	12	69	104	16	14	18	233
Hourly Exit Rate	48	276	416	64	56	72	932
Input Volume	48	288	423	49	56	79	943
% of Volume	100	96	98	131	100	91	99

1: 10th Street & Main Street (ID-75) Performance by movement Interval #4 5:00

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.5	0.3	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	5.0	0.9	0.8	0.8	14.0	8.0	2.4
Vehicles Entered	10	68	101	11	12	20	222
Vehicles Exited	10	68	102	11	12	20	223
Hourly Exit Rate	40	272	408	44	48	80	892
Input Volume	45	270	395	46	52	74	882
% of Volume	89	101	103	96	92	108	101

1: 10th Street & Main Street (ID-75) Performance by movement Entire Run

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.1	0.1	0.1	0.0	0.2	0.2	0.6
Total Del/Veh (s)	5.1	1.0	0.9	0.6	15.2	7.8	2.5
Vehicles Entered	45	271	404	52	51	74	897
Vehicles Exited	45	271	404	52	52	73	897
Hourly Exit Rate	45	271	404	52	52	73	897
Input Volume	46	274	402	47	53	75	897
% of Volume	98	99	100	111	98	97	100

2: Main Street (ID-75) & Access 1 Performance by movement Interval #1 4:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	8.7	6.3	3.4	0.7	0.4	0.3	1.0
Vehicles Entered	2	11	11	78	118	1	221
Vehicles Exited	2	11	11	78	117	1	220
Hourly Exit Rate	8	44	44	312	468	4	880
Input Volume	8	46	46	307	461	8	876
% of Volume	100	96	96	102	102	50	100

2: Main Street (ID-75) & Access 1 Performance by movement Interval #2 4:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	6.8	5.6	3.5	0.6	0.4	0.1	1.0
Vehicles Entered	2	13	12	75	113	2	217
Vehicles Exited	2	13	12	74	113	2	216
Hourly Exit Rate	8	52	48	296	452	8	864
Input Volume	8	46	46	307	461	8	876
% of Volume	100	113	104	96	98	100	99

2: Main Street (ID-75) & Access 1 Performance by movement Interval #3 4:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	14.6	5.9	3.7	0.9	0.5	0.2	1.2
Vehicles Entered	2	14	10	79	121	2	228
Vehicles Exited	2	14	10	80	120	2	228
Hourly Exit Rate	8	56	40	320	480	8	912
Input Volume	8	49	49	328	494	8	936
% of Volume	100	114	82	98	97	100	97

2: Main Street (ID-75) & Access 1 Performance by movement Interval #4 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	11.3	5.6	3.4	0.6	0.4	0.1	1.0
Vehicles Entered	2	11	11	77	118	3	222
Vehicles Exited	2	12	11	77	119	3	224
Hourly Exit Rate	8	48	44	308	476	12	896
Input Volume	8	46	46	307	461	8	876
% of Volume	100	104	96	100	103	150	102

2: Main Street (ID-75) & Access 1 Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.0	0.1	0.1	0.0	0.3
Total Del/Veh (s)	11.8	5.8	3.5	0.7	0.4	0.2	1.1
Vehicles Entered	7	50	44	309	470	8	888
Vehicles Exited	7	50	44	309	470	8	888
Hourly Exit Rate	7	50	44	309	470	8	888
Input Volume	8	47	47	312	469	8	891
% of Volume	88	107	94	99	100	100	100

Total Network Performance By Interval

Interval Start	4:15	4:30	4:45	5:00	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.3	0.3	0.3	0.3
Total Delay (hr)	0.3	0.3	0.4	0.3	1.3
Total Del/Veh (s)	4.4	4.2	4.8	4.4	4.7
Vehicles Entered	245	239	261	244	989
Vehicles Exited	245	241	257	248	989
Hourly Exit Rate	980	964	1028	992	989
Input Volume	3591	3591	3840	3591	3653
% of Volume	27	27	27	28	27

Intersection: 1: 10th Street & Main Street (ID-75), Interval #1

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	73	3	74
Average Queue (ft)	28	0	41
95th Queue (ft)	79	6	85
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	2		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #2

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	63	2	78
Average Queue (ft)	28	0	39
95th Queue (ft)	72	5	75
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #3

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	74	2	86
Average Queue (ft)	29	0	50
95th Queue (ft)	79	4	88
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	2		
Queuing Penalty (veh)	7		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #4

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	61	12	77
Average Queue (ft)	26	2	44
95th Queue (ft)	71	22	80
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	2		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), All Intervals

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	81	19	102
Average Queue (ft)	28	1	43
95th Queue (ft)	75	12	83
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	3		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Main Street (ID-75) & Access 1, Interval #1

Movement	EB	EB	NB	B3	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	23	51	81	8	19
Average Queue (ft)	5	29	26	1	3
95th Queue (ft)	23	57	78	10	17
Link Distance (ft)	68	68	38	1119	76
Upstream Blk Time (%)		0	2		
Queuing Penalty (veh)		0	0		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: Main Street (ID-75) & Access 1, Interval #2

Movement	EB	EB	NB	B3	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	25	49	71	2	25
Average Queue (ft)	6	28	28	0	4
95th Queue (ft)	26	52	74	5	21
Link Distance (ft)	68	68	38	1119	76
Upstream Blk Time (%)		0	3		
Queuing Penalty (veh)		0	0		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: Main Street (ID-75) & Access 1, Interval #3

Movement	EB	EB	NB	B3	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	29	46	78	7	28
Average Queue (ft)	8	29	30	1	5
95th Queue (ft)	28	52	84	11	27
Link Distance (ft)	68	68	38	1119	76
Upstream Blk Time (%)		0	3		0
Queuing Penalty (veh)		0	0		0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: Main Street (ID-75) & Access 1, Interval #4

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	23	46	72	25
Average Queue (ft)	7	26	27	5
95th Queue (ft)	27	53	73	27
Link Distance (ft)	68	68	38	76
Upstream Blk Time (%)		0	2	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, All Intervals

Movement	EB	EB	NB	B3	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	31	61	103	17	41
Average Queue (ft)	6	28	28	1	4
95th Queue (ft)	26	54	78	8	24
Link Distance (ft)	68	68	38	1119	76
Upstream Blk Time (%)		0	3		0
Queuing Penalty (veh)		0	0		0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty, Interval #1: 2
Network wide Queuing Penalty, Interval #2: 1
Network wide Queuing Penalty, Interval #3: 7
Network wide Queuing Penalty, Interval #4: 2
Network wide Queuing Penalty, All Intervals: 3

HALES ENGINEERING
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SimTraffic LOS Report

Project: ID Ketchum Gas Station TIS
Analysis Period: *Future (2020) Background*
Time Period: *p.m. Peak Hour* **Project #:** *UT-16-851*

Intersection: 10th Street & Main Street (ID-75)
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	56	56	100	6.2	*A*
	T	323	331	103	1.6	*A*
	Subtotal	379	387	102	2.3	*A*
SB	T	479	474	99	1.0	*A*
	R	57	52	91	0.6	*A*
	Subtotal	536	526	98	1.0	*A*
NE	L	64	61	95	22.3	*C*
	R	91	90	99	11.5	*B*
	Subtotal	***155***	***151***	***97***	***15.9***	***C***
Total		1,070	1,064	99	3.6	*A*

Intersection:
Type:

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
Total						

3: 10th Street & Main Street (ID-75) Performance by movement Interval #1 4:15

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.5	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	5.1	1.0	1.0	0.7	20.3	11.5	3.4
Vehicles Entered	13	80	114	14	16	23	260
Vehicles Exited	13	80	114	14	16	23	260
Hourly Exit Rate	52	320	456	56	64	92	1040
Input Volume	55	317	471	56	63	89	1051
% of Volume	95	101	97	100	102	103	99

3: 10th Street & Main Street (ID-75) Performance by movement Interval #2 4:30

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	5.3	1.5	1.0	0.5	23.6	13.4	3.7
Vehicles Entered	14	86	118	14	15	21	268
Vehicles Exited	14	87	119	13	16	21	270
Hourly Exit Rate	56	348	476	52	64	84	1080
Input Volume	55	317	471	56	63	89	1051
% of Volume	102	110	101	93	102	94	103

3: 10th Street & Main Street (ID-75) Performance by movement Interval #3 4:45

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.5	0.5	0.2	0.2	0.3
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	8.0	2.1	1.1	0.7	24.5	10.4	3.9
Vehicles Entered	16	83	125	14	15	24	277
Vehicles Exited	15	83	124	14	15	24	275
Hourly Exit Rate	60	332	496	56	60	96	1100
Input Volume	59	340	504	60	67	96	1126
% of Volume	102	98	98	93	90	100	98

3: 10th Street & Main Street (ID-75) Performance by movement Interval #4 5:00

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.1	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	5.5	1.6	1.0	0.4	18.2	9.0	3.2
Vehicles Entered	14	81	118	11	15	22	261
Vehicles Exited	14	82	116	11	15	21	259
Hourly Exit Rate	56	328	464	44	60	84	1036
Input Volume	55	317	471	56	63	89	1051
% of Volume	102	103	99	79	95	94	99

3: 10th Street & Main Street (ID-75) Performance by movement Entire Run

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.1	0.1	0.1	0.0	0.4	0.3	1.1
Total Del/Veh (s)	6.2	1.6	1.0	0.6	22.3	11.5	3.6
Vehicles Entered	56	331	474	52	61	91	1065
Vehicles Exited	56	331	474	52	61	90	1064
Hourly Exit Rate	56	331	474	52	61	90	1064
Input Volume	56	323	479	57	64	91	1070
% of Volume	100	103	99	91	95	99	99

Total Network Performance By Interval

Interval Start	4:15	4:30	4:45	5:00	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.4	0.4	0.3	0.3
Total Delay (hr)	0.4	0.4	0.5	0.4	1.6
Total Del/Veh (s)	4.8	5.1	5.5	4.7	5.3
Vehicles Entered	259	269	278	258	1064
Vehicles Exited	260	272	275	260	1065
Hourly Exit Rate	1040	1088	1100	1040	1065
Input Volume	3034	3034	3251	3034	3088
% of Volume	34	36	34	34	34

Intersection: 3: 10th Street & Main Street (ID-75), Interval #1

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	70	103
Average Queue (ft)	25	60
95th Queue (ft)	73	112
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), Interval #2

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	97	5	112
Average Queue (ft)	40	1	63
95th Queue (ft)	102	11	124
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: 10th Street & Main Street (ID-75), Interval #3

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	113	2	102
Average Queue (ft)	53	0	60
95th Queue (ft)	130	5	107
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: 10th Street & Main Street (ID-75), Interval #4

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	97	105
Average Queue (ft)	37	53
95th Queue (ft)	102	98
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), All Intervals

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	148	7	138
Average Queue (ft)	39	0	59
95th Queue (ft)	105	6	111
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty, Interval #1: 0
Network wide Queuing Penalty, Interval #2: 0
Network wide Queuing Penalty, Interval #3: 0
Network wide Queuing Penalty, Interval #4: 0
Network wide Queuing Penalty, All Intervals: 0

HALES ENGINEERING
innovative transportation solutions

SimTraffic LOS Report

Project: ID Ketchum Gas Station TIS
Analysis Period: *Future (2020) Plus Project*
Time Period: *p.m. Peak Hour* **Project #:** *UT-16-851*

Intersection: 10th Street & Main Street (ID-75)
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	56	55	98	6.0	*A*
	T	332	342	103	0.2	*A*
	Subtotal	388	397	102	1.0	*A*
SB	T	487	478	98	1.1	*A*
	R	57	58	102	0.7	*A*
	Subtotal	544	536	99	1.1	*A*
NE	L	64	64	100	24.2	*C*
	R	91	92	101	13.3	*B*
	Subtotal	***155***	***156***	***101***	***17.8***	***C***
Total		1,086	1,089	100	3.4	*A*

Intersection: Main Street (ID-75) & Access 1
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	47	44	94	3.8	*A*
	T	379	386	102	0.2	*A*
	Subtotal	426	430	101	0.6	*A*
SB	T	570	564	99	0.5	*A*
	R	8	7	88	0.2	*A*
	Subtotal	578	571	99	0.5	*A*
EB	L	8	10	125	15.9	*C*
	R	47	48	103	7.8	*A*
	Subtotal	***55***	***58***	***105***	***9.2***	***A***
Total		1,058	1,059	100	1.0	*A*

1: 10th Street & Main Street (ID-75) Performance by movement Interval #1 4:15

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	5.2	0.2	1.1	0.6	24.1	14.9	3.8
Vehicles Entered	15	81	113	14	17	23	263
Vehicles Exited	15	81	113	14	15	24	262
Hourly Exit Rate	60	324	452	56	60	96	1048
Input Volume	55	326	478	56	63	89	1067
% of Volume	109	99	95	100	95	108	98

1: 10th Street & Main Street (ID-75) Performance by movement Interval #2 4:30

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.5	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	5.4	0.2	1.0	0.9	20.0	11.4	3.0
Vehicles Entered	14	87	120	15	15	22	273
Vehicles Exited	14	87	120	15	16	23	275
Hourly Exit Rate	56	348	480	60	64	92	1100
Input Volume	55	326	478	56	63	89	1067
% of Volume	102	107	100	107	102	103	103

1: 10th Street & Main Street (ID-75) Performance by movement Interval #3 4:45

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.5	0.4	0.1	0.2	0.3
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	7.2	0.2	1.2	0.6	24.4	14.1	3.8
Vehicles Entered	13	86	125	15	18	24	281
Vehicles Exited	13	86	126	15	17	23	280
Hourly Exit Rate	52	344	504	60	68	92	1120
Input Volume	59	348	513	60	67	96	1143
% of Volume	88	99	98	100	101	96	98

1: 10th Street & Main Street (ID-75) Performance by movement Interval #4 5:00

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.5	0.6	0.2	0.2	0.3
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	5.8	0.2	1.1	0.8	20.9	11.1	3.1
Vehicles Entered	12	87	119	14	14	22	268
Vehicles Exited	12	87	120	13	15	22	269
Hourly Exit Rate	48	348	480	52	60	88	1076
Input Volume	55	326	478	56	63	89	1067
% of Volume	87	107	100	93	95	99	101

1: 10th Street & Main Street (ID-75) Performance by movement Entire Run

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.5	0.5	0.2	0.2	0.3
Total Delay (hr)	0.1	0.0	0.1	0.0	0.4	0.3	1.0
Total Del/Veh (s)	6.0	0.2	1.1	0.7	24.2	13.3	3.4
Vehicles Entered	55	342	477	58	64	92	1088
Vehicles Exited	55	342	478	58	64	92	1089
Hourly Exit Rate	55	342	478	58	64	92	1089
Input Volume	56	332	487	57	64	91	1086
% of Volume	98	103	98	102	100	101	100

2: Main Street (ID-75) & Access 1 Performance by movement Interval #1 4:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	17.6	7.2	3.4	0.2	0.5	0.1	1.0
Vehicles Entered	2	12	11	93	135	2	255
Vehicles Exited	2	11	12	93	135	2	255
Hourly Exit Rate	8	44	48	372	540	8	1020
Input Volume	8	46	46	372	560	8	1040
% of Volume	100	96	104	100	96	100	98

2: Main Street (ID-75) & Access 1 Performance by movement Interval #2 4:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	16.1	8.5	3.3	0.2	0.4	0.4	1.0
Vehicles Entered	3	12	11	98	142	1	267
Vehicles Exited	3	12	11	98	142	1	267
Hourly Exit Rate	12	48	44	392	568	4	1068
Input Volume	8	46	46	372	560	8	1040
% of Volume	150	104	96	105	101	50	103

2: Main Street (ID-75) & Access 1 Performance by movement Interval #3 4:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	20.6	6.9	4.3	0.2	0.5	0.2	1.0
Vehicles Entered	2	12	12	97	147	2	272
Vehicles Exited	2	12	12	97	147	2	272
Hourly Exit Rate	8	48	48	388	588	8	1088
Input Volume	8	49	49	399	601	8	1114
% of Volume	100	98	98	97	98	100	98

2: Main Street (ID-75) & Access 1 Performance by movement Interval #4 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	17.4	8.5	3.7	0.2	0.5	0.3	1.0
Vehicles Entered	2	12	10	97	140	2	263
Vehicles Exited	2	12	10	97	140	2	263
Hourly Exit Rate	8	48	40	388	560	8	1052
Input Volume	8	46	46	372	560	8	1040
% of Volume	100	104	87	104	100	100	101

2: Main Street (ID-75) & Access 1 Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.0	0.0	0.1	0.0	0.3
Total Del/Veh (s)	15.9	7.8	3.8	0.2	0.5	0.2	1.0
Vehicles Entered	10	48	44	385	564	7	1058
Vehicles Exited	10	48	44	386	564	7	1059
Hourly Exit Rate	10	48	44	386	564	7	1059
Input Volume	8	47	47	379	570	8	1058
% of Volume	125	103	94	102	99	88	100

Total Network Performance By Interval

Interval Start	4:15	4:30	4:45	5:00	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.4	0.4	0.4	0.4	0.4
Total Delay (hr)	0.5	0.4	0.5	0.4	1.9
Total Del/Veh (s)	5.7	5.1	5.7	5.1	5.7
Vehicles Entered	285	295	305	291	1180
Vehicles Exited	285	297	305	294	1181
Hourly Exit Rate	1140	1188	1220	1176	1181
Input Volume	4290	4290	4594	4290	4366
% of Volume	27	28	27	27	27

Intersection: 1: 10th Street & Main Street (ID-75), Interval #1

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	47	16	129
Average Queue (ft)	26	2	64
95th Queue (ft)	53	16	130
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #2

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	49	6	114
Average Queue (ft)	24	1	61
95th Queue (ft)	54	9	121
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #3

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	51	8	122
Average Queue (ft)	25	1	66
95th Queue (ft)	57	11	127
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #4

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	41	14	94
Average Queue (ft)	18	2	56
95th Queue (ft)	50	17	103
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), All Intervals

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	64	27	158
Average Queue (ft)	23	2	62
95th Queue (ft)	54	14	121
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Main Street (ID-75) & Access 1, Interval #1

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	29	54	47	32
Average Queue (ft)	10	28	18	6
95th Queue (ft)	33	55	51	26
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)		0	2	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, Interval #2

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	32	56	40	30
Average Queue (ft)	10	31	18	7
95th Queue (ft)	33	63	46	31
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)	0	1	1	0
Queuing Penalty (veh)	0	0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, Interval #3

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	29	47	51	32
Average Queue (ft)	10	27	22	5
95th Queue (ft)	32	49	60	29
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)		0	2	0
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, Interval #4

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	29	61	48	30
Average Queue (ft)	8	30	16	6
95th Queue (ft)	31	61	50	26
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)	0	1	2	
Queuing Penalty (veh)	0	0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, All Intervals

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	36	72	63	46
Average Queue (ft)	9	29	19	6
95th Queue (ft)	32	58	52	28
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)	0	0	2	0
Queuing Penalty (veh)	0	0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty, Interval #1: 0
Network wide Queuing Penalty, Interval #2: 1
Network wide Queuing Penalty, Interval #3: 1
Network wide Queuing Penalty, Interval #4: 1
Network wide Queuing Penalty, All Intervals: 1

HALES ENGINEERING
innovative transportation solutions

APPENDIX C

Site Plan

LEGEND:
EXISTING PROPERTY LINE
EXISTING ADJOINER
EXISTING CENTERLINE
PROPOSED CONCRETE CURB & GUTTER
PROPOSED CONCRETE
PROPOSED ASPHALT
PROPOSED PAVERS

0 20 40 Feet

KETCHUM BLOCK 50 LOT 1AA
KETCHUM BLOCK 50 LOT 2A
KETCHUM BLOCK 29 LOT 1 & 2
E 9TH STREET ℄
EXISTING PARALLEL PARKING
EXISTING STRIPING
PROPOSED STRIPING
62.5'
50'±
13'
12'
100'± R.O.W.
STATE HWY 75 ℄
50'
6'
23'
19'
35'
R480'
R200'
R10'
R50'
40'
4'
R30'
R3' TYP.
PROPOSED 2' VALLEY GUTTER
8'
24'
KETCHUM BLOCK 30 LOT 5A
10' TYP.
15'
20' TYP.
PROPOSED ADDITION
EXISTING BUILDING
ALLEY
LOT 1
LOT 2
LOT 3
LOT 4
60'
E 10TH STREET ℄
N LEADVILLE AVENUE ℄
TENTH ST LIGHT INDUSTRIAL COMPLEX
TL 4808



1 EX VICINITY MAP
SCALE: N.T.S.

PRELIMINARY ONLY NOT FOR CONSTRUCTION

REVISIONS

No.	DESCRIPTION	DATE	BY

PREPARED BY:
BENCHMARK ASSOCIATES, P.A.
P.O. BOX 733 100 BELL DRIVE
KETCHUM, IDAHO 83340
(208) 726-9512
FAX 726-9514
WEB: WWW.BMASB.COM
MAIL: WWW.BMASB.COM

PRELIMINARY IMPROVEMENTS PLAN

KETCHUM TOWNSITE BLOCK 30, LOT 5A
T4N, R17E, SEC 13, B.M., BLAINE COUNTY, IDAHO

PREPARED FOR: ROY BRACKEN

DRAWN BY: SKS
DESIGNED BY: JPG
CHECKED BY: SB
DATE: 05/03/16
PROJECT NO.: 16051

SHEET NUMBER
EX

HALES ENGINEERING
innovative transportation solutions

APPENDIX D

95th Percentile Queue Length Reports

SimTraffic Queueing Report
Project: ID Ketchum Gas Station TIS
Time Period: p.m. Peak Hour
95th Percentile Queue Length (feet)

HALES ENGINEERING
Innovative transportation solutions

Project #: UT-16-851

Intersection	Time Period	NB	NE	SB
		LT	LR	TR
10th Street & Main Street (ID-75)	Existing (2016) Background	79	80	2

SimTraffic Queueing Report
Project: ID Ketchum Gas Station TIS
Time Period: p.m. Peak Hour
95th Percentile Queue Length (feet)

HALES ENGINEERING
Innovative transportation solutions

Project #: UT-16-851

Intersection	Time Period	B3	EB		NB	NE	SB
		T	L	R	LT	LR	TR
10th Street & Main Street (ID-75)	Existing (2016) Plus Project	--	--	--	75	83	12
Main Street (ID-75) & Access 1	Existing (2016) Plus Project	8	26	54	78	--	24

SimTraffic Queueing Report
Project: ID Ketchum Gas Station TIS
Time Period: p.m. Peak Hour
95th Percentile Queue Length (feet)

HALES ENGINEERING
Innovative transportation solutions

Project #: UT-16-851

Intersection	Time Period	NB	NE	SB
		LT	LR	TR
10th Street & Main Street (ID-75)	Future (2020) Background	105	111	6

SimTraffic Queueing Report
Project: ID Ketchum Gas Station TIS
Time Period: p.m. Peak Hour
95th Percentile Queue Length (feet)

HALES ENGINEERING
Innovative transportation solutions

Project #: UT-16-851

Intersection	Time Period	EB		NB		NE	SB
		L	R	L	LT	LR	TR
10th Street & Main Street (ID-75)	Future (2020) Plus Project	--	--	54	--	121	14
Main Street (ID-75) & Access 1	Future (2020) Plus Project	32	58	--	52	--	28

City of Ketchum
Planning & Building

STAFF REPORT
KETCHUM PLANNING AND ZONING COMMISSION
REGULAR MEETING OF JULY 11, 2016

PROJECT:	Bracken Station Pre-Application Design
FILE NUMBER:	#16-035
OWNERS:	North Town Partners LLP
REPRESENTATIVE:	Steve Cook, AIA
REQUEST:	Pre-Application Design Review approval of a commercial remodel and addition
LOCATION:	911 N. Main Street (Ketchum, AM Lot 5A, Block 30)
ZONING:	Light Industrial District Number 1 (LI-1)
OVERLAY:	None
NOTICE:	Notice was mailed to adjacent property owners on May 16, 2016. Notice was posted on the subject property and in three public City locations on May 17, 2016. Continuation of this item to June 27, 2016 was announced during the June 13, 2016 meeting and continuation of this item to July 11, 2016 was announced during the June 27, 2016 meeting.
REVIEWER:	Brittany Skelton, Associate Planner

INTRODUCTION

This project must first obtain approval of a Conditional Use Permit to proceed with considering of Design Review. The Pre-application Design Review is an open discussion between the applicant, the Planning and Zoning Commission, and the public.

During the June 13, 2016 hearing for the Conditional Use Permit the Commission continued the hearing to the June 27, 2016 meeting and gave directive to the applicant to provide additional information. City department staff has requested additional information from the applicant as well. The entirety of additional information and studies were not available by June 27th, 2016; during the continuation of hearing on June 27, 2016 the Commission requested additional information and motioned to continue the hearing to July 11, 2016. As such the Pre-application Design Review discussion was continued to July 11, 2016 as well.

ANALYSIS

The site contains three existing buildings: buildings "A", "B", and "C". The applicant is proposing to entirely demolish buildings "A" and "C" and to partially demolish building "B". The applicant is proposing to build an addition to the remaining portion of building "B", to remodel building B, and to construct a detached canopy associated with the proposed uses (motor vehicle fueling station and food service establishment).

The purpose of Pre-Application Design Review is to allow the Commission to exchange ideas and give direction to the applicant on the "design concept", keeping in mind the purpose of this chapter and the application of the evaluation standards. Design Review approval may be granted by the Commission only if the applicant demonstrates that:

- The project does not jeopardize the health, safety or welfare of the public.
- The project conforms to all applicable standards and criteria as set forth in this chapter, Title 17, and any other standards as adopted or amended by the City of Ketchum from time to time.

As demonstrated in Attachment C, staff believes the applicant has addressed many of the Design Review standards. Should the Commission agree the Commission may allow the applicant to move forward with Design Review and may attach additional conditions to approval as it determines necessary to ensure the health, safety, or welfare of the public. All conditions must cite the appropriate standard for imposing such condition. Such conditions include, but are not limited to:

- Ensuring compliance with applicable standards.
- Requiring conformity to approved plans and specifications.
- Requiring security for compliance with the terms of the approval.
- Minimizing adverse impact on other development.
- Controlling the sequence, timing and duration of development and ongoing maintenance.
- Requiring more restrictive standards than those generally found in the Ketchum Municipal Code.

STAFF RECOMMENDATION

This project must first obtain approval of a Conditional Use Permit to proceed with considering of Design Review. The Conditional Use Permit hearing has been continued to the July 11, 2016 meeting.

The Commission must consider Pre-Design Review of the Bracken Station application as it relates to the criteria used for evaluating such applications and in the context of exchanging ideas and giving direction to the applicant on the "design concept." The Commission has to option of moving the application forward to Design Review or continuing the Pre-Application Design Review discussion to a subsequent meeting. If the Planning and Zoning Commission chooses to move the application forward to Design Review, staff recommends requiring any design changes or conditions the Commission would like to see. The Commission may require additional conditions based on findings received through public comment, testimony, or other discovery.

COMMISSION OPTIONS

1. **Advance the application to Design Review**. "Motion move to advance the application from North Town Partners LLP for Pre-Application Design Review to Design Review with the following conditions/design changes [Commission to insert conditions/design changes]."
2. **Continuation of the Application.** "Motion to continue the application from North Town Partners LLP for Pre-Application Design Review to a date certain of [insert date of meeting] in order to address the following design changes [Commission to insert design changes]".

RECOMMENDED CONDITIONS

1. All plans and studies submitted with the Design Review application shall conform to the conditions specified with approval of North Town Partners LLP's Conditional Use Permit for the same site.

ATACHMENTS:

A. Table 1. Requirements for All Applications
B. Table 2. Zoning Standards Analysis
C. Table 3. Design Review Standards
D. Application
E. Plans as submitted for the July 11, 2016 meeting
    a. A.0 – Coversheet, dated May 23, 2016
    b. Existing Site Plan
    c. A-2 – Conditional Use / Preapplication Site Plan, dated June 30, 2016
    d. A-2.1 – Overall Conditional Use / Preapplicaiton Site plan, dated June 30, 2016
    e. A.3 – North Elevation, dated May 23, 2016
    f. A.5 – Proposed Flood Plan and Proposed East Elevation, dated May 23, 2016
    g. A.6 – Proposed Retaining Walls at Alley, dated May 23, 2016
    h. EX – Preliminary Improvements Plan, dated June 3, 2016
    i. EX – Preliminary Grading & Drainage Plan, dated June 3, 2016
    j. On-Site Vehicle Turn Exhibit, dated July 11, 2016
    k. 10th Street Vehicle Turn Exhibit, dated July 11, 2016
    l. Highway 75 Frenchman Sidewalk Connection, dated July 11, 2016
    m. Profile From North of 10th Street to South of 10th Street, dated July 11, 2016
    n. L1.0 – Landscape Plan, dated July 1, 2016
    o. Proposed North Elevation – 10th Street View
    p. L.1 – Lighting Plan, dated June 30, 2016
    q. Site lighting fixtures, types A-F
    r. Photometric Plan, black and white, dated June 20, 2016
    s. Photometric Plan, color, no date
    t. Radiosity Plan, dated June 20, 2016
F. Motor Fueling Station Pedestrian Analysis, dated June 29, 2016
G. Connector Sidewalk from Bracken Station to Frenchman's e-mail, dated June 27, 2016
H. Retail S Analysis, dated January 2016
I. Existing conditions and proposed development renderings, north and south views
J. Chevron monument sign example
K. Idaho Department of Environmental Quality's Rules Regulating Underground Storage Tank Systems
L. Seismic Behavior of Xerxes Underground Tanks memorandum
M. Xerxes Fiberglass Underground Storage Tanks brochure
N. Ketchum – Bracken Station TIS, Additional Information memorandum, dated July 6, 2016
O. Traffic Impact Study, complete (64 p.), dated May 2016

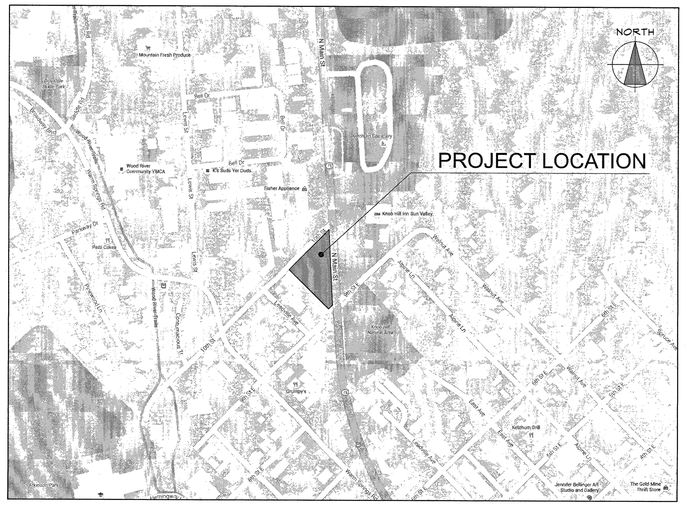
BRACKEN STATION

A CONDITIONAL USE PERMIT / DESIGN REVIEW APPLICATION

FOR:

A MOTOR VEHICLE FUELING STATION

LOT 5A / BLK 30 / ZONE LI-1



LOCATOR MAP



SITE PHOTO

DRAWING INDEX	
A.0	COVER PAGE.
A.1	EXISTING SITE PLAN. 1"= 10'
A.2	PROPOSED SITE PLAN. 1"= 10'
A.3	10TH STREET VIEW: EXISTING AND PROPOSED. 1/8"= 1'
A.4	ALLEY VIEW: EXISTING AND PROPOSED. 1/8"= 1'
A.5	STORE FRONT ELEVATION AND FLOOR PLANS WITH AREA SQ. FOOTAGE CALCULATIONS. 1/4"= 1'
A.6	ENLARGED VIEW - ALLEY RETAINING WALLS. 1/4"= 1'
C.1	SITE SURVEY.
C.2	CIVIL ACCESS PLAN TO HWY 75.
L.1.0	LANDSCAPE PLAN.
	COMPUTER GENERATED MODELS: • NORTH VIEW – BEFORE / AFTER • SOUTH VIEW – BEFORE / AFTER • NORTH ENLARGED VIEW • SOUTH ENLARGED VIEW

GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO ASSURE ALL WORK CONFORMS TO NATIONAL, STATE, AND LOCAL CODES THAT APPLY TO THIS PROJECT. WHEN INCONSISTENCIES EXIST BETWEEN DRAWINGS OR SPECS. AND APPLICABLE CODE REQUIREMENTS, CONFORMANCE TO ALL CODES SHALL HAVE PRECEDENCE OVER DRAWINGS AND SPECS.

STEVE R. COOK, ARCHITECT
323 SOUTH LEWIS ST. SUITE H, P.O. BOX 680, KETCHUM ID, 83340
PH#: (208) 725-5566
FX#: (208) 725-5568
■ ■ ■ MEMBER AMERICAN INSTITUTE OF ARCHITECTS ■ ■ ■

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- LOT 5A BLK 30

LOT 5A / BLK 30 / ZONE LI - 1

KETCHUM, ID

REVISION RECORD		
NO.	DATE	BY

DRAWING NAME: COVER PAGE

DATE OF ISSUE: 5.23.16 SUPERSEDES ALL PREVIOUS DRAWINGS

SCALE: NONE

PLOT DATE: 4/27/16

SHEET NO. A.0

PROPERTY

50' R.O.W.

APPROX EDGE OF EXISTING TRAVEL LANE

STATE HIGHWAY 75

STATE HIGHWAY 75

APPROX EDGE OF EXISTING TRAVEL LANE

50' R.O.W.

9TH STREET ±

TRASH

PARKING (ASPALT)

LOT 5A

ALLEY

30'-0"

LOT 1

LOT 2

LOT 3

LOT 4

S 3°9'9" E
273.97'

454.52'

+5848.5

STOP

BUILDING A
(EXISTING FLAT ROOF)

WOOD DECK

GAS METER

GAS METER

ENTRANCE

10TH STREET

TENTH STREET CENTER

6.0% - 7.0% SLOPE

11.4% GRADE UNDER

8% - 9% SLOPE

SLOPE

SLOPE

PARKING (ASPHALT)
N 49°40'02" W
180.51'

SINGLE STORY

TWO (2) STORY

BUILDING B
(EXISTING FLAT ROOF)

PARKING AREA

BUILDING C
(EXISTING FLAT ROOF)

+5834.7

+5834.7 APPROX

SHED

RAILROAD TIE RETAINING WALL

EXISTING PLANTINGS

SLOPE

P.P.

TOOL SHED

EXISTING BUILDINGS

ALLEY

EXIST. BLDG

LOT 4

EQUIPMENT STORAGE PARKING

SETBACK

391.4'

STEVE R. COOK, ARCHITECT
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MEMBER AMERICAN INSTITUTE OF ARCHITECTS

GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO VERIFY ALL WORK CONDITIONS TO DIMENSIONS, STATE CODES, AND LOCAL CODES PRIOR TO THE START OF CONSTRUCTION. DRAWINGS OR SPECS AND APPLICABLE CODE REQUIREMENTS, CONFORMANCE TO ALL CODES SHALL HAVE PRECEDENCE OVER DRAWINGS AND SPECS. THE PROJECT
The Drawings, Specifications, and other documents are copyright instruments of the Architect. The Architect shall be deemed the author of those documents and shall retain all common law, statutory and other reserved rights, including the copyright. The drawings, specifications, and other documents prepared by the Architect are not to be used in whole or in part, for any other project without the written authorization of the Architect. Visual contact with these documents shall constitute prima facie evidence of the acceptance of these restrictions. Any unauthorized use of these documents shall be at the user's sole risk and without liability to the Architect and the user shall indemnify and hold harmless the Architect from all claims, damages, losses, and expenses including attorney's fees arising out of or resulting therefrom. Any use of these documents for any purpose other than that authorized by the Architect is forbidden and is a violation of the copyright. In the event of unauthorized reuse of these documents, the user shall pay to the Architect any damages, including loss of profits, attorney's fees, and court costs suffered by the Architect as determined by a court of competent jurisdiction. Under such circumstances, the unauthorized user shall also be prohibited from asserting any claim of copyright infringement or ownership regarding any authorized reuse or modification of these documents.

REVISION RECORD

NO.	DATE	BY

DRAWING NAME:

SCALE: 1"=10'-0"

DATE OF ISSUE:

PLOT DATE:

SHEET NO.

PROPERTY LINE

EXISTING SIDEWALK

EXISTING SIDEWALK

EXISTING PARKING

EXISTING BUS STOP

CITY DRY WELL

50' ROW

APPROX EDGE OF EXISTING TRAVEL LANE (FOG LINE)

NORTH BOUND 25 MPH

13'-10"

19'-0"

13'-0"

STATE HIGHWAY 75

PROPOSED TURNING LANE

APPROX EDGE OF EXISTING TRAVEL LANE (FOG LINE)

NORTH BOUND 25 MPH

STATE HIGHWAY 75

PROPOSED CROSS WALK RAPID FLASH WARNING LIGHTS

APPROX EDGE OF EXISTING TRAVEL LANE (FOG LINE)

SOUTH BOUND 25 MPH

PROPOSED TURNING LANE

14'

13'-0"

APPROX EDGE OF EXISTING TRAVEL LANE (FOG LINE)

SOUTH BOUND 25 MPH

VALLEY GUTTER

VALLEY GUTTER

PROPOSED SIDEWALK (8'-0")

8'-0"

PERMITTED LANDSCAPE - SEE LS.1

PATH

EXISTING DRY WE

EDGE OF EXISTING ASPHALT

31'

50' ROW

64'-2"

40'-0"

3'-0"

40'-0"

PERMITTED LANDSCAPE - SEE LS.1

BOULEVARD APPROACH PEDISTRIAN SURFACE MATERIAL

EL. 5846.5 ±

EXISTING TREE TO REMAIN

POWER POLE

PROPERTY LINE S03°28'40"E 273.97'

PROPOSED SIDEWALK (8'-0")

EL. 5846.8 ±

EL. 5846.8 ±

OFF-STREET LOADING 14' X 55'

SNOW STORAGE 350+/- SF

SIGN

EL. 5843.8 ±

PROPOSED CROSS WALK

EL. 5846.8 ±

SIGN

POWER POLE TO BE REMOVED

9 CHARGING STATION

10 CHARGING STATION

LOGO

LOGO

1

2

3'-0"

3'-0"

13'-4" SETBACK

43'-0"

21

20

19

DEMO THIS EXIST. BLDG

BIKE RACK

GARBAGE

PROPANE LOCATION

SCREENED RECYCLE/ STO

℄ 10TH ST

40'-0" EXT'G CURB CUT

(Install below grade fuel tanks)

DEMO EXIST. BLDG

RETAINING WALL (NEW)

NEW PROPOSED PARALLEL PKG

FUEL GRADE #1

FUEL GRADE #2

FUEL GRADE #3

FUEL GRADE #4

FUELING ISLANDS

3

4

26'-0"

40'

3'-0"

DEMO THIS PORTION OF EXIST. BLDG

43' CANOPY LINE

SNOW STORAGE = 857 SF

PROPERTY LINE N45°16'21"E 180.52'

30'-0"

SLOPE = 7%

PROPOSED STAIRWAY

11

12

13

14

15

16

17

18

LOT 5A

.4267 AC (18,590 S.F.)

20' X 25.5' PROPOSED ADDITION 508 SQ. FT.

PROPOSED PATIO AREA

RETAINING WALL (NEW)

℄ ALLEY

EXISTING GRADE - NOT ASPHALT

LOT 1

LOT 2

RR TIE WALL

EL. 5848 ±

EL. 5848 ±

EL. 5846.5 ±

EL. 5839.0

POWER POLE

EL. 5836.72 ±

13'-3 1/2"

FUTURE EXPANSION

4

3

2

1

A

EL. 5836.5 ±

PROPOSED LOWER LEVEL ACCESS FROM ALLEY

END OF EXISTING BUILDING

+42

+47

+36.7

PROPOSED SIDEWALK 8'-0"

5%

5%

PROPOSED RAMP

EL. 5836.5 ±

REPURPOSE EXT'G RETAIL BLD'G TO INCLUDE STORE WITH DELI SERVICE 2,084 SQ. FT.

8 BELOW

7 BELOW

6 BELOW

5 BELOW

4

3

2

1

20' SETBACK

EXISTING LOWER LEVEL ENTRY

EL. 5836.5 ±

PROPERTY LINE S44°41'44"E 205.99'

EL. 5835.2 ±

72'-0"

EXISTING BLD'G TO REMAIN - 72'

EL. 5835.4 ±

℄ ALLEY

+ EL. 34.2

SLOPE = 10%

℄ 10TH ST

LOT 3

LOT 4

ENTER

LOWER

TENTH STREET CENTER PARKING

SIDEWALK

PROPERTY LINE

REVISED 6-30-16

N DRAWING NORTH

1 A-2 0

CONDTIONAL USE/ PREAPPLICATION SITE PLAN

NOTE: SEE CIVIL ENGINEERING DRAWINGS FOR ALL SITE DRAINAGE AND STREET GRADING DESIGN

scale: 1" = 10'

GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO ASSURE ALL WORK CONFORMS TO NATIONAL, STATE, AND LOCAL CODES THAT APPLY TO THIS PROJECT. WHEN INCONSISTENCIES EXIST BETWEEN DRAWINGS OR SPECS. AND APPLICABLE CODE REQUIREMENTS, CONFORMANCE TO ALL CODES SHALL HAVE PRECEDENCE OVER DRAWINGS AND SPECS.

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PRELIMINARY DESIGN PHASE - LOT 5A BLK 30

LOT 5A / BLK 30 / ZONE LI - 1

KETCHUM, ID

REVISION RECORD		
NO.	DATE	BY

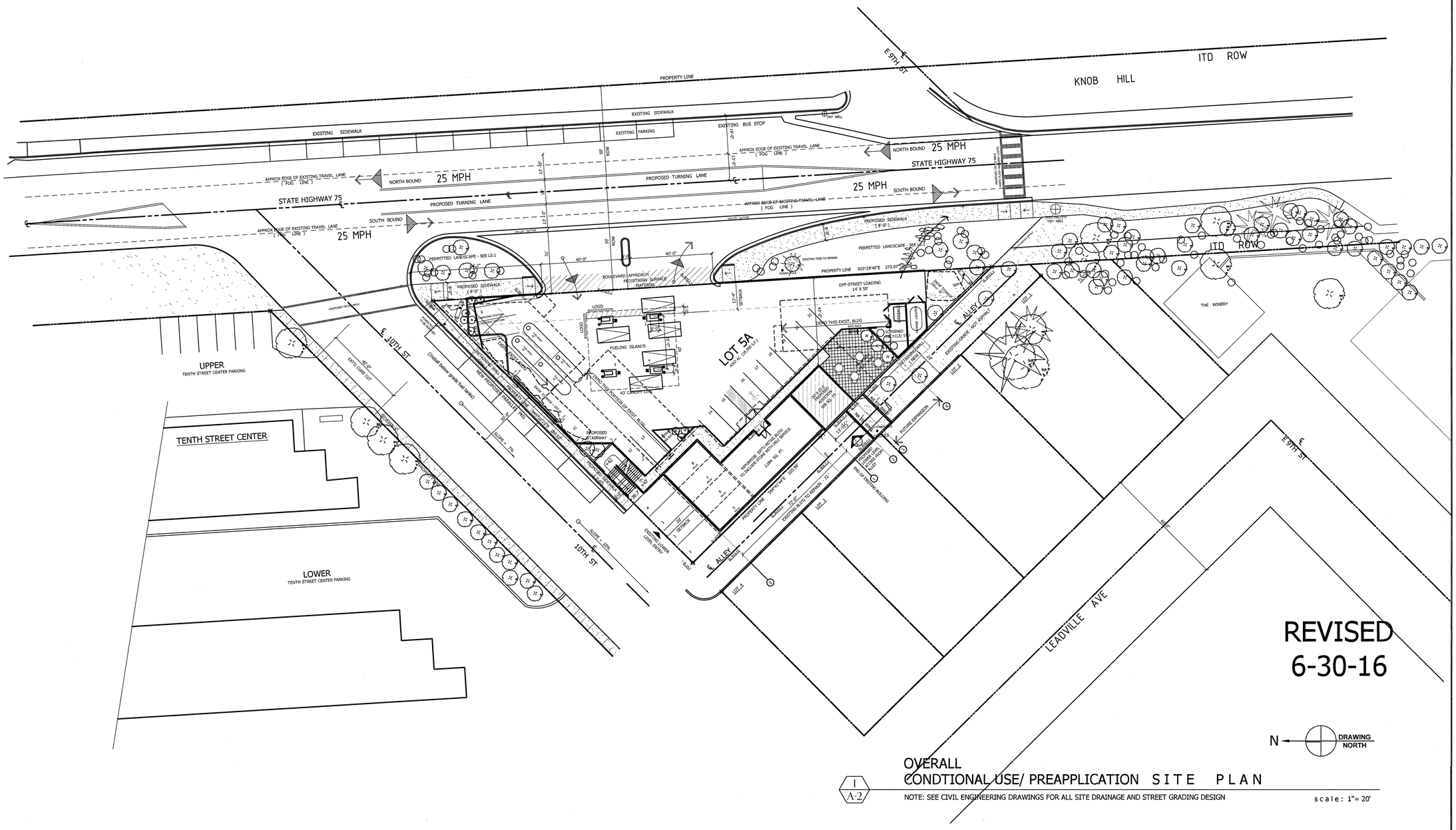
DRAWING NAME: SITE PLAN

DATE OF ISSUE: SUPERSEDES ALL PREVIOUS DRAWINGS

PLOT DATE: 6/23/16

SCALE: 1"=10'

SHEET NO.: A-2



1 / A-2

OVERALL
CONDTIONAL USE/ PREAPPLICATION SITE PLAN

NOTE: SEE CIVIL ENGINEERING DRAWINGS FOR ALL SITE DRAINAGE AND STREET GRADING DESIGN

scale: 1"= 20'

GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO ASSURE ALL WORK CONFORMS TO NATIONAL, STATE, AND LOCAL CODES THAT APPLY TO THIS PROJECT. WHEN INCONSISTENCIES EXIST BETWEEN DRAWINGS OR SPECS. AND APPLICABLE CODE REQUIREMENTS, CONFORMANCE TO ALL CODES SHALL HAVE PRECEDENCE OVER DRAWINGS AND SPECS.

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PRELIMINARY DESIGN PHASE - LOT 5A BLK 30

LOT 5A / BLK 30 / ZONE LI - 1

KETCHUM, ID

REVISION RECORD		
NO.	DATE	BY

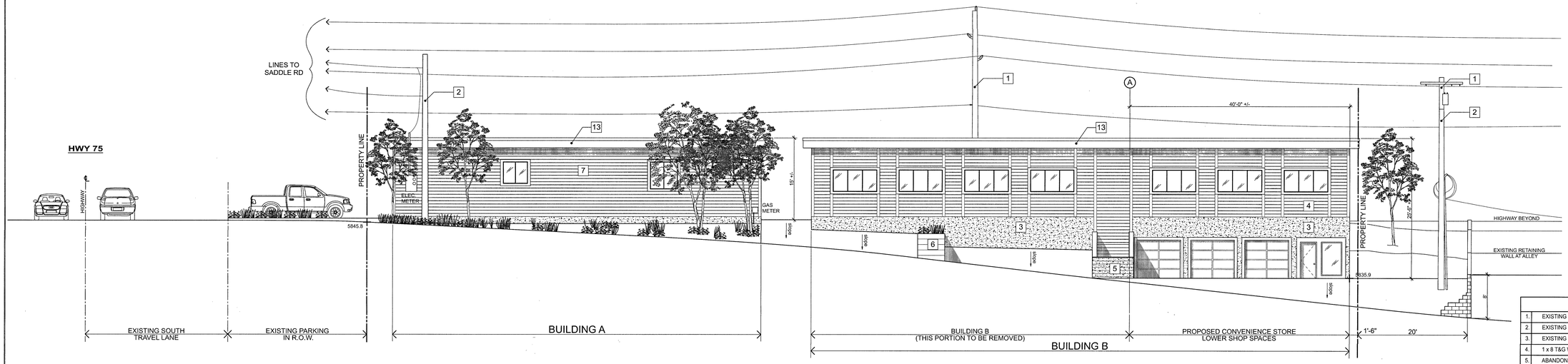
DRAWING NAME: SITE PLAN

DATE OF ISSUE: SUPERSEDES ALL PREVIOUS DRAWINGS

PLOT DATE: 6/23/16

SCALE: 1"=20'

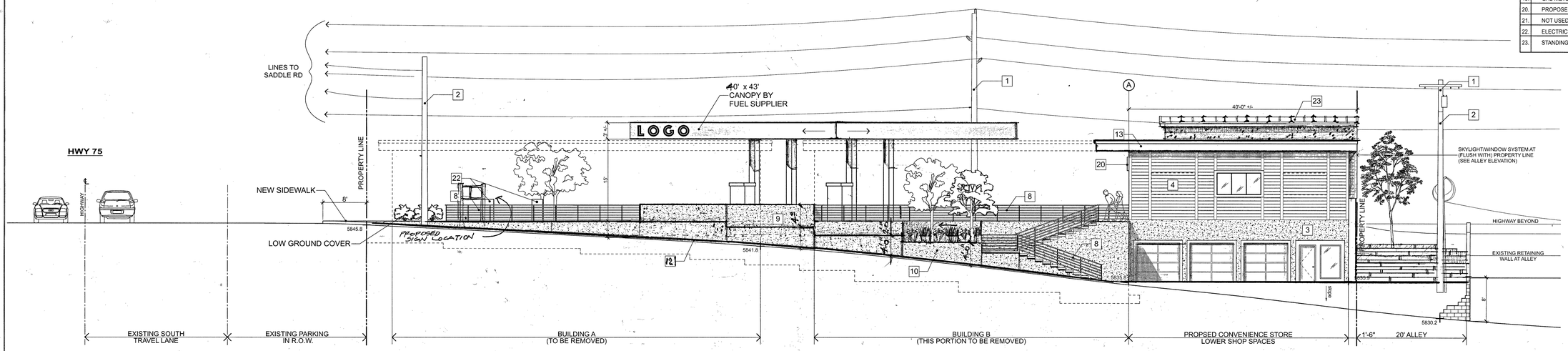
SHEET NO. A-2.1



1 EXISTING NORTH ELEVATION - 10th STREET VIEW

scale: 1/8"= 1'-0"

KEY INDEX	
1.	EXISTING POWER POLE- HWY 75.
2.	EXISTING POWER POLE- 10TH STREET/ALLEY.
3.	EXISTING CONC. WALL (MARINA GREY #1599).
4.	1 x 8 T&G WD SIDING (ROLLING HILLS #1497).
5.	ABANDONED STAIRWAY.
6.	ABANDONED RAILROAD PLANTER.
7.	EXISTING HORIZ. WOOD SIDING.
8.	NEW METAL GUARDRAIL/HANDRAIL- BLACK.
9.	NEW POURED-IN-PLACE RETAINING WALL- SANDBLAST (MARINA GREY STAIN).
10.	NEW STAIR - MID LANDING PLANTER.
11.	EXISTING RAILROAD RETAINING WALL AT ALLEY.
12.	PROPOSED SIDWALK.
13.	EXISTING FASCIA.
14.	MATCH EXISTING FASCIA.
15.	NEW SKYLIGHT.
16.	ELEC. METERS.
17.	RAIN GUTTER / DOWNSPOUT.
18.	ROOF DRAIN (INTERNAL).
19.	GAS METERS.
20.	PROPOSED SIGN.
21.	NOT USED.
22.	ELECTRIC CHARGING STATION(S).
23.	STANDING SEAM METAL ROOF SKYLIGHT.



2 PROPOSED NORTH ELEVATION - 10th STREET VIEW

scale: 1/8"= 1'-0"

GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO ASSURE ALL WORK CONFORMS TO NATIONAL, STATE, AND LOCAL CODES THAT APPLY TO THIS PROJECT. WHEN INCONSISTENCIES EXIST BETWEEN DRAWINGS OR SPECS. AND APPLICABLE CODE REQUIREMENTS, CONFORMANCE TO ALL CODES SHALL HAVE PRECEDENCE OVER DRAWINGS AND SPECS.

STEVE R. COOK, ARCHITECT
323 SOUTH LEWIS ST. SUITE H, P.O. BOX 680, KETCHUM ID, 83340
PH#: (208) 725-5566
FX#: (208) 725-5568
■ ■ ■ MEMBER AMERICAN INSTITUTE OF ARCHITECTS ■ ■ ■

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CUP APPLICATION AND DESIGN REVIEW – PRE-APP

LOT 5A / BLK 30 / ZONE LI - 1

KETCHUM, ID

REVISION RECORD		
NO.	DATE	BY

DRAWING NAME: EXTERIOR ELEVATIONS: NORTH

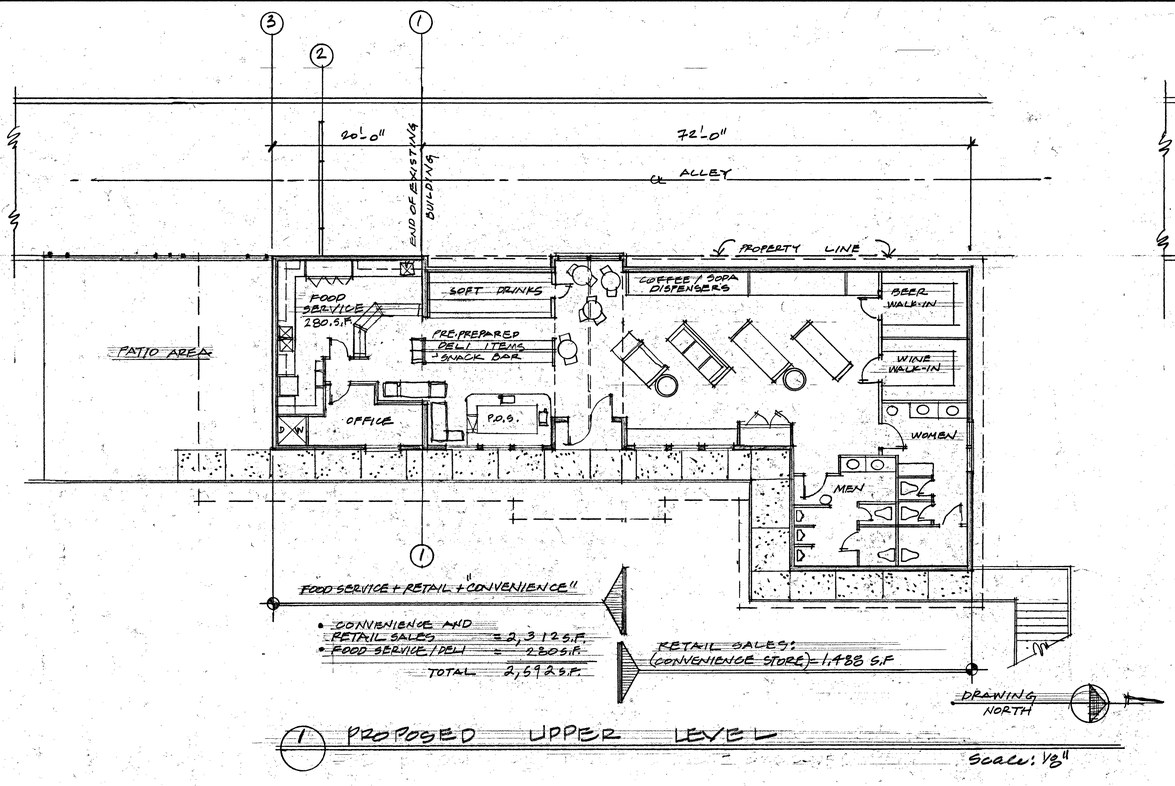
DATE OF ISSUE: 5.23.16 (SUPERSEDES ALL PREVIOUS DRAWINGS)

SCALE: 1/8" = 1'-0"

PLOT DATE: 4/27/16

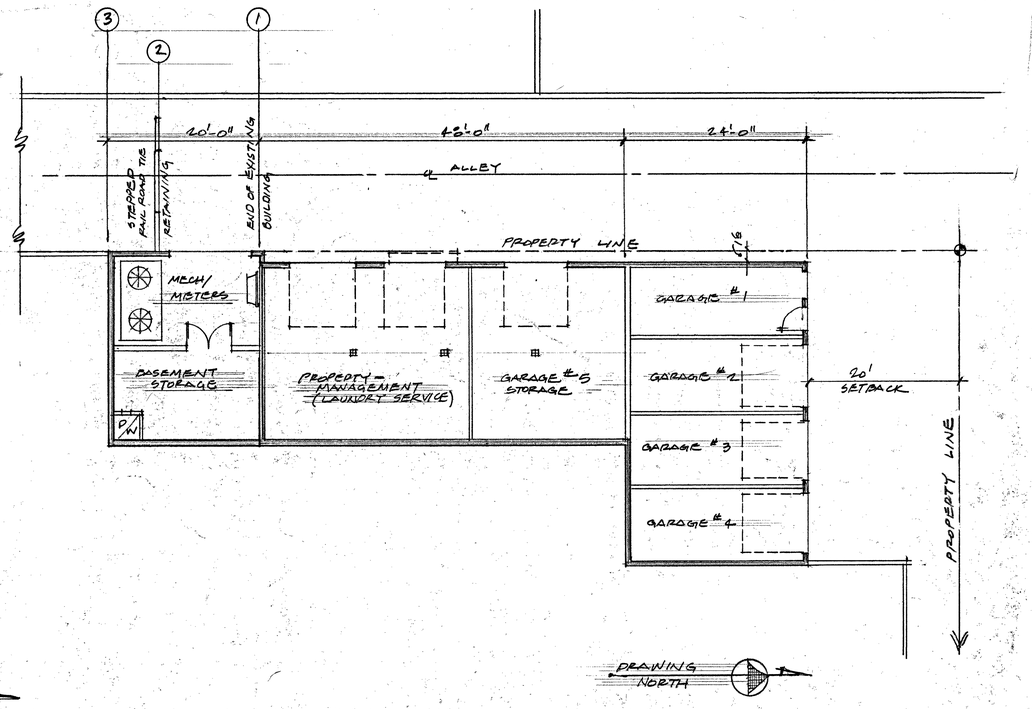
SHEET NO. A.3

5/10/16 / 5/19/16 Δ1



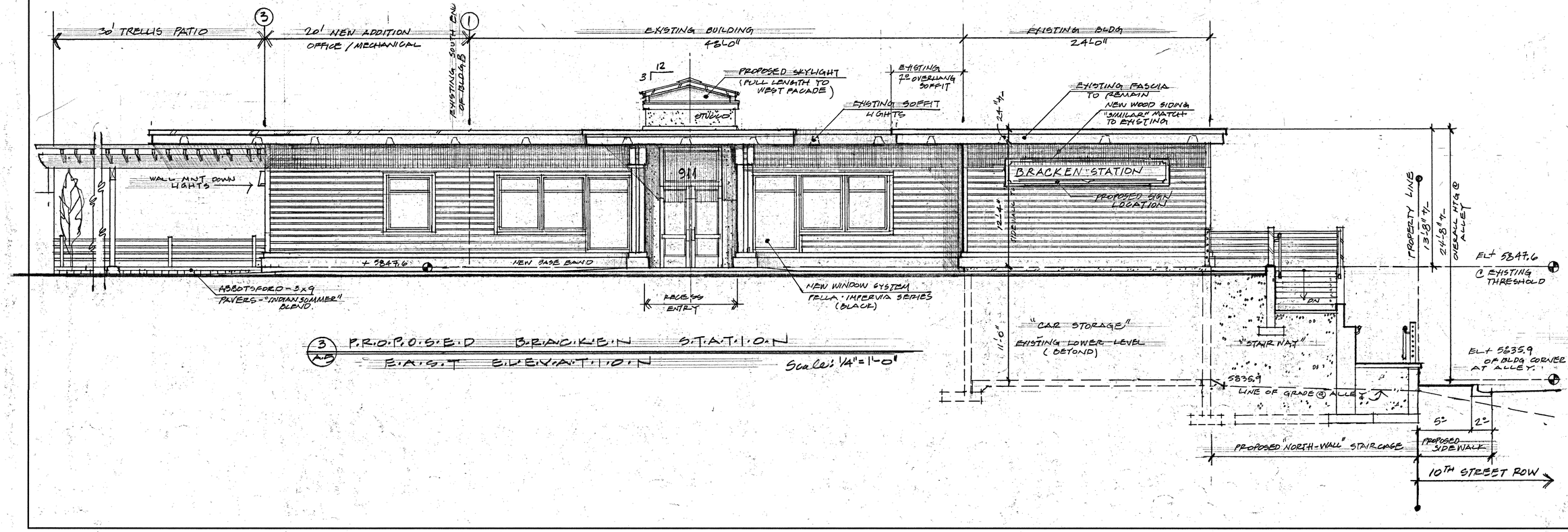
1 PROPOSED UPPER LEVEL

Scale: 1/8"



2 PROPOSED LOWER LEVEL

Scale 1/8"



3 PROPOSED BRACKEN STATION

EAST ELEVATION

Scale: 1/4" = 1'-0"

THE BRACKEN STATION
LOT 5A, BLK 30, L.T.I.
KETCHUM · IDAHO

STEVE R. COOK, ARCHITECT
323 SOUTH LEWIS ST. SUITE H, P.O. BOX 680, KETCHUM ID, 83340
PHN: (208) 725-5566
FAX: (208) 725-5568
■ ■ ■ MEMBER AMERICAN INSTITUTE OF ARCHITECTS ■ ■ ■

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The Drawings, Specifications, and other documents are copyright instruments of the Architect, the Architect shall be deemed the author of these documents and shall retain all common law, statutory and other reserved rights in addition to the copyright. The Drawings, Specifications, and other documents prepared by the Architect are not to be used by any person for any purpose except as expressly permitted by the Architect in writing. Visual contact with these documents shall constitute prima facie evidence of the acceptance of these restrictions.

REVISION RECORD

NO.	DATE	BY

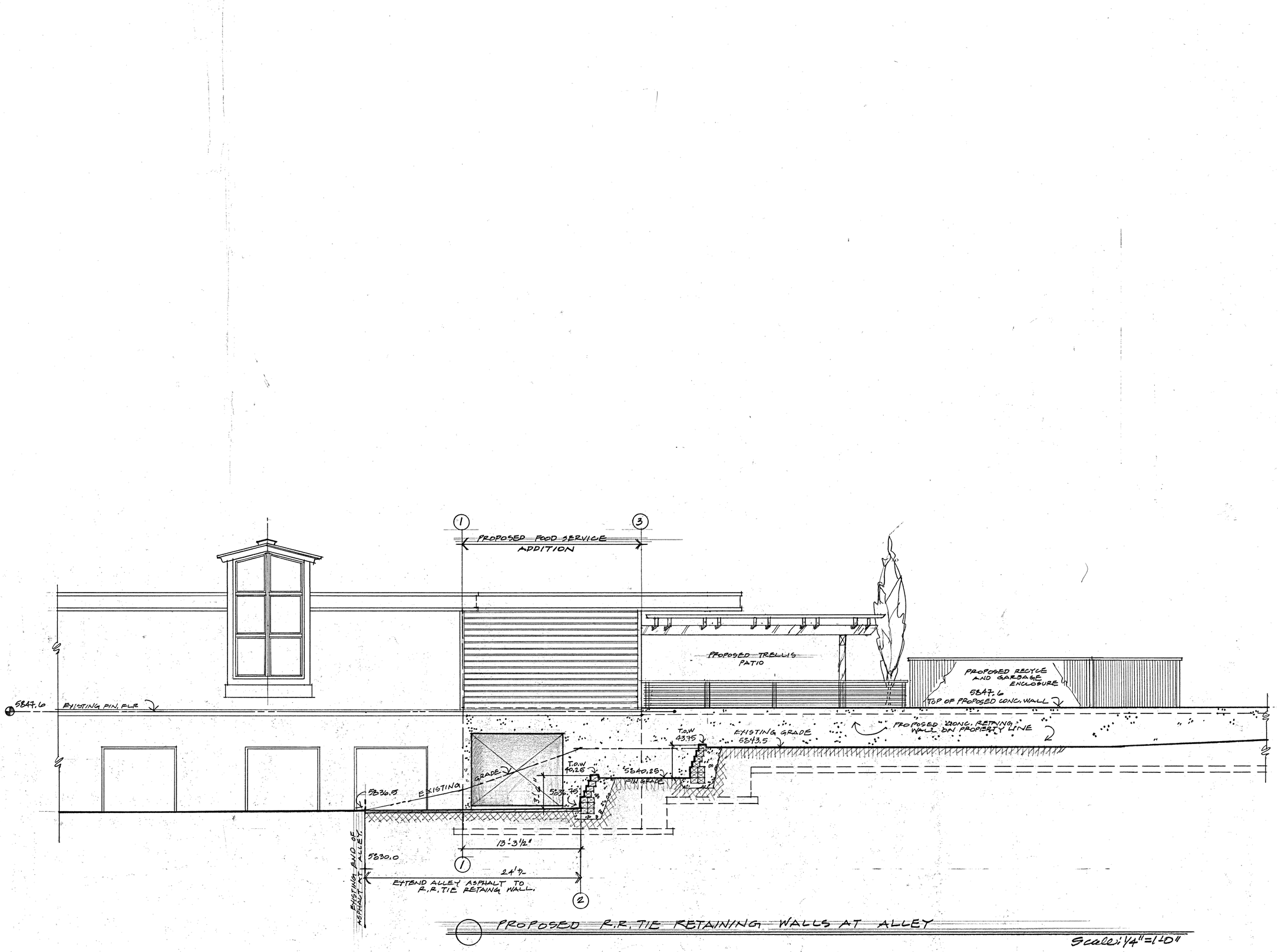
DRAWING NAME: PROPOSED FRONT ELEVATION

SCALE: 1/4" = 1'-0"

DATE OF ISSUE: 5.23.16

PLOT DATE:

SHEET NO. A-5



PROPOSED R.R. TIE RETAINING WALLS AT ALLEY

Scale: 1/4"=1'0"

STEVE R. COOK, ARCHITECT
323 SOUTH LEWIS ST. SUITE H, P.O. BOX 680, KETCHUM, ID. 83340
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The Drawings, Specifications, and other documents are copyright documents of the Architect. The Architect shall be deemed the author of these documents and retain all statutory and other reserved rights in addition to the copyright. The Drawings, Specifications, and other documents prepared by the Architect are for use solely with respect to this project.

BRACKEN STATION
LOT 6A - BLK 32
KETCHUM, IDAHO
CUP APPLICATION AND DESIGN REVIEW - PREAPP

REVISION RECORD

NO.	DATE	BY

DRAWING NAME: ALLEY R.R.TIE RETAINING WALLS

SCALE: 1/4"=1'0"

DATE OF ISSUE: 5. 23.16

PLOT DATE:

SHEET NO. A·6

LEGEND:
EXISTING PROPERTY LINE
EXISTING ADJOINER
EXISTING CENTERLINE
PROPOSED CONCRETE CURB & GUTTER
PROPOSED CONCRETE
PROPOSED ASPHALT
PROPOSED PAVERS

0 20 40 Feet

KETCHUM BLOCK 50 LOT 1AA
KETCHUM BLOCK 50 LOT 2A
KETCHUM BLOCK 29 LOT 1 & 2
E 9TH STREET ℄
RECTANGULAR RAPID FLASHING BEACON
EXISTING PARALLEL PARKING
62.5'
EXISTING STRIPING
PROPOSED STRIPING
71.2' (50' MIN.)
62.5'
50'± 13' 13' 12' 13'
100'± R.O.W.
STATE HWY 75 ℄
25' 35' 23' 19'
R480'
R200'
PROPOSED 2' VALLEY GUTTER
R50'
40' 40'
13.9'
R30'
50'±
ITD SNOW STORAGE AND PERMITTED LANSCAPING; SEE LANSCAPE PLANS
R3' TYP.
4'
8'
24'
12.9'
RETAIN AND PROTECT EXISTING TREE
ITD SNOW STORAGE AND PERMITTED LANSCAPING; SEE LANSCAPE PLANS
CONNECT TO EXISTING SIDEWALK
RETAIN AND PROTECT EXISTING POWER POLE
RECTANGULAR RAPID FLASHING BEACON
EXISTING STRIPING
PROPOSED ℄ STRIPING
KETCHUM BLOCK 30 LOT 5A
10' TYP.
13'
20' TYP.
60'
E 10TH STREET ℄
PROPOSED ADDITION
EXISTING BUILDING
ALLEY
LOT 1
LOT 2
LOT 3
LOT 4
N LEADVILLE AVENUE ℄
TENTH ST LIGHT INDUSTRIAL COMPLEX
TL 4808



1 EX VICINITY MAP
SCALE: N.T.S.

PRELIMINARY ONLY NOT FOR CONSTRUCTION

REVISIONS

No.	DESCRIPTION	DATE	BY
1	EXTEND TURN LANE SOUTH	6/3/16	SKS
2	ADD DRAINAGE IMPROVEMENTS	6/28/16	SKS

PREPARED BY:
BENCHMARK ASSOCIATES, P.A.
P.O. BOX 733 100 BELL DRIVE
KETCHUM, IDAHO 83340
(208) 726-9512
FAX 726-9514
WEB: WWW.BMA5B.COM
MAIL: WWW.BMA5B.COM

PRELIMINARY IMPROVEMENTS PLAN

KETCHUM TOWNSITE BLOCK 30, LOT 5A
T4N, R17E, SEC 13, B.M., BLAINE COUNTY, IDAHO

PREPARED FOR: ROY BRACKEN

DRAWN BY: SKS
DESIGNED BY: JPG
CHECKED BY: SB
DATE: 05/03/16
PROJECT NO.: 16051

SHEET NUMBER
EX

STATE HIGHWAY 75

MAIN STREET BASIN
AREA= 0.2 ACRES

BASIN 1
AREA= 0.39 ACRES

BASIN 2
AREA= 0.27 ACRES

10TH STREET

PROPOSED DRYWELL #2

PROPOSED DRYWELL #1

PROPOSED CATCH BASIN #1

PROPOSED CATCH BASIN #2

PROPOSED CATCH BASIN #3

PROPOSED 4"ø D3034 STORM DRAIN

PROPOSED 8"ø D3034 STORM DRAIN

PROPOSED OIL/WATER SEPARATOR #2

CONNECT TO ROOF AND FOUNDATION DRAINS

5846

5847

5845.8 PP

8PP NOEL

GB

EOA

SWALE

VG3

0 10 20 Feet

LEGEND:

- EXISTING PROPERTY LINE
- EXISTING ADJOINER
- EXISTING CENTERLINE
- PROPOSED CONCRETE CURB & GUTTER
- PROPOSED CONCRETE
- PROPOSED ASPHALT
- PROPOSED PAVERS

Infiltration System Sizing Worksheet

The proposed infiltration system design below allows for infiltration of stormwater collected in the largest basin.

Onsite Native Soil Infiltration

Infiltration Rate:	300	in/hr
Factor of Safety:	1.5	
Design Infiltration Rate:	200	**in/hr**

Assumed T_c:	15 min
Intensity (25-yr, 15 min):	0.43 in/hr
Intensity (25-yr, 1 hr):	1.72 in/hr

Site Infiltration Sizing

Impervious Area:	0.400	ac
Runoff Coefficient (Imp.):	0.98	
25-Year Design Runoff:	0.674	cfs

Drywell Structure Dimensions

Drywell Manhole Diameter:	24	in
Drain Rock Thickness:	24	in
Drain Rock Void Ratio:	0.4	
Drywell Rim Elevation:	100.00	
Lowest Inlet Invert Elevation:	99.00	
Depth to Bottom of Drywell:	7.2	ft
Bottom Elevation:	92.8	

8' MIN. DEPTH TO REACH FREE-DRAINING MATERIAL BELOW FROST DEPTH.

Drywell Stage-Storage-Discharge

Drywell Stage	Water Surface Depth	Elevation	Storage in MH	Storage in Drain Rock	Total Storage	Bottom Wetted Area	Side Wetted Area	Total Wetted Area	Drywell Infiltration Flow Rate
(ft)	(ft)		(cf)	(cf)	(cf)	(sf)	(sf)	(sf)	(cfs)
0.00	7.23	92.77	0.0	0.0	0.0	28.3	0.0	28.3	0.131
0.62	6.60	93.40	2.0	6.3	8.2	28.3	11.7	40.0	0.185
1.25	5.98	94.02	3.9	12.5	16.4	28.3	23.5	51.7	0.240
1.87	5.36	94.64	5.9	18.8	24.6	28.3	35.2	63.5	0.294
2.49	4.74	95.26	7.8	25.0	32.9	28.3	46.9	75.2	0.348
3.11	4.11	95.89	9.8	31.3	41.1	28.3	58.7	87.0	0.403
3.74	3.49	96.51	11.7	37.6	49.3	28.3	70.4	98.7	0.457
4.36	2.87	97.13	13.7	43.8	57.5	28.3	82.2	110.4	0.511
4.98	2.25	97.75	15.6	50.1	65.7	28.3	93.9	122.2	0.566
5.60	1.62	98.38	17.6	56.3	73.9	28.3	105.6	133.9	0.620
6.23	**1.00**	**99.00**	**19.6**	**62.6**	**82.2**	**28.3**	**117.4**	**145.6**	**0.674**

Drywell Design

Ketchum Villiage, Blk 30, Lot 5
Bracken Station
T4N, R17E, SEC 13, B.M., Blaine County, ID
BY: SKS DATE: 06/29/16

PRELIMINARY ONLY NOT FOR CONSTRUCTION

REVISIONS

No.	DESCRIPTION	DATE	BY
1	EXTEND TURN LANE SOUTH	6/3/16	SKS

PREPARED BY:
BENCHMARK ASSOCIATES, P.A.
P.O. BOX 733 100 BELL DRIVE
KETCHUM, IDAHO 83340
(208) 726-9512
FAX 726-9514
WEB: WWW.BMA5B.COM
MAIL: WWW.BMA5B.COM

PRELIMINARY GRADING & DRAINAGE PLAN

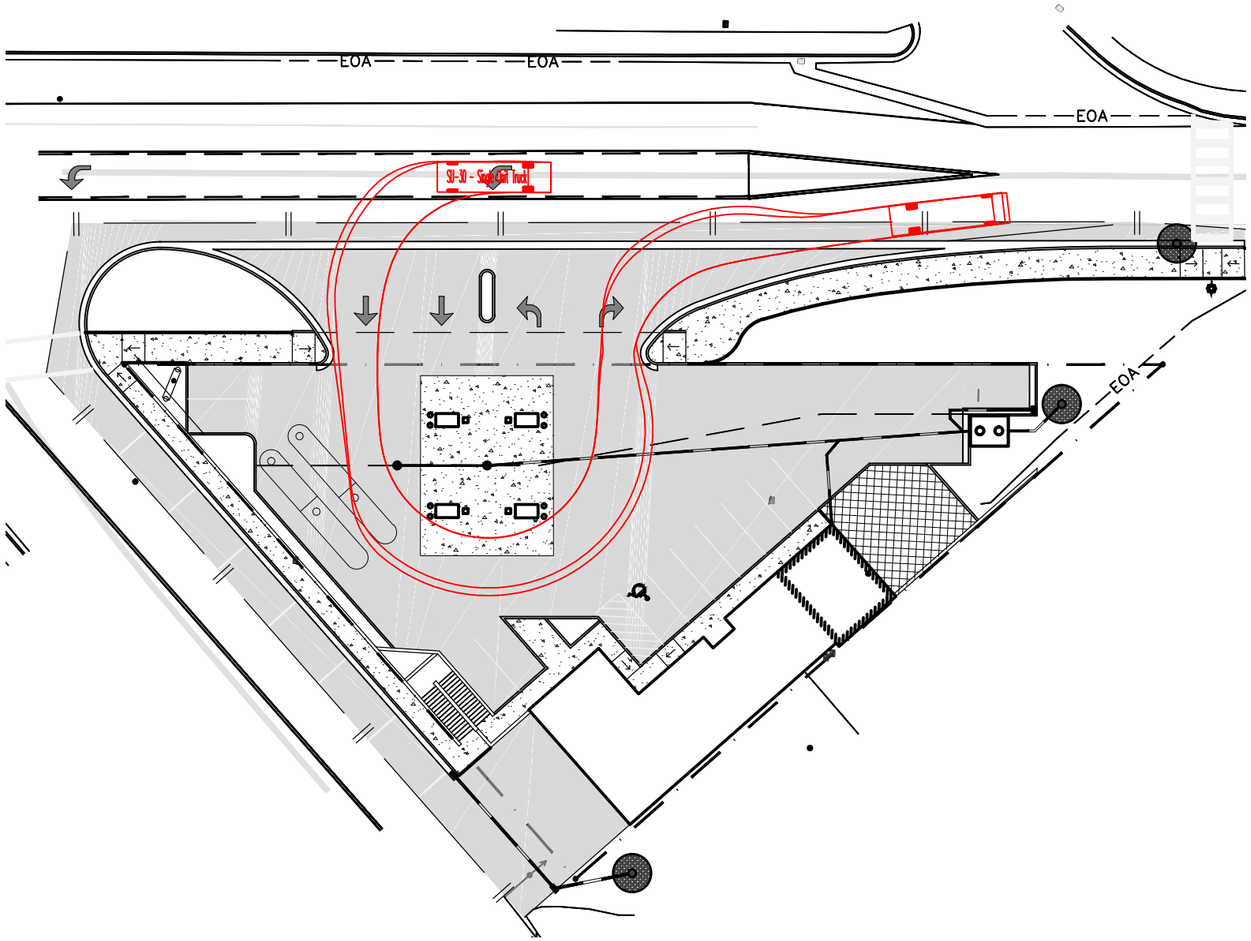
KETCHUM TOWNSITE BLOCK 30, LOT 5A
T4N, R17E, SEC 13, B.M., BLAINE COUNTY, IDAHO

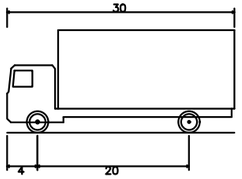
PREPARED FOR: ROY BRACKEN

DRAWN BY: SKS
DESIGNED BY: JPG
CHECKED BY: SB
DATE: 05/03/16
PROJECT NO.: 16051

SHEET NUMBER

EX

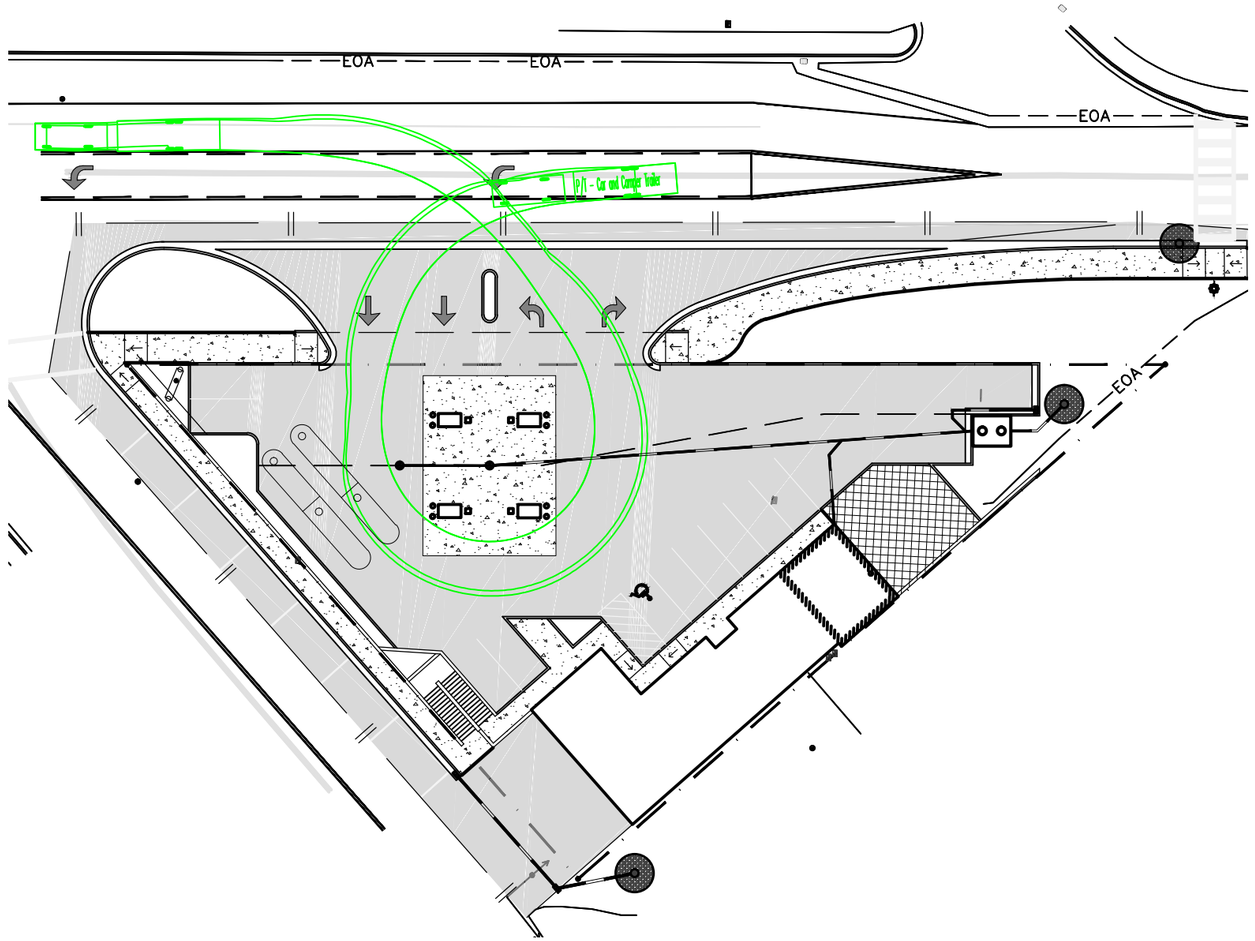


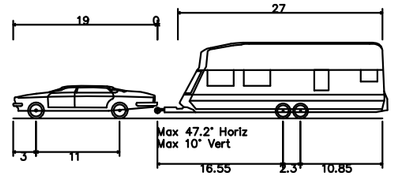


SU–30 – Single Unit Truck

Overall Length	30.000ft
Overall Width	8.000ft
Overall Body Height	13.500ft
Min Body Ground Clearance	1.367ft
Track Width	8.000ft
Lock–to–lock time	5.00s
Max Steering Angle (Virtual)	31.80°

1 — BOX TRUCK TURN
SCALE: SCALE





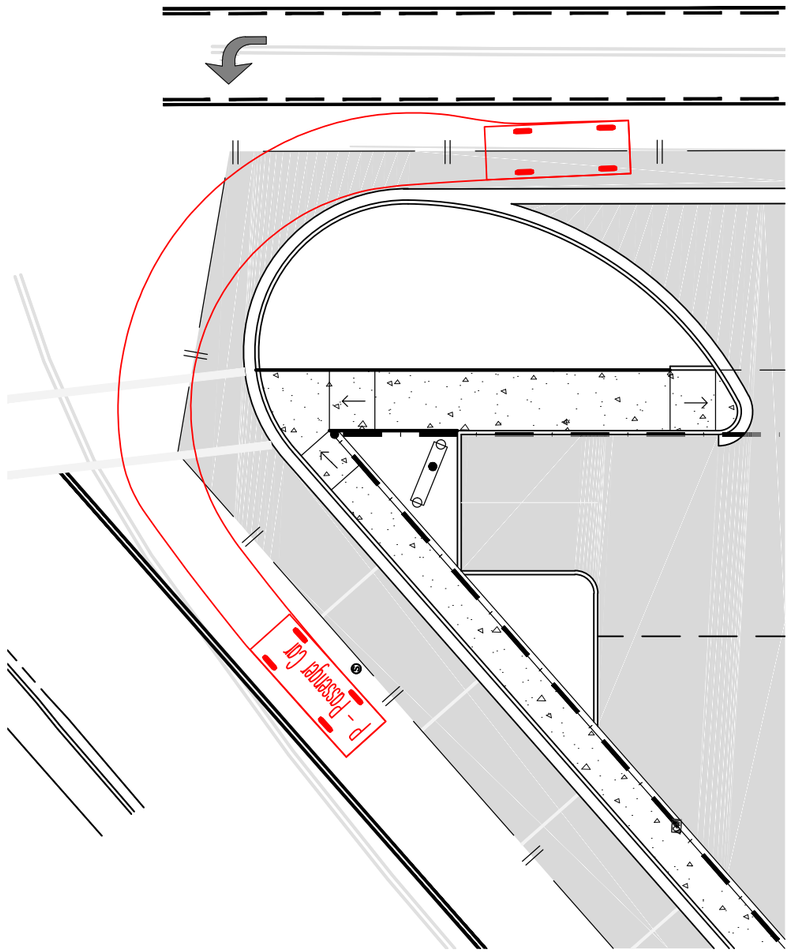
P/T – Car and Camper Trailer

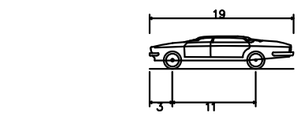
Overall Length	48.701ft
Overall Width	8.000ft
Overall Body Height	10.008ft
Min Body Ground Clearance	0.795ft
Max Track Width	8.000ft
Lock–to–lock time	4.00s
Max Steering Angle (Virtual)	21.50°

2 — PASSENGER CAR WITH TRAILER TURN
SCALE: SCALE

ON–SITE VEHICLE TURN EXHIBIT

JULY 11TH, 2016

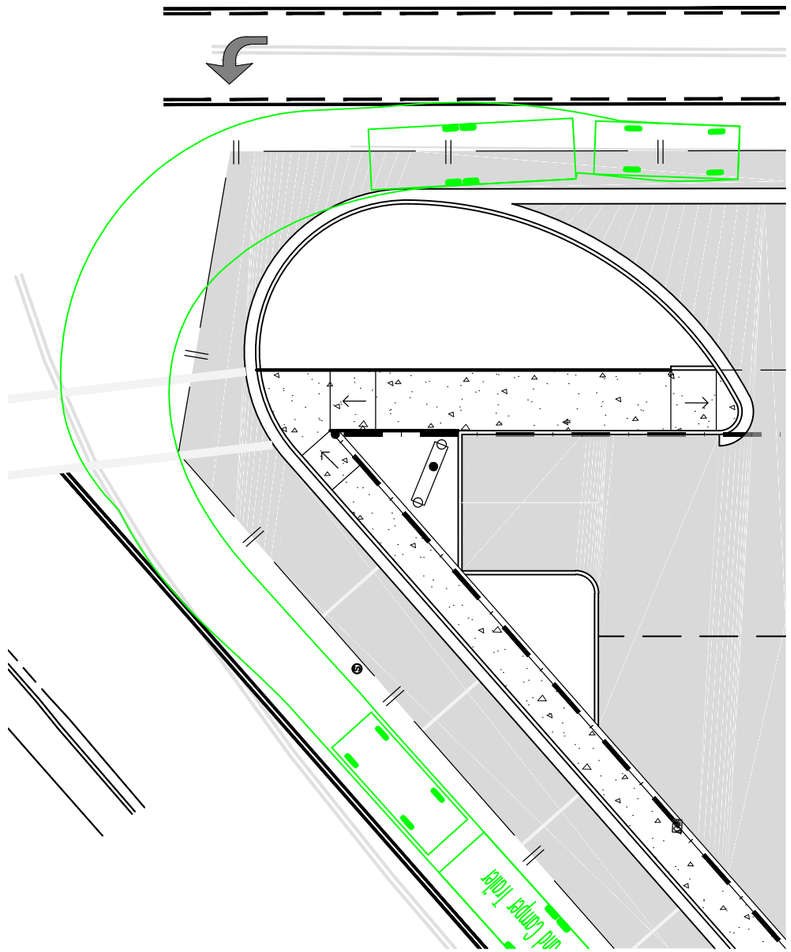


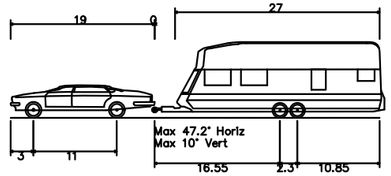


P – Passenger Car

Overall Length	19.000ft
Overall Width	7.000ft
Overall Body Height	4.300ft
Min Body Ground Clearance	1.115ft
Track Width	6.000ft
Lock–to–lock time	4.00s
Max Steering Angle (Virtual)	31.60°

1 — PASSENGER CAR TURN
SCALE: SCALE

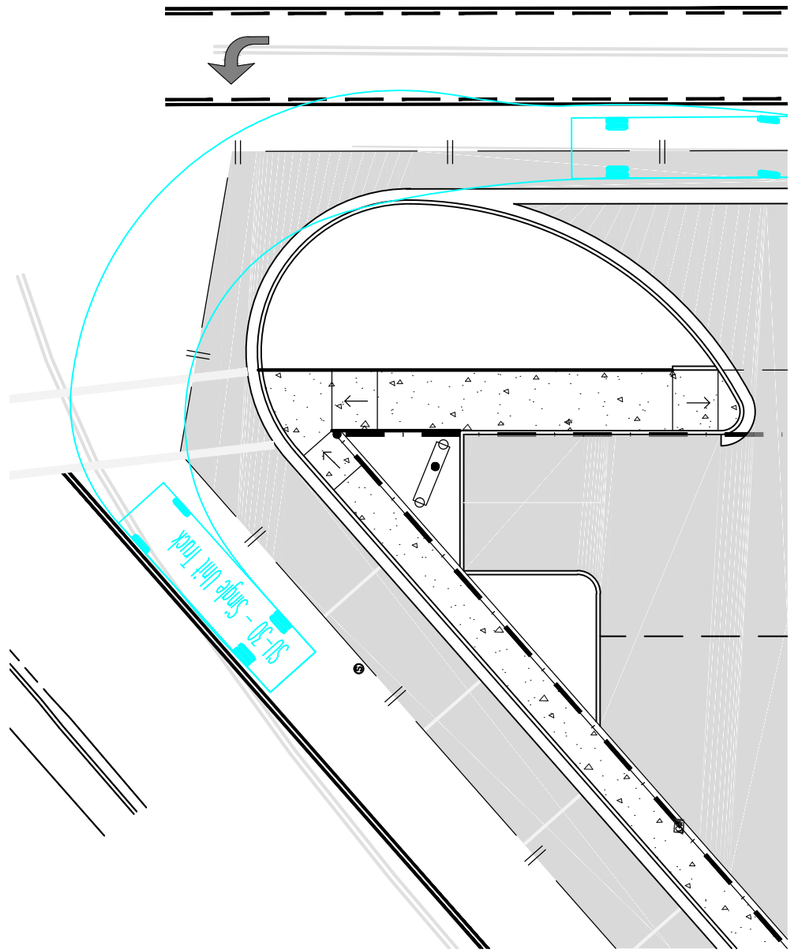


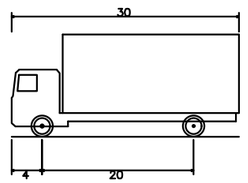


P/T – Car and Camper Trailer

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Lock–to–lock time	4.00s
Max Steering Angle (Virtual)	21.50°

2 — PASSENGER CAR WITH TRAILER TURN
SCALE: SCALE





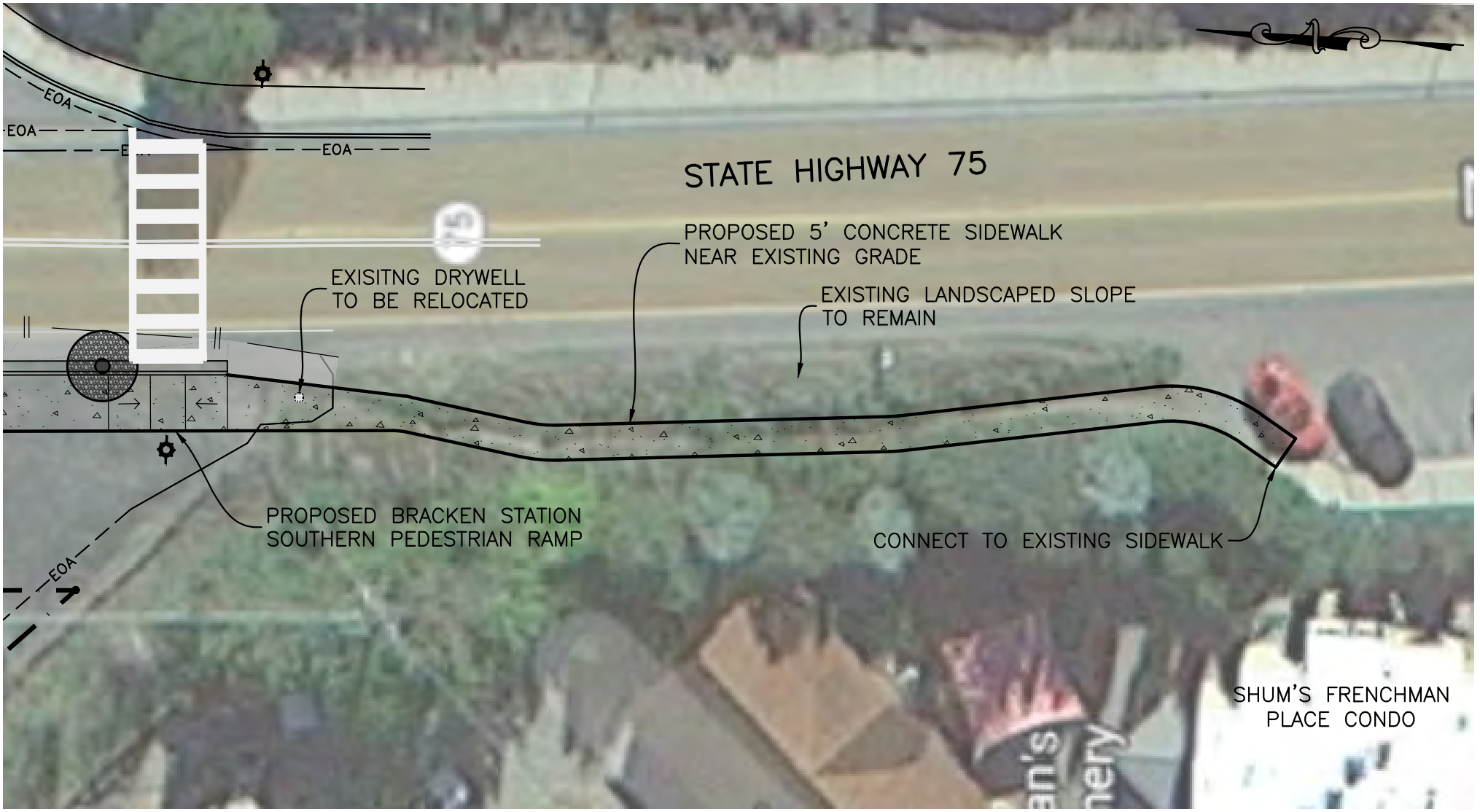
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3 — BOX TRUCK TURN
SCALE: SCALE

10TH STREET VEHICLE TURN EXHIBIT

JULY 11TH, 2016

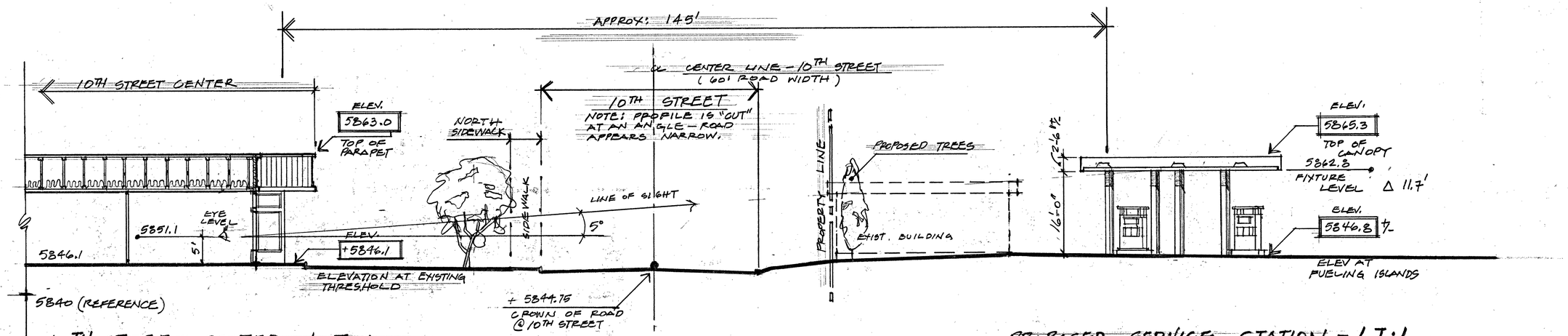


0 20 40 Feet

HIGHWAY 75 FRENCHMAN SIDEWALK CONNECTION

JULY 11TH, 2016

BENCHMARK ASSOCIATES



10TH STREET CENTER - L.I.1

PROPOSED SERVICE STATION - L.I.1

1 A.P.F EXISTING PROFILE - FROM NORTH OF 10TH STREET TO SOUTH OF 10TH STREET

Scale: 1" = 10'-0"

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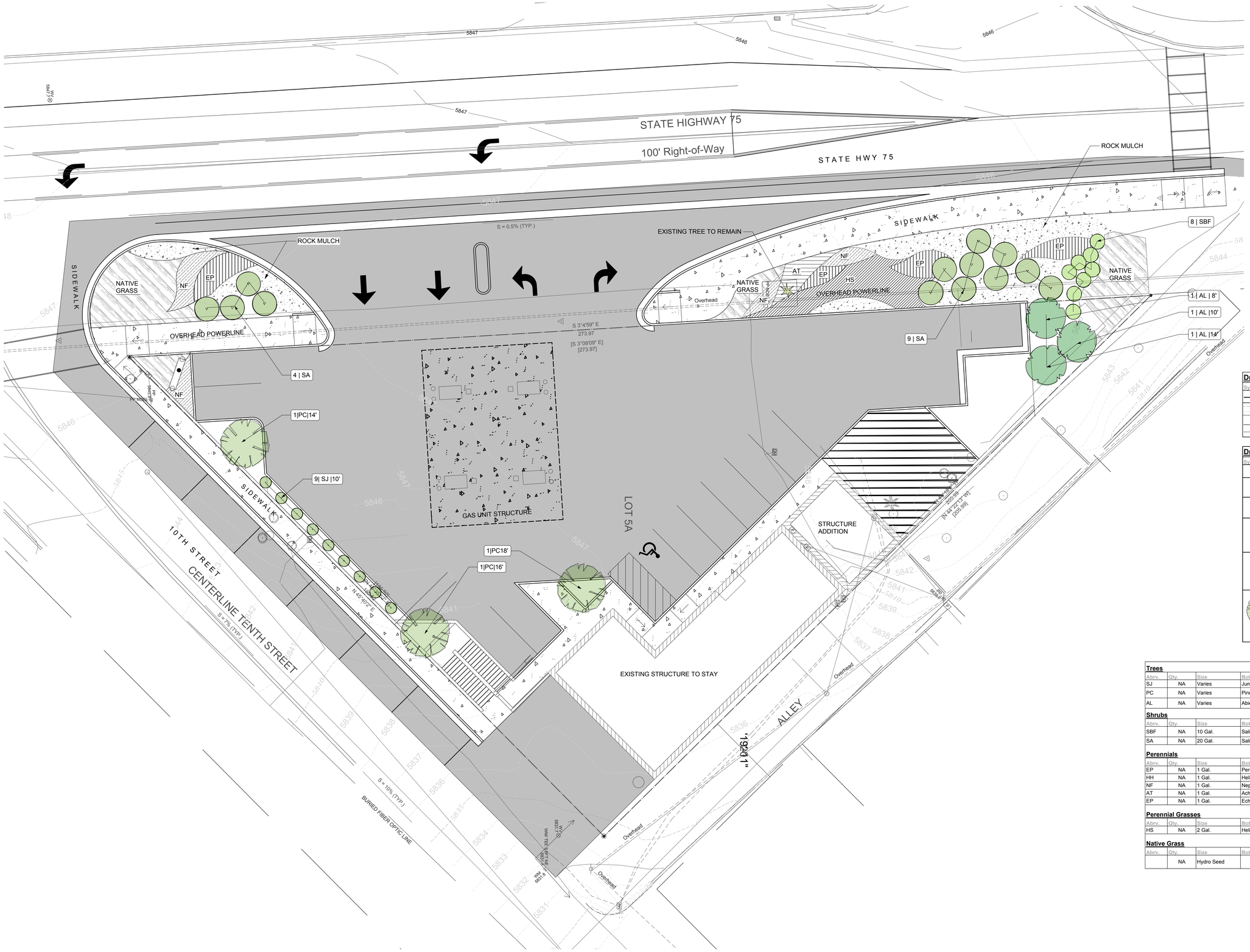
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BRACKEN · STATION
HOT SPA · KETCHUM · ID.
SITE PROFILE

REVISION RECORD

NO.	DATE	BY

DRAWING NAME: SITE PROFILE
SHCARLOUGHBLD.DWG
SCALE: 1:10
DATE OF ISSUE: 7.11.16
SUPERSEDES ALL PREVIOUS DRAWINGS
PLOT DATE:
SHEET NO. A·PF



Drawing Legend

Symbol	Definition
	Property Line
(80) (79)	Existing Contours
80 79	Proposed Contours

Drawing Legend

Symbol	Definition
	Concrete Walkeway
	River Rock Mulch
	Proposed Perennials: See Planting Schedule
	Existing Trees To Remain
	Proposed Shrubs: See Planting Schedule
	Proposed Evergreen Trees: See Planting Schedule

Trees

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
SJ	NA	Varies	Juniperus chinensis 'Spartan	Spartan Juniper	Per Plan
PC	NA	Varies	Pinus contorta	Lodge Pole Pine	Per Plan
AL	NA	Varies	Abies lasiocarpa	Sub Alpine Fir	Per Plan

Shrubs

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
SBF	NA	10 Gal.	Salix brachycarpa 'Blue Fox'	Blue Fox Willow	Per Plan
SA	NA	20 Gal.	Salix arctica	Arctic Willow	Per Plan

Perennials

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
EP	NA	1 Gal.	Perovskia atriplicifolia	Russian Sage	Per Plan
HH	NA	1 Gal.	Heliopsis helianthoides	Sun Flower	Per Plan
NF	NA	1 Gal.	Nepeta x faassinni	Catmint	Per Plan
AT	NA	1 Gal.	Achillea millefolium 'Terracotta'	Yarrow	Per Plan
EP	NA	1 Gal.	Echinacea	Purple Cone Flower	Per Plan

Perennial Grasses

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
HS	NA	2 Gal.	Helictotrichon sempervirens	Blue Oat Grass	Per Plan

Native Grass

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
	NA	Hydro Seed		Native Grass Mix	Per Plan

N

0 10 20 30 40 FT

SCALE: 1"= 10'-0"

BYLA
BEN YOUNG LANDSCAPE ARCHITECTS
323 Lewis _ | Ketchum, ID
(208) 726 5997 - (208) 720 0215
www.byla.us

No.	Description	Signature	Date

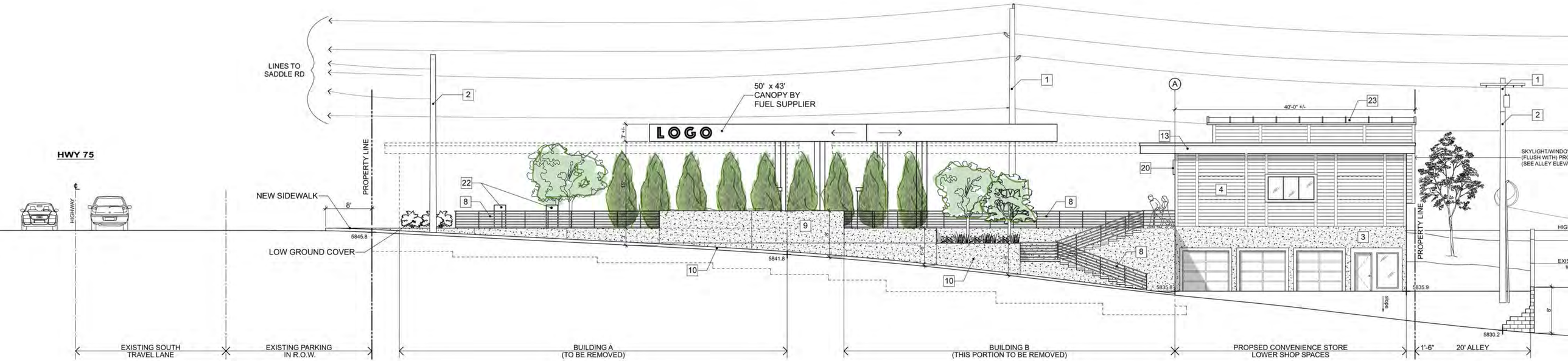
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ben young landscape architect

BRACKEN STATION
BRACKEN BUILDING
LOT 5A | BLK 30 | SONE LI-1, KETCHUM, ID

LANDSCAPE OVERVIEW

Date: 07.01.2016
Drawn By: TB
Checked By: CG
File: Filename

Sheet No.
L1.0
1



2 PROPOSED NORTH ELEVATION - 10th STREET VIEW

scale: 1/8"= 1'-0"

PROPERTY LINE

E 9TH ST

KNOB HILL

EXISTING SIDEWALK

EXISTING PARKING

EXISTING BUS STOP

CITY DRY WELL

APPROX EDGE OF EXISTING TRAVEL LANE (FOG LINE)

NORTH BOUND 25 MPH

STATE HIGHWAY 75

PROPOSED TURNING LANE

50' ROW

13'

12'

31'

APPROX EDGE OF EXISTING TRAVEL LANE (FOG LINE)

NORTH BOUND 25 MPH

STATE HIGHWAY 75

25 MPH SOUTH BOUND

APPROX EDGE OF EXISTING TRAVEL LANE (FOG LINE)

APPROX EDGE OF EXISTING TRAVEL LANE (FOG LINE)

SOUTH BOUND

25 MPH

PROPOSED CROSS WALK RAPID FLASH BEACON WARNING LIGHTS

PROPOSED SIDEWALK (8'-0")

PERMITTED LANDSCAPE - SEE LS.1

EXISTING TREE TO REMAIN

POWER POLE

PROPERTY LINE S03°28'40"E 273.97'

PERMITTED LANDSCAPE - SEE LS.1

PROPOSED SIDEWALK (8'-0")

BOULEVARD APPROACH

PROPOSED CROSS WALK

POWER POLE TO BE REMOVED

SIGN

CHARGING STATION

CHARGING STATION

LOGO

FUELING ISLANDS

43' CANOPY LINE

LOT 5A

4267 AC (18,590 S.F.)

BIKE RACK

SCREENED RECYCLE/ STO

PROPOSED TRASH ENCL.

GARBAGE

RETAINING WALL (NEW)

EXISTING GRADE - NOT ASPHALT

℄ ALLEY

LOT 1

LOT 2

℄ 10TH ST

EXIST'G CURB CUT

TENTH STREET CENTER PARKING

(Install below grade fuel tanks)

NEW PROPOSED PARALLEL PKG

PROPERTY LINE N45°15'21"E 180.52'

30'-0"

SLOPE = 7%

SIDEWALK

TENTH STREET CENTER

PROPERTY LINE

SLOPE = 10%

℄ 10TH ST

PROPOSED SIDEWALK (8'-0")

20' SETBACK

EXISTING LOWER LEVEL ENTRY

REPURPOSE EXIST'G RETAIL BLDG TO INCLUDE STORE WITH DELI SERVICE

2,084 SQ. FT.

PROPERTY LINE S44°41'44"E 205.99'

EXISTING BLD'G TO REMAIN - 72'

20' X 25.5' PROPOSED ADDITION 508 SQ. FT.

RR SITE WALL

POWER POLE

FUTURE EXPANSION

PROPOSED LOWER LEVEL ACCESS FROM ALLEY

END OF EXISTING BUILDING

℄ ALLEY

LOT 3

LOT 4

LIGHTING SCHEDULE	
TYPE	MANUFACTURER / STYLE
A	CRUSE: ASYMMETRIC - LED: FLUSH MTD/CUT OFF
B	CRUSE: SYMMETRIC - LED: FLUSH MTD/CUT OFF
C	HALO : 6" RECESSED -LED
D	HALO: INDY 4" LED DOWN LIGHT CYLINDER
E	ELITE: ST4 STEP LIGHT SINGLE LOUVER
F	ACCULITE: PL7 LED BOLLARD

ALL LIGHT FIXTURE TO MEET DARK SKY ORDINANCE AS PER KETCHUM ORDINANCE CH. 17.132

REVISED
6-30-16

N DRAWING NORTH

LIGHTING PLAN
CONDTIONAL USE/ PREAPPLICATION SITE PLAN

NOTE: SEE CIVIL ENGINEERING DRAWINGS FOR ALL SITE DRAINAGE AND STREET GRADING DESIGN

scale: 1"= 10'

GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO ASSURE ALL WORK CONFORMS TO NATIONAL, STATE, AND LOCAL CODES THAT APPLY TO THIS PROJECT. WHEN INCONSISTENCIES EXIST BETWEEN DRAWINGS OR SPECS. AND APPLICABLE CODE REQUIREMENTS, CONFORMANCE TO ALL CODES SHALL HAVE PRECEDENCE OVER DRAWINGS AND SPECS.

STEVE R. COOK, ARCHITECT
323 SOUTH LEWIS ST. SUITE H, P.O. BOX 680, KETCHUM ID, 83340
MEMBER AMERICAN INSTITUTE OF ARCHITECTS

PRELIMINARY DESIGN PHASE - LOT 5A BLK 30

LOT 5A / BLK 30 / ZONE LI - 1

KETCHUM, ID

REVISION RECORD		
NO.	DATE	BY

DRAWING NAME: LIGHTING PLAN

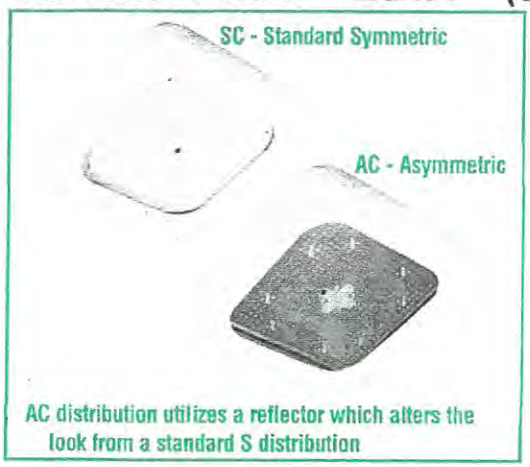
DATE OF ISSUE:

SCALE: 1"=10'

PLOT DATE: 6/23/16

SHEET NO. L.1

LED CANOPY LIGHT - LEGACY™ (CRUS)



AC distribution utilizes a reflector which alters the look from a standard S distribution

DOE LIGHTING FACTS

Department of Energy has verified representative product test data and results in accordance with its Lighting Facts Program. Visit www.lightingfacts.com for specific catalog strings.

US & Int'l. patents pending.

HOUSING - Low profile, durable die-cast, aluminum construction, providing a reliable weather-tight seal.

LEDS - Features an array of select, mid-power, high brightness, high efficiency LED chips; 5000K color temperature, 70 CRI (nominal).

DRIVE CURRENT - Choice of Very Low Wattage (VLW), Low Wattage (LW), Super Saver (SS), High Output (HO) or Very High Output (VHO).

OPTICS / DISTRIBUTION - Choice of Symmetrical or Asymmetrical, which directs light through a clear tempered glass lens, to provide a uniform distribution of light to vertical and horizontal surfaces.

OPTICAL UNIT - Features an ultra-slim 7/8" profile die-cast housing, with a flat glass lens. Unit is water-resistant, sealed to an IP67 rating. Integral designed heat sink does not trap dirt and grime, ensuring cool running performance over the life of the fixture.

PRESSURE STABILIZING VENT - Luminaire assembly incorporates a pressure stabilizing vent breather to prevent seal fatigue and failure.

HAZARDOUS LOCATION - Designed for lighter than air fuel applications. Product is suitable for Class 1 Division 2 only when properly installed per LSI installation instructions (consult factory).

DRIVER - State-of-the-art driver technology superior energy efficiency and optimum light output. Driver components are fully encased in potting for moisture resistance. Complies with IEC and FCC standards. 0-10 V dimming supplied standard with all drive currents.

DRIVER HOUSING - Die-cast aluminum, wet location rated driver/electrical enclosure is elevated above canopy deck to prevent water entry, provide easy "knock-out" connection of primary wiring and contributes to attaining the lowest operating temperatures available. Seals to optical housing via one-piece molded silicone gasket.

OPERATING TEMPERATURE - -40°C to 50°C (-40°F to +122°F)

ELECTRICAL - Universal voltage power supply, 120-277 VAC, 50/60 HZ input. Drivers feature two-stage surge protection (including separate surge protection built into electronic driver) meets IEEE C62.41.2-2002, Scenario 1, Location Category C.

FINISH - Standard color is white and is finished with LSI's DuraGrip® polyester powder coat process. DuraGrip withstands extreme weather changes without cracking or peeling.

INSTALLATION - One person installation. No additional sealant required. Installs in a 12" or 16" deck pan. Deck penetration consists of a 4" hole, simplifying installation and water sealing. Unit is designed to quickly retrofit into existing Scottsdale (4") hole as well as openings for Encore and Encore Top Access and to reconnect wiring for the SC/ECTA without having to relocate the conduit. Retro'panels are available for existing Encores (see back page) as well as kits for recessed and 2x2 installations (see separate spec sheets). Support brackets are provided standard, to prevent sagging of deck.

SHIPPING WEIGHT - 27 pounds (single pack), 48 pounds (double pack).

EXPECTED LIFE - Minimum 60,000 to 100,000 hours depending upon the ambient temperature of the installation location. See LSI web site for specific guidance.

WARRANTY - Limited 5-year warranty.

LISTING - UL and ETL listed to UL 1598, UL 8750 and other U.S. and International safety standards. Suitable for wet locations.

PHOTOMETRICS - Please visit our web site at **www.lsi-industries.com** for detailed photometric data.

Consult Factory

Class 1, Division 2 – Standard on SS & LW.

T5 Temperature Classification – The surface temperature of this product will not rise above 100°C., within a 40°C ambient.

Gas Groups A,B,C, and D – Group A: Acetylene / Group B: Hydrogen / Group C: Propane and Ethylene / Group D: Benzene, Butane, Methane & Propane.

This product, or selected versions of this product, meet the standards listed below. Please consult factory for your specific requirements.

RoHS COMPLIANT · ETL intertek wet location · IP67 · CE · cULus LISTED wet location · DLC

Project Name _____ Fixture Type _____

Catalog # _____

04/29/16

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A | B

LED CANOPY LIGHT - LEGACY™ (CRUS)

LUMINAIRE ORDERING INFORMATION

TYPICAL ORDER EXAMPLE: **CRUS SC LED HO 50 UE WHT**

Prefix	Distribution[1]	Light Source	Drive Current	Color Temperature	Input Voltage	Finish	Options
CRUS	SC - Standard Symmetric AC - Aymmetric	LED	VLW - Very Low Watt LW - Low Watt SS - Super Saver HO - High Output VHO - Very High Output	50 - 5000K	UE - Universal Voltage (120-277V) 347 - 480V	WHT - White BRZ - Bronze BLK - Black	None

FOOTNOTES:
1- AC distribution utilizes a reflector which alters the look from a standard S distribution.

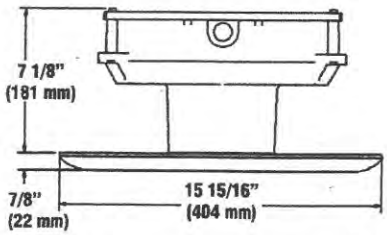
ACCESSORY ORDERING INFORMATION (Accessories are field installed)

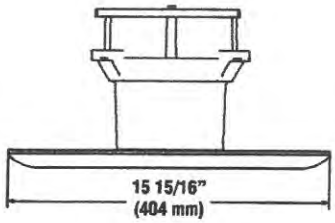
Description	Order Number
Retrofit Panels - EC / ECTA / SCF to CRU, for 16" Deck Panel	525946
Retrofit Panels - ECTA / SCF to CRU, for 12" Deck Panel	530281
Retrofit 2x2 Cover Panel Blank (no holes)	357282
Retrofit RIC Cover Panel Blank (no holes)	354702

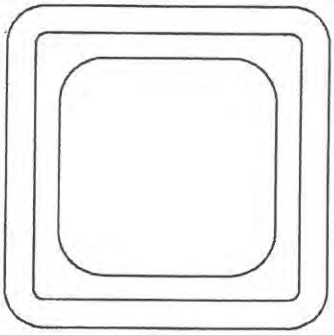
Description	Order Number
Kit - Hole Plugs and Silicone (enough for 25 retrofits)[1]	1320540

1- Consists of (25) 7/8" hole plugs and (1) 10.3 oz tube of RTV

DIMENSIONS







LIGHT OUTPUT - CRUS

		Lumens		Watts		LPW	
		SC	AC	SC	AC	SC	AC
Cool White	VLW - Very Low Watt	8842	–	79	–	112	–
	LW - Low Watt	10871	8746	88	83	124	105
	SS - Super Saver	13554	11518	114	111	119	104
	HO - High Output	18633	–	132	–	141	–
	VHO - Very High Output	22418	17262	159	157	141	110

Project Name _____ Fixture Type _____

Catalog # _____

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Halo (1)

Shower Trim

No (1)

Adjustable Trim

No (1)

Color

Tuscan Bronze (1)

Size

6-Inch (1)

Job Usage

For 120V Housing (1)

Style Of Trim

Your Search For: 353TBZ

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BUNDLE ITEM



$21.99 /each
As low as: $21.11

Halo 353TBZ
Halo Recessed Lighting Trim, 6" Line Voltage Baffle Trim - Tuscan Bronze

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Print

Halo H7ICT 6" Recessed Lighting Can, AIRTITE Housing for New Construction

BRAND: HALO MODEL: H7ICT CONDITION: NEW WARRANTY: 1 YEAR SKU: 166218 CLEARANCE ITEM!

STATUS: IN STOCK



Regular Price: ~~$11.99~~

On Sale: **$9.15** + FREE Shipping! on qualified orders

Ships Same Day!
(Orders placed Mon-Fri before 1pm PST)
+ add your ZIP for shipping promos

- 1 + Add to Cart SAVE TO LIST

Get 10% Cashback in Westside Dollars

HALO View All Halo Recessed Lighting

Promo: 10% Off recessed cans when you buy at least 10 Lutron Li... ...mmers

Feedback

Description
Features
Specifications
Warranty
Customer Reviews
Questions & Answers

Description

The **Halo H7ICT** is a 6" insulated recessess housing capable of beuing installed againat ceiling insulation. Its self regulating thermal protector deactives the light should overheating occur. Many homeowners who are looking to retrofit their homes with new accent lighting often run into challenges when installing new fixtures: insulation in their ceilings that results in a potential fire hazard when exposed to a light fixture's excess heat.

The Halo H7ICT remedies this problem by utilizing Halo's integral thermal protector technology. The Halo H7ICT is also easy to install no matter where you're going to use it. The wiring connections cab be made outside the junction box. Automatic flange leveling aligns the housing allowing one to hold the housing in one hand while simultaneously drive in nails with your otehr hand. Its a snap.

Allows wiring connections to be made outside thejunction box. It features simple captive bar hangers, which enable the housing to be used anywhere within the full 24" joist span. The socket also fastens tightly into the unit's trim for proper lamp positioning.

Perfect for any home's established décor, this unit is offered in a variety of colors, including black, bronze, copper, white and brushed nickel. The Halo H7ICT is also UL listed and CSA certified, making it one of the most popular choices for modern homes.

Use with 6" Lighting Recessed Trims

- Black
- Bronze
- Brushed Nickel
- Copper
- White

Features

- Thermally Protected IC Housing
- Housing may be covered with insulation
- For use with 120V Incandescent lamps

Specifications

- 10 1/2" Long
- 7 1/2" Wide
- 7 1/2" Tall

Warranty
One (1) year through the manufacturer

Customer Reviews
There are no reviews for this product yet. Be the first to review the product!

Write Your Own Review:

Nickname*

Summary of Your Review*

Review Text*

1 star 2 stars 3 stars 4 stars 5 stars
Quality
Price
Value

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Indy 4in LC4B Series, LED, Wall Mount Cylinder



FINISHES / TYPES



Black Silver White

LINE ART



Pin it Tweet

Indy™ 4-inch L-Series LED Cylinders are part of the latest generation of Indy L-Series luminaires, offering a fully coordinated family of commercial-grade quality luminaires, from LED color rendering to aperture sizes and trim finishes. These cylinders can be surface, cable, pendant, or wall-mounted. They are the energy-efficient choice for a wide range of commercial applications. Efficacies up to 111lm/W.

- Compact light source delivers uniform illumination without pixilation, enabling excellent beam control. Light levels range from 800 to 2,300 lumens
- LEDs are energy-efficient and offer exceptionally long service life
- Available in CCT's of 2700K, 3000K, 3500K and 4000K, high CRI of 80 lm/w. Optional 90 CRI and 97 CRI availble
- Lumen packages suitable for ceiling heights ranging from 8' to over 35'
- L-Series Cylinder fixtures offer hyperbolic, parabolic, baffle or wall wash reflectors and multiple trim color and finish options
- One piece heavy gauge aluminum with white, black or silver backed textured powder coat finish
- Passive Cooling; cast aluminum heat sink integrated directly with housing provides superior thermal management to ensure the long life of the LED
- LEDs contain no environmentally harmful mercury, lead, or PCBs and generate no UV or IR emissions
- LED driver accommodates 120V, 277V, or 347V inputs with 0-10V dimming standard; also available with DMX, DALI, phase cut, forward and reverse phase and Lutron drivers for use with EcoSystem®
- U/CSA Listed; RoHS compliant; ARRA compliant; ENERGY STAR® qualified

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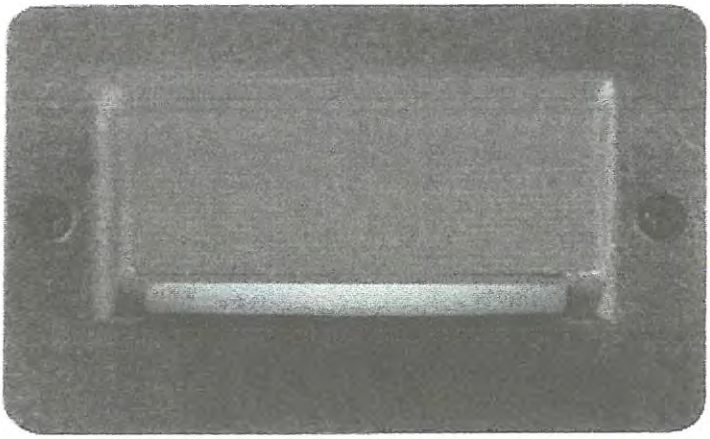
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ST403

ST4 Series Single Louver Face Plate



Housing only:

- Specs
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Features | Technical | Colors | Housing

Application
For concrete use only
Body
High grade die-cast aluminum with 0.3% Copper to prevent corrosion in concrete applications.
Supplied standard with four 3/4? NPS holes.
Face Plate
High-grade die-cast aluminum
Gasket
Single piece molded silicon for wet location
Lens
Frosted tempered glass
External Louver
Anodized 45" cut-off louver
Reflector
High performance aluminum reflector assembly for superb light output
Listing
UL/cUL for wet locations

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Description | Catalog Numbers | | | | Literature

AccuLite PL7 Series, LED, Parklume Bollards



View Larger

FINISHES / TYPES



Black Bronze White

LINE ART



LED

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AccuLite™ Parklume area lighting bollards provide effective, energy-efficient pathway lighting in a variety of attractive styles. PL7- LED Series bollards offer a clean, contemporary look with a slim 7-inch diameter that blends easily with the landscape. LED version provides up to 1,000 lumens from just 25W input, while other efficient alternatives include HID and CFL light sources. All bollards feature vandal-resistant polycarbonate lenses and durable powder coat finishes.

- LEDs feature a top reflector that collects light and a lower cone that spreads it to the surroundings; anodized reflectors smooth light for uniform distribution
- LEDs have an aluminum heat sink that reduces heat and helps assure rated service life of 50,000 hours; universal 120-277VAC LED driver, 60Hz input
- 7-inch diameter housings feature rugged extruded-aluminum construction with cast-aluminum top and base plate
- 160-degree house-side shield is optional
- 15W or 25W LED light source; other models accept HID or CFL lamps of various types and wattages
- UL/CSA Listed; suitable for wet locations

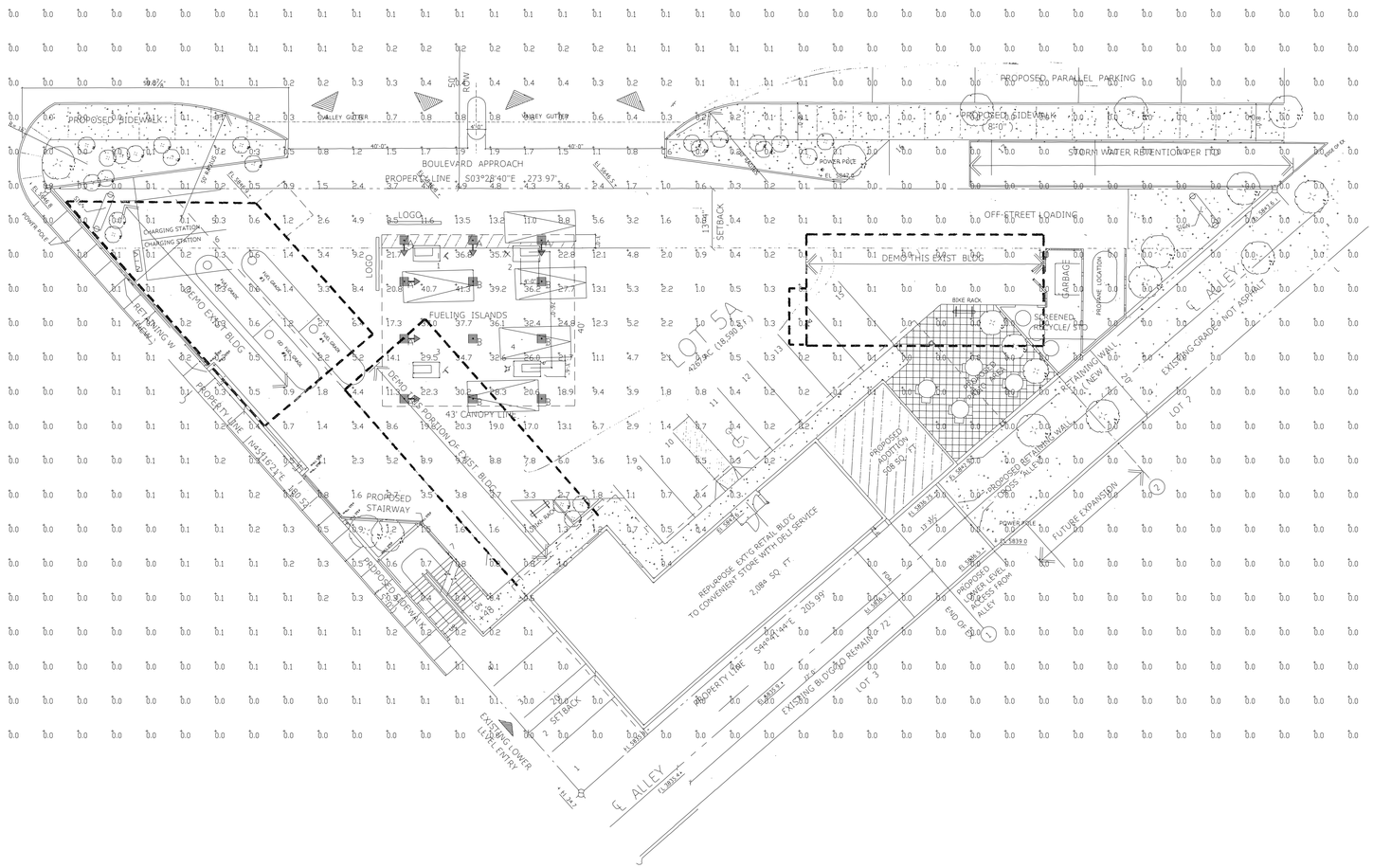
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PROPOSED SIDEWALK
ALLEY GUTTER
BOULEVARD APPROACH
PROPERTY LINE S03°28'40"E 273.97'
LOGO
CHARGING STATION
CHARGING STATION
DEMO EXIST BLDG
FUELING ISLANDS
43' CANOPY LINE
RETAINING WALL
PROPERTY LINE N44°41'42"E 180.50'
PROPOSED STAIRWAY
DEMO THIS EXIST. BLDG
PROPOSED PARALLEL PARKING
PROPOSED SIDEWALK
STORM WATER RETENTION UPPER LEVEL
POWER POLE
OFF-STREET LOADING
SETBACK
BIKE RACK
SCREENED GARBAGE/ RECYCLE/ STG.
GARBAGE
PROPANE LOCATION
LOT 5A
0.162 AC. (18,598 SQ. FT.)
PROPOSED ADDITION 508 SQ. FT.
PROPOSED RETAINING WALL
PROPOSED ACCESS ALLEY
EXISTING GRADE DO NOT ASPHALT
FUTURE EXPANSION
REPURPOSE EXTG METAL BLDG TO CONVENIENT STORE WITH DELI SERVICE
2,088± SQ. FT
PROPERTY LINE S44°41'44"E 205.99'
EXISTING BLDG TO REMAIN ± 72'
LOT 3
PROPOSED LOWER LEVEL ACCESS FROM ALLEY
EXISTING LOWER LEVEL ENTRY
℄ ALLEY
EL. 5803.2
EL. 5803.4
EL. 5803.7
EL. 5804.1
EL. 5804.5
EL. 5805.0
EL. 5805.2
EL. 5805.3
EL. 5805.5
EL. 5806.1
EL. 5806.3
EL. 5806.5
EL. 5807.0
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EL. 5810.8
EL. 5811.0
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EL. 5811.4
EL. 5811.6
EL. 5811.8
EL. 5812.0
EL. 5812.2
EL. 5812.4
EL. 5812.6
EL. 5812.8
EL.

PROPERTY LINE

+1.0

+1.4

+1.5

+.80

BOULEVARD APPROACH

PROPERTY LINE S03°28'40"E 273.97'

VALLEY GUTTER

50' ROW

PROPOSED PARALLEL PARKING

PROPOSED SIDEWALK (8'-0")

STORM WATER RETENTION PER LTD

POWER POLE

OFF-STREET LOADING

SETBACK

DEMO THIS EXIST BLDG

BIKE RACK

GARBAGE

SCREENED RECYCLE/S

PROPANE LOCATION

SIGN

ALLEY

EXISTING GRADE-NOT ASPHALT

RETAINING WALL (NEW)

LOGO

CHARGING STATION

CHARGING STATION

DEMO EXIST BLDG

FUEL GRADE #1

FUEL GRADE #2

FUEL GRADE #3

FUEL GRADE #4

LOT 5A

426 SQ FT (18,590 SF)

40

30

20

10

5

1

EVELING ISLANDS

43' CANOPY LINE

DEMO PORTION OF EXIST BLDG

PROPOSED STAIRWAY

BRKF RACK

PROPOSED SIDEWALK

EXISTING LOWER LEVEL ENTR

REPURPOSE EXT'G RETAIL BLDG TO CONVENIENT STORE WITH DELI SERVICE

2,084 SQ FT

PROPOSED ADDITION 508 SQ FT

PROPERTY LINE S44°04'44"E 205.90'

EXISTING BLDG TO REMAIN

LOT 3

CROSS ALLEY

PROPOSED RETAINING WALL

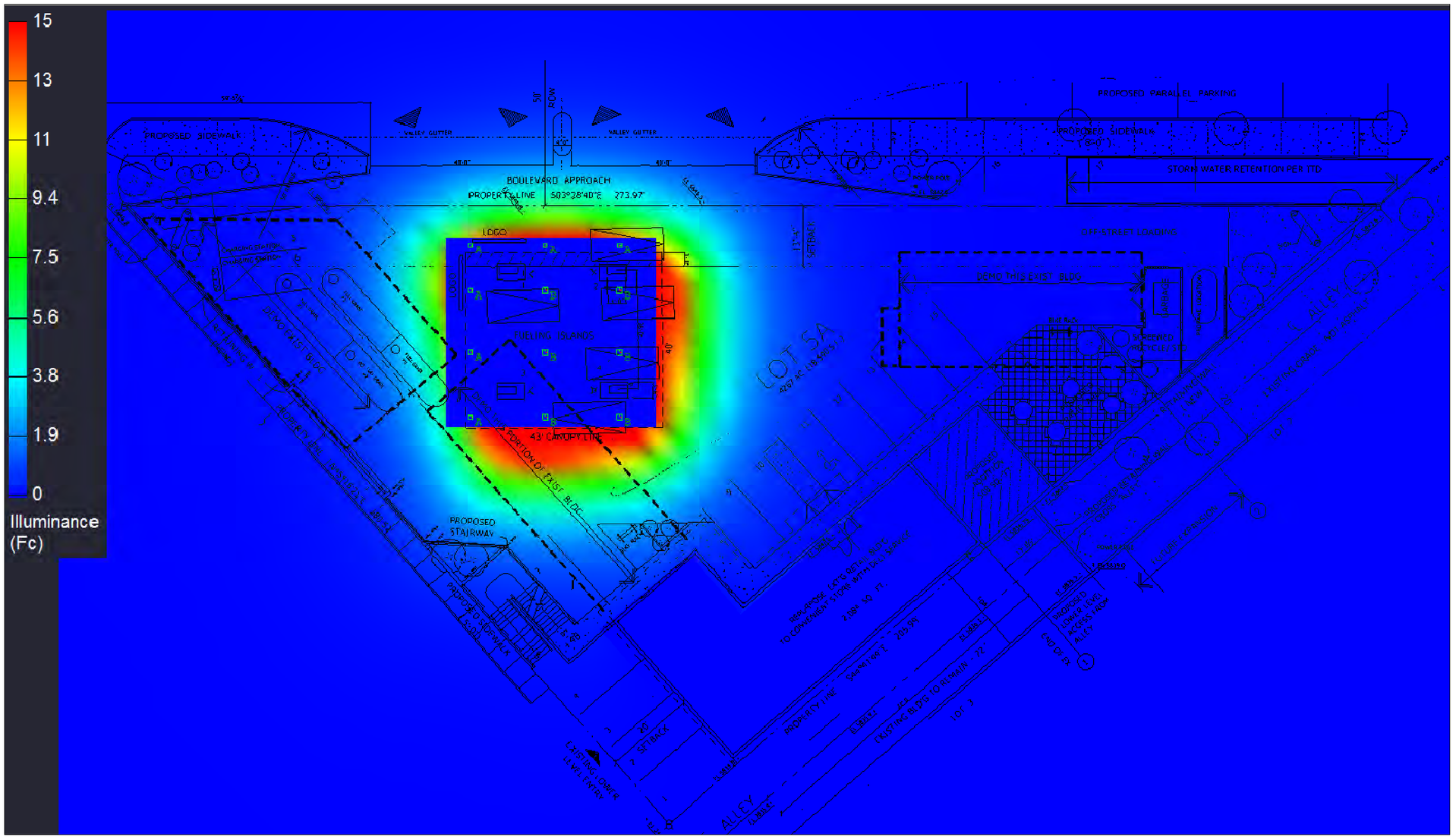
POWER POLE

PROPOSED LOWER LEVEL ACCESS FROM ALLEY

END OF ALLEY

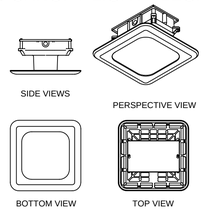
FUTURE EXPANSION

Industries™
American Innovation Through Technology
A SmartVision® for the Future
PROGRESSIVE REFINEMENT RADIOSITY SOLUTION

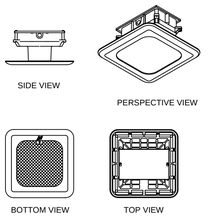


PSEUDO COLOR RADIOSITY - TOP VIEW - 15 FC SCALE

CRUS-SC-LED
LED CANOPY LIGHT - LEGACY



CRUS-AC-LED
LED CANOPY LIGHT - LEGACY



Luminaire Schedule								
Symbol	Qty	Label	Arrangement	Description	LLF	Lumens/Lamp	Arr. Lum. Lumens	Arr. Watts
	6	A	SINGLE	CRUS-AC-LED-LW-CW DIMMED 15% MTD @ 15'	0.850	N.A.	8746	82.9
	6	B	SINGLE	CRUS-SC-LED-VLW-CW DIMMED 15% MTD @ 15'	0.850	N.A.	8842	78.7

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
ALL CALC POINTS	Illuminance	Fc	1.62	41.3	0.0	N.A.	N.A.
CANOPY	Illuminance	Fc	28.51	41.3	11.3	2.52	3.65

Total Project Watts
Total Watts = 969.6

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine the applicability of the layout to existing or future field conditions.

This lighting plan represents illumination levels calculated from laboratory data taken under controlled conditions in accordance with The Illuminating Engineering Society (IES) approved methods. Actual performance of any manufacturer's luminaires may vary due to changes in electrical voltage, tolerance in lamps/LED's and other variable field conditions. Calculations do not include obstructions such as buildings, curbs, landscaping, or any other architectural elements unless noted.

10000 ALLIANCE RD. CINCINNATI, OHIO 45242 USA
(513) 793-3200 • FAX (513) 793-6023

LIGHTING PROPOSAL LO-133509-2

43 X 40 CANOPY RADIOSITY
STATE HWY 75
KETCHUM,ID

BY:MWE	DATE:6-20-16	REV:6-30-16	SHEET 1 OF 1

SCALE: 1"=16' 0 16

MEMORANDUM

125 West Main Street
Bozeman, MT 59715
(406) 624-6117
www.altaplanning.com

To: Roy Bracken
North Town Partners Lot 5A Ketchum Idaho

From: Joe Gilpin, Principal

Date: June 29, 2016

Re: Motor Fueling Station Pedestrian Analysis

Introduction

This preliminary analysis of pedestrian access at the proposed Motor Fueling Station summarizes the site, pedestrian issues and design recommendations for the site as well as an approximately 3-block area study area.

To the Station Context and Recommendations

Located at the intersection of 10th Street and North Main Street, there are three major pedestrian catchment areas associated with the motor fueling station (illustrated in Figure 1). Pedestrians from these catchment areas will primarily access the site via North Main Street and 10th Street. Major pedestrian crossing points will include the intersections of:

- North Main Street and 9th Street
- North Main Street and 10th Street

Figure 1 illustrates catchment areas and major pedestrian access routes to the motor fueling station. The catchment areas and specific pedestrian issues and design recommendations areas are described below.

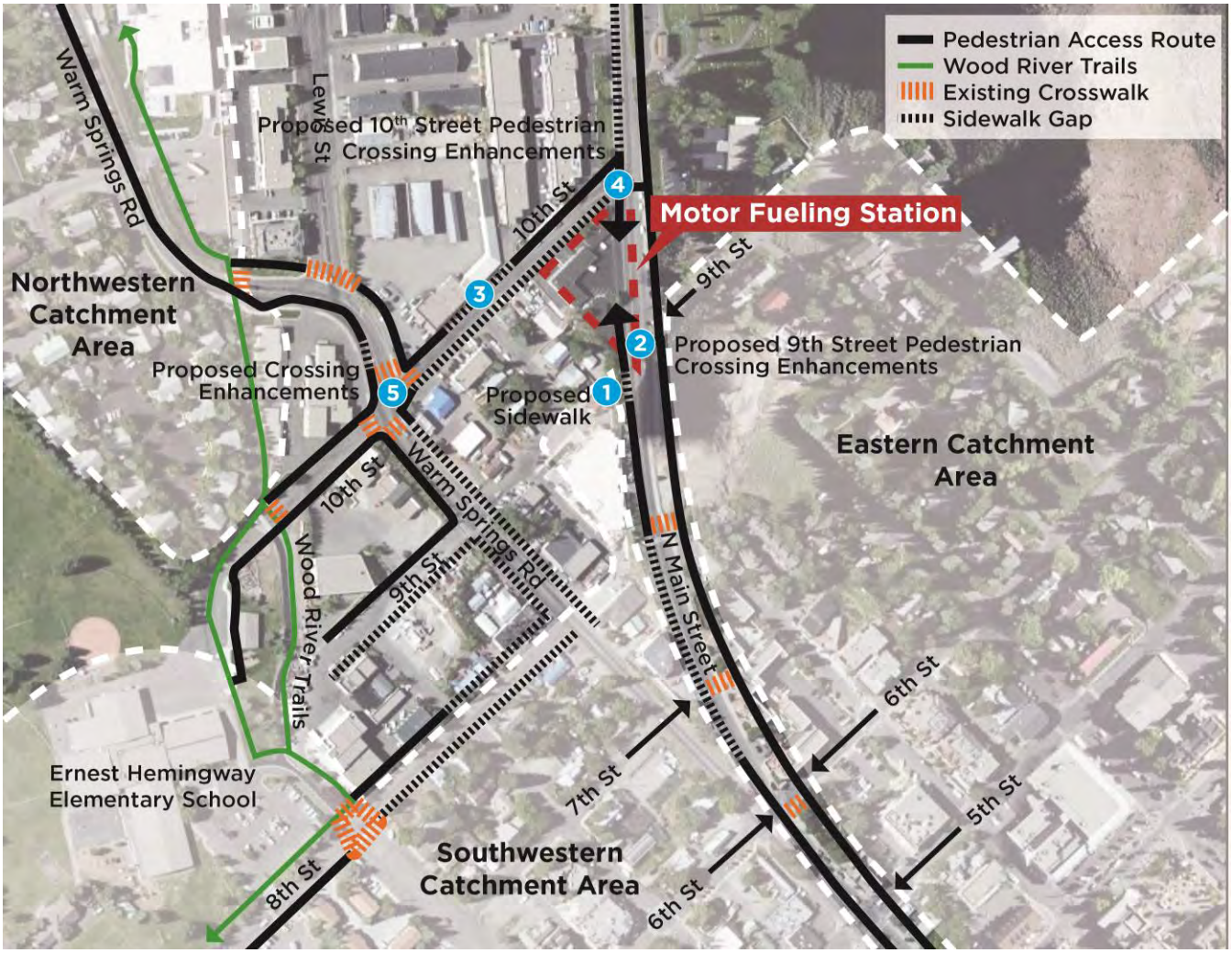


Figure 1: Pedestrian Catchment Areas and Circulation

Eastern Catchment Area Context and Recommendations

The eastern catchment area is comprised of a residential area and commercial district along North Main Street (State Highway 75). Pedestrians are likely to travel to the site along the eastern side of North Main Street and cross to the site at 9th Street. The sidewalk along the eastern side of North Main Street provides a connection from perpendicular streets to the site, with less g aps and driveway crossing than the western sidewalk. To address the existing gap in pedestrian facilities, a 5' concrete sidewalk (1) is proposed to connect pedestrians from Shum's Frenchman Place Condo to the motor fueling station.

A rectangular rapid flashing beacon (2), crosswalk and dedicated pedestrian ramps are proposed at the 9th Street crossing. The rectangular rapid flashing beacon (RRFB) would establish a high-visibility strobe-like warning to drivers when pedestrians are using the crosswalk, increasing motorist yielding compliance and pedestrian safety.

Southwestern Catchment Area Context and Recommendations

The southwestern catchment area is comprised of a residential area, commercial district along North Main Street, and the Ernest Hemingway Elementary School. Pedestrians are likely to travel to the motor fueling station along the western side of North Main Street or 10th Street. Driveways and parking along the length of 10th Street create large gaps in pedestrian facilities on both the north and south side of 10th Street. While the potential for pedestrian and vehicle conflicts are high along both sides of 10th, the north side is more desirable for pedestrian travel as only one large gap in sidewalk exists. There is no existing sidewalk on the south side of 10th, additionally the street is served with long banks of parallel parking, however there are two significant frontages where front-in perpendicular parking is present on both sides of the street. This is the least compatible parking type with pedestrians as the driver does not have any view of street conditions behind before backing up.

Options for clearly defining a pedestrian zone through this gap (3) are recommended. Converting the pull-in parking to angle parking bays would create space to establish a sidewalk between the business front and parking. If existing parking through this area prohibits a dedicated sidewalk facilities signage, changes in pavement material or color could help to define and increase visibility of pedestrian through this area.

Pedestrian crosswalks are recommended at the intersection of North Main Street and 10th Street (4) and Warm Springs Road and 10th Street (5). A RRFB should also be considered to increase pedestrian safety.

Northwestern Catchment Area Context and Recommendations

The northwestern catchment area is comprised of a residential area connected to the southwestern catchment area and motor fueling station via the Wood River Trail and existing sidewalks. Traveling along the trail or sidewalks, pedestrians are likely to travel to the motor fueling station along 10th Street.

Sidewalk and crossing improvement enhancements reflect recommendations along 10th Street outlined for the Southwestern Catchment Area.

Major Pedestrian Access Routes

Pull-in parking exists along many of the major pedestrian access routes and creates gaps in connectivity. While establishing continuous pedestrian facilities along these routes is outside of the scope of the Motor Fueling Station project, future initiatives should engage property and business owners to discuss converting pull-in spaces to angled parking bays. This would create space for the establishment of clear pedestrian zones between the angled parking and front of business, enhancing building fronts and connections to the surrounding area.

Another strategy for establishing continuous pedestrian facilities could include narrowing travel lanes and/or replacing pull-in parking with parallel parking. This would also allow for the establishment buffer area between the sidewalk and travel lanes, enhancing pedestrian comfort. The buffer area could be landscaped and act as snow storage in the winter. This strategy would result in significant loss of parking.

Motor Fueling Station Issues and Recommendations

Proposed plans (figure 2) for the Motor Fueling Station include pedestrian connections to and through the site. Existing proposals illustrate crosswalks across 10th Street and North Main Street, as described in previous catchment area recommendations. Proposed improvements also include ADA ramps at crosswalk sites and a sidewalk along North Main Street. A pedestrian crossing (1) should be considered south of the site in a location that it can be straight and moved away from the lane taper. A second pedestrian crossing should be considered in the illustrated location (2) unless moving to the north where the roadway is narrower could align with Knob Hill Inn Access. The northern crossing location would also require a pedestrian landing/sidewalk area.

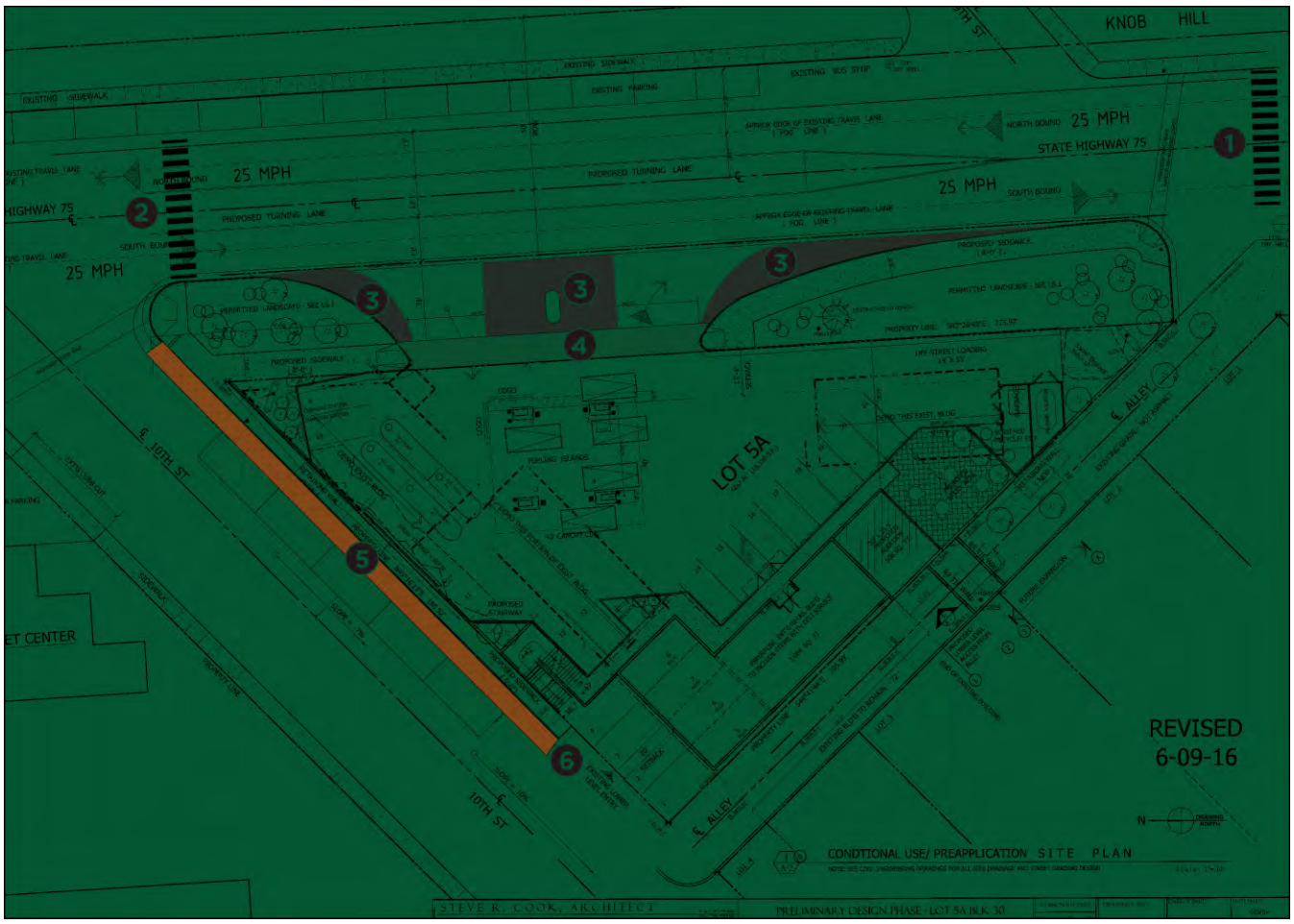


Figure 2: Proposed Site Plan

Pedestrian access to the site could be further enhanced by more clearly defining the pedestrian zone across the vehicle entrance through changes in the hardscape. One strategy is to better define the path for the most common vehicle to access the gas station (the passenger vehicle), while still allowing for the larger fueling trucks and other users to negotiate the entrance. The pictures below (figure 3) illustrate how the visibility of a pedestrian zone is enhanced through the use of colored/stamped pavement. Similar to the treatment below, the combination of rolled curbs and colored/stamped pavement (3) would maintain the wide turning radii required for large vehicles to access the site while lessening the gap in a dedicated pedestrian zone. Colored pedestrian areas (4) would also provide heightened awareness of walkers through primary vehicle access areas.



Figure 3: Stamped/colored pavement with rolled curb

Reducing the eastbound travel lane to 12' would allow for the addition of a 5' landscape area (5). The landscape area would serve as a year-round buffer between pedestrian and vehicle travel and in the winter serve as snow storage. West of this area (6), engineering solutions should be explored to continue the sidewalk beyond the retaining wall.

Gmail by Google

Steve Cook <steve@stevecookarchitect.com>

Connector Sidewalk from Bracken Station to Frenchmans

Dave Jensen <Dave.Jensen@itd.idaho.gov> Mon, Jun 27, 2016 at 10:41 AM
To: Josh Gilder <josh@bma5b.com>
Cc: Steve Cook <steve@stevecookarchitect.com>, Sam Stahlnecker <sam@bma5b.com>

The sidewalk design connecting Bracken Station to businesses to the South has been approved by the ITD permit committee.

Thank you,

Dave Jensen TTS

Permit Coordinator

Idaho Transportation Department, D-4

216 South Date Street

Shoshone ID 83352 1521

208-886-7853 office

208-886-7895 fax

208-316-6449 cell

dave.jensen@itd.idaho.gov

From: Josh Gilder [mailto:josh@bma5b.com]
Sent: Monday, June 27, 2016 9:54 AM
To: Dave Jensen
Cc: Steve Cook; Sam Stahlnecker
Subject: Connector Sidewalk from Bracken Station to Frenchmans

[Quoted text hidden]

Retail S Analysis

- **Hwy 75 & 10th Street**
- **Sun Valley ID**
- **January 2016**
- **Scenario- Store with Gas**
- **GmapUSA**

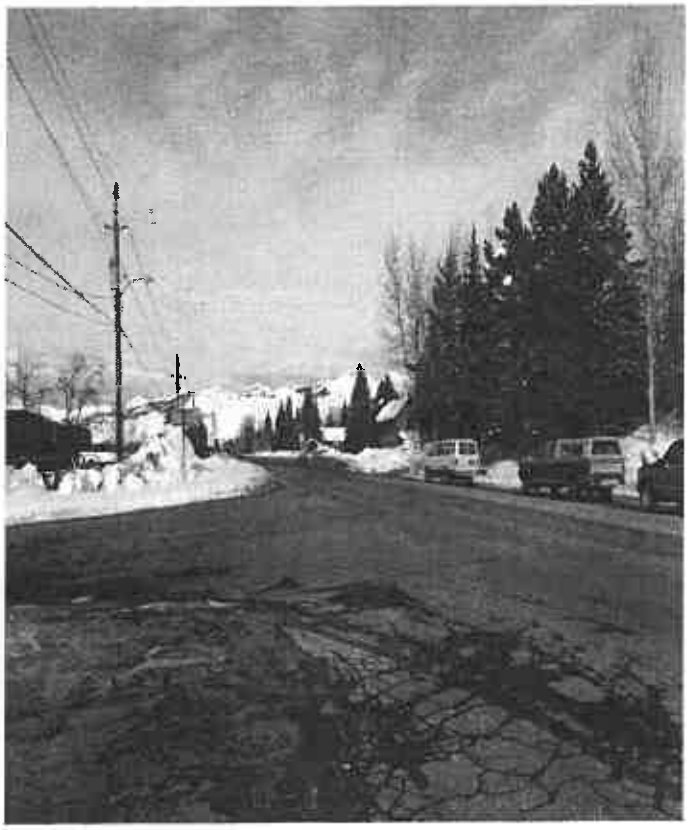


GmapUSA
1023 Hartland Dr Lawrence KS 66049
703 919 2430

Retail S Analysis

- **Visibility and Access to Site**
- **Good Visibility - Open view on corner**
- **Good Access - Direct access to site from Hwy 75**





GmapUSA
1023 Hartland Dr Lawrence KS 66049
703 919 2430

Retail S Analysis

Investment Parameters

Site-type: Total New Site
Brand: Gas = Sinclair Store = Sun Valley Mart

The scope of this analysis will include the potential of a Gas and C-store site with front parking in Ketchum Idaho.

The analysis was based on a location that will offer 8 gas fueling positions. The store will be 2200 square foot with 7 front parking spots.

Data Field Review

This study is based on survey data collected for competitive retail sites within 1.00 miles of the focus site, which has no direct competition at this time.

A full site survey was completed for each of these sites. Additional demographic, and income data, as well as traffic count information, were utilized in the completion of the study.

Trade Area

The site is located at the corner of Highway 75 and 10th Street in Ketchum Idaho. It is an intersection that does not have a stoplight. The Site will have good visibility and will have good access due to wide open curb cuts and pace of traffic.

The layout with the new store and gas pumps should focus on traffic that travels on Hwy 75, which should continue to carry the main traffic flow past the site.

The population is around 3,200 people within 2.0 miles and the median age is about 47 years old. The population is somewhat lighter than ideal for this type of site location and the median age is a little high for ideal C-store customer base population. However the focus for this site is the winter and especially the summer tourists that pass through this town.

The traffic count for Hwy 75 is estimated to be about 12,000 cars a day.

There are major seasonal variations affecting this trade area.

Competitive Environment- Fuel and C-store

There is no real competition in the local trade area for this location. There are some locations off the main street but offer no real competition to the main traffic flow of this location. They are small format sites and the trade area is completely different that this location's in terms of potential customers.

So overall there is no real competition in the trade area, the opportunity exists to capture some good business at this location.

Site Layout Options

The Layout should focus on Hwy 75 and if possible the store should face the highway. The key for this site is to have a unique design and graphic package outside and inside the store. We would highly recommend using the design firm that has the ability to create a statement store for this area.

It is important that all retail options fit on the lot without interference to each other Convenience of use becomes a high priority when you are creating a new market area.

.

Business Projections

One of the keys for this site is to provide a good operation with a good offering that will bring in the commuter that passes by the intersection on a consistent basis. The store size is typically an important factor but in this area the offering and the access to the store are more important. However even more key will be the visibility and access to both the gas and store.

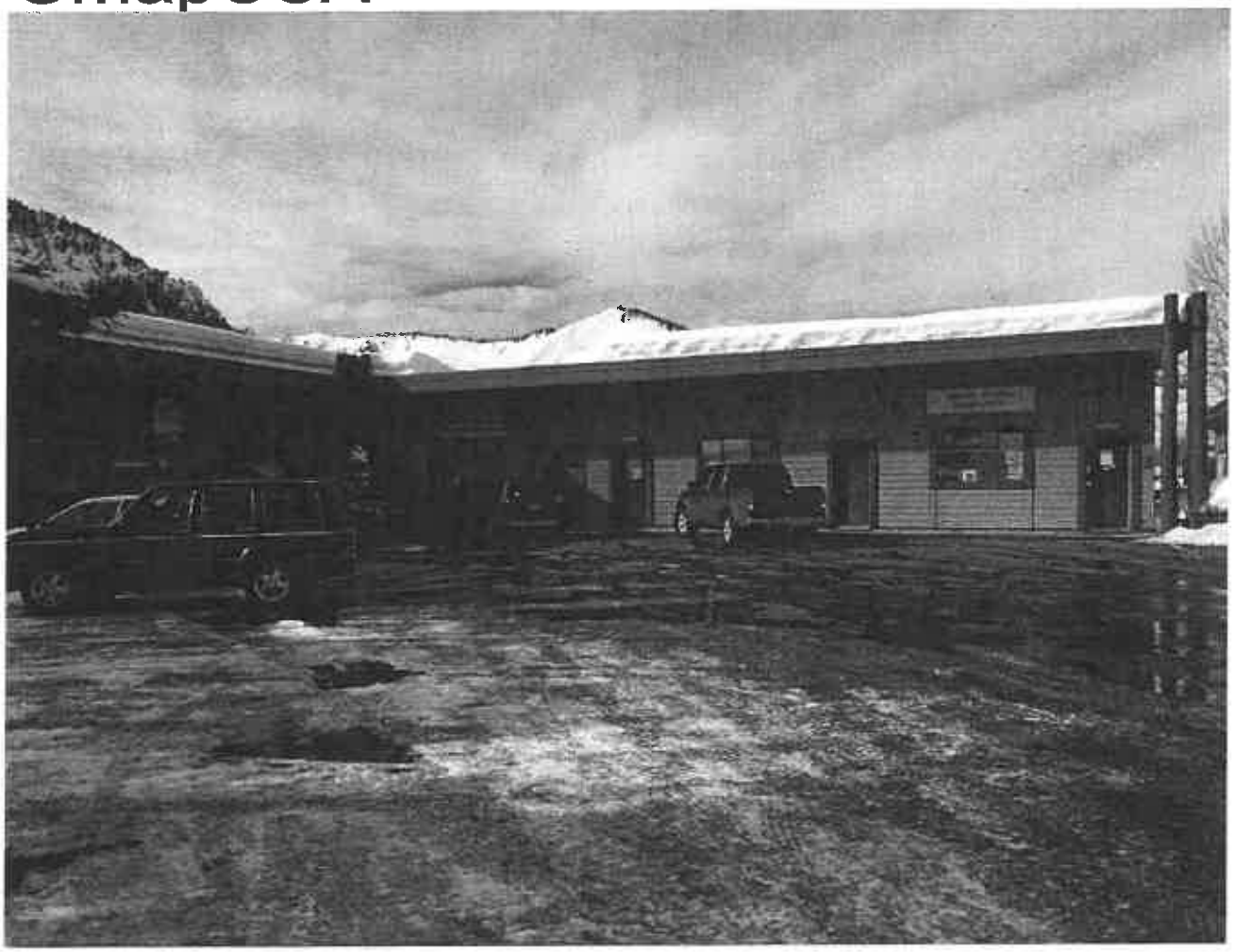
The focus on the merchandising should be having a quality offering that entices the commuter/tourist traffic that passes by the site on a regular basis. The site should have a large fountain and coffee offering to entice the commuters to use this site as their refreshment spot.

The site is on a key intersection in the local trade area, where there is no real competition within area this location, so care needs to be taken to make sure the car access points for the fuel islands and store are nice and easy with no negative impacts so this site can become a destination stop.

Overall the site is on a good corner is the area and has good potential. The traffic passing by the site is strong and along with the residential backup the location should do well. It might take a while to ramp up this location since the customer has not been conditioned to stop here, but an aggressive pricing posture would speed up the ramp up process.

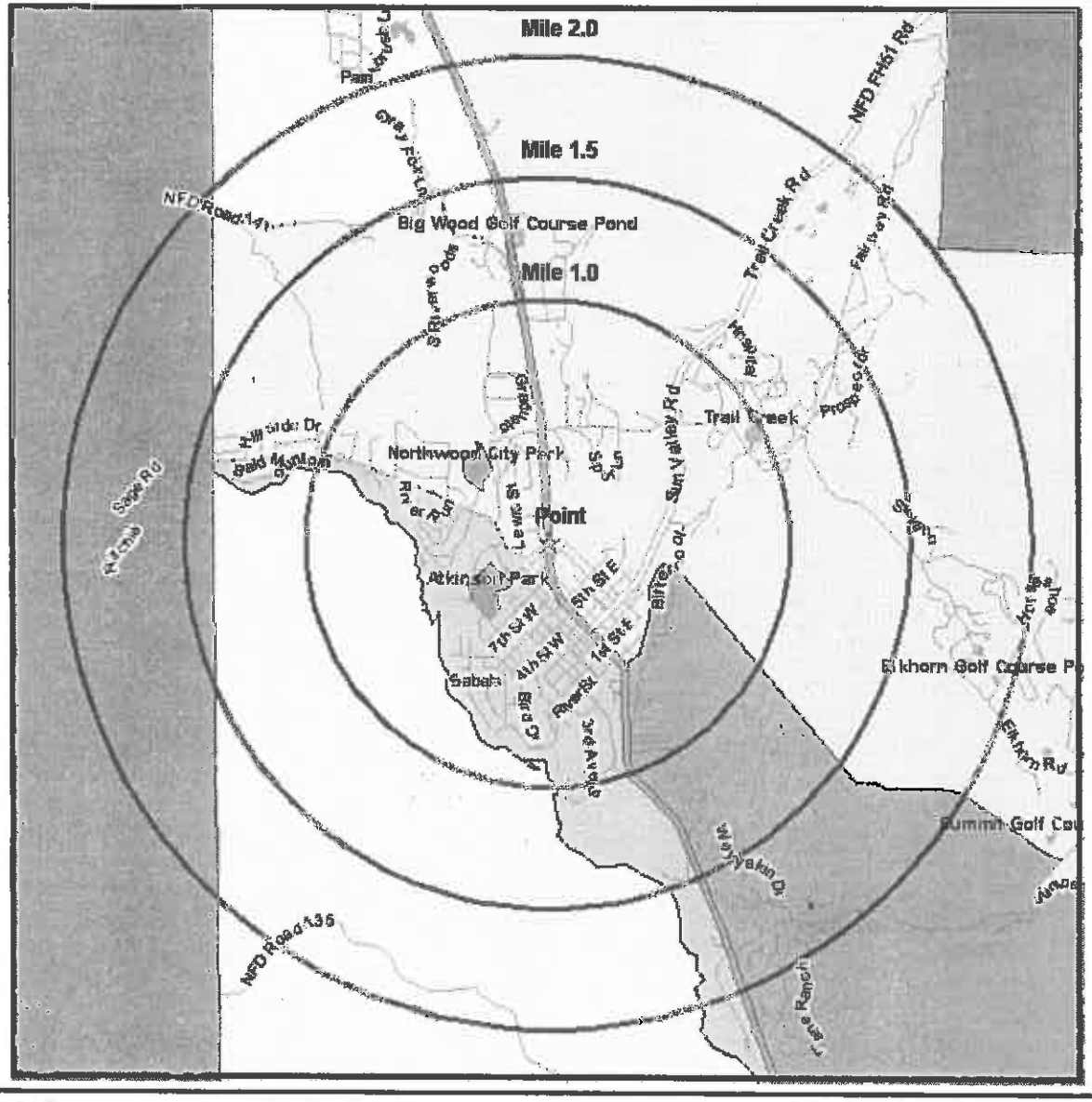
Field Survey Section Sun Valley Idado

- Hwy 75 & 10th Street
- January 2016
- GmapUSA



Population Current-Year

Sun Valley Site



N MAIN ST AT 10TH ST E
KETCHUM,ID 83340
Coord: 43.685806, -114.367549
Radius - See Appendix for Details

Legend

- Interstate Highways
- US Highways
- State Highways
- Major Highways
- Major Roads
- Roads
- Railroads
- Hydrography
- Block Groups

CY Total Population (Est.)

- 848 to 999
- 999 to 1,213
- 1,213 to 1,422
- 1,422 to 1,551
- 1,551 to 2,759
- State
- Ocean

0 miles 0.44 0.88

N W E S

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Prepared By: GmapUSA

Prepared For: Roy Bracken

GmapUSA

Appendix: Area Listing

Area Name:

Type: Radius 1

Radius Definition:

N MAIN ST AT 10TH ST E	Center Point:	43.685806		-114.367549
KETCHUM, ID 83340	Circle/Band:	0.00	-	1.00

Area Name:

Type: Radius 2

Radius Definition:

N MAIN ST AT 10TH ST E	Center Point:	43.685806		-114.367549
KETCHUM, ID 83340	Circle/Band:	0.00	-	1.50

Area Name:

Type: Radius 3

Radius Definition:

N MAIN ST AT 10TH ST E	Center Point:	43.685806		-114.367549
KETCHUM, ID 83340	Circle/Band:	0.00	-	2.00

Project Information:

Site: 2

Order Number: 975616310

Nielsen Solution Center 1 800 866 6511
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Prepared By: GmapUSA
GmapUSA

Pop-Facts: Demographic Snapshot 2015 Report

Sun Valley Site

Radius 1: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate
Radius 2: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate
Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles *Radius 1*	%	0.00 - 1.50 miles *Radius 2*	%	0.00 - 2.00 miles *Radius 3*	%
Population						
2020 Projection	1,771		2,390		2,989	
2015 Estimate	1,892		2,533		3,153	
2010 Census	2,099		2,782		3,442	
2000 Census	2,369		3,097		3,786	
Growth 2015-2020	-6.39%		-5.65%		-5.22%	
Growth 2010-2015	-9.84%		-8.95%		-8.38%	
Growth 2000-2010	-11.42%		-10.17%		-9.09%	
2015 Est. Population by Single-Classification Race	1,892		2,533		3,153	
White Alone	1,694	89.53	2,290	90.41	2,850	90.39
Black or African American Alone	4	0.21	4	0.16	5	0.16
Amer. Indian and Alaska Native Alone	5	0.26	7	0.28	10	0.32
Asian Alone	30	1.59	38	1.50	46	1.46
Native Hawaiian and Other Pac. Isl. Alone	0	0.00	1	0.04	2	0.06
Some Other Race Alone	137	7.24	163	6.44	204	6.47
Two or More Races	22	1.16	30	1.18	37	1.17
2015 Est. Population by Hispanic or Latino Origin	1,892		2,533		3,153	
Not Hispanic or Latino	1,704	90.06	2,303	90.92	2,862	90.77
Hispanic or Latino:	188	9.94	230	9.08	291	9.23
Mexican	111	59.04	138	60.00	177	60.82
Puerto Rican	4	2.13	5	2.17	6	2.06
Cuban	0	0.00	0	0.00	0	0.00
All Other Hispanic or Latino	72	38.30	87	37.83	109	37.46
2015 Est. Hisp. or Latino Pop by Single-Class. Race	188		230		291	
White Alone	38	20.21	51	22.17	67	23.02
Black or African American Alone	1	0.53	1	0.43	2	0.69
American Indian and Alaska Native Alone	4	2.13	5	2.17	7	2.41
Asian Alone	5	2.66	6	2.61	6	2.06
Native Hawaiian and Other Pacific Islander Alone	0	0.00	0	0.00	0	0.00
Some Other Race Alone	135	71.81	160	69.57	200	68.73
Two or More Races	5	2.66	7	3.04	9	3.09

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Pop-Facts: Demographic Snapshot 2015 Report

Sun Valley Site

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Radius 2: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate
Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles *Radius 1*	%	0.00 - 1.50 miles *Radius 2*	%	0.00 - 2.00 miles *Radius 3*	%
2015 Est. Pop by Race, Asian Alone, by Category	30		38		46	
Chinese, except Taiwanese	0	0.00	0	0.00	0	0.00
Filipino	14	46.67	18	47.37	22	47.83
Japanese	6	20.00	8	21.05	10	21.74
Asian Indian	0	0.00	0	0.00	0	0.00
Korean	1	3.33	1	2.63	1	2.17
Vietnamese	0	0.00	0	0.00	0	0.00
Cambodian	0	0.00	0	0.00	0	0.00
Hmong	0	0.00	0	0.00	0	0.00
Laotian	0	0.00	0	0.00	0	0.00
Thai	9	30.00	11	28.95	13	28.26
All Other Asian Races Including 2+ Category	0	0.00	0	0.00	0	0.00
2015 Est. Population by Ancestry	1,892		2,533		3,153	
Arab	0	0.00	0	0.00	0	0.00
Czech	35	1.85	44	1.74	54	1.71
Danish	10	0.53	16	0.63	22	0.70
Dutch	25	1.32	32	1.26	40	1.27
English	266	14.06	372	14.69	473	15.00
French (except Basque)	48	2.54	62	2.45	76	2.41
French Canadian	0	0.00	0	0.00	0	0.00
German	208	10.99	283	11.17	355	11.26
Greek	4	0.21	5	0.20	6	0.19
Hungarian	1	0.05	2	0.08	4	0.13
Irish	129	6.82	170	6.71	210	6.66
Italian	55	2.91	72	2.84	88	2.79
Lithuanian	0	0.00	0	0.00	0	0.00
United States or American	82	4.33	111	4.38	139	4.41
Norwegian	101	5.34	130	5.13	159	5.04
Polish	18	0.95	22	0.87	26	0.82
Portuguese	0	0.00	1	0.04	1	0.03
Russian	4	0.21	6	0.24	7	0.22
Scottish	41	2.17	57	2.25	71	2.25
Scotch-Irish	47	2.48	58	2.29	70	2.22
Slovak	0	0.00	1	0.04	2	0.06
Subsaharan African	0	0.00	0	0.00	0	0.00
Swedish	30	1.59	39	1.54	47	1.49
Swiss	5	0.26	7	0.28	8	0.25
Ukrainian	0	0.00	0	0.00	0	0.00
Welsh	0	0.00	0	0.00	0	0.00
West Indian (except Hisp. groups)	0	0.00	0	0.00	0	0.00
Other ancestries	698	36.89	933	36.83	1,161	36.82

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Pop-Facts: Demographic Snapshot 2015 Report

Sun Valley Site

Radius 1: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate
Radius 2: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate
Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles *Radius 1*	%	0.00 - 1.50 miles *Radius 2*	%	0.00 - 2.00 miles *Radius 3*	%
2015 Est. Population by Ancestry						
Ancestry Unclassified	85	4.49	110	4.34	135	4.28
2015 Est. Pop Age 5+ by Language Spoken at Home	1,825		2,448		3,048	
Speak Only English at Home	1,465	80.27	1,972	80.56	2,459	80.68
Speak Asian/Pac. Isl. Lang. at Home	5	0.27	12	0.49	19	0.62
Speak IndoEuropean Language at Home	48	2.63	61	2.49	74	2.43
Speak Spanish at Home	307	16.82	402	16.42	496	16.27
Speak Other Language at Home	0	0.00	0	0.00	0	0.00
2015 Est. Population by Sex	1,892		2,533		3,153	
Male	975	51.53	1,305	51.52	1,624	51.51
Female	917	48.47	1,228	48.48	1,529	48.49
2015 Est. Population by Age	1,892		2,533		3,153	
Age 0 - 4	67	3.54	85	3.36	105	3.33
Age 5 - 9	85	4.49	107	4.22	131	4.15
Age 10 - 14	85	4.49	110	4.34	139	4.41
Age 15 - 17	47	2.48	64	2.53	81	2.57
Age 18 - 20	41	2.17	57	2.25	73	2.32
Age 21 - 24	48	2.54	71	2.80	93	2.95
Age 25 - 34	269	14.22	342	13.50	396	12.56
Age 35 - 44	270	14.27	344	13.58	410	13.00
Age 45 - 54	289	15.27	376	14.84	459	14.56
Age 55 - 64	304	16.07	419	16.54	539	17.09
Age 65 - 74	260	13.74	371	14.65	483	15.32
Age 75 - 84	101	5.34	150	5.92	198	6.28
Age 85 and over	24	1.27	36	1.42	46	1.46
Age 16 and over	1,638	86.58	2,209	87.21	2,750	87.22
Age 18 and over	1,607	84.94	2,167	85.55	2,697	85.54
Age 21 and over	1,566	82.77	2,110	83.30	2,624	83.22
Age 65 and over	385	20.35	557	21.99	727	23.06
2015 Est. Median Age	46.1		47.3		48.2	
2015 Est. Average Age	44.6		45.5		46.0	

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Pop-Facts: Demographic Snapshot 2015 Report

Sun Valley Site

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Radius 2: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate
Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles Radius 1	%	0.00 - 1.50 miles Radius 2	%	0.00 - 2.00 miles Radius 3	%
2015 Est. Male Population by Age	975		1,305		1,624	
Age 0 - 4	34	3.49	43	3.30	54	3.33
Age 5 - 9	45	4.62	55	4.21	66	4.06
Age 10 - 14	38	3.90	51	3.91	67	4.13
Age 15 - 17	25	2.56	33	2.53	42	2.59
Age 18 - 20	23	2.36	32	2.45	40	2.46
Age 21 - 24	26	2.67	39	2.99	51	3.14
Age 25 - 34	139	14.26	177	13.56	207	12.75
Age 35 - 44	155	15.90	197	15.10	232	14.29
Age 45 - 54	144	14.77	186	14.25	225	13.85
Age 55 - 64	156	16.00	214	16.40	275	16.93
Age 65 - 74	128	13.13	184	14.10	241	14.84
Age 75 - 84	47	4.82	72	5.52	98	6.03
Age 85 and over	15	1.54	21	1.61	27	1.66
2015 Est. Median Age, Male	45.2		46.4		47.4	
2015 Est. Average Age, Male	44.4		45.2		45.8	
2015 Est. Female Population by Age	917		1,228		1,529	
Age 0 - 4	33	3.60	42	3.42	52	3.40
Age 5 - 9	41	4.47	52	4.23	65	4.25
Age 10 - 14	47	5.13	59	4.80	72	4.71
Age 15 - 17	22	2.40	31	2.52	39	2.55
Age 18 - 20	18	1.96	25	2.04	33	2.16
Age 21 - 24	23	2.51	33	2.69	42	2.75
Age 25 - 34	130	14.18	164	13.36	190	12.43
Age 35 - 44	115	12.54	148	12.05	178	11.64
Age 45 - 54	145	15.81	190	15.47	233	15.24
Age 55 - 64	148	16.14	204	16.61	264	17.27
Age 65 - 74	131	14.29	187	15.23	242	15.83
Age 75 - 84	54	5.89	78	6.35	100	6.54
Age 85 and over	10	1.09	15	1.22	20	1.31
2015 Est. Median Age, Female	47.0		48.2		49.0	
2015 Est. Average Age, Female	44.8		45.7		46.2	

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Pop-Facts: Demographic Snapshot 2015 Report

Sun Valley Site

Radius 1: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate
Radius 2: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate
Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles Radius 1	%	0.00 - 1.50 miles Radius 2	%	0.00 - 2.00 miles Radius 3	%
2015 Est. Pop Age 15+ by Marital Status	1,654		2,230		2,778	
Total, Never Married	584	35.31	730	32.74	849	30.56
Males, Never Married	368	22.25	462	20.72	539	19.40
Females, Never Married	215	13.00	268	12.02	310	11.16
Married, Spouse present	639	38.63	914	40.99	1,210	43.56
Married, Spouse absent	83	5.02	123	5.52	161	5.80
Widowed	52	3.14	87	3.90	116	4.18
Males Widowed	22	1.33	33	1.48	44	1.58
Females Widowed	30	1.81	53	2.38	71	2.56
Divorced	296	17.90	377	16.91	443	15.95
Males Divorced	111	6.71	154	6.91	192	6.91
Females Divorced	186	11.25	223	10.00	251	9.04
2015 Est. Pop Age 25+ by Edu. Attainment	1,518		2,038		2,531	
Less than 9th grade	69	4.55	85	4.17	101	3.99
Some High School, no diploma	37	2.44	45	2.21	53	2.09
High School Graduate (or GED)	181	11.92	231	11.33	277	10.94
Some College, no degree	281	18.51	385	18.89	493	19.48
Associate Degree	28	1.84	60	2.94	87	3.44
Bachelor's Degree	701	46.18	921	45.19	1,130	44.65
Master's Degree	164	10.80	210	10.30	251	9.92
Professional School Degree	38	2.50	64	3.14	85	3.36
Doctorate Degree	17	1.12	37	1.82	55	2.17
2015 Est. Pop Age 25+ by Edu. Attain., Hisp./Lat.	114		140		173	
No High School Diploma	80	70.18	98	70.00	120	69.36
High School Graduate	20	17.54	25	17.86	30	17.34
Some College or Associate's Degree	9	7.89	13	9.29	17	9.83
Bachelor's Degree or Higher	4	3.51	5	3.57	6	3.47
Households						
2020 Projection	899		1,198		1,484	
2015 Estimate	962		1,272		1,566	
2010 Census	1,071		1,401		1,712	
2000 Census	1,208		1,550		1,867	
Growth 2015-2020	-6.55%		-5.78%		-5.25%	
Growth 2010-2015	-10.17%		-9.24%		-8.55%	
Growth 2000-2010	-11.35%		-9.61%		-8.27%	

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Pop-Facts: Demographic Snapshot 2015 Report

Sun Valley Site

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Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles *Radius 1*	%	0.00 - 1.50 miles *Radius 2*	%	0.00 - 2.00 miles *Radius 3*	%
2015 Est. Households by Household Type	962		1,272		1,566	
Family Households	416	43.24	571	44.89	734	46.87
Nonfamily Households	546	56.76	701	55.11	832	53.13
2015 Est. Group Quarters Population	8		49		76	
2015 HHs by Ethnicity, Hispanic/Latino	58	6.03	70	5.50	87	5.56
2015 Est. Households by HH Income	962		1,272		1,566	
Income < $15,000	90	9.36	127	9.98	162	10.34
Income $15,000 - $24,999	83	8.63	106	8.33	132	8.43
Income $25,000 - $34,999	151	15.70	193	15.17	229	14.62
Income $35,000 - $49,999	113	11.75	150	11.79	189	12.07
Income $50,000 - $74,999	203	21.10	258	20.28	310	19.80
Income $75,000 - $99,999	125	12.99	157	12.34	184	11.75
Income $100,000 - $124,999	93	9.67	120	9.43	140	8.94
Income $125,000 - $149,999	25	2.60	37	2.91	52	3.32
Income $150,000 - $199,999	25	2.60	44	3.46	65	4.15
Income $200,000 - $249,999	13	1.35	20	1.57	27	1.72
Income $250,000 - $499,999	27	2.81	39	3.07	51	3.26
Income $500,000+	15	1.56	21	1.65	25	1.60
2015 Est. Average Household Income	$76,207		$78,250		$79,592	
2015 Est. Median Household Income	$55,476		$55,759		$55,671	
2015 Median HH Inc. by Single-Class. Race or Eth.						
White Alone	57,037		57,277		57,228	
Black or African American Alone	106,680		104,375		100,504	
American Indian and Alaska Native Alone	62,500		62,500		62,500	
Asian Alone	58,370		58,753		59,672	
Native Hawaiian and Other Pacific Islander Alone	0		56,250		56,250	
Some Other Race Alone	39,903		39,667		39,133	
Two or More Races	14,999		14,999		14,999	
Hispanic or Latino	58,723		58,516		57,610	
Not Hispanic or Latino	54,989		55,369		55,388	
2015 Est. Family HH Type by Presence of Own Child.	416		571		734	
Married-Couple Family, own children	115	27.64	152	26.62	194	26.43

Prepared By: GmapUSA
Nielsen Solution Center 1 800 866 6511
GmapUSA
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Pop-Facts: Demographic Snapshot 2015 Report

Sun Valley Site

Radius 1: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate
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Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles Radius 1	%	0.00 - 1.50 miles Radius 2	%	0.00 - 2.00 miles Radius 3	%
Married-Couple Family, no own children	222	53.37	320	56.04	422	57.49
Male Householder, own children	19	4.57	23	4.03	27	3.68
Male Householder, no own children	10	2.40	13	2.28	16	2.18
Female Householder, own children	32	7.69	40	7.01	47	6.40
Female Householder, no own children	18	4.33	22	3.85	26	3.54
2015 Est. Households by Household Size	962		1,272		1,566	
1-person	396	41.16	519	40 80	629	40.17
2-person	358	37.21	484	38.05	605	38.63
3-person	110	11.43	141	11.08	170	10.86
4-person	66	6.86	85	6.68	108	6.90
5-person	24	2.49	32	2.52	41	2.62
6-person	5	0.52	7	0.55	9	0.57
7-or-more-person	3	0.31	4	0.31	5	0.32
2015 Est. Average Household Size	1.96		1.95		1.97	
2015 Est. Households by Presence of People Under 18	962		1,272		1,566	
Households with 1 or More People under Age 18:	173	17.98	224	17.61	279	17.82
Married-Couple Family	116	67.05	154	68.75	197	70.61
Other Family, Male Householder	21	12.14	26	11.61	30	10.75
Other Family, Female Householder	33	19.08	42	18.75	50	17.92
Nonfamily, Male Householder	1	0.58	1	0.45	1	0.36
Nonfamily, Female Householder	1	0.58	1	0.45	1	0.36
Households with No People under Age 18:	789	82.02	1,048	82.39	1,286	82.12
Married-Couple Family	221	28.01	318	30.34	420	32.66
Other Family, Male Householder	8	1.01	11	1.05	13	1.01
Other Family, Female Householder	17	2.15	21	2.00	24	1.87
Nonfamily, Male Householder	294	37.26	376	35.88	448	34.84
Nonfamily, Female Householder	249	31.56	322	30.73	382	29.70
2015 Est. Households by Number of Vehicles	962		1,272		1,566	
No Vehicles	68	7.07	80	6.29	87	5.56
1 Vehicle	328	34.10	442	34.75	537	34.29
2 Vehicles	380	39.50	502	39.47	627	40.04
3 Vehicles	175	18.19	232	18.24	290	18.52
4 Vehicles	8	0.83	11	0.86	16	1.02
5 or more Vehicles	4	0.42	5	0.39	9	0.57
2015 Est. Average Number of Vehicles	1.7		1.7		1.8	

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Pop-Facts: Demographic Snapshot 2015 Report

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Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles *Radius 1*	%	0.00 - 1.50 miles *Radius 2*	%	0.00 - 2.00 miles *Radius 3*	%
Family Households						
2020 Projection	391		541		699	
2015 Estimate	416		571		734	
2010 Census	460		624		797	
2000 Census	484		649		826	
Growth 2015-2020	-5.98%		-5.17%		-4.75%	
Growth 2010-2015	-9.67%		-8.60%		-7.94%	
Growth 2000-2010	-4.94%		-3.89%		-3.56%	
2015 Est. Families by Poverty Status	416		571		734	
2015 Families at or Above Poverty	410	98.56	563	98.60	723	98.50
2015 Families at or Above Poverty with Children	107	25.72	146	25.57	187	25.48
2015 Families Below Poverty	5	1.20	7	1.23	10	1.36
2015 Families Below Poverty with Children	1	0.24	1	0.18	2	0.27
2015 Est. Pop Age 16+ by Employment Status	1,638		2,209		2,750	
In Armed Forces	0	0.00	0	0.00	0	0.00
Civilian - Employed	1,044	63.74	1,403	63.51	1,744	63.42
Civilian - Unemployed	119	7.26	154	6.97	188	6.84
Not in Labor Force	474	28.94	652	29.52	819	29.78
2015 Est. Civ. Employed Pop 16+ by Class of Worker	1,061		1,423		1,769	
For-Profit Private Workers	648	61.07	888	62.40	1,104	62.41
Non-Profit Private Workers	53	5.00	64	4.50	79	4.47
Local Government Workers	26	2.45	42	2.95	59	3.34
State Government Workers	27	2.54	39	2.74	47	2.66
Federal Government Workers	2	0.19	4	0.28	6	0.34
Self-Employed Workers	302	28.46	385	27.06	470	26.57
Unpaid Family Workers	1	0.09	2	0.14	4	0.23
2015 Est. Civ. Employed Pop 16+ by Occupation	1,061		1,423		1,769	
Architect/Engineer	44	4.15	57	4.01	66	3.73
Arts/Entertainment/Sports	55	5.18	74	5.20	96	5.43
Building Grounds Maintenance	70	6.60	91	6.39	110	6.22
Business/Financial Operations	13	1.23	21	1.48	30	1.70
Community/Social Services	16	1.51	20	1.41	22	1.24
Computer/Mathematical	2	0.19	6	0.42	8	0.45
Construction/Extraction	115	10.84	142	9.98	169	9.55
Education/Training/Library	36	3.39	55	3.87	69	3.90

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Pop-Facts: Demographic Snapshot 2015 Report

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Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles *Radius 1*	%	0.00 - 1.50 miles *Radius 2*	%	0.00 - 2.00 miles *Radius 3*	%
Farming/Fishing/Forestry	2	0.19	6	0.42	11	0.62
Food Prep/Serving	63	5.94	101	7.10	135	7.63
Health Practitioner/Technician	18	1.70	27	1.90	38	2.15
Healthcare Support	27	2.54	31	2.18	34	1.92
Maintenance Repair	19	1.79	27	1.90	39	2.20
Legal	16	1.51	19	1.34	22	1.24
Life/Physical/Social Science	1	0.09	2	0.14	3	0.17
Management	150	14.14	221	15.53	284	16.05
Office/Admin. Support	96	9.05	122	8.57	146	8.25
Production	20	1.89	27	1.90	38	2.15
Protective Services	15	1.41	21	1.48	27	1.53
Sales/Related	190	17.91	232	16.30	272	15.38
Personal Care/Service	47	4.43	67	4.71	85	4.80
Transportation/Moving	45	4.24	56	3.94	65	3.67
2015 Est. Pop 16+ by Occupation Classification	1,061		1,423		1,769	
Blue Collar	199	18.76	252	17.71	311	17.58
White Collar	637	60.04	855	60.08	1,057	59.75
Service and Farm	224	21.11	317	22.28	401	22.67
2015 Est. Workers Age 16+ by Transp. to Work	1,052		1,411		1,753	
Drove Alone	672	63.88	870	61.66	1,070	61.04
Car Pooled	97	9.22	127	9.00	157	8.96
Public Transportation	2	0.19	5	0.35	9	0.51
Walked	76	7.22	125	8.86	162	9.24
Bicycle	74	7.03	89	6.31	102	5.82
Other Means	11	1.05	16	1.13	21	1.20
Worked at Home	120	11.41	178	12.62	233	13.29
2015 Est. Workers Age 16+ by Travel Time to Work *						
Less than 15 Minutes	753		984		1,188	
15 - 29 Minutes	177		252		333	
30 - 44 Minutes	6		12		22	
45 - 59 Minutes	3		4		6	
60 or more Minutes	6		9		14	
2015 Est. Avg. Travel Time to Work in Minutes	10.20		10.53		11.00	
2015 Est. Occupied Housing Units by Tenure	962		1,272		1,566	
Owner Occupied	568	59.04	778	61.16	989	63.15
Renter Occupied	394	40.96	494	38.84	576	36.78

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Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles *Radius 1*	%	0.00 - 1.50 miles *Radius 2*	%	0.00 - 2.00 miles *Radius 3*	%
2015 Owner Occ. HUs: Avg. Length of Residence	17.3		17.3		17.4	
2015 Renter Occ. HUs: Avg. Length of Residence	7.9		7.8		7.7	
2015 Est. Owner-Occupied Housing Units by Value	568		778		989	
Value Less than $20,000	2	0.35	2	0.26	3	0.30
Value $20,000 - $39,999	7	1.23	8	1.03	11	1.11
Value $40,000 - $59,999	4	0.70	10	1.29	14	1.42
Value $60,000 - $79,999	2	0.35	3	0.39	6	0.61
Value $80,000 - $99,999	9	1.58	12	1.54	14	1.42
Value $100,000 - $149,999	16	2.82	21	2.70	27	2.73
Value $150,000 - $199,999	32	5.63	42	5.40	50	5.06
Value $200,000 - $299,999	29	5.11	40	5.14	49	4.95
Value $300,000 - $399,999	44	7.75	60	7.71	78	7.89
Value $400,000 - $499,999	18	3.17	34	4.37	46	4.65
Value $500,000 - $749,999	143	25.18	187	24.04	224	22.65
Value $750,000 - $999,999	102	17.96	137	17.61	172	17.39
Value $1,000,000 or more	160	28.17	222	28.53	294	29.73
2015 Est. Median All Owner-Occupied Housing Value	$711,172		$710,229		$718,271	
2015 Est. Housing Units by Units in Structure	2,322		3,297		4,211	
1 Unit Attached	72	3.10	110	3.34	142	3.37
1 Unit Detached	1,159	49.91	1,565	47.47	2,010	47.73
2 Units	151	6.50	235	7.13	310	7.36
3 or 4 Units	414	17.83	622	18.87	773	18.36
5 to 19 Units	374	16.11	581	17.62	754	17.91
20 to 49 Units	122	5.25	148	4.49	167	3.97
50 or More Units	19	0.82	22	0.67	26	0.62
Mobile Home or Trailer	10	0.43	13	0.39	29	0.69
Boat, RV, Van, etc.	0	0.00	0	0.00	0	0.00
2015 Est. Housing Units by Year Structure Built	2,322		3,297		4,211	
Housing Units Built 2010 or later	7	0.30	8	0.24	8	0.19
Housing Units Built 2000 to 2009	430	18.52	540	16.38	637	15.13
Housing Units Built 1990 to 1999	325	14.00	466	14.13	629	14.94
Housing Units Built 1980 to 1989	338	14.56	499	15.13	653	15.51
Housing Units Built 1970 to 1979	782	33.68	1,172	35.55	1,498	35.57
Housing Units Built 1960 to 1969	180	7.75	276	8.37	372	8.83
Housing Units Built 1950 to 1959	171	7.36	207	6.28	238	5.65

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Radius 3: N MAIN ST AT 10TH ST E, KETCHUM, ID 83340, aggregate

Description	0.00 - 1.00 miles		0.00 - 1.50 miles		0.00 - 2.00 miles	
	Radius 1	*%*	*Radius 2*	*%*	*Radius 3*	*%*
Housing Units Built 1940 to 1949	29	1.25	43	1.30	63	1.50
Housing Unit Built 1939 or Earlier	61	2.63	85	2.58	113	2.68
2015 Est. Median Year Structure Built**	1979		1979		1979	

*This row intentionally left blank. No total category data is available.

**1939 will appear when at least half of the Housing Units in this reports area were built in 1939 or earlier.

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Sun Valley Site

Appendix: Area Listing

Area Name:

Type: Radius 1 Reporting Detail: Aggregate Reporting Level: Block Group

Radius Definition:

N MAIN ST AT 10TH ST E
KETCHUM, ID 83340

Latitude/Longitude 43.685806 -114.367549
Radius 0.00 - 1.00

Area Name:

Type: Radius 2 Reporting Detail: Aggregate Reporting Level: Block Group

Radius Definition:

N MAIN ST AT 10TH ST E
KETCHUM, ID 83340

Latitude/Longitude 43.685806 -114.367549
Radius 0.00 - 1.50

Area Name:

Type: Radius 3 Reporting Detail: Aggregate Reporting Level: Block Group

Radius Definition:

N MAIN ST AT 10TH ST E
KETCHUM, ID 83340

Latitude/Longitude 43.685806 -114.367549
Radius 0.00 - 2.00

Project Information:

Site: 1

Order Number: 975616310

Prepared By: GmapUSA
Nielsen Solution Center 1 800 866 6511
GmapUSA
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WARM SPRINGS
ROAD
BRACKEN STATION
WARM SPRINGS
ROAD


WARM SPRINGS
ROAD
BRACKEN STATION

Monument Signs

The modular primary ID sign system is also available in a monument structure. The system comprises a Hallmark, price sign and an APC sign panel. Monument signs are installed where local ordinances prohibit pole signs or require smaller signs.

- Mount monument signs in masonry, stucco, metal or wood.
- Paint the masonry, stucco, metal or wood Chevron GY-210 Gray (Dark) (Dark Gray) unless prohibited by local architectural controls.
- Install the vertical column adjacent to the Hallmark and closest to the street.
- Monument signs are available in the three sizes noted.
- Only 3-product price signs are available.
- Both numeral and product grade panels are changeable.
- When using monument signs with Grand Entrance architecture, paint the base Dark Gray or Havana Cream.

◀ Street Side



The monument primary ID includes the Hallmark and price sign.

Type	Width	Height	Area Sq. Ft.
C-30M (Hallmark and price sign)	5'-1 ¾"	2'-10 ¾"	14.9
C-30M APC	5'-1 ¾"	0'- 8 ½"	3.6
C-32M (Hallmark and price sign)	6'-11 ½"	3'-10"	26.2
C-32M APC	6'-11 ½"	0'- 9 ¾"	5.7
C-45M (Hallmark and price sign)	8'- 5 ½"	4'- 8"	38.8
C-45M APC	8'- 5 ½"	0'- 9 ¾"	6.9

Primary ID Sign - Monument Retrofit

Before



After



Legacy Monument Sign (Retrofit)

- Replace legacy Hallmark faces with new Hallmark face panels across all levels.
- The new Hallmark logo and 'with TECHRON' logo panel are required.
- Replace APC faces with new design faces. Short height/ Long APCs should be refaced and converted to 2 individual faces side by side, separated by an "H" bar divider.
- Replace legacy LPS faces with new Illuminated Price Sign faces.
- In cases where Chevron branded Diesel is available at the facility, install a new Green Pricer panel below the LPS, or reface the existing diesel pricer.
- Paint monument bases Dark Gray or to match building wainscot color if the C-Store is done in the Chevron approved color scheme.

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IDAPA 58
TITLE 01
CHAPTER 07

58.01.07 - RULES REGULATING UNDERGROUND STORAGE TANK SYSTEMS

000. LEGAL AUTHORITY.
Chapters 1 and 88, Title 39, Idaho Code, grant authority to the Board of Environmental Quality to promulgate rules for the regulation of underground storage tank systems within the state of Idaho. (4-2-08)

001. TITLE AND SCOPE.

01. Title. These rules shall be cited as IDAPA 58.01.07, "Rules Regulating Underground Storage Tank Systems." (4-2-08)

02. Scope. These rules establish standards and procedures necessary for the regulation of underground storage tank systems. Compliance with these rules shall not relieve persons from the obligation to comply with other applicable state or federal laws. (4-2-08)

002. WRITTEN INTERPRETATIONS.
As described in Section 67-5201(19)(b)(iv), Idaho Code, the Department of Environmental Quality may have written statements which pertain to the interpretation of these rules. If available, such written statements can be inspected and copied at cost at the Department of Environmental Quality, 1410 N. Hilton, Boise, Idaho 83706-1255. (4-2-08)

003. ADMINISTRATIVE PROVISIONS.
Persons may be entitled to appeal agency actions authorized under these rules pursuant to IDAPA 58.01.23, "Rules of Administrative Procedure Before the Board of Environmental Quality." (4-2-08)

004. INCORPORATION BY REFERENCE.
Any reference to any document identified in Subsection 004.01 shall constitute the full adoption by reference into IDAPA 58.01.07. (4-2-08)

01. Documents Incorporated by Reference. Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks, 40 CFR Part 280, revised as of July 1, 2007. (4-2-08)

02. Hazardous Substance Underground Storage Tank Systems. (4-2-08)

a. The following items only apply to hazardous substance underground storage tank systems and do not apply to petroleum underground storage tank systems: (4-2-08)

i. The definition of "Hazardous substance UST system" in 40 CFR 280.12 and use of this term or regulations regarding hazardous substance in 40 CFR Part 280; and (4-2-08)

ii. 40 CFR 280.42 and any reference to 40 CFR 280.42 in 40 CFR Part 280. (4-2-08)

b. All other provisions of 40 CFR Part 280 and all provisions of IDAPA 58.01.07 shall apply to hazardous substance underground storage tank systems. (4-2-08)

03. Consistency. In the event of conflict or inconsistency between the language in IDAPA 58.01.07 and that found in 40 CFR Part 280, IDAPA 58.01.07 shall prevail. (4-2-08)

04. Stringency. IDAPA 58.01.07 shall be no more stringent than federal law or regulations governing underground storage tank systems. (4-2-08)

05. Availability of Referenced Material. The federal regulations adopted by reference can be obtained at the following locations: (4-2-08)

a. U.S. Government Printing Office, www.ecfr.gov; and (4-2-08)

b. Department of Environmental Quality, Hearing Coordinator, 1410 N. Hilton, Boise, ID 83706-1255, (208)373-0502. (4-2-08)

005. OFFICE HOURS -- MAILING ADDRESS AND STREET ADDRESS.
The state office of the Department of Environmental Quality and the office of the Board of Environmental Quality are located at 1410 N. Hilton, Boise, Idaho 83706-1255, (208) 373-0502, www.deq.idaho.gov. The office hours are 8 a.m. to 5 p.m. Monday through Friday. (4-2-08)

006. CONFIDENTIALITY OF RECORDS.
Information obtained by the Department under these rules is subject to public disclosure pursuant to the provisions of Title 74, Chapter 1, Idaho Code, and IDAPA 58.01.21, "Rules Governing the Protection and Disclosure of Records in the Possession of the Idaho Department of Environmental Quality." (4-2-08)

007. -- 009. (RESERVED)

010. DEFINITIONS.
For the purpose of the rules contained in IDAPA 58.01.07, "Rules Regulating Underground Storage Tank Systems," the following definitions apply: (4-2-08)

01. Board. The Idaho Board of Environmental Quality. (4-2-08)

02. Community Water System. A public water system that serves at least fifteen (15) service connections used by year-round residents of the area served by the system or regularly serves at least twenty-five (25) year-round residents. (4-2-08)

03. Department. The Idaho Department of Environmental Quality. (4-2-08)

04. Director.The Director of the Idaho Department of Environmental Quality or his authorized agent. (4-2-08)

05. Existing. Solely for purposes of determining when secondary containment is required, existing is when a petroleum underground storage tank, piping, motor fuel dispensing system, facility, public water system or potable drinking water well is in place when a new installation or replacement of a tank, piping, or motor fuel dispensing system begins. (4-2-08)

06. EPA. The United States Environmental Protection Agency. (4-2-08)

07. Installation of a New Motor Fuel Dispenser System. The installation of a new motor fuel dispenser and the equipment necessary to connect the dispenser to the petroleum underground storage tank system. This equipment may include flexible connectors, risers, or other transitional components that are beneath the dispenser, below the shear valve, and connect the dispenser to the piping. It does not mean the installation of a motor fuel dispenser installed separately from the equipment needed to connect the dispenser to the petroleum underground storage tank system. (4-2-08)

08. Installer. Any person who installs a new or replacement petroleum underground storage tank system. (4-2-08)

09. Motor Fuel. Petroleum or a petroleum-based substance that is motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any grade of petroleum-blended gasohol, and is typically used in the operation of a motor engine. This includes blended petroleum motor fuels such as biodiesel and ethanol petroleum blends. (4-2-08)

10. New Underground Storage Tank. Has the same meaning as "underground storage tank or UST" in 40 CFR 280.12, except that such term includes tanks that have been previously used and meet the requirements of 40 CFR 280.20(a). (4-2-08)

11. Non-Community Water System. A public water system that is not a community water system. A

non-community water system is either a transient non-community water system or a non-transient non-community water system. (4-2-08)

12. **Person**. An individual, trust, firm, joint stock company, federal agency, corporation, state, municipality, commission, political subdivision of a state, or any interstate body. "Person" also includes a consortium, a joint venture, a commercial entity, and the United States government. (4-2-08)

13. **Piping**. A hollow cylinder or a tubular conduit constructed of non-earthen materials that routinely contains and conveys regulated petroleum substances from the petroleum underground storage tank(s) to the dispenser(s) or other end-use equipment. It does not mean vent, vapor recovery, or fill lines that do not routinely contain regulated petroleum substances. (4-2-08)

14. **Potable Drinking Water Well**. Any hole (dug, driven, drilled, or bored) that extends into the earth until it meets ground water which supplies water for a non-community public water system or otherwise supplies water for household use (consisting of drinking, bathing, and cooking, or other similar uses). Such wells may provide water to entities such as a single-family residence, group of residences, businesses, schools, parks, campgrounds, and other permanent or seasonal communities. (4-2-08)

15. **Product Deliverer**. Any person who delivers or deposits product into a petroleum underground storage tank. This term may include major oil companies, jobbers, petroleum transportation companies, or other product delivery entities. (4-2-08)

16. **Public Water System**. A system for the provision to the public of water for human consumption through pipes or, after August 5, 1998, other constructed conveyances, if such system has at least fifteen (15) service connections or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year. Such term includes: any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system; and, any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. Such term does not include any "special irrigation district." A public water system is either a "community water system" or a "non-community water system." (4-2-08)

17. **Red Tag**. A tamper-resistant tag, device, or mechanism attached to the tank's fill pipes that clearly identifies a petroleum underground storage tank as ineligible for product delivery. The tag or device shall be visible to the product deliverer and shall clearly state that it is unlawful to deliver to, deposit into, or accept product into the ineligible petroleum underground storage tank. (4-2-08)

18. **Repair**. Solely for purposes of determining when secondary containment is required, as it applies to petroleum underground storage tanks, piping, and motor fuel dispensers systems, repair means any activity that does not meet the definition of replace. (4-2-08)

19. **Replace**. As it applies to petroleum underground storage tanks and piping, replace is defined as follows: (4-2-08)

a. Petroleum Underground Storage Tank. Replace means to remove an existing tank and install a new tank. (4-2-08)

b. Piping. Replace means to remove and put back in one hundred (100) percent of the piping, excluding connectors, connected to a single petroleum underground storage tank system. This definition does not alter the requirement in 40 CFR 280.33(c) to replace metal pipe sections and fittings that have released product as a result of corrosion or other damage. A replacement of metal pipe section and fittings pursuant to 40 CFR 280.33(c) shall be considered a replacement under this definition only if one hundred (100) percent of the metal piping, excluding connectors, is replaced. (4-2-08)

20. **Secondary Containment**. A release detection and prevention system that meets the requirements of 40 CFR 280.43(g). The piping shall have an inner and outer barrier and a method of monitoring the space between the inner and outer barriers for a leak or release. (4-2-08)

21. Under-Dispenser Spill Containment. Containment underneath a dispenser that will prevent leaks from the dispenser from reaching soil or ground water. Such containment must: (4-2-08)

a. At installation or modification, be liquid-tight on its sides, bottom, and at any penetrations; and (4-2-08)

b. Be compatible with the substance conveyed by the piping; and either (4-2-08)

c. Allow for visual inspection and access to the components in the containment system; or (4-2-08)

d. Be monitored for releases using a release detection method that meets the requirements of 40 CFR 280.43(g). (4-2-08)

011. – 099. (RESERVED)

100. ADDITIONAL MEASURES TO PROTECT GROUND WATER FROM CONTAMINATION.

01. Notification. An owner, operator or designee must: (4-2-08)

a. Provide written notice to the Department thirty (30) days prior to the installation of a new piping system or a new or replacement petroleum underground storage tank. (4-2-08)

b. Provide notice to the Department twenty-four (24) hours prior to the installation of a replacement piping system. (4-2-08)

02. Notification Forms. The written notice required in Subsection 100.01.a. shall be made upon forms provided by the Department. (4-2-08)

03. Requirements for Petroleum UST Systems. Owners, operators, and installers of a new or replacement petroleum underground storage tank or piping system shall comply with the following requirements. (4-2-08)

a. Each new petroleum underground storage tank, or piping connected to any such new tank, installed after February 23, 2007, or any existing petroleum underground storage tank, or existing piping connected to such existing tank, that is replaced after February 23, 2007, shall have secondary containment and be monitored for leaks if the new or replaced petroleum underground storage tank or piping is within one thousand (1,000) feet of any existing public water system or any existing potable drinking water well. At a minimum, secondary containment systems must be designed, constructed, and installed to contain regulated substances released from the tank system until they are detected and removed, prevent the release of regulated substances to the environment at any time during the operational life of the petroleum underground storage tank system, and be checked for evidence of a release at least every thirty (30) days. The following conditions are excluded: (4-2-08)

i. Suction piping that meets the requirements of 40 CFR 280.41(b)(2)(i) through (v); (4-2-08)

ii. Piping that manifolds two (2) or more petroleum underground storage tanks together; (4-2-08)

iii. Existing piping to which new piping is connected to install a dispenser; and (4-2-08)

iv. Tanks identified in 40 CFR 280.10(b). (4-2-08)

b. If the owner installs, within one (1) year, a potable drinking water well at the new facility that is within one thousand (1,000) feet of the petroleum underground tanks, piping, or motor fuel dispenser system as part of the new underground storage tank facility installation, secondary containment and under-dispenser containment are required, regardless of whether the well is installed before or after the petroleum underground tanks, piping, and motor fuel dispenser system are installed. (4-2-08)

c. The notice required in Subsection 100.01 shall indicate whether the new or replacement installation

is within one thousand (1,000) feet of an existing public water system or any existing potable drinking water well. If the owner and installer certify that the installation is not within one thousand (1,000) feet of an existing public water system or any existing potable drinking water well, the owner, operator or designee shall provide and maintain documentation showing that a reasonable investigation of water systems and drinking water wells was undertaken. A reasonable investigation includes, but is not limited to, a search of the records of: (4-2-08)

i. The public or private water service provider in the area which the new or replacement installation is located (if any); (4-2-08)

ii. The city or county in which the new or replacement installation is located; (4-2-08)

iii. The Idaho Department of Water Resources; and (4-2-08)

iv. The Idaho Department of Environmental Quality. (4-2-08)

d. In the case of a replacement of an existing petroleum underground storage tank or existing piping connected to the petroleum underground storage tank, Section 100 shall apply only to the specific petroleum underground storage tank or piping being replaced, not to other petroleum underground storage tanks and connected pipes comprising such system. (4-2-08)

e. Each installation of a new motor fuel dispenser system shall include under-dispenser spill containment if the new dispenser is within one thousand (1,000) feet of any existing public water system or any existing potable drinking water well. (4-2-08)

04. Requirements for Hazardous Substance UST Systems. Owners, operators, and installers of a new or replacement hazardous substance underground storage tank or piping system shall have secondary containment as required in 40 CFR 280.42. (4-2-08)

05. Certification. Owners and operators shall also comply with the certification requirements of 40 CFR 280.22(f) as incorporated by reference into these rules. (4-2-08)

101. -- 199. (RESERVED)

200. RELEASE REPORTING REQUIREMENTS.

01. Information to be Reported. (4-2-08)

a. In addition to the requirements in IDAPA 58.01.02, "Water Quality Standards," Subsection 851.01, owners or operators shall report the following information regarding confirmed petroleum underground storage tank releases to the Department on forms provided by the Department: (4-2-08)

i. The release source; and (4-2-08)

ii. The release cause. (4-2-08)

b. Releases less than twenty-five (25) gallons that are cleaned up within twenty-four (24) hours, and which do not cause a sheen on nearby surface water, do not need to be reported. (4-2-08)

02. Release Sources. Release sources may include, but are not limited to the following: (4-2-08)

a. Petroleum Underground Storage Tanks; (4-2-08)

b. Piping; (4-2-08)

c. Dispensers, which include the dispenser and equipment used to connect the dispenser to the piping. A release from a suction pump or components located above the shear valve would be an example of a release from the dispenser; (4-2-08)

d. Submersible turbine pump area, which includes the submersible turbine pump head (typically located in the tank sump), the line leak detector, and the piping that connects the submersible turbine pump to the petroleum underground storage tank; and (4-2-08)

e. Delivery problem, which identifies releases that occurred during product delivery to the petroleum underground storage tank. Typical causes associated with this source are spills and overfills. (4-2-08)

03. Release Causes. Release causes may include, but are not limited to the following: (4-2-08)

a. Spills which may occur when the delivery hose is disconnected from the fill pipe of the petroleum underground storage tank or when the nozzle is removed from the vehicle at the dispenser; (4-2-08)

b. Overfills which may occur from the fill pipe at the petroleum underground storage tank or when the nozzle fails to shut off at the dispenser; (4-2-08)

c. Physical or mechanical damage of all types except corrosion. Examples include a puncture of the petroleum underground storage tank or piping, loose fittings, broken components, and components that have changed dimension like elongation or swelling; (4-2-08)

d. Corrosion of a metal tank, piping, flex connector, or other component; and (4-2-08)

e. Installation problem that occurs specifically because the underground storage tank system was not installed properly. (4-2-08)

04. Requirements. The reporting required in Section 200 shall be reported to the Department within ninety (90) days of a confirmed release. The reporting requirement in Section 200 shall not relieve owners or operators from the obligation to comply with IDAPA 58.01.02, "Water Quality Standards," Section 851, "Petroleum Release Reporting, Investigation, and Confirmation," and IDAPA 58.01.02, "Water Quality Standards," Section 852, "Petroleum Release Response and Corrective Action." (4-2-08)

201. -- 299. (RESERVED)

300. TRAINING REQUIREMENTS.

01. Requirements. The Department shall adopt a training program to help owners and operators comply with the requirements of these rules. The training program requirements shall: (4-2-08)

a. Be consistent with 42 U.S.C. 6991i(a), as amended by the Underground Storage Tank Compliance Act, (Pub.L. 109-58, title XV, sec. 1524(a), Aug. 8, 2005); (4-2-08)

b. Be developed in cooperation with petroleum underground storage tank owners and tank operators; (4-2-08)

c. Take into consideration training programs implemented by petroleum underground storage tank owners and operators as of August 8, 2005; (4-2-08)

d. Provide for training to be conducted on site or at another mutually convenient location; and (4-2-08)

e. Be appropriately communicated to petroleum underground storage tank owners and operators. (4-2-08)

02. Operator Designation. For each petroleum underground storage tank system regulated under these rules, the owner or operator shall: (4-2-08)

a. Designate: (4-2-08)

i. The class A operator, who is the individual(s) having primary responsibility for on-site operation

and maintenance of the petroleum underground storage tank system. This does not require that the class A operator be on site; (4-2-08)

ii. The class B operator, who is the individual(s) having daily on-site responsibility for the operation and maintenance of the petroleum underground storage tank system. This does not require that the class B operator be on site at all times; and (4-2-08)

iii. The class C operator, who is the daily, on-site individual(s) having primary responsibility for addressing emergencies presented by a spill or release from the petroleum underground storage tank system. The class C operator can be designated by the class A or B operator. (4-2-08)

b. Maintain a record at the facility where the petroleum underground storage tank is located listing each person designated in Subsections 300.02.a.i., 300.02.a.ii., and 300.02.a.iii. (4-2-08)

c. Notify the Department in writing of the individual(s) designated in Subsections 300.02.a.i. and 300.02.a.ii. within thirty (30) days of the designation. (4-2-08)

03. Training. The owner or operator of each petroleum underground storage tank system regulated under these rules shall ensure that the individual(s) identified in Subsections 300.02.a.i. and 300.02.a.ii. participate in the training conducted by the Department or a state of Idaho approved third party. (4-2-08)

a. The individual(s) identified in Subsections 300.02.a.i. or 300.02.a.ii. shall provide training to the persons identified in Subsection 300.02.a.iii. (4-2-08)

b. The individual(s) identified in Subsection 300.02.a.iii. must be trained before assuming responsibility for responding to emergencies. (4-2-08)

c. The individual(s) identified in Subsections 300.02.a.i. and 300.02.a.ii. shall repeat the training within thirty (30) days if the petroleum underground storage tank system for which they have responsibility is determined to be out of compliance with these rules. (4-2-08)

04. Unattended Sites. In the case of unattended sites, a sign must be posted in a location visible from the dispensers indicating emergency shut-off procedures and emergency contact phone numbers. (4-2-08)

301. -- 399. (RESERVED)

400. INSPECTIONS.

01. Department Authority. In order to fulfill the statutory requirements of Chapter 88, Title 39, Idaho Code, officers, employees or representatives of the Department, or third-party inspectors as described in Subsection 400.02, are authorized to inspect petroleum underground storage tanks, contents of the tanks, and associated equipment and records relating to such tanks, contents, and associated equipment. (4-2-08)

02. Third-Party Inspections. (4-2-08)

a. Third-party inspectors must be certified, licensed, or registered by an approved state program to perform on-site inspections. At a minimum, third-party inspectors must meet the requirements listed in Subsections 400.02.a.i. through 400.02.a.v.: (4-2-08)

i. Be trained in the state-specific inspection protocols and procedures, and perform inspections pursuant to such protocols and procedures; (4-2-08)

ii. Successfully complete the state's required training program. The training program for third-party inspectors must be comparable to the training program for Department inspectors; (4-2-08)

iii. Not be the owner or operator of the petroleum underground storage tank, an employee of the owner or operator of the petroleum underground storage tank, or a person having daily on-site responsibility for the operation and maintenance of the petroleum underground storage tank; (4-2-08)

iv. Use an inspection report form developed by the Department. Review of applicable records and other activities that can be accomplished off-site may be combined with activities conducted at the site to fulfill the on-site inspection requirement; and (4-2-08)

v. Complete and submit the inspection report to the Department in the manner and time frame established by the Department. All third-party inspection reports must be submitted electronically to the Department for review and for the Department to make a compliance determination for each site. If requested by the Department, third-party inspectors shall provide all supporting documentation for its inspection reports. (4-2-08)

b. Third-party inspection procedures must contain an audit program, developed by the Department, to monitor third-party inspectors on a routine basis. The audit program must include a sufficient number of on-site inspections to effectively assess inspector performance. (4-2-08)

c. If a third-party inspector fails to demonstrate to the approved state program adequate competence and proficiency to perform petroleum underground storage tank inspections, or the approved state program otherwise determines it is not appropriate for the third-party inspector to conduct on-site inspections as part of a third-party inspection program, the approved state program must take appropriate action against the third-party inspector as provided by law. (4-2-08)

03. Inspections. All inspections shall be done in accordance with the provisions of Section 39-108, Idaho Code. At a minimum, an on-site inspection must assess compliance with the following: (4-2-08)

a. Notification; (4-2-08)

b. Corrosion protection; (4-2-08)

c. Overfill prevention in place and operational; (4-2-08)

d. Spill prevention in place and operational; (4-2-08)

e. Tank and piping release detection; (4-2-08)

f. Reporting suspected releases; (4-2-08)

g. Records of tank and piping repairs; (4-2-08)

h. Secondary containment where required; (4-2-08)

i. Financial responsibility; and (4-2-08)

j. Temporary closure. (4-2-08)

401. -- 499. (RESERVED)

500. DELIVERY PROHIBITION.

01. Prohibition. Effective August 8, 2007, it shall be unlawful for any person to deliver to, deposit into, or accept a regulated petroleum substance into a petroleum underground storage tank at a facility which has been identified by the Department to be ineligible for such delivery, deposit, or acceptance. (4-2-08)

02. Classification as Ineligible. The Department shall classify a petroleum underground storage tank as ineligible for delivery, deposit, or acceptance of a regulated petroleum substance as soon as practicable after the Department determines one or more of the following conditions exists: (4-2-08)

a. Required spill prevention equipment is not installed; (4-2-08)

b. Required overfill protection equipment is not installed; (4-2-08)

c. Required leak detection equipment is not installed; or (4-2-08)

d. Required corrosion protection equipment is not installed. (4-2-08)

03. Warning of Violations. The Department may classify a petroleum underground storage tank as ineligible for delivery, deposit, or acceptance of a regulated petroleum substance if the owner or operator of the tank has been issued a written warning for any of the following violations, and the owner or operator fails to initiate corrective action within thirty (30) days of the issuance of the written warning, unless the deadline is extended by the Department: (4-2-08)

a. Failure to properly operate or maintain leak detection equipment; (4-2-08)

b. Failure to properly operate or maintain spill, overfill, or corrosion protection equipment; or (4-2-08)

c. Failure to maintain financial responsibility. (4-2-08)

04. Service of Notice. If the Department classifies a petroleum underground storage tank as ineligible for delivery, deposit, or acceptance of a regulated petroleum substance pursuant to Subsections 500.02 or 500.03, the Department shall provide a written notice of the determination to the owner or operator prior to prohibiting the delivery, deposit, or acceptance of a regulated petroleum substance. Notice is considered properly served by the Department in any of the following ways: (4-2-08)

a. The notice is personally delivered to the owner or operator; or (4-2-08)

b. The notice is clearly posted at a public entrance to the facility where the petroleum underground storage tank is located and a copy of the notice is also sent by certified mail to the last known address of the owner or operator. (4-2-08)

05. Red-Tagging. Once service of the written notice of the ineligible determination is complete, the Department shall then attach a red tag to each fill pipe of the ineligible petroleum underground storage tank clearly identifying the tank as ineligible. The Department shall also maintain a list of all petroleum underground storage tanks that are classified as ineligible for delivery, deposit, or acceptance of a regulated petroleum substance. The Department shall make the list available to the public by posting the list on the Department's website at www.deq.idaho.gov. (4-2-08)

06. Written Notice. The written notice required by Subsection 500.04 must include: (4-2-08)

a. The specific reasons or violations that led to the ineligible classification; (4-2-08)

b. A statement notifying the owner and operator that the petroleum underground storage tank is ineligible for delivery and it is unlawful for any person to deliver to, deposit into, or accept a regulated petroleum substance into the petroleum underground storage tank; (4-2-08)

c. The effective date the petroleum underground storage tank is deemed ineligible for delivery; (4-2-08)

d. The name and address of the department representative to whom a written request for re-inspection can be made, if a re-inspection is necessary; (4-2-08)

e. A statement regarding the right to appeal the Department's action regarding ineligible classification pursuant to IDAPA 58.01.23, "Rules of Administrative Procedure Before the Board of Environmental Quality"; and (4-2-08)

f. The option to request a compliance conference pursuant to Subsection 500.07. (4-2-08)

07. Compliance Conference. The owner or operator may request a compliance conference with the Department within fifteen (15) days of receipt of the notice. A compliance conference shall be scheduled within twenty (20) days and conducted in an informal manner by the Department. At the compliance conference, the owner or operator may explain why he believes the petroleum underground storage tank should not be classified as ineligible. During the compliance conference, the owner or operator and the Department will identify and establish appropriate acts and a time schedule for compliance as necessary. (4-2-08)

08. Duration of Ineligible Classification. The classification of a petroleum underground storage tank as ineligible shall remain in effect until the conditions cited in the notice no longer exist. If the Department determines that an ineligible storage tank has returned to compliance and is now eligible for delivery, deposit, or acceptance of a regulated petroleum substance, the Department or an authorized designee shall, as soon as practicable, remove the red tag from the petroleum underground storage tank and also remove the petroleum underground storage tank from the ineligible list posted on its website. The Department will also send a written notice to the owner and operator that an ineligible storage tank has returned to compliance and is now eligible for delivery, deposit, or acceptance of a regulated petroleum substance. (4-2-08)

09. Declining Classification. The Director may decline to classify a petroleum underground storage tank as ineligible if the Director decides that classifying the petroleum underground storage tank as ineligible for delivery, deposit, or acceptance is not in the best interest of the public. (4-2-08)

a. The Director may only defer application of delivery prohibition for up to one hundred eighty (180) days after determining a petroleum underground storage tank is ineligible for delivery, deposit, or acceptance of a regulated petroleum substance. (4-2-08)

b. The Director may authorize the delivery, deposit, or acceptance of product into an ineligible petroleum underground storage tank if such activity is necessary to test or calibrate the underground storage tank or dispenser system. (4-2-08)

10. Department Authority. Nothing in Section 500 shall affect or preempt the authority of the Department to prohibit the delivery, deposit, or acceptance of a regulated petroleum substance to a petroleum underground storage tank under other existing authorities. (4-2-08)

11. Proper Notice. A person shall not be in violation of Subsection 500.01 if the Department fails to provide the notice required by Subsections 500.04 and 500.05. (4-2-08)

12. Unlawful to Tamper with Red Tag. It shall be unlawful for any person to tamper with and/or remove the red tag without the Department's approval. (4-2-08)

501. -- 599. (RESERVED)

600. PETROLEUM UNDERGROUND STORAGE TANK DATABASE.

01. Maintenance. The Department shall maintain a database which provides details on the status of all petroleum underground storage tanks in the state of Idaho which are subject to regulation. The database shall be updated no less than the end of each calendar quarter. (4-2-08)

02. Identification. The database shall identify any tanks subject to delivery prohibition. (4-2-08)

03. Petition. Petroleum underground storage tank owners or operators may petition the Department to correct any inaccurate information for their tanks and the Department shall correct any such inaccurate information within thirty (30) days after verification. (4-2-08)

04. Availability. The database shall be available to the public on the Department's website at www.deq.idaho.gov. (4-2-08)

601. -- 999. (RESERVED)

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MEMORANDUM

TO: Jim Anderson
Xerxes Corporation
1210 N. Tustin Ave.
Anaheim, CA 92807

FROM: J.M. Plecnik
Consultant
1880 San Anseline
Long Beach, CA 90815
(562) 985-4406

DATE: September 11, 2007

SUBJECT: Seismic Behavior of Xerxes Underground Tanks

The behavior of Xerxes underground tanks under seismic loading can best be summarized in two different categories. The first category would consider seismic loads occurring at some distance away from the tank, so that the rupture of the earth's crust is not in the immediate vicinity of the underground tank. That is, any rupture in the earth's crust is not occurring directly at the site of the tank. In this case, the behavior of the seismic tank is similar to that of a ball in the ocean that is subjected to an oncoming wave. Since the size of the ball is much smaller than the wave, the ball will simply move up and down with the wave motion. Likewise, in the case of an earthquake which also emits energy waves (ground waves similar to that of water in the ocean), the underground tank simply rides this energy wave without causing large localized forces on the tank itself. The second category is more critical and it consists of the rupture (fault lines) of the earth's crust occurring at or very near the location of the tank. In this case, the tank is incapable of surviving the rupture of the earth's crust and, like the soil, will also rupture.

In mid 1990's, Xerxes Corporation commissioned the CSULB Structures Lab, under the direction of J.M. Plecnik, to analyze 8 ft. diameter Xerxes underground tanks subjected to

seismic loading. This research effort culminated in several lengthy reports, including the May 28, 1997 report titled *Evaluation of 8 ft. Diameter Xerxes Underground Tanks Under Seismic Loading*. This report was utilized to obtain a design US Patent, number US 6,397,168 B1, dated May 28, 2002. The basic conclusions of this research effort are summarized in the above two categories.

The underground fiberglass storage tanks usually come with additional components, including straps and deadmen. The straps and the deadmen are intended only for uplift forces caused by buoyancy when the underground tanks are located below the water table. Hence, the straps and the deadmen are not intended to mitigate or reduce the seismic loads imposed on the underground gasoline storage tanks.

In conclusion, the seismic loads in underground tanks, located away from the fault, consist of added lateral and vertical pressures on the tank wall, which are not significant in relation to stresses produced by external soil and external hydrostatic loads, as well as internal vacuum or internal hydrostatic loads. Seismic loads are relatively short term and these added seismic loads on the tank do increase the stress levels in the tank shell. However, the increase is not critical, due to the fact that the safety factors for fiberglass underground tanks under non-seismic load conditions exceed 5.0.

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XERXES®
a ZCL company

Fiberglass Underground Storage Tanks for Petroleum Applications



making a lasting difference®

www.xerxes.com

Xerxes® Corporation – A trusted brand for more than 30 years





Xerxes History

Xerxes Corporation is widely viewed today as the leading manufacturer of underground storage tanks in the United States. Established in 1979, Xerxes has forged strong brand loyalty built on a reputation for innovation and the highest quality products and services.

Like most market leaders, we have a long history of design innovation including development of the first UL-listed double-wall fiberglass tank. We followed that with the introduction of a second-generation double-wall design, which for the first time incorporated a factory-installed hydrostatic monitoring system. This method of leak detection has become the most popular form of monitoring fiberglass underground tanks. More recently, we further improved our tank design by incorporating Parabeam®, a unique and proprietary three-dimensional glass fabric. Parabeam bonds the primary and secondary walls of our double-wall tank together for greater structural integrity, while also allowing for a free-flowing, clearly defined interstice between the two walls. Industry-leading innovations such as these, plus many others, are why petroleum equipment distributors, fuel marketers and commercial accounts rely on Xerxes for safe underground storage tank products.

One Company – Two Trusted Brands

Today, Xerxes is part of the ZCL® Composites group of companies manufacturing underground and aboveground fiberglass tanks for a wide range of applications, primarily petroleum products. ZCL Composites (ZCL) is a publicly traded company on the Toronto Stock Exchange (TSX: ZCL). Established in 1987, ZCL began manufacturing fiberglass tanks in Canada. Like Xerxes in the United States, ZCL's growth and the popularity of fiberglass tanks in Canada has been steady. Combined, the Xerxes brand in the United States and the ZCL brand in Canada make us North America's largest manufacturer of underground storage tanks. We service our underground storage tank customers from six strategically located North American manufacturing plants, four in the United States and two in Canada. Our extensive geographic coverage gives us unmatched ability to cost-effectively deliver tanks anywhere in North America. With more than 200,000 tanks installed, our position as the industry's leading manufacturer of underground storage tanks strengthens each year.

Benefits of Xerxes fiberglass underground storage tanks





Why choose a fiberglass tank?

Since their introduction in the 1960s, fiberglass underground tanks have rapidly grown in popularity. It was becoming clear that rusting steel tanks were leaking and creating serious environmental damage. Therefore, the initial focus of fiberglass manufacturers was to design storage vessels that weren't vulnerable to the effects of external corrosion.

Throughout the 1980s, major oil companies and other large fuel marketers quickly began to realize the benefits of fiberglass over steel underground tanks. Today the preference for fiberglass tanks reaches across all segments of the market and includes those who specify, install and own underground storage tanks. Further, the recognized benefits of fiberglass extend well beyond external corrosion protection. Today, with a greater industry-wide understanding of the increased regulatory burden and risks associated with storage tanks, tank buyers are much more educated and sophisticated in their product selection.

Consider the following features and benefits:

Corrosion Resistance – External corrosion protection will always be a concern, but, with the widespread use of ethanol-blended gasoline (E10, E15, E85), biodiesel fuels and ultra-low sulfer diesel (ULSD), the focus has shifted to internal corrosion protection. These new biofuels are creating increasing incidents of aggressive microbial-induced corrosion (MIC) of metal components in fueling systems. Fiberglass tanks are not vulnerable to internal corrosion caused by MIC. Neither do they rust externally due to corrosive soil environments.

Fuel Compatibility – In addition to creating corrosive conditions in tanks, new ethanol-blended fuels today also raise questions regarding compatibility of the stored fuel with tank materials. Xerxes double-wall fiberglass tanks are not only warranted for the full range of ethanol-blended gasoline, they are also UL-tested and UL-listed as compatible with 0-100 percent ethanol storage. This is a very clear and distinct difference from steel storage tanks.

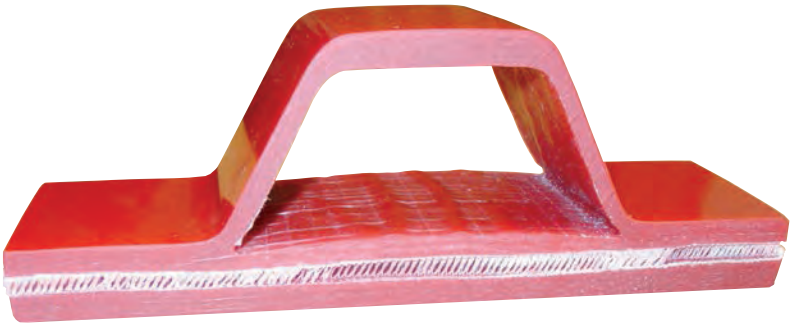
Track Record – With hundreds of thousands of tanks installed thoughout North America during the last three decades, fiberglass tanks have an outstanding record of both protecting the environment and minimizing tank owners' risk. The great majority of new underground tanks installed today for North America's largest fuel retailers and commercial fleet facilities are fiberglass tanks. After exploring their options and evaluating years of product performance, these tank owners overwhelmingly continue to choose fiberglass.

Why choose a Xerxes tank?

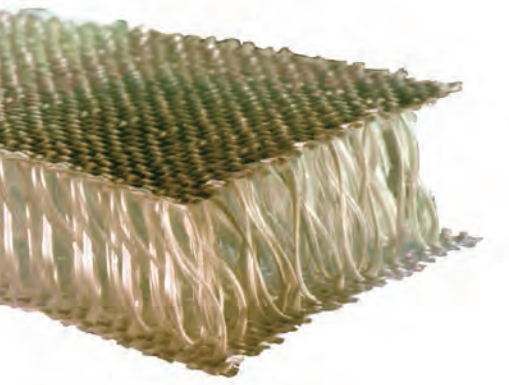
During the last three decades, Xerxes has gained a worldwide reputation as a leader in underground storage tank technology. Since its inception in 1979, Xerxes has steadily grown from a tank manufacturer with a small market share to its role today as the market leader. This recognition can be attributed to the many experienced Xerxes employees who strive to not only meet but to exceed our customers' requirements. Equally significant is the quality of the tanks and related products that we manufacture.

Underground storage tanks are not commodity products. Xerxes storage tanks offer customers a number of unique and significant design and performance differences superior to both competitive fiberglass tanks and steel tanks.

Consider the following:



Rib Design – Circumferential ribs are an important design element of any fiberglass underground vessel. Therefore, the rib geometry and how it's incorporated into the cylinder, or tank itself, is an important consideration for designers and customers as they compare products. In the Xerxes design, with its consistent, high-profile rib structure, ribs are fabricated directly into the tank cylinder – not as a secondary step in the process. This increases the overall strength of the tank and results in a structurally superior product.



Parabeam® Construction – As part of our history of continuous improvement, Xerxes introduced Parabeam, a unique and proprietary three-dimensional glass fabric, into its underground tank design. Parabeam enhances overall structural integrity by creating a bond between the primary and secondary cylinder walls, while providing a free-flowing interstitial space for monitoring capabilities. Another important benefit is the elimination of false alarms created by fluctuating reservoir levels that can be a recurring problem in other manufacturers' hydrostatically monitored tanks.

Maintenance-Free – Many manufacturers of steel tanks have reduced their warranty duration from 30 years to 10 years, and have incorporated language that requires ongoing maintenance and removal of water bottoms as a condition of warranty coverage. The presence of water in the bottom of fuel tanks is a common condition. Maintenance to frequently remove it can be expensive over both the short-term and long-term life of a tank, and can also leave an owner vulnerable to denied warranty claims should a steel tank corrode internally. Xerxes offers a 30-year limited warranty with no restrictions regarding water-bottom monitoring and removal.

Company Stability – Over the last 30 years, tank manufacturers have gone out of business or filed for bankruptcy and no longer provide warranty coverage. Customers who purchase underground tanks do so with the expectation that their tank will provide many years of trouble-free service, and that the manufacturer will be around to suppport its products and its warranties. Xerxes has a three-decade record of doing just that.

TRUCHEK®– State-of-the-art continuous monitoring



TRUCHEK® hydrostatic tank monitoring for double-wall tanks is an easy, precise and reliable method for continuous leak detection and for tank-tightness testing. For two decades, TRUCHEK has been successfully monitoring thousands of tanks in many different types of installations.

Continuous Monitoring

When you order a Xerxes double-wall tank with the TRUCHEK option, the interstice between the two tank walls is filled at the factory with a calcium-chloride fluid that also partially fills a reservoir, creating hydrostatic pressure throughout the interstice. An electronic probe placed in the tank's reservoir alarms when the fluid level either falls below or rises above the acceptable level. This increasingly popular method of leak monitoring gives tank owners greater peace of mind than the alternative method of using a simple liquid sensor, which often never detects an outer-wall breach. TRUCHEK has become the industry standard as a state-of-the-art technique for continuous monitoring.

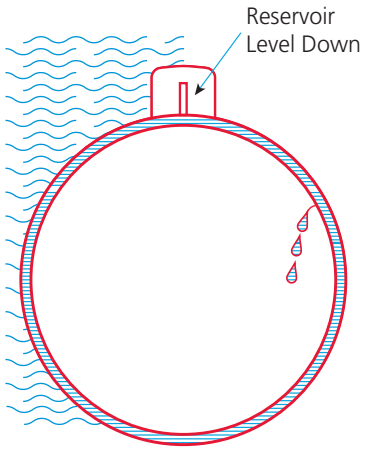
Changing regulations in some markets now require that new double-wall tanks have continuous leak detection using a constant vacuum, air pressure or hydrostatic pressure in the interstice. TRUCHEK is the ideal solution to this growing regulatory requirement.

Tank Tightness

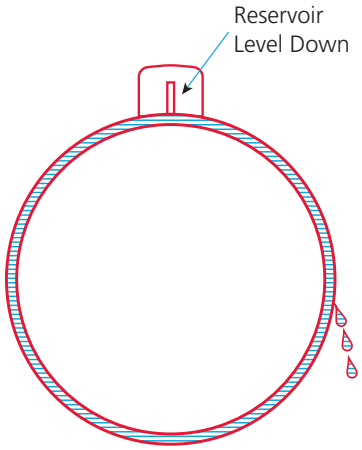
TRUCHEK also provides a simple, precise and reliable method to perform a tank-tightness test. The 10-hour tightness-test procedure meets the strict NFPA329 criteria. A shorter 4-hour test (while product is dispensing) exceeds EPA's criteria for a tank-tightness test.

How does TRUCHEK work?

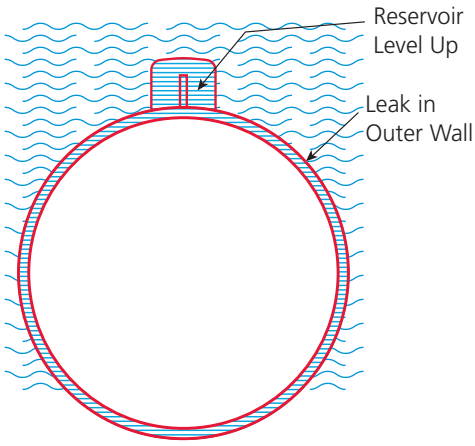
Primary-Tank Leak in Wet Hole or Dry Hole



Secondary-Tank Leak in Dry Hole



Secondary-Tank Leak in Wet Hole

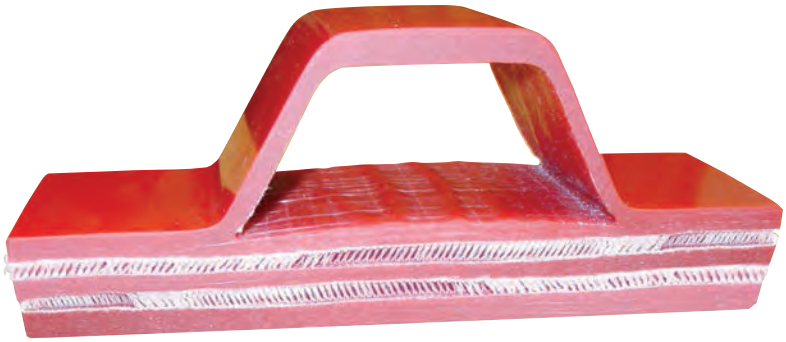


Additional underground storage tank solutions

When a customer's needs go beyond the standard double-wall tank, Xerxes offers products that address a wide range of requirements. With a full line of tank accessories, we offer customers the most comprehensive range of solutions found in the petroleum equipment industry today. Please visit www.xerxes.com for additional information on each of these products.

Multicompartment Tanks – These Xerxes tanks are a popular choice among retail gasoline marketers and fleet fueling owners. The ability to store two or three grades of fuel, or gasoline and diesel, in a single tank is particularly appealing when the amount of onsite space needed for multiple tanks is either not available or difficult to obtain. Customers may also find installation and insurance cost savings when using multicompartment tanks. The Xerxes double-wall multicompartment tank comes standard with a double-wall bulkhead, while other tank manufacturers require an upgrade to a double-wall bulkhead. Xerxes offers a wide range of capacity options in 6-, 8- and 10-foot-diameter models.





Triple-Wall Tanks – Some customers and regulatory agencies now require even more enhanced protection than double-wall tanks provide. Conditions that lend themselves to considering a triple-wall tank are sensitive groundwater aquifers, or nearby lakes or streams. The Xerxes UL-listed triple-wall tank, with an additional Parabeam interstice, is the innovative and cost-effective answer when this level of containment is required.

The ZCL Phoenix System® – In some situations, single-wall tanks that need to be upgraded to double-wall tanks offer site challenges that make removal of existing tanks either cost-prohibitive or extremely difficult. For instance, tanks are sometimes covered or surrounded by buildings, roads or rail lines. In such cases, converting a single-wall tank (either fiberglass or steel) into a double-wall tank might be done most efficiently with ZCL's Phoenix System. This ULC-listed system consists of two corrosion-resistant laminates with the proprietary Parabeam glass fabric between the laminates creating an interstitial space. The interstice can be either dry or hydrostatically monitored. The Phoenix System, applied onsite by trained installers, is biofuels compatible, including ethanol-blended fuels and biodiesels.



Additional underground storage tank solutions

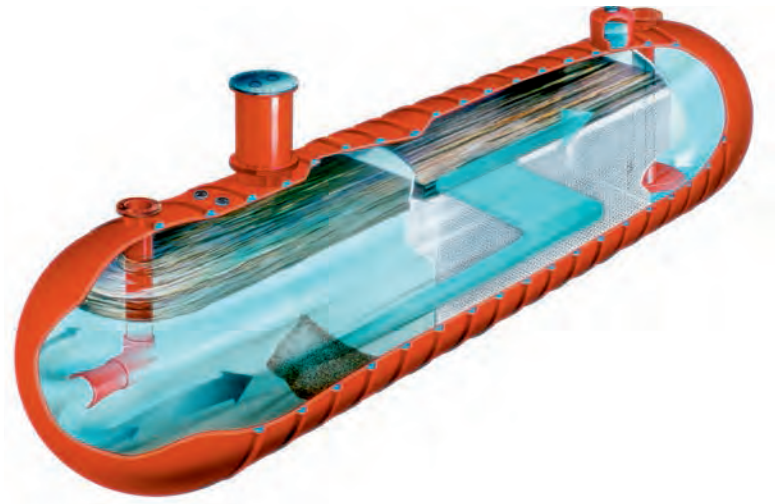


Diesel Exhaust Fluid Tanks – Demand for diesel exhaust fluid (DEF) is growing significantly as increasing numbers of commercial, passenger, rail and marine diesel engines that require the use of DEF enter the market. A Xerxes underground tank is the ideal solution for the very unique storage requirements that DEF presents. Unlike carbon steel tanks, a Xerxes fiberglass tank does not require special coatings or linings to protect the purity of the DEF product. Extensive testing with third-party laboratories was conducted to verify the suitability of long-term storage while maintaining product quality.

Xerxes uses stainless steel fittings, manway covers and striker plates on all tanks designed for DEF storage. A UL label is attached to all tanks that meet listing criteria. Each tank interior is thoroughly cleaned and then sealed to prevent contamination during shipping and installation.

In the relatively brief period of time that DEF has been used in North America, Xerxes has established a leadership role in introducing fiberglass tanks as the bulk storage vessel of choice. With more than 1,000 DEF tanks in service, customers are clearly putting their trust in Xerxes' design innovation capabilities.





Oil/Water Separators – With a fiberglass underground tank at the heart of the design, a Xerxes oil/water separator incorporates unique refinements within the vessel to create a separator that removes free-floating oils and settleable sands from oil/water mixtures. A properly sized polypropylene vertical-tube coalescer is designed to produce effluent quality of 10 ppm free-floating oil. A Xerxes oil/water separator is an excellent choice for managing water runoff from parking lots or equipment washdown stations. This product is also available with a UL 2215 listing.

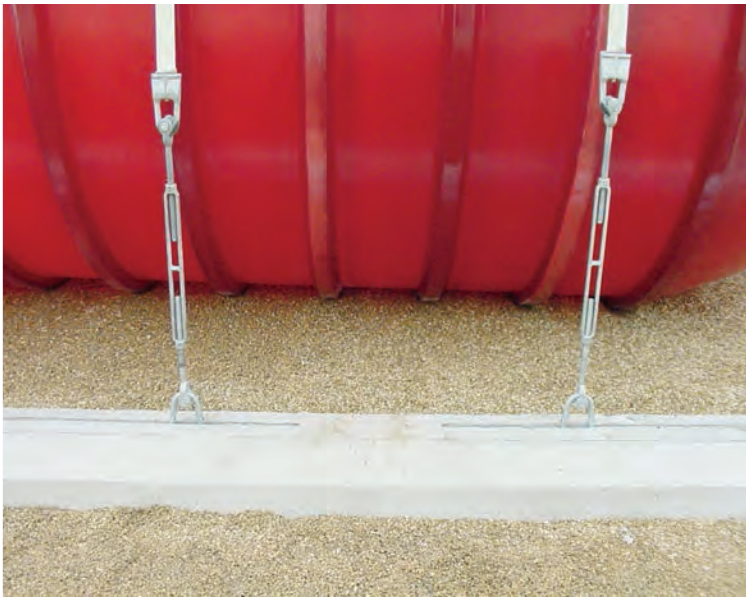
Storage tank accessories

Today's retail and commercial fueling facilities are sophisticated systems that are installed in a highly regulated environment. While the storage tank is the critical component in an underground fuel system, other important accessories are necessary in order to provide spill containment, tank anchoring, tank-top corrosion protection, leak detection and other important functions. Xerxes engineers have designed innovative, complimentary products that provide system designers and installers with cost-effective, easy-to-install accessories. Not all tank manufacturers provide the wide range of accessories that Xerxes offers. This is another example of how Xerxes' innovative spirit benefits customers.

As with many products, Xerxes tanks and accessories require proper installation to ensure that the customer receives the long-lasting, trouble-free performance that its products are designed for. To that end, Xerxes provides a comprehensive Installation Manual and Operating Guidelines document that outlines the easy, yet proper, steps necessary for a successful installation.







Containment Sumps and Collars – Sumps and collars are common accessories found on virtually all double-wall tanks installed today. Xerxes supplies optional, factory-installed containment collars that provide secondary containment around tank fittings and manways. Designed to be a custom match to the collar, the Xerxes containment sump comes in a variety of models and sizes, all engineered to accommodate different customer preferences and needs. Xerxes sumps and collars are also available in double-wall models that can be monitored with the reliable TRUCHEK hydrostatic monitoring system.

Anchoring System – Site-specific installation conditions generally dictate whether a tank-anchoring system is necessary. Some customers choose to anchor all their tanks. Xerxes offers a complete tank-anchoring system, including reinforced precast concrete deadman (designed to American Concrete Institute standards), fiberglass anchoring straps and galvanized turnbuckles. Each component is engineered to specific tank sizes and for ease of installation. In most cases concrete deadmen can be delivered on the same trailer as the tank. This both minimizes the shipping cost and assures that deadmen are ready for use when the tank is set.

Hydrostatic Monitoring – The image on page 8 illustrates the functional design of the highly effective TRUCHEK hydrostatic monitoring system. A "jacket" of calcium-chloride solution is factory-installed in the tank interstice and connected to a tank-top reservoir where the fluid level is monitored with a simple level sensor. The unique Parabeam construction of a Xerxes double-wall tank eliminates false leak alarms that can occur with other tank designs. In addition to its simple, yet highly effective, monitoring capabilities, TRUCHEK provides true continuous monitoring of both tank walls regardless of site conditions. This continuous-monitoring feature is increasingly attractive to state and federal regulators, and may become a requirement for all new double-wall tanks in the future.

Guide Specifications for Xerxes Underground Petroleum Storage Tanks

Short form:
The contractor shall provide a double-wall or triple-wall fiberglass reinforced plastic (FRP) UL-listed underground storage tank as shown on the drawings. The tank size, fittings and accessories shall be as shown on the drawings. The fiberglass tank shall be manufactured by Xerxes Corporation.

The tank shall be tested and installed according to the Xerxes Installation Manual and Operating Guidelines for Fiberglass Underground Storage Tanks in effect at time of installation.

Long form:

Part I: General

1.01 Quality Assurance

A. Acceptable Manufacturer: Xerxes Corporation

B. Governing Standards, as applicable:

1. Underwriters Laboratories (UL) Standard for Safety 1316 Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures. A UL label shall be attached to each tank.
2. National Fire Protection Association (NFPA) Standards: NFPA 30: Flammable and Combustible Liquids Code, NFPA 30A: Code for Motor Fuel Dispensing Facilities and Repair Garages, NFPA 31: Standard for the Installation of Oil-Burning Equipment.
3. City of New York Department of Buildings M.E.A., #161-89-M.
4. American Concrete Institute (ACI) standard ACI 318-11, Building Code Requirements for Structural Concrete.

C. Submittals

1. Contractor shall submit ___ copies of shop drawings, manufacturer's product brochures, and Installation Instructions.

Part II: Products

2.01 Double-Wall and Triple-Wall Fiberglass Reinforced Plastic (FRP) Underground Storage Tanks:

A. Loading Conditions – Tank shall meet these design criteria:

1. **Interstitial Pressure** – The interstitial space of the tank shall withstand a minimum 20-psig pressure test.
2. **Internal Load** – Tank shall withstand a 5-psig air-pressure test with a 5:1 safety factor.
3. **Surface Loads** – Tank shall withstand surface H-20 and HS-20 axle loads when properly installed according to Xerxes' current Installation Manual and Operating Guidelines.
4. **External Hydrostatic Pressure** – Tank shall be designed for 7' of overburden over the top of the tank, the hole fully flooded and a safety factor of 5:1 against general buckling.

B. Product Storage:

1. The primary compartment of double-wall and triple-wall tanks shall be vented and operated at atmospheric pressure only.
2. Tank shall be capable of storing liquids with a specific gravity up to 1.1.
3. Tank shall be capable of storing products identified in the manufacturer's standard limited warranty in effect at the time of purchase.

C. Materials:

1. The primary and secondary walls of the tank shall be manufactured with 100% premium resin and glass-fiber reinforcement. No sand or silica fillers shall be added to the resin.
2. The interstitial space between the primary and secondary walls shall be constructed with a glass reinforcement material such as Parabeam®, which provides a structural bond between the two tank walls, while creating a defined interstice that allows for free flow of liquid.

D. Tank Dimensions (Refer to Xerxes literature on gallonage):

1. Tank shall have nominal capacity of _____ gallons.
2. Tank shall have nominal outside diameter of _____ feet.
3. Tank shall have a nominal overall length of _____ feet/inches.

2.02 Tank Monitoring System

A. General

1. Tank shall be continuously monitored with the TRUCHEK® hydrostatic leak monitoring system.
2. The continuous monitoring system shall include monitoring fluid factory-installed in the interstitial space and within a fiberglass tank-top mounted reservoir.
3. The monitoring system shall be recognized by the National Work Group on Leak Detection Evaluations (NWGLDE) as continuous leak detection and as a precision tank test.
4. The monitoring system shall be independently tested by a qualified third party and verified to be capable of detecting leaks as small as .05 gallons per hour when TRUCHEK tank-tightness test procedures are followed.

B. Design

1. The continuous monitoring system shall be designed to detect a leak in either the primary or secondary wall at all times, regardless of the water-table conditions at the installation site.
2. The interstice of the tank shall be designed for a 5:1 safety factor beyond normal hydrostatic operating pressure to ensure structural integrity and to prevent false leak alarms.

2.03 Accessories

A. Tank Anchoring

1. Anchor straps shall be as supplied by tank manufacturer and designed for a maximum load of 25,000 lbs.
2. Galvanized turnbuckles (two per anchor strap) shall be supplied by the tank manufacturer.
3. Prefabricated concrete anchors shall be supplied by the tank manufacturer, designed to the ACI 318-11 standard, manufactured with 4,000 psi concrete, and shall have adjustable anchor points.

B. Manways

1. The standard manway shall be flanged, 22" I.D. and complete with UL-listed gaskets, bolts and covers as shown on tank drawings.

C. Threaded Fittings

1. All threaded fittings shall be NPT half or full couplings, in 2", 4" or 6" diameters.
2. Fittings shall be installed on the tank-top centerline or in the cover of the manway as shown on the tank drawings.

D. Containment Collars & Sumps

1. The tank shall have factory-installed 42"-or 48"-diameter containment collars as shown on the tank drawings.
2. Containment sumps in 42"-or 48"-diameter, provided by the tank manufacturer and designed for mounting on the containment collars, shall be supplied as shown on the tank drawings.
3. Adhesive shall be provided by the tank manufacturer with each containment collar and sump.
4. Containment collars and sumps shall be designed and supplied as a containment system. Only sumps provided by the manufacturer shall be allowed.

Part III: Testing and Installation

3.01 Testing

A. Testing – Tank shall be tested according to the Xerxes Installation Manual and Operating Guidelines in effect at time of installation.

3.02 Installation

A. Installation – Tank shall be installed according to the Xerxes Installation Manual and Operating Guidelines in effect at time of installation.

Part IV: Limited Warranty

4.01 Limited Warranty

A. Limited Warranty – Warranty shall be manufacturer's standard limited warranty in effect at time of purchase.

Xerxes Underground Double-Wall Tank Data

	Nominal Capacity (gallons)	Actual Capacity (gallons)	Tank Length (feet/inches)	Nominal Shipping Weights (lbs) (dry interstitial)	Nominal Shipping Weights (lbs) (wet interstitial)	Number of Anchor Straps Required
4-foot-diameter	600	602	7′-3 1/2″	900	1,100	2
	1,000	1,009	11′-7 1/2″	1,400	1,700	2
	2,000	2,013	22′ -3 5/8″	2,800	3,400	2
6-foot-diameter	2,500	2,324	13′-5 3/4″	2,200	2,800	2
	3,000	2,910	16′-4 1/4″	2,600	3,300	2
	4,000	3,789	20′-8″	3,600	4,400	2
	5,000	4,961	26′-5″	4,300	5,200	4
	6,000	5,840	30′-8 3/4″	5,000	6,100	4
8-foot-diameter	4,000	4,190	15′- 1/2″	2,700	3,600	2
	5,000	5,089	17′-8 1/2″	3,200	4,200	2
	6,000	6,044	20′-6 1/2″	3,700	4,900	2
	8,000	7,899	26′- 1/2″	4,800	6,200	4
	10,000	9,753	31′-6 1/2″	5,900	7,500	4
	12,000	11,608	37′- 1/2″	7,000	8,800	4
	15,000	14,881	46′- 9″	9,100	11,200	6
10-foot-diameter	10,000	10,420	21′-5 1/4″	4,900	6,400	4
	12,000	11,904	24′- 1/4″	5,600	7,200	4
	15,000	15,041	29′-5 3/4″	7,000	8,900	4
	20,000	19,782	37′-8 3/4″	9,000	11,300	6
	25,000	25,431	47′-6 3/4″	11,800	14,600	8
	30,000	30,172	55′-9 3/4″	14,000	17,200	10
	35,000	34,912	64′- 3/4″	16,500	20,100	12
	40,000	40,443	73′-8 1/4″	19,000	23,100	14
12-foot-diameter	20,000	20,638	29′ -4″	14,000	16,700	6
	25,000	25,381	35′ -7″	16,600	19,700	8
	30,000	31,072	43′ -1″	19,900	23,500	10
	35,000	35,815	49′ -4″	22,500	26,500	12
	40,000	39,609	54′ -4″	24,600	28,900	12
	45,000	44,352	60′ -7″	27,400	32,100	16
	48,000	48,146	65′ -7″	29,500	34,500	18
	50,000	50,044	68′ -1″	30,500	35,700	18

Notes:

1. Tank data for single-wall and multicompartment tank models is available at www.xerxes.com.
2. Actual height of the tank may be greater than the actual diameter due to fittings and accessories. Load height during shipping may vary due to tank placement on the shipping trailer.
3. If an overfill-protection device is installed in the tank, the actual capacity will be reduced.

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MEMORANDUM

Date: July 6, 2016

To: Brittany Skelton
City of Ketchum Department of Planning and Building

From: Hales Engineering

Subject: Ketchum – Bracken Station TIS, Additional Information

UT16-851

The purpose of this memorandum is to address requests for additional information from the City of Ketchum Planning Commission regarding the proposed Bracken Station in Ketchum, Idaho. This memo will address only requests regarding traffic related issues. Each request is stated as received in italics, followed by the response from Hales Engineering.

1. *Obtain traffic counts at 10th Street/Main Street intersection in order to corroborate the 2008 data in the traffic study already conducted. If the traffic engineer wants to make the case that the need for new data is superfluous, and submits a narrative explaining why, that would be acceptable. However, the request for current data at the 10th Street/Main Street intersection is driven by public comment and providing this data also serves the purpose of addressing public concern, so obtaining the new counts is recommended.*

   Hales Engineering utilized peak-hour turning movement count data collected in February 2008 for a previous traffic impact study performed in the area. Using historical traffic data for SH-75 obtained from the Idaho Transportation Department (ITD), a growth rate of 1.1% per year was calculated based on recent trends. This 1.1% growth rate as well as a 30% seasonal adjustment, to reflect peak season traffic conditions, were used to estimate 2016 traffic conditions. These estimated traffic data were used for the traffic impact study.

   In order to address concerns raised at the planning commission meeting held on June 13, 2016, additional peak hour turning movement counts were collected on June 29, 2016. When compared with the previously discussed estimated data, it was found that the traffic volumes used in the traffic impact study were **5% higher** than the volumes collected on June 29th.

2. *Address the projected makeup of vehicles that will be using the gas station.*
    a. *What percentage will be oversized vehicles (RVs, construction trailers, et cetera)?*
        i. *Address how the proportion of oversized vehicles impacts the amount of vehicles that can queue in the turn lane.*
    b. *Address potential back-up of northbound traffic lining up to make a left turn into the gas station and the implications of exceeding the length of the turn lane (e.g. traffic backed up further south than the turn lane extends).*

Vehicle classification data were collected at a local gas station over two days. Only 7% of vehicles observed during data collection activities were larger vehicles (i.e. trucks pulling trailers or recreational vehicles). The remaining 93% of vehicles observed were passenger cars or pickup trucks. Using these data, we project that the vast majority of vehicles that will use the Bracken Station will be passenger cars and pickup trucks.

Standard practice for queuing analyses is to assume an average 20 feet of queuing length per vehicle. Obviously, larger vehicles (i.e. tractor trailers, RVs, etc.) will occupy more than 20 feet of queuing length. However, the projected vehicle classification does not suggest that it would be necessary to modify the 20 feet per vehicle assumption.

The proposed left-turn lane would serve vehicles turning left from Main Street (SH-75) into the gas station, as well as vehicles turning left onto 10th Street. The traffic impact study found that with future (2020) plus project traffic conditions, the 95th percentile queue at the intersection would extend for approximately 105 feet. The proposed left-turn lane is more than adequate to accommodate queues of this length.

Although it is unlikely that the left-turn queue would overflow into the thru lane, such an event would likely have minimal short-term impacts on thru traffic. Delay for northbound left-turning vehicles at the gas station access, as well as at 10th Street are anticipated to be quite short. When delays are short, queues tend to dissipate quickly. As soon as the queue is shortened to a length that can be accommodated by the left-turn lane, the flow of thru traffic is restored.

3. *Address the potential for northbound (left) and southbound (right) turn lanes on 10th Street to facilitate left and right turns onto Main Street.*

Separate right- and left-turn lanes at stop-controlled approaches to unsignalized intersections can help to mitigate delay on the approach by allowing right-turning vehicles to execute a right-turn movement while bypassing waiting left-turning vehicles, or vice versa.

A separate right-turn lane is not recommended at this location. Turning movement wheel path analyses show that with the current approach geometry, larger vehicles are able to execute right-turn movements with minimal encroachments into opposing

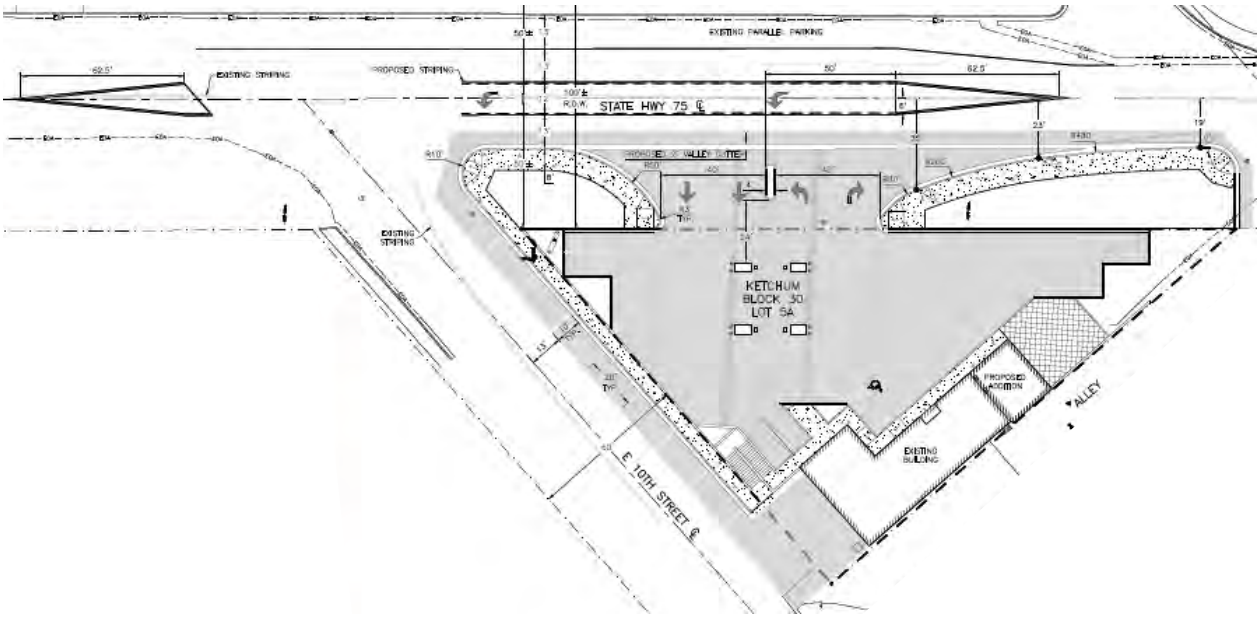
traffic lanes. It is likely that the addition of a separate right-turn lane would constrain the right-turn movement such as to require significant encroachment into opposing traffic lanes. The traffic impact study found that delays at this intersection are anticipated to be relatively low, and therefore a separate right-turn lane would not provide significant benefit.

If you have any questions regarding this memo, please feel free to contact us.

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Ketchum Gas Station

Traffic Impact Study *UPDATED*



Ketchum, Idaho

May 2016

UT16-851

1220 North 500 West, Ste. 202 Lehi, UT 84043 p 801.766.4343
www.**hales**engineering.com

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EXECUTIVE SUMMARY

This study addresses the traffic impacts associated with the proposed gas station in Ketchum, Idaho. The proposed gas station will be located on the southwest corner of the Main Street (SH-75) / 10th Street intersection.

Included within the analyses for this study are the traffic operations and recommended mitigation measures for existing conditions and plus project conditions (conditions after development of the proposed project) at key intersections and roadways in the vicinity of the site. Future 2020 conditions are also analyzed.

TRAFFIC ANALYSIS

The following is an outline of the traffic analysis performed by Hales Engineering for the traffic conditions of this project.

Existing (2016) Background Conditions Analysis

Hales Engineering used previous data for weekday morning (7:00 to 9:00 a.m.) and afternoon (4:00 to 6:00 p.m.) peak period traffic counts at the following intersections:

- Main Street (SH-75) / 10th Street

These counts were performed for a previous project on Wednesday, February 13, 2008. Data from an automatic traffic recorder (ATR 68) was used to determine an annual growth rate of 1.1% and a seasonal adjustment of 30% for this segment of SH-75. Using these adjustments, peak period traffic volumes were calculated for the study intersection. The a.m. peak hour was determined to be between the hours of 8:00 and 9:00 a.m., and the p.m. peak hour was determined to be between the hours of 4:15 and 5:15 p.m. Detailed count data are included in Appendix A. The traffic volumes at this intersection was approximately 15% higher during the p.m. peak hour than during the a.m. peak hour. Therefore, the p.m. peak hour was chosen for detailed analysis as this represents the worst-case scenario.

As shown in Table ES-1, the Main Street (SH-75) / 10th Street intersection is currently operating at LOS A during the p.m. peak hour. The 95th percentile queues on the north- and eastbound approaches to the 10th Street / Main Street (SH-75) intersection was observed extend for approximately 80 feet. No other significant queuing was observed.

Project Conditions Analysis

The proposed land use for the development has been identified as follows:

- Gasoline/Service Station with Convenience Market 8 Vehicle Fueling Positions

Trip generation for the development was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation (9th Edition, 2012)*. Trip generation for the proposed project is as follows:

- Weekday Daily Trips: 1,304
- a.m. Peak Hour Trips: 82
- p.m. Peak Hour Trips: 110

Existing (2016) Plus Project Conditions Analysis

As shown in Table ES-1, all study intersections are anticipated to operate at acceptable levels of service during the p.m. peak hour. During the p.m. peak hour, the 95th percentile queue length on the on the eastbound approach to the Main Street (SH-75) / 10th Street intersection is anticipated to extend for approximately 80 feet with project traffic added. Some queuing on northbound Main Street (SH-75) is also anticipated, which is likely attributed to left-turning vehicles blocking through traffic at the Main Street (SH-75) / 10th Street intersection as well as at the project access.

Future (2020) Background Conditions Analysis

As shown in Tables ES-1, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C during the p.m. peak hour with future (2020) background traffic conditions. The 95th percentile queues on the north- and eastbound approaches to the Main Street (SH-75) / 10th Street intersection are anticipated to extend for approximately 110 feet. No other significant queuing is anticipated.

Future (2020) Plus Project Conditions Analysis

As shown in Tables ES-1, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C with project traffic added, while the proposed access is anticipated to operate at LOS A during the p.m. peak hour. During the p.m. peak hour, the 95th percentile queue length on the northbound approach to the Main Street (SH-75) / 10th Street intersection is anticipated to extend for approximately 50 feet. All other queuing is anticipated to be nominal.

TABLE ES-1 P.M. Peak Hour ID Ketchum Gas Station TIS				
Intersection	Projected 2016 Background	Projected 2016 Plus Project	Future 2020 Background	Future 2020 Plus Project
Description	LOS (Sec/Veh[1])	LOS (Sec/Veh[1])	LOS (Sec/Veh[1])	LOS (Sec/Veh[1])
Main Street (ID-75) / 10th Street	**A (9.7) / EB**	**B (10.9) / EB**	**C (15.9) / EB**	**C (17.8) / EB**
Main Street (ID-75) / Access 1	**-**	**A (6.5) / EB**	**-**	**A (9.2) / EB**

1. Intersection LOS and delay (seconds/vehicle) values represent the overall intersection average for signalized and all-way stop controlled intersections and the worst approach for all other unsignalized intersections.

2. This is a project intersection and is only analyzed in the plus project scenarios.

Source: Hales Engineering, May 2016

RECOMMENDATIONS

The following mitigation measures are recommended:

Existing (2016) Background Conditions Analysis

No mitigation measures are recommended.

Existing (2016) Plus Project Conditions Analysis

It is recommend that a two-way left-turn lane be constructed from a location north of 10th Street to a location south of the project. No other mitigation measures are recommended.

Future (2020) Background Conditions Analysis

No additional mitigation measures are recommended.

Future (2020) Plus Project Conditions Analysis

No additional mitigation measures are recommended.

SUMMARY OF KEY FINDINGS/RECOMMENDATIONS

The following is a summary of key findings and recommendations:

- The Main Street (SH-75) / 10th Street intersection is currently operating at LOS A during the p.m. peak hour.
- With project traffic added, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS B, and the proposed project access is anticipated to operate at LOS A.
- It is recommended that a two-way left-turn lane be constructed on Main Street (SH-75) from a location north of 10th Street to a location south of the project.
- With future (2020) traffic conditions, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C during the p.m. peak hour.
- With project traffic added, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at an acceptable level of service, as well as the project access.

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I. INTRODUCTION

A. Purpose

This study addresses the traffic impacts associated with the proposed gas station in Ketchum, Idaho. The proposed gas station will be located on the southwest corner of the Main Street (SH-75) / 10th Street intersection. Figure 1 shows a vicinity map of the proposed development.

Included within the analyses for this study are the traffic operations and recommended mitigation measures for existing conditions and plus project conditions (conditions after development of the proposed project) at key intersections and roadways in the vicinity of the site. Future 2020 conditions are also analyzed.

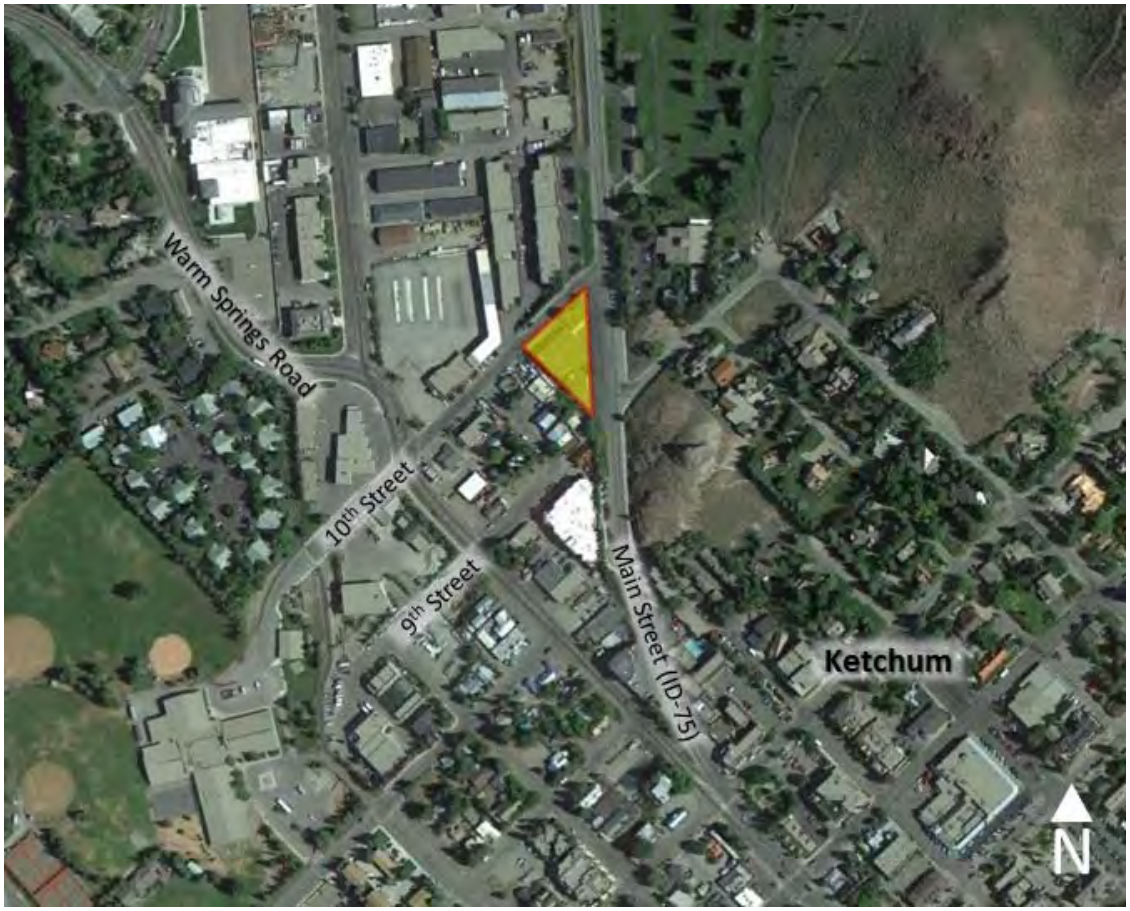


Figure 1 Vicinity map showing the project location in Ketchum, Idaho

B. Scope

The study area was defined based on conversations with the development team, following general guidelines for traffic impact studies. This study was scoped to evaluate the traffic operational performance impacts of the project on the following intersection:

- Main Street (SH-75) / 10th Street

C. Analysis Methodology

Level of service (LOS) is a term that describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. Table 1 provides a brief description of each LOS letter designation and an accompanying average delay per vehicle for both signalized and unsignalized intersections.

The Highway Capacity Manual 2010 (HCM 2010) methodology was used in this study to remain consistent with "state-of-the-practice" professional standards. This methodology has different quantitative evaluations for signalized and unsignalized intersections. For signalized and all-way stop intersections, the LOS is provided for the overall intersection (weighted average of all approach delays). For all other unsignalized intersections LOS is reported based on the worst approach.

D. Level of Service Standards

For the purposes of this study, a minimum overall intersection performance for each of the study intersections was set at LOS D. However, if LOS E or F conditions exist, an explanation and/or mitigation measures will be presented. An LOS D threshold is consistent with "state-of-the-practice" traffic engineering principles for urbanized areas.

Table 1 Level of Service Descriptions

Level of Service	Description of Traffic Conditions	Average Delay (seconds/vehicle)
	Signalized Intersections	**Overall Intersection**
A	Extremely favorable progression and a very low level of control delay. Individual users are virtually unaffected by others in the traffic stream.	0 ≤ 10.0
B	Good progression and a low level of control delay. The presence of other users in the traffic stream becomes noticeable.	> 10.0 and ≤ 20.0
C	Fair progression and a moderate level of control delay. The operation of individual users becomes somewhat affected by interactions with others in the traffic stream.	>20.0 and ≤ 35.0
D	Marginal progression with relatively high levels of control delay. Operating conditions are noticeably more constrained.	> 35.0 and ≤ 55.0
E	Poor progression with unacceptably high levels of control delay. Operating conditions are at or near capacity.	> 55.0 and ≤ 80.0
F	Unacceptable progression with forced or breakdown operating conditions.	> 80.0
	Unsignalized Intersections	**Worst Approach**
A	Free Flow / Insignificant Delay	0 ≤ 10.0
B	Stable Operations / Minimum Delays	>10.0 and ≤ 15.0
C	Stable Operations / Acceptable Delays	>15.0 and ≤ 25.0
D	Approaching Unstable Flows / Tolerable Delays	>25.0 and ≤ 35.0
E	Unstable Operations / Significant Delays	>35.0 and ≤ 50.0
F	Forced Flows / Unpredictable Flows / Excessive Delays	> 50.0

Source: Hales Engineering Descriptions, based on Highway Capacity Manual, 2010 Methodology (Transportation Research Board, 2010)

II. EXISTING (2016) BACKGROUND CONDITIONS

A. Purpose

The purpose of the existing (2016) background analysis is to study the intersections and roadways during the peak travel periods of the day with background traffic and geometric conditions. Through this analysis, background traffic operational deficiencies can be identified and potential mitigation measures recommended. This analysis will provide a baseline condition that may be compared to the build conditions to identify the impacts of the development.

B. Roadway System

The primary roadways that will provide access to the project site are described below:

Main Street (SH-75) – is a state-maintained roadway that is classified by ITD as a "regional" route in the vicinity of the project. SH-75 is a north/south route connecting Ketchum, as well as other communities such as Sun Valley and Hailey, to US-20 to the south. As a regional route in an urban area with a speed limit less than 35 mph, this roadway has minimum signal spacing of 2,640 feet, and a minimum street spacing of 660 feet. The minimum driveway distance from an upstream intersection is 250 feet, the minimum distance from a downstream intersection is 660 feet, and the minimum distance between accesses is 250 feet. Main Street (SH-75) has one travel lane in each direction and the posted speed limit in the vicinity of the proposed project is 25 mph.

C. Traffic Volumes

Hales Engineering performed weekday morning (7:00 to 9:00 a.m.) and afternoon (4:00 to 6:00 p.m.) peak period traffic counts at the following intersections:

- Main Street (SH-75) / 10th Street

These counts were performed for a previous project on Wednesday, February 13, 2008. Data from a nearby automatic traffic recorder (ATR 68) was used to determine an annual growth rate of 1.1% and a seasonal adjustment of 30% for this segment of SH-75. Using these adjustments, peak period traffic volumes were calculated for the study intersection. The a.m. peak hour was determined to be between the hours of 8:00 and 9:00 a.m., and the p.m. peak hour was determined to be between the hours of 4:15 and 5:15 p.m. Detailed count data are included in Appendix A. The traffic volumes at this intersection were approximately 15% higher during the p.m. peak hour than during the a.m. peak hour. Therefore, the p.m. peak hour was chosen for detailed analysis as this represents the worst-case scenario.

Figure 2 shows the existing p.m. peak hour volume as well as intersection geometry at the study intersection.

D. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the p.m. peak hour LOS was computed for the study intersection. The results of this analysis are reported in Table 2 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the intersection. These results serve as a baseline condition for the impact analysis of the proposed development during existing (2016) conditions. As shown in Table 2, the Main Street (SH-75) / 10th Street intersection is currently operating at LOS A during the p.m. peak hour.

E. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. The 95th percentile queues on the north- and eastbound approaches to the 10th Street / Main Street (SH-75) intersection was observed extend for approximately 80 feet. No other significant queuing was observed.

F. Mitigation Measures

No mitigation measures are recommended.

Table 2 Existing (2016) Background p.m. Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
Main Street (SH-75) / 10th Street	EB Stop	EB	9.7	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop, roundabout, and signalized intersections.
3. Southbound = Southbound approach, etc.

Source: Hales Engineering, May 2016

ID Ketchum Gas Station TIS
Existing (2016) Background

p.m. Peak Hour
Figure 2



III. PROJECT CONDITIONS

A. Purpose

The project conditions analysis explains the type and intensity of development. This provides the basis for trip generation, distribution, and assignment of project trips to the surrounding study intersections defined in the Introduction.

B. Project Description

This study addresses the traffic impacts associated with the gas station in Ketchum, Idaho. The proposed gas station will be located on the southwest corner of the Main Street (SH-75) / 10th Street intersection. A site plan for the proposed development can be found in Appendix C.

The proposed land use for the development has been identified as follows:

- Gasoline/Service Station with Convenience Market 8 Vehicle Fueling Positions

C. Trip Generation

Trip generation for the development was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation (9th Edition, 2012)*. Trip Generation for the proposed project is included in Table 3.

D. Trip Distribution and Assignment

Project traffic is assigned to the roadway network based on the type of trip and the proximity of project access points to major streets, high population densities, and regional trip attractions. Existing travel patterns observed during data collection also provide helpful guidance to establishing these distribution percentages, especially in close proximity to the site. The resulting distribution of projected generated trips is as follows:

To/From Project:

- 15% North
- 85% South

These trip distribution assumptions and the prevailing movements at each intersection were used to assign the evening peak hour generated traffic at the study intersections to create trip assignment for the proposed development. Trip assignment for the development is shown in Figure 3.

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Table 3
ID Ketchum Gas Station TIS
Trip Generation

Weekday Daily Land Use[1]	Number of Units	Unit Type	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting	Total Daily Trips
Gasoline/Service Station with Convenience Marke	8	Vehicle Fueling Positions	1,304	50%	50%	652	652	**1,304**
Project Total Daily Trips						**652**	**652**	**1,304**
A.M. Peak Hour Land Use[1]	Number of Units	Unit Type	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting	**Total a.m. Trips**
Gasoline/Service Station with Convenience Marke	8	Vehicle Fueling Positions	82	50%	50%	41	41	**82**
Project Total a.m. Peak Hour Trips						**41**	**41**	**82**
P.M. Peak Hour Land Use[1]	Number of Units	Unit Type	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting	**Total p.m. Trips**
Gasoline/Service Station with Convenience Marke	8	Vehicle Fueling Positions	110	50%	50%	55	55	**110**
Project Total p.m. Peak Hour Trips						**55**	**55**	**110**

1. Land Use Code from the Institute of Transportation Engineers Trip Generation Manual (9th Edition - 2012)

SOURCE: Hales Engineering, March 2016

E. Access

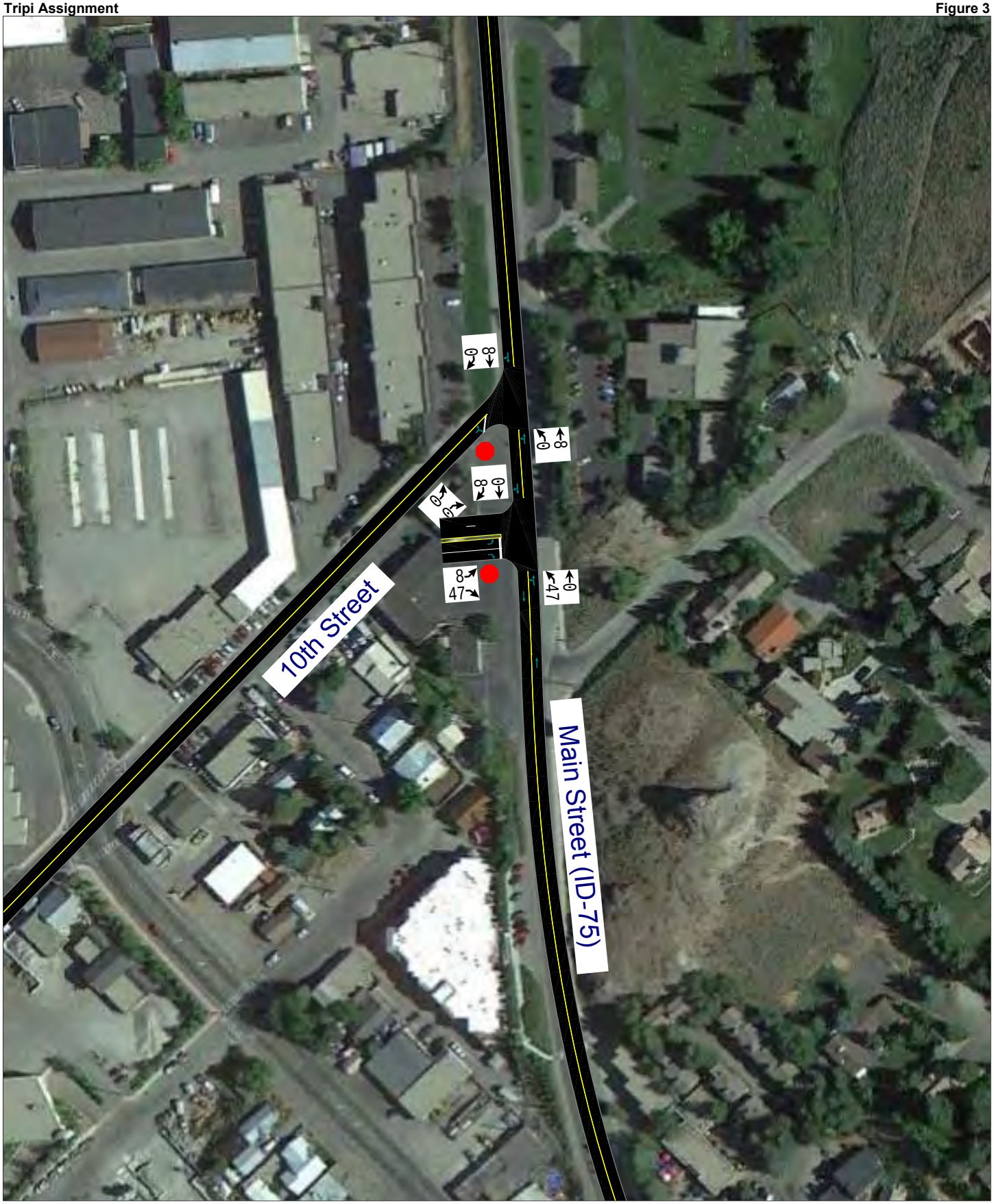
The proposed access for the site will be gained at the following locations (see also site plan in Appendix C):

Main Street (SH-75):

- One full-movement "boulevard approach" accesses is proposed on Main Street (SH-75), one approximately 60 feet south of 10th Street. A "boulevard approach" consists of two forty foot wide openings in the curb separated by a small island. One opening is for ingress movements, and the other for egress movements.

ID Ketchum Gas Station TIS
Tripi Assignment

p.m. Peak Hour
Figure 3



IV. EXISTING (2016) PLUS PROJECT CONDITIONS

A. Purpose

This section of the report examines the traffic impacts of the proposed project at each of the study intersections. The net trips generated by the proposed development were combined with the existing background traffic volumes to create the existing plus project conditions. This scenario provides valuable insight into the potential impacts of the proposed project on background traffic conditions.

B. Traffic Volumes

Project trips were assigned to the study intersections based on the trip distribution percentages discussed in Chapter III and permitted intersection turning movements. The existing (2016) plus project p.m. peak hour volumes were generated for the study intersections and are shown in Figure 4.

C. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the p.m. peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 4 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. As shown in Table 4, all study intersections are anticipated to operate at acceptable levels of service during the p.m. peak hour.

D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. During the p.m. peak hour, the 95th percentile queue length on the on the eastbound approach to the Main Street (SH-75) / 10th Street intersection is anticipated to extend for approximately 80 feet with project traffic added. Some queuing on northbound Main Street (SH-75) is also anticipated, which is likely attributed to left-turning vehicles blocking through traffic at the Main Street (SH-75) / 10th Street intersection as well as at the project access.

E. Mitigation Measures

It is recommend that a two-way left-turn lane be constructed from a location north of 10th Street to a location south of the project. No other mitigation measures are recommended.

Table 4 Existing (2016) Plus Project p.m. Peak Hour Level of Service

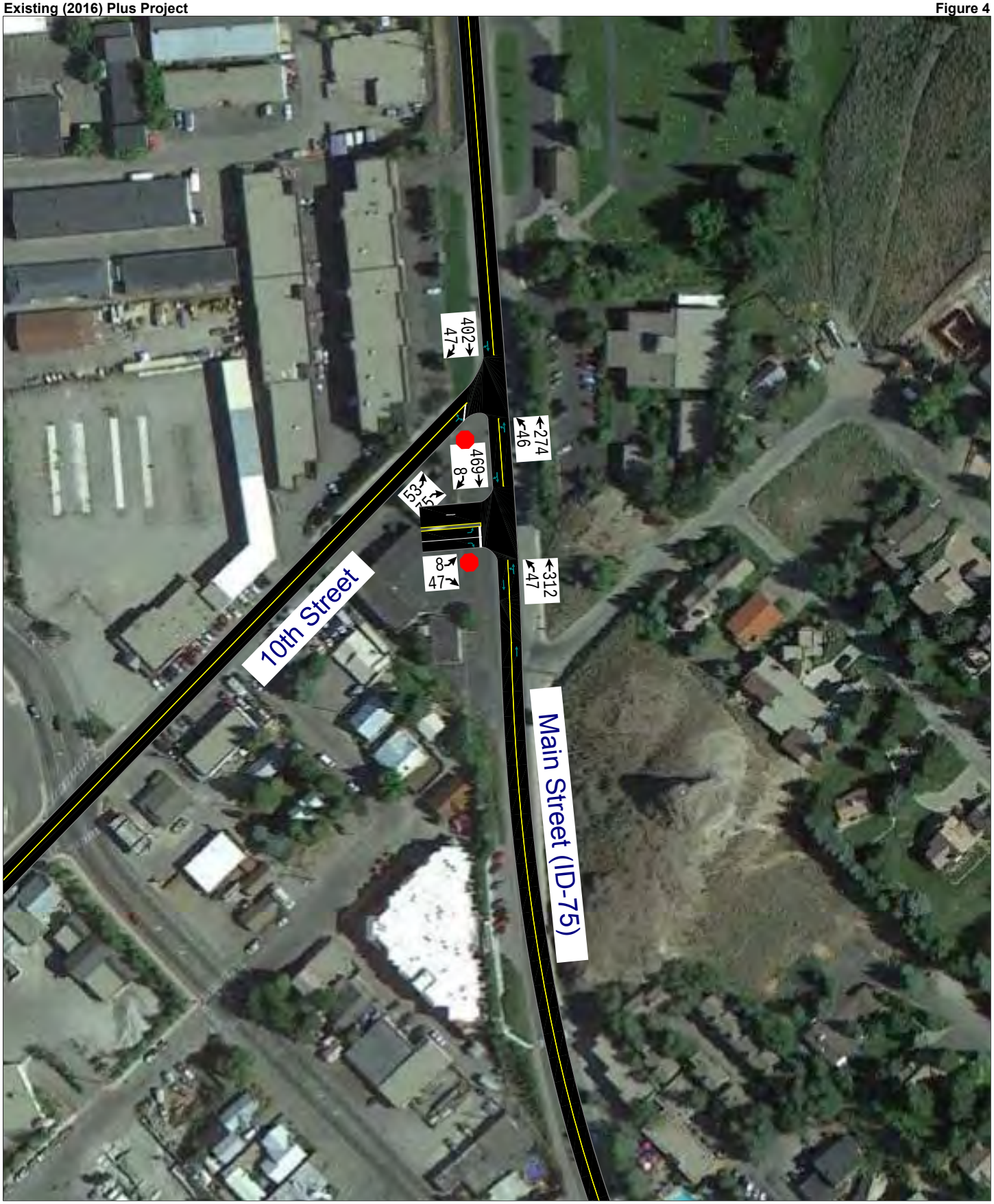
Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
Main Street (SH-75) / 10th Street	EB Stop	EB	10.9	B	-	-
Main Street (SH-75) / Access 1	EB Stop	EB	6.5	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop, roundabout, and signalized intersections.
3. Southbound = Southbound approach, etc.

Source: Hales Engineering, May 2016

ID Ketchum Gas Station TIS
Existing (2016) Plus Project

p.m. Peak Hour
Figure 4



V. FUTURE (2020) BACKGROUND CONDITIONS

A. Purpose

The purpose of the future (2020) background analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions. Through this analysis, future background traffic operational deficiencies can be identified and potential mitigation measures recommended.

B. Roadway Network

Based on information received, no improvements are planned for any of the roadways or intersections within the study area before 2020.

C. Traffic Volumes

Hales Engineering used the calculated annual growth rate discussed in Chapter II to project future (2020) traffic volumes for the study intersection. Future 2020 p.m. peak hour turning movement volumes are shown in Figure 5.

D. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the p.m. peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 5 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. These results serve as a baseline condition for the impact analysis of the proposed development for future (2020) conditions. As shown in Table 5, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C during the p.m. peak hour with future (2020) background traffic conditions.

E. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. The 95th percentile queues on the north- and eastbound approaches to the Main Street (SH-75) / 10th Street intersection are anticipated to extend for approximately 110 feet. No other significant queuing is anticipated.

F. Mitigation Measures

No additional mitigation measures are recommended.

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Table 5 Future (2020) Background p.m. Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
Main Street (SH-75) / 10th Street	EB Stop	EB	15.9	C	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop, roundabout, and signalized intersections.
3. Southbound = Southbound approach, etc.

Source: Hales Engineering, May 2016

ID Ketchum Gas Station TIS
Future (2020) Background

p.m. Peak Hour
Figure 5



VI. FUTURE (2020) PLUS PROJECT CONDITIONS

A. Purpose

The purpose of the future (2020) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on future background traffic conditions.

B. Traffic Volumes

Trips were assigned to the study intersections based on the trip distribution percentages discussed in Chapter III and permitted intersection turning movements. It was also assumed that the previously recommended center TWLTL had been constructed along the project frontage.

The future (2020) plus project p.m. peak hour volumes were generated for the study intersections and are shown in Figure 6.

C. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the p.m. peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 6 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. As shown in Table 6, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C with project traffic added, while the proposed access is anticipated to operate at LOS A during the p.m. peak hour.

D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. During the p.m. peak hour, the 95th percentile queue length on the northbound approach to the Main Street (SH-75) / 10th Street intersection is anticipated to extend for approximately 50 feet. All other queuing is anticipated to be nominal.

E. Mitigation Measures

No additional mitigation measures are recommended.

Table 6 Future (2020) Plus Project p.m. Peak Hour Level of Service

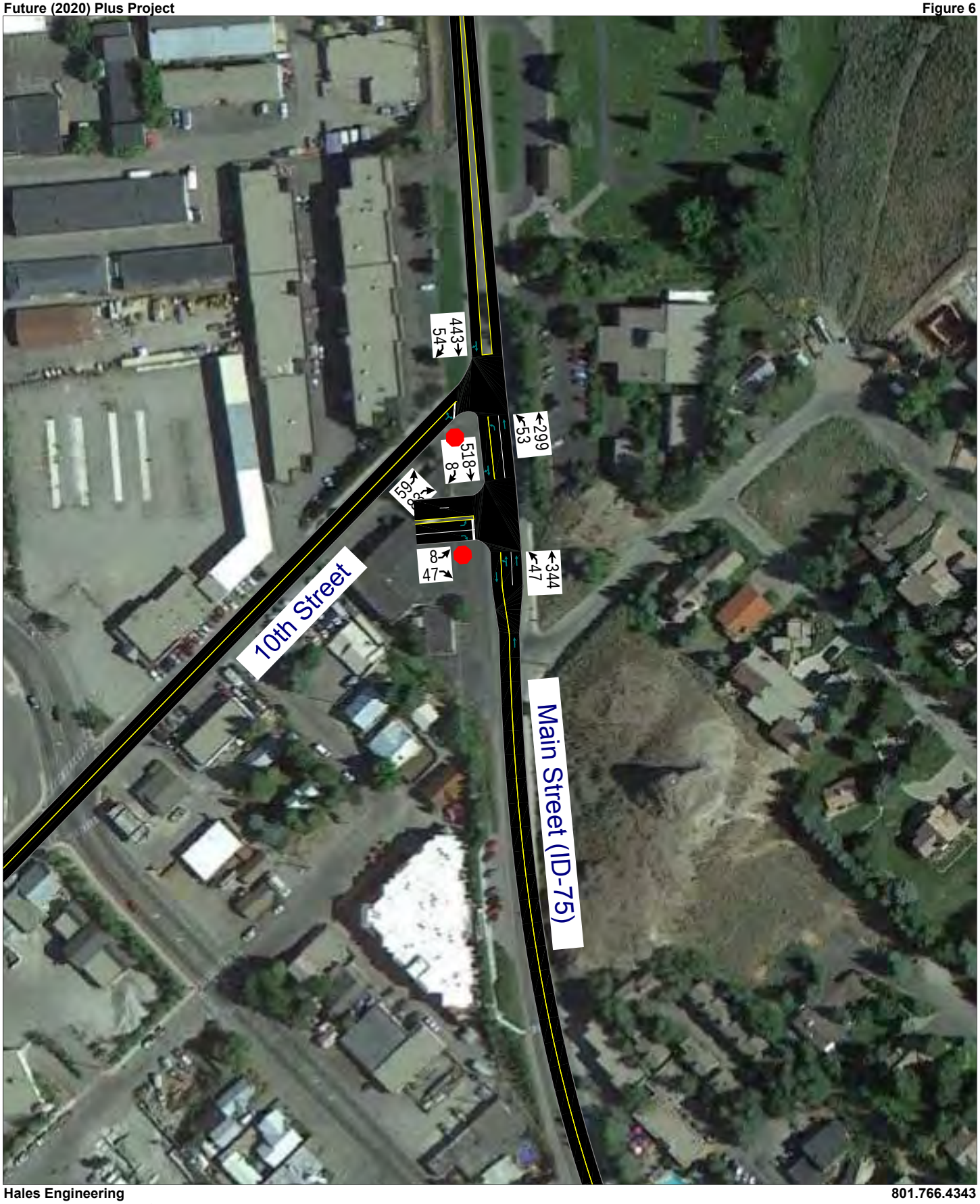
Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
Main Street (SH-75) / 10th Street	EB Stop	EB	17.8	C	-	-
Main Street (SH-75) / Access 1	EB Stop	EB	9.2	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop, roundabout, and signalized intersections.
3. Southbound = Southbound approach, etc.

Source: Hales Engineering, May 2016

ID Ketchum Gas Station TIS
Future (2020) Plus Project

p.m. Peak Hour
Figure 6



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APPENDIX A

Turning Movement Counts

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

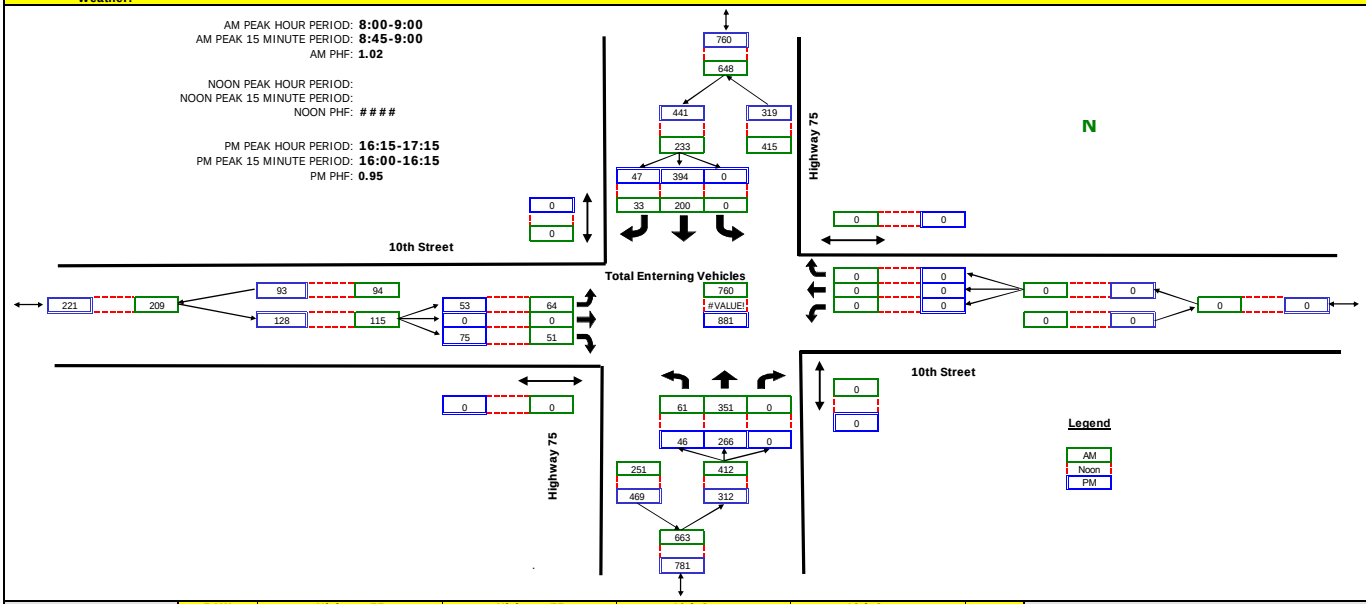
Intersection: Highway 75 / 10th Street
North/South: Highway 75
East/West: 10th Street
Jurisdiction: Ketchum, Idaho
Project Title: Ketchum - Warm Springs Road
Project No: P112
Weather:

Date: 2-13-08, Wed
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 70.0%
Adjustment Station #: 68
Growth Rate: 1.1%
Number of Years: 8

AM PEAK HOUR PERIOD: **8:00-9:00**
AM PEAK 15 MINUTE PERIOD: **8:45-9:00**
AM PHF: **1.02**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: **####**

PM PEAK HOUR PERIOD: **16:15-17:15**
PM PEAK 15 MINUTE PERIOD: **16:00-16:15**
PM PHF: **0.95**



RAW COUNT SUMMARIES	Highway 75 Northbound				Highway 75 Southbound				10th Street Eastbound				10th Street Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15-7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30-7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45-8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00-8:15	18.5714	68.5714	0	0	0	38.571	7.1429	0	15.714	0	10	0	0	0	0	0	158.5714
8:15-8:30	17.1429	81.4286	0	0	0	45.714	7.1429	0	15.714	0	10	0	0	0	0	0	177.1429
8:30-8:45	10	82.8571	0	0	0	48.571	8.5714	0	14.286	0	10	0	0	0	0	0	174.2857
8:45-9:00	10	88.5714	0	0	0	50	7.1429	0	12.857	0	17.143	0	0	0	0	0	185.7143

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:00-11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15-11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	10	64	0	0	0	114	11	0	17	0	16	0	0	0	0	0	232
16:15-16:30	10	76	0	0	0	77	11	0	17	0	16	0	0	0	0	0	207
16:30-16:45	7	43	0	0	0	114	14	0	16	0	19	0	0	0	0	0	213
16:45-17:00	11	59	0	0	0	87	7	0	6	0	14	0	0	0	0	0	184
17:00-17:15	14	66	0	0	0	83	11	0	10	0	20	0	0	0	0	0	204
17:15-17:30	7	44	0	0	0	67	4	0	10	0	6	3	0	0	0	0	138
17:30-17:45	7	47	0	0	0	69	3	0	11	0	6	0	0	0	0	0	143
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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APPENDIX B

Level of Service Results

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SimTraffic LOS Report

Project: ID Ketchum Gas Station TIS
Analysis Period: *Existing (2016) Background*
Time Period: *p.m. Peak Hour* **Project #:** *UT-16-851*

Intersection: 10th Street & Main Street (ID-75)
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	46	45	98	5.2	*A*
	T	266	263	99	1.0	*A*
	Subtotal	312	308	99	1.6	*A*
SB	T	394	396	101	0.8	*A*
	R	47	44	94	0.4	*A*
	Subtotal	441	440	100	0.8	*A*
NE	L	53	49	92	14.2	*B*
	R	75	76	101	6.8	*A*
	Subtotal	***128***	***125***	***98***	***9.7***	***A***
Total		880	873	99	2.4	*A*

Intersection:
Type:

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
Total						

3: 10th Street & Main Street (ID-75) Performance by movement Interval #1 4:15

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.3	0.3	0.2	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	5.7	1.0	0.8	0.5	12.0	6.0	2.2
Vehicles Entered	10	66	98	12	12	18	216
Vehicles Exited	10	66	97	12	12	19	216
Hourly Exit Rate	40	264	388	48	48	76	864
Input Volume	45	261	387	46	52	74	865
% of Volume	89	101	100	104	92	103	100

3: 10th Street & Main Street (ID-75) Performance by movement Interval #2 4:30

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.3	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.7	0.9	0.8	0.3	12.7	6.6	2.2
Vehicles Entered	11	66	96	11	13	20	217
Vehicles Exited	11	66	96	11	12	19	215
Hourly Exit Rate	44	264	384	44	48	76	860
Input Volume	45	261	387	46	52	74	865
% of Volume	98	101	99	96	92	103	99

3: 10th Street & Main Street (ID-75) Performance by movement Interval #3 4:45

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	5.8	1.4	0.9	0.5	18.7	7.8	2.9
Vehicles Entered	13	66	107	11	12	20	229
Vehicles Exited	13	66	108	12	13	20	232
Hourly Exit Rate	52	264	432	48	52	80	928
Input Volume	48	280	415	49	56	79	927
% of Volume	108	94	104	98	93	101	100

3: 10th Street & Main Street (ID-75) Performance by movement Interval #4 5:00

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.3	0.2	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.5	0.7	0.7	0.3	12.4	5.7	2.0
Vehicles Entered	11	65	96	10	13	18	213
Vehicles Exited	10	65	95	10	12	18	210
Hourly Exit Rate	40	260	380	40	48	72	840
Input Volume	45	261	387	46	52	74	865
% of Volume	89	100	98	87	92	97	97

3: 10th Street & Main Street (ID-75) Performance by movement Entire Run

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.3	0.2	0.2	0.2
Total Delay (hr)	0.1	0.1	0.1	0.0	0.2	0.1	0.6
Total Del/Veh (s)	5.2	1.0	0.8	0.4	14.2	6.8	2.4
Vehicles Entered	45	263	396	44	49	76	873
Vehicles Exited	45	263	396	44	49	76	873
Hourly Exit Rate	45	263	396	44	49	76	873
Input Volume	46	266	394	47	53	75	880
% of Volume	98	99	101	94	92	101	99

Total Network Performance By Interval

Interval Start	4:15	4:30	4:45	5:00	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.3	0.3	0.3	0.3
Total Delay (hr)	0.2	0.2	0.3	0.2	0.9
Total Del/Veh (s)	3.4	3.4	4.3	3.3	3.8
Vehicles Entered	216	218	230	210	872
Vehicles Exited	216	217	231	209	872
Hourly Exit Rate	864	868	924	836	872
Input Volume	2497	2497	2676	2497	2542
% of Volume	35	35	35	33	34

Intersection: 3: 10th Street & Main Street (ID-75), Interval #1

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	82	73
Average Queue (ft)	27	40
95th Queue (ft)	80	72
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), Interval #2

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	66	77
Average Queue (ft)	25	44
95th Queue (ft)	73	84
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), Interval #3

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	85	2	88
Average Queue (ft)	35	0	46
95th Queue (ft)	93	5	91
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: 10th Street & Main Street (ID-75), Interval #4

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	64	67
Average Queue (ft)	24	39
95th Queue (ft)	66	70
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), All Intervals

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	105	2	99
Average Queue (ft)	28	0	42
95th Queue (ft)	79	2	80
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty, Interval #1: 0
Network wide Queuing Penalty, Interval #2: 0
Network wide Queuing Penalty, Interval #3: 0
Network wide Queuing Penalty, Interval #4: 0
Network wide Queuing Penalty, All Intervals: 0

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SimTraffic LOS Report

Project: ID Ketchum Gas Station TIS
Analysis Period: *Existing (2016) Plus Project*
Time Period: *p.m. Peak Hour* **Project #:** *UT-16-851*

Intersection: 10th Street & Main Street (ID-75)
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	46	45	98	5.1	*A*
	T	274	271	99	1.0	*A*
	Subtotal	320	316	99	1.6	*A*
SB	T	402	404	100	0.9	*A*
	R	47	52	111	0.6	*A*
	Subtotal	449	456	102	0.9	*A*
NE	L	53	52	98	15.2	*C*
	R	75	73	97	7.8	*A*
	Subtotal	***128***	***125***	***98***	***10.9***	***B***
Total		897	897	100	2.5	*A*

Intersection: Main Street (ID-75) & Access 1
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	47	44	94	3.5	*A*
	T	312	309	99	0.7	*A*
	Subtotal	359	353	98	1.0	*A*
SB	T	469	470	100	0.4	*A*
	R	8	8	100	0.2	*A*
	Subtotal	477	478	100	0.4	*A*
EB	L	8	7	88	11.8	*B*
	R	47	50	107	5.8	*A*
	Subtotal	***55***	***57***	***104***	***6.5***	***A***
Total		891	888	100	1.1	*A*

1: 10th Street & Main Street (ID-75) Performance by movement Interval #1 4:15

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	4.8	0.9	0.8	0.5	16.1	7.5	2.4
Vehicles Entered	10	69	101	13	12	18	223
Vehicles Exited	10	70	100	13	13	18	224
Hourly Exit Rate	40	280	400	52	52	72	896
Input Volume	45	270	395	46	52	74	882
% of Volume	89	104	101	113	100	97	102

1: 10th Street & Main Street (ID-75) Performance by movement Interval #2 4:30

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.3	0.3	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.5	0.9	0.8	0.6	12.7	6.6	2.2
Vehicles Entered	12	64	96	13	12	17	214
Vehicles Exited	12	64	97	13	12	17	215
Hourly Exit Rate	48	256	388	52	48	68	860
Input Volume	45	270	395	46	52	74	882
% of Volume	107	95	98	113	92	92	98

1: 10th Street & Main Street (ID-75) Performance by movement Interval #3 4:45

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.1	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	6.4	1.2	1.0	0.5	14.5	8.3	2.8
Vehicles Entered	12	69	106	16	15	18	236
Vehicles Exited	12	69	104	16	14	18	233
Hourly Exit Rate	48	276	416	64	56	72	932
Input Volume	48	288	423	49	56	79	943
% of Volume	100	96	98	131	100	91	99

1: 10th Street & Main Street (ID-75) Performance by movement Interval #4 5:00

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.5	0.3	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	5.0	0.9	0.8	0.8	14.0	8.0	2.4
Vehicles Entered	10	68	101	11	12	20	222
Vehicles Exited	10	68	102	11	12	20	223
Hourly Exit Rate	40	272	408	44	48	80	892
Input Volume	45	270	395	46	52	74	882
% of Volume	89	101	103	96	92	108	101

1: 10th Street & Main Street (ID-75) Performance by movement Entire Run

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.1	0.1	0.1	0.0	0.2	0.2	0.6
Total Del/Veh (s)	5.1	1.0	0.9	0.6	15.2	7.8	2.5
Vehicles Entered	45	271	404	52	51	74	897
Vehicles Exited	45	271	404	52	52	73	897
Hourly Exit Rate	45	271	404	52	52	73	897
Input Volume	46	274	402	47	53	75	897
% of Volume	98	99	100	111	98	97	100

2: Main Street (ID-75) & Access 1 Performance by movement Interval #1 4:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	8.7	6.3	3.4	0.7	0.4	0.3	1.0
Vehicles Entered	2	11	11	78	118	1	221
Vehicles Exited	2	11	11	78	117	1	220
Hourly Exit Rate	8	44	44	312	468	4	880
Input Volume	8	46	46	307	461	8	876
% of Volume	100	96	96	102	102	50	100

2: Main Street (ID-75) & Access 1 Performance by movement Interval #2 4:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	6.8	5.6	3.5	0.6	0.4	0.1	1.0
Vehicles Entered	2	13	12	75	113	2	217
Vehicles Exited	2	13	12	74	113	2	216
Hourly Exit Rate	8	52	48	296	452	8	864
Input Volume	8	46	46	307	461	8	876
% of Volume	100	113	104	96	98	100	99

2: Main Street (ID-75) & Access 1 Performance by movement Interval #3 4:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	14.6	5.9	3.7	0.9	0.5	0.2	1.2
Vehicles Entered	2	14	10	79	121	2	228
Vehicles Exited	2	14	10	80	120	2	228
Hourly Exit Rate	8	56	40	320	480	8	912
Input Volume	8	49	49	328	494	8	936
% of Volume	100	114	82	98	97	100	97

2: Main Street (ID-75) & Access 1 Performance by movement Interval #4 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	11.3	5.6	3.4	0.6	0.4	0.1	1.0
Vehicles Entered	2	11	11	77	118	3	222
Vehicles Exited	2	12	11	77	119	3	224
Hourly Exit Rate	8	48	44	308	476	12	896
Input Volume	8	46	46	307	461	8	876
% of Volume	100	104	96	100	103	150	102

2: Main Street (ID-75) & Access 1 Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.0	0.1	0.1	0.0	0.3
Total Del/Veh (s)	11.8	5.8	3.5	0.7	0.4	0.2	1.1
Vehicles Entered	7	50	44	309	470	8	888
Vehicles Exited	7	50	44	309	470	8	888
Hourly Exit Rate	7	50	44	309	470	8	888
Input Volume	8	47	47	312	469	8	891
% of Volume	88	107	94	99	100	100	100

Total Network Performance By Interval

Interval Start	4:15	4:30	4:45	5:00	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.3	0.3	0.3	0.3
Total Delay (hr)	0.3	0.3	0.4	0.3	1.3
Total Del/Veh (s)	4.4	4.2	4.8	4.4	4.7
Vehicles Entered	245	239	261	244	989
Vehicles Exited	245	241	257	248	989
Hourly Exit Rate	980	964	1028	992	989
Input Volume	3591	3591	3840	3591	3653
% of Volume	27	27	27	28	27

Intersection: 1: 10th Street & Main Street (ID-75), Interval #1

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	73	3	74
Average Queue (ft)	28	0	41
95th Queue (ft)	79	6	85
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	2		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #2

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	63	2	78
Average Queue (ft)	28	0	39
95th Queue (ft)	72	5	75
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #3

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	74	2	86
Average Queue (ft)	29	0	50
95th Queue (ft)	79	4	88
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	2		
Queuing Penalty (veh)	7		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #4

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	61	12	77
Average Queue (ft)	26	2	44
95th Queue (ft)	71	22	80
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	2		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), All Intervals

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	81	19	102
Average Queue (ft)	28	1	43
95th Queue (ft)	75	12	83
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	3		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Main Street (ID-75) & Access 1, Interval #1

Movement	EB	EB	NB	B3	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	23	51	81	8	19
Average Queue (ft)	5	29	26	1	3
95th Queue (ft)	23	57	78	10	17
Link Distance (ft)	68	68	38	1119	76
Upstream Blk Time (%)		0	2		
Queuing Penalty (veh)		0	0		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: Main Street (ID-75) & Access 1, Interval #2

Movement	EB	EB	NB	B3	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	25	49	71	2	25
Average Queue (ft)	6	28	28	0	4
95th Queue (ft)	26	52	74	5	21
Link Distance (ft)	68	68	38	1119	76
Upstream Blk Time (%)		0	3		
Queuing Penalty (veh)		0	0		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: Main Street (ID-75) & Access 1, Interval #3

Movement	EB	EB	NB	B3	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	29	46	78	7	28
Average Queue (ft)	8	29	30	1	5
95th Queue (ft)	28	52	84	11	27
Link Distance (ft)	68	68	38	1119	76
Upstream Blk Time (%)		0	3		0
Queuing Penalty (veh)		0	0		0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: Main Street (ID-75) & Access 1, Interval #4

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	23	46	72	25
Average Queue (ft)	7	26	27	5
95th Queue (ft)	27	53	73	27
Link Distance (ft)	68	68	38	76
Upstream Blk Time (%)		0	2	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, All Intervals

Movement	EB	EB	NB	B3	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	31	61	103	17	41
Average Queue (ft)	6	28	28	1	4
95th Queue (ft)	26	54	78	8	24
Link Distance (ft)	68	68	38	1119	76
Upstream Blk Time (%)		0	3		0
Queuing Penalty (veh)		0	0		0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty, Interval #1: 2
Network wide Queuing Penalty, Interval #2: 1
Network wide Queuing Penalty, Interval #3: 7
Network wide Queuing Penalty, Interval #4: 2
Network wide Queuing Penalty, All Intervals: 3

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SimTraffic LOS Report

Project: ID Ketchum Gas Station TIS
Analysis Period: *Future (2020) Background*
Time Period: *p.m. Peak Hour* **Project #:** *UT-16-851*

Intersection: 10th Street & Main Street (ID-75)
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	56	56	100	6.2	*A*
	T	323	331	103	1.6	*A*
	Subtotal	379	387	102	2.3	*A*
SB	T	479	474	99	1.0	*A*
	R	57	52	91	0.6	*A*
	Subtotal	536	526	98	1.0	*A*
NE	L	64	61	95	22.3	*C*
	R	91	90	99	11.5	*B*
	Subtotal	***155***	***151***	***97***	***15.9***	***C***
Total		1,070	1,064	99	3.6	*A*

Intersection:
Type:

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
Total						

3: 10th Street & Main Street (ID-75) Performance by movement Interval #1 4:15

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.5	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	5.1	1.0	1.0	0.7	20.3	11.5	3.4
Vehicles Entered	13	80	114	14	16	23	260
Vehicles Exited	13	80	114	14	16	23	260
Hourly Exit Rate	52	320	456	56	64	92	1040
Input Volume	55	317	471	56	63	89	1051
% of Volume	95	101	97	100	102	103	99

3: 10th Street & Main Street (ID-75) Performance by movement Interval #2 4:30

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	5.3	1.5	1.0	0.5	23.6	13.4	3.7
Vehicles Entered	14	86	118	14	15	21	268
Vehicles Exited	14	87	119	13	16	21	270
Hourly Exit Rate	56	348	476	52	64	84	1080
Input Volume	55	317	471	56	63	89	1051
% of Volume	102	110	101	93	102	94	103

3: 10th Street & Main Street (ID-75) Performance by movement Interval #3 4:45

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.5	0.5	0.2	0.2	0.3
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	8.0	2.1	1.1	0.7	24.5	10.4	3.9
Vehicles Entered	16	83	125	14	15	24	277
Vehicles Exited	15	83	124	14	15	24	275
Hourly Exit Rate	60	332	496	56	60	96	1100
Input Volume	59	340	504	60	67	96	1126
% of Volume	102	98	98	93	90	100	98

3: 10th Street & Main Street (ID-75) Performance by movement Interval #4 5:00

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.1	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	5.5	1.6	1.0	0.4	18.2	9.0	3.2
Vehicles Entered	14	81	118	11	15	22	261
Vehicles Exited	14	82	116	11	15	21	259
Hourly Exit Rate	56	328	464	44	60	84	1036
Input Volume	55	317	471	56	63	89	1051
% of Volume	102	103	99	79	95	94	99

3: 10th Street & Main Street (ID-75) Performance by movement Entire Run

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.1	0.1	0.1	0.0	0.4	0.3	1.1
Total Del/Veh (s)	6.2	1.6	1.0	0.6	22.3	11.5	3.6
Vehicles Entered	56	331	474	52	61	91	1065
Vehicles Exited	56	331	474	52	61	90	1064
Hourly Exit Rate	56	331	474	52	61	90	1064
Input Volume	56	323	479	57	64	91	1070
% of Volume	100	103	99	91	95	99	99

Total Network Performance By Interval

Interval Start	4:15	4:30	4:45	5:00	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.4	0.4	0.3	0.3
Total Delay (hr)	0.4	0.4	0.5	0.4	1.6
Total Del/Veh (s)	4.8	5.1	5.5	4.7	5.3
Vehicles Entered	259	269	278	258	1064
Vehicles Exited	260	272	275	260	1065
Hourly Exit Rate	1040	1088	1100	1040	1065
Input Volume	3034	3034	3251	3034	3088
% of Volume	34	36	34	34	34

Intersection: 3: 10th Street & Main Street (ID-75), Interval #1

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	70	103
Average Queue (ft)	25	60
95th Queue (ft)	73	112
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), Interval #2

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	97	5	112
Average Queue (ft)	40	1	63
95th Queue (ft)	102	11	124
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: 10th Street & Main Street (ID-75), Interval #3

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	113	2	102
Average Queue (ft)	53	0	60
95th Queue (ft)	130	5	107
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: 10th Street & Main Street (ID-75), Interval #4

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	97	105
Average Queue (ft)	37	53
95th Queue (ft)	102	98
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), All Intervals

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	148	7	138
Average Queue (ft)	39	0	59
95th Queue (ft)	105	6	111
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty, Interval #1: 0
Network wide Queuing Penalty, Interval #2: 0
Network wide Queuing Penalty, Interval #3: 0
Network wide Queuing Penalty, Interval #4: 0
Network wide Queuing Penalty, All Intervals: 0

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SimTraffic LOS Report

Project: ID Ketchum Gas Station TIS
Analysis Period: *Future (2020) Plus Project*
Time Period: *p.m. Peak Hour* **Project #:** *UT-16-851*

Intersection: 10th Street & Main Street (ID-75)
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	56	55	98	6.0	*A*
	T	332	342	103	0.2	*A*
	Subtotal	388	397	102	1.0	*A*
SB	T	487	478	98	1.1	*A*
	R	57	58	102	0.7	*A*
	Subtotal	544	536	99	1.1	*A*
NE	L	64	64	100	24.2	*C*
	R	91	92	101	13.3	*B*
	Subtotal	***155***	***156***	***101***	***17.8***	***C***
Total		1,086	1,089	100	3.4	*A*

Intersection: Main Street (ID-75) & Access 1
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	47	44	94	3.8	*A*
	T	379	386	102	0.2	*A*
	Subtotal	426	430	101	0.6	*A*
SB	T	570	564	99	0.5	*A*
	R	8	7	88	0.2	*A*
	Subtotal	578	571	99	0.5	*A*
EB	L	8	10	125	15.9	*C*
	R	47	48	103	7.8	*A*
	Subtotal	***55***	***58***	***105***	***9.2***	***A***
Total		1,058	1,059	100	1.0	*A*

1: 10th Street & Main Street (ID-75) Performance by movement Interval #1 4:15

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	5.2	0.2	1.1	0.6	24.1	14.9	3.8
Vehicles Entered	15	81	113	14	17	23	263
Vehicles Exited	15	81	113	14	15	24	262
Hourly Exit Rate	60	324	452	56	60	96	1048
Input Volume	55	326	478	56	63	89	1067
% of Volume	109	99	95	100	95	108	98

1: 10th Street & Main Street (ID-75) Performance by movement Interval #2 4:30

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.5	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	5.4	0.2	1.0	0.9	20.0	11.4	3.0
Vehicles Entered	14	87	120	15	15	22	273
Vehicles Exited	14	87	120	15	16	23	275
Hourly Exit Rate	56	348	480	60	64	92	1100
Input Volume	55	326	478	56	63	89	1067
% of Volume	102	107	100	107	102	103	103

1: 10th Street & Main Street (ID-75) Performance by movement Interval #3 4:45

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.5	0.4	0.1	0.2	0.3
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	7.2	0.2	1.2	0.6	24.4	14.1	3.8
Vehicles Entered	13	86	125	15	18	24	281
Vehicles Exited	13	86	126	15	17	23	280
Hourly Exit Rate	52	344	504	60	68	92	1120
Input Volume	59	348	513	60	67	96	1143
% of Volume	88	99	98	100	101	96	98

1: 10th Street & Main Street (ID-75) Performance by movement Interval #4 5:00

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.5	0.6	0.2	0.2	0.3
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	5.8	0.2	1.1	0.8	20.9	11.1	3.1
Vehicles Entered	12	87	119	14	14	22	268
Vehicles Exited	12	87	120	13	15	22	269
Hourly Exit Rate	48	348	480	52	60	88	1076
Input Volume	55	326	478	56	63	89	1067
% of Volume	87	107	100	93	95	99	101

1: 10th Street & Main Street (ID-75) Performance by movement Entire Run

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.5	0.5	0.2	0.2	0.3
Total Delay (hr)	0.1	0.0	0.1	0.0	0.4	0.3	1.0
Total Del/Veh (s)	6.0	0.2	1.1	0.7	24.2	13.3	3.4
Vehicles Entered	55	342	477	58	64	92	1088
Vehicles Exited	55	342	478	58	64	92	1089
Hourly Exit Rate	55	342	478	58	64	92	1089
Input Volume	56	332	487	57	64	91	1086
% of Volume	98	103	98	102	100	101	100

2: Main Street (ID-75) & Access 1 Performance by movement Interval #1 4:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	17.6	7.2	3.4	0.2	0.5	0.1	1.0
Vehicles Entered	2	12	11	93	135	2	255
Vehicles Exited	2	11	12	93	135	2	255
Hourly Exit Rate	8	44	48	372	540	8	1020
Input Volume	8	46	46	372	560	8	1040
% of Volume	100	96	104	100	96	100	98

2: Main Street (ID-75) & Access 1 Performance by movement Interval #2 4:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	16.1	8.5	3.3	0.2	0.4	0.4	1.0
Vehicles Entered	3	12	11	98	142	1	267
Vehicles Exited	3	12	11	98	142	1	267
Hourly Exit Rate	12	48	44	392	568	4	1068
Input Volume	8	46	46	372	560	8	1040
% of Volume	150	104	96	105	101	50	103

2: Main Street (ID-75) & Access 1 Performance by movement Interval #3 4:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	20.6	6.9	4.3	0.2	0.5	0.2	1.0
Vehicles Entered	2	12	12	97	147	2	272
Vehicles Exited	2	12	12	97	147	2	272
Hourly Exit Rate	8	48	48	388	588	8	1088
Input Volume	8	49	49	399	601	8	1114
% of Volume	100	98	98	97	98	100	98

2: Main Street (ID-75) & Access 1 Performance by movement Interval #4 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	17.4	8.5	3.7	0.2	0.5	0.3	1.0
Vehicles Entered	2	12	10	97	140	2	263
Vehicles Exited	2	12	10	97	140	2	263
Hourly Exit Rate	8	48	40	388	560	8	1052
Input Volume	8	46	46	372	560	8	1040
% of Volume	100	104	87	104	100	100	101

2: Main Street (ID-75) & Access 1 Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.0	0.0	0.1	0.0	0.3
Total Del/Veh (s)	15.9	7.8	3.8	0.2	0.5	0.2	1.0
Vehicles Entered	10	48	44	385	564	7	1058
Vehicles Exited	10	48	44	386	564	7	1059
Hourly Exit Rate	10	48	44	386	564	7	1059
Input Volume	8	47	47	379	570	8	1058
% of Volume	125	103	94	102	99	88	100

Total Network Performance By Interval

Interval Start	4:15	4:30	4:45	5:00	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.4	0.4	0.4	0.4	0.4
Total Delay (hr)	0.5	0.4	0.5	0.4	1.9
Total Del/Veh (s)	5.7	5.1	5.7	5.1	5.7
Vehicles Entered	285	295	305	291	1180
Vehicles Exited	285	297	305	294	1181
Hourly Exit Rate	1140	1188	1220	1176	1181
Input Volume	4290	4290	4594	4290	4366
% of Volume	27	28	27	27	27

Intersection: 1: 10th Street & Main Street (ID-75), Interval #1

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	47	16	129
Average Queue (ft)	26	2	64
95th Queue (ft)	53	16	130
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #2

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	49	6	114
Average Queue (ft)	24	1	61
95th Queue (ft)	54	9	121
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #3

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	51	8	122
Average Queue (ft)	25	1	66
95th Queue (ft)	57	11	127
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #4

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	41	14	94
Average Queue (ft)	18	2	56
95th Queue (ft)	50	17	103
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), All Intervals

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	64	27	158
Average Queue (ft)	23	2	62
95th Queue (ft)	54	14	121
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Main Street (ID-75) & Access 1, Interval #1

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	29	54	47	32
Average Queue (ft)	10	28	18	6
95th Queue (ft)	33	55	51	26
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)		0	2	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, Interval #2

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	32	56	40	30
Average Queue (ft)	10	31	18	7
95th Queue (ft)	33	63	46	31
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)	0	1	1	0
Queuing Penalty (veh)	0	0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, Interval #3

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	29	47	51	32
Average Queue (ft)	10	27	22	5
95th Queue (ft)	32	49	60	29
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)		0	2	0
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, Interval #4

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	29	61	48	30
Average Queue (ft)	8	30	16	6
95th Queue (ft)	31	61	50	26
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)	0	1	2	
Queuing Penalty (veh)	0	0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, All Intervals

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	36	72	63	46
Average Queue (ft)	9	29	19	6
95th Queue (ft)	32	58	52	28
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)	0	0	2	0
Queuing Penalty (veh)	0	0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty, Interval #1: 0
Network wide Queuing Penalty, Interval #2: 1
Network wide Queuing Penalty, Interval #3: 1
Network wide Queuing Penalty, Interval #4: 1
Network wide Queuing Penalty, All Intervals: 1

HALES ENGINEERING
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APPENDIX C

Site Plan

LEGEND:
EXISTING PROPERTY LINE
EXISTING ADJOINER
EXISTING CENTERLINE
PROPOSED CONCRETE CURB & GUTTER
PROPOSED CONCRETE
PROPOSED ASPHALT
PROPOSED PAVERS

0 20 40 Feet

KETCHUM BLOCK 50 LOT 1AA
KETCHUM BLOCK 50 LOT 2A
KETCHUM BLOCK 29 LOT 1 & 2
E 9TH STREET ℄
EXISTING PARALLEL PARKING
EXISTING STRIPING
PROPOSED STRIPING
62.5'
50'±
13'
12'
100'± R.O.W.
STATE HWY 75 ℄
50'
6'
23'
19'
35'
R480'
R200'
R10'
R50'
40'
4'
R30'
PROPOSED 2' VALLEY GUTTER
8'
R3' TYP.
24'
KETCHUM BLOCK 30 LOT 5A
10' TYP.
15'
20' TYP.
PROPOSED ADDITION
EXISTING BUILDING
ALLEY
LOT 1
LOT 2
LOT 3
LOT 4
60'
E 10TH STREET ℄
N LEADVILLE AVENUE ℄
TENTH ST LIGHT INDUSTRIAL COMPLEX
TL 4808



1 EX VICINITY MAP
SCALE: N.T.S.

PRELIMINARY ONLY NOT FOR CONSTRUCTION

REVISIONS

No.	DESCRIPTION	DATE	BY

PREPARED BY:
BENCHMARK ASSOCIATES, P.A.
P.O. BOX 733 100 BELL DRIVE
KETCHUM, IDAHO 83340
(208) 726-9512
FAX 726-9514
WEB: WWW.BMASB.COM
MAIL: WWW.BMASB.COM

PRELIMINARY IMPROVEMENTS PLAN

KETCHUM TOWNSITE BLOCK 30, LOT 5A
T4N, R17E, SEC 13, B.M., BLAINE COUNTY, IDAHO

PREPARED FOR: ROY BRACKEN

DRAWN BY: SKS
DESIGNED BY: JPG
CHECKED BY: SB
DATE: 05/03/16
PROJECT NO.: 16051

SHEET NUMBER
EX

HALES ENGINEERING
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APPENDIX D

95th Percentile Queue Length Reports

SimTraffic Queueing Report
Project: ID Ketchum Gas Station TIS
Time Period: p.m. Peak Hour
95th Percentile Queue Length (feet)

HALES ENGINEERING
Innovative transportation solutions

Project #: UT-16-851

Intersection	Time Period	NB	NE	SB
		LT	LR	TR
10th Street & Main Street (ID-75)	Existing (2016) Background	79	80	2

SimTraffic Queueing Report
Project: ID Ketchum Gas Station TIS
Time Period: p.m. Peak Hour
95th Percentile Queue Length (feet)

HALES ENGINEERING
Innovative transportation solutions

Project #: UT-16-851

Intersection	Time Period	B3	EB		NB	NE	SB
		T	L	R	LT	LR	TR
10th Street & Main Street (ID-75)	Existing (2016) Plus Project	--	--	--	75	83	12
Main Street (ID-75) & Access 1	Existing (2016) Plus Project	8	26	54	78	--	24

SimTraffic Queueing Report
Project: ID Ketchum Gas Station TIS
Time Period: p.m. Peak Hour
95th Percentile Queue Length (feet)

HALES ENGINEERING
Innovative transportation solutions

Project #: UT-16-851

Intersection	Time Period	NB	NE	SB
		LT	LR	TR
10th Street & Main Street (ID-75)	Future (2020) Background	105	111	6

SimTraffic Queueing Report
Project: ID Ketchum Gas Station TIS
Time Period: p.m. Peak Hour
95th Percentile Queue Length (feet)

HALES ENGINEERING
Innovative transportation solutions

Project #: UT-16-851

Intersection	Time Period	EB		NB		NE	SB
		L	R	L	LT	LR	TR
10th Street & Main Street (ID-75)	Future (2020) Plus Project	--	--	54	--	121	14
Main Street (ID-75) & Access 1	Future (2020) Plus Project	32	58	--	52	--	28

City of Ketchum
Planning & Building

IN RE:	)	
	)	
Armour Residence	)	**KETCHUM PLANNING AND ZONING COMMISSION**
Waterways Design Review	)	**FINDINGS OF FACT, CONCLUSIONS OF LAW AND**
	)	**DECISION**
	)	
	)	

File Number: #16-045

OWNERS: Armour Residence Waterways Design Review

REQUEST: Waterways Design Review and Floodplain Development Permit for a new residence

LOCATION: 112 Irene Street (Lot 12, Warm Springs Creekside Sub)

NOTICE: The following notice was mailed to adjacent property owners on Tuesday, June 7, 2016:

ZONING: Gerneral Residential- Limited (GR-L)

OVERLAYS: Floodplain (FP)

NOTICE OF SITE VISIT AND CONSIDERATION BEFORE THE PLANNING AND ZONING COMMISSION

Site Visit Date:	June 27, 2016
Site Visit Time:	5:00 PM
Site Visit Location:	112 Irene Street, Ketchum, Idaho
Meeting Date:	June 27, 2016
Meeting Time:	5:30 PM, or thereafter as the matter can be heard.
Meeting Location:	City Hall Council Chambers, 480 East Avenue North, Ketchum, Idaho
Project Name:	Armour Residence
Project Location:	112 Irene Street, Ketchum, Idaho (Warm Springs Creekside Sub Lot 12)
Applicant:	Norman and Salita Armour
Representative:	Nic Holland, AIA
Application Type:	Waterways Design Review/Flood Plain Design Review
Project Description:	The Commission will consider and take action on an application for a Waterways Design Review and Flood Plain Design Review for construction of a new single-family residence.

COMMISSION CONCLUSIONS

1. The applicant requested a Flood Plain Development Permit and a Waterways Design Review for construction of a new single-family residence. The subject property is located on Irene Street and contains a minimal amount of regulatory floodplain, therefore it required a Flood Plain Development Permit, and is located within 25' of Warm Springs Creek, and therefore required a Waterways Design Review.

2. Single-family residences are exempt from Design Review, so only the provisions related to Flood Plain Design Review and Waterways Design Review will be considered.

3. By June 22, 2016 no written public comment regarding this project were received.

4. By June 22, 2016 the Public Works department was concerned with drainage based on the Drainage Plan dated June 15, 2016. These concerns were addressed with conditions during the June 27, 2016 Planning and Zoning Commission meeting.

5. Attachments to the June 27, 2016 staff report:
   A. Application
      - Application Form, dated May 23, 2016
      - Riparian Management and Mitigation Plan, Sawtooth Environmental Consulting, LLC, dated May, 2016
        - Landscape Plan (Riparian Reclamation/Enhancement Exhibit), dated June 9, 2016
      - Plan Set
        - Site Plan and Architectural Plans, dated June 1, 2016
          - Sheet A-1.0, revised, dated June 17, 2016
        - Drainage Plan, dated June 15, 2016

Floodplain Design Review Requirements				
1. EVALUATION STANDARDS: 17.88.050(E)				
Compliant			**Standards and Staff Comments**	
Yes	**No**	**N/A**	**Guideline**	**City Standards and *Staff Comments***
☒	☐	☐	**17.88.050(E)1 FLOODPLAIN DEVELOPMENT /WATERWAYS DESIGN REVIEW**	**Preservation or restoration of the inherent natural characteristics of the river and creeks and floodplain areas. Development does not alter river channel.**
			Staff Comments	*No development is proposed within the floodplain or the within the river channel.*
☒	☐	☐	**17.88.050(E)2**	**Preservation or enhancement of riparian vegetation and wildlife habitat, if any, along the stream bank and within the required minimum twenty-five (25) foot setback or riparian zone. No construction activities, encroachment or other disturbance into the twenty five foot (25') riparian zone shall be allowed at any time without written City approval per the terms of this ordinance.**
			Staff Comments	*Please see Attachment A, Riparian Management and Mitigation Plan, conducted by Sawtooth Environmental Consulting, LLC. The Riparian Setback has been altered in the past. The applicant proposes to preserve the existing riparian setback area by installing a Limits of Disturbance barrier approximately 15' from MHW.* *The project is requesting to conduct construction activities within about the first ten feet of the riparian setback in an area that currently has non-*

Compliant			Standards and Staff Comments	
Yes	**No**	**N/A**	**Guideline**	**City Standards and *Staff Comments***
				native plants and has been altered in the past. Disturbed areas of the Riparian Setback will be reclaimed and enhanced by planting 22 native shrubs and 3 native trees. Non-native grass and forbs species will be removed and all disturbed areas will be revegetated with native riparian grass species. The applicant proposes to limit the area of disturbance in terms of both extent and duration by optimizing construction sequencing and using standard BMP's during construction activities. The proposed development does not encroach into the riparian zone.
☒	☐	☐	**17.88.050(E)3**	**No development other than development by the City of Ketchum or development required for emergency access shall occur within the twenty-five (25) foot riparian zone with the exception of approved stream stabilization work. The Planning and Zoning Commission may approve access to property where no other primary access is available. Private pathways and staircases shall not lead into or through the riparian zone unless deemed necessary by the Planning and Zoning Commission.**
			Staff Comments	*No proposed development will encroach into the riparian zone.*
☒	☐	☐	**17.88.050(E)4**	**Plan and time frame are provided for restoration of riparian vegetation damaged as a result of the work done.**
			Staff Comments	*Riparian reclamation and enhancement will occur once all major construction activities have been completed (Fall 2016/Summer 2017)*
☒	☐	☐	**17.88.050(E)5**	**New or replacement planting and vegetation includes plantings that are low-growing and have dense root systems for the purpose of stabilizing stream banks and repairing damage previously done to riparian vegetation. Examples of such plantings include: red osier dogwood, common choke cherry, service berry, elder berry, river birch, skunk bush sumac, beb's willow, drummond's willow, little wild rose, gooseberry, and honeysuckle.**
			Staff Comments	*See the "Conceptual Riparian Reclamation/Enhancement Exhibit" prepared by Sawtooth Environmental Consulting, LLC. Proposed riparian plantings consist of a total of twenty-two shrubs, including service berry, currant, snowberry, and wood's rose, and three aspen trees. The City Arborist has reviewed the proposed vegetation and concurs with all written information regarding treatment of the 25' riparian setback.*
☒	☐	☐	**17.88.050(E)6**	**Landscaping and driveway plans to accommodate the function of the floodplain to allow for sheet flooding. Flood water carrying capacity is not diminished by the proposal. Surface drainage is controlled and does not adversely impact adjacent properties including driveways drained away from paved roadways. Culvert(s) under driveways may be required. Landscaping berms are designed to not dam or otherwise obstruct floodwaters or divert same onto roads or other public pathways.**
			Staff Comments	*The driveways are outside of the floodplain. A minor area of floodplain exists on the lot and lies within a few feet of the creek. No disturbance is proposed in the floodplain.*
☒	☐	☐	**17.88.050(E)7**	**Impacts of the development on aquatic life, recreation, or water quality upstream, downstream or across the stream are not adverse.**
			Staff Comments	*No development is proposed in the floodplain or adjacent to the river. There will be no adverse impact from the development on aquatic life, recreation or water quality.*
☒	☐	☐	**17.88.050(E)8**	**Building setback in excess of minimum required along waterways is encouraged.**
			Staff Comments	*Due to the limited size of the lot, the proposed structure is only marginally setback from the riparian setback in most areas, however, no proposed development will encroach in the 25' riparian setback.*
☐	☐	☒	**17.88.050(E)9**	**The top of the lowest floor of a building located in the 1% annual chance floodplain shall be a minimum of twenty-four inches (24") above the base flood elevation of the subject property.**

Compliant			Standards and Staff Comments	
Yes	No	N/A	Guideline	City Standards and *Staff Comments*
			Staff Comments	*No development is proposed in the regulatory floodplain.*
☐	☐	☒	17.88.050(E)10	**The back fill used around the foundation in the floodplain provides a reasonable transition to existing grade, but is not used to fill the parcel to any greater extent. Compensatory storage shall be required for any fill placed within the floodplain. A LOMA-F shall be obtained prior to placement of any additional fill in the floodplain.**
			Staff Comments	*No development is proposed in the regulatory floodplain.*

Floodplain Design Review Requirements

1. EVALUATION STANDARDS: 17.88.050(E)

☒	☐	☐	17.88.050(E)11	**All new buildings shall be constructed on foundations that are approved by a licensed professional engineer.**
			Staff Comments	*No development is proposed in the regulatory floodplain.*
☒	☐	☐	17.88.050(E)12	**Driveways comply with effective Street Standards; access for emergency vehicles has been adequately provided for.**
			Staff Comments	*Street and Fire Departments have commented on this application. As a condition of approval, the building permit application shall address all of the comments from the Street and Fire Departments in Table 1.*
☒	☐	☐	17.88.050(E)13	**Landscaping or revegetation conceals cuts and fills required for driveways and other elements of the development.**
			Staff Comments	*Minimal cut and fill will be required for the driveway and foundation. Landscaping and revegetation is proposed for all disturbed areas.*
☐	☐	☒	17.88.050(E)14	**(Stream Alteration) The proposal is shown to be a permanent solution and creates a stable situation.**
			Staff Comments	*No stream alteration is proposed.*
☐	☐	☒	17.88.050(E)15	**Stream Alteration) No increase to the 100-year floodplain upstream or downstream has been certified by a registered Idaho engineer.**
			Staff Comments	*No stream alteration is proposed.*
☐	☐	☒	17.88.050(E)16	**(Stream Alteration) The recreational use of the stream including access along any and all public pedestrian/fisherman's easements and the aesthetic beauty is not obstructed or interfered with by the proposed work.**
			Staff Comments	*No stream alteration is proposed.*
☒	☐	☒	17.88.050(E)17	**Where development is proposed that impacts any wetland, first priority shall be to move development from the wetland area. Mitigation strategies shall be proposed at time of application that replace the impacted wetland area with a comparable amount and/or quality of new wetland area or riparian habitat improvement.**
			Staff Comments	*The property contains no identified wetlands, and no work is being proposed in the floodplain or along the stream bank.*
☐	☐	☒	17.88.050(E)18	**(Stream Alteration) Fish habitat is maintained or improved as a result of the work proposed.**
			Staff Comments	*No stream alteration is proposed.*
☐	☐	☒	17.88.050(E)19	**(Stream Alteration) The proposed work is not in conflict with the local public interest, including, but not limited to, property values, fish and wildlife habitat, aquatic life, recreation and access to public lands and waters, aesthetic beauty of the stream and water quality.**
			Staff Comments	*No stream alteration is proposed.*
☐	☐	☒	17.88.050(E)20	**(Stream Alteration) The work proposed is for the protection of the public health, safety and/or welfare such as public schools, sewage treatment plant, water and sewer distribution lines and bridges providing particularly limited or sole access to areas of habitation.**

			Staff Comments	*No stream alteration is proposed.*

CONCLUSIONS OF LAW

1. The City of Ketchum is a municipal corporation organized under Article XII of the Idaho Constitution and the laws of the State of Idaho, Title 50, Idaho Code.

2. Under Chapter 65, Title 67 of the Idaho Code, the City has passed a land use and zoning code, Title 17.

3. The Commission has authority to hear the applicant's Water Ways Design Review Application and Flood Plain Development Permit pursuant to Chapter 17.88 of Ketchum Code Title 17.

4. The City of Ketchum Planning Department provided adequate notice for the review of this application.

5. The project **does** meet the standards of approval under Chapter 17.88 of Zoning Code Title 17.

DECISION

THEREFORE, the Ketchum Planning and Zoning Commission **approves** this design review application this Monday, June 27th, subject to the following conditions:

1. Waterways Design Review approval shall expire one (1) year from the date of signing of approved Findings of Fact per the terms of KMC, Section 17.88.060.G, Terms of Approval; and

2. This Waterways Design Review approval is based on the plans, as dated in the list of attachments above, and information presented and approved at the meeting on the date noted herein. Any building or site discrepancies which do not conform to the approved plans will be subject to removal; and

3. Pursuant to Chapter 17.88.050.C, no chemicals or soil sterilants are allowed within 100 feet of the mean high water mark. No pesticides, herbicides, or fertilizers are allowed within 25 feet of the mean high water mark unless approved by the City Arborist. All applications of herbicides and/or pesticides within one hundred feet (100') of the mean high water mark, but not within twenty-five feet (25') of the mean high water mark, must be done by a licensed applicator and applied at the minimum application rates. Application times for herbicides and/or pesticides will be limited to two (2) times a year; once in the spring and once in the fall unless otherwise approved by the city arborist. The application of dormant oil sprays and insecticidal soap within the riparian zone may be used throughout the growing season as needed; and

4. The above project shall meet 2012 International Fire Code in addition to specific City Building and Fire Ordinances. Approved address numbers shall be placed in such a position to be plainly visible and legible from Irene Street. Fire extinguishers shall be installed and maintained per 2012 IFC both during construction and upon occupancy of the building; and

5. Connection to the municipal water system is required per city code. Private wells must be abandoned in a manner complaint with IDAPA 37.03.09. An Application for Authorization to Abandon a Well must be filed with IDWR; and

6. The root balls of any removed tree shall be retained in place in order to continue to provide bank stabilization; and

7. Prior to issuance of a building permit, the applicant shall provide civil engineered plans, for evaluation by city staff, showing the following:
   - Minimum % of slopes detailed in the ROW.
   - Driveway should follow ROW slope and shall not drain into the street.
   - Private property shall not dewater into the ROW, and the project will need to provide drainage in the ROW; and

8. At application for a building permit, stamped, engineered structural plans for the engineered foundation shall be submitted as part of the building permit application; and

9. Temporary irrigation may be installed in the riparian setback for a period of up to two (2) years, after which it shall be removed; and

10. The Public Works Director's approval of drainage plans, prepared by a licensed landscape architect or engineer, that address improved drainage in the right-of-way per city standards, on-site drainage that accommodates roof and surface flow and maintains 25' of clearance from the city water line, is required; and

11. A Silt fence shall be constructed of durable materials durable, semi-permanent materials, that can be installed and removed without damaging the existing plants and species on site); and

12. The Limit of Disturbance (L.O.D.) shall be 8' from top of the bank.

Findings of Fact **adopted** this 11th day of July, 2016.

Steve Cook
Planning and Zoning Commission Chairperson

Planning and Zoning

Regular Meeting

~ Minutes ~

480 East Avenue North
Ketchum, ID 83340
http://ketchumidaho.org/

Keshia Owens
(208) 726-7801

Monday, June 13, 2016 | **05:30 PM** | **Ketchum City Hall**

Commissioners Present:	Steve Cook, Chairperson
	Jeff Lamoureux, Commissioner
	Betsy Mizell, Commissioner
Conference Call:	Erin Smith, Commissioner
Recused:	Steve Cook
Staff Present:	Micah Austin, Director of Planning & Building
	Brittany Skelton, Associate Planner
	Robyn Mattison, City Engineer
	Stephanie Bonney, City Attorney
	Keshia Owens, Planning Technician
	Citizens

5:00 PM-SITE VISIT: 911 North Main Street, Ketchum, Idaho (AM Lot 5A, Block 30, Ketchum Townsite)

5:30 PM - CALL TO ORDER: City Hall, 480 East Avenue North, Ketchum, Idaho

PUBLIC COMMENT - Communications from the public for items not on the agenda.

COMMUNICATIONS FROM STAFF

Bracken Station Conditional Use Permit Public Hearing: 911 North Main Street, Ketchum, ID (Ketchum AM Lot 5A Block 30 18,590 SF) The applicant is proposing to construct a motor vehicle fueling station with accessory food service. The property is 0.435 acres in size and zoned Light Industrial-1 (LI-1).

COMMENTS:

Steve Cook, representing the applicant, said that the Roy Bracken is requesting a conditional use permit for a motor vehicle fueling station. He commented that when comparing the project to the District Use Matrix the conditional use permit is an allowed use. He also added that food service, which is allowed in the LI, is to be included in the conditional use permit. Cook commented that the applicant feels that this project meets all of the requirements of the transitional uses of the LI. He added that the gas station will have a very "mom and pop" feel and will fit well into the community. He also said that they are making the project as compatible with the previous use as much as they can and noted that the applicant has worked closely with ITD, the City of Ketchum, and Idaho Power. He also said that construction of the fueling station will require crosswalks, a rapid-flashing beacon, sidewalks, and a connection to Frenchman's Place. Cook noted that the current building A and C will be removed, but building B will remain.

Ned Williams, on behalf of the applicant, said that he reviewed the staff report and public comments and noted that the standards are there to keep everyone objective.

The standards and his comments included:

1. Compatibility- a gas station is an allowed use in the LI zoning district, so the project is compatible.
2. CUP will not endanger community- the project will comply with safety and regulation standards.
3. Traffic- the project has been looked at thoroughly by ITD and they have concluded that there will be a two second delay by 2020.
4. Support by public facilities- the project will be adequately supported by public services, like fire.
5. CUP in conflict with Comprehensive Plan- when there is a conflict between the zoning ordinance and the comprehensive plan the, zoning ordinance controls.

He added that based on everything the CUP should be allowed.

Staff's Comments:

Austin noted that staff has identified some impacts like pedestrian and vehicular traffic, which would require mitigation and provided a list of recommendations for the impacts. He also said that if the CUP is approved, a drainage plan will be required and added that the proposed building complies with the requirements of building coverage, height, curb cut, parking spaces, and off-street parking.

Staff's recommendations:

- The applicant should construct two new crosswalks at the intersection of Highway-75 and Ninth Street and another at Highway-75 and going across Tenth Street.
- A Rapid flashing beacon should be added at Highway-75 and Ninth Street.
- The sidewalk should continue to Frenchman's, so that it can connect with existing sidewalks.

Skelton said that eight comments were received by the time the packets were compiled. Seven comments were against and one comment was neutral. Two additional comments in opposition were received after the packets were distributed, including one comment the day of the meeting.

- Kathleen Nichols/Douglas Holen, opposed, concerned about impact on nearby residential property values. The area is already adequately served by nearby gas stations.
- Edward Jacobs, opposed, concerned about increased traffic, congestion, impact on residential property values.
- Sarah Gorham, opposed, concerned about increased traffic, congestion, impact on residential property values.
- Liz Roquet, opposed, concerned about increased traffic, congestion, impact on residential property values, and potential contaminated water.
- J. Kevin Lawler, opposed, concerned about incompatibility of the fueling station. The area is already served by gas stations.
- Gary Lipton, neutral, concerned about dark sky compliance and relevancy of traffic study.
- Barbi Reed, opposed, concerned about increase traffic, congestion, safety, health concerns, incompatibility, impact on nearby properties.
- Jody Vering, opposed, concerned with high number of existing gas stations and incompatibility of the fueling station.
- Joel Brazil, opposed, the area already served and would like to see different types of uses in the area.

- Richard Walsworth, opposed, already served by gas stations and is concerned about the number of restaurants in the LI zone.

Public Comment:

Andrew Wall, Ketchum resident, said that the Knob Hill Inn and surrounding property owners have hired a community and environmental services firm that has conducted a preliminary need analysis for Bracken Station. He commented that the need analysis utilizes statistics from the 2012 Ketchum Economic Profile and it shows that Ketchum is over-supplied by existing gas stations. He added that in reviewing the attachments, he is asking the Commission to deny the permit as he doesn't think that the applicant has fully identified that there is no potential threat to health and safety. He noted that the station will likely have a large impact on left turning vehicle traffic on tenth street and that fire and public safety may have a hard time responding.

Jay Coleman, former Ketchum resident, said that the project runs contrary to the concerns of congestion, pedestrian and bicycle safety, employee parking, and the free-flow of commerce down Tenth Street. He noted that having four convenience stores so close to each other could hurt existing businesses and said that the applicant, not the tax payers, should be financially responsible for the cost of the restructuring of Tenth Street.

Gary Lipton, adjacent property owner, said that the Planning and Zoning Commission should take a stand now to require any project to replace telephone poles with underground facilities, as it is a win-win situation. He added that regarding the traffic study, the City should put a speed trap wire across the road to see that no one drives twenty-five MPH down Highway-75. He also commented that the fire department will not be able to access the alley where trucks may be unloading and noted that the project will not be dark sky compliant.

Mickey Garcia, Ketchum resident, said that the worst thing about the project is affordable housing for small businesses will be eliminated. He added that this is the perfect location for a gas station, as the road is a state highway and not a Ketchum street. He also noted that directing tourists to the current gas stations can be difficult and added that having a gas station located at the northern and southern end of town is a great idea.

Barbi Reed, Ketchum Resident, said that the paradigm with this project is where the gas station is located and not the fact that it will be a new gas station. She added that the success of convenience stores and gas stations, no matter where they are located, are dependent upon high traffic volumes. She also noted that the type of vehicles that will likely be using the fueling station has not been clarified. She explained that there will not only be cars, but RVs, trailers, snow mobiles, horse trailers, possibly semi-trucks, small trucks, construction trucks, and big vehicles using the station. Reed added that there should be a study of the type of vehicles this gas station would attract. She noted that ITD didn't deal with unintended consequences as far as traffic, especially with cutoff and added that there will be an impact without question when people find out that they can get through the traffic cutoff. She also noted that the impact of the old Anderson Lumber will be enormous once it is developed because of the amount of traffic increase. Reed explained that if this project does not pass, a project more in keeping with the Comprehensive Plan and zoning purposes allowing for smaller businesses and perhaps residential on smaller floors will happen. She also explained that there is no safety for pedestrians, there will be children entering and exiting the proposed convenience store, and that the uses must be evaluated with the suitability of the project. Reed also said that the concern of fire had not been mentioned and noted that Knob Hill is filled with vegetation and if there were westerly prevailing winds a fire could drop down into Ketchum. Reed also noted a study that shows that living near a fuel station reveals that there is a quadruple risk of acute leukemia in children.

Ruth Lieder, Ketchum resident said that she agreed totally with Barbi Reed's comments and added that she would like for the Commission to really consider the compatibility of the project, especially since Ketchum has been developing very lovely neighborhoods.

Karen McCall, Ketchum resident, said that she is concerned about lighting, as it is a big issue when we are trying to create a dark sky zone. She also questioned signage, paying for the sidewalk's construction, and the location because small businesses that are there will be displaced. She also noted that a gas station should not be at the entrance to the City because this area is not a transition zone.

Brian Emeric, employed in Ketchum, said that this is the perfect place for a gas station. He noted that explaining to people where a gas station is can be difficult and said that many of the gas stations in town are already traffic accidents waiting to happen. He added that his parents own the current building and are getting to a point where they can no longer care for it. He said that the existing buildings are not architecturally pleasing and said that both Bellevue and Hailey have shown the proper location of gas stations. He also noted that this new building will be the nicest thing in North Ketchum.

Susan Nieman, Ketchum resident, said that the issues of pedestrians and vehicles are troubling. She noted that she is concerned with the deli that will be added to the restaurant space and asked if the food service will be something like Subway or if it will be "mom and pop". She added that the highway in this area is dangerous and said that Ketchum doesn't need a south and a north gas station because this may lead people to leaving the valley.

Dusty Wendland, Hailey resident and owner of fuel stations in Ketchum, said that the quantity of volume in fuel is not significant in Ketchum and there is not an intense need to steer tourists to a station they can't find because the fuel simply doesn't get pumped. He added that most business is done servicing locals and there is not a tremendous amount of volume done servicing the north side. He added that there is no way to put in a fuel station without creating an eyesore and said that the displacement of small business ends up driving rents up as the LI-district turns into more retail. He noted that in the event the fueling station fails, it could be scooped up by someone with larger pockets and there would be no legal grounds to stop it.

The Commission directed the applicant to provide more information on the following:

- An industry study that shows of types of vehicles and their turning radius, especially around the proposed pumps
- Site circulation
- Pedestrian access
- Pedestrian traffic evaluation
- Traffic counts
- Issue with grading and sidewalks
- Makeup of the traffic
- What traffic could look like northbound and southbound
- Warnings for signalized crosswalks

Commissioner Mizell motioned to continue the Bracken Station Conditional Use Permit to Monday, June 22, 2016 and Commissioner Smith seconded.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Betsy Mizell, Commissioner
SECONDER:	Erin Smith, Commissioner
AYES:	Jeff Lamoureux, Erin Smith, Betsy Mizell
RECUSED:	Steve Cook, Commissioner

Bracken Station Pre-Application Design Review Public Hearing: 911 North Main Street, Ketchum, ID (Ketchum AM Lot 5A Block 30 18,590 SF) The applicant is proposing to construct a motor vehicle fueling station with accessory food service. The property is 0.435 acres in size and zoned Light Industrial-1 (LI-1).

COMMENTS:

The Commissioners asked for more information on lighting and finishes.

Commissioner Mizell motioned to continue the Pre-Application Design Review Public Hearing to Monday, June 27, 2016 and Commissioner Smith seconded.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Betsy Mizell, Commissioner
SECONDER:	Erin Smith, Commissioner
AYES:	Steve Cook, Jeff Lamoureux, Erin Smith, Betsy Mizell
RECUSED:	Steve Cook, Commissioner

Zoning Ordinance Phase II Update: Work Session

Austin said that the current sign code is not compliant with Reed v. Gilbert and added that anything that was content regulated was removed from the Ordinance. He noted that a sign matrix was added, which makes the code easier to follow. He also noted that dimensional standards were added to the Code and said both of these items will be discussed during a public hearing on July 11, 2016.

CONSENT CALENDAR

APPROVAL OF MINUTES

May 9, 2016: Minutes

COMMENTS - Current Meeting:

Commissioner Lamoureux motioned to approve the May 9, 2016 minutes and Commissioner Mizell seconded.

FUTURE PROJECTS AND NOTICING REQUIREMENTS

No projects noticed at this time.

STAFF REPORTS & CITY COUNCIL MEETING UPDATE

Austin said that the developer of the Warm Springs Ranch project has requested an eight-year extension on the project. City Council will discuss the applicant's request to amending the Development Agreement to allow for the extension at the June 20th meeting. .

Commission reports and ex parte discussion disclosure

Commissioner Lamoureux would have liked to see the complete traffic study for Bracken Station, rather than the executive summary, in the packets.

ADJOURNMENT

Commissioner Mizell motioned to adjourn and Commissioner Smith seconded.

Steve Cook
Planning and Zoning Commission Chairperson

Planning and Zoning

Regular Meeting

~ Minutes ~

480 East Avenue North
Ketchum, ID 83340
http://ketchumidaho.org/

Keshia Owens
(208) 726-7801

Monday, June 27, 2016 | **5:30 PM** | **Ketchum City Hall**

Commissioners Present:	Steve Cook, Chairperson
	Jeff Lamoureux, Commissioner
	Steve Cook, Commissioner
	Erin Smith, Commissioner
Absent:	Betsy Mizell, Commissioner
Conference Call:	Paul Fitzer, City Attorney
Staff Present:	Micah Austin, Director of Planning & Building
	Brittany Skelton, Associate Planner
	Keshia Owens, Planning Technician
	Members of the Public

5:00 PM-SITE VISIT: 112 Irene Street, Ketchum, Idaho (Warm Springs Creekside Sub Lot 12)

5:30 PM - CALL TO ORDER: City Hall, 480 East Avenue North, Ketchum, Idaho

Commissioner Cook called the meeting to order at 5:40.

PUBLIC COMMENT - Communications from the public for items not on the agenda.

Gary Lipton, Ketchum resident and adjacent property owner

Lipton said that Bracken Station was not listed as a called meeting in the newspaper. He explained that he was offended the Commissioners did not properly tell the public about the meeting and noted that the item should be continued so the public can be properly notified. He later stated that because the item was not properly advertised in the paper, the public's opportunity to attend the meeting was violated.

COMMUNICATIONS FROM STAFF

Continued from Monday, June 13, 2016- Bracken Station Conditional Use Permit Public Hearing: 911 North Main Street, Ketchum, ID (Ketchum AM Lot 5A Block 30 18,590 SF) The applicant is proposing to construct a motor vehicle fueling station with accessory food service. The property is 0.435 acres in size and zoned Light Industrial-1 (LI-1).

COMMENTS:

Commissioner Cook, representative of the applicant, said that he wished to recuse himself from the item.

Skelton said that since the June 13, 2016 meeting staff has received four additional written comments:

Helsia Graff

Concerned about the visual impact of the gas station and the rapid flashing beacon on Main Street when juxtaposed against the mountains.

Yelna Chestnut and William Niedrick, owners of Wood River Lock

Concerned about traffic, dark sky impacts, visual impacts, community character, and the fact that the area is already served by nearby gas stations. They are also concerned with the restaurant use not being viable after 5 PM.

Gary Lipton

Concerned about maintaining a dark sky and glare from lighting. He is also concerned about light trespass from the canopy, which is exacerbated by the height difference between the canopy and the lower grade of his property. He also has concerns about glare from the headlights of vehicles and from patrons of the gas station.

Leo Bresky

Concerned with dark sky light trespass from the new patio into his property, which is at a lower grade and the lack of landscaping on the western property line to provide a buffer. He suggests incorporating existing trees into patio design and/or adding additional landscaping on the property line. He is also concerned with hours of operation, rear setbacks and asked if financing for future sales of adjacent properties is contingent upon an EPA study.

Liz Roquet

Concerned with the increase in traffic in and out of the site and chronic speeding around the site in collisions. She is also concerned about difficulty turning into the site from Tenth Street due to the southbound angle and on Main Street due to the timing of turning on a turn signal. She noted concerns about the relevancy of the Traffic Data Study completed in 2008 as it relates to safety and access to the site. She is also concerned about Tenth Street bicycle safety, pedestrian traffic from Hemingway Elementary, and the turning angles and speeds of vehicles. She is also concerned with drainage and potential contamination from surface runoff and water below ground.

Staff comments:

Skelton said that to date staff has received a full sixty-four-page traffic study, which has yet to be analyzed. She explained that a pedestrian study and ITD's sign-off on the design's conceptual connection to Frenchmen's will be submitted in time for the July 11, 2016 meeting. She noted that both of these will be incorporated into the upcoming staff report. She also clarified that DEQ standards for underground fuel storage tanks and the first iteration for the photometric lighting plans has also been received.

Public Comment:

Bruce Smith, Ketchum resident

Smith commented that he prepared site plan for Mr. Bracken, yet noted that stated opinions are his own. He said that he is imagining that the City is trying to attract tourists and added there are people with big campers or those who may own a boat and their last shot at gas is Stanley. He explained that a lot of people are going to be really happy that they will be able to see a gas station that is more for the benefit of tourists than residents. He mentioned that the EPA's gas station standards are ridiculously strict and indicated that these standards will make the gas station very safe. He also emphasized that the Commission did the Text Amendment for the Community School, which has allowed forty kids to live near a gas station within the Light Industrial District.

Tara Martin, Ketchum resident

Martin said that until now she did not fully understand the full extent of the Bracken proposal and questioned if the City really needs another gas station. She argued that if the project is targeted toward tourists, yet current businesses are already having trouble during the slack season, what will happen to the gas station when tourists are not here.

Gary Lipton, Ketchum resident

Lipton cited Skelton's earlier presentation and said that he is actually neutral toward the gas station and added that he has no problem with the developer venturing his money to make a project. He then commented that it was impressive that an attorney, who was representing the Planning and Zoning Commission, told the public to not say anything outside of factual statements for Bracken Station or essentially we will be out of order. He argued that Steve Cook and the Commission were able to speak with objection from the City Attorney and noted that this did not seem transparent to the public. He contended that the Commission should be representing the City's building code better than the laymen of the public. He is also noted that the public is supposed to look up to the Commission to represent everyone, not just a fellow commissioner. He then recounted the June 13, 2016 meeting and said that Commissioner Mizell tried to express a form of compassion for the possible loss of ten businesses and thirty jobs during her comment, but her comments were stopped. He also said that the issue of lighting will need to be further discussed and stated that he is setting up the board for an appeal to the City Council if this item is approved.

He later stated that he would like to see something about gas station insurance in terms of fire and liability and reaffirmed Barbi Reed's comments about drippings and contamination.

Dusty Wendland, Ketchum property owner

Wendland said that he wanted to provide more information on Leo Bresky's comment on whether additional EPA studies would be required for adjacent properties. He explained that he owns an automotive building just south of Base Camp/River Run and noted that he attempted to mortgage this property, but he was unable to do so without paying for additional EPA studies. He said that the implication of this is that adjacent property owners have the value of their property affected because a subsequent purchaser or developer of the property will be burdened with the requirement for EPA studies before a bank would mortgage a loan. He noted that once a property with a fueling station and underground tanks is developed then the burden afflicts the property that was developed and the adjacent properties as well.

Jody Vering, Ketchum resident

Vering is concerned about the underground tanks and would like to know if the EPA will take seismic shifts into account. She also commented that people have applications on phones, which allow them to find a gas station easily.

Barbi Reed, Ketchum resident

Reed said that when she first learned of the project she researched gas stations, but has yet to find anything positive. She pointed out that she has never seen a big rig run out of gas and said that she is very proud to live in a town where it is hard to find gas. She also mentioned that she would like the applicant to identify what size vehicles (height and length) will be using the station and how will they navigate it. She then said that the right-hand turn off of Tenth Street, pedestrian safety, and sidewalks (especially when covered with snow) should be looked at more thoroughly. She indicated that snow removal is an issue and drippings from cars and tanks will likely contaminate the removed snow. She proposed that the traffic study must be done with a thorough analysis and understanding of what will happen in the future.

Reed then stated that anyone who takes time out of their day should have the opportunity to speak and proposed that the Commission listen to all comments, even if it is repeated.

Yelena Chestnut, owner of Wood River Lock

Chestnut said that the project will change the view and the spirit of Ketchum and adding a gas station will cause the City to lose its zing. She mentioned that people who have lived here for a very long time have gotten used to certain things and to get rid of those things would make them very upset. She also asserted that Ketchum has an image and we don't want to destroy the image of Ketchum.

Directives from the Commission:

- Market study from Knob Hill Inn
- Clarification on the makeup of traffic and the turning radii of various large vehicles
- Clarification on gas station snow removal
- Summary of requirements for the underground storage tanks in relation to seismic activity

Commissioner Smith moved to continue the Bracken Station Conditional Use Permit to the July 11, 2016 Planning and Zoning Commission Meeting.

RESULT:	**CONTINUED CC [UNANIMOUS]**
MOVER:	Erin Smith, Commissioner
SECONDER:	Jeff Lamoureux
AYES:	Steve Cook, Jeff Lamoureux, Erin Smith
ABSENT:	Betsy Mizell

Continued from Monday, June 13, 2016- Bracken Station Pre-Application Design Review Public Hearing: 911 North Main Street, Ketchum, ID (Ketchum AM Lot 5A Block 30 18,590 SF) The applicant is proposing to construct a motor vehicle fueling station with accessory food service. The property is 0.435 acres in size and zoned Light Industrial-1 (LI-1).

COMMENTS:

Commissioner Smith moved to continue the Bracken Station Pre-Application Design Review to the July 11, 2016 Planning and Zoning Commission Meeting.

RESULT:	**CONTINUED CC [UNANIMOUS]**
MOVER:	Erin Smith, Commissioner
SECONDER:	Jeff Lamoureux, Commissioner
AYES:	Steve Cook, Jeff Lamoureux, Erin Smith
ABSENT:	Betsy Mizell

C. Armour Residence Waterways Design Review: 112 Irene Street (Warm Springs Creekside Sub, Lot 12)
The Commission will consider and take action on an application for a Waterways Design Review and Flood Plain Development Permit for construction of a new single-family residence.

COMMENTS:

Staff comments:

Skelton said that the project contains a very small amount of flood way and added that the project was properly noticed and aided by Jim Zuribica, CFM. She explained that the project meets all zoning requirements for building height and setbacks and commented that during the construction phase a small area of the site will be disturbed. She pointed out that staff cannot currently recommend approval for the drainage plans because the Streets Department had additional comments, but this can be taken care of with conditions.

Public comment:

Tara Martin, property owner immediately to the north of the property

Martin said that there is an issue with erosion and the creek has a strong current that eats away at riparian improvements. She added that the setback is currently 25 feet and that could possibly be a problem in the future.

Additional conditions from the Commission:

- The Public Works Director's approval of drainage plans, prepared by a licensed professional that addresses improved drainage in the right-of-way, on-site drainage that accommodates roof and surface flow and maintains 25' of clearance from the city water line.
- Irrigation shall be removed after two irrigation seasons.
- A more rigid fence that would prevent people or machinery from passing beyond the Limit of Disturbance
- Signage placed on the fence to indicate limits of construction
- Limit of disturbance shall be at a minimum of eight feet from the top of the bank

Commissioner Smith moved to approve Armour Waterways Design Review because it does meet the standards for approval under Chapter 17.88 of Ketchum Code Title 17, only if the following conditions of approval are met, which are one through thirteen as discussed.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Erin Smith, Commissioner
SECONDER:	Jeff Lamoureux, Commissioner
AYES:	Steve Cook, Jeff Lamoureux, Erin Smith
ABSENT:	Betsey Mizell, Commissioner

5. Zoning Ordinance Phase II Update: Work Session

Austin said there is nothing additional from the last meeting and it should be tabled. He also explained that the parking ordinance update will soon be ready for the public.

6. CONSENT CALENDAR

A. APPROVAL OF MINUTES

1. June 13, 2016: Minutes

RESULT:	**CONTINUED CC**
MOVER:	Jeff Lamoureux, Commissioner
SECONDER:	Erin Smith, Commissioner
AYES:	Steve Cook, Jeff Lamoureux, Erin Smith
ABSENT:	Betsy Mizell, Commissioner

7. FUTURE PROJECTS AND NOTICING REQUIREMENTS

There were no updates.

8. STAFF REPORTS & CITY COUNCIL MEETING UPDATE

Austin provided the following updates:

- Warm Springs Ranch Resort was extended.
- The Final Plat for Foxhole will be coming before the Commission.
- There will be follow up on waterways projects from the past, such the Heinz project.
- Updates on the sidewalk quotes and a correction of the initial cost estimates.

9. Commission reports and ex parte discussion disclosure

Cook commented on the amount of parking spaces being taken up by Kneebone and He also asked about the timeline of the Auberge project.

10. ADJOURNMENT

Commissioner Lamoureux motioned to adjourn and Commissioner Smith seconded.