

AGENDA ITEM SUMMARY

DATE: 06/18/08 DEPARTMENT: Parks

DEPT. HEAD SIGNATURE: _____

SUBJECT: Draft Tree Ordinance

AUTHORITY: ID Code _____ IAR _____ City Ordinance/Code _____
(IF APPLICABLE)

BACKGROUND/SUMMARY OF ALTERNATIVES CONSIDERED:

The City of Hailey has considered a Tree Ordinance since 1995; Hailey's original draft was adopted by the City of Bellevue, who has been successful in reaching Tree City USA status, and has elevated public awareness of the importance of trees. An earlier version of the current Draft Ordinance actually received its second reading (but not the third reading) in late 2006.

FISCAL IMPACT / PROJECT FINANCIAL ANALYSIS

Budget Line Item # _____ YTD Line Item Balance \$ _____
Estimated Hours Spent to Date: _____ Estimated Completion Date: _____
Staff Contact: _____ Phone # _____
Comments:

ACKNOWLEDGEMENT BY OTHER AFFECTED CITY DEPARTMENTS: (IF APPLICABLE)

___ City Attorney	___ Clerk / Finance Director	___ Engineer	___ Building
___ Library	___ Planning	___ Fire Dept.	_____
___ Safety Committee	___ P & Z Commission	___ Police	_____
___ Streets	___ Public Works, Parks	___ Mayor	_____

RECOMMENDATION FROM APPLICABLE DEPARTMENT HEAD:

FOLLOW-UP REMARKS:

*

Mary Cone

From: B Keefer [b.keefe@cox.net]
Sent: Wednesday, June 18, 2008 12:25 PM
To: mary.cone@haileycityhall.org
Subject: Tree Ordinance - Agenda Item

Attachments: TREE ORDINANCE Draft.doc; Agendaltem Tree Ordinance.doc; Reasons Why the City of Hailey Needs a Tree Ordinance.doc



TREE ORDINANCE Draft.doc (58 K...
AgendaItem Tree Ordinance.doc ...
Reasons Why the City of Hailey...

Hi Mary,

I am very grateful that this could be squeezed in, and understand if it gets bumped to a later (and longer) agenda.

Let me know if you need anything else.

Becki Keefer
727-7092

REASONS WHY THE CITY OF HAILEY NEEDS A TREE ORDINANCE

TREES PROVIDE THE FOLLOWING BENEFITS TO CITY AND NEIGHBORHOOD ENVIRONMENTS:

- ♣ Shade for buildings to reduce summer air conditioning bills.
- ♣ Wind and weather protection to reduce heating bills in the winter.
- ♣ Overall cooling of the city's streets and 'hardscapes' if there is a contiguous network of healthy city trees creating a city 'forest canopy'. Increased 'watchable wildlife' opportunities due to healthy tree canopy habitat.
- ♣ Reduced snow accumulation along city-maintained sidewalks that run beneath canopies of city street trees.
- ♣ Erosion control via root systems; reduced particulate matter from blowing dust and soils; reduced silt, soil and debris filtering into storm water drainage system.
- ♣ *Cleaner air by absorbing CO2 and filtered vehicular and other air pollutants – relates to H.E.L.P. initiatives.*
- ♣ Reduced water run-off and increased water retention during snow melt season.
- ♣ Sense of place, human scale, improved aesthetics within city core that will attract business to commercial areas.
- ♣ *A healthy city tree can provide its city environment with \$1.84 of benefit for every \$1.00 spent to maintain that one tree in terms of CO2 reduction, lowered energy bills, mental health, attractive commercial areas, Main Street aesthetics, increased real estate value, reduced strain and weathering of city infrastructure, etc.*

A CITY TREE ORDINANCE WOULD PROVIDE THE FOLLOWING BENEFITS TO THE CITY OF HAILEY:

- ♣ *Ability to apply to become a Tree City USA, which affects only public-owned trees within the city's properties and rights-of-way. [Whenever city rights-of-way are mentioned, city-owned lots and properties are inferred.]*
- ♣ *Access to grants* from organizations like Tree City USA for enhancing, managing and maintaining the city's 'Urban Forest' - *Many grant opportunities focus on non-monetary matching efforts* by cities such as volunteer or city employee labor, donated or city provided equipment use and time, donated materials.
- ♣ Access to interpretive information and educational formats for aiding city managers, city staff and committees and Hailey citizenry with any type of tree issue such as selection, diseases, care.
- ♣ THE Document that enables the associated tree committee to create a city tree management, maintenance and enhancement plan. A tree maintenance plan inventories existing health and extent of city's 'forest' to aid in prioritizing tree care and city budget to address green-space management.
- ♣ Opportunity to address and enhance most city green spaces – anything from planting strips to parks – through Tree City USA grant programs as long as green space includes trees – any shrubs or perennials planted along with trees could be managed and cared for through the same mulching and irrigation efforts needed to care for the tree that stands above lower plants in the same planting bed.
- ♣ Method to *reduced city liability* related to unhealthy city trees falling onto private properties and structures. Tree City USA inventory, maintenance and management plans lead to identification and removal of unhealthy trees and the planting and care of a growing, productive, healthy city 'forest'.
- ♣ Legal avenue for preventing any person or organization or agency other than the city from cutting, trimming or pruning any tree located in the city's public rights-of-way without a 'Tree Service License', which confirms city approval, proper tree care training for the project and a noticed schedule for city tree related maintenance activities within the city's rights-of-way.
- ♣ Legitimate system for determining – via access to Tree City USA protocols - if someone is competent to maintain trees. A tree ordinance and tree maintenance plan can specify what training and certifications must be completed and obtained to maintain city trees. The intention in part is to provide recourse for replacement if city trees are mutilated or illegally removed from city property.
- ♣ Connection to Tree City USA related training programs for city employees to gain proper training for pruning, trimming, irrigating and enhancing soils around city trees; improper trimming and cutting techniques are readily apparent on trees throughout the City of Hailey, which puts our public trees at risk of disease and die-off, thereby increasing liability to the city particularly when mature trees become weakened. Obviously, tree disease, damage and loss due to inappropriate city maintenance techniques represent losses of other quality of life values trees provide to citizens – clean air, aesthetics, shade, and even wasted tax dollars.

Essentially, a Tree Ordinance provides us access to training opportunities, statewide arboricultural technical expertise and grants for tree maintenance and installation projects that can benefit us all. Let me know how I may continue to assist with this project, I have a pile of state and national references.

Denise J. Ford (208) 788-8805

HAILEY ORDINANCE NO. _____

AN ORDINANCE OF THE CITY OF HAILEY, IDAHO, PROVIDING POLICIES, REGULATIONS AND STANDARDS FOR A HAILEY TREE ORDINANCE; PROVIDING FOR A HAILEY TREE COMMITTEE; PROVIDING FOR A SEVERABILITY CLAUSE; AND PROVIDING FOR AN EFFECTIVE DATE OF THIS ORDINANCE UPON PASSAGE, APPROVAL AND PUBLICATION ACCORDING TO LAW.

WHEREAS, the Mayor and the City Council of the City of Hailey have adopted the City of Hailey Parks, Lands & Trails Master Plan, Standards & Guidelines, which promotes diverse recreation opportunities within walking distance for the greatest number of residents of Hailey;

WHEREAS, the Hailey Parks, Lands & Trails Master Plan recognizes that our trees, which make up our community forest, are an asset; they contribute to reduced energy and maintenance costs, while making the community a more pleasant place to live and work.

WHEREAS, in order to promote the health, safety and welfare of the general public, the Mayor and the City Council of the City of Hailey desire to ensure that our community forest is maintained and improved in a manner that ensures it is protected for future generations;

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND COUNCIL OF THE CITY OF HAILEY, IDAHO:

Section 1. Title 2 of the Hailey Municipal Code is amended by the addition a new Chapter 2.36, as follows:

Chapter 2.36

HAILEY TREE COMMITTEE

2.36.010 Purpose. It is the purpose of this ordinance to establish a Hailey Tree Committee to promote sound arboricultural practices and tree diversity and to promote public education of proper tree care practices.

2.36.020 Establishment. The Hailey Tree Committee is hereby established. The Hailey Tree Committee shall consist of five (5) voting members. Each member shall be appointed by the Mayor and approved by the City Council, shall have been a resident of Blaine County for two (2) years prior to appointment to the Hailey Tree Committee and shall be a resident of the City of Hailey at the time of appointment, except that one (1) member may reside outside the corporate limits of the City of Hailey, but within the City's Area of Impact. Each member must remain a resident of the City, or, in the case of the City's Area of Impact, within the impact area, during the term of his or her membership on the Hailey Tree Committee. Each member shall serve for a term of three (3) years. The terms shall be staggered and shall be filled in the same manner as original appointments, but replacements shall serve only until the expiration of the original term. The initial appointment term shall be one year for one member, two years for two members and three years for two members. Thereafter, appointments shall be for a term of three years or until a successor is appointed. The Hailey Tree Committee shall elect

officers from among the members of the Hailey Tree Committee. The chairperson shall preside at meetings of the Hailey Tree Committee. The vice chairperson shall, in the absence of the chairperson, perform the duties of the chairperson. All meetings of the Hailey Tree Committee shall be open to the public, and follow the requirements of Idaho's open meeting laws. The Hailey Tree Committee shall keep minutes and other appropriate written records of its resolutions, proceedings, and actions. All public hearings shall be conducted following public hearing procedures contained in Chapter 2.04 of Hailey Municipal Code.

2.36.030 Recommending Body. The Hailey Tree Committee shall have no authority to bind any governing body affected by planning decisions. However, the Hailey Tree Committee shall have the power to make recommendations, upon a majority vote of its attending members, to the City Council, the Hailey Planning and Zoning Commission, the Hailey Historic Preservation Commission, and the Hailey Parks and Lands Board or other similar commissions or boards.

2.36.040 Powers and Duties.

A. Unless otherwise provided by law, the Hailey Tree Committee shall have the power to make whatever rules are necessary for the execution of its duties as set forth in this Ordinance. Rules of procedure and bylaws adopted by the Committee shall be available for public inspection. The Committee shall meet a minimum of four times a year.

B. The Hailey Tree Committee shall perform any and all of its obligations under Chapter 12.20 of the Hailey Municipal Code.

C. The Hailey Tree Committee shall draft and recommend necessary amendments to Chapter 12.20 of the Hailey Municipal Code. The Committee shall also create, draft and recommend a City of Hailey Arboricultural Specifications Manual and a City of Hailey Urban Forestry Plan to the City Council. Should the manual and Plan be accepted and codified by the Council, the Committee shall draft and recommend necessary amendments to those documents. Both the manual and the Plan shall be reviewed on a five-year basis.

D. The Hailey Tree Committee shall create, draft and recommend policy and implementation of policy concerning selection, planting, maintenance, and removal of trees, shrubs and other plants in the city.

E. The Hailey Tree Committee shall recommend the allocation of funds for the implementation of Chapter 12.20 of the Hailey Municipal Code, for the establishment of educational and informational programs, and for the development of policies and procedures regarding the city duties.

F. The Committee shall establish criteria for licensing to contractors and others for the removal and maintenance of public trees within the City of Hailey.

G. The Committee shall keep the City of Hailey apprised of its activities.

2.36.050 Conflict of Interest. Each member of the Hailey Tree Committee shall be governed by the Ethics in Government Act, Idaho Code §§ 59-701 *et seq.*, as amended.

Section 2. Title 2 of the Hailey Municipal Code is amended by the addition a new Chapter 12.20, as follows:

Chapter 12.20

HAILEY TREE ORDINANCE

12,20.010 Purpose. The purpose of this ordinance is to establish policies, regulations, standards and guidelines necessary to ensure that the City of Hailey will continue to realize the benefits of its community forest. The provisions of this ordinance are enacted to:

- A. Plan maintenance of city trees with sound arboricultural practices and encourage tree diversity based on the City of Hailey Urban Forestry Plan; and
- B. Promote public education of proper tree care practices.

12,20.020 Definitions. For purposes of this Ordinance, the following words and phrases shall have the following meanings, unless another meaning is plainly intended:

“Flush Cut” shall mean cutting within the branch bark collar or ridge of a branch when pruning.

“Private Tree” shall mean any tree, Shrub or other woody vegetation not on Public Property.

“Public Property” shall mean property owned by the City of Hailey, or a public right-of-way dedicated to the public, or a public easement. Public Property includes but is not limited to public streets, alleys and public parks.

“Public Tree” shall mean any tree, Shrub or other woody vegetation on Public Property.

“Shrub” shall mean a perennial, multiple stemmed woody plant often formed by a number of vertical or semi-upright branches arising from close or at ground level and whose height at maturity is usually between three and fifteen feet.

“Street Tree” shall mean any Tree, Shrub, or other woody vegetation on lands within City of Hailey street rights-of-way.

“Topping” shall mean lopping, rounding over or leaving long branch stubs when pruning; not pruning to an auxiliary branch.

“Tree” shall mean a woody perennial plant.

12.20.030 Public Trees.

12.20.030.01 No person shall plant, prune or remove any Public Tree without an encroachment permit from the city. All such permit applications shall be reviewed by the Hailey Tree Committee. The city may grant a permit or conditionally grant a permit only when such is consistent with provisions of this Chapter and/or other applicable laws or standards.

12.20.030.02 It shall be a violation of this Chapter for any person to abuse, poison or mutilate any Public Tree, plant or Shrub or the root of any Public Tree, plant or Shrub, unless allowed in an encroachment permit issued under this Chapter.

12.20.030.03 It shall be a violation of the Chapter to top any Public Tree or to Flush Cut any branch on Public Trees, unless allowed in an encroachment permit issued under this Chapter.

12.20.030.04 Any individual or company contracting for the maintenance, removal or planting of Public Trees must enter into a contract for services with the city. The contract shall be revocable for cause. Any individual or company must provide security in accordance with Section 12.16.080 of the Hailey Municipal Code.

12.20.030.05 Any utilities shall, upon review, be granted a yearly permit that allows work on Street Trees. Permits shall be subject to the following restrictions:

A. Work done on Public Trees and roots must meet the standards and practices as stated in the City of Hailey Urban Forestry Plan.

B. The individual or company must provide security in accordance with Section 12.16.080 of the Hailey Municipal Code.

12.20.40.06 Owners of property adjacent to a Street Tree shall notify the City of Hailey if they are unable to ensure adequate maintenance for that Tree. Adequate maintenance shall include sufficient water, mulching young Trees, and protection from compaction or injury by vehicles or other causes.

12.20.040 Exclusion. The City of Hailey has the right to plant, maintain, and remove any Tree or Shrub from public street rights-of-way or Public Property in order to promote public safety or to promote or implement the City of Hailey Urban Forestry Plan.

12.20.050 Private Trees.

12.20.050.01 Each private property owner shall maintain any Tree or Shrub on their real property so that such Trees or Shrubs do not endanger the public or become hazardous to any public street, alley or other public right-of-way, public utilities or other Public Property, consistent with provisions of this Ordinance and/or other applicable laws or standards.

12.20.050.02 Upon the discovery of a serious epidemic disease or pest in any

Tree, the City of Hailey shall serve notice upon the owner of the Tree which shall require that owner to eradicate, remove or otherwise control such conditions within a given timeframe.

12.20.060 Enforcement.

12.20.060.01 Any person, firm, or corporation violating any provisions of this Chapter shall be guilty of a misdemeanor which shall be punishable by a maximum fine of \$300.00 or thirty (30) days in jail or both such fine and imprisonment.

12.20.060.02 In addition to the penalties set forth in Section 12.20.060.01, above, any person whose actions cause damage to or the destruction of a Public Tree shall be liable to the City of Hailey for the value of the Public Tree and all costs incurred by the City of Hailey in caring for, treating, pruning, removing and/or replacing the Public Tree.

Section 3. If any section, paragraph, sentence or provision hereof or the application thereof to any particular circumstances shall ever be held invalid or unenforceable, such holding shall not affect the remainder hereof, which shall continue in full force and effect and applicable to all circumstances to which it may validly apply.

Section 4. All ordinances and parts of ordinances in conflict herewith are hereby repealed.

Section 5. This Ordinance shall be in full force and effect from and after its passage, approval, and publication according to law.

PASSED AND ADOPTED BY THE HAILEY CITY COUNCIL AND APPROVED BY THE MAYOR THIS _____ DAY OF _____, 2008.

Richard L. Davis, Mayor, City of Hailey

Attest:

Mary Cone, City Clerk

Publish: Wood River Journal _____, 2008

STAFF REPORT

TO: Hailey City Council
FROM: Mariel Platt, Planner *MP*
RE: Final Condominium Plat Subdivision – Electra Lane Condominiums
HEARING: July 14, 2008

Applicant: Brian Bothwell and Terry Wall
Location: Lot 6F, Block 4, Airport West Subdivision, Phase II (1971 Electra Lane)
Zoning: Service Commercial Industrial-Industrial (SCI-I)
Note: Staff analysis is in lighter type.

Notice

Notice for the public hearing was published in the Wood River Journal and mailed to property owners within 300 feet on June 25, 2008.

Application

Brian Bothwell has submitted an application for final plat approval of a 3-unit commercial condominium project located at 1971 Electra Lane. The total land area of the project is 10,920 square feet. As the application submitted is for a condominium project, the ground under and around the units would be owned and maintained by the condominium association.

Section 3.4.1 of the Subdivision Ordinance allows for applications for platting condominium units in existing or approved structures to be reviewed through the short plat procedure. In this procedure, the Hearing Examiner or Commission reviews the preliminary plat only. Upon approval, the applicant submits a final plat for Council approval.

The application was heard by the Hailey Hearing Examiner on April 25, 2008, and approved with the following conditions:

- a) **The final plat submitted shall include plat notes 3 through 8, 10, and 11 as stated on the preliminary plat with the following amendments and additions:**
 - **Plat Note 10 shall state, “The property shown hereon is subject to the Plat Notes, Conditions, Covenants, and Restrictions on the Original Plat of Airport West Subdivision Phase II, recorded as**

instrument No. 480276, and the Replat of Lot 6, Block 4, Airport West Subdivision Phase II, Recorded as instrument No. 506224, Records of Blaine County, Idaho.”

This condition has been met.

- Plat Note 11 shall state, “The property shown hereon is subject to the additional exceptions as listed below. Title information by Sun Valley Title with the guarantee date of 3/10/08 @ 8:00am, Order No. 0823862, and guarantee No. 304-Z005206:”

This condition has been met.

- The final plat shall include a note stating, “The property shown hereon is subject to the recorded CC&R’s, along with the instrument numbers thereof.”

This condition has been met.

- A plat note shall be added stating, “The property shown hereon is subject to the Noise and Avigation Easement and Non-Suit Covenant recorded as Instrument No. _____, records of the County Recorder, Blaine County, Idaho.”

This condition has been met.

- b) **The association shall be responsible for payment of utilities. Billing and utility payment information shall be addressed in the Condominium Declarations.**

This condition has been met.

- c) **Draft CC&Rs shall be submitted.**

This condition has been met.

- d) **An additional 56 square feet of on-site snow storage shall be provided and shown on the final plat and shall be contiguous with the proposed on-site snow storage area.**

This condition has been met.

- e) **All improvements and other requirements shall be completed and accepted, or surety provided pursuant to Sections 3.3.7 and 5.9.1 of the Subdivision Ordinance, prior to recordation of the final plat.**

This condition should be carried over.

- f) **All provisions of the Zoning Ordinance #532, including but not limited to use regulations and parking requirements shall continue to be met. Additional parking may also be required upon subsequent change in use, in conformance with Hailey’s Zoning Ordinance at the time of the new use.**

This condition should be carried over.

- g) **The final plat must be submitted within one (1) calendar year from the**

date of approval of the preliminary plat, unless otherwise allowed for within a phasing agreement.

This condition has been met.

- h) Any subdivision inspection fees due shall be paid prior to recording the final plat.**

This condition should be carried over.

- i) Any applicable development impact fees shall be paid in accordance with Hailey's Development Impact Fee Ordinance.**

This condition should be carried over.

Department Head Comments:

Life/safety issues: No comment was provided.

Water and Sewer issues: No comment was provided.

Engineering issues: No comment was provided.

Standards of Evaluation:

Bulk requirements:

4.12.3.4 Bulk Requirements within the SCI-I sub-district. For other supplementary location and bulk regulations, see Article VII.

- a. Minimum Lot Size: 10,890 square feet**

The lot size is 10,910 square feet.

- b. Maximum Building Height - thirty five (35) feet.**

The proposed building height is 27 feet, 11-5/8 inches.

- c. Maximum Floor Area - Buildings or structures containing an Individual Retail/Wholesale Trade or a Grouped Retail/Wholesale Trade shall be limited to an aggregate gross floor area of 25,000 square feet.**

The building's use is unknown. However, the building is less than 25,000 square feet, measuring 2,368 square feet.

- d. Minimum Front Yard Setback - ten (10) feet.**

The front yard setback is 45 feet.

- e. Minimum Side and Rear Yard Setback - ten (10) feet.**

The side and rear yard setbacks measure 22 feet on the east side, 15 feet on the west side, and 30 feet at the rear.

- f. No parking shall be placed within the setback areas.**

No parking is proposed within the setback areas.

- g. Maximum Lot Coverage - Not more than seventy percent (70%) of the lot shall be covered by buildings.**

The lot size is 10,910 square feet and the building measures 2,368 square feet. Lot coverage measures approximately 22%.

- h. All materials, with the exception of trees and plant materials stored on the premises, shall be stored within a building or within a wall or screening fence not less than four (4) feet nor greater than eight (8) feet in height.**

N/A

SECTION 3 – PROCEDURE

3.3 Final Plat Approval.

The final plat, prepared by a Professional Land Surveyor, must be submitted within one (1) calendar year from the date of approval of the preliminary plat, unless otherwise allowed for within a phasing agreement or as otherwise provided herein. Plats not submitted for final approval within one (1) year or according to the phasing agreement, shall be considered expired and preliminary plat approval shall become null and void. The Council may extend the deadline for submitting the final plat upon holding a public hearing.

The Hearing Examiner's approval of the preliminary plat was on May 13, 2008.

3.3.2 The administrator shall review the Final Plat application to ensure that the application submitted is consistent with the approved preliminary plat. The conditions imposed on the preliminary plat approval must be either completed or shown on plans or the plat prior to any public notice for final plat approval.

The final plat is consistent with the preliminary plat approved by the Hearing Examiner. Conditions of preliminary plat approval have been met or are carried over.

SECTION 4 – DEVELOPMENT STANDARDS

Development standards were reviewed in detail during the preliminary plat approval process and are documented in the preliminary plat Findings of Fact and Decision. No unrequested changes have been made to the plat since preliminary plat approval.

CONDOMINIUMS (Section 7 of the Subdivision Ordinance)

7.1 Plat Procedure. The Developer of a condominium project shall submit with the preliminary plat application as required by this Ordinance a copy of the proposed by-laws and condominium declarations of the proposed condominium development. The documents shall adequately provide for the control (including billing where applicable) and maintenance of all common utilities, common area, recreational facilities, and Green Space. The Developer may submit a final plat application following inspection and approval by the Building Inspector of the footings and setbacks of the condominium building. Prior to final plat approval, the Developer shall submit to the City a copy of the final by-laws and condominium declarations to be recorded with the County Recorder, including the instrument number(s) under which each document was recorded.

Draft CC&Rs have been submitted and address the payment of utilities. The City has not and will not in the future determine the enforceability or validity of the Declaration of Covenants, Conditions, and Restrictions or other private agreements.

- 7.2 Garages.** All garages shall be designated on the preliminary and final plats and on all deeds as part of the particular condominium units. Detached garages may be platted on separate sub-lots, provided that the ownership of detached garages is appurtenant to specific condominium units on the condominium plat and that the detached garage(s) may not be sold and/or owned separate from any dwelling unit(s) within the condominium project.

Garage space is contained within each unit.

- 7.3 Storage/Parking Areas.** Condominium projects shall provide parking spaces according to the requirements of Article IX of the Zoning Ordinance.

The building is 2,368 square feet, requiring three (3) parking spaces for warehouse and storage use; one (1) for every 1,000 gross square feet of building, rounded up to the nearest 1,000. Three (3) parking spaces are proposed. If a different use occupies the building, additional parking may need to be provided, pursuant to Article IX of the Zoning Ordinance.

- 7.4 Construction Standards.** All condominium project construction shall be in accordance with the IBC, IRC and IFC.

Compliance with all applicable construction standards is required by the Building Official prior to issuance of a certificate of occupancy.

- 7.5 General Applicability.** All other provisions of this Ordinance and all applicable ordinances, rules and regulations of the City and all other governmental entities having jurisdiction shall be complied with by Condominium developments.

Upon meeting proposed conditions of approval, the proposed application does not appear to conflict with other provisions.

- 7.6 Conversion.** The conversion by subdivision of existing units into Condominiums shall not be subject to Section 4.10 of this Ordinance.

Summary and Suggested Conditions

The City Council shall hold a public hearing and approve, conditionally approve, or deny the final plat application. The following conditions are suggested to be placed on any approval of this application:

- a) All improvements and other requirements shall be completed and accepted, or surety provided pursuant to Sections 3.3.7 and 5.9.1 of the Subdivision Ordinance, prior to recordation of the final plat.
- b) All provisions of the Zoning Ordinance #532, including but not limited to use regulations and parking requirements shall continue to be met. Additional parking may also be required upon subsequent change in use, in conformance with Hailey's Zoning Ordinance at the time of the new use.
- c) The final plat shall be recorded within one year of the date of final plat approval (unless otherwise provided for within a phasing agreement.) The final plat submitted for signature shall conform to the requirements found in Article 50-1301 (et. seq.) of the Idaho Code (as amended) and to the requirements set forth by Blaine County for digital plat submittals. The applicant shall provide the City with a letter-size or ledger-size photocopy of the recorded plat showing the instrument number and date of recordation.
- d) Any subdivision inspection fees due shall be paid prior to recording the final plat.
- e) Any applicable development impact fees shall be paid in accordance with Hailey's Development Impact Fee Ordinance.

Motion Language

Approval with Conditions

Motion to approve the final plat of Electra Lane Condominiums, finding that the plat conforms to the applicable standards outlined in the Hailey Subdivision Ordinance; with conditions () through ().

AGENDA ITEM SUMMARY

DATE: 06-23-08

DEPARTMENT: Planning

DEPT. HEAD SIGNATURE: BR

SUBJECT: Ordinance vacating a remnant portion of the alley located within Block 78, Original Hailey Townsite.

AUTHORITY: ID Code _____ IAR _____ City Ordinance/Code _____
(IF APPLICABLE)

BACKGROUND/SUMMARY OF ALTERNATIVES CONSIDERED:

The Council approved findings of fact on June 9, 2008 vacating a remnant portion of the alley located within Block 78, Original Hailey Townsite. An ordinance and quitclaim deed is required to finalize the decision.

ACKNOWLEDGEMENT BY OTHER AFFECTED CITY DEPARTMENTS: (IF APPLICABLE)

___ City Attorney	___ Clerk / Finance Director	___ Engineer	___ Building
___ Library	___ Planning	___ Fire Dept.	_____
___ Safety Committee	___ P & Z Commission	___ Police	_____
___ Streets	___ Public Works, Parks	___ Mayor	_____

ACTION OF THE CITY COUNCIL:

Date _____

City Clerk _____

FOLLOW-UP:

*Ord./Res./Agmt./Order Originals: _____ *Additional/Exceptional Originals to: _____

Copies (all info.): _____ Copies (AIS only)

Instrument # _____

6/23 - council continued the discussion / postponed reading until July 14th - no quorum for this part of the meeting -

7/14 - 1st Reading - assign ordinance #

HAILEY ORDINANCE NO. ____

AN ORDINANCE OF THE CITY OF HAILEY, IDAHO, VACATING THAT PORTION OF THE CITY RIGHT-OF-WAY WITHIN BLOCK 78 ALLEY, ORIGINAL HAILEY TOWNSITE; PROVIDING FOR EXECUTION OF A QUITCLAIM DEED BY THE MAYOR CONVEYING TITLE TO SAID VACATED PROPERTY TO THE OWNER OF PROPERTY ADJACENT TO THE VACATED RIGHT-OF-WAY; AND PROVIDING FOR THE EFFECTIVE DATE OF THIS ORDINANCE UPON PASSAGE, APPROVAL, AND PUBLICATION ACCORDING TO LAW.

WHEREAS, the Hailey City Council has determined, and hereby finds, that the remaining portion of the alley within Block 78, Original Hailey Townsite, has not been used by the City of Hailey as a public alley right-of-way, is no longer needed for public use, and is of no significant use or value to the City and that the vacation of same is expedient for the public good; and

WHEREAS, the Hailey City Council believes it is appropriate to vacate the remaining portion of the alley within Block 78, Original Hailey Townsite.

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF HAILEY, IDAHO, AS FOLLOWS:

Section 1. The city of Hailey hereby vacates that remaining portion of the alley within Block 78, Original Hailey Townsite, as shown on the official Plat of the City of Hailey on file in the office of the Blaine County Recorder, more particularly described in attached Exhibit "A."

Section 2. The Mayor of the City of Hailey is hereby authorized to execute and deliver a Quitclaim Deed, on behalf of the City of Hailey, transferring title to the property vacated as deemed in the best interest of the adjacent property owner pursuant to Idaho Code Section 50-311.

Section 3. This Ordinance shall be in full force and effect from and after its passage and publication according to law.

PASSED AND ADOPTED BY THE HAILEY CITY COUNCIL AND APPROVED BY THE MAYOR
THIS ____ DAY OF _____, 2008.

Richard L. Davis, Mayor, City of Hailey

Attest:

Mary Cone, City Clerk

STAFF REPORT

TO: Hailey City Council
FROM: Beth Robrahn, Planning Director 
RE: Preliminary Plat and Floodplain Development Permit – Lots 15A and 15B, Birdwood Subdivision
HEARING: July 14, 2008

Applicant: Bulotti Construction, Inc./John Bulotti
Location: Lot 15, Birdwood Subdivision (911 Silver Star Drive)
Zoning: Limited Residential (LR) and Flood Hazard Overlay (FH)
Note: The changes to the staff report are underlined for easy reference.

Notice

Notice for the public hearing was published in the Wood River Journal and mailed to property owners within 300 feet on June 25, 2008 for the July 14, 2008 Council meeting.

Application

Bulotti Construction, Inc., represented by John Bulotti, has submitted an application for Preliminary Plat approval for the replat of Lot 15, Birdwood Subdivision to subdivide the lot into 2 lots. Lot 15B, which has a newly constructed house on it, is proposed to be 20,040 square feet. Lot 15A is undeveloped and proposed to be a 75,875 square foot flag lot. Both lots would be accessed by a private driveway directly off of Silver Star Drive.

The original application for both the preliminary plat and the Floodplain Development Permit were received in 2003. The standards in place at the time the original application was submitted are the standards that are required be applied to this application.

Section 4.10.7.1 of the Zoning Ordinance requires both Commission and Council approval for subdivisions in the floodplain.

Application History

- The Planning and Zoning Commission heard an application for a 4 lot subdivision on November 3, 2003 and April 19, 2004. The Commission denied both the Preliminary Plat application and the Floodplain Development Permit; citing failure to meet the standards set forth in Section 4.9.1 of the Subdivision Ordinance and Section 4.10.7.2 of the Zoning Ordinance.
- The applicant appealed the Commission's decision to the Council. The Council considered the appeal on July 11, 2005 and upheld the Commission's decision.
- The applicant filed an appeal before the District Court. During the appeal to the Court the parties engaged in mediation, which was unsuccessful.
- The applicant subsequently approached the City with a proposal to submit a 2 lot subdivision.

- The City and the applicant agreed to stay the Court proceeding while the 2 lot subdivision was considered.
- The applicant submitted a preliminary plat for 2 lots which was heard by the Council on April 23, 2007. The Council tabled the application, requesting a hydrology study to determine the best location for a building envelope.
- A revised plat was submitted on October 3, 2007 showing a building envelope located outside the 100-year floodplain. In response to the Council's request for a hydrology study, the applicant submitted a detailed survey of the property and a FEMA determination that removes two areas on the subject property from the floodplain.
- The City received a letter submitted by Gary Slette, attorney for the applicant, dated September 20, 2007. The letter makes reference to a letter from John Seiller, attorney for the Birdwood Homeowners Association, suggesting procedural improprieties which require the Commission to consider the revised subdivision application. In the letter, Mr. Slette suggests the Council remand the application to the Commission for its review and recommendation in order to avoid procedural disputes. The Council held a public hearing on October 22, 2007. The application was remanded to the Commission for its review.
- The City received a Letter of Map Amendment (LOMA) on October 23, 2007. Extensive survey work was conducted by Brockway Engineering and the applicant submitted a request to FEMA to determine that two areas within Lot 15 are no longer considered to be in the floodplain. One of the areas appears to be a portion of the lot wherein the existing house is situated. The other area is above base-flood elevation and the area the applicant has identified as the building envelope for the proposed new lot.
- The Commission held a public hearing on November 19, 2007 to hear both the Floodplain Development Permit (FPDP) and the Preliminary Plat. The Commission denied approval of the FPDP, citing that the application failed to meet criteria 4.10.7.2 items a, g, and h relative to safe access to the proposed new lot in times of high water.
- The Birdwood Homeowners Association filed a lawsuit against Mr. Bulotti in March of 2006, citing that the original covenants specified that only one dwelling unit per lot was permitted and that Mr. Bulotti could not, in fact, further subdivide Lot 15. Mr. Bulotti filed a counterclaim, taking the position that the covenants did not apply. Both parties moved for summary judgment. The District Court decided that because the 1981 covenants had not been signed by anyone in the chain of title to Lot 15, neither they nor the amended 2003 covenants applied. The decision was appealed. The Supreme Court determined that the covenants did not apply in this case. Supreme Court decision given to the Council on January 14, 2008. The City has not considered the covenants in the City's analysis of the Standards of Evaluation.

Current Application Status

- The Council held a hearing on this application on January 14, 2008. A motion was passed to “continue this matter until more information is received, including an opinion of a Professional Engineer with expertise on water issues on construction of road and the opinion of a Hydrologist to get more information on if a road can be designed to handle a fire apparatus and if this can be done to not endanger anybody’s property”.
- The Council held a public hearing on May 19, 2008. The staff report included the analysis from the third party that the Council had requested. The Council denied the application because positive findings could not be made for Section 4.91 that requires subdivisions within the floodplain to comply will all provisions of Section 4.10, Flood Hazard Overlay District, of the Hailey Zoning Ordinance and Flood Plain Development Criteria 4.10.7.2(a), stating there will be no danger to life, limb or property due to increased flood heights or velocities, and 4.10.7.2(b), stating that all subdivisions shall have adequate drainage provided to reduce exposure to flood damage, because of possible silting of the culverts.
- The Findings of Fact of the May 19 decision were on the June 9, 2008 agenda. The City Attorney suggested that the Council consider a motion to reconsider the Findings because two council members stated they believed the matter was before them on an appeal, because one council member conducted a previously undisclosed site visit, because the Council may not have employed a reasonableness standard under Section 4.10.7.2(a), and because the Council could better describe the actions, if any, that the applicant could take to obtain a permit. Council Member Don Keirn visited the site on several occasions during the flood event in the area in May, 2006, and observed standing water through much of the proposed Lot 15A. A motion for reconsideration was made and unanimously approved.

Changes to Applicant’s Design and Third Party Engineering Analysis

- The applicant has submitted a revised culvert design to replace the culvert design presented to the Council in May 19, 2008 intended to address the concerns expressed by the Council regarding impact to adjacent properties in a flood event.
- The previous culvert design was “four parallel pipe-arch” design. The revised culvert design submitted by the applicant is one 2.5 ft x 10 ft box culvert with wing walls. The span of the box culvert is 10 ft and will provide a minimum of 2.5 ft from the lowest chord elevation to the invert of the stream. The surface of the box culvert also serves as the driveway surface.
- SPF, the Boise based water engineering firm selected by the City Engineer to conduct a third party review of the applicant’s plans has reviewed the new box culvert design as submitted by Brockway Engineering on behalf of the applicant. The analysis by SPF is attached.

Department Head Comments

The City Engineer and the Fire Chief have both reviewed the new box culvert design and found that the design mitigates the concerns with access.

Procedure

Pursuant to the Hailey Subdivision Ordinance Section 4.9.1., Flood Hazard Overlay District, subdivisions or portions of subdivision located within the Flood Hazard Overlay District shall comply with all provisions of Section 4.10 of the Zoning Ordinance.

Pursuant to Hailey Zoning Ordinance Section 4.10.7, Flood Hazard Development Permit, a Flood Hazard Development Permit shall be obtained before any site alteration, construction or development begins within or upon any area located within the Floodplain Sub-District. All applications for a Flood Hazard Development Permit for a subdivision shall be evaluated and approved or denied by the Commission and Council. All other Flood Hazard Development Permit applications shall be evaluated and approved or denied by the Flood Hazard Development Permit Board.

Standards of Evaluation

SECTION 2 - PERMITS.

- 2.9 **No permit for the construction of any building shall be issued upon any land for which all improvements required for the protection of health and the provision of safety, (including but not necessarily limited to an approved potable water system, an approved wastewater system to accept sewage, and asphalt paving of the streets) have not been installed, inspected, and accepted by the City of Hailey, with the following exception:**

Building permits may be issued for any building in a development for which plats have been recorded and security provided, but the streets have not yet been completed with asphalt due to winter conditions. In such instances, the street shall be constructed as an all-weather surface to City Standards to the satisfaction of the City Engineer, and shall be kept clear to the satisfaction of the Fire Chief. No Final Inspection approval or Certificate of Occupancy shall be granted until all improvements, including asphalt, have been installed, inspected and accepted.

Notice of this requirement is hereby given to the applicant, and included as a recommended condition of approval.

SECTION 4 – DEVELOPMENT STANDARDS

- 4.0 **The configuration and development of proposed subdivisions shall be subject to the provisions found hereunder, and shall be subject to the development restrictions, guidelines and direction found within the Hailey Comprehensive Plan, the Hailey Zoning Ordinance and any other applicable Ordinance or policy of the City of Hailey.**

Under this standard, the Council will need to evaluate the following applicable standards in Sections 4.1 through 4.10, inclusive, and determine whether the configuration and development of the proposed subdivision meets the requirements of these sections. In addition, the Council should evaluate whether the proposed subdivision meets the restrictions, guidelines and directives of the Comprehensive Plan, Zoning Ordinances and other applicable ordinances.

4.1 Streets.

4.1.1 All streets in the subdivision must be platted and developed with a width, alignment, and improvements such that the street is adequate to accommodate existing and anticipated vehicular and pedestrian traffic and meets City standards. Streets shall be aligned in such a manner as to provide through and efficient access from and to adjacent developments and properties and shall provide for the integration of the proposed streets with the existing pattern.

No streets are proposed. Access for proposed Lot 15A and Lot 15B will be across a portion of the flag lot which is a 20 foot wide portion of driveway.

4.1.11 Driveways may provide access to not more than five residential dwelling units. No portion of the required fire lane width of any driveway in a multi-family development may be utilized for parking. Driveways shall not be named.

One existing lot is proposed to be subdivided into two (2) lots. The driveway would not be named. The homes will have Silver Star Drive addresses; all addresses should be posted at the driveway entrance. A recommended condition of approval is that the driveway be posted for no parking.

4.1.11.1 Driveways shall be constructed with an all weather surface and shall have the following minimum roadway widths:

Accessing one residential unit:	12 feet
Accessing two or three residential units:	16 feet
Accessing four or five residential units:	20 feet

The proposed driveway is shown to have a 20 foot asphalt width. The Fire Chief has commented that no encroachment of the fire lane width will be allowed without written approval.

4.1.11.2 Driveways longer than 150 feet must have a turnaround area approved by the Fire Department. Fire lane signage must be provided as approved by the Fire Department.

The driveway proposed to serve both lots is approximately 460 feet long measured from the property line adjacent to Silver Star Drive to end of the driveway. An approved fire apparatus turnaround is required for all private driveways in excess of 150 feet; a hammerhead turnaround is shown approximately 360 feet from the property line adjacent to Silver Star Drive.

4.1.11.3 Driveways accessing more than one residential dwelling unit shall be maintained by an owner's association, or in accordance with a plat note.

A plat note states that the Homeowners Association will be responsible for the maintenance of the private driveway.

4.1.11.4 The area designated for a driveway serving more than one dwelling unit shall be platted as a separate parcel according to subsection 4.5.3 below, or as a dedicated driveway easement. Easements and parcels shall clearly indicate the beneficiary of the easement or parcel and that the property is unbuildable except for ingress/egress, utilities or as otherwise specified on the plat.

The private driveway easement is shown on the plat; beneficiaries of the easement shall be the owners of Lots 15A and 15B; a recommended condition of approval is that the beneficiaries of the driveway easement are indicated on the plat.

4.1.12 Required fire lanes, whether in private streets or driveways, shall comply with all regulations set forth in adopted fire codes.

The private driveway will be a fire lane. A suggested condition of approval is for the driveway to meet all regulations of the International Fire Code.

4.2 Sidewalks and Curbs.

4.2.1 Sidewalks, as required in all public street improvements, shall be a minimum of 5 feet wide, shall be constructed of concrete installed to City standards or shall be constructed of an alternative material as approved by the Hailey Planning and Zoning Commission and/or the Hailey City Council. The Council, following a recommendation by the Planning and Zoning Commission, may waive this requirement pending a finding that the installation of sidewalks within the development will provide a substantial burden to the developer and no reasonable benefit to either the public or the occupants of the development.

4.2.1.1 The Council shall not waive the requirement for the provision of sidewalks in Business, Limited Business, Technological Industry, Service Commercial Industrial, or other pedestrian areas. Sidewalks shall accommodate anticipated pedestrian traffic, street trees where required, and shall be in accordance with established City standards and sidewalk master plan.

No sidewalk is proposed. The Commission determined that requiring sidewalk in a neighborhood where no sidewalks exist would not be a public benefit.

4.2.2.1 The developer may, at their option, propose alternatives to either the standard sidewalk configuration required in Section 4.2.1 above, or the planned non-vehicular pathway required as part of this Section. The Commission and Council shall ensure that said alternative configuration shall not reduce the level of service or convenience to either residents of the development or the public at large.

No sidewalk is proposed

4.3.7 Where alleys are not provided, easements of not less than ten (10) feet in width may be required on each side of all rear and/or side lot lines (total width = 20 feet) where necessary for wires, conduits, storm or sanitary sewers, gas and water lines. Easements of greater width may be required along lines, across lots, or along boundaries, where necessary for surface drainage or for the extension of utilities.

The proposed private driveway is noted as a utility easement. In addition, a 15 foot wide public utility easement is shown on the south edge of Lots 15A and 15B. The City Engineer has indicated that the drainage swales should contain any surface drainage on the subject property and will prevent flow onto adjacent properties. A grading plan will be necessary to assure compliance.

4.3.8 Easements. Easements, defined as the use of land not having all the rights of ownership and limited to the purposes designated on the plat, shall be placed on the plat as appropriate. Plats shall show the entity to which the easement has been granted. Easements shall be provided for the following purposes:

- 4.3.8.1 To provide access through or to any property for the purpose of providing utilities, emergency services, public access, private access, recreation, deliveries, or such other purpose. Any subdivision that borders on the Big Wood River shall dedicate a 20-foot wide fisherman's access easement, measured from the mean high water mark, which shall provide for non-motorized public access. Additionally, in appropriate areas, an easement providing non-motorized public access through the subdivision to the river shall be required as a sportsman's access.**

The private driveway is an access easement, a utility easement and emergency access easement as shown on the plat. Because of the location of the property, a fisherman's and public access easement is not appropriate.

- 4.3.8.2 To provide protection from or buffering for any natural resource, riparian area, hazardous area, or other limitation or amenity on, under, or over the land. Any subdivision that borders on the Big Wood River shall dedicate a seventy-five (75) foot wide riparian easement, measured from the mean high water mark, upon which no permanent structure shall be built, in order to protect the natural vegetation and wildlife along the river bank and to protect structures from damage or loss due to river bank erosion. A twenty-five (25) foot wide riparian easement shall be dedicated adjacent to tributaries of the Big Wood River. Removal of live vegetation within the riparian easement is prohibited, except for the removal of leaning or hazardous trees. Pruning of trees within the riparian setback is allowed. The riparian easement shall be fenced off during any construction on the property.**

While this property lies outside of any riparian easement or setback, it is located within the floodplain with pockets of forested wetlands. Any grading, construction, development or alteration to the property shall be subject to approval of a Floodplain Development Permit. A concurrent Floodplain Development Permit application has been submitted.

- 4.3.8.3 To provide for the storage of snow, drainage areas, or the conduct of irrigation waters. Snow storage areas shall be not less than twenty-five percent (25%) of parking, sidewalk, and other circulation areas.**

A portion of the flag lot shows a snow storage easement. The City Engineer has indicated that drainage swales should contain any surface drainage on the subject property and prevent flow onto adjacent properties. A grading plan will be necessary to assure compliance.

4.4 Blocks.

- 4.4.1. The length, width and shape of blocks shall be determined with due regard to adequate building sites suitable to the special needs of the type of use contemplated, the zoning requirements as to lot size and dimensions, the need for convenient access and safe circulation, and the limitations and opportunities of topography.**

A single block is proposed.

4.5 Lots.

- 4.5.1 All lots shown on the subdivision plat must conform to the minimum standards for lots in the District in which the subdivision is planned. The City of Hailey will generally not approve single-family residential lots larger than one-half acre (21,780 square feet). In the event a single-family residential lot greater than one-half acre is platted, irrigation is restricted to not more than one-half acre, pursuant to Idaho Code 42-111, and such restriction shall be included as a plat note. District regulations are found in the Hailey Zoning Ordinance.**

Minimum lot size in the Limited Residential-1 District (LR-1) is eight thousand (8,000) square feet. As this property lies within the Floodplain Hazard Overlay District, the minimum lot size is 20,000 square feet. Lot 15B measures 20,040 square feet and Lot 15A measures 75,875 square feet. A plat note is recommended to restrict irrigation of Lot 15A to not more than one-half acre.

- 4.5.2 Double frontage lots shall be prohibited except where unusual topography, a more integrated street plan, or other conditions make it undesirable to meet this requirement. Double frontage lots are those created by either public or private streets, but not by driveways or alleys. Subdivisions providing a platted common space of 25 feet or more between any street right-of-way and any single row of lots shall not be considered to have platted double frontage lots. Common space provided must be landscaped.**

The lots are served by a private driveway, which will serve only the two lots within the subdivision; therefore, these lots will not create double frontage lots in the Cedar Bend Subdivision.

4.6 Orderly Development.

- 4.6.1 Development of subdivisions shall be phased to avoid the extension of City services, roads and utilities through undeveloped land.**

The subject property is directly adjacent to mostly developed property; no phasing is proposed.

- 4.6.2 Subdividers requesting phased subdivisions shall enter into a phasing agreement with the City. Any phasing agreement shall be approved and executed by the Council and the Developer on or before the preliminary plat approval by the Council.**

The project would be completed in a single phase.

- 4.6.3 No subdivision shall be approved which affects the ability of political subdivisions of the state, including school districts, to deliver services without compromising quality of service delivery to current residents or imposing substantial additional costs upon current residents, unless the subdivider provides for the mitigation of the effects of subdivision. Such mitigation may include, but is not limited to the following:**

Provision of on-site or off-site street or intersection improvements.

Provision of other off-site improvements.

Dedications and/or public improvements on property frontages.

Dedication or provision of parks or green space.

Provision of public service facilities.

Construction of flood control canals or devices.

Provisions for ongoing maintenance.

The proposed subdivision is for two single family lots. Off site improvements required may include sidewalk within the Silver Star Drive right-of-way; however a sidewalk is not a recommended condition of approval. A recommended condition of approval is a plat note stating that the Homeowners Association shall be responsible for the maintenance and operation of the sewer service line within the subdivision and Silver Star Drive right of way to the mainline, and for maintenance and operation of the water service line and private driveway within the subdivision.

4.8 Cuts, Fills, and Grading.

4.8.1 Proposed subdivisions shall be carefully planned to be compatible with natural topography, soil conditions, geology and hydrology of the site, as well as to minimize cuts; fills; alterations of topography, streams, drainage channels; and disruption of soils or vegetation. Fill within the floodplain shall comply with the requirements of the Flood Hazard Overlay District of the Hailey Zoning Ordinance, as amended.

The property has pockets of low-lying areas and is located within the floodplain. The flood event of May 2006 showed significant areas of ponding on Lot 15A. A building envelope is proposed on Lot 15A to mitigate any groundwater flooding that may occur on this lot and to ensure that no adverse flood impacts will affect the adjoining properties. This property contains environmentally fragile areas of forested wetlands, and any grading, construction, development or alteration to the land will require a Floodplain Development Permit prior to any work being done. A survey and a determination by FEMA which establishes a map amendment to the floodplain was given to the Council on January 14, 2008. As noted above in Section 4.3.8.2, a concurrent Floodplain Development Permit application has been submitted for the subdivision. An additional Floodplain Development Permit is required to be submitted for any development on Lot 15A.

4.8.1.1 A preliminary soil report prepared by a qualified engineer may be required by the Commission and/or Council as part of the preliminary plat application.

A study of the property was done by the Army Corps of Engineers to determine if any area contains wetlands requiring a Section 404 Permit issued under the Clean Water Act. Wetland features exist on the property, however these features have no direct surface connection with the Bigwood River therefore a Section 404 Permit is not required. It was determined that forested wetland features continue to exist due to a seasonal high ground water table. Further, a hydrology study conducted by Brockway Engineers noted that the water present on proposed Lot 15A would not be water flowing from the Bigwood River, but rather ground water from a high water table.

4.8.1.2 A preliminary grading plan prepared by a civil engineer may be required by the Commission and/or the Council as part of the preliminary plat application, to contain the following information:

Proposed contours at a maximum of two (2) foot contour intervals;

Cut and fill banks in pad elevations;

Drainage patterns;

Areas where trees and/or natural vegetation will be preserved;

Location of all street and utility improvements including driveways to building envelopes; and

Any other information which may reasonably be required by the Administrator, Commission, and/or Council.

This property is located within the floodplain, therefore a Floodplain Development Permit is required. The Floodplain Development Permit application shows contours (existing and proposed), location, dimensions and elevations of the proposed improvements, plans for fill and grading, and a description of the extent to which any watercourse would be altered or relocated.

4.8.2 The proposed subdivision shall conform with the following design standards:

4.8.2.1 Grading shall be designed to blend with natural land forms and to minimize the necessity of padding or terracing of building sites, excavation for foundations, and minimize the necessity of cuts and fills for streets and driveways.

A Floodplain Development Permit shall be required for any grading within the proposed subdivision. The Council should evaluate and determine whether the location of the building envelope for Lot 15A, as recommended by the Flood Hazard Development Board, blends with natural land forms and minimizes the necessity of padding or terracing of building sites, excavation for foundations, and minimizes the necessity of cuts and fills for streets and driveways.

4.8.2.2 Areas within a subdivision which are not well suited for development because of existing soil conditions, steepness of slope, geology or hydrology shall be allocated for open space for the benefit of future property owners within the subdivision.

A building envelope is proposed on Lot 15A to mitigate groundwater flood damage and to ensure that no adverse impacts will occur to the adjoining properties.

4.8.2.3 Where existing soils and vegetation are disrupted by subdivision development, provision shall be made by the subdivider for revegetation of disturbed areas with perennial vegetation sufficient to stabilize the soil upon completion of the construction, including temporary irrigation for a sufficient period to establish perennial vegetation. Until such time as said vegetation has been installed and established, the subdivider shall maintain and protect all disturbed surfaces from erosion.

A Floodplain Development Permit has been required for development of Lot 15A. Until a permit for development of the lot is submitted for review by the city, it is unclear to what extent the vegetation and soils on these lots will be disturbed. Any vegetation that is damaged or disturbed will be required to be re-vegetated at the expense of the developer.

4.9 Floodplain.

4.9.1 Subdivisions within the floodplain shall comply with all provisions of Section 4.10, Flood Hazard Overlay District, of the Hailey Zoning Ordinance, as amended:

A Floodplain Development Permit (FPDP) is required for any grading, construction, development of alteration on the lots within the proposed subdivision. The criteria for a FPDP are discussed in this staff report on pages 13 – 18.

SECTION 5 - IMPROVEMENTS REQUIRED.

5.1 It shall be a requirement of the developer to construct the minimum improvements set forth herein, for the subdivision, all to City standards.

- 5.1.1 Six (6) copies of all improvement plans shall be filed with the City Engineer and made available to each department head. Upon final approval two (2) sets of revised plans shall be returned to the developer at the pre-construction conference with the City Engineer's written approval thereon. One set of final plans shall be on-site at all times for inspection purposes and to note all field changes upon.
- 5.1.2 Prior to the start of any construction, it shall be required that a pre-construction meeting be conducted with the developer or his authorized representative/engineer, the contractor, the City Engineer and appropriate City Staff. An approved set of plans shall be provided to the developer and contractor at this meeting.
- 5.1.3 The developer shall guarantee all improvements pursuant to this Section for no less than one year from the date of final acceptance by the City, except that parks shall be guaranteed and maintained by the developer for a period of two years.
- 5.2 The developer shall construct all streets, alleys, curb and gutter, lighting, sidewalks, street trees and landscaping, and irrigation systems to meet City standards, the requirements of this ordinance, the approval of the

Hailey City Council, and to the finished grades which have been officially approved by the City Engineer as shown upon approved plans and profiles. The developer shall pave all streets and alleys with an asphalt plant-mix, and shall chip-seal streets and alleys within one year of construction.
- 5.2.1 Street cuts made for the installation of services under any existing improved public street shall be repaired in a manner which shall satisfy the Hailey Street Superintendent, shall have been approved by the Hailey City Engineer or his authorized representative, and shall meet City

standards. Repair may include patching, skim coats of asphalt or, if the total area of asphalt removed exceeds 25% of the street area, the complete removal and replacement of all paving adjacent to the development. Street cut repairs shall also be guaranteed for no less than one year.
- 5.2.2 Street name signs and traffic control signs shall be erected by the developer in accordance with City Standard Specifications, and said street name signs and traffic control signs shall thereafter be maintained by the City.
- 5.2.3 Street lights in the Recreational Green Belt, Limited Residential, General Residential, and Transitional zoning districts are not required improvements. Where proposed, street lighting in all zoning districts shall meet all requirements and recommendations of Chapter 8B of the Hailey Zoning Ordinance.
- 5.3 The developer shall construct a municipal sanitary sewer connection for each and every developable lot within the development. The developer shall provide sewer mains of adequate size and configuration in accordance with City standards, and all

federal, state, and local regulations. Such mains shall provide wastewater flow throughout the development. All sewer plans shall be submitted to the Idaho Department of Environmental Quality (DEQ) for review and comments.

- 5.4 The developer shall construct a municipal potable water connection for each and every developable lot within the development. The developer shall provide water mains and services of adequate size and configuration in accordance with City standards, and all federal, state, and local regulations. Such water connection shall provide all necessary appurtenances for fire protection, including fire hydrants, which shall be located in accordance with the Uniform Fire Code and under the approval of the Hailey Fire Chief. All water plans shall be submitted to the Idaho Department of Environmental Quality (DEQ) for review and comments.
- 5.5 The developer shall provide drainage areas of adequate size and number to meet the approval of the Street Superintendent and the City Engineer or his authorized representative.
- 5.6 The developer shall construct each and every individual service connection and all necessary trunk lines, and/or conduits for those improvements, for natural gas, electricity, telephone, and cable television to the property line before placing base gravel for the street or alley.
- 5.7 The developer shall improve all parks and open space areas as presented to and approved by the Commission and Council.
- 5.8 All improvements are to be installed under the specifications and inspection of the City Engineer or his authorized representative. The minimum construction requirements shall be the latest published standard City specifications and improvement standard drawings or the Department of Environmental Quality (DEQ) standards, whichever is the more stringent.
- 5.9 Installation of all infrastructure improvements must be completed by the developer, and inspected and accepted by the City prior to signature of the plat by City representatives, or according to a phasing agreement. A post-construction conference shall be requested by the developer and/or contractor and conducted with the developer and/or contractor, the City Engineer, and appropriate City Staff to determine a punch list of items for final acceptance.
- 5.9.1 The developer may, in lieu of actual construction, provide to the City security pursuant to Section 2.3.7, for all infrastructure improvements to be completed by developer after the final plat has been signed by City representatives.
- 5.10 Prior to the acceptance by the City of any improvements installed by the developer, three (3) sets of “as-built plans and specifications” certified by the developer’s engineer shall be filed with the City Engineer.

Floodplain Development Criteria

Under Section 4.10.7.2 of the Zoning Ordinance, the Flood Hazard Ordinance Administrator, or the Hailey City Council if a Flood Plain Development Permit for a subdivision, shall evaluate and find adequate evidence to support each of the following criteria:

- a. There will be no danger to life and property due to increased flood heights or velocities or any materials may be swept on to other lands or downstream to the injury of others.**

The majority of the property is undeveloped and densely wooded. A significant flood event occurred in May of 2006. Brockway Engineers estimated that flood event to be approximate to a 160 year event. Water from the Big Wood River was flowing across portions of adjacent Lot 14 as well as several other lots within Birdwood Subdivision and adjacent subdivisions. Portions of proposed Lot 15A had standing water that exceeded a foot in depth in low-lying areas. The Brockway study indicates there will be groundwater on this lot in times of high water table.

The Fire Chief previously commented that emergency services may be suspended to this property during flood events. In the Commission's deliberations for this particular standard, they could not make a positive finding that there would be no danger to life and property should a structure or its tenants be left without emergency services available.

To address the issue of access, the applicant is proposing a culvert for the portion of the road that spans the lowest portion of the lot. The culvert design has been revised by the applicant from the design presented on May 19, 2008 to address issues raised by the Council regarding the impact on neighboring properties during a flood event. The City Engineer and the Fire Chief have both reviewed the revised culvert design and found that the design mitigates the concerns with access.

The City Engineer selected SPF Water Engineering, LLC, a Boise based firm to conduct a third party review the revised culvert design for the project as submitted by Brockway Engineering on behalf of the applicant. The City asked SPF to evaluate whether the construction of the driveway as proposed with the revised culvert will impact neighboring properties during a flood event. SPF concluded that the new box culvert design is not expected to cause any significant negative impact to neighboring properties or to the 100-year flood elevation. SPF recommends that the culvert shall be inspected annually and sediment and debris removed as it accumulates; this has been added to the recommended conditions of approval. SPF's analysis of the new box culvert design, dated July 9, 2008, is attached.

- b. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.**

The City Engineer has reviewed the plans and believes that drainage swales should contain all water on the lot. The plan shows an approximately 460 foot long driveway for access to both proposed lots.

- c. The proposed water supply and sanitation systems and the ability of these systems will prevent disease, contamination and unsanitary conditions.**

The City Engineer has determined that the proposal for flood proofing the lift station is acceptable to prevent disease, contamination and unsanitary conditions.

- d. The proposed facility and its contents will not be susceptible to and shall minimize flood damage.**

NA

- e. **The proposed location represents the safest location for the proposed use.**
As noted above, pockets of wetlands exist on the property. A survey of the site was performed by Brockway Engineers to determine the location on the lot for a building envelope.

The Flood Hazard Development Board and Fire Chief previously recommended a building envelope to be located at the eastern portion of Lot 15A primarily due to access issues for emergency services. The building envelope for Lot 15A is shown in this location.

- f. **The proposed use is compatible with existing development and development anticipated in the foreseeable future.**

Single family homes are proposed for the development. The surrounding properties are zoned as Limited Residential-1 (LR-1) with existing single family residences.

- g. **The proposed use is harmonious and in accordance with the general objectives or any specific objective of the Comprehensive Plan.**

The Council should consider Section 2.5, Hazardous Areas, of the Comprehensive Plan, as follows:

- I. **Goal: The goal of this section is to reduce the potential threat to loss of life, limb or property and minimize public expenditures due to flooding.**

1. **Policy: Develop and maintain a thorough knowledge of the location and severity of hazards related to flooding.**

Implementation:

- a. **Maintain a thorough knowledge of the primary sources for flood hazard analysis as identified by the Federal Insurance Administration. Those sources include Floodplain Information Studies prepared for the Big Wood River by the United States Army Corps of Engineers; the Flood Insurance Study, City of Hailey, Idaho, prepared by the Federal Emergency Management Agency (FEMA); and the Flood Insurance Rate Map/Flood Hazard Boundary Map also issued by FEMA.**
- b. **When appropriate, support or require Letters of Map Amendment or Revision. Amendments or revisions may be appropriate at locations or properties where empirical evidence of flood or other conditions does not appear to correspond directly to the most current information available to the City.**

2. **Policy: Discourage development along watercourses, including drainage areas, especially in known flood prone areas.**

Implementation:

- a. **Continue to prohibit any construction, with the exception of recreational trails, emergency access ways and stream alterations, where approved, in floodways.**
- b. **Prohibit the installation of any new individual septic systems within the floodplain within Hailey's Area of City Impact.**
- c. **Restrict and closely supervise construction in the floodplain, and allow no construction which would not comply with the 'no - rise' standards established by FEMA.**

- d. **Conduct planning studies of areas where development and subdivision have already occurred in the floodplain and define limitations on future development in those areas.**
- e. **Continue to educate the general public about hazardous areas and restrictions therein by means of the city newsletter or similar publication.**
- f. **Consider an increased setback from the bank full level of watercourses and a specific and substantially adequate setback for all construction from existing, drainage areas with intermittent or perennial stream flow.**
- g. **Continue to encourage Planned Unit Developments in which all residential construction takes place outside the designated floodplain.**
- h. **Consider implementing a Design Review process for development along watercourses.**
- i. **Continue to require preservation of native riparian vegetation along watercourses**
- j. **Support public acquisition or protection by tools such as landscape easements, of property directly adjacent to the Big Wood River for greenbelts.**
- k. **Establish a method to transfer development rights from floodplain areas into designated receiving areas.**

The Commission found that the application does not meet this section of the Hailey Comprehensive Plan due to the likelihood of lack of access during times of flood events.

To address the issue of access, the applicant is proposing a culvert for the road that spans the lowest portion of the lot. The culvert design has been revised by the applicant from the design presented on May 19, 2008 to address issues raised by the Council regarding impact on neighboring properties during a flood event. The City Engineer and the Fire Chief have both reviewed the revised design and found that the design mitigates the concerns with access.

- h. **Safe access to the property shall be available in times of flood for ordinary and emergency vehicles.**

Access to the property will be from Silver Star Drive and portions of the driveway lie approximately 2.5 feet below Base Flood Elevation (BFE). The Commission found that there would not be safe access to the property in times of flood due to the suspension of emergency services during flood events.

To address the issue of access, the applicant is proposing a culvert for the road that spans the lowest portion of the lot. The culvert design has been revised by the applicant from the design presented on May 19, 2008 to address issues raised by the Council regarding impact on neighboring properties during a flood event. The City Engineer and the Fire Chief have both reviewed the revised culvert design and found that the design mitigates the concerns with access.

- i. **Inherent natural characteristics of the watercourses and floodplain areas will be preserved.**

N/A

- j. **Existing riparian vegetation and wildlife habitat along the stream bank and within the required one hundred foot (100') riparian setback shall be preserved.**

N/A

- k. **New landscaping shall include plantings that are low-growing and have dense root systems to stabilize stream banks and to repair any damage previously done to riparian vegetation.**

N/A

- l. **The proposed use shall not be susceptible to the risk of obstruction by landslides, avalanches, ice jams or timber.**

The subject property is not within an avalanche area and the westerly edge of the lot is approximately 320 feet from the floodway.

- m. **All new construction, manufactured homes as defined and permitted in this Ordinance, accessory buildings, and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement.**

A Floodplain Development Permit is required for the development of Lot 15A.

- n. **All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage and shall be constructed using methods and practices that minimize flood damage.**

A Floodplain Development Permit is required for the development of Lot 15A.

- o. **Utilities.**

1. **All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.**
2. **New and replacement water sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters.**
3. **On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.**
4. **All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage**

All infrastructure shall be designed to meet City Standards.

- p. **Any structural storage facility for chemicals, explosives, buoyant materials, flammable liquids, or other toxic materials which could be hazardous to public health, safety and welfare shall be located in a manner which will assure that the facilities are situated at elevations one foot (1') above the Base Flood Elevation and are adequately flood-proofed to prevent flotation of storage containers or damage to storage containers which could result in the escape of toxic materials into flood waters.**

N/A

- q. **The lowest portion of a floor system of new construction or substantial improvement of any structure shall be elevated to a level at least one foot (1') above the Base Flood Elevation. Any fill shall not exceed the Base Flood Elevation. Any fill shall not extend more than twenty-five feet (25') beyond the limits of any**

structure erected on a lot or property (“backfill”); provided, however, fill may extend more than twenty-five feet (25’) beyond the limits of any structure erected on a lot or property only if the cumulative amount of the fill does not exceed the amount of backfill allowed by the twenty-five foot (25’) perimeter. Any electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall also be designed and elevated at least one foot (1’) above the Base Flood Elevation.

This requirement will be addressed when a FPDP is sought for new construction on Lot 15A. All construction shall meet the requirements of the International Building Code, the International Fire Code, the Floodplain Hazard Overlay District regulations, and other applicable codes.

- r. **Fully enclosed areas below the lowest floor are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or must meet or exceed the following minimum criteria:**
- 1. A minimum of two (2) openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.**
 - 2. The bottom of all openings shall be no higher than one foot (1’) above the proposed grade.**
 - 3. Openings may be equipped with screens, louvers or other coverings or devices provided that they permit the automatic entry and exit of floodwater.**

This requirement will be addressed when a FPDP is sought for new construction on Lot 15A. All construction shall meet the requirements of the International Building Code, the International Fire Code, the Flood Plain Hazard Overlay District regulations and other applicable codes.

Summary and Suggested Conditions

The Council shall review the criteria for the Floodplain Development Permit and the proposed preliminary plat and continue the public hearing, approve, conditionally approve, or deny the applications. **Please note that a separate motion will be necessary for each application.**

The following conditions were suggested by the Planning and Zoning Commission to be placed on any approval of this subdivision and floodplain development permit application:

- a) All Fire Department and Building Department requirements shall be met. Items to be completed at the applicant’s sole expense include, but will not be limited to, the following requirements and improvements:
- An approved fire department turnaround will be required for Lot 15A before any construction begins.
 - The driveway shall be posted for no parking and will not be named. All homes shall have Silver Star Drive addresses; all addresses should be posted at the driveway entrance.
 - No encroachment of the fire lane width will be allowed without written approval from the City.
 - Turn-arounds or turnout and fire lanes must be permanently signed as such.

- The driveway shall meet all regulations of the International Fire Code.
 - Hydrant locations should be identified and pre-approved.
 - Building height shall be a maximum of 30’.
- b) All City infrastructure requirements shall be met as outlined in Section 5 of the Hailey Subdivision Ordinance. Detailed plans for all infrastructure to be installed or improved at or adjacent to the site shall be submitted for Department Head approval and shall meet City Standards where required. Infrastructure to be completed at the applicant’s sole expense include, but will not be limited to, the following requirements and improvements:
- Sewer service for Lot 15A shall be a pressure system.
 - A new water meter vault shall be installed in the driveway easement for Lot 15A.
 - All drainage shall be contained on site.
 - Drainage swales shall be designed and created on both lots to contain any surface drainage on the subject property and not allow it to flow onto adjacent properties. The drainage plan shall also include details for the design and appropriate placement of a box culvert to insure that there will be safe access to Lot 15A during times of high water. Such drainage shall be depicted on a grading plan and submitted to the City Engineer for his approval prior to Final Plat approval.
 - A drainage inspection to ensure surface drainage remains on the subject property shall be conducted and approved prior to issuance of a certificate of occupancy for new construction on the Lot 15A.
- c) Issuance of permits for the construction of buildings within the proposed subdivision shall be subject to Section 2.9 of the Subdivision Ordinance.
- d) Plat notes shall be added to the final plat stating:
- The beneficiaries of the driveway easement shall be the owners of Lots 15A and 15B. This easement shall also be designated as a utilities access easement.
 - Irrigation for Lot 15A a plat note should be added restricting irrigation of Lot 15A to not more than one-half acre
 - The homeowners association or in the event the homeowners association is dissolved, the owners of Lots 15A and 15B shall be responsible for the maintenance of the sewer and water service lines between the residences and the mainline within Silver Star Drive and the private driveway within the subdivision.
 - The homeowners association or in the event the homeowners association is dissolved, the owners of Lots 15A and 15B shall be responsible for the maintenance of the culvert. The culvert shall be inspected annually and sediment and debris removed as it accumulates.
 - The owner of Lot 15A shall seek and obtain a floodplain development permit before there is construction of a single family residence.
- e) All improvements and other requirements shall be completed and accepted, or surety provided pursuant to Sections 3.3.7 and 5.9.1 of the Subdivision Ordinance, prior to recordation of the final plat.
- f) The final plat must be submitted within one (1) calendar year from the date of approval of the

preliminary plat, unless otherwise allowed for within a phasing agreement.

- g) Any subdivision inspection fees due shall be paid prior to recording the final plat.
- h) Any applicable development impact fees shall be paid prior to recording the final plat.

Motion Language

Preliminary Plat:

Approval

Motion to approve the preliminary plat of Lots 15A and 15B, Birdwood Subdivision, subject to conditions __ through __, finding that the proposed subdivision conforms to the applicable standards of the Hailey Subdivision Ordinance.

Denial

Motion to deny the Motion to deny the preliminary plat of Lots 15A and 15B, Birdwood Subdivision, finding that the proposed plat, finding that the proposed subdivision is not in accordance with the following subdivision standards:

- _____
- _____
- _____

Floodplain Development Permit:

Approval

Motion to approve the preliminary plat of Lots 15A and 15B, Birdwood Subdivision, subject to conditions __ through __, finding that the proposed subdivision conforms to the applicable standards of the Hailey Zoning Ordinance, Section 4.10.

Denial

Motion to deny the Motion to deny the preliminary plat of Lots 15A and 15B, Birdwood Subdivision, finding that the proposed plat, finding that the proposed subdivision is not in accordance with the following standards of the Hailey Zoning Ordinance, Section 4.10:

- _____
- _____
- _____

-----Original Message-----

From: Scott King [mailto:SKing@spfwater.com]

Sent: Thursday, July 10, 2008 9:33 AM

To: Tom Hellen

Cc: Charles G. Brockway

Subject: Birdwood Sub Culvert

Hello Tom,

I understand there may have been a question last night that we can address.

In his June 24, 2008 revised design description, Chuck Brockway wrote: "The model indicates that with one (1) 2.5'x10' box culvert with wingwalls, the headwater elevation at Q = 55.6 cfs will be 5284.83 feet, which is 0.04 feet less than the "natural" WSE."

Although this revised design results in a calculated headwater elevation 0.01 ft higher than that of the four pipe-arch design, both designs result in headwater elevations below that calculated for the native condition.

Correspondingly, the proposed structure is expected no cause no net rise in the 100-year base flood elevation.

Please let me know if there are any other questions.

Sincerely,

Scott

Scott N. King, P.E.

Senior Project Engineer

SPF Water Engineering, LLC

600 East River Park Lane, Suite 105

Boise, Idaho 83706

phone: (208) 383-4140 x209

fax: (208) 383-4156

email: sking@spfwater.com

web page: www.spfwater.com <<http://www.spfwater.com/>>



July 9, 2008

Mr. Thomas Hellen
City Engineer
City of Hailey
115 Main Street South, Suite H
Hailey, ID 83333

Subject: Hydrology Review, Birdwood Subdivision

Dear Mr. Hellen,

At your request, SPF Water Engineering LLC has reviewed the revised culvert design submitted by Charles G. Brockway, P.E. of Brockway Engineering, Twin Falls, Idaho. This letter provides our findings, conclusions and recommendations.

Background

SPF had previously reviewed a culvert design for a swale associated with Lot 15, Block 1 of Birdwood Subdivision in Hailey, Idaho (see SPF letter dated April 2, 2008). This earlier design proposed construction of a driveway, filling a portion of the swale and installation of four 42"x29" CMP pipe-arch culverts to convey flows through the swale. The City of Hailey had asked SPF "whether the construction of this driveway will impact the neighbors during a flood event." SPF construed this question to specifically ask 1) is the culvert design sufficient to pass flood flows without impact to neighboring properties, and 2) will placement of fill for driveway construction result in higher water levels? (Please see SPF's April 2, 2008 letter for additional detail.)

Our review of this pipe-arch design concluded that the project was not expected to significantly impact neighboring properties or the 100-year flood elevation, and we provided the following findings:

1. Brockway estimated flow into the swale based on upstream culvert capacity and road over-topping. The calculations appear correct and the approach conservative. Since the road did not actually over-top during the recent 2006 flood event, actual flow into the swale in 2006 was likely less than the 55.6 cubic feet per second (cfs) design flow.

2. The proposed Birdwood Subdivision culvert has capacity to convey the estimated flood flows of 55.6 cfs with approximately 0.18 feet of head loss across the culvert. Under natural conditions, Brockway estimates the head loss through this 30-foot length of stream at 0.23 feet, and therefore the upstream water surface elevation should be lower with the culvert than without. Actual conditions will likely vary, but as a worst case, upstream water levels should increase no more than 0.18 feet above current conditions.

Revised Plans

Brockway has recently revised the culvert design from four parallel pipe-arch culverts to one 2.5 ft x 10 ft box culvert with wing walls. The City has asked SPF to provide a similar review of this revised design. The design flow and other assumptions stated in prior analysis remain unchanged; only the culvert structure is revised.

Conclusions

The revised culvert design of one 2.5 ft x 10 ft box culvert with wing walls has similar hydraulic conveyance characteristics to the prior pipe-arch culvert design. The revised box culvert will convey the 55.6 cfs design discharge with 0.19 feet of head loss; the prior pipe-arch design calculated head loss was 0.18 feet (see Table 1). The revised design results in a calculated upstream water surface elevation that is 0.01 ft (3 mm) higher than under the previous design. This small difference in calculated water surface elevation is insignificant, particularly when contrasted with the conservative estimates of inflow. In addition, the head loss is less than calculated losses of 0.23 feet under natural conditions. These calculations demonstrate that the revised design is essentially equivalent to the prior design and is not expected to cause any significant negative impact to neighboring properties or to the 100-year flood elevation.

	Pipe-Arch Culverts (4)	2.5' x 10' Box Culvert
Headwater Elevation (ft)	84.82	84.83
Tailwater Elevation (ft)	84.64	84.64
Headloss (ft)	0.18	0.19

Table 1: HY-8 computation results at 55.6 cfs design discharge.

July 9, 2008

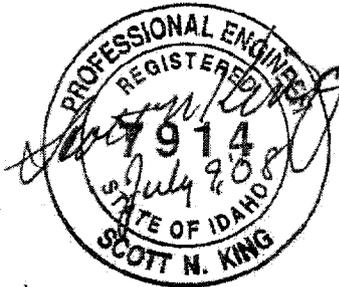
Recommendations

As stated before, sediments will likely deposit in a culvert placed below grade, potentially resulting in reduced conveyance area and increased roughness. The quantity of deposited sediment is expected to be proportional to flows; infrequent inflow should result in limited deposition. We recommend regular inspection of the culvert and removal of sediment and debris as it accumulates.

If you have any questions regarding this analysis, please let me know.

Sincerely,

Scott N. King, P.E.
Senior Project Engineer



cc: Charles G. Brockway, P.E. / Brockway Engineering

Attachments: Revised design documents provided by Brockway Engineering

File: 330.0020

Birdwood Subdivision Culvert

Revised culvert design for concrete box culvert, all previous assumptions apply.
Preliminary.
CGB 6/24/08

Design flow based on upstream Cedar Street embankment (see attached spreadsheet):

1. 18" culvert through embankment, discharge based on maximum head of 5 feet and free discharge. $Q = 20.6$ cfs. Could be less based on FHWA chart, but use conservative number.
2. Roadway overtopping based on $H = 0.25$ feet, $L = 100$ feet, and $C=2.8$. The head is somewhat arbitrary but conservative since zero overtopping occurred in 2006. The crest length is the approximate top width of the swale between adjacent fill on existing residential lots. The weir coefficient of 2.8 is consistent with values for shallow, broad-crested weir flow, such as roadway overtopping. $Q = 35.0$ cfs.

The total design flow is 55.6 cfs. The above assumptions are very conservative, since essentially zero flow was observed in the swale during 2006. But, under the assumption that surface water is flowing in the swale upstream of Cedar Street, this is an estimate of the maximum flow that could potentially be allowed to continue downstream.

"Natural" conditions WSE estimate:

Swale elevation at culvert inlet = 5284.0

Swale slope = 0.0077 ft/ft.

Swale elevation at culvert outlet = 5283.77 (30 feet \times 0.0077 ft/ft)

Natural WSE in swale was determined from Manning equation with $Q = 55.6$ cfs, $S = 0.0077$ ft/ft, $n = 0.08$, and area & perimeter vs. elevation determined from Galena Engineering cross-section. The WSE at the inlet is 5284.87 feet, which is the "baseline" elevation that cannot be exceeded with the culvert in place.

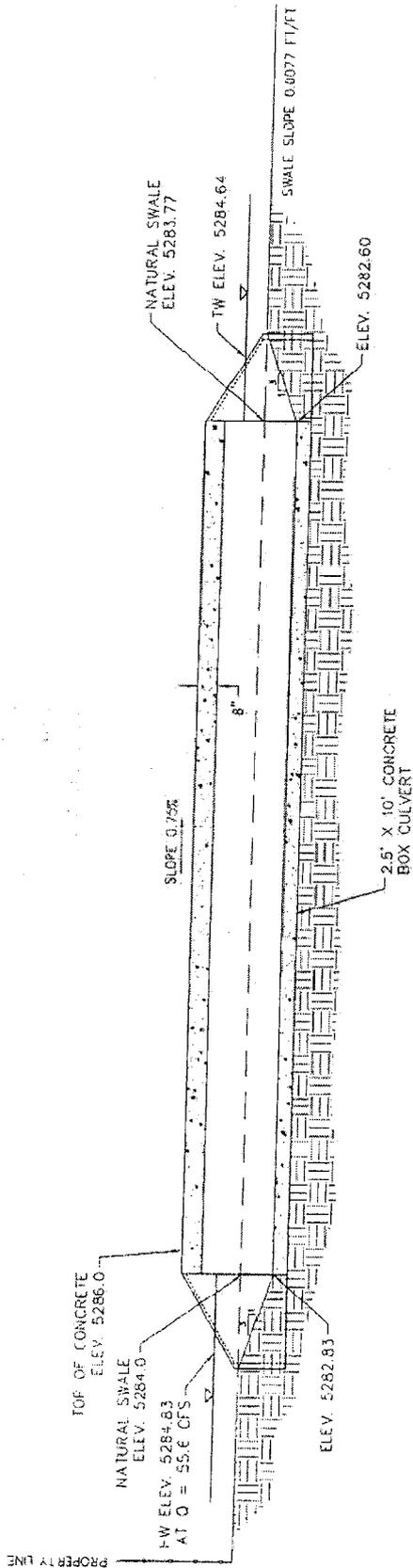
The tailwater elevation is assumed to be the headwater elevation minus 0.23 feet (0.0077 ft/ft \times 30 feet).

Culvert elevations:

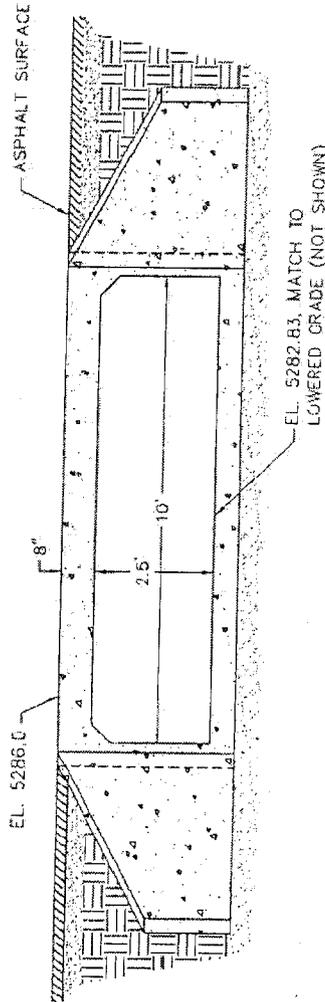
The City of Hailey will not allow fill above the BFE of 5286.0 feet. This necessitates that the culvert be lowered below the natural swale elevation. Assuming the top of the concrete box culvert forms the roadway, the top of culvert elevation will be 5286.0. The width of the top chord will be 8" to meet loading requirements for the fire department. With a 2.5'x10' box, the inlet I.E. will be 5282.83. Laying the culvert at the same slope as the swale (0.0077 ft/ft), the outlet I.E. will be 5282.60.

HY-8 analysis:

The above assumptions were programmed into the HY-8 culvert analysis model used by the Federal Highway Administration. The model indicates that with one (1) 2.5'x10' box culvert with wingwalls, the headwater elevation at $Q = 55.6$ cfs will be 5284.83 feet, which is 0.04 feet less than the "natural" WSE.



PROFILE
N.T.S.



ELEVATION
N.T.S.

NOT FOR CONSTRUCTION

<small>THIS DRAWING HAS BEEN PREPARED BY THE ENGINEER AND IS TO BE USED ONLY FOR THE SPECIFIC PROJECT AND SITE INDICATED. ANY CHANGES TO THIS DRAWING MUST BE APPROVED BY THE ENGINEER. THE CLIENT IS RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION PROVIDED.</small>	SCALE: N.T.S. APPROVED: _____ DATE: 6/25/08 CCB: _____	PROJECT # 964-01-2007 OWS# 1 REV A
	BROCKWAY ENGINEERING, PLLC <small>ENGINEERS, HYDROLOGISTS, WATER RESOURCES</small> 2016 NORTH WASHINGTON, SUITE 2 WYOMING FALLS, WY 83401 (208) 736-8543	
BIRDWOOD SUBDIVISION, HAILEY, IDAHO PROPOSED BOX CULVERT SECTION		

HY-8 Culvert Analysis Report

Table 1 - Summary of Culvert Flows at Crossing: Birdwood box culvert

Headwater Elevation (ft)	Total Discharge (cfs)	2.5x10 box Discharge (cfs)	Roadway Discharge (cfs)	Iterations
84.49	30.00	30.00	0.00	1
84.56	35.00	35.00	0.00	1
84.62	40.00	40.00	0.00	1
84.69	45.00	45.00	0.00	1
84.77	50.00	50.00	0.00	1
84.82	55.00	55.00	0.00	1
84.83	55.60	55.60	0.00	1
84.94	65.00	65.00	0.00	1
85.01	70.00	70.00	0.00	1
85.08	75.00	75.00	0.00	1
85.13	80.00	80.00	0.00	1

Rating Curve Plot for Crossing: Birdwood box culvert

Total Rating Curve
Crossing: Birdwood box culvert

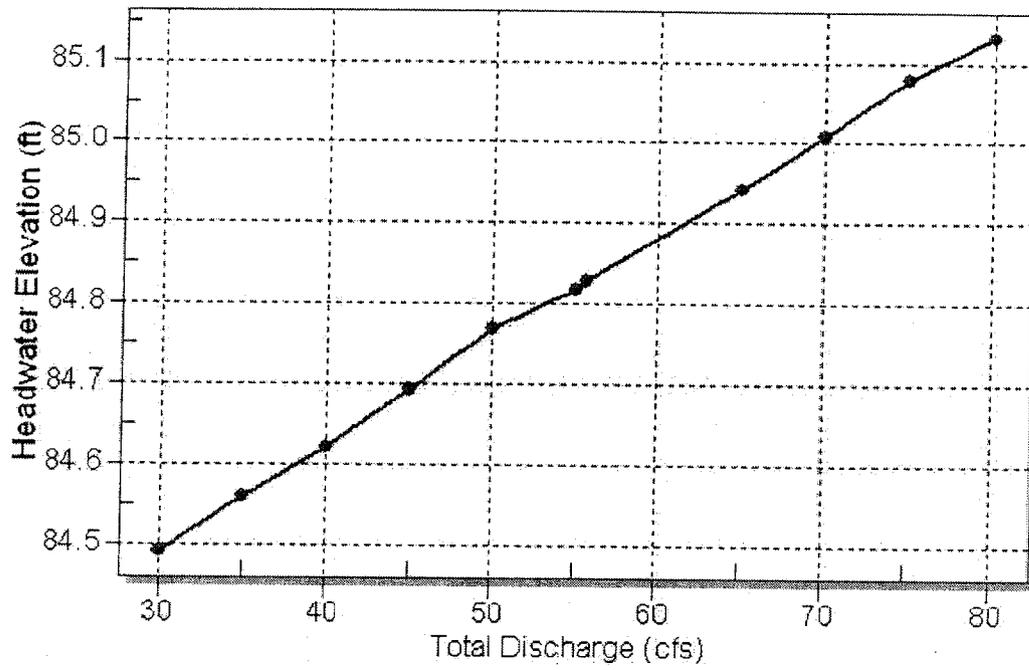


Table 2 - Culvert Summary Table: 2.5x10 box

Total Discharge (cfs)	Culvert Discharge (cfs)	Headwater Elevation (ft)	Inlet Control Depth (ft)	Outlet Control Depth (ft)	Flow Type	Normal Depth (ft)	Critical Depth (ft)	Outlet Depth (ft)	Tailwater Depth (ft)	Outlet Velocity (f/s)	Tailwater Velocity (f/s)
30.00	30.00	84.49	0.000	1.661	1-S1t	0.476	0.655	1.820	0.650	1.648	0.000
35.00	35.00	84.56	0.000	1.731	1-S1t	0.525	0.726	1.870	0.700	1.872	0.000
40.00	40.00	84.62	0.000	1.793	1-S1t	0.568	0.794	1.910	0.740	2.094	0.000
45.00	45.00	84.69	0.000	1.864	1-S1t	0.610	0.859	1.960	0.790	2.296	0.000
50.00	50.00	84.77	0.000	1.939	1-S1t	0.653	0.921	2.000	0.830	2.500	0.000
55.00	55.00	84.82	0.000	1.986	1-S1t	0.696	0.981	2.030	0.860	2.709	0.000
55.60	55.60	84.83	0.000	1.998	1-S1t	0.701	0.989	2.040	0.870	2.725	0.000
65.00	65.00	84.94	0.000	2.112	1-S1t	0.777	1.097	2.100	0.930	3.095	0.000
70.00	70.00	85.01	0.000	2.179	1-S1t	0.812	1.153	2.140	0.970	3.271	0.000
75.00	75.00	85.08	0.000	2.249	1-S1t	0.848	1.207	2.170	1.000	3.456	0.000
80.00	80.00	85.13	0.000	2.302	1-S1t	0.884	1.260	2.200	1.030	3.636	0.000

.....
 Inlet Elevation (invert): 82.83 ft, Outlet Elevation (invert): 82.60 ft

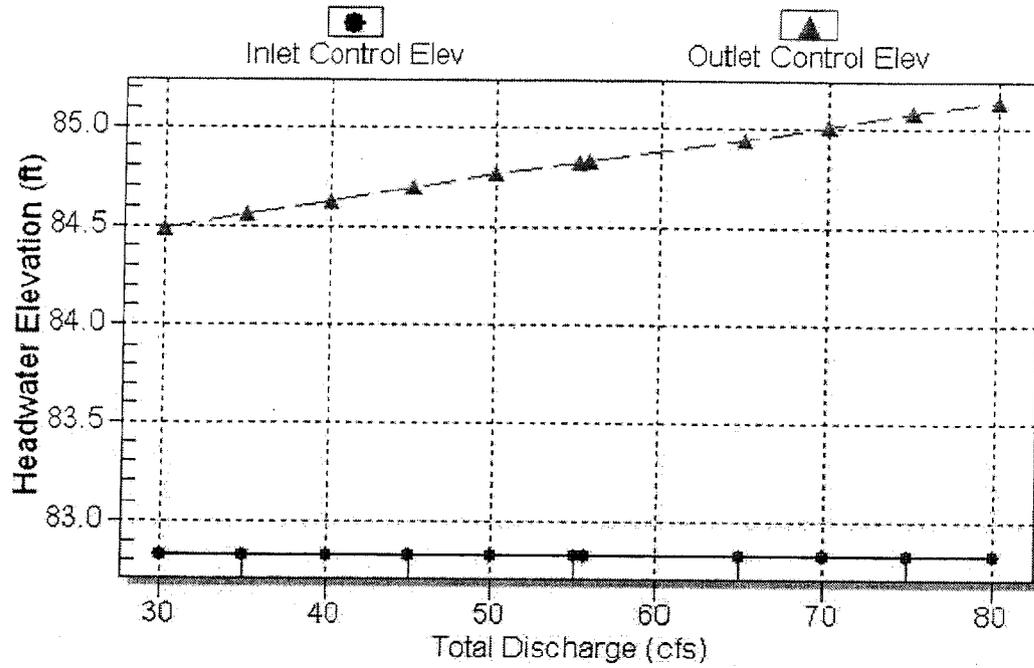
Culvert Length: 30.00 ft, Culvert Slope: 0.0077

Inlet Throat Elevation: 0.00 ft, Inlet Crest Elevation: 84.26 ft

Culvert Performance Curve Plot: 2.5x10 box

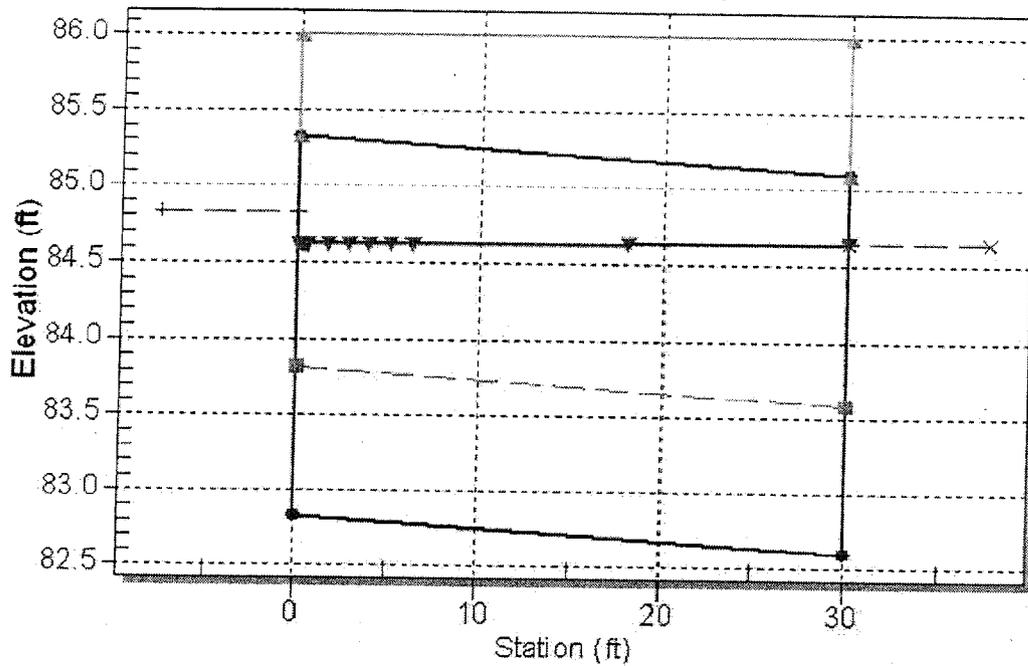
Performance Curve

Culvert: 2.5x10 box



Water Surface Profile Plot for Culvert: 2.5x10 box

Crossing - Birdwood box culvert, Design Discharge - 55.6 cfs
Culvert - 2.5x10 box, Culvert Discharge - 55.6 cfs



Site Data - 2.5x10 box

Site Data Option: Culvert Invert Data

Inlet Station: 0.00 ft

Inlet Elevation: 84.00 ft

Outlet Station: 30.00 ft

Outlet Elevation: 82.60 ft

Number of Barrels: 1

Culvert Data Summary - 2.5x10 box

Barrel Shape: Concrete Box

Barrel Span: 10.00 ft

Barrel Rise: 2.50 ft

Barrel Material:

Barrel Manning's n: 0.0120

Inlet Type:

Inlet Edge Condition:

Inlet Depression: Yes

Table 3 - Downstream Channel Rating Curve (Crossing: Birdwood box culvert)

Flow (cfs)	Water Surface Elev (ft)	Depth (ft)
30.00	84.42	0.65
35.00	84.47	0.70
40.00	84.51	0.74
45.00	84.56	0.79
50.00	84.60	0.83
55.00	84.63	0.86
55.60	84.64	0.87
65.00	84.70	0.93
70.00	84.74	0.97
75.00	84.77	1.00
80.00	84.80	1.03

Tailwater Channel Data - Birdwood box culvert

Tailwater Channel Option: Enter Rating Curve

Roadway Data for Crossing: Birdwood box culvert

Roadway Profile Shape: Constant Roadway Elevation

Crest Length: 200.00 ft

Crest Elevation: 86.00 ft

Roadway Surface: Paved

Roadway Top Width: 30.00 ft

