MEMORANDUM

TO: Mayor and City Council

FROM: Mariel Platt, Sustainability Coordinator

RE: Build Better Program (BBP) – adoption as a mandatory code

DATE: February 4, 2013

Notice
Notice for the December 17, 2012 public hearing was published in the Idaho Mountain Express and mailed to public agencies and area media on November 28, 2012. In addition, a number of state organizations and agencies including but not limited to the following were notified by email: Idaho Association of Cities, Idaho Home Builders Association, Wood River Building Contractor’s Association, local American Institute of Architects on November 28, 2012 and the Sawtooth Board of Realtors were notified on December 13, 2012. This meeting has been continued by the Council from December 17, 2012 and January 7, 2013.

Procedural History
At the December 17, 2012 meeting, the Council reviewed the ordinance and approved it as mandatory for new construction. There was concern that the program would be too difficult or expensive for certain alterations and additions to comply with. At the January 7, 2013 meeting, the Council decided that with further clarification and the addition of language to allow for some flexibility for alterations and additions, the ordinance should apply to these types of projects. Staff has added the requested language and has removed the energy audit requirements for alterations that staff suggested and Council approved at the January 7th meeting.

Proposal
Amendments to Chapter 15.08 of the Municipal Code are proposed by the City. These amendments would add a new Section - Section 15.08.012, Build Better Program - creating above-code building standard, and amends Section 15.08.020, Amendment of codes, with an effective date of May 1, 2013. Refer to the attached redline version of the ordinance for the proposed language. Staff has removed all language (shown with a strikethrough) pertaining to the energy audit requirements for alterations and has added language to allow the Building Official some flexibility when applying the code to alterations and additions.

Ordinance Formatting
A summary of the proposed amendments and additions to Chapter 15.08, Building Codes, are as follows:

Creates Section 15.08.012, Build Better Program.
- Adds Applicability (Section 15.08.012.A)
- Adds Definitions (Section 15.08.012.B)
• Adds Energy Efficiency (Section 15.08.012.C)
• Adds Water conservation, indoor air quality, construction waste, and durability and assurance (WICDA) (Section 15.08.012.D)
• Adds Points Menu (Section 15.08.012.E) that pertains to only certain projects and allows flexible options of sustainable building practices and products to be incorporated into the project.

Amends Section 15.08.020, Amendment of codes.

• Requires the performance method as a compliance path, not the prescriptive method, for commercial buildings. Residential buildings have two compliance pathways (performance using a HERS Rater and prescriptive).

Summary
The Council should review the proposed ordinance amendment and approve, deny, or modify the amendment.

If the proposed change is approved, the Council is required to pass an ordinance making said amendment part of Hailey Municipal Code. The draft ordinance is attached.

Motion Language
Approval:
Motion to approve the proposed amendments to Chapter 15.08, adopting Ordinance ____ and authorize the mayor to conduct the first reading by title only.

Denial:
Motion to deny the proposed amendments to Chapter 15.08, finding that ______________________ [the Council should state reasons why the amendment is denied].

Continuation:
Motion to continue the public hearing upon the proposed amendment to Chapter 15.08 to ______________________[the Council should specify a date].
HAILEY ORDINANCE NO. ________

AN ORDINANCE OF THE CITY OF HAILEY AMENDING HAILEY MUNICIPAL CODE, CHAPTER 15.08, BUILDING CODE ORDINANCE, BY ADOPTING A NEW SECTION 15.08.012, BUILD BETTER PROGRAM, WHICH INCREASES ENERGY CONSERVATION AND PROMOTES SUSTAINABLE BUILDING PRACTICES; BY AMENDING SECTION 15.08.030 TO CREATE ADDITIONAL REQUIREMENTS FOR INCREASED ENERGY EFFICIENCY AND SUSTAINABLE BUILDING PRACTICES; BY PROVIDING FOR A SEVERABILITY CLAUSE; BY PROVIDING FOR A REPEALER CLAUSE; AND BY PROVIDING AN EFFECTIVE DATE.

WHEREAS, Idaho Code § 30-4116 allows the City of Hailey to amend the 2009 IECC to reflect local conditions, provided the amendments provide an equivalent level of protection;

WHEREAS, the adoption of the Build Better Program will conserve energy, water and other natural resources and preserve the health of our environment through requirements related to design, construction, operations, recycling, and thereby promotes the public health, safety, and welfare;

WHEREAS, buildings use the most energy of any sector in the US - more than the transportation sector - therefore; it makes sense to curtail impact where they are greatest;

WHEREAS, Hailey’s climate requires significant amounts of energy to heat during the winter months, which translates to higher energy costs and provides an opportunity to substantially increase efficiencies and savings;

WHEREAS, the average life span of a building is 75 years and during this time the status of energy prices and availability could change, especially considering the potential impacts of climate change and future policies aimed at curtailing emissions associated with climate change;

WHEREAS, the City of Hailey has previously enacted Hailey Ordinance Nos. 1074 and 1105 which established a voluntary Better Build Program and has determined that the Better Build Program has not been an obstacle for new construction or for remodels; and

WHEREAS, the Hailey City Council finds that the adoption of the Better Build Program in Section 15.08.012 of the Hailey Municipal Code is in the best interests of the citizens of Hailey and will promote the health, safety and general welfare of the citizens of Hailey.

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

Section 1. Section 15.08.012, of the Hailey Municipal Code, Build Better Program, is created by the addition of the following language:

A. Applicability. This Section 15.08.012 is a supplement to the other adopted International Codes and is not intended to be used as independent construction regulations or to
abridge or supersede safety, health or environmental requirements under other applicable codes or ordinances. All commercial and residential New Construction, Additions and Alterations shall comply with the standards of Section 15.08.012, unless otherwise stated herein.

1. Referenced Codes and Standards. It is the expressed intent of this section to require higher minimum standards relating to Building performance than the corresponding minimum standards set by the referenced codes and standards, and in such cases, the higher minimum standards of this section shall take precedence.

2. Other Laws and Codes. The provisions of this chapter shall not be deemed to nullify any provisions of local, state or federal laws and codes.

3. Residential New Construction Exemptions. U.S. Green Building Council’s Leadership in Energy and Environmental Design for Homes certification level or National Association of Home Builder’s Green Building Program bronze level project are exempt from the Build Better Program requirements. Either exemption must verify that the project is 10% more energy efficient than the IECC, using a HERS Index or the alternative method described in Section C.1.a.ii. of this Ordinance. The exemptions listed above must show intent to meet the requirements at the Building Permit review stage through plans and an initial HERS score based on the proposed design. Prior to receiving a certificate of occupancy, copies of all program documentation and a final HERS score shall be submitted to the Building Department.

4. Commercial New Construction Exemptions. U.S. Green Building Council’s Leadership in Energy and Environmental Design for New Construction minimum certification level projects are exempt from the Build Better Program requirements, provided the applicant verifies that the project meets the minimum energy efficiency requirements for Commercial Buildings, as identified in Section 15.08.012.C.2.a of the Hailey Municipal Code. The applicant must identify the intent to meet U.S. Green Building Council’s Leadership in Energy and Environmental Design for New Construction certification level, at a minimum, at the Building Permit review stage with an indication on the plans and with a written narrative what Leadership in Energy and Environmental Design points will be achieved. Prior to receiving a certificate of occupancy, copies of all program documentation shall be submitted to the Building Department.

5. Exemptions for Commercial and Residential Alterations and Additions. In addition to the exemptions listed in Section 101.4 of the IECC, the following projects are exempt from Section 15.08.012:

   a. Window glass replacements of the same size and location.
   b. Bathroom remodel projects limited to the replacement of fixtures and cabinets.
   c. Kitchen remodel projects limited to the replacement of cabinets, counter tops, plumbing fixtures, and appliances.
   d. Electrical work associated with permits issued only for electrical work.
   e. Plumbing associated with permits issued only for plumbing.
   f. Replacement of HVAC appliances associated with permits issued only for appliance replacement.
   g. Reroofs.
   h. Additions less than 500 square feet of Conditioned Floor Area.
   i. New Construction or Additions of any size that do not include any Conditioned Floor Area.
j. Alterations that do not affect the integrity of the Building Envelope.

k. Alterations that do not require a Building Permit.

l. Tenant and ADA improvements required by the Building Department.

m. Structures listed on the National Historic Register.

Any commercial or residential alteration or addition which is not otherwise exempt shall comply with the requirements of Section 15.08.012 to the greatest extent possible, unless the Administrators find that compliance with all or part of the provisions of Section 15.08.012 would a) create an undue hardship on the applicant and b) not materially advance the goal of this ordinance to conserve energy, water and other natural resources.

B. Definitions. For the purpose of this Section 15.18.012, the following capitalized words and phrases shall apply as defined herein, in addition to definitions found in Chapter 2 of the IECC.

"Administrators" shall mean city staff from the Building and Planning Departments who administer Section 15.08.012 of the Hailey Municipal Code, the Build Better Program.

"Certified HERS Rater" shall mean a Home Energy Rating System provider who has current and valid certification under Residential Energy Services Network (RESNET) and who adheres to the RESNET defined standards of practice and code of ethics.

"Compact fluorescent light bulb" or "CFL" shall mean a fluorescent light bulb that has been compressed into the size of a standard-issue incandescent light bulb, known for its long life span and superior energy efficiency when compared to incandescent lights.

"COMcheck Energy Analysis" shall mean a software used to verify commercial code compliance and above code requirements with the IECC.

"EnergyPlus" shall mean software used to evaluate and analyze building energy performance.

"ENERGY STAR Advanced Lighting Package" or "(ALP)" shall mean an ENERGY STAR Certified Home that includes a comprehensive set of ENERGY STAR qualified light fixtures that at a minimum consist of 60% ENERGY STAR qualified hard-wired fixtures and 100% ENERGY STAR qualified ceiling fans where installed.

"ENERGY STAR Builder" shall mean a builder who has completed ENERGY STAR's Partnership Agreement, has selected a Home Energy Rater, and who is listed on the ENERGY STAR website as an ENERGY STAR partner.

"ENERGY STAR Indoor airPLUS" or "IAP" shall mean an ENERGY STAR Certified Home that includes a number of construction practices and technologies to decrease the risk of poor indoor air quality, including careful selection and installation of moisture control systems, heating, cooling, and ventilation (HVAC) equipment, combustion venting systems, and building materials that are tested and verified by an independent party.

"ENERGY STAR Northwest Program" shall mean an independently tested and verified home energy certification program that ensures homes are built 15% more energy efficient compared to current code building homes.

"EQuest" shall mean a software used to evaluate and analyze building energy performance.
“Forest Stewardship Council Certified” or “FSC Certified” shall mean a label that verifies a chain of custody certification that wood that has been grown in a manner that meets the FSC’s sustainable forestry practices and standards.

“Home Energy Rating System Audit” or “HERS Audit” shall mean a comprehensive visual and technical energy analysis of a home using Residential Energy Services Network’s (RESNET) protocol and a REM/Rate™ Energy Analysis and includes a prioritized list of suggested improvements and their associated energy and financial savings. At a minimum, the audit evaluates the following, to determining the rating of the home: blower door test, duct blaster test (if applicable), an inventory of the lighting, appliances, insulation, solar orientation, and heating and cooling equipment.

“Home Energy Rating System Index” or “HERS Index” shall mean a scoring system established by the Residential Energy Services Network (RESNET) in which a home built to the specifications of the HERS Reference Home scores a HERS Index of 100, while a net zero energy home scores a HERS Index of 0. The lower a home’s HERS Index, the more energy efficient it is in comparison to the HERS Reference Home.

“Light Emitting Diode” or “LED” shall mean an electronic device that emits light when an electrical current is passed through it, known for its long life span and superior energy efficiency when compared to incandescent lights.

“Leadership in Energy and Environmental Design Accredited Professional” or “LEED AP” shall mean a person who has successfully passed a test on the LEED process, points, and documentation requirements, in accordance with the US Green Building Council’s specifications.

“Minimum Efficiency Reporting Value” or “MERV” shall mean a rating method used for comparing the efficiency of an air filter; the higher the MERV rating, the better the filter is at removing particles from the air.

“National Association of Home Builder’s Green Building Program” shall mean a program based on the International Code Council 700-2008 National Green Building Standard™ and is a 3rd party tested and verified green building program.

“Natural Air Changes Per Hour” or “NACH” shall mean the natural movement of the total volume of air in a given space that is exchanged over a period of one hour, measured using a blower door test at 50 Pascal.

“New Construction” shall mean any building with less than 50% of its exterior walls and foundation remaining or that is being built on a vacant building envelope, where no previously built structure exists at the time of building.

“REM/Rate™ Energy Analysis” shall mean a residential code compliance and rating software developed specifically for the needs of HERS raters, that calculates heating, cooling, hot water, lighting, and appliance energy loads, consumption and costs for new and existing single and multi-family homes.

“REScheck Energy Analysis” shall mean a software used to verify residential code compliance and above code requirements with the IECC.

“Residential Energy Services Network” or “RESNET” shall mean an industry not-for-profit membership corporation that is the national standards making body for building energy efficiency rating systems.

“Structural Insulated Panels” shall mean a high performance building panels used in floors, walls, and roofs for residential and light commercial buildings. The panels are typically made by sandwiching a core of rigid foam plastic insulation between two structural skins of oriented strand board (OSB).
“U.S. Green Building Council’s Leadership in Energy and Environmental Design for Homes” or “LEED for Homes” shall mean a consensus-developed, third party-verified, voluntary rating system which promotes the design and construction of high-performance green homes.

“U.S. Green Building Council’s Leadership in Energy and Environmental Design for New Construction” or “LEED for New Construction” shall mean a rating system designed to guide and distinguish high-performance commercial and institutional projects, including office buildings, high-rise residential buildings, government buildings, recreational facilities, manufacturing plants and laboratories.

“Verification of Accountability by Responsible Party” shall mean a form furnished by the Administrators for the use of verifying, by the Building owner, contractor, or other responsible party, that points have been met in accordance with the requirements of Section 15.08.012.E, Points Menu.

“WaterSense Program” shall mean a water conservation program with oversight by the U.S. Environmental Protection Agency that requires all toilets, urinals, faucets, showerheads, and other products labeled under the program to undergo independent 3rd party testing to ensure that water conservation is at least 20% greater than conventional items in the respective category.

“Whole House Fan” shall mean a type of fan installed in a building’s ceiling, designed to pull hot air out of the building and increase building cooling.

“Zoned Hydronic Radiant Heating” shall mean a heating system using a boiler to heat water and a pump to circulate hot water through radiant floor panels, wall radiators, or baseboard convectors. The pipes, embedded in the floor, carry heated water that conduct warmth to the surface where it broadcasts energy to separated radiant heat zones, which are controlled a thermostat and served by a manifold which distributes the flow of warm water to the individual circuits of tubing within each zone.

C. Energy Efficiency. All commercial and residential New Construction and Additions shall comply with the IECC, and shall increase energy efficiency 10% beyond the IECC requirements.

1. Residential Energy Efficiency. Energy Efficiency shall be 10% greater than the IECC requirements for New Construction, Additions, and Alterations with Conditioned Space, 500 square feet or greater.

a. New Construction. Energy efficiency shall be verified by a RESNET Certified HERS Rater using a REM/RATE™ Energy Analysis and IECC Section 405 criteria, unless specified herein. Applicants shall submit an initial HERS Index score based on the proposed design with a Building Permit application. Prior to receiving a certificate of occupancy, a final HERS Index score shall be submitted to the Building Department, verifying that both project is 10% more energy efficient compared to the IECC.

i) New residential construction certified under the current ENERGY STAR Northwest Program is exempt from Section 15.08.012.C.1, providing the Building plans and the constructed building are certified ENERGY STAR Northwest.

ii) New residential construction is not required to be verified by a HERS Rater if they install a 90% AFUE furnace or equivalent system, a 0.62 EF water heater or equivalent system, all lights are LED or CFL, and air sealing tests verify 5 air exchanges per hour at 50 Pascals.

b. Additions. A RESNET Certified HERS Rater shall conduct a Certified HERS Audit of the entire Building associated with the Addition, unless a previous
Certified HERS Audit has been conducted and submitted to the Building Department within the last 5 years. The energy efficiency of the Addition itself shall be verified by a REScheck Energy Analysis. Applicants shall submit a REScheck Energy Analysis based on the proposed design with a Building Permit application. Prior to receiving a certificate of occupancy, the specifications of the REScheck Energy Analysis will be verified by the Building Department during routine inspections. The REScheck Energy Analysis shall project a 10% more energy efficient design compared to the IECC.

c. Alterations. All Alterations that require a Building Permit and affect the Building envelope are required to conduct a Certified HERS Audit by a RESNET Certified HERS Rater of the entire Building associated with the Alteration, unless a previous Certified HERS Audit has been conducted and submitted to the Building Department within the last 5 years. A REScheck Energy Analysis shall be submitted to the Building Department verifying that the Alteration exceeds the energy efficiency requirements of the IECC by 10% or by calculating the energy efficiency rating of a specific component that affects energy efficiency associated with the alteration. For example: the IECC requires a U-factor of 0.35 for a new window installation. A new window that is 10% more efficient would have a U-factor of 0.315 (or 0.32 rounded up) or better.

2. Commercial Energy Efficiency.
   a. New Construction. Buildings less than 10,000 square feet of Conditioned Space shall verify energy efficiency using a COMcheck Energy Analysis and Buildings 10,000 square feet or larger shall verify energy efficiency using an energy model.
      i) Buildings under 10,000 square feet of Conditioned Space. Applicants shall submit a COMcheck Energy Analysis based on the proposed design with a Building Permit application. Prior to receiving a certificate of occupancy, the specifications of the COMcheck Energy Analysis will be verified by the Building Department during routine inspections. The COMcheck Energy Analysis shall project a 10% more energy efficient design compared to the IECC.
      ii) Buildings 10,000 square feet of Conditioned Space or larger shall be energy modeled by a licensed engineer using Building Department Approved energy modeling software. Approved software includes, but is not limited to, the most recently published version of the following: eQuest, Trace, Carrier HAP, and EnergyPlus. The model shall verify that amount of energy used is 10% more energy efficient compared to the IECC and shall be submitted to the Building Department with the Building Permit application. Prior to receiving a certificate of occupancy, the specifications of the energy model will be verified by the Building Department during routine inspections.
   
   b. Additions. An energy audit shall be conducted by an Idaho licensed engineer on the entire Building associated with the Addition, unless an energy audit by an Idaho licensed engineer has been conducted and submitted to the Building Department within the last 5 years. Energy efficiency shall be verified by a COMcheck Energy Analysis. Applicants shall submit a COMcheck Energy Analysis based on the proposed design with a Building Permit application. Prior to receiving a certificate of occupancy, the specifications of the COMcheck Energy Analysis will be verified by the Building Department during routine inspections. The COMcheck Energy Analysis shall project a 10% more energy efficient design compared to the IECC.

   c. Alterations. A COMcheck Energy Analysis shall be submitted to the Building Department verifying that the Alteration exceeds the energy efficiency requirements of
the IECC by 10% or by calculating the energy efficiency rating of a specific component that affects energy efficiency associated with the alteration. For example: the IECC requires a U-factor of 0.35 for a new window installation. A new window that is 10% more efficient would have a U-factor of 0.315 (or 0.32 rounded up) or better.


1. Water Conservation. All faucets, showerheads, and toilets installed in a Building for domestic use and restroom facilities, shall use 20% less water than standard fixtures or be labeled by the WaterSense Program, which use at least 20% less water than standard fixtures. Water Sense labels or equivalent documentation shall be submitted to the Building Department or provided during final inspection for verification.

2. Indoor Air. The applicable sections of the most recent edition of the International Mechanical Code shall be met to ensure proper ventilation.

3. Construction Waste. In addition to waste receptacles, bins for cardboard and clean wood waste shall be provided and sorted accordingly on-site during construction and will be verified by the Administrators during regularly scheduled inspections.

4. Durability and Assurance. Details and specifications shall be submitted in the drawings, details, or in packet form with the Building Permit in order to promote durability, and high performance of the Building enclosure and its components and systems through appropriate design, materials, selection, and construction practices.

   a. Under the following categories, the Administrators shall specify what items shall be applicable and provide a list of these items with the Building Permit:

      i) Foundations
      ii) Walls
      iii) Roofs
      iv) Air infiltration
      v) Heat loss

   b. Before the issuance of a certificate of occupancy, applicants shall sign a declaration that states all items are installed to manufacturer’s specifications and plan details.

E. Points Menu. Unless a qualifying exemption applies, the following construction activities: exterior snow melt systems, residential New Construction, and residential Additions of 500 square feet of Conditioned Space or greater, shall obtain points from Sections (4) though (11) herein, in an amount determined by the applicable points equation in (a), (b), or (c), below. Any two or more building permits for the same structure that are applied for in any 12 month period shall be considered as one application for the purpose of calculating points.

1. Calculation of Points. Points are accumulated based on the total square feet of Conditioned Space and the number of bedrooms included in the Addition or New Construction project or the square footage of an exterior snow melt system. Points shall be rounded down to the nearest 0.5 (example: a points equation resulting in 2.7 points shall be rounded down to 2.5 points and a points equation resulting in 3.4 points shall be rounded down to 3.0 points)

   a. Points equation for New Construction. (Square footage of Conditioned Space)/(number of bedrooms) x 0.01 = required points.

      i) Points shall be applied to the construction of the new residential Building.
b. **Points equation for Additions.** (Square footage of Conditioned Space of Addition) / (Number of bedrooms included in Addition + 1) x 0.01 = required points.  
   i) Points shall be applied to the Addition, existing structure, or a combination of both.

c. **Points equation for exterior snow melt systems.** (Square footage of exterior snow melt)/100 = required points.  
   i) Points shall be applied to the new or existing structure, or a combination of both, if applicable, and shall only be obtained from Section 15.08.012.E.5, Energy Efficiency.

2. **Restrictions.** When points are required for more than one construction activity, the same item cannot count as a point(s) for satisfying multiple point requirements under more than one construction activity.

3. **Verification.** Before final inspection, a Verification of Accountability by Responsible Party form shall be submitted, along with supporting documentation such as copies of receipts and invoices, material packaging, and photos, unless an alternative method of verification is specified herein.

4. **Waste Management.**
   a. **Reuse Existing Building.** Up to 5 points.
      
      | Points | Percent of Exterior Walls saved  
      |--------|--------------------------|
      | 3      | 50%  
      | 5      | 75%  

   b. **New Construction Waste Recycling.** Up to 3 points.  
      i) Application. Points will be awarded according to the following table:

      | Points | Percentage Waste | Percentage Diverted |
      |--------|------------------|---------------------|
      | 1      | 75%              | 25%                 |
      | 2      | 50%              | 50%                 |
      | 3      | 25%              | 75%                 |

5. **Energy Efficiency.**
   a. **Insulation.** Up to 7 points.
      i) **Wall Insulation.** 2 points.
         (1) Application. R-24 minimum wall cavity insulation.
         (2) Verification. Checked during plan review by the Administrators and verified by the Certified HERS Rater for New Construction or checked during plan review and verified by the Administrators for projects using the prescriptive pathway described in C. 1. b. Checked during plan review and verified by the Administrators for Additions.

      ii) **Basement or Foundation Insulation.** 1 to 5 points.
         (1) Application. Insulation must be installed on the full height of a basement or foundation wall.
         (2) Verification. New Construction projects are checked during plan review by the Administrators and verified by the Certified HERS Rater or the
Administrators for projects using the prescriptive pathway described in C. 1. b. Addition projects are checked during plan review and verified by the Administrators.

<table>
<thead>
<tr>
<th>Points</th>
<th>R-Value and insulated concrete forms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15, or</td>
</tr>
<tr>
<td>2</td>
<td>20, or</td>
</tr>
<tr>
<td>3</td>
<td>25, and</td>
</tr>
<tr>
<td>2</td>
<td>Use of insulated concrete forms on the foundation (stem wall and footing)</td>
</tr>
</tbody>
</table>

b. Windows. Up to 3 points.
   i) Application. New windows or replacement windows installed as part of an Addition are awarded points as follows:

<table>
<thead>
<tr>
<th>Points</th>
<th>Maximum U-factor*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>2</td>
<td>0.28</td>
</tr>
<tr>
<td>3</td>
<td>0.26</td>
</tr>
</tbody>
</table>

*U-factor, as established by the National Fenestration Rating Council (NFRC).

   ii) Verification. New Construction projects are checked during plan review by the Administrators and verified by the Certified HERS Rater or the Administrators for projects using the prescriptive pathway described in C. 1. b. Addition projects are checked during plan review and verified by the Administrators.

   The inspector must be able to clearly identify the U-factor and Solar Heat Gain Coefficient (SHGC) ratings and window type by the National Fenestration Rating Council’s stamp or the manufacturer’s label. Applicant must show the number of windows to be upgraded on Building plans.

c. Air Sealing of an Existing Building. Up to 4 points.
   i) These points shall not be applied to New Construction activity.

   Points will be awarded when a HERS rating is applied to the existing structure before and after construction showing the following blower door results:

<table>
<thead>
<tr>
<th>Points</th>
<th>Natural Air Changes Per Hour at 50 Pascal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

   i) HVAC Commissioning. 1 point for each commissioning that applies; up to 3 points.

   (1) Application. 1) test for duct leakage at a 6% target to floor area ratio at 50 Pascal, 2) test and adjust firing rate to within recommended manufacturer specifications and suitable to occupant conditions, and 3) test and adjust refrigerant charge to manufacturer specifications.

   ii) Heat Pumps.

<table>
<thead>
<tr>
<th>Points</th>
<th>Type of source pump installed</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Water</td>
</tr>
<tr>
<td>6</td>
<td>Ground</td>
</tr>
<tr>
<td>4</td>
<td>Air</td>
</tr>
</tbody>
</table>
iii) Sealed Combustion or Power Vent Assisted Water Heating

System. 2 Points.

- Verification. New Construction projects are checked during plan review by the Administrators and verified by the Certified HERZ Rater or the Administrators for projects using the prescriptive pathway described in C. 1. b. Addition projects are checked during plan review and verified by the Administrators.

iv) ENERGY STAR boiler, furnace, or hot water heater: 2 points each.

e. Zoned, Hydronic Radiant Heating. 2 points.

i) Application. Use a Zoned Hydronic Radiant Heating system that circulates hot water through radiant floor panels, wall radiators, or baseboard convectors located in different areas or zones of the house.

ii) Verification. Checked during plan review and inspected in the field by the Administrators.

f. Passive Cooling. 2 to 5 points.

i) Application. Any combination of natural cooling techniques can be used to reduce overheating in homes. Use awnings and window overhangs primarily on south-facing glass to provide a balance between summer cooling and winter heating through solar gain. Points will be awarded for passive cooling systems using any two or more of these techniques (one point per option):

1. Exterior vertical shading devices for east- and west-facing glass.
2. Low emissivity films on glass on east- and west-facing windows.
3. Radiant barriers installed in the attic space.
4. Landscaping that shades east- and west-facing windows during the cooling season (June to September).
5. South window overhang sized to effectively shade the window (from June to September).

ii) Verification.

1. New Construction: checked during plan review by the Administrators and verified by the Certified HERZ Rater or the Administrators for projects using the prescriptive pathway described in C. 1. b.

2. Additions: checked during plan review and verified by the Program Administrators. Indicate the passive cooling design features on the Building Permit plan, for option number 5 above; submit a calculation that demonstrates overhangs have been designed in accordance with the equation below for all south-facing glass. The formula below will result in window overhangs that shade 100 percent of south-facing window glazing on June 21 (summer solstice).

3. Applicants should use this formula as a guide for sizing all south-facing overhangs:

\[
D = \frac{H}{F} \text{ where: } \\
D = \text{Distance of overhang} \\
H = \text{Height from bottom of glass to overhang} \\
F = 3.38 \text{ (F is a value corresponding to the noon sun altitude angle on June 21st)}
\]

g. Whole House Fan. 2 points.
i) Application. Install a Whole House Fan with an insulated cover that creates an airtight seal between attic and living space when the fan is off. For maximum effectiveness, the fan should be mounted in a hallway ceiling on the top floor of the house, and should be sized to produce four to five air changes per hour within the home.

ii) Verification. New Construction projects are checked during plan review by the Administrators and verified by the Certified HERS Rater or the Administrators for projects using the prescriptive pathway described in C. 1. b. Addition projects are checked during plan review and verified by the Administrators.

h. Water Heating. Up to 2 points.
   i) Application. Point-of-use water heating uses a mini-water heater at remote fixtures to reduce the energy and water use associated with long piping runs. They are sized to supply hot water to a single fixture such as a sink. Gas-fired models must have a minimum energy factor of 0.82 to achieve this credit.

<table>
<thead>
<tr>
<th>Points</th>
<th>Type of water heater</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Tankless</td>
</tr>
<tr>
<td>2</td>
<td>Point of Use</td>
</tr>
<tr>
<td>2</td>
<td>Indirect fired</td>
</tr>
</tbody>
</table>

ii) Verification.
   (1) New Constructions. Checked during plan review by the Administrators and verified by the Certified HERS Rater or the Administrators for projects using the prescriptive pathway described in C. 1. b.
   (2) Additions. Checked during plan review and verified by the Administrators.

i. Lighting and Appliances.
   i) ENERGY STAR qualified CFLs or LEDs. 5 points.
      (1) Application. Lighting shall be installed in accordance with the lighting table below.
      (2) Any exterior lighting fixture must comply with city of Hailey Outdoor Lighting Ordinance requirements.
<table>
<thead>
<tr>
<th>Area</th>
<th>Rooms</th>
<th>Required percentage of installed ENERGY STAR qualified CFL or LEDs</th>
</tr>
</thead>
<tbody>
<tr>
<td>High-Use Rooms</td>
<td>Kitchen, dining room, living room, family room bathroom(s), hall(s)/stairway(s)</td>
<td>50 percent of total number of fixtures</td>
</tr>
<tr>
<td>Medium/Low-Use Rooms</td>
<td>Bedroom(s), den, office, basement, laundry room, garage, closet(s), and all other rooms</td>
<td>25 percent of total number of fixtures</td>
</tr>
<tr>
<td>Outdoor</td>
<td>Outdoor lighting affixed to the structure or free-standing pole(s) except for landscape and solar lighting</td>
<td>50 percent of total number of fixtures including all flood lighting</td>
</tr>
</tbody>
</table>

(3) Verification. New Construction projects are checked during plan review by the Administrators and verified by the Certified HERS Rater or the Administrators for projects using the prescriptive pathway described in C. 1. b. Addition projects are checked during plan review and verified by the Administrators.

ii) Efficient Light Controls. Up to 2 points.

(1) Application. Efficient lighting controls include occupancy sensors, dimming controls, and automatic daylight dimming controls. Points will be awarded for efficient light controls according to the following:

<table>
<thead>
<tr>
<th>Points</th>
<th>Number of control devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>

(2) Verification. New Construction projects are checked during plan review by the Administrators and verified by the Certified HERS Rater or the Administrators for projects using the prescriptive pathway described in C. 1. b. Addition projects are checked during plan review and verified by the Administrators.


(1) Application. Points will be awarded for ENERGY STAR appliances according to the following:

<table>
<thead>
<tr>
<th>Points</th>
<th>Type of ENERGY STAR rated appliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Refrigerator</td>
</tr>
<tr>
<td>2</td>
<td>Clothes washer</td>
</tr>
<tr>
<td>1</td>
<td>Freezer, not part of refrigerator appliance</td>
</tr>
<tr>
<td>1</td>
<td>Dishwasher</td>
</tr>
</tbody>
</table>
(2) Verification. New Construction will be verified by the Certified HERS Rater or by the Administrators, for projects using the prescriptive pathway described in C. 1. B. Additions will be verified by the Administrators. Appliance ENERGY STAR labels must remain on the equipment for inspection by a Certified HERS Rater or Building Inspector.

      i) Application. Points will be awarded in accordance with the following table, by designing with passive solar heating elements of south-facing glazing, appropriate thermal mass, and Building overhangs:

<table>
<thead>
<tr>
<th>Points</th>
<th>Percent verifying calculations of the Solar Heat Gain Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>40-49%</td>
</tr>
<tr>
<td>8</td>
<td>50-59%</td>
</tr>
<tr>
<td>10</td>
<td>60-69%</td>
</tr>
<tr>
<td>12</td>
<td>More than 70%</td>
</tr>
</tbody>
</table>
      
      ii) Verification. Inspected during plan review. Submit modeling documentation with the designer or architect's signature verifying calculations of the Solar Heat Gain Coefficient.
   
   b. Solar Thermal Domestic Hot Water System. 8 points.
      i) Application. A solar water heating system shall include south-facing rooftop or ground-mounted collectors, a heat exchanger to transfer the solar heat to the domestic water, and an insulated storage tank to store the heated water. The system shall be sized to provide at least 50 percent of the domestic hot water load. Sufficient unshaded south-facing roof area for collectors and space in a mechanical equipment room must be provided for the additional hot water storage tank.
      
      ii) Verification. New Construction projects are checked during plan review by the Administrators and verified by the Certified HERS Rater or the Administrators for projects using the prescriptive pathway described in C. 1. b. Addition projects are checked during plan review and verified by the Administrators.
   
   c. Pre-Plumb for Solar Thermal System Retrofit and include area required for future tanks and pumps. 2 points.
      i) Application. Install minimum ½" (5/8" OD) copper pipes, minimum 1” wall thickness high temperature 250°F rated insulation, and THN shielded 4 conductor sensor wiring between the attic and the water heater location. To accommodate “active” systems, provisions shall be made for a solar storage tank footprint, with pressure relief drain line, and an electrical outlet for a pump. An 8 ft. by 8 ft. section of south-facing roof suitable for future installation of solar panels shall be provided.
      
      ii) Verification. Checked during plan review by the Administrators and a Verification of Accountability by Responsible Party form shall be submitted, before the final inspection.
   
   d. Active Solar Electric System. Up to 12 Points.
      i) Application. Design and install a solar PV system to meet some of the electrical load of the Building.

<table>
<thead>
<tr>
<th>Points</th>
<th>size of kilowatt (kW) system</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>
ii) Verification. The applicant must submit documentation by a qualified engineer or equivalent of the solar installation company of the electrical production calculations using industry-accepted formulas. Installation verified by the Certified HERS Rater or the Administrators for projects using the prescriptive pathway described in C. 1. b.

e. Pre-Wire, or Chase Way, or Conduit, and Provide Area for Future Solar Electric. Photovoltaic (PV) System Retrofit. 2 points.

i) Application. Prewire, chase way, or conduit from the attic to a location near the electric service entrance/circuit breaker panel, allowing space for installation of PV modules on south-facing roofs, and ensuring that roof trusses are adequate to accommodate any added roof loads. Maintain a 200 square foot or larger section of unshaded south roof area clear of vent pipes and other obstructions to allow for the installation of modules. Install ¾-inch or larger EMT (electrical metal tubing) or FMC (flexible metal conduit) to accommodate wires run from the attic to a junction box near the main panel and meter. Provide the owner with a roof plan with the preferred location for PV modules and the conduit location clearly marked, and provide structural information on what added loads the roof can accommodate.

ii) Verification. checked during plans review and a Verification of Accountability by Responsible Party form shall be submitted, before the final inspection.

7. Material Efficient Framing and Structure

a. Advanced Framing Techniques: 2 to 10 points.

i) Verification. Checked during plans review and a Verification of Accountability by Responsible Party form shall be submitted, before the final inspection.

ii) 24-inch On-Center Framing: 2 points.

iii) Resource Efficient Insulated Headers: 2 points.

(1) Application. points are awarded for incorporating a minimum R-10 insulation in the header section.

iv) Trusses with energy heel: 2 points.

v) HVAC Ducts Within Conditioned Spaces: 2 points.

vi) Minimum 24-inch Roof Overhangs: 2 points.

(1) Application. Design at least a 12-inch overhang with gutters around the Building’s entire roof. Install gutter and downsput system to divert water five feet away from foundation and, from there, into the overall on-site drainage area or install crushed stone or other material below roof drip line to minimize splash on siding in high snow areas. All overhangs must meet Building code and zoning restrictions.

b. Structural Insulated Panels (SIPs) in Conditioned Spaces or an Alternatives to Wood Framing Approved by the Administrators. Up to 8 points.

i) Application. incorporating SIP construction requires that stamped plans be submitted from a designer.

<table>
<thead>
<tr>
<th>Points</th>
<th>Percent of structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>At least 50% of Exterior Walls</td>
</tr>
<tr>
<td>8</td>
<td>At least 50% of Exterior Walls and roof</td>
</tr>
</tbody>
</table>

ii) Verification. Checked during plans review and a Verification of Accountability by Responsible Party form shall be submitted, before the final inspection.

c. Other Alternatives to Wood Framing. Up to 8 points.
i) Application. Exterior walls must be constructed with alternative materials. Alternative Building methods that demonstrate energy- and resource-efficient construction with less embodied energy are awarded points according to the following:

<table>
<thead>
<tr>
<th>Points</th>
<th>Percent of structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>At least 50% of Exterior Walls</td>
</tr>
<tr>
<td>8</td>
<td>At least 50% of Exterior Walls and roof</td>
</tr>
</tbody>
</table>

ii) Verification. Checked during plans review and a Verification of Accountability by Responsible Party form shall be submitted, before the final inspection.

8. Sustainable Products.
   a. Forest Stewardship Council (FSC) Certified. Up to 6 points.
   
<table>
<thead>
<tr>
<th>Points</th>
<th>Number of board feet (BF) of FSC lumber per square feet (SF) of floor area</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>2 BF per SF of floor area (2BF/SF)</td>
</tr>
<tr>
<td>4</td>
<td>3 BF per SF of floor area (3 BF/SF)</td>
</tr>
<tr>
<td>6</td>
<td>50% or more of dimensional lumber in total BF is FSC, excluding engineered wood products</td>
</tr>
</tbody>
</table>
   
   b. Environmentally Preferred, Low Emission, and Local Materials. Up to 10 points from Chart A.

i) Application. For each assembly, all product specification type requirements shall be met in order to receive the points available. Environmentally preferred and low emission qualifying products have more than one of these attributes: recycled content, reclaimed, bio-based, agricultural residue, rapidly renewable, and low or no volatile organic compounds (VOCs) emissions. A “recycled content” product must contain a minimum of 25 percent post-consumer recycled content except as noted otherwise above. Post-industrial (pre-consumer) recycled content is counted at half the rate of post-consumer content. Except as otherwise noted in Chart A, 90 percent of the component, by weight or volume, must meet the specification shown. Locally sourced materials are products that are manufactured within 500 miles of the city are considered local.

**Chart A: Environmentally Preferable Products/Locally Sourced Materials**

<table>
<thead>
<tr>
<th>Assembly</th>
<th>Component</th>
<th>Product Specification Types</th>
<th>EPP Specifications</th>
<th>Emission Specifications</th>
<th>Local</th>
<th>Points Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exterior Wall</td>
<td>Framing</td>
<td>Forest Stewardship Council (FSC) Certified</td>
<td></td>
<td></td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>Exterior Wall</td>
<td>Framing</td>
<td>Finger-jointed studs (vertical use only for structural components)</td>
<td></td>
<td></td>
<td>X</td>
<td>1</td>
</tr>
<tr>
<td>Exterior Wall</td>
<td>Siding or masonry</td>
<td>Recycled content or Forest Stewardship Council (FSC) Certified</td>
<td>X</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------------</td>
<td>---------------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floor</td>
<td>Flooring</td>
<td>90% of home</td>
<td>NO carpet in home</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floor</td>
<td>Framing</td>
<td>Forest Stewardship Council (FSC) Certified</td>
<td>X</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foundation</td>
<td>Cement</td>
<td>Fly ash or slag as replacement for, not Addition to, cement content (min. 20%)</td>
<td>X</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interior Wall</td>
<td>Framing</td>
<td>Forest Stewardship Council (FSC) Certified</td>
<td>X</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interior Wall</td>
<td>Framing</td>
<td>Finger-Jointed, (vertical use only for structural components)</td>
<td>X</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interior Walls AND ceilings</td>
<td>Gypsum board</td>
<td>Recycled content</td>
<td>X</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interior Walls AND millwork</td>
<td>Paint</td>
<td>Comply with Green Seal Standard GS-11, Paints, First Edition, May 20, 1993 (0.5 points) 48 hour pre-occupancy flush (0.5 points)</td>
<td>0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interior Walls AND millwork</td>
<td>Wood finishes</td>
<td>VOC concentrations of 150 gpl or less</td>
<td>0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td>---------------</td>
<td>--------------------------------------</td>
<td>-----</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landscape</td>
<td>Decking or patio material</td>
<td>Recycled content or Forest Stewardship Council (FSC) Certified</td>
<td>X 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Cabinets</td>
<td>Recovered, recycled content, or Forest Stewardship Council (FSC) Certified</td>
<td>Wood and/or agrifiber products with no added urea-formaldehyde resins</td>
<td>X 1.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Counters</td>
<td>Recycled content</td>
<td>Wood and/or agrifiber products with no added urea-formaldehyde resins</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Doors (not incl. garage)</td>
<td>Recycled content or Forest Stewardship Council (FSC) Certified</td>
<td>Wood and/or agrifiber products with no added urea-formaldehyde resins</td>
<td>X 1.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Trim</td>
<td>Recovered, recycled content, or Forest Stewardship Council (FSC) Certified</td>
<td>Wood and/or agrifiber products with no added urea-formaldehyde resins</td>
<td>X 1.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Adhesives and sealants</td>
<td>Recycled content or Forest</td>
<td>VOC concentrations of 70 gpl or less</td>
<td>0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Windows</td>
<td>Recycled content or Forest</td>
<td>X 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stewardship Council (FSC) Certified</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>-------------------------------------</td>
<td>------------------</td>
<td>------</td>
<td>------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roof</td>
<td>Framing</td>
<td>Forest Stewardship Council (FSC) Certified</td>
<td>X</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roof</td>
<td>Roofing</td>
<td>Recycled content or vegetated (min. 200 sf)</td>
<td>X</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roof AND floor</td>
<td>Insulation</td>
<td>Recycled content (min 20%)</td>
<td>X</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>and wall</td>
<td>Sheathing</td>
<td>Recycled content or Forest Stewardship Council (FSC) Certified</td>
<td>X</td>
<td>1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. Indoor Air Quality.
   a. ENERGY STAR's Indoor airPLUS (IAP) Requirements. 5 points.
      i) Application. Only New Construction that obtains ENERGY STAR is eligible for this label. For this point option, all of the requirements of ENERGY STAR IAP must be met.
      ii) Verification. An ENERGY STAR Home Performance Specialist must perform a visual inspection of installed measure(s) and relevant documents/test results, to affirm compliance or submit an IAP certificate prior to final inspection.
   b. Mechanical Ventilation. Up to 5 points.
      ii) Application. Energy Recovery Ventilators must be integrated into the HVAC system. Points are awarded for providing mechanical ventilation according to the following table:

<table>
<thead>
<tr>
<th>Points</th>
<th>Type of fan and location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kitchen exhaust fan (minimum 100 cfm)</td>
</tr>
<tr>
<td>1</td>
<td>Bath exhaust fan with timer or Humidistat controls (minimum 50 cfm)</td>
</tr>
<tr>
<td>1</td>
<td>Ventilation integrated into the HVAC system</td>
</tr>
<tr>
<td>2</td>
<td>Energy Recovery Ventilation System</td>
</tr>
</tbody>
</table>

   ii) Verification. Checked during mechanical inspection. The state mechanical inspector shall complete a Verification of Accountability by Responsible Party form, which shall be submitted, before the final inspection.
   c. High-Efficiency HVAC Filter.
      i) Filters with MERV ratings of 6 to 10. 1 point.
(1) Application. Any MERV with a rating from 6 to 10. Filters with a MERV rating of higher than 10 may be used only if the HVAC fan system is specifically designed for it.

d. **Attached Garage Exhaust Fan.** 1 point.
   i) Application. Install an exhaust fan on the opposite wall from the door to the house. It shall be wired to an electric garage door to run after the door has been opened or closed or put on a timer.

10. **Homeowner Information - Operations and Maintenance Binder.** 3 points.
   a. Application. The builder shall provide a binder to be left in the dwelling for future occupants that includes the following three items:
      i) The points checklist
      ii) HERS Index score certificate, if applicable.
      iii) The equipment manufacturers' installation manuals, except for manuals required to be affixed to the equipment, for all installed equipment, fixtures, and appliances
   b. Verification. Submitted to the Administrators for review and inspected during final inspection.

11. **Design Process and Innovation.**
   a. **Green Building Consultants.** 1 point.
      i) Application. Use services provided by a consultant(s) certified through, Green Advantage, LEED AP, Certified Sustainable Building Advisor, or similar certification Approved by the Administrators during the design and construction process.
      ii) Verification. A green building consultant must sign the Verification of Accountability by Responsible Party form and provide proof of certification or accreditation during Building plans submittal.
   b. **ENERGY STAR Builder.** 1 point
      i) Application. Applies to New Construction Only. The general contractor must be an ENERGY STAR Builder.
      ii) Verification. The builder must sign the Verification of Accountability by Responsible Party form and the builder’s name must be listed on ENERGY STAR’s web site.
   c. **Innovation Points.** 3 points.
      i) Application. Minimize the environmental impact of the house by incorporating green design and construction measures that have tangible and demonstrable benefits beyond those outlined in the points program. Suggested innovations include: exceptional performance (e.g., zero energy, carbon neutral); innovative design strategies; or emerging technologies, materials, or construction practices. The applicant MUST prepare a written submittal that includes:
         (1) The intent of the innovation measure(s)
         (2) The proposed requirement for compliance
         (3) The proposed documentation to demonstrate compliance
         (4) A description and an estimate of the benefit/impact

      ii) The above information must document how such an approach will minimize the impacts of the Building in a tangible and demonstrable way beyond the methods outlined in the Build Better Point Menu. The product, design, or technology must comply with
existing city codes and standards.

iii) Verification. Applicant must provide the above documentation in writing and any other supporting documentation, such as an evaluation report or specifications to quantify performance. This information is submitted with Building Permit plans and will be awarded during the Administrators' evaluation and determination of measures proposed.

Section 2. Section 15.08.030 of the Hailey Municipal Code is amended by the addition of the underlined language, as follows:

15.08.030 Additional requirements. The following regulations shall apply in addition to those contained in the adopted codes and standards.

A. Manufactured Homes. The city of Hailey adopts by reference the "Idaho Manufactured Home Installation Standard" as published by the state of Idaho, September, 1999, compiled jointly by the Manufactured Housing Industry, as may be modified and adopted by the state of Idaho. Said "Standard" shall be known as the "Manufactured Housing Code."

B. Special Natural Hazard. Understanding that certain natural hazards exist in the jurisdiction including, but not limited to avalanche areas, earthquake, floodplain, snow loads, wildfires and soil qualities, site specific surveys and related engineering may be required as deemed appropriate by the authority of the jurisdiction.

C. Plumbing and Electrical Inspections Prerequisite. The framing inspection by the city of Hailey Building department shall not be conducted until the applicant has obtained a rough plumbing and electrical inspection from the Idaho State Plumbing and Electrical Inspectors. The final inspection shall not be conducted until the applicant has obtained a final plumbing and electrical inspection.

D. Salvaged Building Materials. The use of salvaged Building materials may be approved by the Building Official upon receipt of a complete list of those materials accompanied with written approval of such materials by an Idaho Licensed Structural Engineer. Said materials shall be capable of meeting design criteria for the proposed project.

E. Insulation of Stem Wall. In reference to residential construction, perimeter stem wall insulation practices shall be considered as equal and equivalent insulation criteria when considering thermal Building envelope efficiencies using energy code thermal design parameters.

F. Increased energy efficiency and sustainable Building practices. An increase in energy efficiency by 10% above the IECC and other sustainable Building practices and materials shall be followed, as specified by Section 15.08.012, Build Better Program, provided the activity is not listed as an exception in Section 101.4.3 of the IECC or an exemption in Section 15.08.012, A. 3. or 4.

Section 3. Severability Clause. 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. Repealer Clause. All ordinances and parts of ordinances in conflict herewith are hereby repealed.
Section 5. Effective Date. This Ordinance shall be in full force and effect on May 1, 2013 and after its passage, approval and publication according to law.

ADOPTED BY THE HAILEY CITY COUNCIL AND APPROVED BY THE MAYOR
this ___________ day of February, 2013.

________________________________________
Fritz H. Haemmerle
Mayor, City of Hailey

ATTEST:  

______________________________
Mary Cone, City Clerk      (Seal)
AGENDA ITEM SUMMARY

DATE: 2/4/13  DEPARTMENT: PW - Wastewater  DEPT. HEAD SIGNATURE: 

SUBJECT: Discussions of options presented by HDR Engineering for Wastewater Treatment Plant biosolids project, involving removal of dome.

AUTHORITY: □ ID Code _______ □ IAR _________ □ City Ordinance/Code _________
(IFAPPLICABLE)

BACKGROUND/SUMMARY OF ALTERNATIVES CONSIDERED:
See attached memo and information from HDR Engineering.

FISCAL IMPACT / PROJECT FINANCIAL ANALYSIS:
Caselle #
Budget Line Item #
Estimated Hours Spent to Date: ____________________________
Estimated Completion Date:
Staff Contact: ____________________________
Phone #: ____________________________
Comments: ____________________________

ACKNOWLEDGEMENT BY OTHER AFFECTED CITY DEPARTMENTS:
(if applicable)

□ City Administrator  □ Library  □ Benefits Committee
□ City Attorney  □ Mayor  □ Streets
□ City Clerk  □ Planning  □ Treasurer
□ Building  □ Police  □
□ Engineer  □ Public Works, Parks  □ P & Z Commission
□ Fire Dept.  □

RECOMMENDATION FROM APPLICABLE DEPARTMENT HEAD:
No action at this time.

ADMINISTRATIVE COMMENTS/APPROVAL:

City Administrator ________________________ Dept. Head Attend Meeting (circle one) Yes  No

ACTION OF THE CITY COUNCIL:
Date ____________________________

City Clerk ____________________________

FOLLOW-UP:
*Ord./Res./Agrmt./Order Originals: Record Copies (all info.):
Instrument #
*Additional/Exceptional Originals to: Copies (AIS only)

107
To: Mayor Fritz Haemmerle  
City Council Members  

CC: Heather Dawson, City Administrator  
Roger Parker, Wastewater Division Manager  

From: Tom Hellen, Public Works Director/City Engineer  

Date: February 4, 2013  

Re: Wastewater Treatment Facility Biosolids Project Update  

The purpose of this memo is to provide an update to the Mayor and City Council on the status of the proposed upgrade to the biosolids handling facilities at the wastewater treatment plant. The scope of work for HDR Engineering was to provide a preliminary engineering report including a basic layout of the process, new construction needed and a cost estimate for this work. This report would provide the city council with the information needed to determine if a bond election would be called for the May election date.

Included with this memo are a status update on the preliminary engineering report, meeting notes from December 19, 2012 and a flow diagram showing the flow of biosolids and the expected equipment needed. Cost estimates are being developed and will be available at the March 4, 2013 council meeting. Preliminary cost estimates for equipment are as follows:

- Thickening Unit (2 required)  
  $70,000 – $80,000 each

- Dewatering Unit – Class B  
  $160,000 - $250,000

- Dewatering Unit – Class A upgrade  
  $290,000

Costs for the Aerobic Digester; a concrete basin with blowers; mechanical, piping, electrical, instrumentation and the building to accommodate the equipment are being developed.

One major decision point is the question of what the final product will be. Biosolids are noted as either Class A or Class B. Class A as a final product is pathogen free and is available for use as fertilizer with no limitations, e.g. city parks is one possibility. It has a higher up front cost for the equipment required to reach this level. Class B can be used as fertilizer on fields where direct human contact or consumption of food products does not occur; e.g. alfalfa fields. Class B can become Class A if it is set aside and allowed to compost. This process would
involve labor hours for turning the pile and adding other materials. A cost-benefit analysis would be prepared to assist with this decision. A cost benefit will also be completed to show the savings from not hauling sludge to Ohio Gulch, heating the dome, fertilizer cost savings for the parks versus the cost of the bond on utility bills.
Preliminary Engineering Status Update

- Site investigation and project coordination meeting:
  - The site visit and meeting were conducted December 19, 2012. Notes from the meeting are attached.

- Preliminary Engineering Report:
  - The following activities have been completed:
    - Identify and evaluate solids thickening and solids handling options.
    - Update facility plan flows and loads.
    - Establish and document the design criteria.
    - Develop mass balance and process flow diagram. The preliminary process flow diagram is attached.
  - The following activities are nearing completion:
    - Develop preliminary process design.
    - Develop preliminary site and civil design.
      - HDR requests the CAD files for the existing site to help complete this activity.
    - Develop preliminary structural design.
    - Develop preliminary process mechanical design.
      - HDR requests the CAD files for the existing process facilities to help complete this activity.
    - Develop preliminary electrical design.
    - Develop preliminary instrumentation and control design.
    - Develop preliminary implementation and procurement plan.

- Preliminary opinion of probable construction cost:
  - The cost opinion is in progress and budgetary pricing has been received for most of the major pieces of equipment.

- Review Workshop:
  - The review workshop will occur the week of March 4.
RE: Budgetary Pricing Information

Sludge Thickening Equipment

Several manufacturers of sludge thickening equipment were contacted and asked to provide budgetary proposals for thickening 200 gallons per minutes (gpm) of waste activated sludge (WAS) from 0.25 percent total suspended solids (TSS) to 4 percent TSS. Four viable proposals were received. The range of budgetary pricing was from approximately $160,000 to $220,000 each with a median price point of approximately $180,000 each. The budgetary pricing includes the thickening equipment and local control system, but does not include polymer blending and feed system, pumping, electrical power or communication services, structural components, building space, etc.

As we have discussed with the City previously, several of the manufacturers expressed concern about thickening the very dilute sludge. This led us to consider a recuperative thickening process instead of thickening upstream of the aerobic digesters. Initially working with one manufacturer of sludge thickening equipment, we requested a new budgetary proposal for thickening 160 gpm of digested sludge from 2.7 percent TSS to a maximum of 5 percent TSS. The budgetary price for their system was approximately $70,000. Again, this pricing includes the thickening equipment and local control system but excludes other required ancillary equipment and systems. We are working with the other manufacturers to obtain revised budgetary proposals for the recuperative thickening system.

Sludge Dewatering Equipment

The same process was followed for the sludge dewatering equipment and several manufacturers of sludge dewatering equipment were contacted and asked to provide budgetary proposals for dewatering 10 gpm of digested sludge from 2.7 percent TSS to 18 percent TSS. Six viable proposals were received. The range of budgetary pricing was from approximately $160,000 to $250,000 each with a median price point of approximately $190,000 each. Again, the budgetary pricing includes the dewatering equipment and local control system, but does not include polymer blending and feed system, pumping, electrical power or communication services, structural components, building space, etc.

Sludge Dewatering Equipment - Class A Biosolids Capable

One manufacturer that provided a budgetary proposal for the sludge dewatering equipment also provided a budgetary proposal for modifying their equipment to allow production of Class A biosolids. This included the addition of a steam boiler and lime stabilization system. The budgetary adder was approximately $290,000.

Other add-on stabilization systems are available to produce a Class A product, but generally this requires combining equipment from multiple manufacturers. For this option, we chose to work directly with one manufacturer to streamline the process of obtaining budgetary pricing to inform the City.
RE: Comparison of Class A to Class B Biosolids

The following is a brief comparison of Class A to Class B biosolids. The comparison presents Class B then Class A as Class A requires a higher level of treatment.

<table>
<thead>
<tr>
<th>Class B biosolids</th>
<th>Class A biosolids</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regulations</strong></td>
<td></td>
</tr>
<tr>
<td>Some pathogen reduction.</td>
<td>Greater reduction of pathogens and attractiveness to vectors (flies, mosquitoes, or potential disease-carrying organisms).</td>
</tr>
<tr>
<td>Regulated for bulk application.</td>
<td>Virtually unregulated for beneficial use by general public for soil augmentation.</td>
</tr>
<tr>
<td>Imposed buffer zones, crop types, crop harvest</td>
<td>Generally no imposed buffer zones, crop types, crop harvest requirements or site access restrictions.</td>
</tr>
<tr>
<td>requirements and/or site access restrictions.</td>
<td></td>
</tr>
<tr>
<td><strong>Equipment for Solids Handling Improvement Project</strong></td>
<td></td>
</tr>
<tr>
<td>Less processing and handling equipment.</td>
<td>More processing and handling equipment.</td>
</tr>
<tr>
<td>Smaller footprint.</td>
<td>Larger foot print (~3-4x greater than Class B)</td>
</tr>
<tr>
<td>Smaller equipment building.</td>
<td>Larger and taller equipment building.</td>
</tr>
<tr>
<td><strong>Other Considerations</strong></td>
<td></td>
</tr>
<tr>
<td>Increased worker hygiene when handling product.</td>
<td></td>
</tr>
</tbody>
</table>
Meeting Notes

City of Hailey
Preliminary Engineering of Solids Handling Improvements

<table>
<thead>
<tr>
<th>Subject: Kick-off Meeting and Site Visit</th>
<th>Meeting Location: City of Hailey – Woodside Treatment Plant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting Date: December 19, 2012</td>
<td>Conference Call Information: N/A</td>
</tr>
<tr>
<td>Notes by: Falcofer and Zeltner</td>
<td>Notes issued:</td>
</tr>
</tbody>
</table>

Attendees:
- Tom Hellen
- Roger Parker
- Steve Holyoak
- Mike Zeltner
- Don Best
- Haley Falconer

Agenda:
- Existing Conditions
  - Confirm current wasting operation
    - Flow rate, concentration, frequency
    - Gravity wasting through 10-RS?
    - Relocate or replace 6” WAS mag meter
  - Air for grit basin from packaged plant?
    - Pressure and volume requirements?
    - Where is compressor/blower?
  - Existing stand-by generator at packaged plant – save/demo?
- Considerations for Preliminary Engineering
  - Confirm design population/flow for report
    - Follow Wastewater Facility Plan projections
  - 2010 Census is much lower – revise flow projections?
  - Redundancy if dewatering equipment is offline
    - Haul
    - Second unit
    - Size digester for additional capacity
  - Equipment lagging scheme
  - Pipe labeling scheme
  - Sludge pump preference
  - Process Flow Diagram
    - Management of dewatered solids
    - Digester mixing
  - Digester operation
    - Aeration
    - NDN
  - Vendor equipment
    - Is the # of US installations important to the city?
  - Aeration blower data sheets
  - As-Built CAD files

Discuss Items:
The following items were discussed and agreements were made. Any additions or corrections should be sent to Haley Falconer within 3 business days after receipt or the items and notes will be assumed to be accurate as shown.
- Population projections
  - The population projections in the Facility Plan were much more aggressive than actual growth in recent years.
    - A 4.5 percent increase per year was used for projections
    - 2.5 and 6.5 percent per year projections were also included as low and high growth rates, respectively.
  - The 2010 Census data shows an average population increase from 2000 to 2010 of about 2.5 percent per year, or the low projection rate in the facility plan.
  - Idaho DEQ requires the preliminary engineering report to consider a 20-year planning period (through 2033).
    - 2.5 percent per year population increase will be used from 2010 through the planning period.
- Influent flow and load projections
Historic flows and loads will be used to confirm the per capita rates using a straight line population projection from 2000 to 2010 and 2.5 percent per year increase after 2010.

- Demolition of existing packaged plant
  - The city will try to sell the cover prior to demolition.
  - Cost opinion will assume a conservative approach of including dome demolition unless a buyer is identified prior to completion of cost opinion.
  - Tank demolition will include removing components and walls to ~3 feet below grade and backfilling tank.
  - Cost opinion will include demolition of dome, structure, and appurtenances/equipment (catwalk, pipes, etc)

- Electrical systems
  - Main switchboard (SWBD)
    - Located in the Electrical Building and feeds power to two Automatic Transfer Switches (ATS).
    - Each ATS is connected to a separate standby power generator.
      - The existing generators are reported to be in good working condition.
    - It is not expected that the additional loads required for this project will require the existing utility transformer or Main SWBD to be replaced with larger units.
  - MCC-A
    - Located in the existing packaged plant dome which is to be demolished.
    - Fed from the Main SWBD via the ATS with 250 kW diesel generator.
    - Six sections wide (total), split into two - three sections each.
    - Existing loads that are to remain will need to be powered from an alternate source.
      - It doesn't appear that any existing major loads are to remain
      - Some small loads that are fed from its integral panelboard include small pumps, generator battery charger, and PLC Panel.
  - MCC-B
    - Located in the Electrical Building.
    - Currently fed from MCC-A, therefore its power feed will need to be re-done to bypass MCC-A.
    - Most of the Headworks equipment is powered from this MCC.
    - Three sections wide with the middle section having empty space which may be used.
  - MCC-C
    - Located in the SBR/Filter/LV Building.
    - Fed from the Main SWBD via the ATS with 400 kW diesel generator.
    - Eight sections wide with very little available space for new equipment.
    - Primarily used to feed power to the SBR equipment.
  - MCC-D
    - Located in the SBR/Filter/LV Building.
    - Fed from MCC-B and is used to feed power to an assortment of loads at the building.
    - Five sections wide with about 1/2 sections available for expansion, however it only has a 250A main breaker.
    - If any substantial loads are added to this MCC then circuit breakers (feeder and main) and feeder cables would need to be replaced as required to handle the added loads.

- SCADA/PLC System
  - SCADA Platform is RSView32.
    - There is a SCADA Workstation located in the Admin Building and in the SBR Control Panel.
      - A new SCADA Workstation is not anticipated for this project.
  - PLC hardware is primarily Allen-Bradley SLC 500.
    - There are currently (4) SLC 5/05 processors, which are located in the following locations:
      - Electrical Building Control Panel
      - Headworks Control Panel
      - SBR Control Panel
      - Filter Control Panel
  - Several alternatives may be considered to connect the new process equipment to the existing Plant SCADA/PLC system for monitoring and controls:
    - A new PLC Control Panel may be added. The PLC may have a new SLC 5/05 processor, or an Input/Output Rack connected as remote I/O to the existing PLC in the SBR Control panel.
    - Existing Input/Output points located at the SBR Control Panel may be used if there are adequate existing spare points available.
    - The existing SLC 5/05 processor located in the Electrical Building Control Panel could possibly be removed and replaced with a new SLC 5/03 (with Ethernet communications) and the existing SLC 5/05 may be used for the control of new process equipment.
  - The City plant staff has been doing their own SCADA screen development and PLC programming.
  - The City plant staff will provide the SCADA and PLC programming required for this project.

- Wasting
  - Currently waste by pumping sludge with the Motive Pumps through the 18-inch suction pipe and discharging into the 6 inch WAS line.
  - Wasting occurs during the settle phase.
  - TSS concentration changes drastically during due to "rat holing" of settled sludge.
  - Discussed wasting at a slower rate over a longer time during the react phase.
  - Allows for more consistent WAS concentration.
  - Will help reduce dewatering equipment hydraulic capacity requirements and overall size.
  - WAS lines and valves
- Existing valves are open-close.
- Modulating type valves will likely be required.

- **Blowers**
  - The existing SBR blowers do not have capacity to supply the new aerobic digester.
  - The existing digester (dome) centrifugal blowers will be considered for use in the new aerobic digester.

- **Site layout**
  - Need to save space for 2 more SBR tanks and EQ tank plus long term tertiary filtration needs
  - Site evaluation will need to consider requirements for composting.

- **Equipment**
  - **Redundancy**
    - City prefers to not consider hauling to the landfill are a backup option
    - Options to consider include:
      - Redundant equipment
      - Additional digester volume
      - Recuperative thickening
  - **Sludge pumps**
    - The city has no preference; HDR will make a recommendation.
    - The city is interested in proven thickening and dewatering technologies, not technologies that are new for municipal installations.
    - The FKC screwpress can produce Class A biosolids without composting.
    - There is potential for an on-site pilot early in the preliminary design.
  - **Biosolids operations**
    - The dewatered cake will be dropped inside a building and then picked up with loader through a roll-up door.

**Action Items:**
- HDR will discuss Class A biosolids regulations regarding application and use.
- HDR will calculate or review polymer consumption per dry ton for the different technologies.
- HDR will contact FKC regarding the possibility of piloting their rotary screen thickener and screw press.
- HDR will verify structural requirements and the ability of stacking the digester thickener next to the existing SBR.
- City will monitor dome effluent pH, alkalinity, ammonia, and phosphate.

**Attachments:**
- None.
AGENDA ITEM SUMMARY

DATE: 2/4/13    DEPARTMENT: Legal/PW    DEPT. HEAD SIGNATURE:  

SUBJECT: Amendments to Municipal Code Title 13, Water and Wastewater Fees, which deletes any reference to the city's ability to impose a lien on property for delinquent water and wastewater fees.

AUTHORITY: □ ID Code □ IAR □ City Ordinance/Code  
(IFAPPLICABLE)

BACKGROUND/SUMMARY OF ALTERNATIVES CONSIDERED:  
The City Attorney has recommended that Section 13.04.150(C) needs to be revised to remove the provision for authorizing liens for delinquent water and wastewater fees on properties.

FISCAL IMPACT / PROJECT FINANCIAL ANALYSIS: Case#:  
Budget Line Item #: YTD Line Item: Balance $:  
Estimated Hours Spent to Date:  
Staff Contact:  
Phone #:  
Comments:

ACKNOWLEDGEMENT BY OTHER AFFECTED CITY DEPARTMENTS:  
(IFAPPLICABLE)  
☐ City Administrator  ☐ Library  ☐ Benefits Committee  
☐ City Attorney  ☐ Mayor  ☐ Streets  
☐ City Clerk  ☐ Planning  ☐ Treasurer  
☐ Building  ☐ Police  ☐  
☐ Engineer  ☐ Public Works, Parks  ☐  
☐ Fire Dept.  ☐ P & Z Commission  ☐  

RECOMMENDATION FROM APPLICABLE DEPARTMENT HEAD:  
Motion to approve Ordinance ___ and authorize the first reading by title only.

ADMINISTRATIVE COMMENTS/APPROVAL:  

City Administrator ___________  Dept. Head Attend Meeting (circle one) Yes No

ACTION OF THE CITY COUNCIL:  
Date ___________

City Clerk _______________________

FOLLOW-UP:  
*Ord./Res./Agrmt./Order Originals: Record  
Copies (all info.):  
Instrument # ___________

*Additional/Exceptional Originals to:  
Copies (AIS only)

117
HAILEY ORDINANCE NO. ______

AN ORDINANCE OF THE CITY OF HAILEY, IDAHO, AMENDING SECTION 13.04.150(C) TO DELETE THE AUTHORITY OF THE CITY OF HAILEY TO IMPOSE A LIEN FOR DELINQUENT WATER AND WASTEWATER USER FEES; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR A REPEALER CLAUSE; AND PROVIDING FOR THE EFFECTIVE DATE OF THIS ORDINANCE.

WHEREAS, Section 13.04.150(C) of the Hailey Municipal Code provides that delinquent water and wastewater user fees shall be imposed as a lien on the property upon which the fee was levied or assessed;

WHEREAS, based on City of Grangeville v. Haskin, 116 Idaho 535 (1989), the Hailey City Attorney has recommended that the city delete any language in Chapter 13 of the Hailey Municipal Code which purports to authorize a lien for delinquent water and wastewater user fees; and

WHEREAS, the Hailey City Council concurs with the recommendation and thereby amends Section 13.04.150(C) of the Hailey Municipal Code to delete the authority to impose a lien for delinquent water and wastewater user fees on property upon which the fee was levied or assessed.

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

Section 1. Section 13.04.150(C) of the Hailey Municipal Code is amended by the deletion of the stricken language, as follows:

Section 13.04.150(C). Water and Wastewater User Fees—Delinquency and Notice. All Water and Wastewater User fees shall be due and payable to the City Clerk on or before the bill closing date of each month’s bill, and upon failure to pay within the time as prescribed, each user shall pay, in addition to the amount due, the sum of two dollars ($2.00) and interest at the rate of twelve percent (12%) per annum. All delinquent fees, as provided in this chapter, not paid within fifteen (15) days of the date when notice of delinquency is sent, shall be imposed as a lien against and upon the property against which such fee is levied or assessed.

Section 2. Severability Clause. 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 3. Repealer Clause. All Ordinances or parts thereof in conflict herewith are hereby repealed and rescinded.
Section 4. Effective Date. This Ordinance shall be in full force and effect 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 ________________, 2013.

__________________________
Fritz X. Haemmerle, Mayor

ATTEST:

__________________________
Mary Cone, City Clerk

Publish: Idaho Mountain Express ____________, 2013
AGENDA ITEM SUMMARY

DATE: 2/4/13 DEPARTMENT: PW - Streets DEPT. HEAD SIGNATURE: 

SUBJECT: Adoption of 2013 City Engineer Speed Limit Study

AUTHORITY: □ ID Code □ IAR □ City Ordinance/Code

(If Applicable)

BACKGROUND/SUMMARY OF ALTERNATIVES CONSIDERED:
See attached memo and proposed ordinance.

FISCAL IMPACT / PROJECT FINANCIAL ANALYSIS: Caselle #

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 Administrator ☐ Library ☐ Benefits Committee

☐ City Attorney ☐ Mayor ☐ Streets

☐ City Clerk ☐ Planning ☐ Treasurer

☐ Building ☐ Police ☐ __________________________

☐ Engineer ☐ Public Works, Parks ☐ __________________________

☐ Fire Dept. ☐ P & Z Commission ☐ __________________________

RECOMMENDATION FROM APPLICABLE DEPARTMENT HEAD:
Approval of Ordinance ____ and authorize the first reading by title only.

ADMINISTRATIVE COMMENTS/APPROVAL:

City Administrator __________________________ Dept. Head Attend Meeting (circle one) Yes No

ACTION OF THE CITY COUNCIL:
Date __________________________

City Clerk __________________________

FOLLOW-UP:
*Ord./Res./Agrmt./Order Originals: Record __________________________

*Additional/Exceptional Originals to: __________________________

Copies (all info.): __________________________

Instrument #: __________________________

Copies (AIS only) __________________________
I have been requested to provide an engineering recommendation for the speed limits on city streets, other than Main St. where ITD now has jurisdiction. Let me first provide the Idaho Statutes as background information to you.

Idaho Statute Title 49, Motor Vehicles; Chapter 6, Rules of the Road; provides as follows:

49-654. (2) Where no special hazard or condition exists that requires lower speed for compliance with subsection (1) of this section the limits as hereinafter authorized shall be maximum lawful speeds, and no person shall drive a vehicle at a speed in excess of the maximum limits:

(a) Thirty-five (35) miles per hour in any residential, business or urban district, unless otherwise posted in accordance with section 49-207 (2) or (3) Idaho Code;

Idaho Statute Title 49-207 provides as follows:

49-207. (2) Whenever local authorities in their respective jurisdictions determine on the basis of an engineering or traffic investigation, and the residential, urban or business character of the neighborhood abutting the highway in a residential, business or urban district that the speed limit permitted under this title is greater than is reasonable and safe under the conditions found to exist upon a highway or part of a highway or because of the residential, urban or business character of the neighborhood abutting the highway in a residential, business or urban district, the local authority may determine and declare a reasonable and safe maximum limit which:

(a) Decreases the limit within a residential, business or urban district; (emphasis added)
I have added the emphasis to note that it is not just an engineering traffic study result that dictates a speed limit; other factors need to be considered when determining what is "reasonable and safe" for our city streets.

According to a Federal Highway Administration (FHWA) study, states and local agencies use the 85th percentile speed of free flowing traffic as the basic factor in establishing speed limits. See attached information from the Institute of Traffic Engineers.

In reviewing traffic speed studies conducted on various city streets from 2000 to present there are some that show that a 25 mph speed limit would be recommended based strictly on the 85th percentile speeds in the studies. Both the FHWA study and Idaho Code Section 49-207 allows a city to consider factors other than the 85th percentile rule. As noted in the last two paragraphs of the attachment there are other factors taken into consideration when setting a speed limit.

In reviewing the locations of these studies as well as my knowledge of the City of Hailey streets there are conditions such as hills, plantings, driveways, fences or other obstructions to clear vision at intersections as well as the presence of pedestrians and children in residential areas that present a "character of the neighborhood" reason for a reduced speed limit on city streets.

With the exception of Woodside Boulevard, Countryside Boulevard and Aviation Drive, where street layout provides for the safety of bicyclists and pedestrians and 25 mph is recommended, I recommend that the City Council retain 20 mph as the speed limit on all city streets except as otherwise provided for in Municipal Code Chapter 10.12.010. Revisions to Chapter 10.12.010 for clarification are suggested as follows:

10.12.010 Speed limits designated. Every person operating a motor vehicle on a public street or alley in the city shall drive the same in a careful and prudent manner, and not to exceed the following speeds:

A. Twenty-five miles per hour on Woodside Boulevard, Countryside Boulevard and Aviation Drive Main Street, from one thousand two hundred seventy-three feet north of mile post 117 at North First Street to two thousand six hundred fifteen feet south of mile post 116 on South Main Street;
B. Fifteen miles per hour in all alleys;
C. Fifteen miles per hour through school zones as indicated by school zone signs posted at school zone areas;
D. Fifteen miles per hour on all streets which are adjacent to city parks;
E. Twenty miles per hour in all residential areas, except as posted.
F. Twenty-five miles per hour in all other areas of the city not specified in subsections A through E of this section, except as posted.
G. Where a speed limit is posted, no person shall operate a motor vehicle in excess of the posted speed limit. Speed limits will be posted in the city as authorized by Idaho Code Section 49-207, et seq.
HAILEY ORDINANCE NO. ___

AN ORDINANCE OF THE CITY OF HAILEY, IDAHO, AMENDING SECTION 10.12.010 OF THE HAILEY MUNICIPAL CODE, TO PROVIDE FOR A 20 MILES PER HOUR SPEED LIMIT EXCEPT IN ALLEYS, IN SCHOOL ZONES AND BY PARKS AND EXCEPT AS POSTED; PROVIDING FOR A SEVERABILITY CLAUSE; PROVIDING FOR A REPEALER CLAUSE; AND PROVIDING FOR THE EFFECTIVE DATE OF THIS ORDINANCE.

WHEREAS, Idaho Code § 49-654 provides that where no special hazard or condition exists which requires lower speed limits, no person shall drive a vehicle at a speed in excess of 35 miles per hour in any residential, business or urban district;

WHEREAS, pursuant to Idaho Code § 49-207, the City of Hailey may determine on the basis of an engineering or traffic investigation and the residential, business or urban character of the neighborhood abutting a street in a residential, business or urban district that the speed limit established in Title 49 of the Idaho Code is greater than reasonable and safe;

WHEREAS, Idaho Code § 207 provides that any alteration of speed limits on state highways must be based on a traffic engineering study approved by the Idaho Department of Transportation;

WHEREAS, the State of Idaho has recently established speed limits on Highway 75, which traverses over Main Street in Hailey, and has posted speed limit signs controlling the speed limit on Highway 75 within the City of Hailey;

WHEREAS, the City of Hailey has not conducted a traffic engineering study which could alter the speed limit on Highway 75 within the City of Hailey;

WHEREAS, the Hailey City Engineer has conducted an engineering or traffic investigation and has conducted a review of other streets abutting residential, business and urban districts within the City of Hailey;

WHEREAS, in his report, the Hailey City Engineer cites a report from the Institute of Traffic Engineers, which states “[a]ccording to a Federal Highway Administration study, all states and most local agencies use the 85th percentile speed of free flowing traffic as the basic factor in establishing speed limits”;

WHEREAS, traffic speed studies conducted throughout Hailey between 2000 and 2012 on streets abutting residential, business and urban districts show that a 25 miles per hour speed limit would be appropriate based strictly on the 85th percentile speeds;

WHEREAS, both Idaho Code § 49-207 and the Federal Highway Administration study recognize that there are other factors which can be used to establish a reasonable and safe speed limit below the speed limit established by the 85th percentile speeds;
WHEREAS, the Hailey City Engineer has recommended a 25 miles per hour speed limit as a reasonable and safe speed limit on the recently reconstructed Woodside Boulevard because of the design of Woodside Boulevard and because of the separation of pedestrians and bicycles from vehicles;

WHEREAS, the Hailey City Engineer has recommended a 15 miles per hour speed limit as a reasonable and safe speed limit on alleys because of the narrow width of alleys, because of the inherent conflict between vehicles within the alley and vehicles entering and exiting adjacent property and because vehicles traveling on an alley must yield to traffic on intersecting streets;

WHEREAS, the Hailey City Engineer has recommended a 15 miles per hour speed limit as a reasonable and safe speed limit on streets adjacent to city parks and schools because of the danger posed to children and pedestrians and because there is significant congestion of vehicles and pedestrians at times in these areas;

WHEREAS, the Hailey City Engineer has recommended a 20 miles per hour speed limit as a reasonable and safe speed limit on all other streets within Hailey because of the number of obstructions to clear vision at intersections and because of the presence of pedestrians and children in the residential, business and urban districts; and

WHEREAS, the Hailey Mayor and City Council have reviewed the report of the Hailey City Engineer and has adopted his recommendation;

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

Section 1. Section 10.12.010 of the Hailey Municipal Code is amended by the deletion of the stricken language and by the addition of the underlined language, as follows:

10.12.010 Speed limits designated. Every person operating a motor vehicle on a public street or alley in the city shall drive the same in a careful and prudent manner, and not to exceed the following speeds:

A. Twenty-five miles per hour on **Woodside Boulevard, Countryside Boulevard and Aviation Drive Main Street**, from one thousand two hundred seventy-three feet north of mile post 117 at North First Street to two thousand six hundred fifteen feet south of mile post 116 on South Main Street;
B. Fifteen miles per hour in all alleys;
C. Fifteen miles per hour through school zones as indicated by school zone signs posted at school zone areas;
D. Fifteen miles per hour on all streets which are adjacent to city parks;
E. Twenty miles per hour in all residential areas, except as posted.
F. Twenty-five miles per hour in all other areas of the city not specified in subsections A through E of this section, except as posted.
G. Where a speed limit is posted, no person shall operate a motor vehicle in
excess of the posted speed limit. Speed limits will be posted in the city as authorized by Idaho Code Section 49-207, et seq.

Section 2. Severability Clause. 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 3. Repealer Clause. All Ordinances or parts thereof in conflict herewith are hereby repealed and rescinded.

Section 4. Effective Date. This Ordinance shall be in full force and effect 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 ________________, 2013.

Fritz X. Haemmerle, Mayor

ATTEST:

Mary Cone, City Clerk

Publish: Idaho Mountain Express __________, 2013