Cirrus Sky Technology Park

Development Plan

August 13, 2012

Laramie WYOMING

Community Builders, Inc.
Coffey Engineering
BHA Design
TMNG Global

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Executive Summary

The City of Laramie has many assets and strengths that would be attractive to data centers and technology-driven companies. It lacks one thing: A shovel-ready site. This Concept Plan addresses that need and, if followed, will prepare the City to effectively compete against other communities for this highly sought after industry. The Cirrus Sky Tech Park will become a highly successful business park that strengthens the local economy, creates hundreds of jobs, and builds the local tax base.

Phase I of the Cirrus Sky Tech Park will be located on the north side of Laramie on a 149-acre parcel that is under contract to be sold to the City. The site (and the surrounding area) has been studied, planned, and engineered by the team of consultants that prepared this report: Community Builders, Inc.; Coffey Engineering & Surveying; BHA Design; and TMNG Global. As discussed in this Concept Plan, the site is ideal. It is large enough to accommodate several new businesses, can be affordably served with streets, water/sewer, and other utilities, and is perfectly situated to be connected to multiple long-haul fiber telecommunication routes that are nearby. Once that work is complete, the City of Laramie will become very competitive in data center siting decisions.

The planning, land purchase, and infrastructure development will cost approximately $5.8 million. The City has committed $500,000 in cash to the project, and the current landowner is willing to accept a discounted price for the land, essentially making a $626,000 contribution to the project. Together, that $1,126,000 represents 19.3% of the total project cost. Grants from the Wyoming Business Council (about $4.7 million) will pay for the balance of the costs.

It will take 10-15 years for the Cirrus Sky Tech Park to be fully built. During that time, companies will invest approximately $255 million, generating 3,499 construction jobs with a payroll of $131 million, creating a $369 million economic impact. State and local taxes of $3.6 million will result from construction. Once these companies become operational, 273 jobs will be created with a payroll of $10.5 million, generating a $34 million economic impact. During operations, about $1.4 million in additional state and local taxes will be generated from this project. Clearly, the Cirrus Sky Tech Park will have a significant impact on the local economy.

Project Description

Recently the City of Laramie has been identified by more than one Fortune 500 company as a highly desirable location for siting of a Data Center or Technology Park. Based on factors including a cool climate, consistent power source, land availability, and educated workforce, Laramie has key components required in making a Data Center or Tech-Park viable within the community.

Laramie's location provides competitive strengths for this kind of project. Cool, dry mountain air can help to lower cooling costs. There are eleven "long haul" fiber telecommunication lines already in the ground within 10 miles of the site, providing fast, redundant access to both national communication hub points and the World Wide Web. Electric power, natural gas, and other utilities are abundant and cost competitive. Interestingly – and perhaps compellingly, for the hyper "green" sensitive data center industry – the study area is very close to wind power farms. Transportation is convenient, with Interstate 80, U.S. Highway 287, and Interstate 25 providing quick access to other Front Range locations. Denver International Airport is 2-3 hours away.

Although a high level of interest has been shown, the City of Laramie has not yet been selected as a future new location. The Laramie community believes shovel-ready site(s) with all necessary power, fiber, water, sewer, roads, and other infrastructure in place are the principal missing keys to doing so. A proactive planning process is needed in order to provide core infrastructure and development necessities for a prospective Data Center or Tech-Park. This plan addresses those needs, including land use planning, infrastructure development, and phasing. Fully implemented, this plan can be the catalyst in making the siting of a Data Center or Tech-Park a reality, while simultaneously improving fiber and power infrastructure to help existing businesses grow.

SITE DESCRIPTION

This is a general concept plan for development of an area of approximately 2,000 acres north of the current City of Laramie boundary, generally located east of U.S. Hwy. 287 and west of the future northerly extension of 45th Street (the "study area"). A more focused and detailed plan is provided for an identified smaller area within the general concept plan. The smaller area is approximately 149 acres in size, generally located east of the future northerly extension of 15th Street and west of the future northerly extension of 30th Street and south of a future east-west collector, adjacent to the current City boundary (referred to as the "Phase One Site").

The study area is largely undeveloped. However, there are several existing uses:

- Solid Waste Management Facility – the City of Laramie operates its municipal Solid Waste Management Facility at the north end of the study area. The facility does not currently have electricity, water, or sanitary sewer on site. The capacity of the Solid Waste Management Facility is extensive, with a new lined cell expansion beginning soon. No plans are on the table for relocation of the Solid Waste Management Facility.
- Ranching – much of the study area is owned and used for ranch purposes by the Warren Livestock LLC and/or its subsidiaries.
- Residential – one large parcel within the study area includes a home and auxiliary structures.
- Utilities – a federal agency, the Western Area Power Administration (WAPA), owns and operates a large regional substation (Snowy Range), just north of the Phase I Site that

feeds three high voltage power lines traversing the study area. One of those WAPA power lines leads to a nearby substation operated by Rocky Mountain Power, which provides power to much of the Laramie community.

The properties surrounding the study area include residential and various commercial uses. There is also one adjacent parcel that is currently owned by the local school district, although it is not currently used nor are there plans for future school-related uses.

To the east of the property lies the City of Laramie's Casper Aquifer Protection Overlay Zone, an area encompassing approximately seventy-two square miles. This area is vulnerable to contamination from most types of development. The Casper Aquifer supplies approximately 60% of the City's drinking water and 100% to those homeowners that fall within the recharge area. Since 2002, the community has relied on the Casper Aquifer Protection Plan to protect this important water supply.

Along the south edge of the study area, a prominent ridge overlooks the entire community. The community would like to protect the appearance of that ridge by minimizing development along its edge.

Currently, there are three public roadways in the study area:

- Ninth Street/Rogers Canyon Road – paved surface road that cuts north/south through the study area to the solid waste management facility and beyond.
- 30th Street – dirt road that runs north/south to the east of the Phase I Site
- Asphalt Lane – dirt road that runs east/west to the north of the Phase I Site, connecting 9th and 30th Streets

There are no water or sewer utilities within the study area. However, there is a major water line (14") roughly aligned with 30th Street, which brings water from one of the City's wells into the community. The nearest sanitary sewer line is located in the residential neighborhood just to the south of the Phase I Site. Electric power appears to be abundantly present (Note: needs further study). Natural gas and fiber/copper telecommunications are present just to the edge of the study area.

PROPOSED USES FOR SITE

The primary purpose of developing the Phase One Site and the larger study area is to create a shovel-ready site to attract at least one large data center that serves the rapidly growing "cloud computing" traffic market. Additional types of data centers are desired, as are other technology-driven companies, although the immediate market demand appears to favor cloud computing data centers. Regardless of the market trends, the Laramie site will be designed and prepared for all types of data centers (cloud computing and enterprise), since both are included in the broader tech market that Laramie is well positioned to recruit.

Many data center companies prefer to be located on large land parcels, providing a buffer from other uses. There are specific concerns about being too near residential neighborhoods (they test run their backup diesel generators on a regular cycle, which can be noisy), schools (traffic concerns), and airport glide pathways (security). Therefore, the concept plan for the study area

includes light industrial and commercial uses surrounding the existing solid waste management facility, but no schools or residential neighborhoods.

This project, including the specific proposed uses for the Cirrus Sky Tech Park, is entirely consistent with existing economic development plans and strategies. The number one strategic priority of Laramie Economic Development Corporation (LEDC) is business development, including the marketing of the study area to mega data center companies. The existing plan is to develop a marketing strategy, to include attending trade shows and visiting prospective clients. In spite of its many strengths, LEDC has found that data center companies are choosing to locate to communities that already have shovel-ready sites, as opposed to Laramie where there is none. This issue is the driving force for this development project.

Beyond the lack of a shovel-ready site for data centers, Laramie's inventory of available building lots is minimal, and the lots themselves are too small for many technology companies. LEDC has not been able to recruit several specific opportunities for the community, including at least 37 technology prospects. According to LEDC's list of these prospects, more than 1,000 technology jobs and millions of square feet of new facilities have been lost. Therefore, it is important that the Cirrus Sky Tech Park be designed to accommodate such firms, so that the community can effectively compete for all kinds of technology businesses.

The regional economic development strategy also supports this project. The High Plains Economic Development District is the regional economic development organization for Laramie (including Albany, Goshen, Laramie, and Platte Counties) The district has a current Comprehensive Economic Development Strategy (CEDS), in which the top goal is economic diversification. Within that goal, the first project is to encourage data centers to relocate to Southeast Wyoming. Another goal is to improve public infrastructure, including enhancements to business parks for new businesses and recruitment efforts.

APPLICABILITY OF PLANS & CODES

During the preparation of this plan, City plans and codes were considered and City staff provided an outline of potential issues. These issues have been identified and addressed, including the following specific points:

Laramie Comprehensive Plan – 2007

a. Chapter 3 – Community Character: The proposed concept plan is designed to fit well into existing community desires for land use and development. A new zoning district, the Technology Office District, is currently being developed by the City of Laramie and will be available for the Cirrus Sky Tech Park site. The City also anticipates imposing a 100-foot buffer of green space/parks along the ridgeline, to protect the visual appearance of that area and to enhance walkability.

b. Chapter 4 – Parks and Recreation: Parks and recreation are highly scrutinized parts of any land use plan. The Cirrus Sky Tech Park land use plan includes for full build out includes a couple of proposed "neighborhood" parks (10 acres) and one larger park (about 40 acres). The concept plan also proposes that the ridgeline on the south side of the study area become a walking/biking trail, connecting 30th Street to U.S. Highway 287. This trail area would serve as an excellent buffer between the Cirrus Sky Tech Park developments and the residential neighborhoods to the south, while protecting the appearance of the ridgeline for the entire community.

c. Chapter 7 – Urban Growth: When the City moves forward with annexation of the Phase I Site property and/or the study area, compliance with the requirements of this Chapter will be required, including possible amendment of the Urban Growth Area Plan.

d. Chapter 8 – Transportation: The Cirrus Sky Tech Park concept plan contemplates a mix of transportation modalities (car/truck, bike, and pedestrian, but not rail). Special effort has been made to design streets to help divert traffic (especially trucks) to/from U.S. Highway 287, in order to minimize driving through residential neighborhoods. Rights of way have been designed to comply with the requirements of Chapter 8.

e. Chapter 10 – Public Safety: Development of a new fire station (or moving existing Fire Station #2) in the study area would be beneficial, but not necessary, for the success of this project. Fire Station #2 is the current fire station that would serve Cirrus Sky Tech Park. The City of Laramie should consider the benefits and costs of relocation to the study area.

f. Chapter 11 – Conservation: The proposed use for the study area (primarily for data centers) means that the area will become a massive energy consumer. However, the industry is particularly sensitive to its power usage and is therefore continually seeking ways to become more efficient. Other than security concerns, there are no particular needs for evening lighting for technology uses, so light pollution concerns should not be an issue. However, the City of Laramie should consider the impact of potential wind turbine towers, as it is clear that some data center companies are finding them to be highly beneficial. Wind turbine towers typically use a flashing light system to warn approaching aircraft, although some communities require wind farm operators to use synchronized blinking lights and/or a radar-activated switch system to minimize the use of such lights.

Albany County Comprehensive Plan – 2008

a. The planning team met with David Gertsch (Albany County Planner) about the plan and implications. His concerns and suggestions have been incorporated, including a concern that 9th Street has been recently rebuilt and there is no desire to tear it up again (to move it or otherwise).

b. The growth area located within one mile of the city is consistent with the City Comprehensive Plan. Both City and County plans reflect the same growth desires in the area, which makes the two plans very complementary.

Unified Development Code (UDC) – 2010

a. Chapter 15.06 Review Procedures: This chapter details review procedures and approval criteria for development applications. It will take 4 months to revise the zoning code (if needed) or to rezone land (if required by a particular business). The platting process contemplated by this plan is designed to maximize flexibility while preparing for an expedited process for prospective businesses to develop new facilities, by anticipating land adjustments (moving lot lines) and lot consolidations (combining lots). Subsequent adjustments like these can be accomplished administratively, in a matter of weeks. If the property is owned by the City, State Statutes provide for an expedited annexation process. This could provide a fast-track annexation time frame.

b. 15.06 – Once the property is annexed, subdivisions are typically completed in two steps including a Preliminary and a Final Plat. Using the final plat process to establish lot sizes tailored to each individual need or request provides the greatest degree of flexibility in this process. The key is that the Final Plat does not create more lots than what was preliminarily platted. The UDC also provides for a 10% change in size and number window without kicking in the full review process. A Land Adjustment or Lot Consolidation can be used to change the configuration of the already recorded plat, provided no public infrastructure or easements are modified. Both of these processes take about a week for administrative approval.

c. 15.10 - Use Regulations: The UDC does not currently have a "Tech Park" use designation. An amendment to this section to include a Tech Park and similar uses should be considered.

d. 15.14 – Development Standards: This section will play a part in how each lot site will develop, since the Cirrus Sky Concept Plan uses existing zoning definitions/districts. Parking, setbacks, landscaping, building design, fencing, and signage requirements should be shared with prospective companies looking to build there. Trails (greenways) have been incorporated into the concept plan to accommodate pedestrian circulation. Parks have been planned, including the eastern part of the study area where residential development will occur. Parkland dedication is not required for non-residential uses. Commercial and Industrial Design standards found in section 15.14.090 would not allow a large building with

only a few design elements to be built. The City of Laramie is considering a new Sign Code which will need to be complied with, along with fencing code compliance (15.14.100)

e. 15.16 Subdivisions: This section outlines specifically what is required with submittal of subdivision plats and explains the process and timing.

f. 15.18 Reimbursement for Improvements: Section 15.18.100D discusses the City's right to seek reimbursement for oversized public improvements that benefit other landowners. Section 15.18.110 covers agreements for development and delayed improvements.

Major Street Plan – 2011

The Cirrus Sky Tech Park concept plan is consistent with and builds upon the City/County street plan certified by WYDOT. Rights of way are proposed to be put on straight lines, located on already established section lines and quarter sections, and do not necessarily following natural topographic lines. This allows developers to know up front who is responsible for ROW dedications. Roadways proposed follow the required ROW widths for Minor Arterials (80 feet) and Collectors (80 feet). Any changes to the Major Streets Plan will need to be considered and approved by the Urban Systems Advisory Committee.

General Planning Issues

a. A Comprehensive Plan Amendment will be required for the new planning area, including changes to Map 3.2, to incorporate Future Land Use changes.

b. A Comprehensive Plan Amendment will be required for the new planning area, including changes to Map 7.2, Urban Growth Area, since areas of the immediate development area planned are outside the already established growth area.

c. A code amendment will need to occur that allows Comprehensive Plan Amendments at any time, versus the current bi-annual time frame. This is in keeping with the "shovel-ready" needs of potential data centers and other businesses looking to relocate to Laramie.

d. An amendment to the Albany County Comprehensive Plan will be needed to change future land use and growth areas. Creation of a new commercial node may also be necessary if the county feels that is appropriate.

e. This plan takes a long-term, big picture approach in regards to improving water and sanitary sewer for the study area, so that service is improved for the entire north end of the community.

f. Surface water drainage has been considered and appropriately planned as part of this proposal. Consideration has been given to the need for regional detention areas at either end of the study area. These areas have been strategically placed and designed to become a "green" component of the plan; using such areas to create buffers within the planning area.

g. This plan is respectful of the City's huge investments in the solid waste management facility, and proposes uses that are compatible with the solid waste management facility's ongoing

operation. The concept plan creates an industrial/commercial buffer entirely around the solid waste management facility site.

h. Railroad connectivity is neither needed nor desired by the types of businesses targeted for the Cirrus Sky Tech Park.

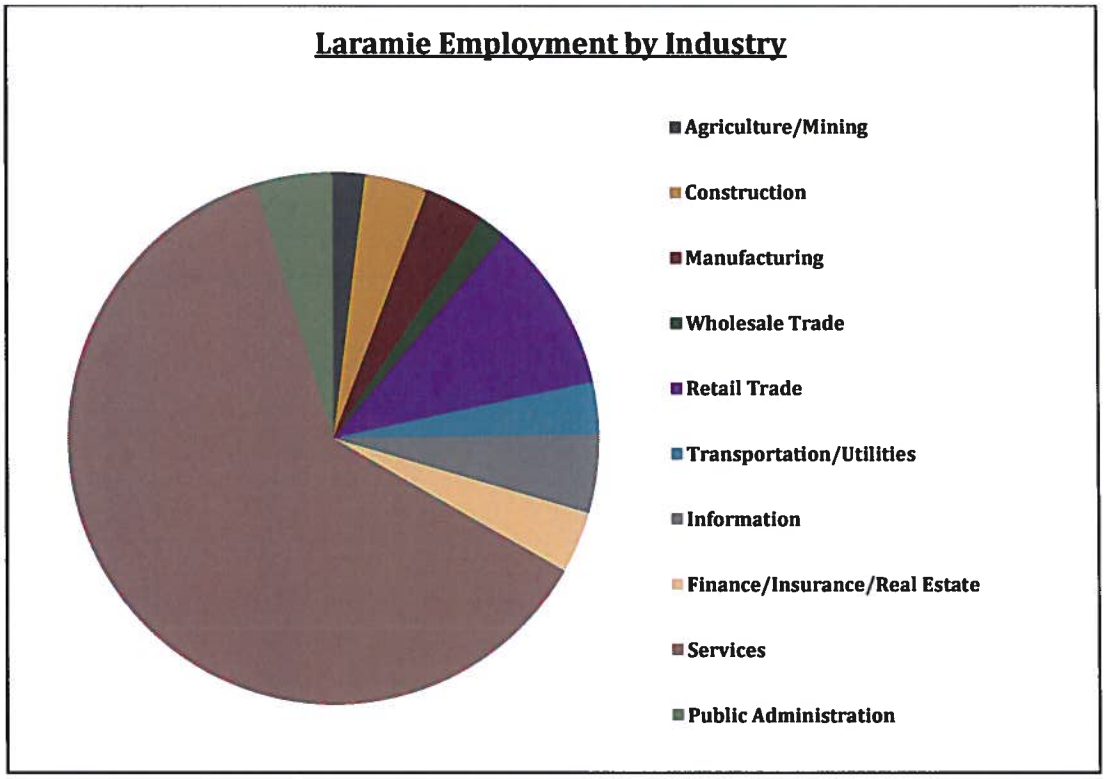
i. One of the smaller power lines that traverses the Phase I Site (i.e., the Rocky Mountain Power local feeder line that feeds the WAPA substation) should be moved so that it is immediately adjacent to the large WAPA power line that runs westerly out of the WAPA Snowy Range substation. Moving that line allows larger lots to be created when the Phase I Site is subdivided, making the development much more efficient and less costly.

Laramie Profile

The City of Laramie, Wyoming, is a municipality of approximately 31,000 residents. It sits on the eastern edge of the Laramie Plains plateau, surrounded by the Snowy Range Mountains to the west and the Laramie Mountains to the east. Laramie is located 45 miles west of Cheyenne, Wyoming along the I-80 corridor at an elevation of 7,220 feet. Laramie is home to the University of Wyoming, Laramie County Community College (Albany County Campus) and the Wyoming Technical Institute. The strong influence of academia provides a very progressive and global character to Laramie's identity.

BUSINESS ENVIRONMENT

The towering presence of the University of Wyoming and other secondary education institutions is clearly evident in the significance of the Service sector in the local economy. The graph below shows that 62% of local employment is in the Service sector.



Source: Wyoming Department of Workforce Services.

A key goal, therefore, of the Cirrus Sky Tech Park is to diversify the economy. By targeting technology industries – including the more specific target of data centers – the community hopes to diversify and stabilize the local economy. The technology sector was chosen in part because of the growing presence of technology companies in Laramie that benefit from the expertise and graduates emanating from the University. Special efforts are currently being made to purposefully build linkages between existing technology firms, educational institutions, and the infrastructure needed to support a technology economic cluster. Development of a

shovel-ready site will necessitate more infrastructure improvements (fiber and power especially) and more linkages – all designed to further advance this important industry cluster.

In 2011, the Wyoming Department of Employment reported that there were 4,650 technology-related jobs in Wyoming, which paid an average annual wage of $59,535. In contrast, Albany County's average annual wages are $36,582 (61% of the wages paid in technology fields).

In addition to the growing technology sector in Laramie, many businesses benefit, or even depend upon, high-speed telecommunications. These businesses have expressed a strong desire to access faster bandwidth and higher capacity. Development of redundant fiber optic rings that connect the community to any of the eleven long haul telecommunication fiber routes just outside of the city could greatly help all such existing businesses grow.

COMMUNITY PRIORITIES

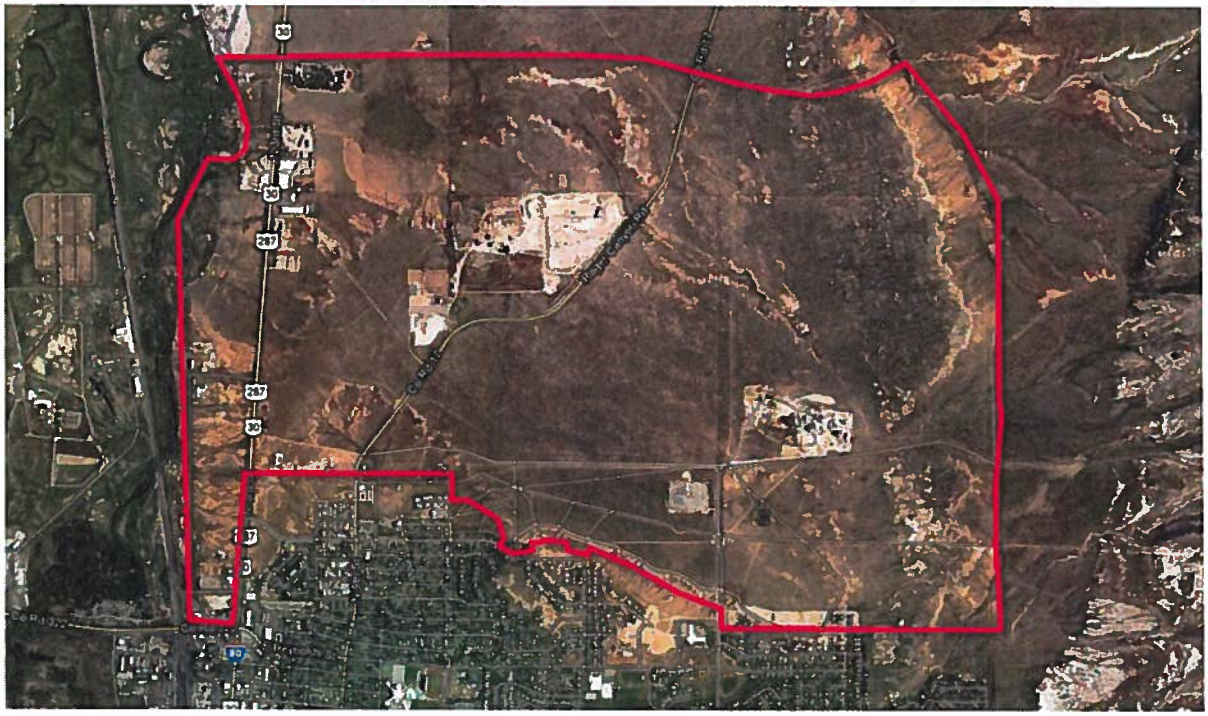
The City of Laramie has identified several priorities for the community. A strong downtown, a diversified economy, good infrastructure, and "green" environmentally friendly development are common themes. The community has several projects that are underway to improve its streets, the solid waste management facility, the University, and the airport. Accordingly, this project will need to identify and pursue grant funding to develop the Cirrus Sky Tech Park in a manner that does not disrupt or jeopardize those other important projects.

Goals of the Future Land Use Plan

a. Create a business environment in north Laramie that is suitable and attractive to: data centers; high tech businesses; research & development institutions; and other compatible uses.
b. Maximize flexibility to allow for a variety of development options.
c. Add value to greatest amount of property with an efficient extension of the public infrastructure
d. Make available a series of "shovel ready" and "business-ready" sites.
e. Incorporate existing natural features into the plan.
f. Extend the existing city trail system through proposed green spaces, along roadways and into developed areas providing a safe alternative to driving.
g. Allow people to live close to their workplace.
h. Promote sustainability.
i. Create a source of community pride and build upon Laramie's community values

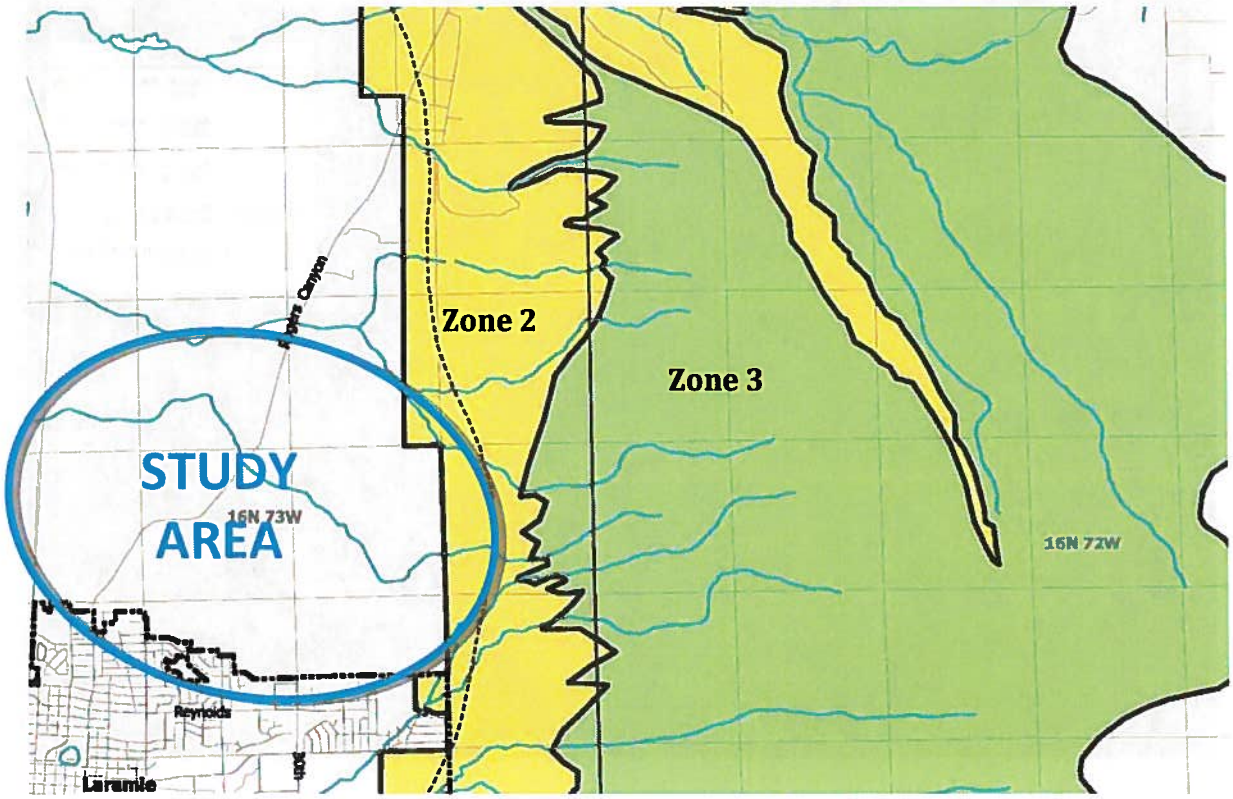
Planning Considerations & Influences

NORTH LARAMIE EXPANDED STUDY AREA



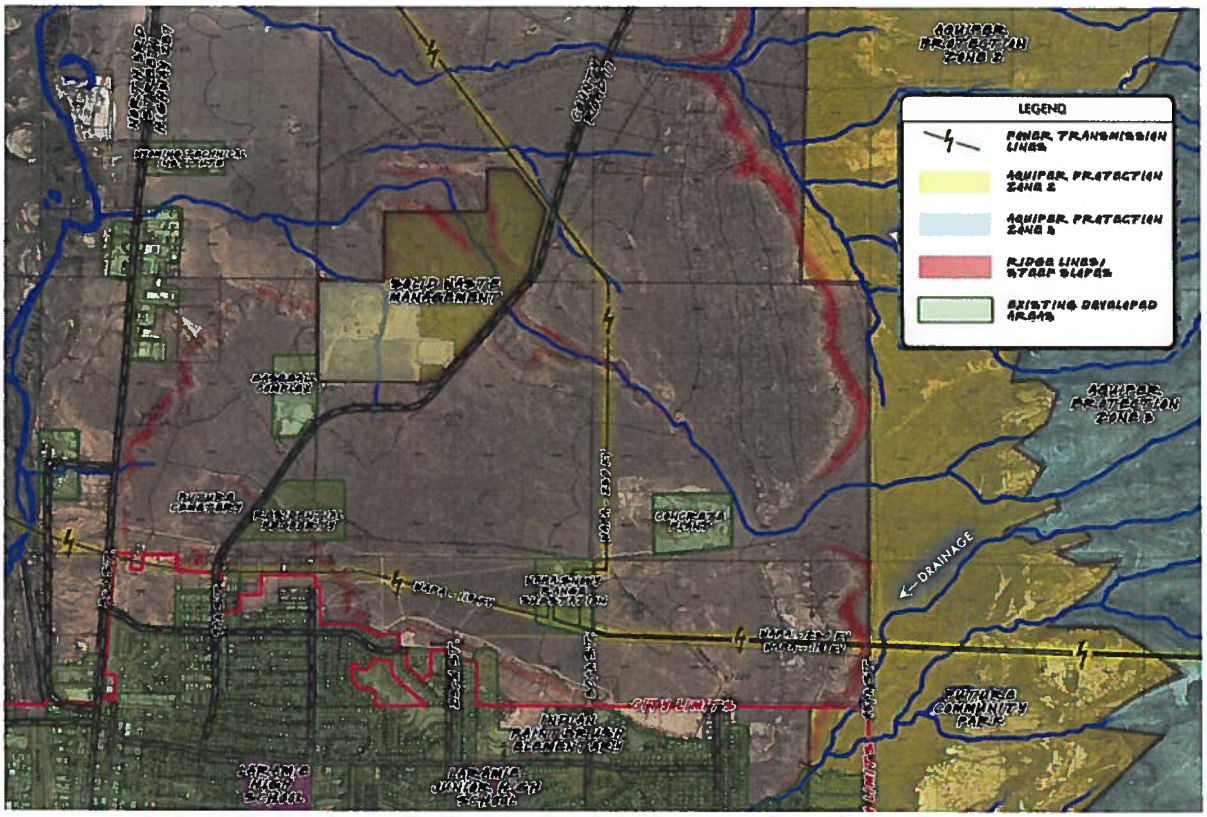
- West Boundary –The Laramie River
- North Boundary – Approximately 1.5 miles north of the existing city limits. Generally follows northern boundaries of City of Laramie Solid Waste Management Facility and Cathedral Home for Children properties
- South Boundary – Existing City Limits
- East Boundary – 45th Street

CASPER AQUIFER PROTECTION PLAN



The Casper Aquifer Protection Plan (CAPP) illustrates areas designated as Zone 2 and Zone 3 abutting the east edge of the North Laramie study area. Zones 2 and 3 are designated as the "primary and secondary zones of protection, respectively." Accordingly, development is not illustrated within these areas.

The purpose of the CAPP is to protect the recharge area of the Casper Aquifer, which supplies all of the water to rural residences in Albany County and approximately 60% of Laramie's water supply on an annual basis. The Casper Aquifer Protection Area encompasses approximately 72 square miles that lie east of the City of Laramie and extends to the crest of the Laramie Range. The north and south boundaries are approximately 5 and 6 miles north and south, respectively, of Laramie city limits. The full CAPP Plan report can be found on the City of Laramie's web site using the following link: http://www.ci.laramie.wy.us/index.aspx?NID=226



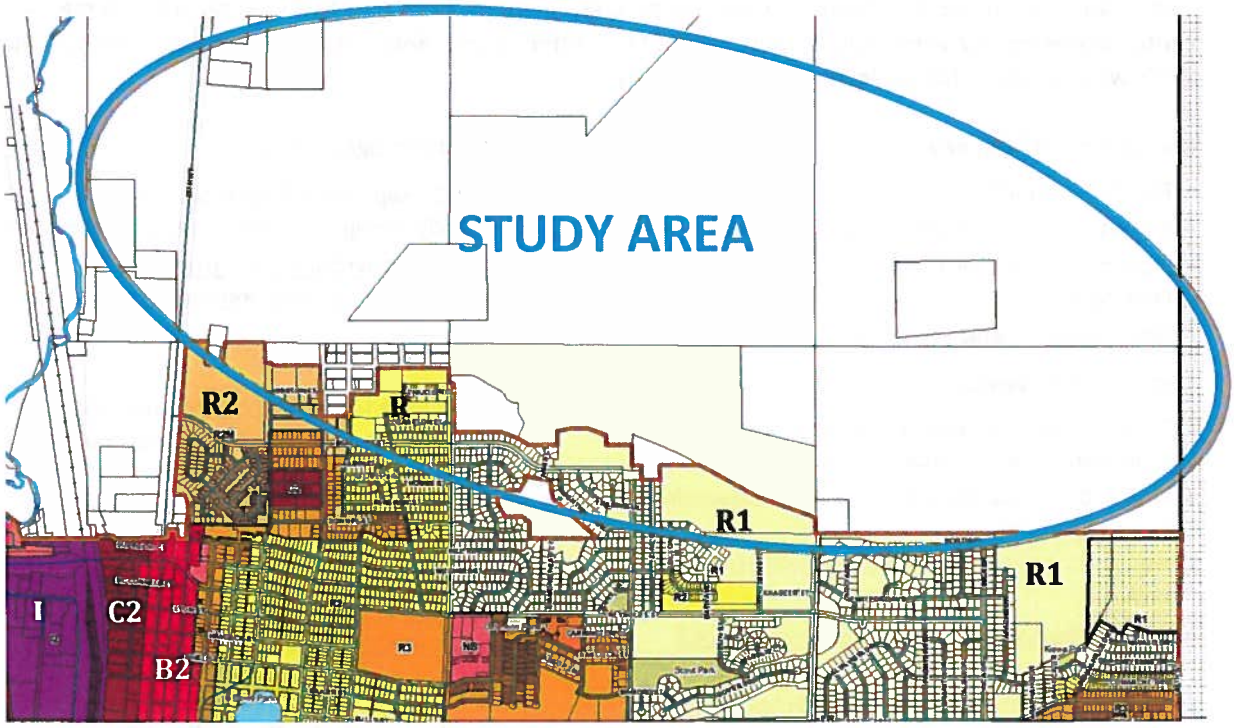
NATURAL FEATURES

The study area includes several significant natural features that contribute to the character and visual interest of the area including: A ridge which forms the south edge of the study area; a pair of prominent hog backs/ridges in the eastern reaches of the study area; a meandering drainage way flowing between the hog backs extending to the northeast; and a sink, or closed drainage basin, that formed naturally east of 30th Street. The dominant landscape character is best described as "high plains grassland". Nearly all of the naturally occurring trees within the study area are found along the Laramie River corridor.

EXISTING DEVELOPMENT AND MAN-MADE FEATURES

- Power/Transmission Lines – Snowy Range Substation, WAPA Transmission Lines, RMP Lines
- Laramie Solid Waste Management Facility – Land Use Buffering and Visual Buffering needed
- Concrete Mix Plant
- Spur Wellfield Water Line –extending north along future extension of 30th Street
- Rogers Canyon Road – existing paved County road, recently improved.
- Baseball/Recreation Complex – property owner has plans for a future expansion.
- Steiner Property – open space with one single family residence.

EXISTING CITY ZONING



City of Laramie Zoning Map

- Existing zoning along the City of Laramie's northern boundary, east of Hwy 287, includes Residential uses (zones R1, R2, and R2M).
- Existing zoning along the City of Laramie's northern boundary, west of Hwy 287, includes Business (B2 - red), Commercial (C2 - maroon) and Industrial (I2 – purple) uses.

DATA CENTER BUFFER REQUIREMENTS

The Laramie Economic Development Commission collected data from past RFP's (5) regarding large data center preferences /restrictions/requirements, i.e., buffer zones. Below is the direct wording from the RFP's with regard to the preferred buffer distances.

Distance from highways:

- Project A – 1 mile
- Project B – Not less than 100 yards
- Project E – Cannot be closer than 1 mile from Interstate
- Distance from highways to Cirrus Sky - 2.5 miles

Distance from airports:

- Project B – Not less than 5 miles or more from 30 miles from an active airport runway
- Project D - Site cannot adjoin airport or be within a direct flight path
- Project E – Cannot be closer than 2 miles from an airport
- Distance from airport to Cirrus Sky – approx. 4.5 miles to dev. area
- Relation to flight paths – None within boundaries

Distance from railroads:

- Project A – 1 mile
- Project B – Minimum of .5 miles from an active rail line
- Project D – No railways allowed within 1 mile of the site
- Project E - Cannot be closer than 1 mile from long haul rail
- UPRR mainline crosses SW part of area; dev. Acreage 1.1 mi. to east

Distance from residential, school or churches:

- Project C - 1 mile
- Project E – .5 mile
- Distance from residential to Cirrus Sky – Adjoins southern project boundary; physical barrier (ridgeline) intervenes
- Distance from school to Cirrus Sky – Adjoins southern project boundary; physical barrier (ridgeline) intervenes
- Distance from churches to Cirrus Sky – Adjoins southern project boundary; physical barrier (ridgeline) intervenes

Distance from agriculture:

- Project C – Separation from agricultural uses – specifically during planting & harvest to avoid dust
- Distance from agriculture to Cirrus Sky – Ranchland adjacent; cropland over 3 mi. distant

Distance from flood plain:

- Project B - Not less than 100 yards from 100 year flood and 50 yards from 500 year flood hazard area.
- Project C – At least 10' above the 500-year flood plain
- Distance from flood plain to Cirrus Sky – 100 year and 500 year – western edge is Laramie River; developable acreage generally 0.5 miles or more to east

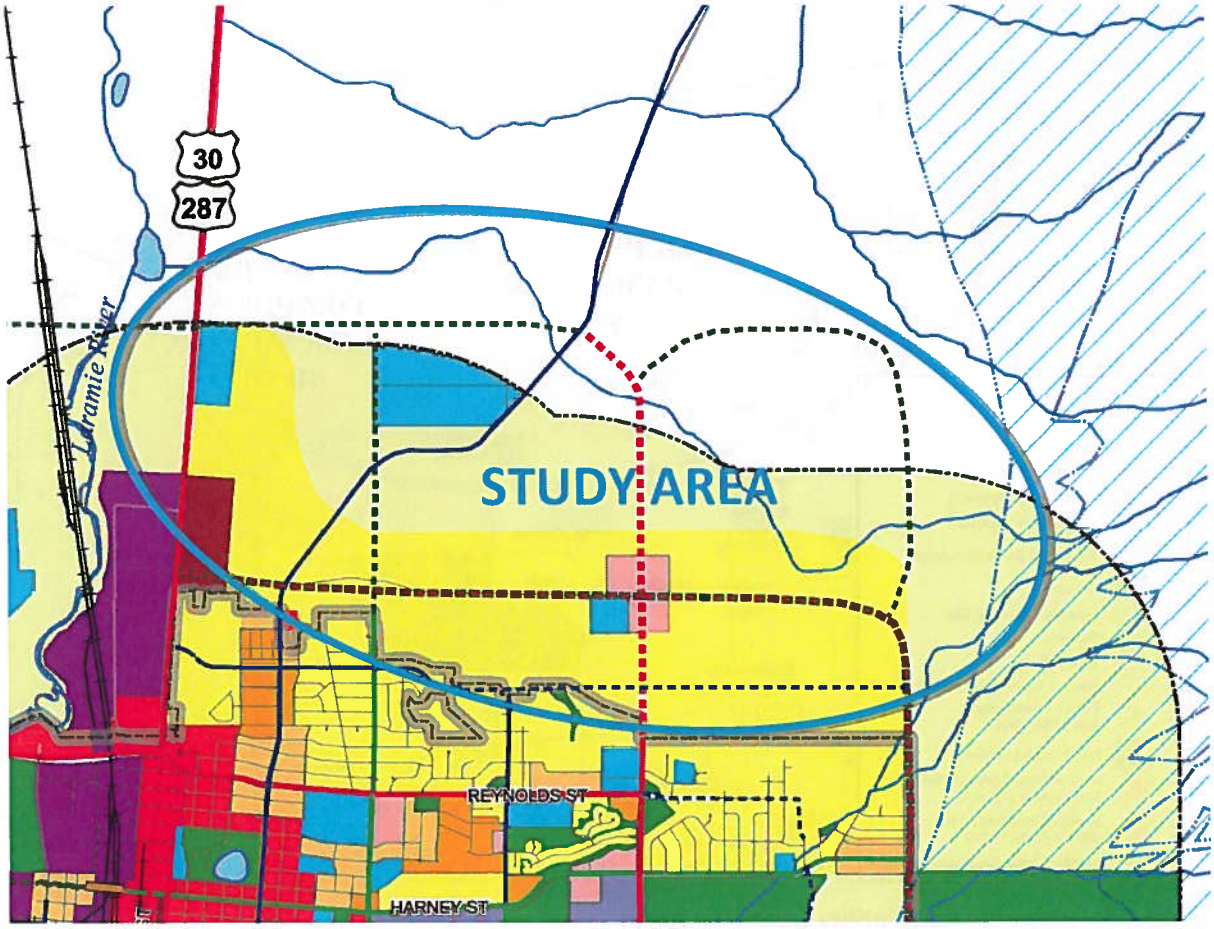
Distance from quarries/hazardous uses:

- Project A – 1 mile
- Project B - .5 miles from a nuclear power plant, .5 miles from industrial complexes that involve nuclear, biological or chemical hazards in their operations, and 5 miles from potential terrorist targets (political, military, historical and high profile locals).
- Project E – 1 mile
- Distance from quarries/hazardous uses to Cirrus Sky – None within 2.5 miles

With regard to natural disaster risks:

- Project B – Minimal risk to operations from floods, winds, tornadoes, hurricanes and seismic activity - Proximity to seismic activity, not less than 100 yards
- Project C – No seismic issues, threat of tornadoes, tsunami, hurricane, typhoon, dust storms
- Natural Disaster risk to Cirrus Sky: No natural disaster risks identified within 5 miles

CITY COMPREHENSIVE PLAN

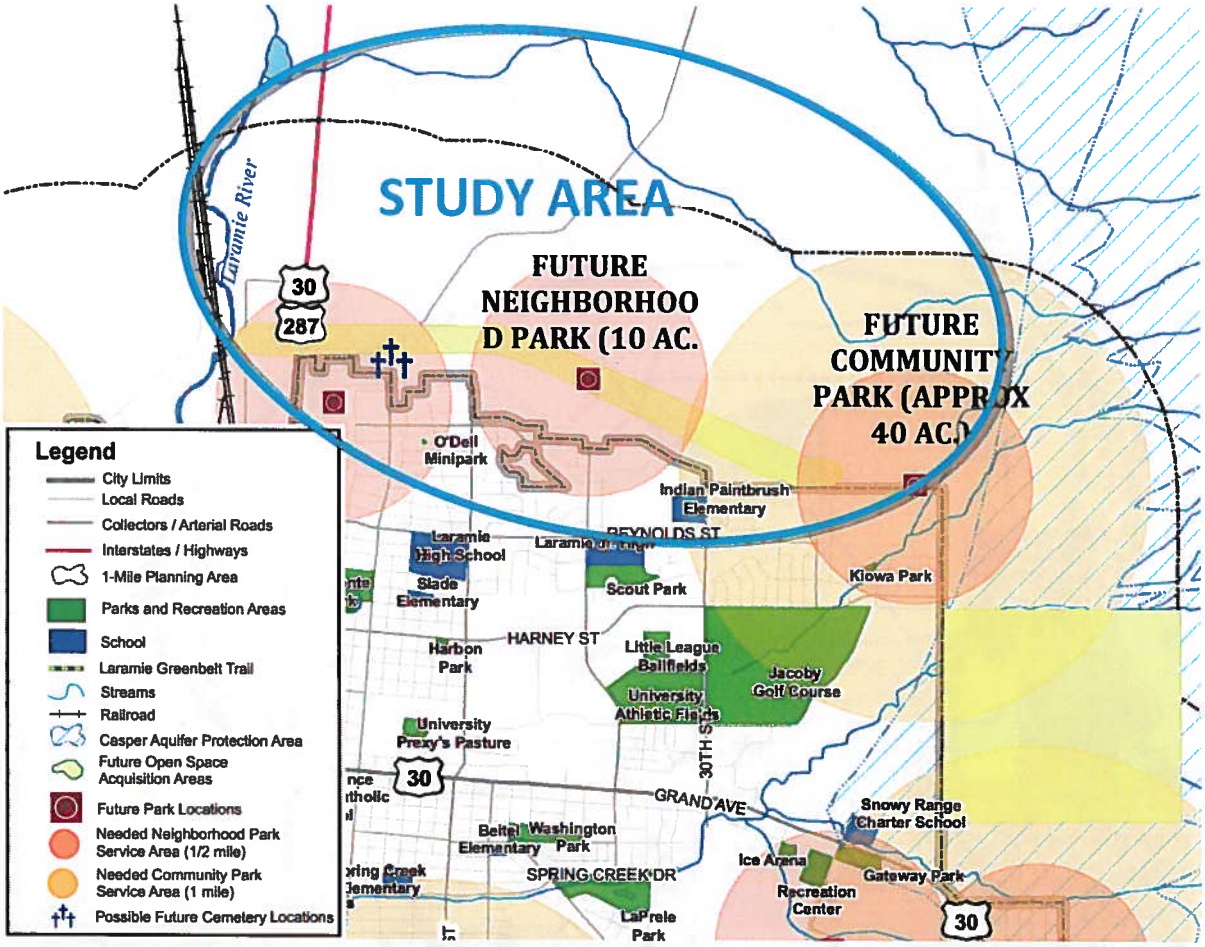


Map 3.2 – Future Land Use

Laramie's Future Land Use Map (above), found in the Comprehensive Plan, includes only a small portion of the study area, as much of the property is currently over 1 mile from the City's incorporated boundaries. The FLU Map currently envisions identified land uses within the study area as:

- "Suburban Residential" - yellow
- "Agriculture" - light green
- "Suburban Commercial" - pink.
- "Public/Institutional" (Land Fill, Switch Station) – blue

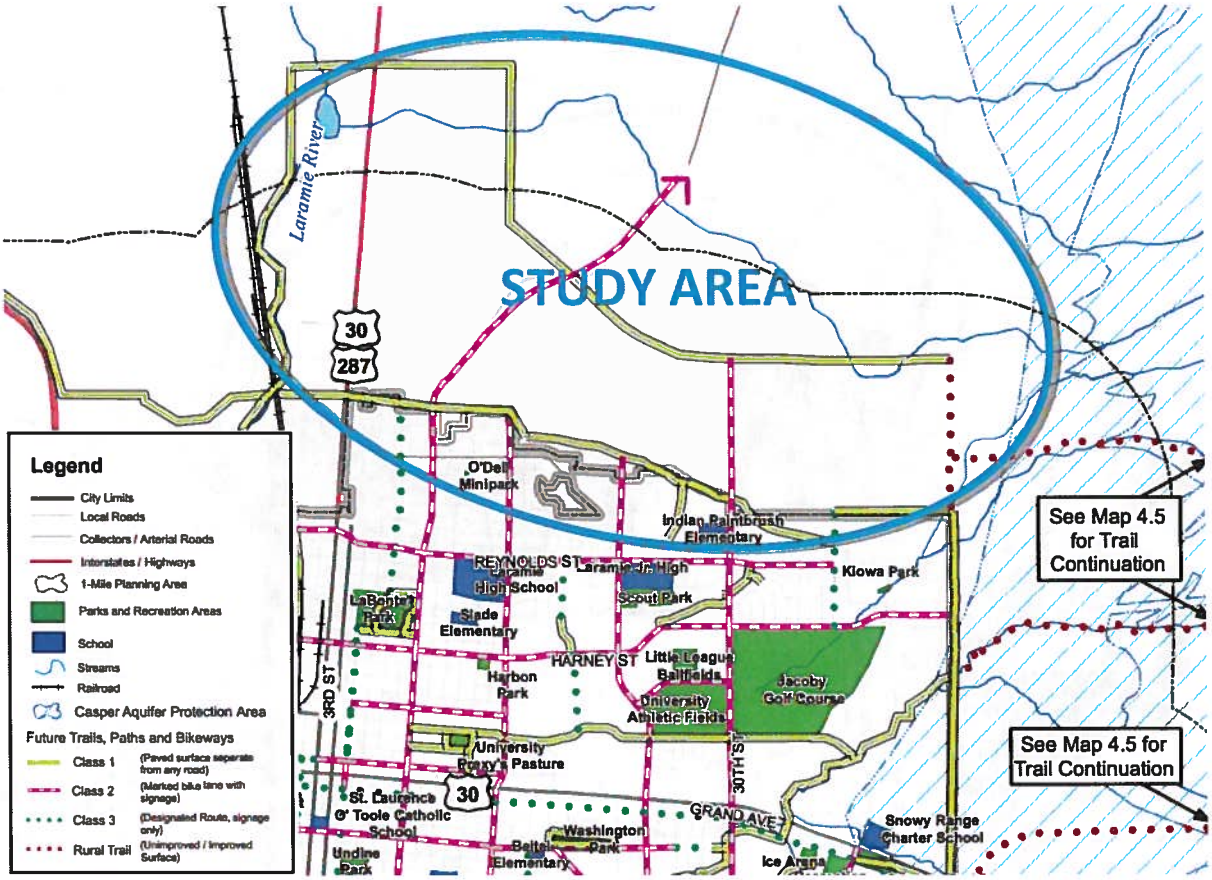
Recommendation – This map should be amended based on the revised Land Use Plan herein.



Map 4.3 – Proposed Park Facility Expansion Areas

Map 4.3 indicates that two public parks are needed and desired in the study area. One park should be a Community Park (~40 acres) and the other a Neighborhood Park (10 acre Minimum).

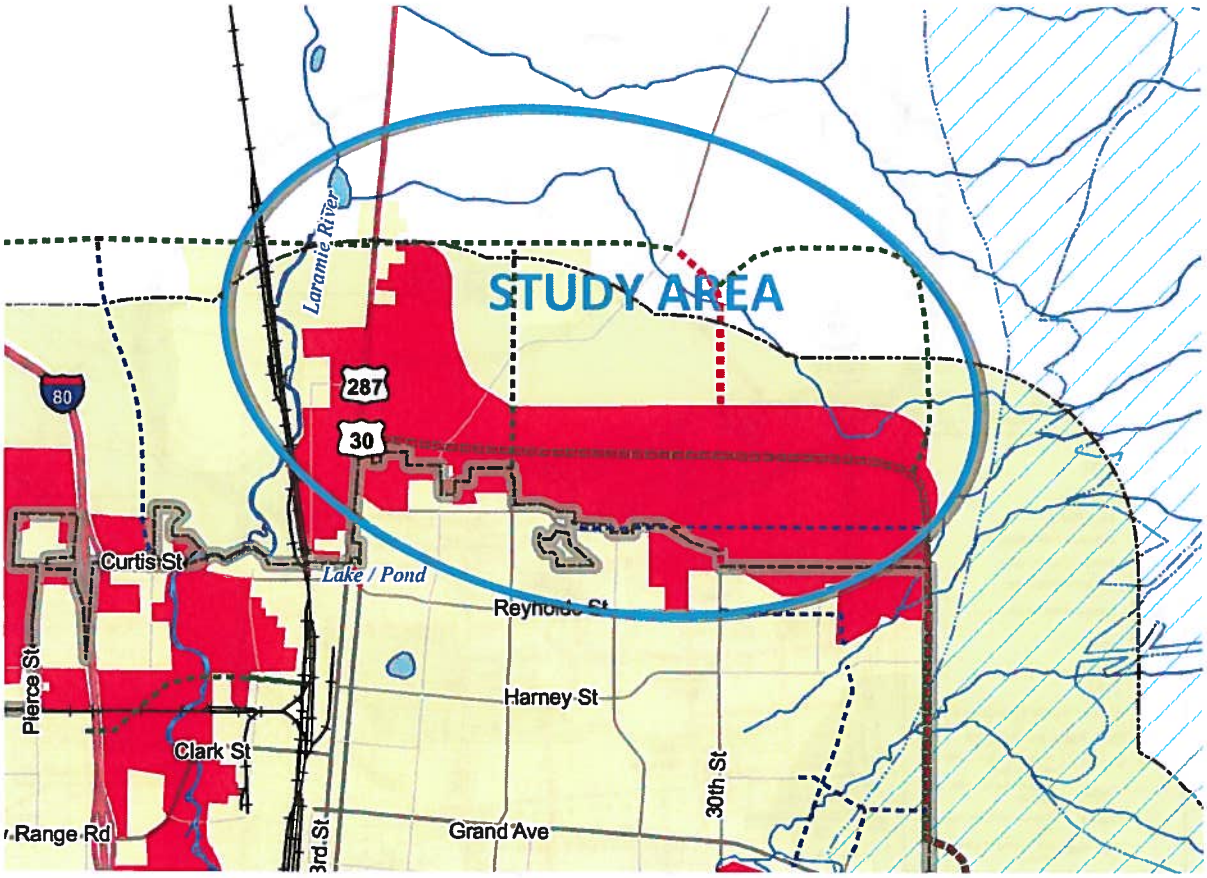
Note: an Ad Hoc Committee is presently examining future park and open-space needs in the City and vicinity, in preparation for an updated Parks, Trails and Recreation Master Plan; that Plan may modify these recommendations.



Map 4.4 – Bicycle and Trails Master Plan.

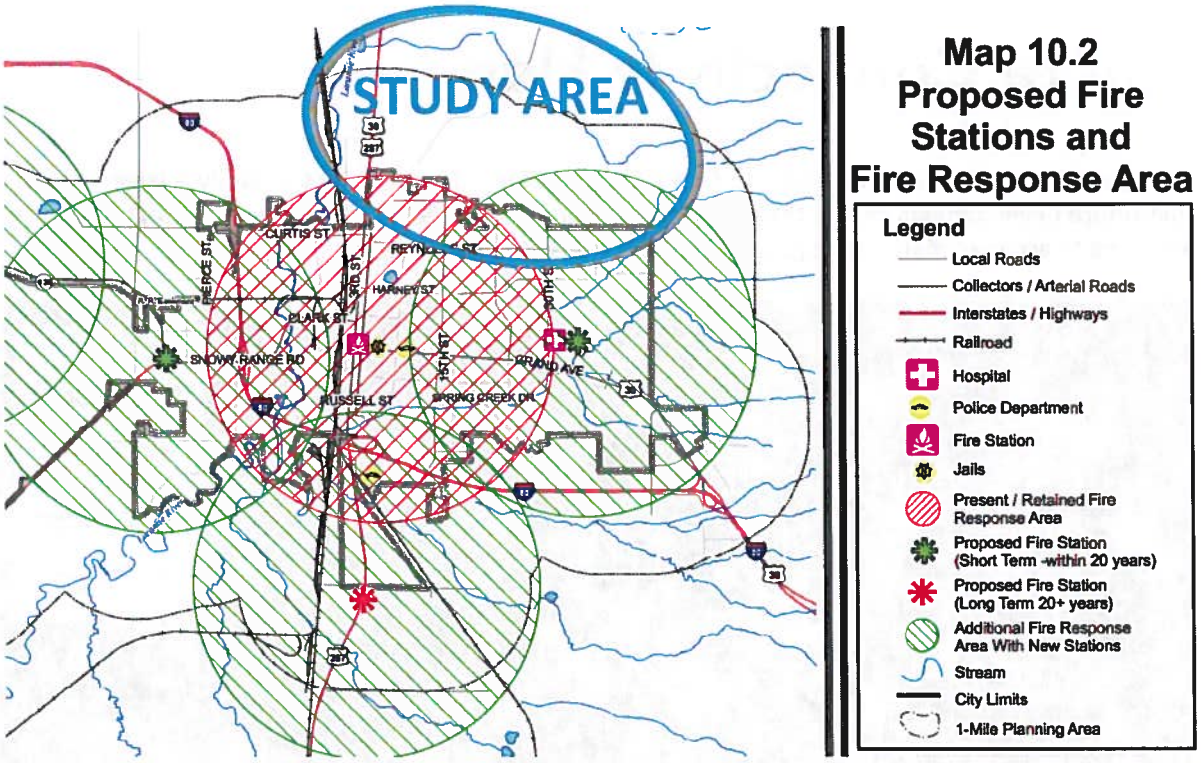
This map illustrates future trail connections within the study area. At the time the plan was developed, a "ridgeline" trail was desired and still is. However, with no enforceable code in place requiring construction of the trail, recent development proposals have reduced the possibility of a creating a continuous east/west tail along the ridgeline. A trail connection from 30th Street to 15th, 9th, or even North 287 is still desired.

Note: See note for Map 4.3. A principal landowner in the Cirrus Sky core area and the City have agreed that a trail connection along the ridgeline at the current north City boundary is an essential component of the project.



Map 7.2 – Urban Growth Area

Map 7.2 shows the areas that should be annexed and zoned if desired to be developed. The study area extends outside of the current Urban Growth Area as it is defined today. Amendments to this map will be needed as areas outside the UGA boundary are identified for immediate growth.



Map 10.2 Proposed Fire Stations and Fire Response Area.

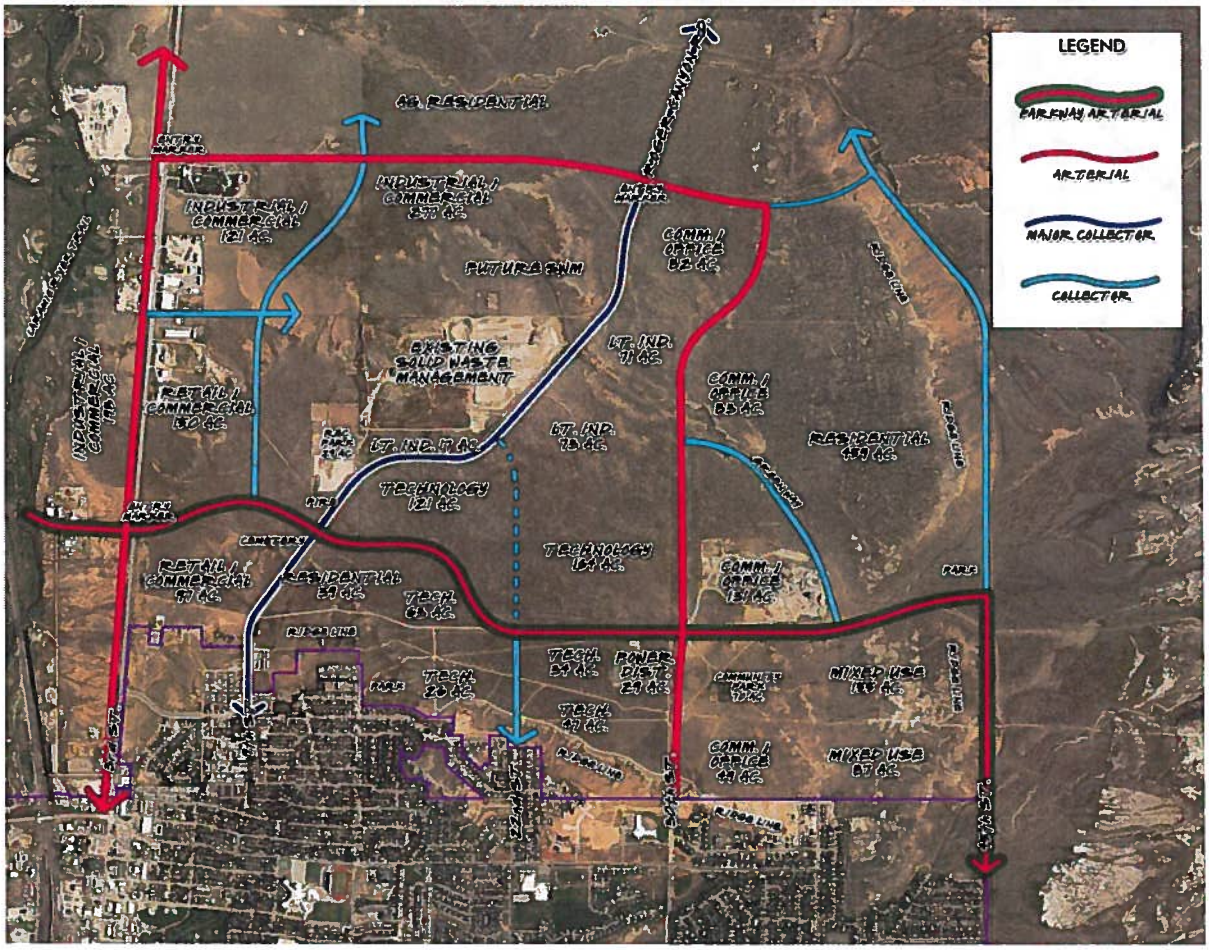
The majority of the North Laramie study area is outside of the proposed response areas as shown above. Fire Station #2, located at 1558 N. 23RD Street, currently serves the study area.

Recommendation - Any new fire station in the area should be planned in alignment with expected growth and development in this area.

Future Connectivity Plan

FUTURE STREETS

In order to properly plan streets for the Cirrus Sky Tech Park, it is important to study a larger area, so that future developments can be taken into consideration. Accordingly, streets will be properly aligned and sized to accommodate future growth, as suggested in the map below.



a. The image above illustrates the vision for the major street network in North Laramie. Additional collector and local streets will be required as development occurs.

b. The major street pattern has been planned with the goal of preserving large tracts of land allowing for a variety of development options and potential users.

c. Existing north/south city streets (22nd, 30th and 45th Street) will be extend north into the study area.

d. Asphalt Lane, a major east/west connection in the study area, is envisioned as a "Parkway Arterial" or "Boulevard" meaning that its character will have a greater emphasis on green spaces and landscape. Street improvement will include raised landscaped medians and broader setbacks.

e. Arterial Streets (illustrated in red) include Hwy 287, 30th Street and a proposed east/west street abutting the north edge of Cathedral Home for Children, which extends east to 30th Street.

f. Collector Streets (illustrated in light blue) include Rogers Canyon Road, 45th Street north of Asphalt Lane, 9th Street north of Asphalt Lane, 22nd Street.

g. Streets will be designed and constructed to meet the latest edition of the City Street Standards.

STREET DESIGN OVERVIEW

The proposed streets are oriented and designed to maximize connectivity through and around the master planned site (Exhibit E). Multiple roads will be constructed across the property having various widths and designations in order to maximize the connectivity to the City and areas to the north. A bike friendly environment is provided within the road sections. The majority of the roads will be constructed with future development. The road designations and their components are described below (See Figure 1).

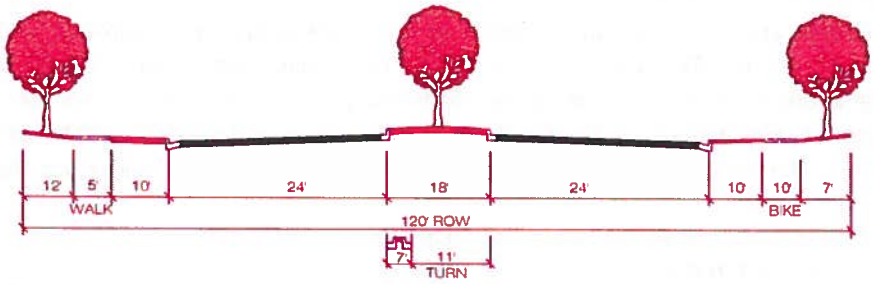
- Principal Arterial- Asphalt Lane Road (East - West
  - 120-ft ROW
  - Two 12-ft lanes in each direction
  - An 18-ft Boulevard section
  - A 10-ft detached bike path on one side
  - A 5-ft detached sidewalk on the other

- Secondary Arterial (30th Street (South – North)
  - 100-ft ROW
  - Two12-ft lanes in each direction
  - One 10-ft detached bike path on each side
  - One 5-ft detached sidewalk on the other

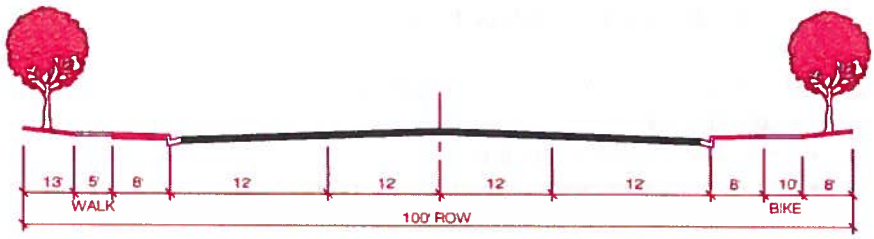
- Commercial Collector (22nd Street and others (South to North)
  - 72-ft ROW
  - One 11-ft travel lane in each direction
  - One 6-ft bike lane in each direction
  - 8-ft parking lane on both sides
  - 6-ft parkway on both sides
  - 5-ft detached sidewalk on both sides

- Local Street- (Access to WRI property from 287 and others) – typical City of Laramie Street
  - 60-ft ROW
  - One 12-ft travel lane in each direction
  - 8-ft parking lane on both sides
  - 5-ft attached sidewalk on both sides

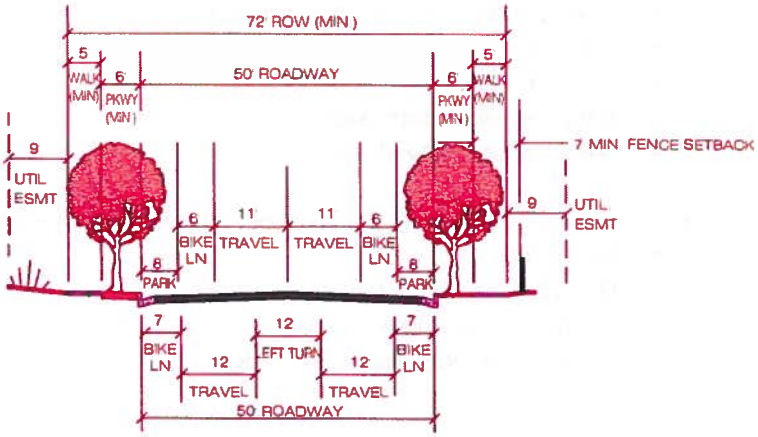
RECOMMENDED CROSS SECTIONS



PRINCIPAL ARTERIAL (PARKWAY)



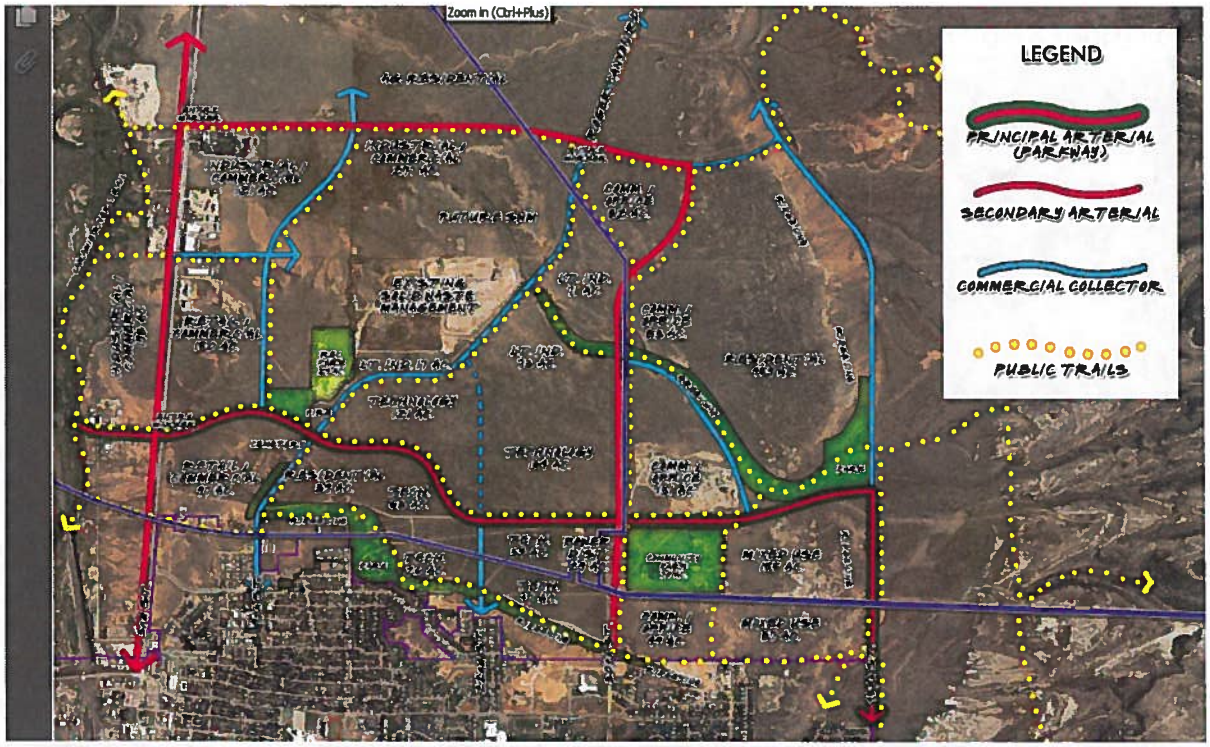
SECONDARY ARTERIAL



COMMERCIAL COLLECTOR

FUTURE TRAILS, GREENWAYS AND PARKS

Pedestrian and bicycle trails should be extended throughout the study area providing an alternate means of transportation, linking to the Laramie River Trail, Spring Creek Trail, open space east of the City and to existing developed areas within the city.



a. Greenways are planned along the ridge and the existing drainage way, providing trail links to public parks and to the surrounding residential and non-residential areas.

b. A community park is illustrated as a possible feature, along with other uses, in the low area southeast of the future intersection of 30th Street and Asphalt Lane. The existing topography is this area poses some challenges for urban development, but is well suited for a park.

c. Two Neighborhood Parks (10-acre min) are planned within the study area. One is located immediately southwest of the Phase I Site and the second is located northwest of the future intersection of 45th Street and Asphalt Lane. Both parks are located within or in close proximity to existing and future potential residential areas.

d. Land has been identified for an expansion of the existing Baseball Complex. The exact size, location, and programming associated with the expansion will be determined at a future date.

e. A comprehensive network of on-street and off-street trails are planned with the study area. Off-street trails are generally located along proposed greenways and within existing power line easements. The trail system provides links to the City's existing Greenbelt Trail system, including the Laramie River Trail and the Spring Creek Trail, and to trails within Albany County east of the City limits.

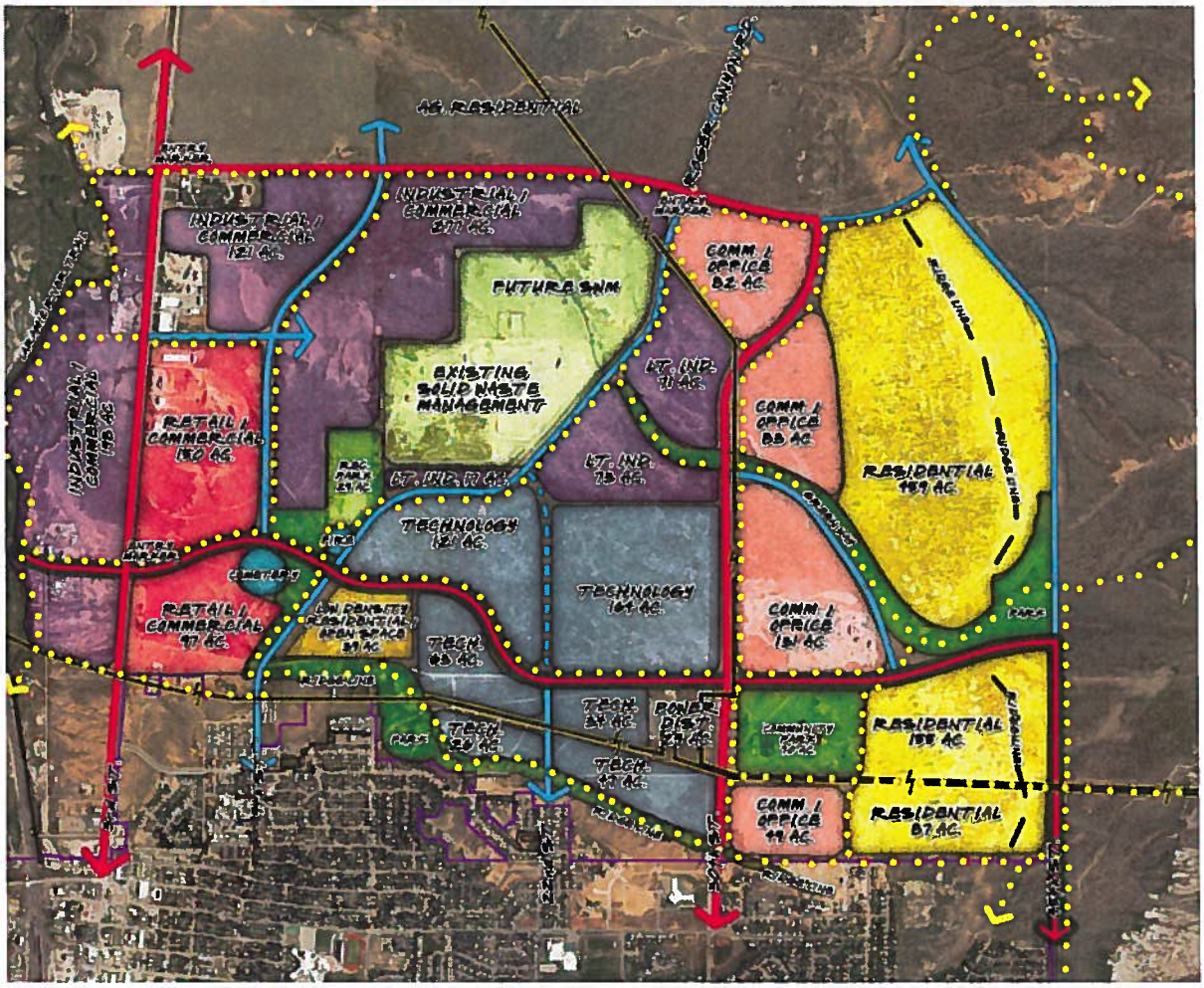
f. Bike trails/lanes associated with Arterial and Collector Streets are planned as follows:

- Principal Arterial (Asphalt Lane) – 10 foot detached bike path on one side
- Secondary Arterials (30th Street) – 10 foot detached bike path on one side

- Commercial Collectors (22nd, 45th Street, etc.) – On-street 6 or 7-ft bike lane in each direction.
- Local Streets – bicyclist share roadway with motorists

g. Greenway trails are envisioned as multi-purpose trails made up of a 10' wide paved surface and a 4' wide soft trail.

FUTURE LAND USE PLAN



a. Proposed land uses within the study area generally transition from Commercial and Industrial along Hwy 287, to Tech/Industrial/Commercial uses within the central area, to Residential uses in the east.

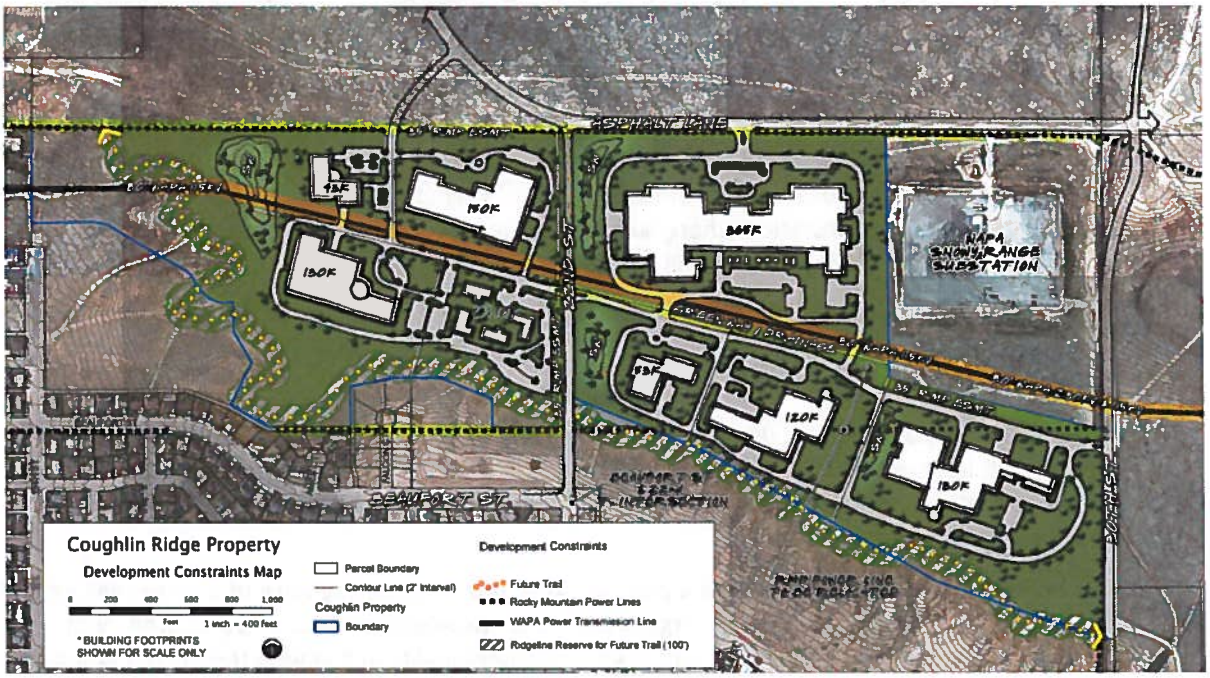
b. Generous buffers are provided between Tech uses and Residential/ Schools/Church uses

c. Tech uses are located in close proximity to the Snowy Range Substation.

d. A future fire station is illustrated near the intersection of Rogers Canyon Road and Asphalt Lane to improve protection and response times within North Laramie.

e. The City's Solid Waste Management Facility is ringed with industrial/commercial uses on the north, west, and south sides. A combination of berms, screen fencing, and landscaping should be provided along the entire boundary of the Solid Waste Management Facility to create an attractive edge along Rogers Canyon Road and to provide screening from adjacent development sites.

PHASE I – CIRRUS SKY TECHNOLOGY PARK



Phase I Design Considerations

a. The Phase I Site is approximately 150 acres in size, and the southern property line is contiguous with the existing city limits.

b. The City may want to consider dividing the Phase 1 site into 3 or 4 individual lots prior to annexation. Albany County allows 35 acre and greater lots to be created using a simple warranty deed, without lengthy subdivision requirements. A deed generally takes one day to process at the county. This approach could save great deal of time. This issue should be balanced against present and development future needs as may be required or desirable under the City's Unified Development Code (UDC).

c. Existing and proposed site features suggest potential lot line locations along 22nd Street extended and paralleling the WAPA Power line, creating 3 or 4 individual lots.

d. Subdividing the property would allow the City to annex individual parcels, or the entire property.

e. WAPA's Snowy Range Substation abuts the east edge of the property and provides a convenient and ideal power source for users with significant power needs.

f. A 115Kv WAPA power line extends northwest from the Snowy Range Substation through the Phase I Site, and is located within a 75' easement.

g. Rocky Mountain Power owns and operates two 13.2Kv power lines that run through and adjacent to the Phase I Site. Based on preliminary discussions, these lines are located within 35' easements. In order to maximize the developable area, it is recommended that the south line be relocated so as to generally parallel the WAPA line until meeting 22nd Street and then will follow the west ROW line of 22nd Street south and reconnect to the existing line heading west.

h. 22nd Street (80' ROW) will be extended north through the property to connect with Asphalt Lane, and possibly beyond in a future phase. Extending 22nd Street provides convenient access to the Cirrus Sky Tech Park from areas south of the ridge, as well as a direct connection to Fire Station #2.

i. 30th Street will also be extended north providing a second point of access for the Cirrus Sky Tech Park. The Phase One limits of the 30th Street extension will be based on proposed development. 30th Street phasing options include: 1) extending 30th north to the south property line of the WAPA Snowy Range Substation where it would connect with a local street within the property; and 2) extending 30th Street to Asphalt Lane.

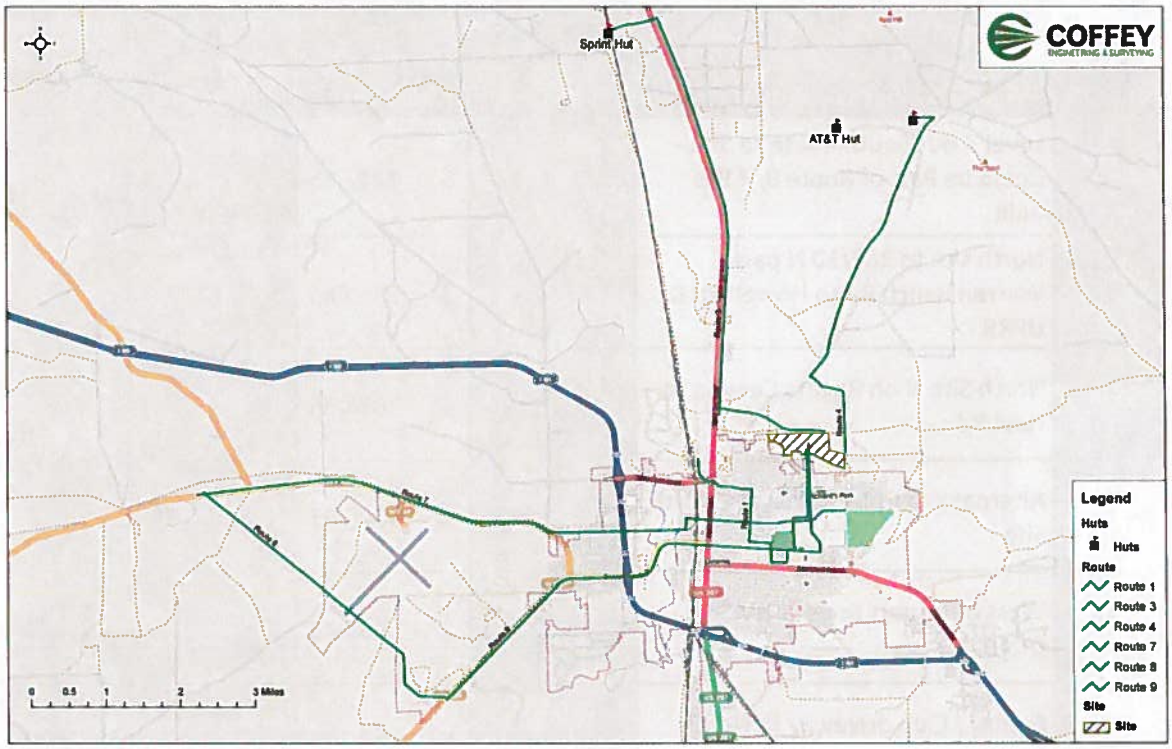
j. A greenway and trail will extend along the ridgeline at the south edge of the property within an approx. 100-foot wide corridor. "Private" trail connections, within the Cirrus Sky Tech Park, should be incorporated into future developments.

k. The Urban Land Institute developed ten innovative guiding principles for sustainable and integrated large-scale development with the aim of influencing future development. A few of these principles are echoed below and should be considered as implementation of the technology park moves forward.

- **Create Great Places.** Adopt a place-making approach through use of a place-making and sustainable approaches, large-scale new development can work well with the surrounding area to create a character and personality in line with the district vision.
- **Open up public spaces/Provide accessible public open space.** Public spaces in private developments are usually of higher quality than other public open spaces, but may not be accessible to the public at all times. Developers gain concessions for providing public spaces in private projects, so these areas should be clearly identified, and physically and visually accessible from the street. Public open space should also be provided at grade and linked to open space at upper levels. If it is not possible to provide a direct view of the public areas at upper levels, a clear wayfinding system should be provided.
- **Promote Sustainability** - Go beyond sustainable building design. During planning, the focus should not be solely on the sustainability of buildings within the development; it should also consider the development's integration with the adjacent areas, and its impact on the district and the city as a whole.
- **Manage, Control, and Coordinate** - Implement coordinated management control. A development with multiple owners can contribute to diversity, but one owner with multiple designers can also contribute to diversity. The key is coordinated management control, whether that management is by the public or private sector, or involves a single developer or multiple developers.

Future Fiber Telecommunications Plan

Several fiber routes, connecting the Cirrus Sky Tech Park to the long-haul fiber routes that currently run through or near the City of Laramie, have been designed by TMNG Global. Depending on a prospective company's needs, one or more of the routes can be developed very quickly (3 to 4 months), if they are pre-planned (including development of engineered drawings, rights of way, easements, and permits). These routes are shown in the map below.



Any of the fiber routes shown above can be strategically routed through particular parts of the community to enhance existing broadband connectivity. That routing can be accomplished just before the fiber is actually installed (rather than now) to fully maximize the immediate impact of each route as it is developed.

Development costs for each fiber route is estimated in the table below, including a "best case," "high case," pre-plan and route assessment only estimates for planning purposes. These costs can be fine-tuned during the pre-planning effort (i.e., when each route is engineered and better costs estimates created).

SELECT FIBER ROUTES

Route #	Proposed Fiber Location	High Case	Best Case	Pre-Plan Only Case	Route Assessment Only
1	Level 3 Hut South Route to Site - Could be Part of Route 9, if 9 is built	$ 543,223	$ 484,615	$ 271,119	$ 8,279
3	North site to 287/30 N past Warren Ranch Rd to Howell Rd & UPRR	$ 752,900	$ 586,664	$ 64,350	$ 17,790
4	North Site N on Rogers Canyon to Haul Rd	$ 474,659	$ 367,485	$ 31,389	$ 7,958
7	Alternate to Rt 5 - Airport to North Site	$ 1,149,823	$ 922,797	$ 84,370	$ 17,673
8A	West of Airport to Country Club Driveway	$ 438,977	$ 365,446	$ 70,313	$ 8,330
9	Country Club driveway to North Laramie Site	$ 778,740	$ 617,260	$ 86,205	$ 11,962
	Totals	$ 4,138,324	$ 3,344,271	$ 607,748	$ 71,992

Infrastructure Improvements

Coffey Engineering, TMNG Global, and the City of Laramie have worked together to plan for various improvements to the water, sewer, and drainage of the Cirrus Sky Tech Park.

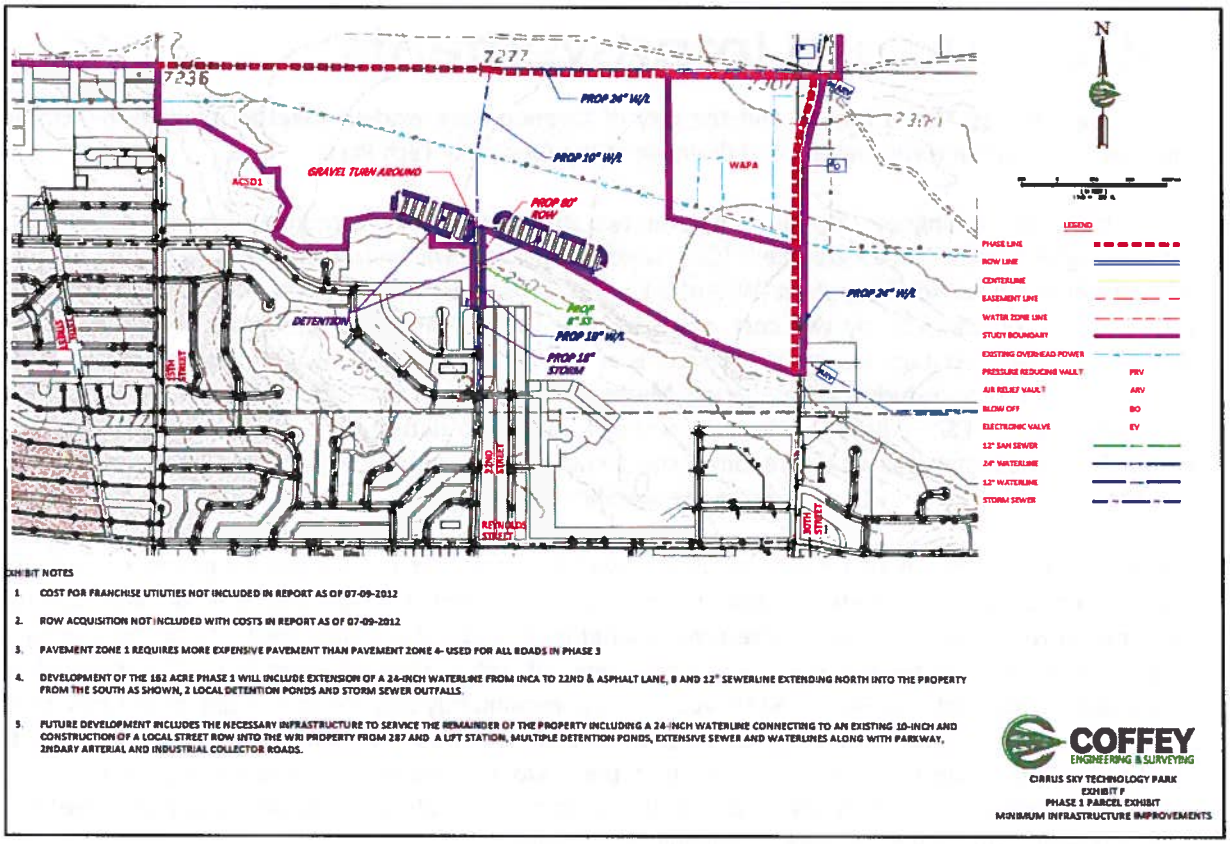
Before major power upgrades can be completed two studies are normally required for each option. The first an Engineering Services Agreement (ESA) which in this case will include cooperative studies by both Western Area Power Administration (WAPA) a Federal Government Agency and Rocky Mountain Power (RMP). This combined Study will cost approximately $80,000 and will verify that sufficient power, including during an outage of any one source, is available to meet the anticipated needs of Cirrus Sky Tech Park. The second study an Engineering, Materials and Procurement Agreement (EMPA) is generally required after the ESA indicating adequate power available to determine timing and costs to build a feeder from the substation to the required site allowing developers to understand when and at what cost the power source can be delivered to the specific site.

Preliminary discussions with Rocky Mountain Power indicate that the Secondary power engineering "agreement" Engineering, Materials and Procurement Agreement (EMPA) would only be needed if the City or a known customer is ready to determine whether the 115kV or 230kV feed is to be designed and to pre-select a site for the privately owned customer substation should be decided. This study which would also involve both WAPA and RMP would cost approximately $45,000 in addition to the ESA when needed. It should be noted that due to the proximity of the Cirrus Sky Tech Park development area to the Snowy Range Substation and the fact that there would be only one landowner (the Tech Park Owner) involved in Easements the cost and timing to build would be minimal for a 230kV feeder – generally well within any data center's building time frames.

Additionally, a RMP power line that currently bifurcates the site should be moved, so that it runs adjacent and parallel to the existing WAPA lines on the property. Moving that power line will cost approximately $115,000.

PHASE I SITE PUBLIC INFRASTRUCTURE PLAN

Streets, water, sanitary sewer, and drainage improvements have been planned by Coffey Engineering & Surveying, as indicated on the map below.



The overall study area has an approximate area of 2,136 acres. There will be future build out east of the study area up to the ridgeline, which is not considered in this report other than to make note that it may occur in the future. The ultimate build out of the area will include the following.

- Multiple north south arterial and collector roadways
- Multiple east west collector and local roadways
- Extension of waterlines from the east (City of Laramie Zone 3) west across the area looping into a waterline that extends west across the Laramie River from the City lift station
- Extension of sanitary sewer lines east from the lift station as well as lines extending north from Reynolds Street
- Extension of a storm sewer east from the Laramie River to a proposed regional detention pond located in a low area on the east side of the WAPA power facility on North 30th Street
- Extension of a force main north on 287 to service the northern portions of the area that cannot be served by a gravity main due to topographic constraints
- Multiple regional detention ponds located along an existing drainage located in the northern portion of the study area, which slopes from east to west with outfall into the Laramie River between Wyotech and the Cathedral Home for Children. A 30-inch culvert conveys the stormwater under WY Highway 287.

The planning has been broken down into the following phases (Exhibit A).

- The Phase I Site, which has an approximate area of 149 acres.
- Future Development north and west of the Phase I site (1,974 acres)

FUTURE DEVELOPMENT

Infrastructure included in the areas designated as future development will include the remaining required infrastructure for build out of the study area including the following.

- 24-inch waterline from 22nd and Asphalt Lane to the WRI property in the Asphalt Lane ROW
- 12-inch sewer line from 22nd and Asphalt Lane to Phase 2 in the Asphalt Lane ROW
- 48-inch and 60-inch storm sewer from the Laramie River east to a regional detention pond located on the east side of the 30th Street Extension across from the WAPA power facility
- Extensive road construction through and around the property
- Regional on-stream detention facilities on an existing drainage that slopes from east to west in the northern part of the study area
- A sanitary sewer lift station and force main to service areas of the property that cannot be served by the gravity sewer proposed in Asphalt Lane.
- Installation of 24-inch waterline to a 10-inch line that comes across the Laramie River north to the site and out to highway 287
- Construction of a local street section (60-ft ROW) from highway 287 into the WRI site

PHASE I PARCEL (EXHIBIT F)

Infrastructure included in Phase 1A will include the following.

- 24-inch waterline from Inca Drive to 22nd along Asphalt Lane
- 12-inch waterline north on 22nd to meet up with the 24" waterline in Asphalt Lane
- Construction of a collector road (80-ft ROW) that will extend 22nd Street north to a temporary gravel cul-de-sac on top of the Bluff.
- Construction of on-site detention and offsite storm sewer outfalls in 22nd Street
- Installation of a 12-inch sewer line from Beaufort Street north in 22nd Street to the temporary Cul-de-Sac

WET UTILITY OVERVIEW

Sanitary Sewer, Water, and Storm Sewer are the required wet utilities for this area to develop (Exhibits B-D). The sanitary sewer extensions north into the area will serve the Phase I Site with some possible extensions into the future development area. A combination of gravity main extended from west to east along Asphalt Lane and a mixture of gravity and force main will serve the Future Development area.

The majority of the site will be serviced by water from the City of Laramie Pressure Zone 3 by extending a 24-inch water main from Inca Drive west to the Laramie River and connecting to existing 10-inch water main at the river. This line will cross into City of Laramie Pressure Zones 1 & 2 requiring Pressure Reducing Vaults at any connections with water mains in these zones.

PHASE I PARCEL (EXHIBIT F)

Wet utility infrastructure in the Phase I will include the following.

- 24-inch waterline from Inca Drive to 22nd Street in Asphalt Lane
- 12-inch sanitary sewer line from Beaufort Street north in 22nd Street to the top of the bluff and the gravel cul-de-sac
- Installation of a 8-inch waterline from 22nd Street to a connection at Asphalt Lane

FUTURE DEVELOPMENT

Future Wet utility infrastructure will include the remaining required infrastructure for build out of the phase including the following.

- 24-inch waterline from 22nd and Asphalt Lane to WRI property in the Asphalt Lane ROW
- 12-inch sewer line from 22nd and Asphalt Lane to WRI Property in the Asphalt Lane ROW
- A sanitary sewer lift station and force main to service areas of the property that cannot be served by the gravity sewer proposed in Asphalt Lane Road.
- Installation of 24-inch waterline from a 10-inch line that comes across the Laramie River north to the site and out to highway 287
- Installation of a 12-inch sewer line from 30th Street to 22nd Street in Asphalt Lane
- Installation of a 12-inch waterline around the north and east perimeter of the Phase I Site in the Asphalt Lane and 30th Street ROW's respectively
- Installation of water and sewer lines in other ROW's and easement within the study area to service the future development.

DRAINAGE DESIGN OVERVIEW

The proposed development will be required to limit stormwater releases to historic levels or less (Exhibit D). Several regional detention ponds are proposed around the property to accomplish this within. In addition, a large storm sewer is proposed within the Asphalt Lane Road alignment to convey stormwater from a low area at the eastern edge of the study area near the WAPA facility that has no outlet currently. This low area will function as one of the regional detention areas.

Areas not served by the regional ponds will be required to provide on-site detention and release at a prescribed rate. The rate will be determined by master drainage study of the area. In general, a historic per acre release rate will be determined to size the local ponds for each lot that does not contribute stormwater through one of the proposed regional ponds.

A large diameter storm sewer will be required to intercept and convey stormwater from this southern part of the area to the Laramie River. The alignment of this storm sewer will follow Asphalt Lane Road paralleling the sewer and water mains. Additional storm sewers in the form of culverts under roadways will be required as outlets for the regional detention facilities located along an existing drainage within future development area. Some extensions of storm sewer south into the City are also proposed to minimize flows going directly into the existing street system, which is at capacity in this part of Laramie according the North Laramie Drainage Study prepared by SEH.

The Phase I Parcel will require onsite detention and storm sewer outfalls to the south and west. The approximate locations of these ponds are shown on Exhibit F. Coffey has included approximate costs of the ponds and their respective outfalls to the existing downstream storm sewer collection system.

Development Costs

The cost to acquire the land and develop infrastructure for the Cirrus Sky Tech Park is estimated to be $5,845,861, based on the land appraisal and estimates calculated by Coffey Engineering and TMNG Global. Those costs are summarized in the table below.

Cirrus Sky Tech Park Cost Estimate	Amount
Pre-Development Expenses	
Planning Study	$90,000
Subtotal Pre-Development Expenses	**$90,000**
Land Acquisition	
Appraised Value (149 $14,000/acre)	$2,086,000
Subtotal Land Acquisition	**$2,086,000**
Infrastructure Improvements:	
Streets/Roads	$308,267
Sanitary Sewer	$491,625
Water lines	$1,493,050
Drainage Improvements	$351,013
Engineering	$343,714
Mobilization/Contractor	$132,198
10% Contingency	$264,395
Subtotal Infrastructure Improvements	**$3,384,261**
Private Utility Improvements	
ESA power study (WAPA and RMP)	$80,000
Relocate electric power line	$115,000
Gas and other private utilities	unknown
Subtotal Private Utility Improvements	**$195,000**
Other Expenses	
Assessment of Fiber Routes 1, 3, and 4	$13,800
Project signage	$76,800
Subtotal Other Expenses	**$90,600**
TOTAL COSTS	**$5,845,861**

Funding Recommendation

Based on available funding resources, the costs to develop the Cirrus Sky Tech Park can be funded according to the recommendations included in the following table.

Cirrus Sky Tech Park Funding Recommendation	Amount
Match Contributions	
Planning Study (cash - paid)	$90,000
Option to Purchase Land (cash - paid)	$5,000
Value of Discounted Price (from landowner, pending sale)	$626,000
Additional contribution (cash - committed)	$405,000
Subtotal Match Contributions	**$1,126,000**
Grants	
WBC Community Readiness Grant	$4,669,861
WBC Planning Grant (power studies)	$50,000
Subtotal Grants	**$4,719,861**
TOTAL FUNDING	**$5,845,861**

The total Match Contributions identified above represent 19.3% of the total project cost. It should be noted that the Wyoming Business Council (WBC) Community Readiness grant listed above exceeds the amount that would normally be considered by the WBC (i.e., normally the WBC would only consider a $1 million Community Readiness grant, although large projects have previously been awarded up to $3 million). Therefore, special consideration will be needed. The WBC staff has been approached by the City, but it is unknown at this time whether such a large request is feasible. Many other funding sources have been considered before development of the recommendation above. If the WBC is not willing to entertain a $4.7 million grant, then other funding sources will be needed. Accordingly, other potential funding sources are discussed in the next section.

Funding Sources

There are several sources of funding potentially available for development of the Cirrus Sky Tech Park. This section of the plan identifies the potential financial opportunities to fund the development costs identified in the plan. Each funding source has restrictions that limit the types of projects it can fund, as well as restrictions as to which entities can be funded. The following funding sources have been considered, and will be discussed in priority order of likelihood of securing funds:

- Wyoming Business Council/Business Ready Community Grant & Loan program
- Wyoming Business Council/Community Development Block Grant Program
- Revenue Bonds
- State Loan & Investment Board (SLIB) Federal Mineral Royalty Grants, Consensus Funding, Wyoming Joint Powers Act Loans, and Abandoned Mine Land funds
- U.S. Department of Commerce/Economic Development Administration funds
- Capital Facility Tax (countywide excise tax)

Each of these potential funding sources has certain attributes to be considered, including their respective costs, uses, timing, and likelihood of availability. They will each be discussed below.

WYOMING BUSINESS COUNCIL – BUSINESS READY COMMUNITY PROGRAM

The Wyoming Business Council (WBC) Business Ready Community Grant & Loan (BRC) program provides financing for publicly owned infrastructure that serves the needs of businesses and promotes economic development within Wyoming communities. Cities, towns, counties, joint powers boards and both Tribes are eligible to apply for funding. Public infrastructure that is eligible for funding includes water; sewer; streets and roads; airports; rights of way; telecommunications; land; spec buildings; amenities within a business park, industrial park, industrial site or business district; landscaping, recreation and educational facilities; and other physical projects in support of primary economic and educational development.

Funds for the BRC program are appropriated by the State Legislature. The 2012-2013 biennium appropriation is $58.5 million. After the WBC staff and Board of Directors have reviewed funding requests and made their recommendations, final approvals are considered by the Wyoming State Land Investment Board at their bimonthly board meetings. The City of Laramie (or Albany County) would be an eligible applicant, and the WBC is likely to fund development of necessary and well-planned business parks.

To distribute funds for eligible projects, the BRC has developed six subcategories based on differing criteria and objectives. The subcategory that currently applies to the Cirrus Sky Tech Park is **Community Readiness** projects. This program is intended to assist in preparing a community through infrastructure improvements and expansions in support of primary economic development. The improvements have to be part of an approved comprehensive plan and the applicant must demonstrate that the potential exists for the creation of new primary jobs. It also must demonstrate that appropriate planning has been conducted and capacity exists to accommodate new business development in order to insure success for the project. As a Community Readiness project, grants are available for up to $1 million. A local match equal to

15% of the project will be required (Note: Local match of $176,471 required for maximum $1 million grant, for total project funding of $1,176,471).

There have been instances when the WBC has awarded larger grants for big projects. Typically, the WBC has limited such awards to a maximum of $3 million grants for the applicable subcategory. Thus, the limit for the Cirrus Sky Tech Park, as a Community Readiness project, would ordinarily be $3 million in grant funds (locally matched with $529,413, for total project funding of $3,529,413). Requests higher than that amount will require special consideration by the WBC, which may result in approval of less funding than the amount sought.

Other subcategories of BRC funding may be available. If a business is identified and committed to building a project in the Cirrus Sky Tech Park, then **Business Committed** grants are available for the project. This is important, since the maximum award for grants for Business Committed projects is $1.5 million, and the required local match is reduced to 10% of the project (i.e., to secure the maximum grant amount, a local match of $264,706 is required, for total project funding of $1,764,706). If previous actions of the WBC are indicative of what is possible for this project, then larger grants could be sought, for a total project cost of up to $5,294,118 ($4.5 million in BRC grants, plus $794,118 in local match).

The final BRC subcategory to consider for this project is Managed Data Center projects, although it is primarily intended to be an incentive so it will be discussed in the Incentives section below.

Recently, the Wyoming State Legislature authorized the WBC to begin using BRC funds for planning grants. The WBC has drafted rules for that use, and the WBC Board of Directors has approved the draft rules. Wyoming Governor Matt Mead is currently reviewing the draft rules, and is expected to approve them sometime before September 1, 2012. Once approve, the WBC expects to receive the first BRC planning grant applications by December 1, 2012 (and semi-annually thereafter).

The electric service analysis planning that needs to be completed by WAPA and Rocky Mountain Power would be excellent candidates for BRC planning funds. Under the draft rules, up to $25,000 is available for feasibility studies, and up to $50,000 is available for community-wide economic development plans and initiatives. A 25% local match is required for all BRC planning grants. The City of Laramie could write multiple grant applications (up to $100,000 per year maximum awards).

If a community-wide BRC planning application is made, the City might persuade the WBC to fund the grants since the electric service analysis:

- Will lead to improvements for the entire community;
- Will include improvements at the solid waste management facility, which serves the entire community; and
- Is part of a community-wide economic development initiative to improve infrastructure for business growth

WBC grant application deadlines are tied to the specific type of grant funding. BRC grants must be submitted by the first day of March, June, September, or December, with decisions made the following quarter. The Wyoming Business Council will not provide grant funds if the local match

project costs are not identified and secured. Involvement by Laramie Economic Development Corporation and the Regional WBC Director, Tom Johnson, will be critical to the success of WBC grants.

More information about the WBC Business Ready Community Grant and Loan program can be found online at http://www.wyomingbusiness.org.

A key consideration for all BRC grants is a plan to "recapture" revenue equal at least to the State's investment (i.e., the amount of the grant). There are several ways that the City of Laramie will recapture revenue in this project:

- Sale of lots – once the Cirrus Sky Tech Park become shovel-ready (i.e., subdivided, zoned, and all necessary infrastructure is in place), the land will be worth much more than it currently is worth. Based on comparable sales identified in the appraisal and on the value of the infrastructure improvements that will be developed, the land in the Cirrus Sky Tech Park will then be worth as much as $58,000 an acre (or $1.33 per square foot). Some of the Cirrus Sky Tech Park lots may be substantially discounted (to incentivize development), but perhaps half of the 139 developable acres will be sold, resulting in sales of up to $4 million. If these funds were dedicated to economic development, they could be counted as part of the recapture plan. They could also be dedicated to future business park development, including expansion of the Cirrus Sky Tech Park.
- Economic impacts – There will be significant enhancements for local governments and the state, based on future development of the Cirrus Sky Tech Park. Approximately $7.8 million in state and local tax revenue will be recaptured during construction. After construction, the new businesses to be located in the Cirrus Sky Tech Park will generate annual state and local taxes of $3.8 million. Those increases in tax revenues should be considered in the revenue recapture plan. They are discussed in detail in the Economic Impact Analysis section below.
- In-kind contributions – The current landowner has expressed a willingness to sell his property to the City of Laramie, in exchange for setting aside a portion of the site for parks and walking trails (especially along the popular ridgeline). The value of this discount, $626,000, can be used a match or as part of a revenue recapture.
- Fiber/broadband sales – This plan recommends that the City of Laramie consider owning the fiber and conduit that loops through the community through various routes to the Cirrus Sky Tech Park. The City of Powell, Wyoming, has done this successfully via a telecommunications provider that leases the infrastructure from the City and provides all operational and maintenance services. Depending on the route, timing, and long-haul carrier(s) that are chosen, this project could generate a significant amount of revenue.

WYOMING DATA CENTER RECRUITMENT FUND

The Wyoming Legislature recently authorized the Wyoming Governor to spend up to $15 million as grants for necessary public infrastructure to enable the recruitment and operation of data centers. The Legislature mandated that these funds be provided at the Governor's discretion for data centers that are committed (contracted) to locate in Wyoming and that the data center company construct a facility that costs at least $50 million. This fund is intended to help close deals for communities that have recruited a data center project. Therefore, although it may not

be appropriate to seek these funds for a community readiness project like Cirrus Sky Tech Park, this funding source may be an excellent incentive for Laramie to consider down the road. For example, this fund could help pay for the final construction of one or more specific fiber routes that are needed by the prospective data center.

WYOMING BUSINESS COUNCIL – COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM

The primary intent of the Community Development Block Grant (CDBG) program is to provide funding to local governments to pay for community or economic development activities. The CDBG program is a federally funded pass through grant program funded by the United States Department of Housing and Urban Development and administered by the Wyoming Business Council (WBC). The WBC receives an annual CDBG funding allocation that has varied between $2.2 million and $3.75 million. The agency also has three subcategories for better allocation and distribution of the funds. The sub-category for this project is the Public Infrastructure grant, which can provide up to $500,000 in grant funds. There is not a required match; however, an integrated effort with matching funds would be desirable. CDBG funding is limited to cities, towns, counties, joint powers boards, and further income restrictions applied.

One of three national objectives must be met to qualify for CDBG funds:

- Benefit low and moderate income persons
- Aid in the prevention or elimination of slums or blight
- Activity designed to meet community development need having a particular urgency

There are two key reasons why CDBG funds should not be pursued for this project. First, the City of Laramie has many other infrastructure needs that are more appropriately funded with CDBG funds. Second, it may be difficult to meet any of the national objectives, especially because an important goal is to create high-paying high-skilled technology jobs.

The CDBG program also funds "planning only" projects. Planning funds will be important for this project because it will be necessary for WAPA and Rocky Mountain Power to conduct electric service analysis for extending electricity to and through the Cirrus Sky Tech Park. However, CDBG funds for that kind of study are limited, because they are considered feasibility studies (funding for which is capped at $15,000). Instead of CDBG planning funds, the City should seek BRC planning funds (addressed above).

REVENUE BONDS

The community may want to consider issuing municipal revenue bonds to allow for construction of new fiber routes and/or conduit that connects to nearby "long-haul" telecommunication carriers. The community could pledge future revenue from sales or leases to these fiber rings to finance bonds that would fund their construction. There are a number of quality firms within the State of Wyoming who, in anticipation of selling the bonds once the question passes, provide election assistance developing promotional brochures, framing the question and helping generate support for the project. Preliminary discussions with bond counsel and with the City of Powell (which has successfully completed a similar project) suggest that the City of Laramie could indeed construct a fiber loop network and/or conduit for such a network financed with bonds, and then work with a telecommunication company to operate the system to generate revenues.

STATE LOAN AND INVESTMENT BOARD

The Office of State Lands and Investments serves as a clearinghouse for many funding programs. They are responsible for receiving and processing funding applications through the following programs:

Mineral Royalty Grants (MRG)

The Federal Mineral Royalties and Bonus Payments provide funding pursuant to Wyoming Statute 9-4-604. The State Loan and Investment Board (SLIB) provides Federal Mineral Royalty Grant (MRG) funds. The MRG revenue stream is funded by the royalties from federal leases on public land in Wyoming. The amount varies from year to year and is subject to legislative appropriation based on revenues received by the state from the federal government. The allocated amount for the 2012-2013 biennium is $33.4 million. Eligible entities are counties, municipalities, joint powers boards and certain special districts, including hospital districts.

The funds are provided in the form of grants ranging from 50% to 75% of eligible project costs. Municipalities with a population less than 1,300 or that are in a county where the three-year average of state sales and use tax is less than 70% of statewide average are eligible for 75% grant funding (Note: Albany County appears to be well below that threshold). Larger municipalities are limited to 50% grants.

The SLIB Board reviews applications and prioritizes them by urgency. Emergencies that pose an immediate threat to health, safety, and welfare get top priority. The second priority is compliance with federal or state mandates, and the third priority is to provide an essential public service. The Board considers water and sewer projects, storm drainage projects, street and road projects, and solid waste disposal projects, among others, to be essential public services.

It seems unlikely that this project would receive serious consideration for funding given the criteria for award. However, given some of the water and sewer infrastructure needs in the community may justify seeking MRG funds for the broader community needs.

SLIB Mineral Royalty funds are also allocated to Wyoming's counties and municipalities through the Countywide Consensus Allocation (referred to as Section 342 funding within the supplemental legislative funding appropriations to local government entities). Section 342 appropriates funds from the State's general fund to SLIB to be allocated to counties in formula block grants and expended for capital projects via the countywide consensus process. The City of Laramie desires to use such funds now and in the future for other infrastructure needs.

Wyoming Joint Powers Act Loans (JPA)

Pursuant to the Wyoming Joint Powers Act (W.S. 16-1-101, et al), any one of Wyoming's counties, municipalities, school districts and community college districts may create a Joint Powers Board for the purpose of planning and financing specified governmental projects and facilities, including rights of way for public utilities and telecommunication.

A Joint Powers Board has the authority to issue tax-exempt revenue bonds to fund the construction of many different types of public facilities, which are then owned by the Joint Powers Board or any of its participating agencies. The JPA funding is a $60 million allocation from the Permanent Mineral Trust Fund. The JPA funding is in the form of loans and only provides funding for revenue generating public facilities projects. The

revenue must be sufficient to service the debt and represent prudent use of state funds. Loan terms are up to 40 years, depending on the life of the project. The interest rate for Joint Powers Act Loans is 4.89% through December 31, 2012. In January of each year, the State Treasurer's Office will calculate the five-year average that will provide the next annual interest rate for Joint Powers Act Loans.

The loan funds can be used for planning, construction, acquisition, improvement, emergency repair, and refinancing of existing debt. There are no matching fund requirements, provided the facility can generate sufficient revenues to service the debt and is a prudent use of state funds. The JPA program has no set priority list or numerical ranking system for projects.

The SLIB board will consider completed loan applications at any of its regular meetings or special sessions. The next upcoming due date for application submittal would be October 7, 2012 for the December 6, 2012 meeting.

Abandoned Mine Lands (AML)

The Surface Mining Reclamation and Control Act allowed the State of Wyoming to establish an Abandoned Mine (AML) Program. Originally established to reclaim abandoned mine sites using funds collected by the U.S. Secretary of Interior, the law now allows AML to fund public facilities in communities adversely affected by past mining. The program is administered by the Wyoming Department of Environmental Quality Abandoned Mine Land Division with final review and approval by SLIB.

Chapter 6 of the Abandoned Mines Lands Rules and Regulations allows for funding of public facilities projects in counties that are, or have been impacted by mining with excess funds remaining after fully funding their reclamation and rehabilitation projects. These excess AML funds can be used for funding costs associated with site evaluation, engineering and design, site preparation, construction, equipment purchase, and maintenance. Eligible projects include existing public facilities and utilities serving the public that were adversely affected by mining practices prior to 1977, and new public facilities and utilities in communities affected by mining. Applicants are restricted to incorporated cities and towns, counties, special districts or joint powers boards who would own the new facility.

Qualifying projects are given a priority ranking based on the following criteria:

1. Availability of funds from other sources, local community tax base, and financial support for the proposed project.
2. The mitigation extent for impacts from mining, with first priority given to public health and safety and second to providing basic services and infrastructure.
3. The need and cost effectiveness of the project to the community and the state.

This funding is limited to any excess amount beyond the amount needed to fund the State's reclamation plan. In recent years the funds received by the State for AML projects has only been sufficient enough to implement the state's Reclamation Plan and there hasn't been excess funding available for public facilities projects. However, it

appears that the AML program will have funds available for funding water system improvement projects in the immediate future.

More information about the various Wyoming SLIB grant and loan programs can be found online at http://lands.state.wy.us/.

U.S. DEPARTMENT OF COMMERCE/ECONOMIC DEVELOPMENT ADMINISTRATION

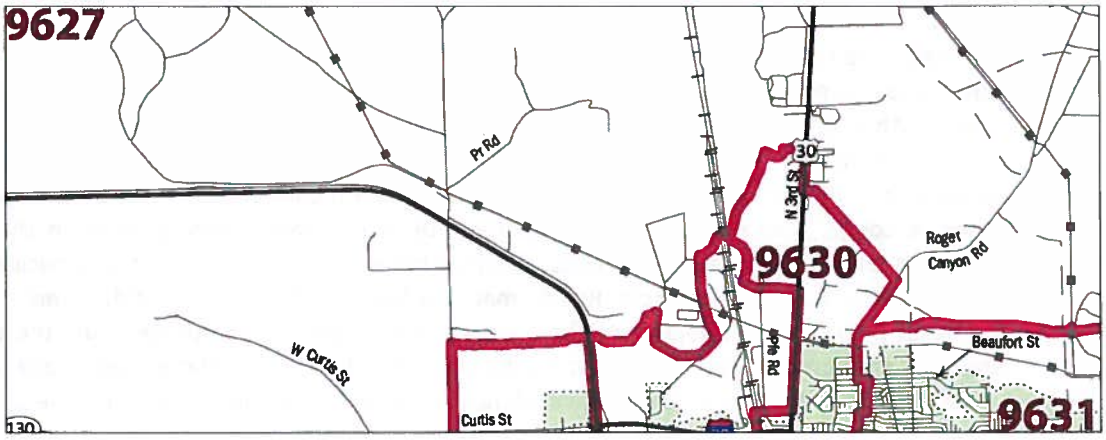
The federal Economic Development Administration (EDA) provides funding to support development in distressed communities by fostering job creation and attracting private investment. The EDA's Public Works and Economic Adjustment Assistance programs have been used by many communities to construct facilities and to improve infrastructure for economic development. Unfortunately, neither the City of Laramie nor Albany County's economy is sufficiently "distressed" at this time to demonstrate the need for EDA assistance.

To demonstrate economic distress (and therefore eligibility for EDA assistance), the community needs to demonstrate:

1. That its unemployment rate is at least one percentage point greater than the national average unemployment rate (Albany county's unemployment rate has averaged four percentages points *lower* than the national rate);
2. Per capita income that is 80 percent or less of the national average per capita income (Albany County's per capita income is currently 93.7% of the nation's per capita income); or
3. A "Special Need," as determined by the EDA.

One of the categories of "Special Need" (i.e., a Presidential Declaration of a Major Disaster) may technically satisfy the EDA definition of economic distress. On July 11, 2011, President Obama made such a declaration, which included Albany County. More recently (July 2012), the Secretary of Agriculture Tom Vilsack designated Albany County as a drought disaster area. However, such Declarations typically expire within 12-18 months, so eligibility for the Cirrus Sky Tech Park project may soon be eliminated.

Another alternative is to frame the eligibility question within a Census Tract, instead of the more traditional County or City approach. The study area includes some part of three Census Tracts (9627, 9630, and 9631), as seen in the map below:



Using 5-year averages (2006-2010, the most recent) for per capita income, according to the Census Bureau's American Community Survey data, Census Tract 9630 would be eligible for EDA Public Works funding, since its per capita income level is just $18,626 (far less than the 80% threshold). The table below compares the per capita income levels for all relevant geographic areas.

Geographic Area	Per Capita Income 2006-2010	Percent of USA Per Capita Income
Albany County	$25,622	93.7%
City of Laramie	$22,846	83.6%
Census Tract 9627	$27,914	102.1%
Census Tract 9630	**$18,626**	**68.1%**
Census Tract 9631	$29,980	109.7%
USA	$27,334	100.0%

Using a Census Tract approach is unproven and may face opposition from EDA staff. Additionally, the Denver regional office for the EDA has not been supportive of data center projects generally. Their concern is that data center facilities cost far more than would be warranted given the small number of jobs that are created. With the EDA's scoring matrix, such projects have not competed well for funding, especially when there are other potential projects that generate far more jobs. Nonetheless, according to John Rogers, the EDA representative for Wyoming, this project may qualify for approximately $1 million in funding, which must be matched at least 100%. Funding from local or state sources (including BRC grants) can be used for the required match. The EDA accepts applications quarterly, and the process starts by working with EDA's regional staff (John Rogers).

CAPITAL FACILITIES TAX

Counties have the ability to levy optional (or special purpose) sales and use taxes. A special purpose tax, (also known as a capital facilities tax), is an excise tax of not more than 2% levied with all other sales and use taxes collected in the county. It must be approved by a popular vote. The revenues from the specific purpose local option tax must be used to pay for specific capital needs identified in the ballot proposition. To put a capital facility tax on the ballot, the board of county commissioners and two-thirds of incorporated municipalities in the county must first pass a resolution authorizing a ballot issue. There are only two municipalities in Albany County (Laramie and Rock River); meaning both of those municipalities must approve any ballot resolution. Projects must be approved when the tax is approved, and the tax ends when the amount of money approved has been collected. This method is a good one to utilize to raise matching funds and to provide evidence of support by the community for the project.

Albany County currently has in place a special purpose tax that raises $4-5 million each year for water and streets projects. The tax was approved in May 2010, and is expected to continue for several years. Once it expires, it is likely that local governments will need to consider yet another special purpose tax for more pressing needs than the Cirrus Sky Tech Park.

Phasing Plan

There is a logical progression of steps that should be taken by the City to successfully move this project forward:

1. Now – Secure option to purchase Phase I Site
2. September 1, 2012 – Apply for BRC Community Readiness grants in amount of $4.5 to purchase site and to pay for water, sewer, and roads servicing the Cirrus Sky Tech Park property.
3. December 1, 2012 – Apply for BRC planning grant of $50,000 to help pay for WAPA and Rocky Mountain Power electric service analysis.
4. As opportunities for business recruitment are converted (i.e., businesses make formal commitment), apply for BRC funding to extend infrastructure to north side of Cirrus Sky Tech Park, as needed, and/or apply recapture funds to this purpose.
5. As needed, secure option(s) to purchase land to the north of Cirrus Sky Tech Park property.

Potential Incentives

Much is said about Wyoming being a "tax friendly" place to do business. Wyoming has no income tax, low property taxes, and reasonable sales taxes. Wyoming is known to have a low cost of living, a good quality of life, and conservative fiscal values. Yet, businesses are not flocking here. In fact, the site selection process for many corporations is a highly competitive fast-paced race of exclusion, culminating in a head-to-head comparison of just a few finalists. Site locators begin by finding reasons to exclude most communities. They then calculate how much money the remaining communities will "give" if they are chosen. Accordingly, some communities use certain incentives to become more competitive in their effort to induce companies to relocate. There are many potential incentives available to help attract businesses to the Cirrus Sky Tech Park, discussed below.

BUSINESS READY COMMUNITY (BRC) GRANTS

One of Wyoming's best incentives is the BRC grant program, discussed above. BRC grants of up to $1.5 million can greatly decrease the construction cost of a new facility. The BRC program is unique to Wyoming, and its availability should be a central part of the overall marketing approach and incentive package for the Cirrus Sky Tech Park.

MANAGED DATA CENTER COST REDUCTION PROGRAM

Since a primary purpose of the Cirrus Sky Tech Park is to be attractive to large data centers, the Managed Data Center Cost Reduction Program will be an important incentive. This program can pay down utility costs for electrical and/or broadband connectivity. In exchange for providing these reductions in costs, the City will need to first contract with the prospective business to receive direct benefits and indirect economic development benefits. Those economic development benefits should include a specific amount of capital investment from the business, a specific minimum payroll to be created, and/or the provision of discounted IT services to the City. The agreement with the business will also require that the business pay back all funds in the event the business does not meet the contract's requirements and/or if the business ceases to do operations or relocates out of Laramie within five years.

For Managed Data Center projects, the grant amount is based on how much capital investment and payroll the business will realize over five years. The maximum grant award is $2,250,000. For each grant amount, the business must create a match of at least 125% of the grant amount in payroll and capital expenditure with the caveat that 50% of the match will be in payroll creation. Payroll must be greater than 150% of Albany County's median wage. As of March 2012, the median wage for all Albany County occupations was $33,187, so new positions would need to pay at least $ 49,781 per position. While it is likely that any large data center project will qualify for these funds, the program should be used more as an incentive, since it is not a funding source for development costs.

SALES TAX EXEMPTIONS

Multiple sales tax exemptions make it very attractive to do business in Wyoming. Manufacturing, energy, and agricultural-related businesses are able to exempt many purchases from sales tax. There is also a sales tax exemption for certain equipment purchased for data centers.

- In Wyoming the purchase or rental of equipment that is necessary for the operation of a data processing services center is exempt from sales tax, including:
- Qualifying prewritten and other computer software
- Computer equipment including computers, servers, monitors, and keyboards
- Storage devices and containers used to transport and house such computer equipment
- Other peripherals, racking systems, cabling and trays
- Uninterruptable power supplies and back-up power generators
- Specialized heating and air conditioning equipment, and air quality control equipment used for controlling the computer environment necessary for the operation of a data processing services center

These exemptions only apply when the aggregate purchase of the qualifying equipment exceeds two million dollars ($2,000,000.00) in any calendar year. Additionally, to claim the computer equipment exemptions, the business must meet certain requirements:

1. The business must have a physical location in this state where the qualifying computer equipment purchased shall be maintained and operated until the qualifying equipment is scheduled for replacement; and
2. The business shall make an initial total capital asset investment in a physical location in this state of not less than five million dollars.

To qualify for the sales tax exemption for purchases of power equipment or specialized HVAC equipment, the initial capital asset investment must be at least fifty million dollars. Because of the huge equipment investments made by data centers, both types of sales tax exemptions will become a huge incentive to locate in Wyoming, saving them millions of dollars.

WORKFORCE TRAINING GRANTS

The Wyoming Department of Workforce Services (DWS) provides workforce training funds for new and existing businesses. Business Training Grants for new jobs can provide between $1,000 and $4,000 per trainee per fiscal year, depending on the employee's full-time status and wage amount. Grants for new positions were developed to assist Wyoming businesses in two ways:

- *Wyoming Business Expansion*
  One of the most difficult issues facing a company trying to expand its services and workforce is the overwhelming cost associated with hiring and training a workforce during the start-up phase of the expansion. The Workforce Development Training Fund can help a growing Wyoming business by deferring much of the business's training costs during the expansion phase. The Cirrus Sky Tech Park will want to access these funds for Wyoming businesses that want to expand with a new facility there.

- *New Business Recruitment*
  The Workforce Development Training Fund is a tool for DWS to partner with LEDC to recruit new businesses to the Cirrus Sky Tech Park. DWS will work to ensure that a business considering Laramie as a place of operation will know how the Workforce Development Training Fund can help create a successful start-up by deferring much of its workforce training costs.

It is important to know that DWS may pre-obligate workforce training funds, which can then be included in an incentive package for recruiting new businesses. DWS will pre-obligate funds for business expansion or recruitment, as discussed above.

INDUSTRIAL DEVELOPMENT REVENUE BONDS

Cities and counties may issue tax-exempt industrial development revenue bonds to provide financing for manufacturing and energy generation businesses. These bonds are issued within the State's IRS allocation of tax-exempt bond financing. They can be used for land acquisition, building construction or purchase, and equipment loans. The maximum project is $10,000,000 and the business must provide a bank "letter of credit" to guarantee payment of the bonds. While the bonds may not be a good fit for data centers, they could make a difference for certain kinds of manufacturing facilities that could be located in the Cirrus Sky Tech Park, including:

- Industrial projects for assembling, fabrication, manufacturing, or processing of any sort that creates a product for sale
- Energy development projects, including production, collection or conversion
- Projects which manufacture or process recycled or reused products and materials (might be an excellent opportunity, given the proximity of the solid waste management facility)

LOCAL INCENTIVES

Laramie Economic Development Corporation (LEDC) has several additional opportunities to incentivize a new business to relocate or expand into Cirrus Sky Tech Park:

- If LEDC owns the lots within the business park, it can strike special deals with prospective businesses, including reduce prices, free land, or flexible financing terms. Many local economic development councils throughout Wyoming use this incentive (particularly when land has been developed with BRC grant funds). When BRC funds have been used to develop shovel-ready sites, as in this case, local communities are encouraged to use proceeds from land sales and leases to further their local economic development goals. It may be wise for LEDC to use some of these revenues to build a cash fund that can be used to help close deals.
- LEDC also has a small revolving loan fund that can be used to help businesses grow. Its current cash balance is approximately $45,000.

Economic Impact Analysis

Economic development is vital to the local economy. New companies generate two significant impacts to the community, initially with the construction phase and then with the ongoing business operations. It is important to understand and quantify the economic impacts of new development. Local governments and funding organizations (including the Wyoming Business Council, if they choose to fund this project), are interested in job creation, taxes, and revenue recapture.

The U.S. Bureau of Economic Analysis' Regional Input-Output Modeling System, more commonly known as RIMS II data, is a helpful tool to calculate economic impacts. RIMS II multipliers are used to estimate economic impacts. They quantify the cumulative effects on total industry output, earnings, employment, and value added that result from a change in final demand. The multipliers are derived

from two sources: A national input-output table—an accounting framework that shows the distribution of the inputs purchased and outputs sold—and regional data, which are used to adjust the national input-output table to reflect the a region's industrial structure and trading patterns. Jobs impacts estimated using the final-demand and direct-effect employment multipliers include both part-time and full-time employees. The RIMS II multipliers do not provide estimates of jobs in terms of full-time equivalences. The RIMS II model is a well-respected resource for measuring total economic impacts, is easily accessible, relatively inexpensive, and customizable to the county level.

For this analysis, the most recent RIMS II annual data for Albany County is used. Type II multipliers are used because they include induced effects. The construction phase is based on construction industry multipliers; the business operations phase uses the particular industry multipliers for each industry that is going to be developed. For example, data centers are included in the "Professional, Scientific, and Technical Services" industry sector. All multipliers are used to estimate impacts based on the "demand" of each phase. For construction, demand is the total building cost. Demand produced annually per employee is based on multipliers of the specific region and industry. RIMS II reports two different employment multipliers — total employment and direct-effect multipliers — that are used to estimate final demand per employee.

Once the appropriate final demand multipliers are determined, final demand can be estimated for both phases. These multipliers account for direct, indirect, and induced effects. For example, in the construction phase, direct effects include labor and materials, indirect effects include healthcare services or utilities, and induced effects are effects from household spending. Each of the three economic impacts is addressed by total output, which is the value produced by the final demand dollars cycling through the economy; total earnings, which are the amount of total output paid in compensation; and total employment, which is the number of jobs created or sustained.

The primary focus of Cirrus Sky Tech Park will be to recruit data centers, which are included in the RIMS II industry called Professional, Scientific, and Technical Services. Other key industries that will be a good fit in the business park include:

- Computer & Electronic Products Manufacturing
- Telecommunications
- Internet & Other Information Services

Since all new facility development also has a building construction phase, the multipliers for the Construction industry are also important. The relevant RIMS II multipliers for all these industries (for Albany County) are presented in the table below.

U.S. Bureau of Economic Analysis RIMS II Multipliers for Albany County (Type II)				
Final Demand Multipliers	**Total Output**	**Total Earnings**	**Total Jobs**	**Direct Jobs**
Construction	1.4477	0.5150	13.7213	1.5451
Computer & Electronic Products Mfg.	1.2891	0.3378	8.0712	1.6345
Telecommunications	1.2641	0.2207	5.6180	1.9485
Internet & Other Information Services	1.3463	0.3073	8.5294	1.7675
Professional, Scientific & Tech Services	1.4866	0.6502	17.1439	1.4461

The first two multipliers are dollar-for-dollar multipliers. That is, for every $1 increase in final demand, total output or total earnings will increase by the amount of the multiplier. The employment multiplier is reported per $1 million in final demand. Thus, a multiplier of 10 represents 10 jobs per $1 million in final demand.

As an example, consider the Microsoft data center that recently considered locating in Laramie, but ultimately chose to build their new facility in Cheyenne. Microsoft proposed building a $112 million facility that employed 40 workers (who will earn more than 150% than the prevailing wages). The economic impact of the construction phase seems large ($112 million), but the business operations phase is also significant. During construction, RIMS II estimates that this project would support more than 1,500 jobs during the construction phase (which will be for one to two years). During the business operations phase, employment is smaller (58 total jobs) but will be more sustainable.

The following table demonstrates how RIMS II multipliers can help to calculate the lost opportunity of Microsoft choosing to locate in Cheyenne instead of Laramie. Although that project was announced as a $112 million development, about 40% of that cost will go into computers and IT equipment (most of which will be produced out-of-state, and will be exempt from excise taxes by state statute). Accordingly, the construction cost for the facility itself is estimated to be 60% of $112 million, or $67.2 million.

Lost Opportunity: Microsoft Data Center (Medium Size)			
Construction Phase	**Multipliers**	**Base Cost**	**Total Impact**
Total Employment	13.7213	$112,000,000	1,537
Total Earnings	0.5150	$112,000,000	$57,680,000
Total Output	1.4477	$112,000,000	$162,142,400
Local Sales Tax Generated	1.826%	$112,000,000	$1,053,121
State Tax Generated	0.888%	$112,000,000	$512,329
Business Operations	**Multipliers**	**Base Demand**	**Annual Impact**
Total Employment	17.1439	40	**58**
Total Earnings	0.6502	$3,374,028	$2,193,793
Total Output	1.4866	$3,374,028	$5,015,830
Local Sales Tax Generated	1.826%	$3,374,028	$40,054
State Tax Generated	0.888%	$3,374,028	$19,486
Property Tax Generated	0.6555	$67,200,000	$440,496
Total Annual Tax Impacts			**$500,036**

Using this economic analysis, Microsoft's $112 million facility would have created an initial economic impact of $162 million dollars, employed 1,537 workers, and produced a construction payroll of nearly $58 million. That payroll, in turn, would have generated $1,053,121 in local sales tax, and $512,329 in state tax.

Once operations began, this kind of project would create a total economic impact of $5 million annually. The Microsoft project would have generated annual property taxes for Albany County of about $440,496 (69 mills assessed at 9.5% of facility's total value of $67.2 million). The operation would have directly supported 40 well-paid employees, but also another 18 jobs would have been created in the community, indirectly or through induced spending, for a total of 58 jobs and a total annual payroll of $2.2 million. Household spending (i.e., employees spending their wages) would annually generate excise taxes for Albany County and its municipalities of $40,054, and state taxes of $19,486. Thus, the total tax impact of the Microsoft facility would have been $500,036 in state and local taxes.

Of course, Microsoft is just one company that wants to build new data centers. Any similarly sized data center could generate these economic impacts in Laramie if one chooses to locate there. In fact, the "medium" size is the most typical kind of data center that would be attracted to Laramie, and so it is quite possible that at least two medium sized data centers will choose to locate in the Cirrus Sky Tech Park. Indeed, the ultimate goal of this plan is to secure such projects, along with several other related developments.

A small data center (like one that was recently built in Oregon by Facebook), would also have a big impact on the local economy. The table below demonstrates the total impact of a small data center, if one were to be built in Laramie.

Small Data Center (like Facebook)			
Construction Phase	**Multipliers**	**Base Cost**	**Total Impact**
Total Employment	13.7213	$15,000,000	206
Total Earnings	0.5150	$15,000,000	$7,725,000
Total Output	1.4477	$15,000,000	$21,715,500
Local Sales Tax Generated	1.826%	$15,000,000	$141,043
State Tax Generated	0.888%	$15,000,000	$68,616
Business Operations	**Multipliers**	**Base Demand**	**Annual Impact**
Total Employment	17.1439	35	51
Total Earnings	0.6502	$2,952,275	$1,919,569
Total Output	1.4866	$2,952,275	$4,388,851
Local Sales Tax Generated	1.826%	$2,952,275	$35,047
State Tax Generated	0.888%	$2,952,275	$17,050
Property Tax Generated	0.6555	$15,000,000	$98,325
Total Annual Tax Impacts			**$150,423**

Using the same RIMS II model for analysis, the $15 million small data center would create an initial economic impact of $21.7 million dollars, employ 206 workers, and produce a construction payroll of $7.7 million. That payroll, in turn, would generate $141,043 in local sales tax, and $68,616 in state tax.

Once operations began, this project generates a total economic impact of almost $4.4 million annually. A small data center project like this would generate annual property taxes for Albany County of about $98,325 (69 mills assessed at 9.5% of facility's total value). The operation would directly support 35 well-paid employees, and another 16 jobs would be created in the community, indirectly or through induced spending, for a total of 51 jobs and a total annual payroll of $1.9 million. Household spending (i.e., employees spending their wages) would annually generate excise taxes for Albany County and its municipalities of $35,047, and state taxes of $17,050. Thus, the total tax impact of a small data center will be $500,036 in state and local taxes.

Large data centers, like Google (or the Verizon facility that recently considered building in Laramie), would have a huge impact on the local economy.

Large Data Center (like Google or Verizon)			
Construction Phase	**Multipliers**	**Base Cost**	**Total Impact**
Total Employment	13.7213	$400,000,000	5,489
Total Earnings	0.5150	$400,000,000	$206,000,000
Total Output	1.4477	$400,000,000	$579,080,000
Local Sales Tax Generated	1.826%	$400,000,000	$3,761,148
State Tax Generated	0.888%	$400,000,000	$1,829,747
Business Operations	**Multipliers**	**Base Demand**	**Annual Impact**
Total Employment	17.1439	200	289
Total Earnings	0.6502	$16,870,140	$10,968,965
Total Output	1.4866	$16,870,140	$25,079,151
Local Sales Tax Generated	1.826%	$16,870,140	$200,271
State Tax Generated	0.888%	$16,870,140	$97,429
Property Tax Generated	0.6555	$400,000,000	$2,622,000
Total Annual Tax Impacts			**$2,919,701**

The RIMS II model tells us that a $400 million large data center would create an initial economic impact of $579 million dollars, employ 5,489 construction workers, and produce a construction payroll of $206 million. That payroll, in turn, would generate $3.7 million in local sales tax, and $1.8 million in state tax. Note that, due to issues of scaling and timing, the RIMS II model may overestimate the actual number of construction employees to be used on a very large project, and therefore the impact for the Construction Phase identified above may be overstated.

Once operations began, this project generates a total economic impact of more than $25 million annually. A large data center project like this would generate annual property taxes for Albany County of about $2.6 million (69 mills assessed at 9.5% of facility's total value). The operation would directly support 200 well-paid employees, and another 89 jobs would be created in the community, indirectly or through induced spending, for a total of 289 jobs with an annual payroll of nearly $11 million. Household spending (i.e., employees spending their wages) would annually generate excise taxes for Albany County and its municipalities of $200,271, and state taxes of $97,429. Thus, the total tax impact of a large data center would be $2.9 million in state and local taxes.

Although a large data center could, technically, be located within the Cirrus Sky Tech Park, it may make more sense to acquire a large site adjacent to the Cirrus Sky Tech Park for such a facility. Most of the infrastructure will already be in place, and any remaining infrastructure (including new fiber route(s)) could quickly be built. This kind of project also opens the door for Business Committed grants from the Wyoming Business Council.

There are many other opportunities for development of tech-related businesses that could be favorably sited in the Cirrus Sky Tech Park. Several existing high-tech companies have been identified by LEDC, in

their effort to address workforce development issues. (Note: that effort has been organized and is known as "SNAPIT".) A recent goal of the SNAPIT group is to grow the types and numbers of technology-driven companies, to create a technology-driven economic cluster. For example, companies like the local firms that have recently worked their way through the Wyoming Technology Business Center incubator could be a good fit (e.g., Falcon Technologies, who produces specialized computers for day traders, and Happy Jack Software, who specializes in developing web-based software solutions). These kinds of companies are included in the RIMS II industry called Computer and Electronic Product Manufacturing. Though smaller than the data center, these kinds of companies are a great way to diversify and grow the local economy. A typical new business in this industry would generate the impacts seen in the table below.

New Computer/Electronics Products (like Falcon Technologies or Happy Jack Software)			
Construction Phase	**Multipliers**	**Base Cost**	**Total Impact**
Total Employment	13.7213	$3,000,000	41
Total Earnings	0.5150	$3,000,000	$1,545,000
Total Output	1.4477	$3,000,000	$4,343,100
Local Sales Tax Generated	1.826%	$3,000,000	$28,209
State Tax Generated	0.888%	$3,000,000	$13,723
Business Operations	**Multipliers**	**Base Demand**	**Annual Impact**
Total Employment	8.0712	20	**33**
Total Earnings	0.3378	$4,050,203	$1,368,159
Total Output	1.2891	$4,050,203	$5,221,117
Local Sales Tax Generated	1.826%	$4,050,203	$24,980
State Tax Generated	0.888%	$4,050,203	$12,152
Property Tax Generated	0.6555	$3,000,000	$19,665
Total Annual Tax Impacts			**$56,797**

For this kind and size of company, the RIMS II model estimates that construction of the $3 million facility would create an initial economic impact of $4.3 million dollars, employ 41 workers, and produce a construction payroll of $1.5 million. That payroll, in turn, would generate $28,209 in local sales tax, and $13,723 in state tax.

During operations, this project generates a total economic impact of $5.2 million annually. This kind of facility would generate annual property taxes for Albany County of about $19,665 (69 mills assessed at 9.5% of facility's total value). The operation would directly support 20 well-paid employees, but also another 13 jobs would be created in the community, indirectly or through induced spending, for a total of 33 jobs and a total annual payroll of almost $1.4 million. Household spending (i.e., employees spending their wages) would annually generate excise taxes for Albany County and its municipalities of $24,980, and state taxes of $12,152. Thus, the total tax impact of a new computer or electronic products manufacturer will be $56,797 in state and local taxes.

The fiber improvements that will be completed with the development of the Cirrus Sky Tech Park will generate another great opportunity: Improved broadband connectivity for the entire community. The new fiber lines and/or conduit that will soon loop through the community create an excellent

opportunity for a telecommunications company to deliver better Internet service to Laramie. That Internet service provider (ISP) could be one that already has a presence in the community, or a new firm. Construction of a new facility and its subsequent operations would generate the following impacts.

New Internet/Information Services Company (like a new ISP)			
Construction Phase	**Multipliers**	**Base Cost**	**Total Impact**
Total Employment	13.7213	$5,000,000	69
Total Earnings	0.5150	$5,000,000	$2,575,000
Total Output	1.4477	$5,000,000	$7,238,500
Local Sales Tax Generated	1.826%	$5,000,000	$47,014
State Tax Generated	0.888%	$5,000,000	$22,872
Business Operations	**Multipliers**	**Base Demand**	**Annual Impact**
Total Employment	8.5294	20	**35**
Total Earnings	0.3073	$4,144,488	$1,273,601
Total Output	1.3463	$4,144,488	$5,579,725
Local Sales Tax Generated	1.826%	$4,144,488	$23,253
State Tax Generated	0.888%	$4,144,488	$11,312
Property Tax Generated	0.6555	$5,000,000	$32,775
Total Annual Tax Impacts			**$67,341**

The RIMS II model estimates that this kind of company would create an initial economic impact of $7.2 million dollars with construction of a $5 million facility, employ 69 workers, and produce a construction payroll of $2.6 million. That payroll, in turn, would generate $47,014 in local sales tax, and $22,872 in state tax.

During operations, this project generates a total economic impact of nearly $5.6 million annually. An ISP facility of this size would generate annual property taxes for Albany County of about $32,775 (69 mills assessed at 9.5% of facility's total value). The operation would directly support 20 well-paid employees, but also another 15 jobs would be created in the community, indirectly or through induced spending, for a total of 35 jobs with an annual payroll of nearly $1.3 million. Household spending (i.e., employees spending their wages) would annually generate excise taxes for Albany County and its municipalities of $23,253, and state taxes of $11,312. Thus, the total annual tax impact of this size of an ISP company will be $67,341 in state and local taxes.

Another growing industry that could greatly benefit from the fiber assets in the Cirrus Sky Tech Park is Voice over Internet Protocol (or VoIP). These kinds of companies provide telecommunication services to customers using the Internet, increasingly popular as consumers and businesses abandon landline technology. Such a firm would create several positive impacts for Laramie, as shown in the following table.

New Telecommunications Company (like a firm that provides VoIP)			
Construction Phase	**Multipliers**	**Base Cost**	**Total Impact**
Total Employment	13.7213	$8,000,000	110
Total Earnings	0.5150	$8,000,000	$4,120,000
Total Output	1.4477	$8,000,000	$11,581,600
Local Sales Tax Generated	1.826%	$8,000,000	$75,223
State Tax Generated	0.888%	$8,000,000	$36,595
Business Operations	**Multipliers**	**Base Demand**	**Annual Impact**
Total Employment	5.618	20	**39**
Total Earnings	0.2207	$6,936,632	$1,530,915
Total Output	1.2641	$6,936,632	$8,768,597
Local Sales Tax Generated	1.826%	$6,936,632	$27,951
State Tax Generated	0.888%	$6,936,632	$13,598
Property Tax Generated	0.6555	$8,000,000	$52,440
Total Annual Tax Impacts			**$93,989**

According to the RIMS II model, a company like this that delivers VoIP would create an initial economic impact of $11.6 million dollars with construction of an $8 million facility, employ 110 construction workers, and produce a construction payroll of $4.1 million. That payroll, in turn, would generate $75,223 in local sales tax, and $36,595 in state tax.

During operations, this project generates a total economic impact of $8.7 million annually. A VoIP facility of this size would generate annual property taxes for Albany County of about $52,440 (69 mills assessed at 9.5% of facility's total value). The operation would directly support 20 well-paid employees, but also another 19 jobs would be created in the community, indirectly or through induced spending, for a total of 39 jobs with a total payroll in excess of $1.5 million. Household spending (i.e., employees spending their wages) would annually generate excise taxes for Albany County and its municipalities of $27,951, and state taxes of $13,598. Thus, the total annual tax impact of such a VoIP facility will be $93,989 in state and local taxes.

SUMMARY OF ECONOMIC IMPACTS

A successful business recruitment strategy will be needed to recruit all of the kinds of companies identified above. However, given the competitive advantages of Laramie and the infrastructure strengths of the Cirrus Sky Tech Park, it is reasonable to expect that several of the companies described above (including a small data center, two medium data centers, a manufacturer, new ISP, and a VoIP firm) can be recruited within eight to ten years. It will take almost that long to simply build all of these facilities. Yet, ten to fifteen years from now, the full impact of these new businesses will be enormous. The following table summarizes the discussion above and demonstrates the long-term value of the business park.

Summary of Economic Impacts (10-15 years after opening of Cirrus Sky Tech Park)						
Construction Phase	**Small Data Centers**	**Medium Data Centers (2)**	**Manufacturer**	**New ISP**	**VoIP Firm**	**TOTAL**
Private Investment	$15,000,000	$224,000,000	$3,000,000	$5,000,000	$8,000,000	**$255,000,000**
Total Employment	206	3,074	41	69	110	**3,499**
Total Earnings	$7,725,000	$115,360,000	$1,545,000	$2,575,000	$4,120,000	**$131,325,000**
Total Output	$21,715,500	$324,284,800	$4,343,100	$7,238,500	$11,581,600	**$369,163,500**
Local Sales Tax Generated	$141,043	$2,106,243	$28,209	$47,014	$75,223	**$2,397,732**
State Tax Generated	$68,616	$1,024,659	$13,723	$22,872	$36,595	**$1,166,464**
Business Operations						**Annual Impact**
Total Employment	51	116	33	35	39	**273**
Total Earnings	$1,919,569	$4,387,586	$1,368,159	$1,273,601	$1,530,915	**$10,479,830**
Total Output	$4,388,851	$10,031,660	$5,221,117	$5,579,725	$8,768,597	**$33,989,950**
Local Sales Tax Generated	$35,047	$80,109	$24,980	$23,253	$27,951	**$191,341**
State Tax Generated	$17,050	$38,972	$12,152	$11,312	$13,598	**$93,085**
Property Tax Generated	$98,325	$880,992	$19,665	$32,775	$52,440	**$1,084,197**
Total Annual Tax Impacts	$150,423	$1,000,072	$56,797	$67,341	$93,989	**$1,368,622**

This summary is not intended to suggest that Laramie will not be able to recruit a large data center. Quite to the contrary, with the infrastructure that will accompany development of the Cirrus Sky Tech Park, it is likely that one or more large data centers will take a hard look at locating in Laramie. When that moment comes, land that is immediately adjacent to the Cirrus Sky Tech Park could become the site for that facility, starting the next phase of the Cirrus Sky Tech Park.

Thus, according to the RIMS II model, total private investment will be $255 million. Build-out of the Cirrus Sky Park will generate 3,499 construction jobs and a construction payroll of $131 million, with a total economic impact of $369 million. During construction, $2.4 million in local sales tax and $1.2 million in state tax will be generated (total exceeds $3.5 million). Once all of these businesses are operational, they will generate 273 jobs with an annual payroll of more than $10 million and a total economic impact of $34 million each year. On an annual basis, the Cirrus Sky Tech Park will generate an additional $191,341 in local excise taxes, $93,085 in state taxes, and $1.1 million in property taxes, for a total annual tax revenue of nearly $1.4 million.

Strategic Marketing Plan

In order to be successful, the Cirrus Sky Tech Park will need to work hard to market the opportunities it present. A concept for a strategic marketing plan is outlined below.

VISION

The City of Laramie is perfectly suited to attract data center development. The community simply needs to prepare itself to achieve their goal. This plan can guide the community to take those necessary steps.

First, Laramie must build on its competitive strengths. A budding technology industry cluster is evident from the presence of firms and institutions specializing in energy/environmental engineering, information technology, software development, and even hardware. Development of purposeful linkages among these partners is a logical next step for Laramie, in order to create an industry cluster around data center technologies. The existing LEDC initiative called SNAPIT is an excellent example of work that is already being done in this regard, and Laramie should promote it as such.

Laramie's location also provides competitive strengths. Cool, dry mountain air can help to lower cooling costs. There are nearly a dozen fiber lines already in ground nearby, providing fast, redundant access to both national communication hub points and the World Wide Web. Electric power, natural gas, and other utilities are abundant and cost competitive. The Laramie location allows direct access to wind power located very near to the proposed site. Transportation is convenient, with Interstate 80, Highway 287, and Interstate 25 providing quick access to other Front Range locations; and Denver International Airport 2-3 hours away. Laramie can enhance each of those strengths to become even more competitive. These strengths need to be highlighted in promotional materials.

Second, Laramie will need to address its competitive weaknesses. Perhaps the most important action is to develop a shovel-ready site, with all necessary power, fiber, water, sewer, roads, and other infrastructure in place. As the Cirrus Sky Tech Park concept plan is implemented, Laramie will have converted its greatest weakness into a compelling strength that will attract many types of businesses, including data centers.

Laramie's location presents some challenges that need to be addressed. While the mountain air is cool and dry (good for cooling), the air's low density will require more air movement within the facility. The relatively lower oxygen content will make it less efficient (more expensive) to operate back-up generators. Recently, a major telecommunications company considering Laramie for the siting of a data center found that there were pros and cons for using diesel fuel or natural gas; other developers may be more concerned about their carbon footprint. Accordingly, altitude will be one of those issues that should be addressed, but not highlighted, in promotional materials.

Third, Laramie's marketing efforts should specifically target data center developers that serve the rapidly growing "cloud computing" traffic. A more general approach to attract data centers and other types of technology firms should also be used, but the immediate market demand appears to favor cloud computing data centers. Yet, regardless of the market trends, the Cirrus

Sky Tech Park has been designed and prepared for both types of data centers (cloud computing and enterprise), since both are included in the broader tech market that Laramie is well-positioned to recruit.

Cloud computing is led by industry giants: Amazon, Facebook, Google, and Microsoft. Recently, Microsoft announced that it will be building a new cloud-computing center in Cheyenne (50 miles from Laramie), so it is unlikely that company will need to build yet another center anywhere nearby. Therefore, Laramie should prioritize its recruitment efforts on the other companies, while also sending a regional message that it is open for business, particularly technology-driven businesses.

Thus, this concept plan for Cirrus Sky Tech Park builds on the community's strengths, address its weaknesses, and strategically targets the most likely direction for success in recruiting data centers. There is also an excellent chance for the Cirrus Sky Tech Park to serve as a catalyst, pushing the local technology cluster into a leadership role, and developing new expertise, innovative practices, and educational opportunities. For example:

- The University of Wyoming and Laramie County Community College – Albany campus could develop new cloud computing training programs.
- Data centers benefit from learning new ways to increase power efficiency – an area of special expertise for the engineers at Manufacturing-Works.
- The growing presence of wind towers could certainly provide unique opportunities to master "green cloud computer" principles and best practices.
- Likewise, the local tech cluster could become pioneers in development of using the cloud's excess capacity as a super computer, particularly with the impending arrival of NCAR (a real super computer) to the region.

Leadership in these new areas can only enhance future business recruitment efforts and improve the community's reputation as a cloud-computing leader. Therefore, Laramie should find ways to encourage and support such partnerships.

OBJECTIVES AND GOALS

The vision outlined above suggests that the preliminary strategic marketing plan should focus on recruiting a data center facility to be built by one of the biggest cloud computing industry leaders, particularly Amazon or Google (since Microsoft recently announced that they will build a center in Cheyenne, they have been left off this list). Other companies, such as Facebook, IBM, Cisco, HP, and Dell are all currently looking for data center sites. The marketing concept could be greatly strengthened by tailoring it to the specific requirements that each of those companies imposes upon its data centers. Each has specific needs and requirements that are unique to its own operating system, power requirements, and balance within the World Wide Web traffic flow. Thus, the marketing strategy would need to be tweaked for each company; much like an individual seeking a job might adjust his or her resume to be more attractive to a prospective employer.

It is very important to realize that, while the focus of the marketing strategy may be on a few cloud-computing companies, it is also important to reach out to companies that are seeking a dedicated data center for their own internal purposes (also known as a "private cloud"). Many of those kinds of companies have traditionally sought a site that is near their headquarters.

Since 9/11, however, many corporations now will purposefully seek a distant site for security or other purposes. Of course, there are also many large corporations in the Front Range that might consider Laramie close enough for their purposes. Additionally, there are many other types of high tech companies that would be attracted to Cirrus Sky Tech Park, given its location and design. The point is that the Cirrus Sky Tech Park should be developed and marketed with ALL types of technology in mind, not just data centers.

Economic development marketing is not merely brochures, websites, and attending trade shows. Perhaps one of the most successful strategies is to work through existing relationships and networks. Accordingly, a key purpose of engaging stakeholders in this process will be to identify relationships and networking possibilities that can be leveraged to improve Laramie's chances of success. Stakeholders should therefore be given an opportunity to participate in strategic marketing decisions, and should be encouraged subsequently to become very involved in the recruiting process itself.

TARGET INDUSTRIES AND COMPANIES

While the primary focus on marketing will be on attracting a variety of data centers, other industries would greatly benefit from doing business there. Therefore, several key industries will be targeted for recruitment or development:

- Data Centers (also known as the Professional, Scientific, and Technical Service Industry)
- Computer and Electronic Product Manufacturing
- Internet and Information Services
- Telecommunications

All of these industries tend to need large facilities, pay employees well because they have advanced skills, and generate a fair amount of tax revenues for the community in which they are located.

MARKETING DATA NEEDED

The City of Laramie (and/or Laramie Economic Development Corporation) should develop a comprehensive approach to marketing that includes key comparisons to other communities for certain key topics. Based on previous experience, an outline of marketing materials would include the following topics:

- Executive Summary
- Laramie Vision
- Objective and Goals
- Project Description
- Why Laramie
- Site Description
    - Geography
    - Location
    - Climate
        - Annual Temperature charts
        - Annual Humidity charts
        - Annual Rain & snow charts

        - Annual Wind chart
        - Annual Cooling days (days over 85 - 90 degrees when cooling is needed)
- Business Environment
- Risk assessments
    - Severe Storms
    - Floods
    - Hurricanes
    - Tornados
    - Brush – Wild Fires
    - Earthquake
    - Volcano - & Volcano Ash Patterns
- Site
    - Land
    - Electricity
    - Fiber Optics
    - Natural Gas Infrastructure
    - Transportation and Workforce
    - Water Infrastructure
    - Sewage- Wastewater Infrastructure
    - Roads, access, drainage
    - Plat
- Flexible Site Overview
- Conceptual Master Plan
- Site Uses
    - Data Centers
    - Natural Gas Electric Generation
    - Wind Electric Generation
    - Solar Electric Generation
    - Energy Storage
    - Green Energy R + D Laboratories
- Data Accessibility

Maps and Exhibits

MAP 1 - STREETS, TRAILS AND PARKS

MAP 2 - FUTURE LAND USE PLAN

EXHIBIT A – OVERALL PHASING

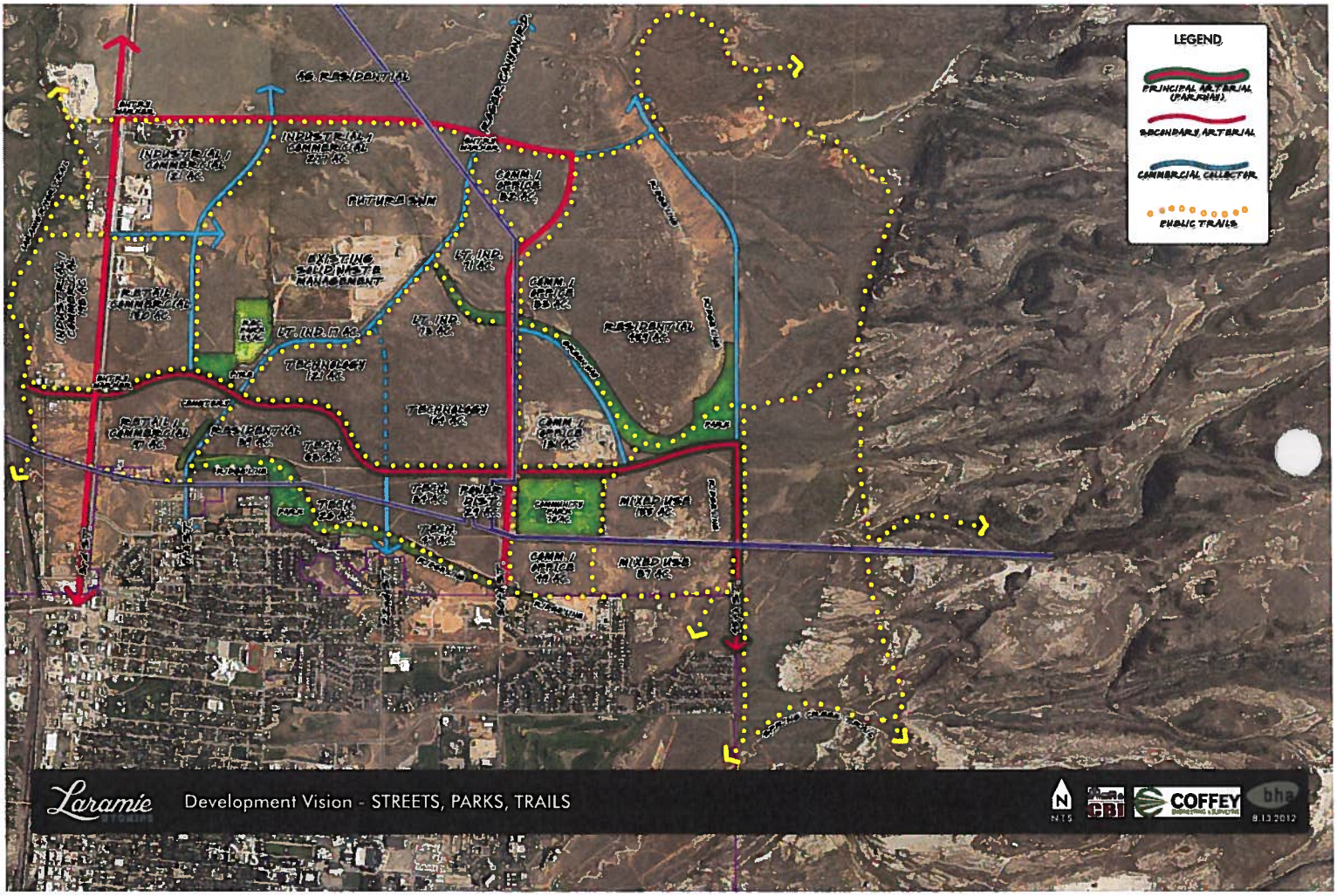
EXHIBIT B – SANITARY SEWER

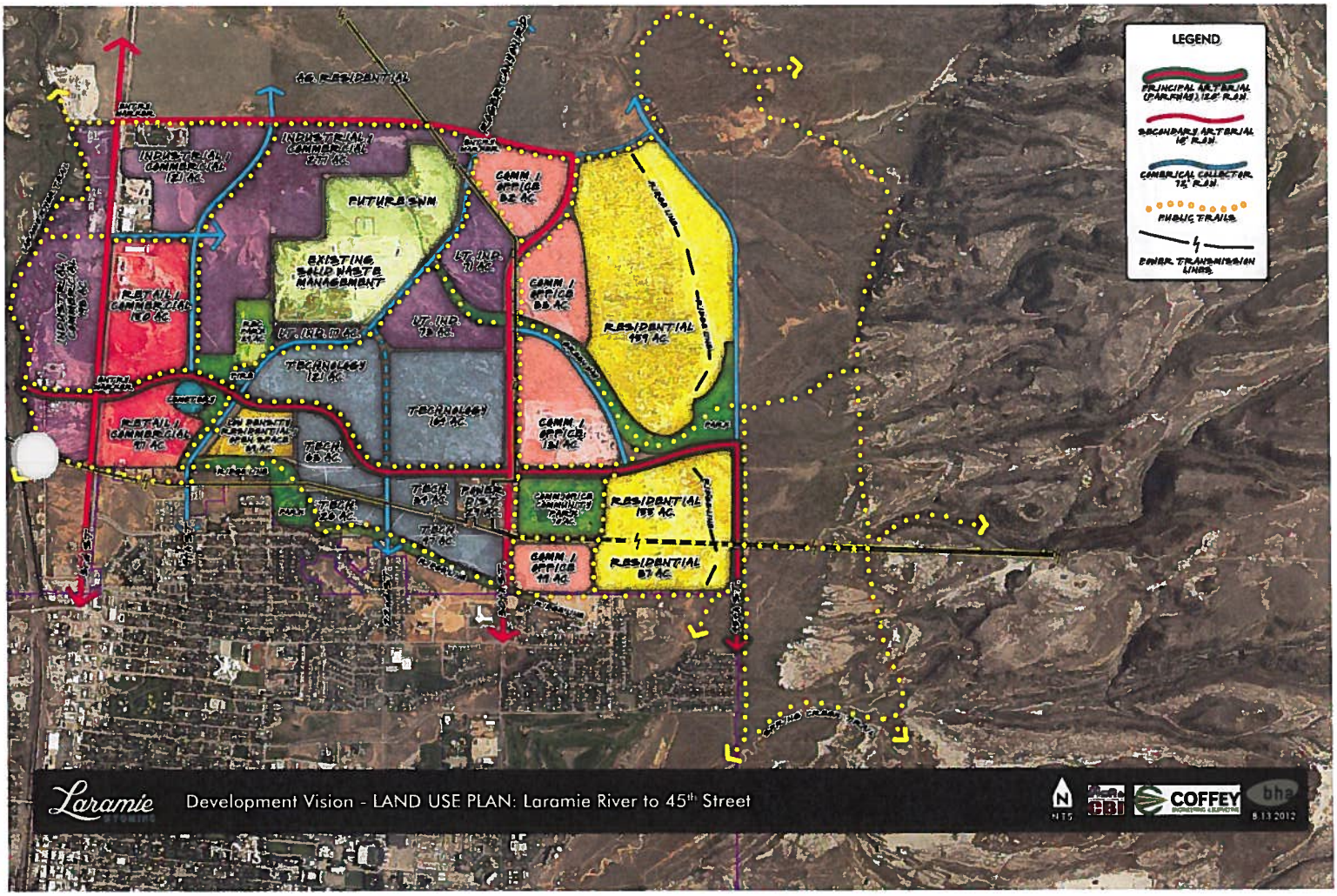
EXHIBIT C – WATERLINES

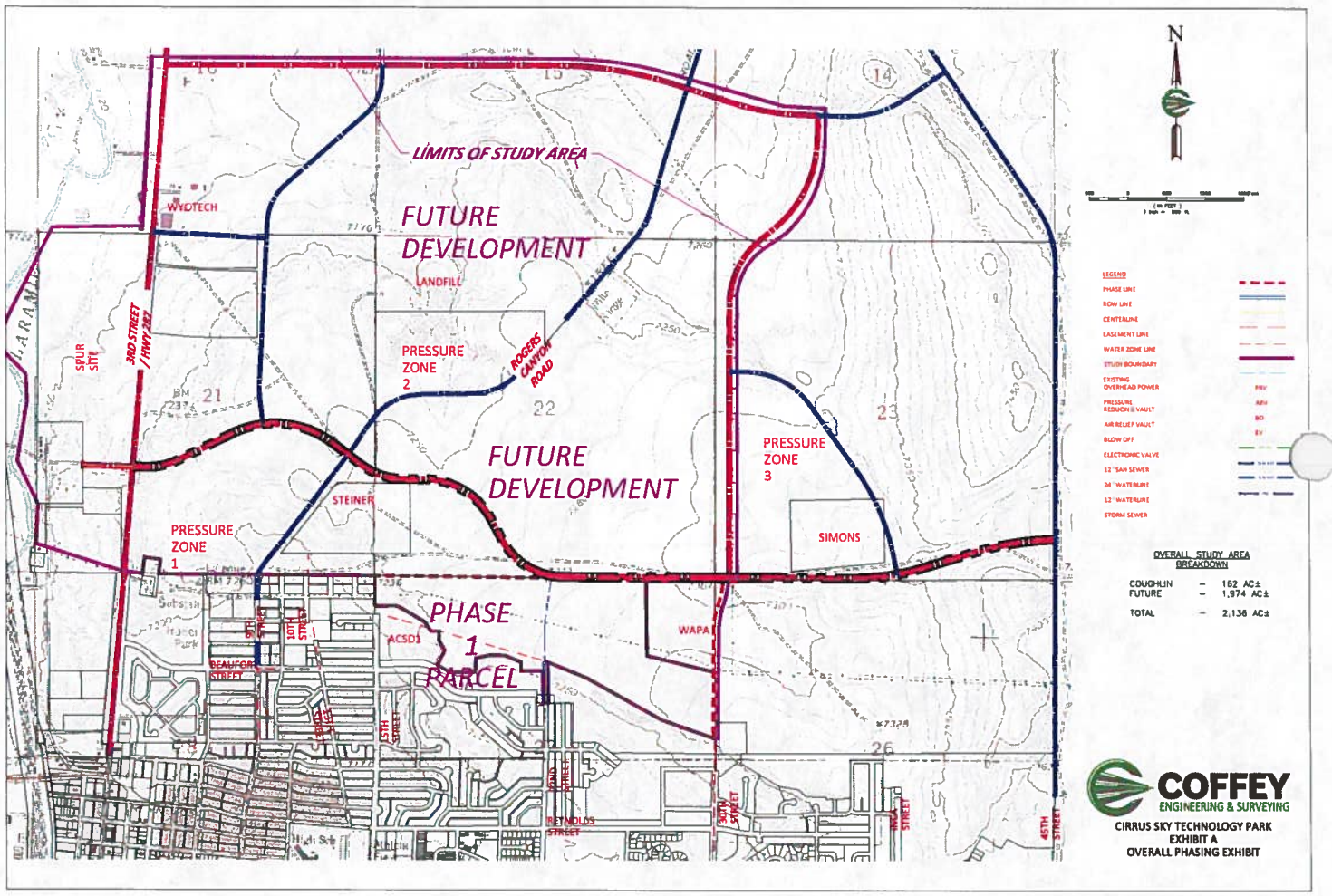
EXHIBIT D – STORM SEWER

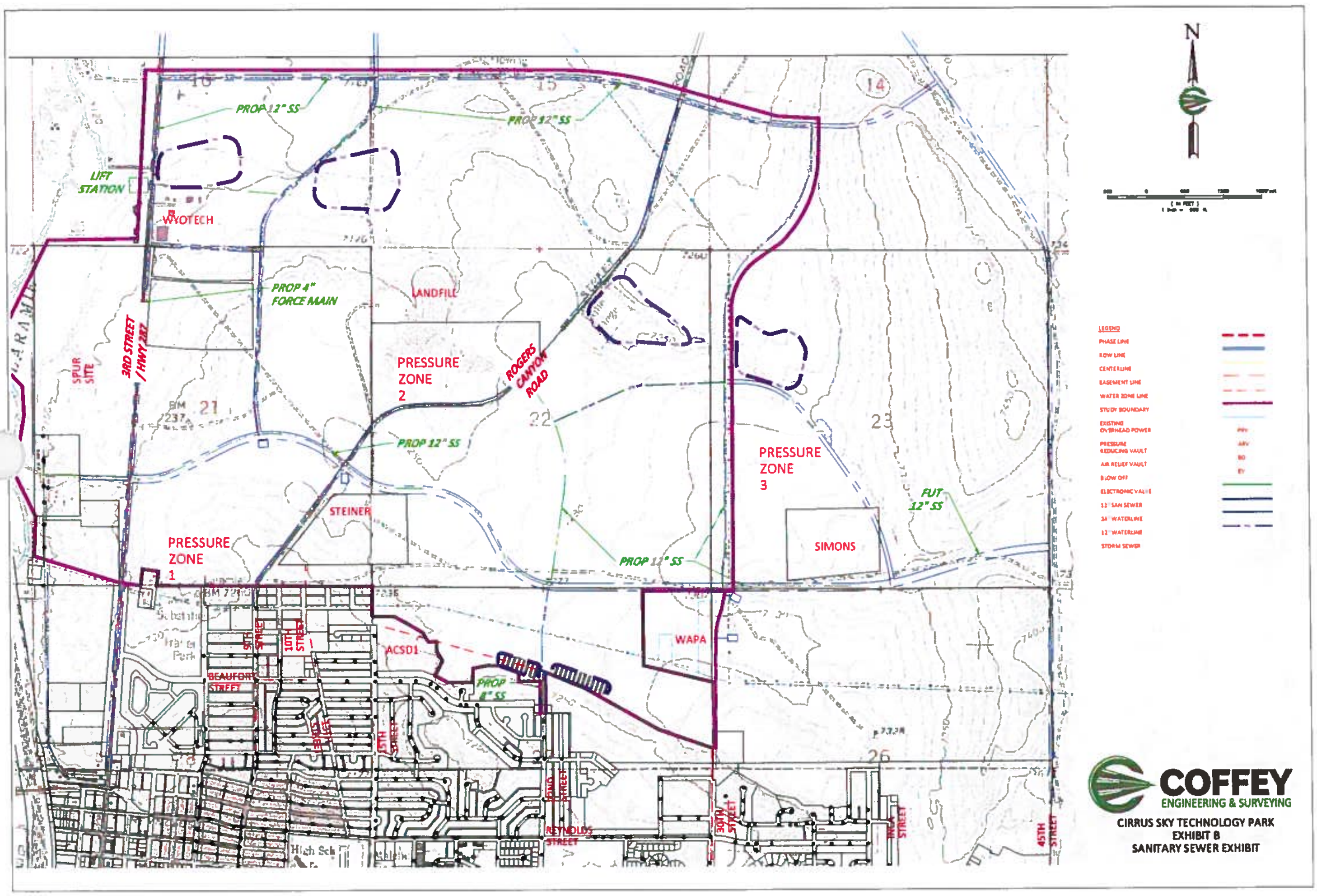
EXHIBIT E – STREETS

EXHIBIT F – PHASE ONE PARCEL INFRASTRUCTURE IMPROVEMENTS

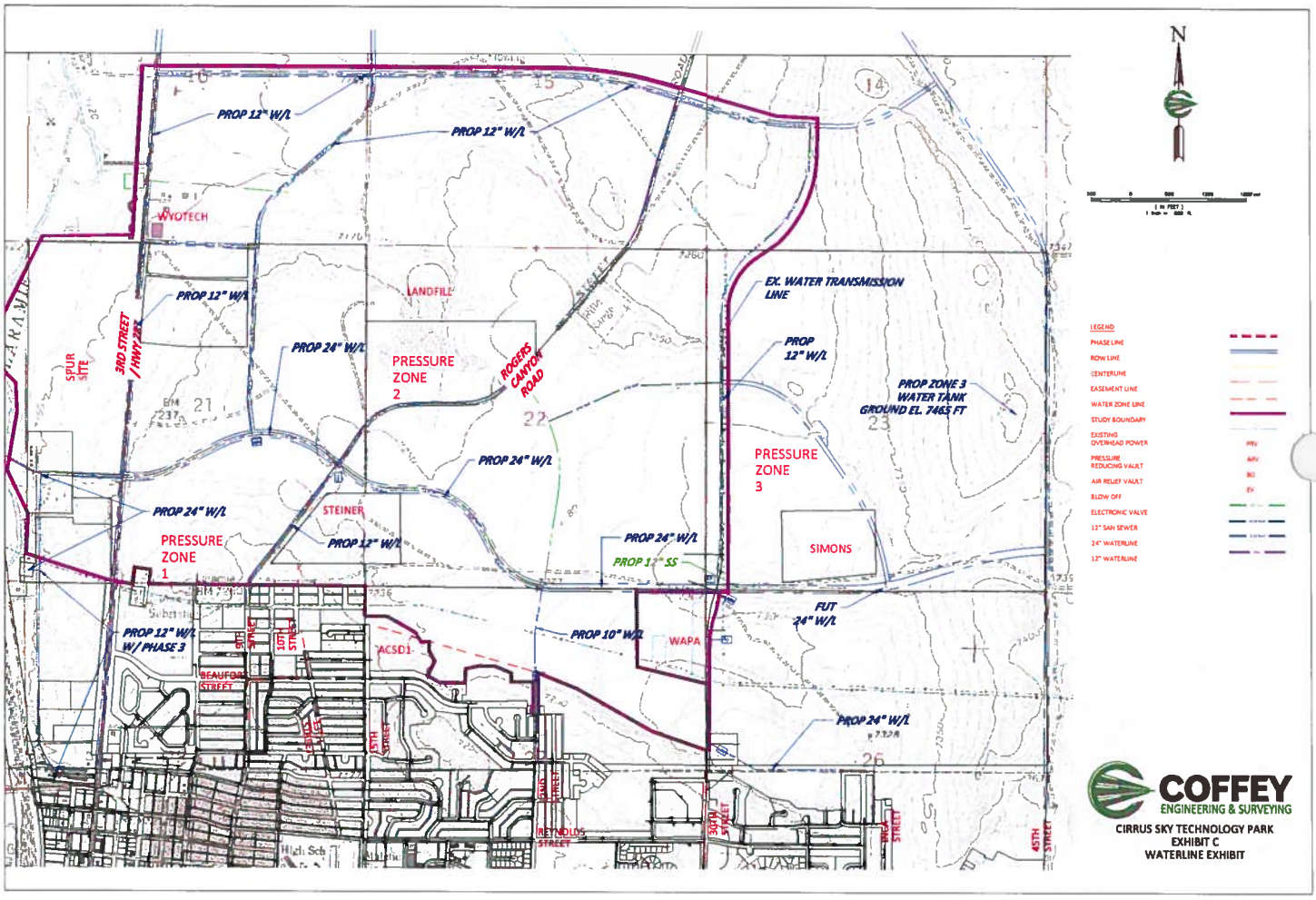

LEGEND
PRINCIPAL ARTERIAL (PARKWAY)
SECONDARY ARTERIAL
COMMERCIAL COLLECTOR
PUBLIC TRAILS
Laramie
Development Vision - STREETS, PARKS, TRAILS
N
NTS
COFFEY
8.13.2012


LEGEND
PRINCIPAL ARTERIAL (PARKWAY) 120' R.O.W.
SECONDARY ARTERIAL 100' R.O.W.
COMMERCIAL COLLECTOR 72' R.O.W.
PUBLIC TRAILS
POWER TRANSMISSION LINES
AG RESIDENTIAL
INDUSTRIAL / COMMERCIAL 121 AC.
INDUSTRIAL / COMMERCIAL 277 AC.
FUTURE SWM
EXISTING SOLID WASTE MANAGEMENT
COMM. / OFFICE 85 AC.
LT. IND. 71 AC.
RETAIL / COMMERCIAL 150 AC.
LT. IND. 80 AC.
LT. IND. 71 AC.
RESIDENTIAL 459 AC.
TECHNOLOGY 121 AC.
TECHNOLOGY 169 AC.
COMM. / OFFICE 181 AC.
RETAIL / COMMERCIAL 77 AC.
TECH. 88 AC.
TECH. 87 AC.
TECH. 120 AC.
TECH. 77 AC.
RESIDENTIAL 155 AC.
RESIDENTIAL 87 AC.
COMM. / OFFICE 111 AC.
Laramie
Development Vision - LAND USE PLAN: Laramie River to 45th Street
COFFEY
bha
8.13.2012


LIMITS OF STUDY AREA
FUTURE DEVELOPMENT
LANDFILL
WYOTECH
3RD STREET / HWY 287
SPUR SITE
PRESSURE ZONE 2
ROGERS CANYON ROAD
FUTURE DEVELOPMENT
PRESSURE ZONE 3
STEINER
SIMONS
PRESSURE ZONE 1
PHASE 1 PARCEL
ACSD1
WAPA
BEAUFORD STREET
9TH STREET
10TH STREET
15TH STREET
30TH STREET
REYNOLDS STREET
45TH STREET
N
LEGEND
PHASE LINE
ROW LINE
CENTERLINE
EASEMENT LINE
WATER ZONE LINE
STUDY BOUNDARY
EXISTING OVERHEAD POWER
PRESSURE REDUCING VAULT
AIR RELIEF VAULT
BLOW OFF
ELECTRONIC VALVE
12 " SAN SEWER
24 " WATERLINE
12 " WATERLINE
STORM SEWER
OVERALL STUDY AREA BREAKDOWN
COUGHLIN – 162 AC±
FUTURE – 1,974 AC±
TOTAL – 2,136 AC±
COFFEY
ENGINEERING & SURVEYING
CIRRUS SKY TECHNOLOGY PARK
EXHIBIT A
OVERALL PHASING EXHIBIT



N
PROP 12" SS
PROP 12" SS
LIFT STATION
WYOTECH
PROP 4" FORCE MAIN
LANDFILL
SPUR SITE
3RD STREET / HWY 287
PRESSURE ZONE 2
ROGERS CANYON ROAD
PROP 12" SS
PRESSURE ZONE 3
FUT 12" SS
STEINER
PRESSURE ZONE 1
PROP 12" SS
SIMONS
WAPA
ACSD1
BEAUFORT STREET
PROP 8" SS
REYNOLDS STREET
45TH STREET
COFFEY
ENGINEERING & SURVEYING
CIRRUS SKY TECHNOLOGY PARK
EXHIBIT B
SANITARY SEWER EXHIBIT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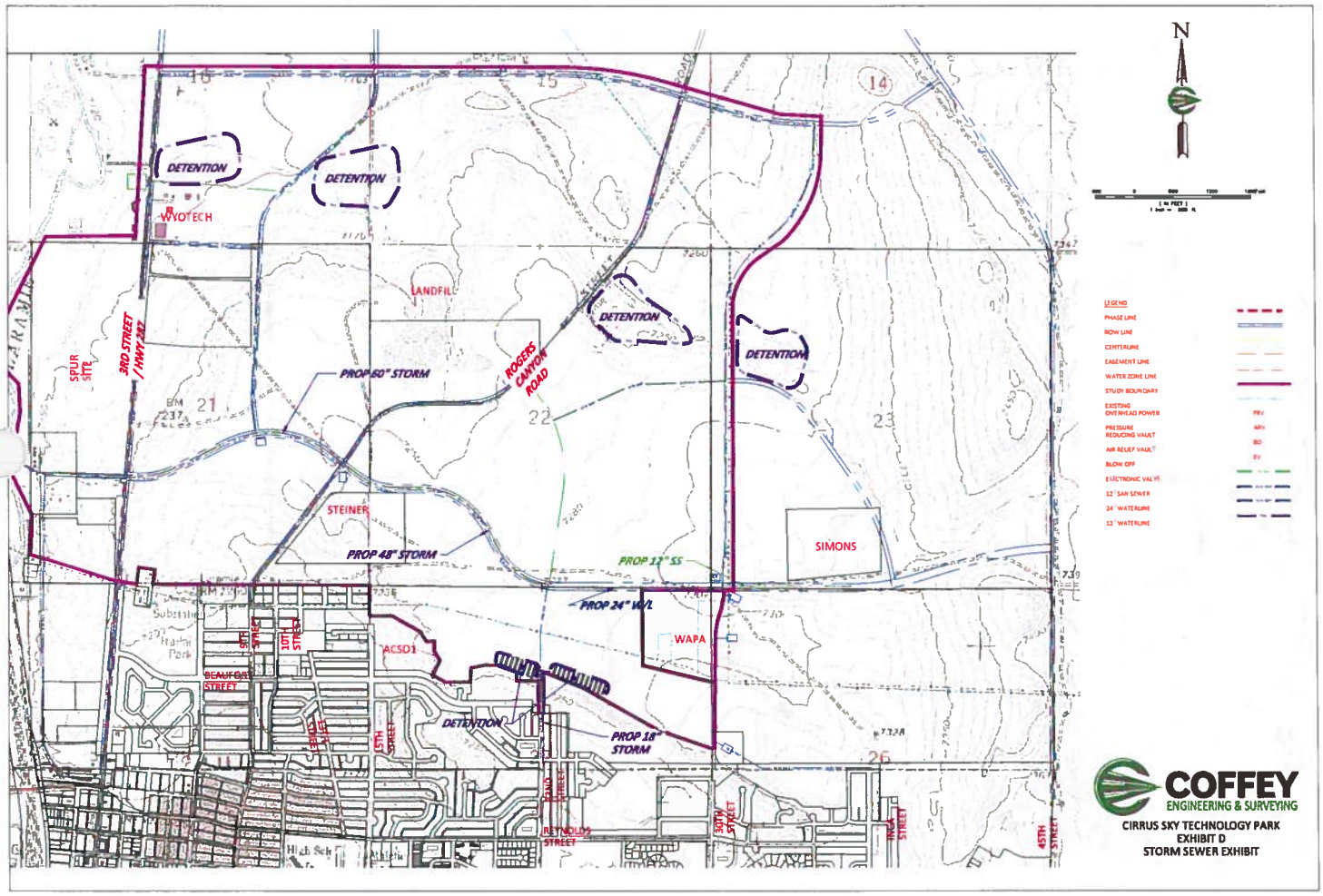
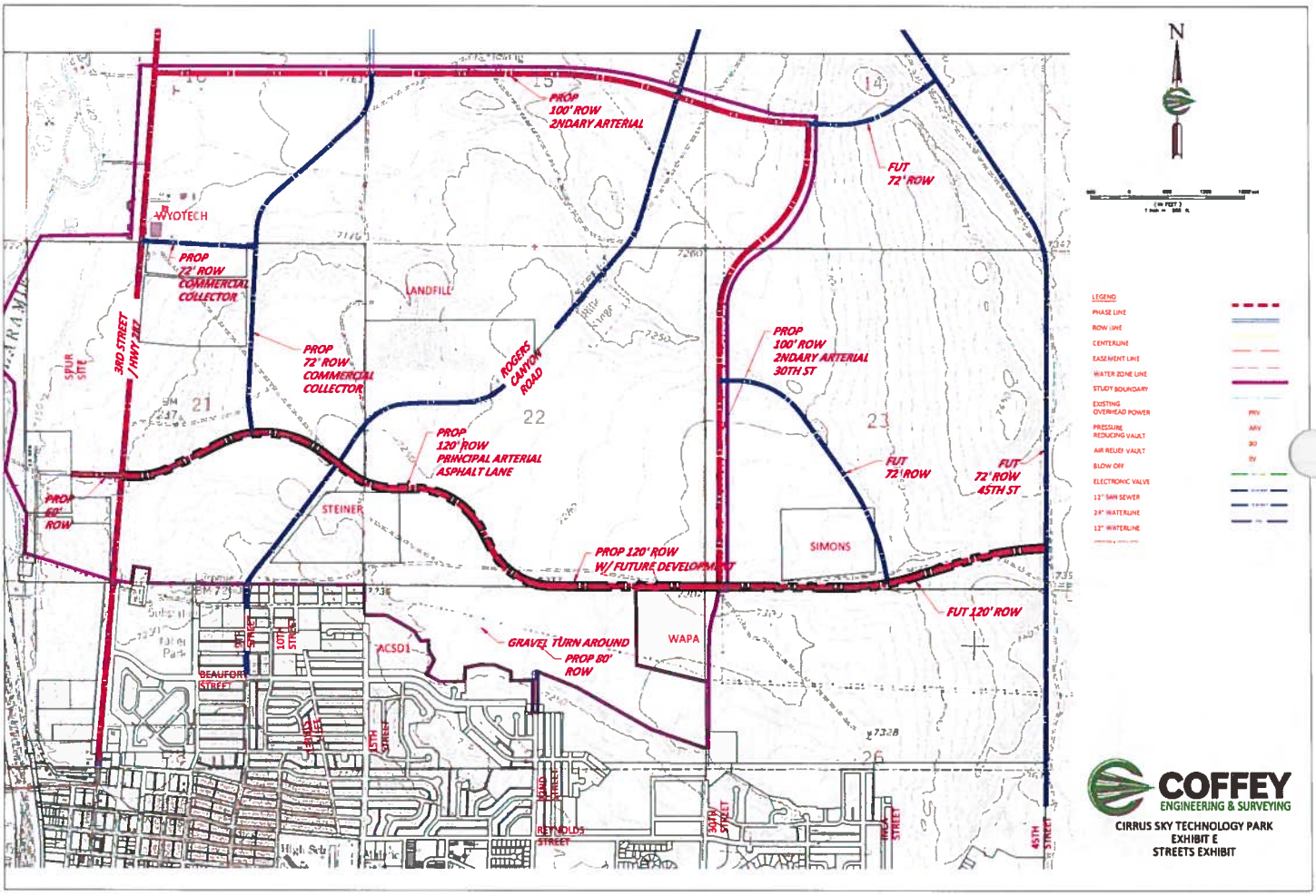
PROP 12" W/L
WYOTECH
PROP 12" W/L
LANDFILL
EX. WATER TRANSMISSION LINE
3RD STREET / HWY 222
SPUR SITE
PROP 24" W/L
PRESSURE ZONE 2
ROGERS CANYON ROAD
PROP 12" W/L
PROP ZONE 3 WATER TANK GROUND EL. 7465 FT
PROP 24" W/L
PRESSURE ZONE 3
PROP 24" W/L
STEINER
PRESSURE ZONE 1
PROP 12" W/L
PROP 24" W/L
PROP 12" SS
SIMONS
FUT 24" W/L
PROP 12" W/L W/ PHASE 3
PROP 10" W/L
WAPA
ACSD1
BEAUFORT STREET
PROP 24" W/L
REYNOLDS STREET
45TH STREET
N
LEGEND
PHASE LINE
ROW LINE
CENTERLINE
EASEMENT LINE
WATER ZONE LINE
STUDY BOUNDARY
EXISTING OVERHEAD POWER
PRESSURE REDUCING VAULT
AIR RELIEF VAULT
BLOW OFF
ELECTRONIC VALVE
12" SAN SEWER
24" WATERLINE
12" WATERLINE
COFFEY
ENGINEERING & SURVEYING
CIRRUS SKY TECHNOLOGY PARK
EXHIBIT C
WATERLINE EXHIBIT


N
DETENTION
DETENTION
WYOTECH
LANDFILL
DETENTION
DETENTION
SPUR SITE
3RD STREET / HWY 287
PROP 60" STORM
ROGERS CANYON ROAD
STEINER
PROP 48" STORM
PROP 12" SS
PROP 24" W/L
SIMONS
WAPA
ACSD1
DETENTION
PROP 18" STORM
BEAUFORT STREET
9TH STREET
10TH STREET
CEDAR STREET
5TH STREET
PAUL STREET
REYNOLDS STREET
30TH STREET
INCA STREET
45TH STREET
LEGEND
PHASE LINE
ROW LINE
CENTERLINE
EASEMENT LINE
WATER ZONE LINE
STUDY BOUNDARY
EXISTING OVERHEAD POWER
PRESSURE REDUCING VAULT
AIR RELIEF VAULT
BLOW OFF
ELECTRONIC VALVE
12" SAN SEWER
24" WATERLINE
12" WATERLINE
COFFEY
ENGINEERING & SURVEYING
CIRRUS SKY TECHNOLOGY PARK
EXHIBIT D
STORM SEWER EXHIBIT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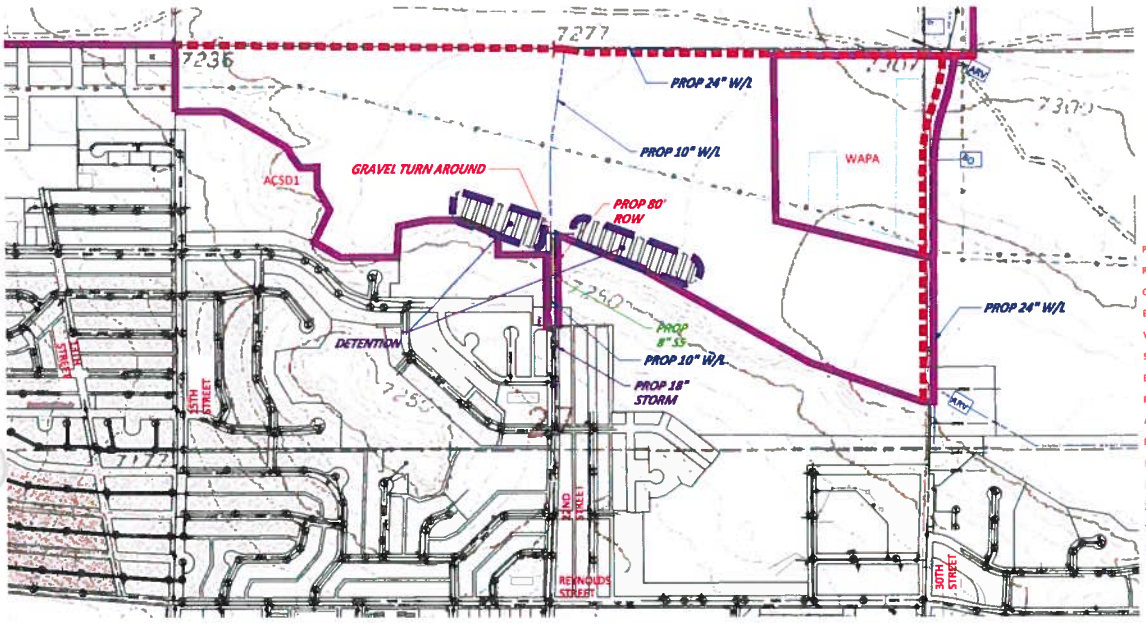
2NDARY ARTERIAL
FUT
72' ROW
WYOTECH
PROP
72' ROW
COMMERCIAL
COLLECTOR
LANDFILL
3RD STREET
/ HWY 287
SPUR
SITE
PROP
72' ROW
COMMERCIAL
COLLECTOR
ROGERS
CANYON
ROAD
PROP
100' ROW
2NDARY ARTERIAL
30TH ST
PROP
120' ROW
PRINCIPAL ARTERIAL
ASPHALT LANE
FUT
72' ROW
FUT
72' ROW
45TH ST
PROP
60'
ROW
STEINER
SIMONS
PROP 120' ROW
W/ FUTURE DEVELOPMENT
FUT 120' ROW
GRAVEL TURN AROUND
PROP 80'
ROW
WAPA
ACSD1
BEAUFORT
STREET
9TH
STREET
10TH
STREET
JAMES
ALLEE
15TH
STREET
REYNOLDS
STREET
30TH
STREET
45TH
STREET
N
LEGEND
PHASE LINE
ROW LINE
CENTERLINE
EASEMENT LINE
WATER ZONE LINE
STUDY BOUNDARY
EXISTING
OVERHEAD POWER
PRESSURE
REDUCING VAULT
AIR RELIEF VAULT
BLOW OFF
ELECTRONIC VALVE
12" SAN SEWER
24" WATERLINE
12" WATERLINE
COFFEY
ENGINEERING & SURVEYING
CIRRUS SKY TECHNOLOGY PARK
EXHIBIT E
STREETS EXHIBIT



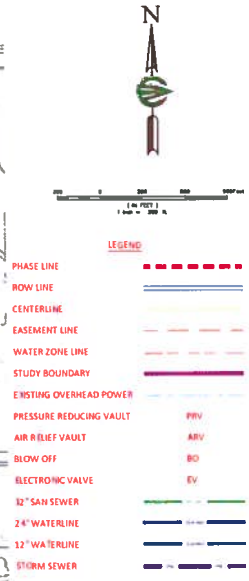


EXHIBIT NOTES

1. COST FOR FRANCHISE UTILITIES NOT INCLUDED IN REPORT AS OF 07-09-2012
2. ROW ACQUISITION NOT INCLUDED WITH COSTS IN REPORT AS OF 07-09-2012
3. PAVEMENT ZONE 1 REQUIRES MORE EXPENSIVE PAVEMENT THAN PAVEMENT ZONE 4- USED FOR ALL ROADS IN PHASE 3
4. DEVELOPMENT OF THE 162 ACRE PHASE 1 WILL INCLUDE EXTENSION OF A 24-INCH WATERLINE FROM INCA TO 22ND & ASPHALT LANE, 8 AND 12" SEWERLINE EXTENDING NORTH INTO THE PROPERTY FROM THE SOUTH AS SHOWN, 2 LOCAL DETENTION PONDS AND STORM SEWER OUTFALLS.
5. FUTURE DEVELOPMENT INCLUDES THE NECESSARY INFRASTRUCTURE TO SERVICE THE REMAINDER OF THE PROPERTY INCLUDING A 24-INCH WATERLINE CONNECTING TO AN EXISTING 10-INCH AND CONSTRUCTION OF A LOCAL STREET ROW INTO THE WRI PROPERTY FROM 287 AND A LIFT STATION, MULTIPLE DETENTION PONDS, EXTENSIVE SEWER AND WATERLINES ALONG WITH PARKWAY, 2NDARY ARTERIAL AND INDUSTRIAL COLLECTOR ROADS.

COFFEY
ENGINEERING & SURVEYING

CIRRUS SKY TECHNOLOGY PARK
EXHIBIT F
PHASE 1 PARCEL EXHIBIT
MINIMUM INFRASTRUCTURE IMPROVEMENTS

INDUSTRY PARTNERSHIP SOLOUTIONS

LARAMIE TECHNOLOGY WORKFORCE PROJECT

SNAPIT TECHNOLOGY WORKFORCE SURVEY ANALYSIS & FINDINGS

Submitted to the Wyoming Workforce Development Council
June 14, 2012

Prepared for the
SNAPIT PARTNERSHIP
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307-742-2212
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LARAMIE WORKFORCE TECHNOLOGY PROJECT

SNAPIT TECHNOLOGY WORKFORCE SURVEY ANALYSIS

LARAMIE, WYOMING

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EXECUTIVE SUMMARY

The primary purpose of the Laramie Technology Workforce Project (LTWP) is to facilitate the sustainable development of Laramie's technology sector workforce. The continued growth and advancement of Laramie's technology sector is important to Laramie's economy and the future of the community.

In cultivating plans for achieving this purpose, a unique industry partnership was created with the support of the Laramie Economic Development Corporation (LEDC) through a grant from the Wyoming Department of Workforce Services and Wyoming's Workforce Development Council. In addition to technology-based companies and LEDC, the industry partnership drew support from the University of Wyoming, the Wyoming Technology Business Center (WTBC), Laramie County Community College – Albany County Campus, and Laramie's Department of Workforce Services. This collaborative partnership assumed the name SNAPIT, an acronym for Solutions Networking Applied to People in Technology. The mission of SNAPIT is to identify common technology workforce issues for the purpose of providing solutions, developing the skilled workforce, supporting growth and providing a voice for technology-based companies in order to strengthen the economic region.

To gain better insight into Laramie's technology sector, its composition, strengths, challenges and concerns, a SNAPIT Technology Workforce Survey (STWS) was conducted with thirty technology-based companies located in the Laramie area. This survey was designed to help acquaint the SNAPIT partnership with these companies, and with their executive managers' insights and opinions regarding the Laramie technology workforce, its business environment and community support services.

With specific regard to Laramie's common technology workforce issues, the STWS confirms an anticipated major challenge; that is the recruitment of qualified and experienced technical and professional employees. To a lesser degree, but still somewhat prevalent, are challenges involving "job fit," compensation and benefits, work scheduling and trailing spouses.

As is the case with most commercial sectors, the proclivity for technology companies to grow and prosper is substantively influenced by the location's infrastructure and community support services. In this respect, being the home of the University of Wyoming, Laramie's quality of life, its people, location and low business operating costs all enhance Laramie's image as a good place for business. On the other hand, some of the more dominant detractors affecting business and its growth potential include Laramie's relatively small population, its climate, difficulties recruiting qualified and experienced technical employees, affordable housing, and the lack of local investment financing to fund start-ups and entrepreneurial initiatives.

Subsequent to analyzing the results of its STWS, our SNAPIT Partnership reached consensus regarding a number of Laramie technology workforce needs. In brief, those needs encompass marketing and networking initiatives that focus on Laramie's technology assets and image; extending and expanding outreach services; and advocating for Laramie's small businesses in a manner that strengthens competitiveness and stability.

At this time, the SNAPIT Partnership has created a number of pathways to solutions intended to satisfy the needs described in this report document. Additional work needs to be done on these pathways and possibly new paths, leading to additional or improved solutions, need to be cleared.

IMPORTANCE OF THE LARAMIE TECHNOLOGY SECTOR

Laramie, Albany County and the surrounding area are enriched by virtue of their proximity to the highly regarded centers of knowledge such as the University of Wyoming, LCCC, WyoTech and other technical training institutions.

Technology can be broadly defined as the practical application of knowledge (as derived through educational institutions, intuition and insight, experience and a vast array of other sources). Technology refers to an understanding of techniques, tools, skills, processes, raw materials and resources that combine to produce desired products and services, to solve problems, fulfill needs or satisfy wants.

Over the recent past, the number of technology-based businesses in Laramie has grown significantly, creating Laramie's technology sector. One key contributor to the growth of Laramie's technology sector has been the University's Wyoming Technology Business Center (WTBC), which began operations in 2006. This 30,000 square foot facility serves as an incubator for early stage technology-based companies.

Dr. William Gern, University of Wyoming Vice President of Research and Economic Development, has indicated that before 1994, the technology sector was composed of less than a dozen companies. In early 2011, at the time we began gathering information for this Laramie Technology Workforce Project, we identified and targeted more than fifty technology companies operating in Laramie, representing all stages of business development. According to Gern, the best estimate is that there are approximately 65 technology companies located within the Laramie technology sector today – most have an association with the University.

Not only do these technology companies typically have the propensity to pay higher compensation including benefits, they produce products and services that tend to be sold outside the area. This introduces new dollars into the community and supports local service providers, retailers, and infrastructure needed for a growing, healthy local economy.

At the present time, the fifty-two technology companies that were ultimately targeted for our study are estimated to employ more than 600 full-time employees. Based on an estimated average annual income of $35,152 for employees of Albany County, WY, 600 employees conservatively corresponds to an annual technology sector payroll estimate of more than $21 million dollars.

Point of Interest:

Laramie's technology sector is estimated to employ more than 600 full-time employees with a corresponding estimated annual payroll exceeding $21,000,000.

SNAPIT PARTNERSHIP & BOARD of DIRECTORS

Shortly after LEDC was awarded the Industry Partnership Solutions (IPS) grant from the Wyoming Department of Workforce Services and Wyoming's Workforce Development Council, a SNAPIT Partnership was created. In addition, a SNAPIT Board of Directors was organized to oversee and ensure the implementation of IPS plans and activities. Presently, the SNAPIT Board of Directors consists of the following members:

Name	Position/Employer
Dr. Jonathon L. Benson (SNAPIT Board President)	Chief Executive Officer Wyoming Technology Business Center
Even Brande	Chief Executive Officer Handel Information Technologies, Inc.
Jo Chytka	Director – Center for Advising & Career Services University of Wyoming
Tom Hembree	Engineering Manager Intevac Photonics DeltaNu, LLC
Karissia Kersey	Human Resources Manager Trihydro Corporation
Christine Langley	Vice President Wyoming Technology Business Center
Annette Mello	Laramie Workforce Center Manager Wyoming Department of Workforce Services
Derek Mitchum	Vice President of Information Technology Trihydro Corporation
Luke Schneider	Chief Executive Officer Medicine Bow Technologies
Susan Scractchley	Development & Communications Officer (Albany) Laramie County Community College
Joe Somodi (SNAPIT Intermediary)	Vice President Laramie Economic Development Corporation
Dr. Lynn Stalnaker	Dean of Albany County Campus Laramie County Community College
Tim Stamp	Business Development Director Coffey Engineering & Surveying, LLC
Weston Welch	Chief Executive Officer Pronghorn Technologies, Inc.

In the early development of the Laramie Technology Workforce Project, Dr. William Gern and Gene Watson, Consultant for the UW Office of Research and Economic Development, produced a listing of area technology businesses, with which they were familiar. This listing provided the SNAPIT partnership with information necessary to initiate SNAPIT membership solicitations.

Any Laramie area technology-based company that is interested in joining the SNAPIT partnership is invited to do so. In introductory contact meetings, executives from Laramie's technology sector are typically advised that becoming a SNAPIT partnership member entails willingness to:

- share, their time and experiences with the partnership,
- attend periodic meetings to discuss issues affecting their business, and
- participate in confidential interviews and surveys.

TARGETED TECHNOLOGY COMPANIES BY BUSINESS CATEGORY

A total of fifty-two technology companies were originally targeted for surveying under the Laramie Technology Workforce Project. Thirty, or 58% of those fifty-two companies, agreed to participate in the SNAPIT Technology Workforce Survey. Based upon information secured through website research or survey interviews, SNAPIT has grouped the primary products/services of these targeted companies into business categories. Table 1 identifies the number of surveyed and targeted technology companies associated with each business category.

Table 1 - Business Categories for Laramie Technology Companies

Type of Business	# Surveyed Companies	% of Total	# Targeted Companies*	% of Total
Engineering & Environmental Consulting	8	26.7%	12	23.1%
Manufacturing/Repair/ Construction	6	20.0%	7	13.5%
IT Systems/Software Development	5	16.7%	10	19.2%
Scientific-Technological Research/Analytics	4	13.3%	10	19.2%
Graphic Design (Web/Print)	4	13.3%	10	19.2%
Natural Resources/ Conservation	3	10.0%	3	5.8%
Total	**30**	**100.0%**	**52**	**100.0%**

*Includes Surveyed Companies

This data gives a reasonable representation regarding the current composition of technology businesses in the Laramie area. Consequently, it provides a glimpse into the types of technical skills upon which the Laramie technology sector is currently reliant.

Based on this distribution of technology business categories, it appears that the Laramie technology sector primarily consists of businesses that apply Engineering & Environmental, IT Systems and Software

Development, Scientific-Technological Research and Analytical, Graphic Design and Conservation skill sets. Companies associated with Laramie's Manufacturing/Repair/Construction business category apply a diverse set of technical disciplines and processes.

SNAPIT TECHNOLOGY WORKFORCE SURVEY

The SNAPIT Technology Workforce Survey, in which thirty Laramie area technology companies participated, consists of questions relating to individual Company Information, Laramie's Technology Workforce, and Municipal & Community Services impacting economic growth. This report summarizes participant opinions, perceptions and factual responses to questions, as well as findings associated with each of these topics.

It is recognized that survey data based on qualitative opinions and perceptions can occasionally raise questions about the extent to which survey results reflect reality. These questions, however, should invigorate rather than dampen our SNAPIT partnership's resolve to identify causes and seek solutions to issues that the survey findings reveal. As Leonardo da Vinci once asserted, "All our knowledge has its origins in our perceptions."

Point of Interest:
"All our knowledge has its origins in our perceptions."
- Leonardo da Vinci -

COMPANY INFORMATION

Targeted Companies That Participated in the SNAPIT Technology Workforce Survey -
Table 2 identifies the thirty Laramie technology companies that participated in the SNAPIT Technology Workforce Survey.

Table 2 – Surveyed Technology Companies

AMEC Earth & Environmental	Edge Environmental, Inc.	Intevac Photonics DeltaNu, LLC
Analogic Engineering, Inc.	Falcon Technology Systems Ltd	Medicine Bow Technologies
Aristatek	Firehole Composites	Modern Printing Company
BC Technologies	Fusestudios Media Consulting, LLC	Pronghorn Technologies, LLC
C.F. Electronics	Green Build Technologies, Inc.	Tiger Tree Land Management
Coffey Engineering & Surveying, LLC	Handel Information Technologies, Inc.	Trihydro Corporation
Crystal Solutions, LLC	Happy Jack Software, Inc.	Western Research Institute
Digital Blues, Inc.	Hayden-Wing Associates	Wester-Wetstein & Associates
Dodds Shoe Company, Inc.	Hydrologic, LLC	WWC Engineering
DOWL-HKM	InterTech Environmental & Engineering	Z4 Energy Systems, LLC

Technology Company Differentiation by Business Category -
The ability to communicate a company's strategic competitive advantages to customers showcases the company's uniqueness, which, in turn, helps market its products and services. To be effective, the competitive advantages must be meaningful to the customer.

With these outcomes in mind, survey participants were asked to identify factors contributing to their company's success that also differentiate them from their competitors in the region. Participant responses, organized by business category, follow:

Engineering and Environmental Consulting

- "Water resource planning."
- "The people we hire are tough, with good expertise. We create our own data and we don't outsource. Information Technology (IT) is very much a part of our consulting team."
- "Our civil engineering expertise, and also one-stop shopping." (Work with materials, geo-technical issues and water)
- "Our expertise is in land surveying."
- "We have a global reach and can bring in experts that local competitors wouldn't have access to. We have a reputation for technical excellence, customer service and innovation."
- "We have a commercial arm of the company."
- "We are more tech savvy."
- "Every project is managed by an Engineer or Hydro-geologist with over 15 years of experience. We're most experienced in ground water."

Manufacturing/Repair/Construction

- "Lower cost and better value."
- "We operate better in the back country and mountains."
- "We reduce VOC's (Volatile Organic Compounds, which measure indoor air quality). We have tools to evaluate VOC's in a house."
- "We are a builder and rebuilder of electronic components. Some of those components are for military equipment that is very old."
- "We have a commercial facility in the area. Our experience tells us how to best separate oil and water at different concentrations."
- "Innovation and product differentiation."

IT Systems/Software Development

- "Our market is primarily in this region."
- "Technology in our market. Most competitors are not web-based."
- "The data base portion of our application incorporates computational tools, and unique types of modeling."
- "We've been in business longer than our competition. We're bigger and provide superior service and support."
- "We do all our work in-house. We do not use subcontractors."

Scientific-Technological Research/Analytics

- "Proprietary rotor blade that passively adapts to wind speed."
- "We've designed a transducer that we can steer in order to detect cracks in a rail. We can also identify distance to the crack."
- The (unique) technology we use."
- "Technical capabilities and value of technology solutions. We are very cost competitive."

Graphic Design (Web/Print)

- "We talk to the customer to make sure we know what he or she wants. Then, our job is to make you (the customer) look good."
- "We handle small runs and provide quick turnaround."
- "Blending design development and marketing experience."
- "Through e-business, we market on a regional and national basis."

Natural Resources/Conservation

- "We have a good rapport with the Corps of Engineers."
- "Our long history of experience in thorough and objective reporting."
- "Our work ethic. People enjoy their work. We are all professionals."

Although our survey did not further explore the issue, it would be interesting to determine how our technology companies market their competitive advantages to grow their businesses.

Company Ownership, Legal Status, Structure and Organization –

Questions pertaining to ownership, legal status, company structure and organization, provide insight into freedom and constraints associated with the way a company conducts business, as well as management's processes for making decisions or taking desired action.

- Twenty-nine of the surveyed companies are privately held; one is publicly owned.
- Twenty-nine of the surveyed companies are "for-profit" corporations; one is a "not-for-profit" corporation.
- Four (13%) of the thirty surveyed companies report to a parent company or organization that is located outside of Wyoming.
- Worker Representation – Union representation does not exist at any of the thirty surveyed technology companies.
- The following functions are performed in the thirty surveyed Laramie technology companies:

Function	Number of Companies Function is Performed
Business Unit Headquarters	26
Engineering/R&D	20
Services (including consulting)	8
Manufacturing *	6
Distribution	3
Warehousing	1

* Of the six surveyed manufacturing companies, one company is ISO 9000 certified. ISO (International Standards Organization) 9000 is a family of standards corresponding to quality management systems that are designed to ensure manufacturers meet customer needs. Third party certification organizations provide independent auditing of certification requirements.

Primary Product/Service Life Cycle -

Like human beings, products and services pass through stages from birth (emerging) to decline and ultimately death. Different operating, marketing, financing and human resources strategies are required for each life cycle stage. Product pricing strategies, for example, will typically result in higher pricing during a product's "Growth" stage, than in its "Declining" stage. Similarly, operating costs are normally very high during the "Emerging" stage, thus requiring different cost containment and financing strategies than is normally the case for a product in its "Maturing" stage.

Survey participants were asked to identify the life cycle stage for their primary product or service. Table 3 summarizes participant feedback organized by business category.

Table 3 – Life Cycle Stages

Type of Business	Emerging	Growing	Maturing	Declining
Engineering & Environmental Consulting		5	1	2
Manufacturing/Repair/ Construction	2	3		1
IT Systems/Software Development	1	3	1	
Scientific-Technological Research/Analytics	2	1	1	
Graphic Design (Web/Print)	1	3		
Natural Resources/ Conservation	1	1	1	
Total	**7**	**16**	**4**	**3**

This data shows that almost 77% of surveyed companies consider their primary products and services to be in the healthy Emerging and Growing stages of their life cycle. Further information gleaned by several participants indicated the following:

- The identified "Maturing" IT Systems/Software Development Company expects to enter a growth stage again, due to the introduction of a new application. Another company in the same IT Systems business category, and identified in Table 3 as "Growing," indicated it might more appropriately be placed in a chasm between "Emerging" and "Growing."

- Similarly, a "Growing" Manufacturing/Repair/Construction company felt it might be more appropriately positioned between "Emerging" and "Growing," since continued growth is not readily predictable. An "Emerging" company in the same business category indicated it was on the verge of entering the "Growing" stage, but seems to have plateaued.

- A "Growing" Graphic Design company avoided entering a "Declining" stage indicative of its industry by changing its market focus to include short run, low volume business.

Nothing was mentioned in survey responses to suggest that the four "Maturing" companies do not have the ability or resources to return to a "Growing" stage through innovation or reinvention.

Two of the three "Declining" stage companies are owned by people who are entering the later stages of their own careers.

Point of Interest:

Two of the three "Declining" stage companies are owned by people who are entering the later stages of their own careers.

Proprietary Status of Primary Product/Service –

Proprietary products or services involve information that is not public knowledge and is legally viewed as property of the holder. Trade secrets, copyrights and patents, for example, are "intellectual property" protections which normally provide for exclusivity of use or application. A commodity, on the other hand, is any marketable item which is produced or supplied without qualitative differentiation across a market.

- Fourteen (47%) survey participants indicated that some aspect of their primary product/service was believed to hold "proprietary" as compared to "commodity" status. In some cases, proprietary rationale was offered based on patents held. In other cases, however, the basis for considering products or services as proprietary appeared more ambiguous. The rationale for attributing proprietary status related to methods and tools used in the performance of work or to services in dealing with end users.

- The life cycle stage of those companies which were thought to have proprietary primary products or services does not appear to be influenced by their proprietary status. In fact, the life cycle stages are similarly distributed, as demonstrated in the following chart:

	Emerging	Growing	Maturing	Declining	Total
All Surveyed Companies	7 (23%)	16 (53%)	4 (13%)	3 (10%)	**30**
Companies with Proprietary Prod/Services	3 (21%)	8 (57%)	2 (14%)	1 (7%)	**14**

Years in Business and Years in Current Facility –

The amount of time a company has been in business and the amount of time it has remained in the same location can provide insight into its stability, its propensity to grow and the footing it has established in its markets and the community. This information can also provide a community with rationale regarding the adequacy of available commercial property.

Surveyed Laramie technology companies have been in business a mean average of 15 years (median 10 years), and have been operating in their current facilities for a mean average of 12 years (median 6 years), as of the end of 2011. The oldest operating technology company was founded in 1951. The company that has operated the longest in its current facility entered that facility in 1964, approximately 48 years ago. As the company grew, it embraced technology to expand its business.

Point of Interest:

The oldest operating technology company was founded in 1951. The company that has operated the longest in its current facility entered that facility in 1964, approximately 48 years ago. As the company grew, it embraced technology to expand its business.

Table 4 provides a distribution summarizing the length of time surveyed companies have continued to operate in their current facilities by business category.

Table 4 – Time in Current Facility by Business Category

	Years in Current Facilities				
Type of Business	**< 5**	**6 - 10**	**11-15**	**16-20**	**21 & >**
Engineering & Environmental Consulting	3	2		2	1
Manufacturing/Repair/ Construction	3	1	1	1	
IT Systems/Software Development	3	1	1		
Scientific-Technological Research/Analytics	2	1			1
Graphic Design (Web/Print)	2				2
Natural Resources/ Conservation	1	1			1
Total	**14**	**6**	**2**	**3**	**5**

Ownership and Management Changes –

Changes in company ownership and in management can also have an impact on a company's reputation in its industry, as well as stability within the company itself.

- Survey participants were asked if their Laramie Company experienced a change in ownership within the past 5 years. An ownership change did occur in six (20%) of the thirty companies. The impact for each of the six ownership changes was described as positive. One company reported a pending ownership change.

- Similarly, six survey participants reported a management change within their companies during the past 5 years. The management changes corresponded with changes in ownership in three of the six companies. The impact for each of the six management changes was described as positive, as well.

Leadership Planning Processes –

Company leadership's use of planning tools and processes are an indication of how well prepared a company is for dealing with human resource emergencies and with contingencies that could impact the company's competitive, operational, financial and human capital challenges and opportunities.

- Succession Planning: Survey participants were asked whether their company had developed a formal succession plan. Only seven (23%) of the surveyed companies are operating with a formal succession plan in place.

- Strategic Planning: Survey participants were asked whether they were currently operating under a strategic plan. There are eighteen (60%) Laramie technology companies that are being guided by a current strategic plan. Only three of those eighteen companies update their strategic plans annually.

  Also, three of the twelve technology companies that do not have a current strategic plan indicated that they do not plan under a formal process. The following clarifications were offered by these companies:

  > "We don't follow a formal strategic planning process. We tend to do strategic planning when we get feedback from the marketplace suggesting the need for planning."
  >
  > "Although we don't have a formal planning process, we do review our marketing and business plans annually." (Budgeting process)
  >
  > "Our planning doesn't occur at regular intervals."

Point of Interest:

Only seven (23%) of the surveyed Laramie technology companies are operating with a formal succession plan in place. There are eighteen (60%) that are being guided by a current strategic plan.

Technology Dependency –

The types of technology upon which companies are most reliant can have considerable influence on the skills or types of occupations required in the technical workforce. Technology dependency can also impact decisions regarding infrastructure needed in the community and the types of synergistic companies that might be recruited or created within the area.

Regardless of business category, our surveyed companies indicated that the technology upon which they are most dependent is "Information Technology." Twenty-one (70%) of the thirty survey participants selected Information Technology, and many qualified their response with the following applications:

Cloud Applications	Internet	pdf technology
Computing	Net Servers	Printing Languages
Digital Printing	Net Software	Server Technology

Several survey participants identified more than one technology as critical to their business. The second most popular selection was "Electronic Equipment" technology, including instrumentation and circuitry. Four participants named "Electronics" as the technology upon which they were most dependent.

Two survey participants named "Oil & Gas Production Technology," and two participants selected "Green Technology." Other technologies mentioned as being crucial are Hydro-Geology Technology, Survey Equipment Technology, Laser Technology, Lab & Analytical Equipment Technology, Material Science-related Technology, Bio-Technology, and Research-related Technology.

TECHNOLOGY WORKFORCE

At the very heart of this SNAPIT Technology Workforce Survey, and more broadly, the Laramie Technology Workforce Project, are questions that deal with common difficult workforce issues, their causes and perceived solutions. Therefore, we turn attention to these important issues, as expressed by executive managers in our thirty surveyed technology companies.

Difficult Workforce Issues -

Survey participants were asked three interrelated questions dealing with their company's technology workforce issues:

1. What do you consider your company's most difficult workforce challenge?
2. What is the most significant cause of that workforce issue?
3. What do you feel would be the best realistic solution to that workforce challenge?

Appendix A, on page 65, at the end of this report, provides an overview of each executive manager's responses to these questions, organized in business category order. Note that more than one "most difficult workforce challenge" was identified by a number of the respondents.

In summary, survey responses suggest the following:

Recruiting

By far, the most frequent "***Difficult Workforce Challenge***" mentioned by survey participants relates to the ability to find qualified and experienced technical and professional employees. Recruiting qualified, experienced people, is considered the only truly "common workforce challenge" expressed by Laramie's technology sector. This challenge was prevalent across all technology business categories.

Point of Interest:

Several survey participants mentioned recruiting complications or self-imposed restrictions due to the uniqueness of their particular technical products or projects.

Twenty-two (73%) of the thirty surveyed technology companies identified the ability to hire employees with a desired technical or professional skill level, as a major challenge for them. In general, the majority of these employers indicate that the availability of interns and other "entry level" technical candidates is good in the Laramie area. Their recruiting problems appear to develop when they seek candidates who have been exposed to a broad range of work experiences or who have gained knowledge through exposure to the realities of a working within a particular technical discipline. Several survey participants mentioned recruiting complications or self-imposed restrictions due to the uniqueness of their particular technical products or projects.

During the survey interviews, the participants mentioned specific job titles, or disciplines with which they have experienced recruiting problems, including:

Professional positions	CAD Technicians
Engineering talent	Project Engineers and Group Leads
Project Managers	Software Developers and Leaders
Pressmen	Specifically Designed Software
Construction Tradespeople	Mechanical Engineers
Business Professional	Composite Materials
Material Science	Aerodynamics and Aero-Elastics

It should be noted that a problem such as "difficult recruiting" may be a real problem in itself, but often is merely a symptom of a deeper issue that is the true cause of the problem. For example, many survey participants implied that there just was not a sufficient supply of candidates possessing the qualities desired to accommodate the demand of employers in the market. However:

- if employers are only willing to recruit candidates from the local area, that could be the root cause of a recruiting problem, and
- if an employer is not willing or able to meet competitive compensation that too will most likely cause a recruiting problem.

Whenever feasible, we should search for the probable root causes associated with the stated "difficult challenges" in this report. Through this approach, we should be able to identify those factors, behaviors, actions or conditions that directly result in the difficulty.

Survey participant responses regarding the "***Most Significant Cause***" of their recruiting difficulties were quite varied. They represent the participant's perception, based on experience, observation, rationalization and possibly the commonly accepted explanation. In this regard, these perceived causes are also only one-sided viewpoints. In other words, they do not consider the assessments or perceptions of other affected parties, such as the candidates. Nonetheless,

the survey participant's perceptions may provide the best clues available for uncovering root causes.

The following is a representative summary of significant causes identified in Appendix A:

- The demand for technical positions is greater than the supply in this area.
- There is a poor job fit (negative attitude, overqualified, insufficient skills, etc.)
- Most of the good (qualified/experienced) job-holders are already employed elsewhere.
- We have to recruit outside of this area.
- We don't ask the right questions in the interview process.
- There are fewer people going into (the trades, press work, higher skilled technician work).
- I have to pay higher compensation, generating higher employment cost for recruits outside this area.
- We tend to develop our own technical people, but doing so limits our ability to keep ahead of growth requirements.
- Laramie is a hard place to live (weather), and not necessarily attractive to spouses.
- We're a small emerging company, which makes it hard to compete with larger, established companies.
- We intentionally hire the majority of employees from internships or directly out of school, and will only hire outside this market for special skills.
- We don't have software developers or software developer leaders in this area, because the infrastructure doesn't exist yet. So, we have to expand our searches outside this area.
- There are only small markets (pockets of candidates in the country) for the skills we need.
- We prefer to only hire technical people with Master's degrees.
- We hire from the pool of people that apply.

Based upon the workforce challenges defined, and the most significant causes of those identified challenges, survey participants provided insight into the "**Best Realistic Solution to Workforce Challenges**" they described. Here are some of the solutions provided to reduce the impact of their recruiting challenges.

- We either have to hire away from other local companies or recruit from outside the area.
- We need to pool our resources among Laramie companies and bring in training for specific software or applications.
- Try to identify people with work fit/ethic problems in the interview process.
- The solution surfaces when we realize we have too many companies in Laramie competing for the same business and caliber of people.
- We've tried creating tests to make sure people have acquired needed skills.
- Use more contract people from outside the area. Assess their results and offer them employment if they work out. That provides you with an extended probationary period.
- Look for people with good work ethics and then train them.
- Be persistent and just bulldog your way through, until you find the person you need. (Keep looking. Don't settle for less.)

- Pay what you must to get what you need.
- Bring in talent from the outside. Eventually, we'll build the infrastructure that's needed to sustain our technical workforce needs.
- Build a presence in the markets that exist for the positions you need.

Although less prevalent among our surveyed technology companies, other workforce challenges were mentioned frequently enough to warrant further attention. It is likely that any of these other workforce challenges could be a contributing cause that hinders recruiting efforts, and therefore be an extension of that more commonly noted difficulty.

Each of the following bullet points represents individual responses to the question, "What is your most difficult workforce challenge?"

Cultural Compatibility/Job Fit/Managing People

- It's difficult to find people who are willing to do new tasks and take on responsibilities beyond the more traditional scope of the job. In small companies, everyone needs to wear many hats. (The problem occurs when people only perform duties they are accustomed to, or when they don't want to expand their versatility.)
- It is difficult to build long-term employee relationships due to:
    - Work-ethic issues (question of loyalty to the company and disregard for how their behavior or personal decisions affects the company or other people),
    - The competition that exists for experienced people in this area.
- Employee work ethic and expectations – there is a lack of understanding regarding how Capitalism operates. Particularly with regard to the generation coming out of college, people need to understand that they first must produce value for their employer before they can receive benefits from that produced value.
- Hiring employees who turn out to be inflexible with regard to the work they will perform and the hours they will work. As a result, there is a need to periodically purge the workforce during economically advantageous times. This can affect the company's reputation.
- It can be difficult managing people while they are working off-site.

Compensation-Related

- The cost of healthcare for employees – there are not affordable alternatives, particularly for small employers. This affects the ability to compete for good people.
- Being able to attract and retain employees with benefits like Health Insurance, particularly for a start-up company.
- Pay is a major issue. There is easy entry into this business. We can't afford pay structures that are more competitive in higher volume businesses, particularly for businesses located outside of Laramie.

Work Scheduling and Working Conditions

- Due to our non-traditional work schedules, work location and the fact that our jobs are only acceptable to a young, more mobile and adaptable workforce, we have difficulty retaining people.
- Workforce scheduling due to variations in business – It is not feasible to hire additional people on a project basis. Our business levels are not highly predictable.

- I would like to get enough workload to get to at least a full-time level for myself.

Trailing Spouses

- Trailing spouses can be a problem, particularly when that person is looking for employment in this area too.
- Trailing spouses is another difficult challenge in our small community.

The remaining portion of this Technology Workforce section provides overviews pertaining to a number of workforce-related variables. These variables may or may not have a causal influence on the challenges survey participants identified.

Company Leadership Cultures –

Leadership culture can play a major role when a candidate is deciding whether to accept an employment offer.

Particularly in small entrepreneurial companies, it is often difficult to differentiate between the leader's management approach and the company's values and culture. The leader and the company become so closely integrated. By the same token, many articles and books have been written which discuss common behaviors and motivators for entrepreneurs.

When designing the SNAPIT Technology Workforce Survey, an attempt was made to gain insight into the leadership cultures that exist in each of the technology companies surveyed. To some degree, this attempt was driven by an interest in seeing if a "typical management or entrepreneurial" leadership approach might be identified among Laramie technology companies. There was also interest in determining whether there was any correlation between leadership approach and the type of business being led (manufacturing, research, software development, etc.).

Consequently, an instrument was developed to assess specifically four dimensions of leadership culture. For lack of better descriptors, these four dimensions were defined using the adjectives Assertive, Motivating, Thinking, and Supportive. Each of the four dimensions was described using the following terms and phrases:

ASSERTIVE: Concerned with results, High sense of urgency, Decisive, Enjoys challenges, Doesn't get bogged down with details.

MOTIVATING: Innovative, Fun to work with, Excellent communication skills, Personable, Approachable, Flexible with rules.

THINKING: Consistent, Hard-working, Organized, Good planning/research/follow-through, Thorough, Minimal mistakes.

SUPPORTIVE: Likeable/caring, Cooperative, Good listener, Mediator (of conflicts), Recognizes needs of others, Tactful/ diplomatic.

Survey participants were advised that in most cases, every leadership culture contains each of the four dimensions to a greater or lesser extent. Also, the descriptions used to define each dimension were not

all encompassing, nor did all the descriptive terms and phrases have to be present in order for the dimension to be valid. Finally, participants were asked not to place too much emphasis on the connotations associated with the adjectives used to distinguish each of the four dimensions. Instead, they were instructed to read through each dimension quickly to gain a general feel for its meaning.

Next, the survey participants were asked to assign points to each of the four dimensions in a manner that best describes the leadership culture of their technology company. The accumulated points for all four dimensions needed to total 100.

In deciding upon the appropriate ratings for each dimension, several survey participants took considerable time completing this exercise. Most studied the dimensions, rated the dimensions, modified the ratings once or twice within a minute or so.

At the other end of the spectrum there were a few survey participants that either had difficulty with their ratings or were not particularly interested in scrutinizing differences between the dimensions. After several seconds these participants merely applied 25 points to each dimension, stating that they were each equally applicable. The responses of these few participants were omitted from one of the tallies presented in Table 5, below. The intent in doing so was to accentuate the cultural differences associated with each dimension.

Table 5 – Leadership Culture – Laramie Technology Companies

	Assertive	Motivating	Thinking	Supportive
Overall Ratings (All Companies)	**25.6**	**23.0**	**28.8**	**22.6**
Overall Ratings (Equal 25 Ratings Omitted)	**25.8**	**22.6**	**29.6**	**22.0**

The results of these ratings suggest that the leadership cultures in the Laramie technology companies surveyed tend to be most heavily influenced by a task orientation, where hard work, detail orientation, consistency, accuracy and follow-through are valued attributes.

Since we are working with relatively small samples of companies, it was anticipated that there could be considerable variation in leadership cultures when ratings are viewed on a business category basis. Table 6 presents the results of this break-down.

Point of Interest:

There was also interest in determining whether there was any correlation between leadership approach and the type of business being led.

Table 6 – Leadership Culture – Business Categories

	Assertive	Motivating	Thinking	Supportive
Overall Ratings (Equal 25 Ratings Omitted)	**25.8**	**22.6**	**29.6**	**22.0**
Engineering & Environmental Consulting	25.0	20.0	30.8	24.2
Manufacturing/Repair/ Construction	38.8	26.2	20.0	15.0
IT Systems/Software Development	23.0	23.0	34.0	20.0
Scientific-Technological Research/Analytics	22.5	27.5	35.0	15.0
Graphic Design (Web/Print)	21.6	18.4	27.0	33.0
Natural Resources/ Conservation	20.0	20.0	35.0	25.0

There was a surprising consistency in the relative rankings between dimensions for most business categories. With the exception of the Manufacturing/Repair/Construction, and the Graphic Design groupings, leadership culture was assessed to be primarily driven by the "Thinking" dimension.

As might be expected for companies in the Manufacturing/Repair/Construction business category, the primary drivers for leadership culture include focus on results (meeting schedules), a sense of urgency, and consistency in operations, consistent with the "Assertive" dimension.

Rating results for the Graphic Design business category was highly influenced by one company that recorded an exceedingly high rating for the "Supportive" dimension and extremely low ratings for both the "Assertive" and "Motivating" dimensions. Were it not for these outlier ratings, the Graphic Design group would resemble the profile produced by the Manufacturing/Repair/Construction business category.

Historical Workforce Records Kept-

The importance of keeping historical records is synonymous with the importance of documenting personnel-related actions. In human resources, maintaining certain records may be legally required. In other cases, historical records may be helpful in supporting positions and decisions.

Survey participants were asked whether they kept historical records related to their workforce employment covering the past three-year period. Table 7 presents a distribution of responses. It should be noted that in several instances, the survey participant suggested that the company did not keep their records in hard copy format; however, at least one employee in the company would be able to create the record from memory.

Table 7 –Historical Records Kept by Surveyed Technology Companies

Type of Record	Companies Retaining This Information
Employment by EEO Category (Officials & Managers, Professionals, Operatives, etc.)	20 - 67%
Exit Interviews	9 - 30%
Performance Reviews	16 - 53%
Recruiting Costs	13 - 43%
Terminations – Reasons for Leaving	21 - 70%
Time to Fill Employment Openings	8 - 27%
Total Employment	24 - 80%
Turnover Rate	16 - 53%

It is recognized that not all companies conduct Exit Interviews or Performance Reviews. This is not unusual particularly with smaller organizations. Likewise, many companies, both large and small, do not feel it is necessarily beneficial to keep track of the time it takes to fill openings. Other than keeping records for Total Employment and regarding Terminations, it would appear that many Laramie technology employers do not feel there is much value in retaining historical records related to workforce activity.

Company Employment -

During the one year period beginning October 2010 to October 2011, total full-time employment among the thirty surveyed technology companies increased approximately 2.4% from 458 to 469 employees. As of the end of October 2011, total employment, including 109 part-time and temporary employees, approximated 578 employees.

Point of Interest:

As of October 31, 2010, there were 138 full-time employees in the twenty-two target technology companies that did not participate in the SNAPIT Technology Workforce Survey. Although October 2011 employment was not obtained for these twenty-two companies, if we assume their full-time employment grew at the same 2.4% rate as the surveyed technology companies, that would mean their October 2011 full-time employment would be approximately 141, compared to 469 for the thirty surveyed technology companies.

For contrast purposes, the following, provides information pertaining to the mean, median and range of both total employment (including full and part-time) and only full-time employment for our thirty technology companies, as of the end of October 2011:

	All Companies	Mean Company Employment	Median Company Employment	Range of Company Employment
Full-time Employees	469	15.6	6	1 - 150
Full & Part-time Employees	578	19.3	12	1 - 168

Table 8 is a distribution of the number of full-time employees for each of the thirty surveyed companies as of October 2011.

Table 8 - Distribution of Total Full-Time Employment for Surveyed Technology Companies

# Employees	# Companies	% of Total	Cumulative % of Total
1	4	13.3%	13.3%
2 to 5	9	30.0%	43.3%
6 to 10	3	10.0%	53.3%
11 to 15	5	16.7%	70.0%
16 to 20	6	20.0%	90.0%
21 to 25	1	3.3%	93.3%
26 to 30	0	0.0%	93.3%
31 & More	2	6.7%	100.0%

As noted from the above distribution, 90% of our surveyed technology companies employ 20 or less full-time employees. The actual mean number of full-time employees in this 90% of companies is 8.5 people.

Total full-time employees in the surveyed companies are organized by business category in Table 9.

Table 9 – Full-Time Employment for Surveyed Technology Companies by Business Category

Type of Business	Full-Time Employees	% of Total
Engineering & Environmental Consulting	218	46.5%
Manufacturing/Repair/ Construction	37	7.9%
IT Systems/Software Development	83	17.7%
Scientific-Technological Research/Analytics	90	19.2%
Graphic Design (Web/Print)	24	5.1%
Natural Resources/ Conservation	17	3.6%
Total	**469**	**100.0%**

Point of Interest:

Ninety percent of our surveyed technology companies employ 20 or less full-time employees. The actual mean number of full-time employees in this 90% of companies is 8.5 people.

Employment Trends –

Employment trends enable managers to extrapolate known historical employment levels or needs over future periods of time, under various assumptions.

Employment was reported to have trended downward over the past 2 years in approximately one out of four of the surveyed technology companies. Employment was reported to have remained fairly level in about 40% of the companies.

Expectation for an upward trend in employment over the next 2 years was reported for twenty-two (73%) out of the thirty surveyed companies. A downward employment trend was reported by only one of the survey participants. In terms of projected hires, this translates to a net 88 additional full and part-time employees of surveyed companies being hired over the next two years. This is about a 15% increase from current employment levels. Although these projections are encouraging, a number of the survey participants suggested they would likely be cautious in bringing on full-time employees. Where feasible, these technology companies would consider hiring part-time and intern positions first, in order to assess the new hires for possible full-time employment.

Point of Interest:

In terms of projected hires, this translates to a net 88 additional employees being hired over the next two years.

Anticipated and Open Positions (at Time of Survey)-

Being able to identify "best guess estimates" regarding types of skills and talent that will be needed in the foreseeable future helps employers plan recruiting strategies. These "best guesses" can also help educational and training institutions prepare curricula, course schedules, staff and facility requirements for the years ahead.

Point of Interest:

These "best guesses" can also help educational and training institutions prepare curricula, course schedules, staff and facility requirements for the years ahead.

Several weeks prior to beginning our individual technology company surveys, SNAPIT Representatives conducted introductory interviews with managers of targeted companies. Several of those company managers declined to participate in the SNAPIT Technology Workforce Survey, but did provide information related to their employment experiences, regardless.

During the introductory interviews, targeted technology companies were asked to describe the types of technical positions they expected to recruit within the next 2 years. This question was asked in order to gain a feel for the types of positions Laramie area technology companies regularly employ on an ongoing basis. The following is a listing of those companies' 146 anticipated openings:

Engineers (51 Positions)
- 42 Generic Engineers
- 3 Civil Engineers
- 3 Mechanical Engineers
- 2 Staff Engineers
- 1 Electrical Engineer

Technicians (11 Positions)
- 5 Generic Technicians (computer)
- 2 Research Technicians
- 2 Lab Technicians
- 1 Field Technician
- 1 Sr. Design Drafter

Scientific/Tech Specialty (4 Positions)
- 1 Geologist
- 1 Surveyor
- 1 GIS Specialist
- 1 Physicist

Sales/Marketing/ Customer Support (32 Positions)
- 4 Professional Sales
- 26 Retail Sales
- 2 Marketing

Professional (2 Positions)
- 1 Operations Manager
- 1 Accounting Manager

Software/Systems People (17 Positions)
- 8 Software Developers
- 1 Sr. Software Developer
- 5 Software Engineers
- 3 Programmers

Project/Product Managers (8 Positions)
- 2 Project Managers
- 2 Lead Research Managers
- 2 Product Managers
- 1 Engineering Project Manager
- 1 IT Project Manager

Graphic Design, Press & Web (5 Positions)
- 1 Web Developer
- 1 Graphic Designer
- 1 Writer
- 2 Press or Pre-Press

Administrative (6 Positions)
- 3 Administration
- 1 Office Manager
- 1 Office Assistant
- 1 Bookkeeper

Plant Operations (10 Positions)
- 3 Plant Supervision
- 5 Plant Operations
- 2 Laborers/Carpenters

In addition, survey participants were asked to identify the technical positions for which they were currently recruiting. Two-thirds of the surveyed companies did not have any openings at the time they were being surveyed. One of the survey participants, however, indicated his company had just hired two Lead Researchers, who are responsible for Product Management responsibilities. Another company representative indicated that although he currently did not have openings, his manufacturing company

planned on hiring 4 additional professional employees with industry technology background within the next 2 years. A third company representative stated that he most likely would be hiring independent contractors for interim projects in the future.

With regard to the ten companies that identified their current technical openings, results are as follows:

Business Category	**Open Positions**
Engineering & Environmental Consulting	GIS Specialist Surveyor Project Manager Field Techs (multiple) (20) Engineers, Geologists & Project Managers
IT Systems/Software Development	(2) Computer Techs (3) Software Engineers Application Support Person (EMR) Sales (Medical Related)
Scientific-Technological Research/Analytics	Sr. Software Engineer Mechanical Engineer Marketing Person
Graphic Design (Web/Print)	(2) Graphic Design Interns Pressman

The general trend in unfilled openings was described as being "stable to increasing." Twenty-five (83%) of the surveyed companies indicated their number of unfilled openings was stable, even if they were not currently recruiting. The remaining 17% of companies said their number of unfilled openings was increasing.

Availability-Quality-Stability Ratings-

Employers typically assess workforce availability, quality, and stability as major criteria when determining whether a local workforce is able to satisfy their current and projected employment needs.

Despite the fact that a significant number of technology companies experience difficulty recruiting experienced, quality technical employment candidates, most of our surveyed participants rated the local technical workforce as "average" to "above average" with regard to employee Availability, Quality and Stability. Survey participants were asked to rate these factors on a five-point scale, with (1) being a high rating and (5) being a low rating. The average rating scores are as follows:

Availability	3.0
Quality	2.6
Stability	2.3

A number of qualifying statements were made for these ratings, such as:

- "We've had good luck with UW grads."
- My (respective) 3-2-1 rating for these criteria "refers primarily to professional and technical Civil Engineers."

- "Our location is detrimental to employee stability."
- "Good entry level college educated people are available, are good quality and stable people."
- "Laramie does not have a robust experienced workforce from which to draw."
- "I rated Stability low due to the risk of losing lesser experienced employees (because of economic reasons)."

Ratings were fairly consistent between the surveyed company business categories, with "Natural Resources/Conservation" executive managers giving the best scores and the "Scientific-Technological Research/Analytics" survey participants rating the criteria most severely.

Essential Employees (Phase of Career) –

In every organization, regardless of size, there is always a core group of employees that are "essential" to an effective, smooth running, productive and profitable operation. These are people employers want to keep as long as practical.

Survey participants were asked to identify the career phase in which they consider the majority of their essential employees. Responses indicate that 60% of essential employees fall within the early (young) phase of their careers; 30% are in the mid-phase of their careers and the remaining 10% of essential employees are considered "near retirement." The three companies that indicate their essential employees are near retirement are associated with different business categories in Laramie, requiring different skill sets.

Overall, this suggests a fairly healthy distribution of career progressions, particularly for companies entering a business growth phase. On the one hand, the majority of companies may be less concerned about planned replacements due to essential employee retirements. On the other hand, the fact that such a high percentage of essential employees are considered in the early phase of their career could create negative perceptions of advancement opportunities.

Commuting Requirements (Existing Technical Workforce) –

Particularly in a slow economy, which impacts the employee's ability to relocate, commuting distance can play an important role when a candidate is deciding whether to accept an employment offer. Commuting distance also becomes an important consideration for employers who feel they must extend their recruiting beyond the local labor market. In addition to time inconveniences, it can mean additional relocation expenditures.

A relatively low percentage of Laramie employees currently commute substantial distances to work. According to estimates provided by survey participants, 89.4% of employees in our surveyed technology companies live in the city in which they work and another 6.4% live outside the city but within the county. This leaves 4.2% of employees (estimated at less than 25 people), who live in an adjacent county or beyond.

There were two survey participants who indicated they were personally aware of an employee in each of their companies, who commuted to and from Fort Collins, Colorado.

Point of Interest:

Two survey participants were aware of an employee in each of their companies, who commuted to and from Fort Collins, Colorado.

Recruiting Technical Candidates –

Effective recruiting requires an understanding of what you want and what you can expect from your recruiting sources. Some sources are relatively inexpensive to use, but may either give you too few good referrals, or too many candidates the majority of whom do not match your specifications. Other sources may be relatively costly with no appreciable improvement in the quality or quantity of referrals. In addition to expense associated with using the recruiting source, employers also need to consider the time a source requires of them to sift and winnow through candidate referrals.

Executive managers for our thirty surveyed technology companies were asked several questions regarding the types of their recruiting sources, geographic areas covered, and preferences for the various recruiting sources. Table 10 identifies the recruiting sources found to be most effective by these surveyed participants and the extent to which the source is used by our technology companies.

Table 10 – Recruiting Sources for Surveyed Technology Companies

Recruiting Source	% of Companies Using this Source
Internet Job Posting (including Company site)	63%
College Recruiting (including Career Fairs)	57%
Newspaper Ads	50%
Employee Referrals	47%
Networking (University, Friends and Associates)	30%
Walk-ins	30%
Workforce Services	30%
Alumni Associations/Professional Organizations	10%
Employment Agencies	10%
Trade Journals/Magazine Ads	10%
Social Media (LinkedIn)	7%

Internet Job Posting: The internet was selected as the most popular source for acquiring inquiries and candidates for employment opportunities. Monster.com and Craigslist were identified as two of the most popular recruiting sites. The Wyoming Workforce Service Center's WyomingatWork.com site was also identified as a frequently used site. Several companies identified their own company website as a source for posting job opportunities and receiving inquiries from interested candidates.

College Recruiting: With the University of Wyoming in everyone's back yard, college recruiting is quite popular. In addition to career and job fairs, as well as internship opportunities, approximately half of the technology companies that identified "Networking" as a recruiting source specifically mentioned the University of Wyoming or its staff. Within UW, references were made to the Architectural Engineering Department, the School of Engineering, School of Business, and the School of Agriculture.

Other colleges and universities identified as recruiting sources were the University of Colorado, Colorado State, the University of Utah, Texas A&M, Montana State and South Dakota University.

Newspaper Ads: As one might expect, Laramie's Boomerang is the most popular newspaper used for help wanted advertising among our surveyed technology companies. Fifteen companies (50%) identified the Boomerang as a viable source. About 20% of the surveyed companies use the Casper Star Tribune and the Denver Post. Other papers that were specifically mentioned were Cheyenne's Wyoming Tribune Eagle, the Gillette Gazette, the Grand Junction Sentinel and the Salt Lake City newspaper.

Employee Referrals: Almost half of our surveyed technology companies actively seek employee input and referrals to help them fill their technical openings. Several employers mentioned employee referrals as the best and most credible sources of talent.

Networking: Because Networking wasn't specifically listed as a recruiting source option on our SNAPIT Technology Workforce Survey, the percentage of companies identifying networking as a recruiting source is most likely understated. Survey participants had to identify "networking" as a source under the "Other" option in our survey. During our survey interviews, there were many references to contacts and assistance received from professors, staff and prior associates who are connected with the university.

Walk-ins: It was a bit surprising to see that walk-ins still represent an active recruiting source for about one out of three of our technology companies. This may be a symptom of either a slower than normal economy or a relatively small community, where private industry is relatively easy to access.

Workforce Services: Certainly a highly reputed recruiting tool among surveyed technology companies is the Wyoming Workforce Service Center's WyomingatWork.com website. About 30% of our survey participants actively use a variety of the Workforce Service Center's services. There were two survey participants who indicated that they used the Center in the past, but never seemed to get the quality of candidates they sought. Consequently, they stopped using this recruiting service.

Alumni Associations, Professional Organizations, Employment Agencies and Social Media do not currently appear to constitute major recruiting sources for our surveyed employers. It appears that within the past several years, internet job posting sites have had a negative impact on fee-based Employment Agency business, except possibly as a source for temp-to-hire employees. The vast majority of our surveyed companies does not use social media, and does not have active company social media accounts. Notwithstanding, two survey participants indicate that they use LinkedIn as a recruiting source. One of the two identified LinkedIn as the best recruiting source he has for identifying quality professional and technical candidates.

The most frequently identified recruiting sources for the "best quality applicants" for our surveyed technology companies were:

Best Recruiting Source	% of Companies
Networking	27%
Workforce Service (WyomingatWork.com)	13%
Employee Referrals	13%

It's interesting to note that with each of these sources, the likelihood is that the recruiting manager will end up with local candidate referrals.

Point of Interest:
The majority of our surveyed companies do recruit outside the immediate area.

Although there appears to be a natural preference among employers for securing high quality, experienced technical and professional employees from the local recruiting area, the majority of our surveyed companies indicate they do recruit outside the immediate area. Twenty-one (70%) of these companies indicate they recruit technical or professional employees outside the local market to some extent. One company prefers to only recruit sales people from outside the Laramie area in order to accommodate larger customer markets.

Approximately one in four surveyed companies recruit employees on a national scale. Another 25% of our surveyed technology companies concentrate "outside" advertising in other Wyoming cities like Cheyenne, Casper and Gillette, and in the Colorado corridor to and including Denver. The remaining 20% of surveyed technology companies that recruit outside the immediate area concentrate on the states surrounding Wyoming or targeted cities, such as Detroit, Michigan; or College Station, Texas; where specific markets for talent exist.

Relocation Assistance –

As implied in the section of this report that focused on commuting, there is a direct relationship between recruiting distance and relocation issues that can be costly for the employer.

Only one survey participant indicated that a "formal relocation policy" existed covering his company, and that was a "corporate" policy, which the participant had not had occasion to use yet. He was uncertain regarding the provisions of the policy.

Of the twenty-one surveyed companies that indicated they recruit outside the immediate area, twelve responded that any relocation assistance would be based on the candidate's offered position and the particular situation or need. Although no formal policy exists, one company responded that it would help cover a physical move. The survey participant for another company stated that advanced pay would be permitted, as would help in finding or sharing lodging. Six technology companies indicated that relocation assistance was either not necessary, never requested or not yet an issue.

Two of the companies that typically do not recruit outside of the immediate area, suggested that if they would in the future, some type of relocation would be negotiated as part of the employment offer. Negotiations would consider the position being offered, and the significance of the need expressed by the candidate.

Employment Processes -

The process established for reaching a hiring decision varies considerably among the technology companies surveyed and also within some of the companies, based on the nature of the open position. There is generally a strong consciousness for cost associated with the hiring processes of surveyed companies. Although the people involved with recruiting tend to search for the best candidates available, there is, in many cases, a tendency to look primarily within the local market for candidates, due to time, additional scrutiny, and expenses associated with casting a larger net.

Table 11 provides an overview of steps involved in the employment processes of our thirty surveyed technology companies. It's evident from Table 11 results that these companies do not all follow the same process steps. The number and sequence of steps followed may vary between employers and frequently within the same employer, based on the nature of the job being recruited.

For purposes of this report, employment processes begin after candidates have been qualified for an initial face-to-face interview. In most cases, preliminary employment process steps consist of activities such as, advertising/soliciting for the open position, resume review, and possibly phone interviews.

Table 11 – Steps in Employment Processes of Surveyed Technology Companies

Process Step	% of Companies Regularly Using this Process Step
• Recruiter/Hiring Manager Interviews	87%
• Job Description/Expectations Reviewed	70%
• Hiring Manager's Supervisor or Another Manager Interviews	67%
• Candidate is Tested	37%
• Reference Checks Conducted	80%
• Credit Checks are Processed	13%
• Academic Credentials are Verified	23%
• Tour of Operations	53%
• Tour of Community (if unfamiliar with Laramie)	30%

Interviews: Face-to-Face interviews are conducted in all but two technology companies. The number of interviewers normally increases with the organizational level of the open position. Normally, these initial interviews may be conducted by the Hiring Manager, the HR Manager, the Hiring Manager's Supervisor, or another Manager or group of Managers. Sometimes the candidate is brought back to the company for a second interview with one or more managers.

Group interviews (Hiring Committee/Recruiting Team) are conducted in several Laramie technology companies. In some of those group interviews, members from the Wyoming Technology Business Center or UW staff are invited to participate. In one company, managerial/professional candidates are interviewed by a variety of the recruiting company's employees. In another company, candidates for Lead Technical positions are asked to give 2 hour seminars to company personnel, with outside advisors also present.

As a general rule, the face-to-face interview is the first step of several in the employment process. That's not always the case, however. In one company, hiring decisions for seasonal

employees may be made solely on the basis of referrals. In another case, the hiring process consists of the President's interview. If the President feels there is a fit, an offer is tendered immediately.

Our surveys helped to identify the extent to which interviews were used in the employment process and the range of people involved in interviewing. These surveys, however, did not delve into assessments of interviewing outcomes – whether interviewing satisfactorily provided desired insights into the candidate's technical requirements, core competencies, and motivational fit with the hiring company's culture and employment opportunity.

Based on discussions conducted during the survey process with our thirty technology companies, there appears to be a wide variance in the effectiveness associated with employment interviews. Some companies take very special effort to secure many insights and impressions regarding important considerations. Other companies may fail to properly conduct or plan for the interview. As one survey participant disclosed, "We don't ask the right questions. Our interview process needs improvement. We end up hiring people based on our feelings. We don't get to know what the candidate's skills and abilities are."

Point of Interest:
"We don't ask the right questions."

Job Description/Job Expectations: A review of job responsibilities and performance expectations is conducted with candidates during the employment process in twenty-one (70%) of the companies surveyed. In most cases this review is conducted during the employment interview(s).

Reference Checks: Reference checks are a fairly common step in our surveyed company employment processes. Four out of five companies check references. A number of companies only check references regarding candidates applying for "higher level" positions or for full-time positions in the company. In one company, references and criminal records are checked by employees at the corporate office location. Also, in one company, a "publication review" is made in addition to reference checks, as applicable.

One company manager indicated that his company sometimes conducts reference checks before the interview phase of the employment process.

- ✓ *Doing so precludes asking probing questions intended to verify information and impressions received during the interview.*

Academic Credential Verification & Credit Checks: Relatively few companies verify academic credentials despite the fact that academic information presents a relatively high probability of misrepresentation on resumes. The surveyed companies that do verify academic credentials generally have access to an HR function. The same holds true for credit checks, which are conducted by only 13% of our thirty technology companies.

Testing: Approximately one-third of the surveyed technology companies conduct employment testing. Those that do, primarily test for skill or aptitude. These tests may be either administered

through the Laramie Workforce Center, published instruments or custom made tests created by the surveyed company. In some cases, candidates are tested by being asked to actually perform the job. One company tends to hire employees on a contract basis prior to offering regular full-time employment. This "extended probationary period" enables the employer to assess the contractor's knowledge, skills, abilities and attitudes before the worker is actually placed on the payroll.

- ✓ *Before hiring contractors, employers should make sure they are in compliance with government regulations pertaining to independent contractors.*

Those companies that conduct skill and aptitude tests normally look for test designs that reflect essential requirements of the job, or that possess "face validity." In these companies, testing may or may not be administered to all qualified candidates for the open position.

- ✓ *If tests are given for a particular opening, it is advisable that the same tests be administered to all candidates who meet certain qualifying job criteria. Doing so reduces the probability of bias claims.*

One company administers a personality test in its employment process. The survey participant for that company indicates that the test helps determine job fit. The test is administered before the interview phase of the employment process, and may be used to screen out candidates from the remaining employment process.

- ✓ *It is advisable that tests be administered near the end of the employment process – after interviews – rather than early in the process. Doing so tends to 1.) reduce the cost and number of candidates that must take the test, 2.) permit recruiters to key in specifically on test items that reinforce or refute impressions formed in the interview, and 3.) reduce the probability of bias claims.*

One survey participant indicated that the company uses drug testing as part of the employment process. (Pre-employment drug testing is normally conducted between the time a conditional employment offer is made and the candidate's first day of employment.

- ✓ *Unlike pre-employment physical exams, an employment offer can be made conditional based on successfully passing a drug and/or alcohol screening.*

Tour of Operations: Approximately half of the surveyed technology companies give the employment candidate a tour of local company operations, particularly if the candidate appears promising.

Tour of Community: As Table 11 in this section indicates, 30% of the surveyed technology companies might accommodate a candidate who is unfamiliar with the area (and possibly a significant other) with a tour of the community. One survey participant indicated that sometimes the company provides the candidate a Chamber of Commerce Packet, instead of a tour. Another representative stated that he tries to schedule a walking tour with the Tourism Board, and will acquaint the prospective employee with cultural activities associated with the University of Wyoming.

Survey participants were asked, "Once you find an acceptable candidate, what actions, if any, are taken to make sure the candidate (and/or significant other) will adapt to the community and area?" Twenty-two, or almost 75% of the survey participants indicated that their companies do not do anything, primarily because they tend to hire locally, or the issue never comes up.

Of the technology companies that attempt to accommodate assimilation of the candidate and/or significant other to Laramie, the following comments apply:

> "For transfers and other key candidates currently living outside of Laramie, we'll bring them in for a weekend at company expense to explore their areas of interest."
>
> "We tour the community and point out what Laramie has to offer."
>
> "During the interview, we try to find out the candidate's interests. We refer them to the Rec Center, other local organizations, the Chamber and realtors."
>
> "We ask many questions to detect the candidate's interests. Then we try to connect the person with contacts or organizations in our area."
>
> "We have tended not to bring in significant others during the interview process, but will bring them in to tour the community during the offer negotiation period."
>
> "We tour the city with them, try to schedule a walking tour with them, and introduce them to cultural activities."
>
> "We arrange for a group dinner. We also help find other employment for the spouse, if needed."
>
> "There is networking established with people in the company, at the University and community that have similar interests. The candidate and significant other are taken to dinner, etc."

Advantages or Benefits of Being Employed at Technology Companies -

Employers typically use some portion of an employment interview selling their company to the employment candidate. This phase of the interview process normally focuses on advantages or benefits associated with employment at the company.

In order to gain additional insight into our technology sector's appeal, survey participants were asked to identify what they think their employees consider the biggest advantage or benefit associated with their employment.

The following summarizes common themes that were gleaned from the responses received:

Advantages/Benefits -- Common Themes

- Accommodating, relaxed, friendly and fun work environment (*i.e., flexible work rules, schedules and/or hours, no micro-management, good treatment, family-like, team orientation, unstructured, low stress, casual, reflecting a desire for long-term relationships, social activities*).

- Opportunity to work on absorbing and technically challenging projects and assignments (*i.e., working with cutting-edge technology*).

- Receiving recognition and intrinsic satisfaction for hard work and contributions (*i.e., stake in the company, subsidized healthcare, respect for good work, being compensated well, working on successful designs, feeling a sense of achievement, creating solutions*).

- Growth and advancement potential (*i.e., being on the ground floor of something big, opportunity to learn every aspect of the business, chance to pursue your passion, global assignments*).

All survey participants who responded to questions about the advantages of working for their company, referred to at least one of the themes identified above. The "work environment" and "challenging projects" were the two most frequently referenced themes. According to the survey participants, work environment is generally perceived to be attractive to technical people if it does not overly restrict their performance and behavior, but provides freedom to be creative and productive. Similarly, work assignments are perceived to be attractive when they are stimulated by technical challenge and high-tech applications.

Employment Offer Refusals for Reasons other than Compensation -

Survey participants were asked whether they ever had a technical employment candidate refuse an employment offer for reasons other than compensation. Thirteen (43%) of the survey participants answered affirmatively, and identified specific candidate refusal incidences. Seventeen (57%) survey participants responded that they were not aware of any situation involving an offer refusal for reasons other than compensation.

Of the respondents who answered affirmatively, the following reasons were given for candidate refusals:

Benefits

- Health insurance cost-sharing was too high (Employee pays a portion of Single coverage premium and 100% of Family coverage premium.

- Health insurance. Employees pay 50% of premium cost, regardless of Single or Dependent coverage. Person got a better offer elsewhere.

- Not able to meet candidate's needs – wanted a company car.

Drug Testing

- Candidate did not want to take drug test. Also, said he had family issues to attend to.

Education

- An Intern decided to go to Graduate School instead of working.

Location

- Candidate wanted to stay closer to family (out of state).

- Candidate was also looking in Denver, and his girlfriend found a job there.

- Candidate said he had family medical issues and that Laramie was too far away.
- Laramie was too far from family. (Ultimately hired the candidate anyway – working from home).
- Laramie was not attractive to the candidate, his spouse, or both.
- Area was incompatible with interests.
- Candidate's girlfriend wanted him to come to Laramie, but another company made a better offer.

Poor Fit

- Candidate decided he wasn't able to appreciate a balance between commercial and environmental conservation interests and concerns.

Work Conditions

- Candidate didn't want to work with pesticides.

Work Schedules

- Conflict with school.
- Employees were working 80 hours/week at the time (Seasonal). Candidate couldn't make that commitment.
- Too much variation.

Employee Performance Appraisal, Communication and Feedback -

According to conventional human relations wisdom, the best way to build strong bonds between managers and employees is to create trust, to communicate frankly, to treat people fairly, to show appreciation, and to amend behavior when shortfalls occur with the previously stated efforts. In business, performance appraisals, "state of the business" meetings, and exit interviews are a few of the commonly used communications tools intended to promote strong employee-employer bonds. Particularly with regard to small organizations, these communication tools do not require a formal approach; however, they normally should be properly planned and prudently implemented for effectiveness. Performance appraisals should also be documented.

Each survey participant was asked whether their company's management regularly conducts 1.) performance appraisals, 2.) "state of the business" meetings and 3.) exit interviews at appropriate times with its technical employees.

Of twenty-eight surveyed technology companies with more than a single employee, the following responses were recorded:

Performance Appraisals:

- Twenty companies (71.4%) indicated that company management/supervision conducts performance appraisals. Most are scheduled annually. One company schedules performance appraisals every 6 months. One company schedules these reviews after 90 days of employment, then after 6 months of employment and then annually thereafter.
- One survey participant stated that his company does not have a formal policy on performance appraisals, so performance discussions essentially only occur when an employee is having problems. Another participant indicated that performance reviews are conducted informally.
- One participant stated, "Performance reviews are verbal and not necessarily at regular intervals.
- The management of one company does not believe in the value of performance reviews, because of poor experience with them at a previous employer."

Point of Interest:

There appears to be quite a difference of opinion between surveyed companies as to how these communications tools (performance appraisals, employee meetings, and exit interviews) may be most effectively used. The spectrum of opinion runs from astute and rather sophisticated to avoiding their use altogether.

State of the Business Meetings:

- Twenty-two companies (78.6%) indicated that company management conducts "state of the business" meetings. In one company formal employee meetings are conducted quarterly.
- One survey participant stated, "We could really improve on the way we give state of the business meetings, because we depend too much on communicating them through email."
- One participant whose company does not conduct state of the business meetings said, "Our owners have mixed opinions on how much information to give employees about the company."
- One company conducts weekly employee meetings. Sometimes the subject is training, sometimes it is the state of the business or the business outlook, or some other issue that employees want to talk about. The meetings are two-directional, so employees have the opportunity to ask questions.
- One survey participant indicated that company ownership may conduct one-on-ones or small group meetings at various times regarding business conditions. At another company, business conditions are regularly discussed in the owner's weekly staff meetings. These meetings are attended by only a fraction of the company's employment.
- One survey participant indicated management generally attempts to keep the workforce advised when a project they are working on was based on a particularly tight quote.
- One survey participant stated, "Our state of the business meetings are inconsistently scheduled – maybe one time per year." Another participant said, "Our state of the business meetings are not conducted on a formal basis."
- One company conducts state of the business meetings and also has an Employee Advisory Committee, which is used as a Policy sounding board.

Exit Interviews:

- Thirteen companies (46.4%) indicated that their company conducts "exit interview," as feasible. Most companies that conduct exit interviews do so when the employee voluntarily terminates employment. One surveyed company conducts exit interviews for both voluntary and involuntary terminations. A survey participant in another company said his company tries to exit interview, but is not able to do so all the time.
- One survey participant stated that the exit interview process is not formal, but the company attempts to secure information related to an employee's departure through any number of ways.
- One survey participant indicated the departing employee is given an exit Interview form to complete and return before leaving the company. The employee can talk to someone in HR if they wish.
- One survey participant indicated company management conducts exit interviews sometimes, and said, "Most of the time we already know the reason for the employee's leaving."

Similar to statements made about employment interviewing in the *Employment Processes* section of this report, there appears to be quite a difference of opinion between surveyed companies as to how these communication tools (performance appraisals, employee meetings, and exit interviews) may be most effectively used. The spectrum of opinion runs from astute and rather sophisticated to avoiding their use altogether.

Educational Credentials and Training –

According to an October 24, 2011 Wall Street Journal article by Peter Cappelli, titled "*Why Companies Aren't Getting the Employees they Need,*" employers tend to seek people with experience, because they don't want to train people." With smaller companies, it often comes down to the employer not having the necessary time and resources to dedicate to training.

In addition, in the U.S. economic community the social contract between companies and employees no longer reflects expectations of company loyalty for life-time employment. Consequently, company apprenticeships, management training programs and even on-the-job (OJT) training, other than the basic essentials, are almost non-existent today. Employers have become disenchanted with training employees, then having another employer turn around and hire them away for more money. Instead, employers place more emphasis on having their employees acquire essential knowledge through educational institutions and acquire training and experience elsewhere.

Because greater emphasis has been placed on experience today, internships are viewed, in many cases, as a mutually beneficial way to employ "conceptually knowledgeable" talent at a reasonable cost...and Laramie enjoys a comparatively large pool of available interns. In return, interns accumulate experience, which eventually can equip them for greater opportunities, many times elsewhere.

Small employers, particularly in a university city like Laramie have another problem when it comes to hiring technical employees. There may be a tendency to establish higher educational, and experience specifications for openings than are justified by the actual job content. This obviously can lead to turnover when job challenges fail to meet expectations or commitments. For any number of reasons, assignments an employer would like someone to be able to perform do not match up with assignments that really need to be performed.

Survey participants were asked the following three inter-related questions dealing with ordinarily required educational credentials, on-the-job training, and external training resources:

- What educational credentials (or equivalent) do you ordinarily require your technical employees to attain?
- What, if any, technical training or development do you ordinarily need to provide technical employees on an "on-the-job" basis?
- Considering the training resources available in our community or region, what technical training courses or programs would be most beneficial for employees at your company?

Appendix B, on page 75, of this report provides an overview of each company representative's responses to these questions, organized in business category order.

In summary, the responses suggest the following:

Engineering & Environmental Consulting

- Ordinarily required education consists primarily of a BS in Civil, Environmental, Chemical Engineering, Geology, or other technical disciplines. (Masters Level may be preferred).
- On-the-Job training may include CAD training and Safety & Health training. OJT is ordinarily dictated by assignments and the employee's past experience.
- Beneficial training from external resources would include Project Management, Business Processes, Mapping (ARC view), Auto CAD, Business Analysis and Problems Solving, Budgeting and Accounting.

Manufacturing/Repair/Construction

- For Engineering positions, ordinarily required education includes a BS in Mechanical, Chemical or Software Engineering. (Masters Level may be preferred). For other technical positions, some college is preferred, but is not necessarily required.
- On-the-job training typically includes Safety & Health. Otherwise, OJT is ordinarily dictated by assignments and the employee's past experience.
- Beneficial training from external resources would include Leadership, Construction Technology courses, Six Sigma, Forestry courses and soft skills relating to Team Building.

Point of Interest:

What technical training courses or programs would be most beneficial for employees at your company?

IT Systems /Software Development

- Ordinarily required education consists primarily of a BS in Computer Science or Engineering, Systems Administration, Chemical Engineering or Chemistry. (Masters Level may be preferred). Certificates in fields of specialties (i.e., Microsoft, Cisco, CompT) are beneficial.
- On-the-job training consists of hands-on training and working with specialty software.
- Beneficial training from external resources would include Excel, Advanced Data Management, Access, and Leadership.

Scientific-Technological Research/Analytics

- Ordinarily required education consists primarily of a BS in Mechanical or Software Engineering, Materials Science and Bio-Science. (Ph.D. may be required for Lead Researchers.)
- On-the-job training is ordinarily dictated by assignments and the employee's past experience.
- Beneficial training from external resources would include Non-Destructive Testing and Evaluation, theoretical Sr. Design courses, Product Commercialization and Government Contracting.

Graphic Design (Web/Print)

- Ordinarily required education consists of some college or computer proficiency, with possibly exposure to Photo Shop. Graphic Arts degrees are not necessarily sought.
- On-the-job training includes Photoshop, Adobe, Illustrator, pre-press work and training ordinarily dictated by assignments and the employee's past experience.
- Beneficial training from external resources would include extended courses in Adobe and Microsoft, Problem Analysis and Solving. There was a suggestion to set up courses that help local business research issues and then implement decisions based on research findings (i.e., EDI).

Natural Resources/Conservation

- Ordinarily required education consists of preferably MS degree in Biology, or Wild Life Management or related fields.
- On-the-job training includes statistical or GIS software or related software. Also, may train in government regulations or legislation.
- Beneficial training from external resources includes Endangered Species courses. Otherwise, School of Environment and Natural Resources prepares students well for careers in this field.

Educational or Tuition Assistance –

Survey participants for seventeen, (57%), of the thirty surveyed technology companies indicated that they provide technical employees with educational assistance, although six of the thirty companies do not have a formal policy. Representatives for four of the thirteen companies that do not provide educational or tuition assistance said they have never had a request for assistance. One said his company might provide assistance if someone asked for it and the course was considered mutually beneficial.

In the companies that provide educational assistance, all require that the request be approved by the owner, CEO, or top facility manager and are reviewed on a case by case basis. Similarly, in all but one case, the course or degree must relate to the employee's job or field of work, must build employee competence, or must be consistent with company objectives. The exception is a company that allows each employee to take one UW course of their own choice each semester without tuition expense.

Some companies are fairly lenient in their approach to educational assistance. One company permits company time off when course schedules conflict with work time.

Qualifying conditions are specified in a few companies. For example, one company restricts the courses that may be eligible for assistance to 3 course hours per semester, with the course scheduled off company time. The student must receive at least a grade of B for reimbursement eligibility. In another

company, reimbursement is limited to $500 per semester. A third company does not provide assistance for Masters Level courses. Two surveyed companies indicated that they try to get reimbursement for requested coursework through Workforce Service Training Grants, before approving educational assistance.

Employee Turnover Comparisons –

Most employers don't realize the real cost of employee turnover. Consider costs due to:

- the employee's leaving,
- recruitment costs,
- new hire costs,
- training and orientation cost,
- lost productivity for the employee and co-workers,
- the impact on sales generation.

Based on the level of the departing employee's responsibility, these turnover cost calculations can easily reach 150% of the employee's annual compensation. For managerial and sales personnel, turnover costs may likely reach 200% to 250%, if not higher.

Survey participants were asked to contrast their company's employee turnover with other companies in their industry. Table 12 provides responses to this inquiry by business category and indicates that about three out of four surveyed technology companies consider their employee turnover to be the same or lower than turnover for other companies in their industries.

Table 12 – Perceived Turnover by Business Category

Type of Business	Higher Than Industry	Same As Industry	Lower Than Industry	Unknown
Engineering & Environmental Consulting		4	4	
Manufacturing/Repair/ Construction	1	4		1
IT Systems/Software Development		2	2	1
Scientific-Technological Research/Analytics			2	2
Graphic Design (Web/Print)	2	1	1	
Natural Resources/ Conservation		1	1	1
Total	**3**	**12**	**10**	**5**
Percent	**10%**	**40%**	**33%**	**17%**

Point of Interest:

Turnover cost calculations can easily reach 150% of the employee's annual compensation.

One survey participant associated with the IT Systems/Software Development business category suggested his company was experiencing approximately a 20% turnover rate, which was about the same as industry turnover.

Competitive Compensation –

To effectively attract and retain employees, companies must be both willing and able to pay employees competitively with other employers in the employee's relevant labor market and in the industry in which the employer competes. Competitive compensation does not necessarily mean paying as well or better than other competitive entities. Business conditions should certainly enter the picture when developing compensation philosophies, policies and practices.

Survey participants were asked to contrast their company's compensation structures with structures for other comparable local business and with companies in their respective industries. Generally, participants considered their structures more competitive with local business than with other companies in their industry. Seventy-three percent of the survey participants rated their company's structures as "same or greater" than comparable local business, and 60% rated their company's structures as "same or greater" than companies in their industry. A matrix of responses is provided in Table 13, below.

Table 13 – Compensation Structure Comparison

Compensation	Local Business	Industry
Greater Than	43%	17%
Same As	30%	43%
Less Than	23%	37%
Don't Know	3%	3%

When asked whether their company had access to current wage and salary survey data, only about 25% of the companies responded affirmatively. The following comments were noted:

- HR has access to salary surveys.
- HR uses published survey data.
- Sometimes we get state surveys to run compensation comparisons.
- The corporation uses Radford Compensation Survey.
- We don't have survey data, but we stay tuned to what the Forest Service pays for similar work.
- The company owner has a good feel for competitive salary offered by UW.
- We use Computer World National Survey and Mountain States Information Technology Survey.
- We use the Department of Labor surveys.

Area Compensation Rates –

Survey participants were asked to provide average pay rates for an exempt Engineer, or the closest equivalent position they had to a generic skilled Engineer. Software Developers and Graphic Designers were considered equivalent positions with the level of skill being targeted.

Secondly, participants were asked to provide average pay rates for a non-exempt Technician; typically someone with an equivalent of a 2 year technical degree. Jobs that might fit the targeted Technician position would include an intermediate level Lab Tech, Research Tech, or Computer Tech.

Only 50% of the surveyed companies were willing or able to provide salary data as requested. Many of the companies providing salary data indicated their data was on the low side, because relevant employees were generally lesser experienced employees.

The technology companies providing salary data had a mean average of 17.7 employees, a median of 16 employees and a range of 2 to 76 employees.

In essence, confidence in the following survey data is relatively weak, primarily due to ambiguity in the instructions provided survey participants and because of reluctance or inability of many survey participants to provide salary data. Thus, our survey responses may not be highly representative of all technology companies in the Laramie area.

Regardless, Table 14 provides a rough approximation of comparative area pay rates for the Engineer and the Technician position, based on participant responses.

Table 14 – Area Compensation Rates for Engineer and Technician

	Mean Pay	Estimated Entry Pay
Engineer	$58k to $61k / year	$42k to $47k / year
Technician	$38.5k to $41.5k / year	$28k to $29k / year

Earnings comparisons were made for several occupations with *September 2011 Occupations, Earnings and Wages* data, which was prepared for the Central-Southeastern Region of Wyoming, and published by the Wyoming Department of Workforce Services Research and Planning. That comparative data, presented in ($000) is provided in Table 15.

Table 15 – September 2011 Salary Survey Data

Occupation	Est. EEs	Mean Wage	10%ile	25%ile	Median Wage	75%ile
Civil Engineer	120	68.3	50.7	55.7	64.0	76.2
Mechanical Engineer	40	70.5	43.6	50.8	67.4	89.8
Engineer – Others	20	67.2	41.9	49.0	70.4	85.6
Systems Analyst	60	74.5	42.1	48.3	59.9	77.9
Software Engineer	20	68.5	40.9	52.0	62.7	86.5
Engineering Tech	20	51.9	28.6	43.9	53.3	63.0
Drafter	40	36.5	24.6	27.1	34.3	45.0
Computer Sup Spec	120	46.9	28.7	36.7	47.0	57.0

The shaded data in the chart above represent "exempt" occupations. The data that is not shaded represent occupations that are traditionally considered "non-exempt" by Fair Labor Standards guidelines.

Healthcare Considerations -

The SNAPIT Technology Workforce Survey did not specifically ask technology companies questions about healthcare coverage or issues. During survey interviews, however, the healthcare and premium cost issue was raised on numerous occasions. The following are examples of healthcare-related problems certain surveyed companies have encountered.

> **Company #1** – Cost of healthcare is our biggest challenge. *The company pays the full premium for employees and dependents.* In an attempt to lower premiums, if an employee's spouse is employed, the company will pay that employee a higher salary if he/she decides to take the spouse's coverage.
>
> **Company #2** – *Company pays the premium for the employee. The employee pays for dependents coverage.* The company is struggling with employee payments and has cautioned employees that it doesn't know how long it can continue the payments its making. The employees may have to make more contributions. Healthcare is an expense that affects their compensation.
>
> **Company # 3** - Company had an employment offer rejected by a candidate because the cost of health insurance was too high. *The employee pays a portion of the Single coverage premium and 100% of the Family coverage premium.*
>
> **Company # 4** - Candidate took a better job offer with another company because healthcare costs were lower. *The employee pays 50% of the premium cost for both Single and Family coverage.*
>
> ***Company #5*** - *Company provides no coverage.* Particularly for small companies, it is difficult to attract or retain employees unless you offer health insurance. The cost of healthcare is just too prohibitive.
>
> **Companies #6 – #9)** - In addition, four other technology companies indicated that non-competitive health insurance coverage was a cause of employee turnover in their companies.

Thus, 30% of our surveyed technology companies have referred to healthcare coverage and cost issues as a source of workforce problems for them. Total employment in these companies has a mean average of 11.25 employees, a median of 6 employees and a range from 2 to 30 employees.

Reasons for Turnover –

Our survey participants were provided with a listing of reasons that may contribute to employee turnover. They were asked to identify relevant reasons why employees terminated employment with their respective companies. They also were given an opportunity to specify other reasons that were not included on the listing. Table 16 identifies the frequency of responses received from survey questions.

Table 16 – Reasons for Turnover

Perceived Reasons Employees Terminated	Frequency
• Employee skills and interests do not match job requirements (Poor job fit)	15
• Employee disciplinary or attitude problems	11
• Factors outside of work (i.e., spouse difficulty adapting to area)	11
• Compensation is not competitive with comparable industries	8
• Employees feel there are insufficient opportunities to advance	8
• The economy – Layoffs required or anticipated	8
• Lack of commitment to company or its leadership	6
• The work environment is not suitable to employees	6
• Employees have unrealistic expectations	6
• Employee benefits (i.e., Health Insurance, retirement plan) are not competitive	5
• Employees do not understand how the business is doing	4
• Work location	4
• Employees perceive economic difficulty	3
• Insufficient recognition and participation in decisions that affect employees	3
• Other – Major project/assignment was completed – employee was released	2
• Other – Conflicts with work schedule (school or personal life)	2
• Employees do not understand what is expected of them	1
• There are inadequate training and personal development opportunities	1
• Other – Personality conflicts	1
• Other – Relocation	1
• Other – Communications problems with their boss	1
• Other – Company offered employee a deal to leave voluntary	1
• Company procedures are misunderstood or inconsistently applied	0
• Employees do not receive regular, formal performance appraisals	0

There are often disconnects between management perceived (or even employee-stated) reasons why employees leave their jobs and the root causes of turnover. Those who have screened numerous employment applications in their careers may have noted an extraordinarily high frequency of the phrases "left for more money" or "left for advancement opportunities" as reasons why applicants leave previous employers.

Numerous studies into the issue of why employees leave their employers suggest that the major reasons for turnover relate to the way employees feel they are being treated – primarily from immediate supervision or management. There is an aphorism that states, "People leave people, not their jobs." Both careful selection and continuing attention to assure there is a "good fit" between company and employee needs have significant impact on retention efforts and turnover costs. When an imbalance occurs, resentments result. In addition, during the selection process and performance reviews, managers need to remind themselves that not all engineers, for example, are motivated by the same work environment, work challenges or management style.

MUNICIPAL & COMMUNITY SERVICES

As is also the case with Laramie's economic development, the growth and vitality of its technology sector is substantially depended upon infrastructure and services afforded through municipal and community resources. This section summarizes assessments of our surveyed company executives relating to the adequacy of municipal and community services; Laramie's strengths and weaknesses as a place to do business; and barriers to growth in the Laramie area.

Table 17 – Municipal and Community Services Ratings

1 = Excellent; 2 = Good; 3 = Average; 4 = Fair; 5 = Poor

Municipal/Community Services	Ave Rating	Rating					Tot # Ratings
		1	*2*	*3*	*4*	*5*	
Access to Highway/Roadway	1.38	19	9	1			29
Water & Sewerage Supply	1.38	14	6	1			21
University	1.46	17	7	1	1		26
Fire Protection	1.53	9	7	1			17
Economic Development Corporation	1.57	12	6	3			21
Police Protection	1.57	11	8	2			21
Tech/Community College	1.58	12	4	2	1		19
Schools (K-12)	1.67	12	5	3	1		21
Telephone	1.67	10	8	3			21
Paramedic/Emergency Service	1.68	9	7	3			19
Traffic Control	1.87	7	4	3	1		15
Electrical Supply	1.96	10	7	3	3		23
Healthcare Services (Hospital)	2.04	7	9	6	1		23
Internet Access	2.07	12	7	4	5		28
Workforce Services	2.18	2	10	5			17
Chamber of Commerce	2.26	5	5	8	1		19
Availability of Road Transport Service	2.33	1	6	5			12
Child Care Services	2.41	3	6	7		1	17
Disposal of Waste Material	2.43		10	2	2		14
Availability of Warehousing	2.50	1		3			4
Local Streets & Roads	2.62	7	6	7	2	4	26
Recycling	2.63	7	5	5	4	3	24
Inspections (e.g., licensing)	2.67	1	3	3	2		9
Availability of Appropriately Zoned Land	2.73	2	4	2	1	2	11
Zoning & Community Planning	2.92	1	5	2	2	2	12
Development Approval Process	3.00	1	1	3	3		8
Access to Suppliers	3.09	2	5	7	7	2	23
Access to Markets	3.13	3	7	4	4	6	24
Access to Airport Facilities	3.17	1	4	8	10		23
Availability of Rail Transport	3.80	1	1	2	1	5	10
TOTAL	**2.16**	**199**	**172**	**109**	**52**	**25**	**557**

Table 17, above, identifies thirty municipal and community infrastructure and service issues. Survey participants were asked to rate each of these issues from (1) Excellent to (5) Poor. These participants were also asked to not rate any issue, if they didn't have an opinion on the item or if they didn't feel the issue sufficiently applied to their operations.

For illustration purposes, the "Average Rating" for each **Municipal/Community Services** item listed, was calculated, using "Access to Highway/Roadway" as an example:

# of Ratings/Rating Value		Rating Value		Product
Total (1) ratings = 19	X	1	=	19
Total (2) ratings = 9	X	2	=	18
Total (3) ratings = 1	X	3	=	3
Tot # Ratings 29			**Sum of Products**	**40**

Average Rating = 40/29 = 1.38

Additionally, survey participants were asked to identify any service they felt should be rated, but was not included with the listing of 30 Municipal/Community Services. Participants added a total of six services. Those services and their corresponding ratings are:

Service	Rating
• UW Career Services	1
• Hazardous Material/Substance Shipping	5
• Engineering Modeling and Simulation	5
• Resources to technology transfer (Market & Economic Analysis)	5
• Investment in community/culture resources	5
• Government Contract Administration – Legal & Accounting resources	5

Comments/Suggestions for Improving Infrastructure and Services –

Following their rating of the infrastructure and service issues presented in Table 17, our survey participants were asked for suggestions regarding how to improve upon any of the rated service issues.

The following summarizes responses received for a variety of the listed issues. There were twenty-two (73%) survey participants who made at least one suggestion or comment, as follows:

Economic Development

- I was bummed about Verizon's decision, but our infrastructure needs has a lot to do with population growth. I'm not sure I want to see the population grow to 100,000. That's not the size of a community I prefer to live in. I wouldn't mind staying in the 30,000 to 40,000 zone.
- Grow or bring in more technology companies, so we have a larger pool of professionals from which to draw people. Tech companies need to be cautious regarding what might be considered "pirating" employees from other companies.
- Recruit another company like Verizon.

Telephone/Fiber Optics

- Fiber should be brought to our business premises. This would be attractive to potential businesses coming into Laramie. I'm currently paying $650 per month for a T-1 line, which is about 3 times what I should be paying.

Traffic Control

- The Intersection of 4th and Grand seems to have more than its share of fender benders.

Electrical Supply

- We have experienced both power and internet interruptions that affect our operation.
- Power reliability could be better. We experienced a number of interruptions and had to install back-up power sources.
- The electrical utility is working within the parameters the State set for them for supplying power. There is more variation permitted than would be the case if we were located closer to Denver. The greater variation in supply affects operations. This company thinks it is probably not cost effective for the power company to make a change.
- We have sufficient water to do PV (Photovoltaic) manufacturing -- using sun for electrical power generation.

Internet Access

- We need better internet access. Uploading is horrendously bad. Laramie has very slow service.
- Internet provider should provide faster service.
- Internet access is poor. It may improve if we bring in another company like Verizon.

Workforce Services

- We don't use Workforce Services too much – primarily only for clerical people. We just never had much luck with their ability to respond quickly to openings.

Chamber of Commerce

- Chamber Master (website) was expensive to create, impeded on local business (no bid) and was developed by an outside firm.

Child Care Services

- Quality is good, but access is difficult.
- The community needs infant care services.

Warehousing

- Without the Rocky Mountain Forest Products Building we would be concerned about storage.

Local Streets & Roads

- Repair and improve them.

Recycling

- We now have recycling for residences, but we also need it for office buildings.

Regional Airport

- Develop better Regional Airport schedules. When you come in from the East Coast, you can't make the latest flight from Denver to Laramie.
- Regional Airport flight schedules impact usage.
- Regional Airport schedules between Denver and Laramie don't make it feasible to use the Regional Airport in most cases.
- Laramie Airport pricing and schedules is a problem. If Cheyenne didn't offer more alternatives, we would use Laramie more.
- Access is poor and a deterrent to large meetings in Laramie.

Government Resources

- We need to better prioritize resources so as to improve Public Works, Community Development & Engineering. Engineering is overstaffed. We need to privatize most City services.
- The City staff projects a poor vision and a lack of support to business (example, Signage regulations.). We need to consider going to a 3 Ward system.
- Engineering is under Parks and Recreation, but should be a separate department.
- Our State Legislature doesn't recognize how poor our community is. We need a payment in lieu of taxes system. (Our government is damaging our community by not providing sufficient money. The University is a drain on services the city is providing its citizens.)

Community Strengths as a Place for Business –

Survey participants were asked to identify Laramie's strengths as a place to do business. Each survey participant identified one or more strength. The following delineates those responses. The "Quality of Life" and the University of Wyoming were recurring themes.

Quality of Life

- Quality of life is a great strength.
- A cute, quaint, clean and safe city with all the creature comforts. Adequate places to eat and sleep.
- The lifestyles that people can live.
- Wyoming and Laramie are great places to raise a family.
- Recreational activities.
- Small town atmosphere.
- Low crime. No apparent gang activity.
- Family-friendly area.
- The Rec Center is a huge strength.
- The Rec Center is a big plus for attracting and recruiting people.
- The quality of life is a big draw for people. The ski area is getting rebuilt and will be a big asset to the community.
- The community itself. This is a great place to live and raise kids.
- Small town atmosphere with networking.

- Life is non-intrusive. All the advantages of living in a small community. Good schools.
- The culture is great.
- The personal quality of life is positive. Good schools. Short commutes to work.
- Diversity in its Socio-Political outlook. The Recreation Center. Informal lifestyle and good schools.
- A clean and safe city.
- Our hospital is a positive.

The University of Wyoming

- The University creates a great culture for professional and technical people.
- The University is a huge strength. (4 responses)
- The University is a big pull on the availability of talent and resources.
- University and its sports.
- The University, particularly the Business College.
- Having the University in the community. This helps with employment, as well.
- A big strength is the University – we have a large pool of better educated people.
- The University creates lots of technical jobs.
- The University, because it is a great resource. It is the reason we have the Geological Survey.
- The University is a big resource for us.
- There has been a lot of growth in the restaurant and lodging business tied to the University.

Residents/People

- Residents take pride in their community.
- The people. I have great clients.
- People care about business. They want to see you succeed.
- Generally, word of mouth marketing is good.
- Great employees.
- The work ethic of people in the community. Hard to beat the staff we have here.

Cost of Business/ Available Services

- Taxes are reasonable in WY.
- Low cost of living and cost of doing business.
- Excellent tax base.
- Commercial property is reasonably priced.
- Wages are reasonable.
- High speed Internet and low operating cost.
- Great access to professional services (i.e., LEDC, WBC, e-2-e).
- Low taxes.
- The cost-of-living is low. Low energy cost – low taxes.

Location

- Close to major metro areas without having to live there.
- Our location is good for business. We travel to clients from Denver to western WY. We're on the way between Cheyenne and Denver. The Interstate is handy.

- Access to highway transportation, except with I-80 closures.
- Open spaces.

State of Wyoming

- The State of Wyoming is easy to deal with in comparison to other states like California or even Utah with regard to regulations, people, employment and the law.
- Workforce Services Training grants and grants to attend trade shows.

Community Weaknesses as a Place for Business –

Conversely, survey participants were asked to identify Laramie's weaknesses as a place to do business. Twenty-six (87%) survey participants identified at least one weakness. One of the participants who did not identify a weakness said, "Disadvantages that people tend to talk about are just cosmetic. People do have to have a reason to want to come to Laramie. Those who don't have a reason will stay where they are or possibly go elsewhere."

The remaining survey participants provided the following responses:

Competition for Local Work

- Because Laramie has a great quality of life, competition for local work is intense. There is not a huge market for Environmental and Engineering consulting in the local area, yet we have a considerable amount of competition.
- The number of competitors for our business. (Environmental and Engineering)

Insufficient Investor Support

- There is not an investor network that is actively pursuing cutting edge industries in the area.
- We need more investor money for new start-ups and fresh ideas in the technology business sector.

Climate

- Our climate inhibits growth. We need to find a niche or some major technical advancement that will attract business to the area despite the unfavorable weather conditions.
- We rely on road transportation for shipping in and out of Laramie. Sometimes we ship an order for less than 2 day delivery. When I-80 closes due to weather, we hear about late shipments from our customers.
- Possibly our weather is a weakness.
- Sometimes it's hard to get in and out of town because of the weather.
- Closing the highways in winter is a problem. The Rail Spur is a wonderful idea. Right now we have to pick up materials that are shipped to Denver.
- Our climate.
- Our weather.

Location

- We don't have any customers in Wyoming, and only 4 in our time zone.
- We don't really have a market here for the services we provide. We're in Laramie, because that's where our owners want to be.
- The distance between Laramie and Denver Airport is just too far. We have employees and trainees who fly 2-3 times per month.
- We're somewhat isolated.
- Distance to an international airport.
- It's difficult for people (customers, suppliers, executives from other locations or companies) to get to Laramie in terms of time and money.

Laramie is Too Small

- Laramie seems to be too small to find certain marketing services and expertise.
- Our size is a weakness. We need more commercial development.
- The small population presents problems. If a company needs an experienced skilled workforce, it has to bring the talent in form outside.
- Our small population is a weakness.
- There is no critical mass (major forces or infrastructure present to accelerate business growth.)
- Small size in relation to the services we offer, particularly engineering service.
- Low population.

Finding Experienced Professional and Technical Employees

- There are just an insufficient number of experienced professional and technical employees available in the area.

Reasonable Cost and Availability of Healthcare Insurance

- Our ability to get health insurance, which is actually a national issue.

Child Care

- We lost an Office Manager due to the lack of available childcare services.

University of Wyoming

- The University, because it just sucks all the air out of the town – it is such a dominant entity.
- The University doesn't give technical students enough background in the way Capitalism works. Consequently, people come out of the University with more of an entitlement orientation and way of thinking. This is the product of the way professors teach.
- The University of Wyoming is a good school with a good teaching staff, but among those who teach, there seems to be many who took the job at UW as their second choice. Because they are not living in their preferred location, they seem to perceive their surroundings negatively.

City Government

- There's a lack of planning. The City Council seems to have personal agendas that get in the way of progress.
- Lack of municipal and state support.
- The City Council. There seems to be a lot of self-interest and self-serving going on. For example, we should have had a Clark Street bridge ten years ago, but you don't get progress with a good old boy system.

Website Maintenance

- People don't commit to keeping a successful website. They seem to know what they want from a website, but don't want to invest the resources into it to keep it successful.

Barriers to Growth in Community –

Survey participants were asked to identify barriers to growth in the Laramie community that affect their existing business. To a certain extent, there is correspondence between this survey question and the question regarding weaknesses in the previous section.

Twenty-three (77%) survey participants identified at least one barrier to growth. The remaining seven participants either indicated they have not hit any barriers to growth or they did not respond to the question.

A listing of barriers garnered from survey participant responses follow:

Competition

- There are barriers based on my field of work. The number of engineering firms in this area presents a competitive problem. The WY Water Development Commission normally requires engineers to perform work for them – I'm not an engineer. (Natural Resources/Conservation)

Investment Support

- We lack a strong investment group. I don't think the banking industry truly participates to the extent it should.
- We need local investment money.

Difficulties Recruiting - Climate

- Within the next 2 years, we'll probably have to do more hiring from outside of Laramie, which will make things more difficult.
- From a recruiting standpoint, our weather and climate presents a difficulty in attracting spouses, particularly wives and families. Right now, we don't have a sufficient talent base in the community. As a result, business suffers.
- Our climate may attract some businesses, but it may also negatively affect decisions on where people want to live.
- Our weather is not attractive to many people. People tend to view Laramie as the end of the earth, due to the pass being closed in winter.

Location

- Poor access to airport facilities, markets and suppliers.
- Laramie is not an easy place to get to if you're flying through Denver and want to stop in to look at a potential customer or visit a business for some other purpose. You have to make a concerted effort to go out of your way to get here.

Small Population

- There are few spousal employment opportunities because of our small population.
- The trailing spouse issue is ever present. It is difficult to find quality work for trailing spouses.
- Low population and low level of manufacturing activity affects the area's infrastructure and impacts industry growth.
- We need to grow the size of the city.

Housing

- We need affordable, quality housing and we need to reach comparability with Fort Collins.

Shipping Issues

- Laramie is classified as a rural zone by UPS and FedEx, while Cheyenne isn't. Consequently, we pay a surcharge on shipments. This places Laramie business that does a lot of shipping with these handlers at a disadvantage. FedEx uses the excuse that it has no office in Laramie. UPS explains the surcharge "is just the way it is."

Unflattering Image

- The Brownfield area could be loaded with wind power and Photovoltaic (solar) power. Albany County needs a Building Code. It looks like hell when you're driving into the city.
- The Laramie community continues to be plagued by association with the death of Matthew Shepard.

Resources in the County

- When you compare Laramie to other areas of Wyoming, we don't have the mineral resources that have driven population growth elsewhere. We basically have technically-based business that must be our driver.
- The technology sector essentially doesn't exist elsewhere in WY.
- There are cultural challenges. Agriculture and ranching do not want to see growth. They have a "Keep it as it is" mentality.

City Government/Infrastructure

- Actions and sentiments of certain City Council members tend to be anti-business.
- The lack of infrastructure is due to a failure to grow, which is due to the lack of infrastructure. It's a Catch 22.
- We are not forward thinking. Our infrastructure sewer and water systems are atrocious. We've deferred maintenance on them too long.
- City Council – They view economic development the same way it was viewed 25 years ago.

Economic/Commercial Growth Environment

- I sure would have liked to see Verizon come to town. I don't feel that I know enough about the reasons why we are having difficulty growing our commercial business. I would just like to see the outcomes change.
- There's not a lot of reasonable retail space available in Laramie.
- To the extent that the entrepreneur is enabled, you will have economic growth. We need to make Laramie a place where entrepreneurs feel they can be successful. We are doing this to a certain extent. I have not felt restricted from doing what I want to do.
- At this time, the biggest barrier to growth is the economy.
- Wyoming and Laramie should focus more on helping entrepreneurs and small business, instead of bringing in big operations like Verizon or other data centers. I realize we need a balance, but I don't want Laramie to become another Fort Collins.
- Laramie is a technology-based community and is pretty much on the right track.
- There are stimulus programs that focus on "for profit" companies. Non-profit companies can't take advantage of them.

Wyoming Business Council

- The WBC rarely gives hands-on assistance particularly with marketing issues. I should be able to get help in writing press releases, getting them to newsprint. Manufacturing Works promised they would enable us to partner with a company in Ohio on certain materials issues. That never happened.
- The WBC organizations need to concentrate on "hands-on" assistance. For example, like it did by getting a grant writer that identified the fact that companies were doing a lousy job at writing grants. By directly helping companies write grants, there was an improvement in the number of grants awarded.

FINDINGS & CONCLUSIONS

The one common workforce issue that impacts all Laramie technology sector employers is difficulty in recruiting qualified and experienced technical and professional employees. Even when our surveyed technology companies did not identify recruiting as their primary workforce difficulty, the issues they did identify either contributed to, or resulted from recruitment difficulties.

The following are significant findings gleaned from our SNAPIT Technology Workforce Survey.

Local Recruiting -

Most technology companies have a stronger than normally expected preference for recruiting locally. Operating costs, company competitiveness factors and proximity to helpful resources are important considerations for most Laramie technology companies surveyed.

Although each Laramie technology company has its own unique characteristics, the following considerations are influential in analyzing the Laramie technology sector and its propensity for local recruitment:

Size and Phase of Market Development

Ninety percent of our surveyed technology companies employ 20 or less full-time people. The average full-time staff in these ninety percent of surveyed companies is 8.5 employees.

Respondents in our surveyed companies tend to associate the life cycle stage of their primary product or service with the life cycle stage of the organization as a whole. Approximately 25% of the surveyed respondents view their companies to be in the "emerging" stage of its market development. Slightly more than 50% consider their companies to be in the "growing" stage of development – (mostly in the early growing phase).

Both these characteristics, company size and phase of market development, suggest a greater degree of fragility than might be the case with larger, more stable or mature competitors. It is also notable that Laramie technology companies are keenly conscious of their cost of doing business, and the implications that cost has on their operational stability and sustainability.

In a number of cases, smaller technology companies with underdeveloped markets (or project-reliant businesses) operate with non-traditional work schedules or otherwise experience large fluctuations in their work schedules. In many cases, the aberrant work schedules inhibit companies from establishing workforce stability or creating business continuity. In effect, these schedules tend to discourage qualified and experienced employment candidates from pursuing otherwise agreeable opportunities.

Visibility and Networking in a Highly Educated Market

To help gauge potential visibility within the Laramie labor market, and to gain further insight into the general level of educated talent that exists in this same market, consider the following:

- According to the Wyoming Department of Workforce Services, during 2011 Albany County had a labor force approximating 19,441 workers. The City of Laramie's labor force represents approximately 84% of the County data, or 16,350 workers.
- According to the 2010 U.S. Census Bureau, 47.4 % of the Albany County population 25 years of age and over have educationally attained a Bachelor's degree or higher.
- Dr. William Gern, University of Wyoming Vice President of Research and Economic Development, stated that currently the number of technology-based companies in the Laramie technology sector has grown to approximately 65 businesses.
- The technology sector surrounding Laramie is enriched by centers of knowledge such as the University of Wyoming, Laramie County Community College, and WyoTech. There is a fairly high degree of networking and synergy that exists between Laramie's business and academic communities.
- Forty percent of the technology companies surveyed by SNAPIT began operations during or after 2006. About half of those companies, benefited from association with the Wyoming Technology Business Center (WTBC), which became operational in 2006.
- The Wyoming Technology Business Center (WTBC) provides business development assistance to early stage, high-growth technology based businesses. It also provides the client companies of its incubator with business counseling and executive coaching services. Statewide networking opportunities are also available through social and educational networks such as e-2-e.
- UW, LCCC, and WyoTech each have career or vocational placement services available to their students, including referral services for employers. Many local businesses work independently with these services. Opportunities also exist for employers to network on an informal basis with administrative personnel or faculty members of their choosing.

Based on the foregoing, it is easy to speculate that even small technology companies have the potential to attain high visibility and develop a degree of notoriety within the academic, business and general local population.

Businesses can gain familiarity with students, faculty, other employers and other relevant resources within the region. Conversely, there is a high likelihood that employers either know, or know someone who knows, local employment candidates. This can play to the employer's advantage, for example, when reference checking candidates or obtaining assistance with candidate assessment.

To the extent they are considered advantageous, both formal and informal networking resources are available and may be cultivated to the benefit of the local employer. Voluntary use of these networks can benefit employers in a range of activities from referring employment candidates, to researching technical or operational problems for possible solutions.

Competitive Compensation & Benefits

Most Laramie technology company managements tend to feel their operating costs are lower and that workforce costs are more competitive in Laramie, as compared to locations outside Laramie's workforce marketplace. A significant number of survey comments referred to Laramie's lower pay rates, reasonable taxes, low cost-of-living and low energy costs.

With specific regard to compensation and benefits, many of our surveyed technology companies perceive their compensation structures to be lower in the Laramie area than would be the case if they were located outside the local area. On the other hand, only 25% of surveyed technology companies indicate they have access to competitive compensation survey information. Many surveyed employers attribute lower Laramie compensation costs to the reasonable availability of interns, recent graduates and other entry level candidates in Laramie. In general, these employers view both the "quality and stability" of this "entry level" workforce as "above average."

Smaller technology companies generally feel they are disadvantaged in attempting to compete for more qualified and experienced technical employment candidates, when it comes to providing healthcare insurance. Problems associated with providing healthcare dissipate somewhat when recruiting from Laramie's relatively large student population, many of whom may have alternative healthcare options available to them.

It is generally felt among surveyed technology employers that when dependent healthcare is provided, premium cost-sharing designs seem to generally favor "Single" rather than "Family" coverage. It is suspected (but has not been confirmed) that this practice is more prevalent for smaller private industry employers, particularly those located in university towns like Laramie, than it is for employers with a broader national recruiting footprint.

Many survey respondents indicate that even when experience and qualifications are preferred, the ease, availability and lower cost associated with hiring interns or entry level candidates in Laramie is difficult to ignore in their employment decisions. This suggests that these employers may be willing to accept less than the best candidates available; a dubious practice that can have negative implications on both short and long-term "job fit." (Ref: Employment Processes – Poor Fit Issues, on page 55)

Adaptation to Climate
Laramie's weather is typically described as being cool and windy and is viewed as being an inhibitor to candidate relocation and retention.

By hiring local employment candidates, many surveyed companies feel they are hiring people who can fully appreciate, or have become satisfactorily acclimated to, the area's climate and weather conditions.

Other Significant Findings Related to Recruiting -
Despite the propensity for technology employers to recruit locally, there are other significant findings that relate to their difficulties in recruiting qualified and experienced technical and professional employees.

Supply and Demand
The supply and demand for technical and professional talent is an important factor that impacts the decision of where Laramie employers must recruit to maximize their chances of success.

Seventy percent of the surveyed technology employers indicate they recruit outside the Laramie labor market. Some do so infrequently, others typically recruit outside Laramie. Some recruit only regionally, while others recruit in specific geographic locations, based on where the talent most likely resides.

Employers capitulate to recruiting outside the Laramie area for either of two reasons:

1. The company is in need of unique or special talent or competencies, which are not to be found in the Laramie area, or
2. The company is recruiting "difficult to fill" positions where the demand for qualified people far exceeds the supply, (i.e., Civil Engineers with 3-5 years mandatory experience). In most cases, these are jobs that are difficult to recruit everywhere in the country.

Employment Processes – Poor Fit Issues
There are a substantial number of surveyed technology companies using employment processes that are inadequate or ineffective for sufficiently assessing required aptitudes, interests and attitudes affecting job fit. The impact of employment processing deficiencies becomes even more troublesome when performance management (coaching and performance appraisal) processes are not implemented or effectively employed as well.

In some of these cases, hiring decisions are heavily influenced by reliance on referrals or external resources, without sufficient validation.

Based on responses to our SNAPIT survey questions regarding employment turnover, it would not be unrealistic to conclude that more than 50% of past turnover could actually be attributed to "inadequate or ineffective hiring processes." Many times the term "poor fit" connotes problems with employment processes and practices, or failure to provide appropriate guidance and feedback through performance appraisals.

Hiring mistakes resulting from poor fit, poor performance, misconduct or misunderstanding can be quite harmful and costly for both the employer and employee. The employee may be responsible for circumstances that ultimately lead to employment termination or to behavior that truly indicates a "poor fit." However, it is the employer who remains responsible for communicating, assessing and

managing expectations and performance. This responsibility starts with the employment process. The sooner potential "poor fit" conduct and performance is detected, the less cost and harm that should result.

Despite the foregoing, there are several technology companies in Laramie that have highly developed and well executed employment processes (as well as performance management processes), which appear to be operating very effectively.

Planning and Training Functions

With a few major exceptions, our surveyed technology employers do not appear to place a great amount of emphasis on planning, employee training or developmental needs. WTBC clients receive counseling and mentoring during their tenure. Otherwise, however, it is unknown whether many executive managers or entrepreneurs recognize the need or dedicate much time to their own self-development.

Forty percent of our surveyed technology companies indicate they do not operate under a current strategic plan. Only 17% of those companies that do operate under a current strategic plan say that the plan is reviewed and updated annually.

Staff planning, particularly with regard to hiring interns, varies considerably from company to company. Some companies budget the use of interns based on actual training needs of the intern and the availability of mentors or trainers. Other companies use interns as "temporary employees" to help ramp up operations or to buffer business cycles.

Still other companies use interns or entry level employees as less experienced, temporary substitutes for regular full-time employees. In these situations, the intern is normally given a number of "learning opportunities," in order to determine whether he or she has the ability to assume the higher level duties and, therefore, should be offered regular full-time work.

As a general rule, on-the-job training is limited to legally required (i.e., OSHA and Hazardous Materials training) or assignment-driven instruction (i.e., CAD training, specialized software training). In several companies, new employees are assigned to mentors or project managers, thus receiving individualized attention to training needs.

There are times when additional training solutions are acknowledged which entail employees taking additional academic coursework. Slightly more than half of the surveyed technology companies have provided some form of educational assistance to certain employees. Requests for such assistance, however, are generally initiated by the employee as opposed to the employer.

When it comes to comparing the applicability of academic training to work Laramie technology companies perform, a few survey participants suggest deficiencies in vocational training curricula. Particular reference was made to construction trades, the printing trade and industrial skills training (i.e., equipment maintenance).

Most industries in the United States have drastically reduced their training budgets and resources over past years. In-house apprenticeships and the skilled craft training for existing employees have diminished in favor of recruiting experienced personnel, or expecting the academic community to fill training voids. For any number of reasons, including the relative importance placed on college degrees,

academic institutions do not appear to have allocated sufficient resources to trades or industrial crafts training.

Trailing Spouses and Significant Others
Companies looking for experienced technical and professional employees will increasingly be recruiting candidates with spouses, significant others and children. The opinions, perceptions, interests and needs of these significant others can be quite influential on the candidate's final decision to relocate.

Less than 30% of our surveyed technology companies do much to acquaint either the candidate, spouse or significant others who are unfamiliar with Laramie to the community. The companies that do take steps to familiarize decision makers with Laramie generally do a good job of not only touring the community but also introducing potential newcomers to other residents who have similar interests. The needs of a candidate's spouse, however, are generally not a consideration until after an employment offer has been made.

The term "Trailing Spouse" refers to an employed spouse who must normally find new employment upon relocation to the Laramie area. Most typically, recruiting companies offer to refer the trailing spouse's resume to other potentially interested Laramie employers. For the most part, however, the trailing spouse is primarily left to his or her own devices for finding and securing employment in the new community. Trailing spouses have generally faced difficulty in finding employment opportunities compatible with their previous career paths.

Findings Regarding Workforce Trends -
Overall, the assessment of anticipated workforce trending for technology companies in the Laramie technology sector has been very encouraging. This is particularly true considering the relatively sluggish economy experienced during the period in which assessments were acquired.

During the two year period prior to taking the SNAPIT Technology Workforce Survey, only 37% of our technology companies evaluated their employment levels to have risen. Comparatively, for the upcoming two year period, 73% of these same employers anticipated an increasing trend in their employment. A downward trend was anticipated by only one of the thirty surveyed employers.

- Surveyed technology companies indicated they expected to increase full and part-time employment by 15% during the 2 years ending approximately October 31, 2013.
- The fifty-two surveyed and targeted technology companies contacted by SNAPIT identified 146 specific positions they expected to open within two years following SNAPIT's inquiry (between late spring and early summer of 2011). Thirty-seven of those 146 positions were considered open at the time of inquiry.

Findings Regarding Municipal and Community Services -
The following Laramie organizational, infrastructure and community services have been rated by surveyed technology employers as being "above average" in performance:

- Organizations – University of Wyoming, LEDC, LCCC & WyoTech, Schools (K-12), Ivinson Memorial Hospital
- Infrastructure – Access to Highways/Roadways, Water & Sewerage Supply, Electrical Supply
- Community Services – Fire & Police Protection, Paramedic/Emergency Services, Telephone Services, Traffic Control, Internet Access

Based on the foregoing, Laramie has provided well for the foundational essentials needed to attract both business and employees to its community. The very lowest rated service among technology companies was "Availability of Rail Transport." This issue should be abated by the fall of 2012 with the operation of a newly constructed South Laramie Trans-Load Rail Spur to accommodate area materials and supply transit needs.

Laramie as "Place to Do Business" -

The following bullet points paraphrase statements expressed by survey participants regarding factors they consider Laramie's weaknesses as a place to do business:

- Intense competition within the area, particularly for Engineering and Environmental Consulting business.
- The need for more Capital Investment to fund new start-ups and entrepreneurial initiatives.
- Climate – sometimes making it difficult to get into and out of Laramie. Climate can also be off-putting when it comes to attracting particularly spouses of employment candidates.
- Location – its proximity to markets and international air transportation.
- Small Population – the need to grow in order to reach critical mass relating to infrastructure and workforce development. Small population can mean fewer opportunities for trailing spouses.
- Finding experienced Professional and Technical employees (focus of this study).
- Inability of small companies to obtain healthcare coverage at a reasonable cost (recognized as a national problem).
- Child Care – difficult access and lack of infant care.
- University of Wyoming – as a dominant entity in the area. UW tends to be the major decision criteria for most resources allocation decisions.
- City Government – lacks forward thinking and tends to appear anti-business at times. City Council's personal agendas can get in the way of progress.

Similarly, these survey participants identified the following weaknesses when addressing questions concerning barriers to growth in the Laramie community:

- Housing – the need for more affordable, quality housing.
- Shipping Issues – Laramie's "rural zone" designation by UPS and FedEx places companies that do a lot of shipping with these handlers at a disadvantage.
- Unflattering Images – Areas surrounding city entrances present eyesores. Laramie continues to be plagued by its association with the death of Matthew Shepard.
- Economy/Commercial and Retail – economy is a major factor. Laramie needs to focus on helping entrepreneurs and small business. There is not much in the way of reasonable retail space along major traffic corridors of Third Street and Grand Avenue.
- County Resources – Albany County is not a mineral-rich area, which has driven growth in other Wyoming Counties. Technology businesses must drive growth and diversification in this area.
- Wyoming Business Council – would like to see more "hands-on" assistance with marketing, grant writing and public relations.

Our surveyed participants offered the following considerations regarding Laramie's strengths as a place to do business:

- University of Wyoming – provides a great culture for professional and technical people. UW also provides business access to talent and expertise, sports, attracting jobs and people, and supporting business growth and development.

- Quality of Life – described as quaint, clean, safe, low-crime area, great place to raise children, great cultural and recreational environment, great schools and hospital, along with a non-intrusive life style.
- People – with a great work ethic, who take pride in the community and care about business.
- Location – close to major metropolitan areas, accommodating interstate highways and open spaces.
- Cost of Business and Availability of Services – reasonable taxes, wage levels, commercial property prices, low cost of living, high speed internet at low cost, low energy costs, great professional services (LEDC, WBC, WTBC's e-2-e).
- State of Wyoming – easy State in which to operate (regulations and laws). Workforce Service Training Grants and Trade Show Grants.

TECHNOLOGY WORKFORCE NEEDS & PATHWAYS TO SOLUTIONS

Based on the SNAPIT Technology Workforce Survey Findings and Conclusions presented in the previous section of this report, our SNAPIT Partnership has identified a number of technology workforce needs. It has also generated a number of ideas and suggestions, which for the most part should be looked upon as broadly defined solutions to those workforce needs. Although action is being taken to implement several of the suggested solutions, all will require further thought, refinement and much work.

In developing these solutions, SNAPIT's Board of Directors participated in a facilitated group meeting designed to foster consensus regarding major technology workforce issues and needs. Subsequently, the Board advanced various ideas and suggestions for solving prominent issues that surfaced. This meeting, which was conducted in late March 2012, was facilitated by Joe Coyne and Bobbe Fitzhugh of Community Builders, Inc., located in Douglas, Wyoming.

In early May 2012, a meeting was scheduled for participants in the SNAPIT Technology Workforce Survey. The purpose of this meeting was to provide these survey participants with feedback pertaining to the aggregated survey results and findings. In that meeting, validation was also sought and received with regard to Laramie's technology workforce needs and the pathways to solutions identified within the remainder of this section.

Need #1 - Market Laramie as a Technology Rich Entrepreneurial Region -

One of Laramie's greatest assets is its technology sector and the close association it enjoys with the many highly reputed academic resources available in the community. These assets are major attractors for entrepreneurs and technical employment candidates alike. Without a doubt, Laramie is an excellent location for them to build their businesses and careers.

Pathway to Solution

- **Work with other economic, governmental, academic and community service entities interested in changing or more accurately depicting Laramie's image (i.e., LEDC, Laramie Area Chamber of Commerce, UW, LCCC, City of Laramie, Albany County, Tourism Board, Main Street) to obtain their additional input, and to create consistent and uniform messages for marketing Laramie.**
- **Develop a unique "brand" or image that gives prominence to careers in technology and portrays Laramie's strong work ethics, values and/or academic linkages.**

- **Create common marketing materials, such as brochures, logos, advertising and promotional devices that can be used by technology businesses when recruiting, as well as in other initiatives designed to publicize the Laramie area.**

Need #2 - Develop, Refine, Expand and Organize Networks to Benefit the Technology Workforce -

The need for enhanced networking is quite apparent in several interdependent functions and processes impacting the employment of technology and professional employees. These functions and processes include issues relating to recruiting, technology career development, acclimating to the Laramie community and trailing spouse employment. For each existing, enhanced or newly created network developed, a community resource map should be created to ensure all relevant partners are included in the networking.

Recruiting: Presently, there is no known privately operated recruiting firm in the Laramie area. There are recruiting, referral and/or placement services currently operating at the University of Wyoming, the Albany County Campus of LCCC, WyoTech, the Wyoming Technology Business Center and the Wyoming Department of Workforce Services. Each service or function operates independently under its own processes and governance. Employers access these academic recruiting/referral networks as separate, disconnected transactions. Likewise, the recruiting/referral networks access employers independently, when their sources (such as alumni associations) refer candidates to them. It would appear that both Laramie's recruiting and referral of qualified and experienced candidates could be improved through more open or linked networking.

Pathway to Solution

- **Integrated currently independent networks to provide for more collaborative search and placement activities.**
- **This need requires additional research and attention.**

Technology Career Development: WTBC's e-2-e has proved to be extremely helpful in creating a forum for social, educational and developmental networking among entrepreneurs, business service providers and community support resources. There is a need, however, to cultivate networking along more specialized lines, focusing on technical people in similar industries, with similar backgrounds and interests. Such networking would not only provide opportunities for enhancing professionalism, technical knowledge, personal growth and development, but would also begin to create a local infrastructure that eventually accommodates career ladders between companies within the technology sector.

Pathway to Solution

- **Create networking opportunities along industry or technology lines for the purpose of:**
  1. **updating technical knowledge,**
  2. **creating opportunities for social and professional bonding,**
  3. **familiarizing industries with changes in laws and regulations, and**
  4. **raising awareness and enhancing career opportunities for local talent.**
- **Action Step: WTBC will be adapting its existing e-2-e networking program to include organized networking opportunities for the IT/Software Development industry cluster, and possibly the Engineering and Environmental cluster.**

Acclimation to the Community: Each technology company is currently left on its own to develop a program that helps relocating candidates and their families adapt to Laramie. Particularly in some of Laramie's smaller companies, the need to help relocating employees and

families adjust to their new surroundings might only occur very infrequently. Consequently, corresponding relocation activities may not be consistently implemented or attended to at all.

More seriously, new employees may be normally expected to adapt for themselves. Laramie needs a formal network that will promote the "positives" associated with living in in this area.

Pathway to Solution

- **Create a Newcomer Network. The purpose of this network would be to help relocating families acclimate to Laramie by providing tours of the city and surrounding areas, establishing a website that provides helpful information regarding community services and contacts, clubs, associations and activities available to the newcomer. Buddy systems could be established to help ensure that relocation and acclimation to Laramie is a pleasant, positive experience. This network would focus on interests and activities for relocating residents and employment candidates. It would be responsible for helping to make the relocation to Laramie smooth and comfortable.**
- **This need requires additional research and attention.**

Trailing Spouses: Early within the recruiting process, trailing spouses need to be able to submit their resume through a clearinghouse network that will assist in exploring employment opportunities. Any services that can facilitate a trailing spouse's transition to Laramie, will serve to benefit the employer and the reputation of the community.

Pathway to Solution

- **Create a Trailing Spouse Network. The purpose of this network would be to help trailing spouses find suitable employment in the Laramie area to the extent practical. The network would need to extend into all area companies and institutions that are impacted by "trailing spouse" issues or interested in using this resource.**
- **Action Step: WTBC offered to take the lead in creating a "clearinghouse" function to match trailing spouse resumes, interests and credentials with possible employment opportunities in the area. The existing HR Roundtable will be encouraged to support this effort. The Laramie Workforce Center has offered to lend assistance.**

Need#3 - Expand and Extend Outreach Services to Technology Companies -

It is presently a well-founded and accepted premise that early stage, high-growth technology companies have a better chance of success when they receive developmental outreach assistance and counseling, such as that provided through the Wyoming Technology Business Center. The assistance referred to typically focuses on Sales & Marketing, Human Resources and Organizational Structure, Financial and Information Systems and on-going Strategic Planning.

Our SNAPIT Technology Workforce Survey strongly indicates that counseling and mentorship are particularly important regarding employment processes and practices, performance management, employee communications and planning. In addition to non-technology employers, there are three categories of technology companies that could benefit from such business counseling and mentorship initiatives:

1.) Early stage, high-growth technology companies that have been targeted as potential clients for WTBC, but for some reason have not become clients,
2.) Clients of WTBC that graduated from the WTBC incubator and are no longer clients of WTBC, but could still benefit from assistance and business counseling, and

3.) Technology companies that do not qualify as clients of WTBC, because they are not early stage, or high-growth business candidates.

Without assistance, mentoring or business counseling, impediments to the success of these other categories of technology companies may be completely ignored, merely because entrepreneurs or business owners fail to recognize them as significant problems.

Pathway to Solution

- **The need described in the statements above does not necessarily imply that WTBC should expand a sphere of outreach influence beyond its sanctioned and funded mission.**
- **This need requires additional research and attention. There are other options that may be feasible in addressing many of the developmental needs that have been highlighted by our SNAPIT Technology Workforce Survey results (i.e., employment process, performance management and planning issues).**
- **The practicality of creating a development-oriented management network (or club) should be researched further. The network could have both social as well as developmental implications. The network could focus on implementing "Best Practices" (recruiting, staffing, planning, training, etc.). Many business owners and entrepreneurs may appreciate gaining a better understanding of benefits, services and missions of the Small Business Development Center (SBDC), the Wyoming Business Council (WBC) and other governmental agencies. Guest speakers including University Business Professors, and archived MBA program lectures or Society for Human Resources Management (SHRM) training might be appropriate resources for the network, as well.**

Need #4 - Knowledge Concerning Competitive Compensation and Benefits -

Most technology companies need to become aware of their competitive position with regard to employee compensation and benefits. They need to understand what comparative survey information is available and how to access that information. Local employers need to be encouraged to participate in confidential surveys. Employers also need to understand actual cost-of-living differences (secured through LEDC website) and financial advantages associated with living and working in Laramie. Such information can be invaluable when negotiating or explaining employment offers.

Pathway to Solution

- **Encourage organizations like the HR Roundtable to become more involved in creating and communicating competitive compensation and employee benefit survey data, while providing for a high degree of confidentiality for participants.**
- **Investigate and resolve reasons why a high percentage of technology companies avoid participation in local surveys.**

Need #5 - Small Employer Cost Competitive Access to Healthcare Insurance Plans -

At this point in time, Healthcare Reform continues to be a highly debated topic shrouded in frustration with our current options and uncertainty with the future. Regardless, small employers need to be provided with greater choice as it relates to healthcare plan accessibility, design and cost. Employers also need to understand the competitive implications of various employer-employee cost sharing structures.

Pathway to Solution

- **Work with employers, insurance carriers (i.e., United Healthcare), HR outsourcing firms (i.e., Insperity) and the government in eliminating small employer barriers to providing healthcare insurance under similar arrangements afforded larger employers and groups.**
- **Advocate for expanded small technology employer pooling options.**

Need #6 – Small Employer Workforce Stabilization -

Large work schedule fluctuations tend to create both marketing and operational problems for technology companies and undermine workforce security and need for economic stability. Such forces work to hinder the creation of regular full-time employment, the much preferred classification among technology and professional employees.

Pathway to Solution

- **Work particularly with Laramie Engineering and Environmental companies to create a vehicle for subcontracting work or people among each other.**
- **This need requires additional research and attention.**

Need #7 - Explore the Feasibility of Vocational Skills Training -

This need is primarily the result of several technology employers in printing, construction and manufacturing expressing concern about the diminishing number of qualified employment candidates in construction, industrial and printing trades. There is a general feeling that the academic community is geared to accommodating careers requiring four-year college degrees.

Pathway to Solution

- **Work with Laramie Economic Development and the academic community to determine the feasibility of developing vocational training which corresponds to technology company needs in the Laramie area.**
- **Create or augment a conduit for providing the academic community with business and industry input concerning skills training and other curricula requirements for vocational training.**
- **This need requires additional research and attention.**

Need #8 - Relay SNAPIT Municipal and Community Service Assessments to Responsible Entities -

Most of the feedback received regarding assessments and suggestions pertaining to municipal and community services in Laramie fall beyond the purview of the SNAPIT Partnership. Technology company evaluations of strengths and weaknesses pertaining to Laramie as a place to do business, or community barriers to growth, require consideration by other entities that have appropriate planning, funding, and implementation authority and resources.

Pathway to Solution

- **In accordance with guidance from LEDC, distribute copies of this report to community contacts and entities deemed appropriate in collaborating on initiatives pertaining to community visioning and master planning.**

CONCLUDING COMMENTS

This report represents the concluding commitment made under the Industries Partnership Solutions Grant (IPS), which was sponsored through the Laramie Economic Development Corporation, and which expires effective June 30, 2012.

In accordance with that Industry Partnership Solutions Grant Proposal, SNAPIT's major focus has dealt with identifying common technology workforce issues and needs with the intent of ultimately exploring and implementing solutions that benefit the Laramie technology sector.

In most instances, the solutions identified in this report should be viewed as broadly defined remedial initiatives. As indicated in our IPS Proposal, "These ideas and suggestions are intended to be further explored and expanded upon during the second stage of the partnership." Then, the most effective solutions will be developed into a work plan to be implemented in order to mitigate the major workforce issues identified.

Appendix A

Workforce Challenges/Significant Causes/Best Realistic Solutions
(Technology Company Management Opinions)

Business Category: ENGINEERING & ENVIRONMENTAL CONSULTING

Most Difficult Workforce Challenge:
We have problems finding qualified, experienced professionals in the area who have two or more years of experience....Also, finding experienced CAD technicians who are not overqualified (earning higher than competitive compensation).

Most Significant Cause of Workforce Challenge:
CAD is generally not something taught in school. Most people learn on the job. There are Professional Software Developers that conduct training sessions (i.e., Software Manufacturing Auto Desk).

Best Realistic Solution to Workforce Challenge:
If enough companies have a need, pool resources together to bring a training program to Laramie. Possibly the University could sponsor the program.

Most Difficult Workforce Challenge:
We can't hire experienced engineering talent. Since we're a small company, it's difficult to find people who are willing to do new tasks and take on responsibilities beyond the more traditional scope of the job. This might be fine in larger companies where the volume of work is sufficient to have a narrow focus, but in small companies, everyone needs to be able to wear many hats.

Most Significant Cause of Workforce Challenge:
The cause of the narrow focus problem is more of an attitude thing. We either have to hire Engineers from other companies or bring them in from outside the area.

Best Realistic Solution to Workforce Challenge:
Try to pick up in the interview process whether the person is willing to do what's necessary to get the job done, as opposed to having a "not my job" attitude. We also try to support new assignments with specific training.

Most Difficult Workforce Challenge:
Recruiting qualified people with the goal of developing a long-term relationship. There are two challenges. The first applies to entry level employees. There are work ethic issues in many cases – questions of loyalty to the company, as well as how their behavior affects others (absence reporting deficiencies, etc.). The second applies to the competition that exists for experienced people in this area.

Most Significant Cause of Workforce Challenge:
Most good, solid, and qualified candidates are already settled in where they are located or employed, so we have to do more recruiting outside the area. The problem is in doing so. If the good ones come with you, it may only be temporary. The marginally experienced employees are the ones that actively float around from area to area.

Best Realistic Solution to Workforce Challenge:
This is the tough question. The solution lies in the fact that we have quite a few companies in Laramie competing for the same business in this region – all seeking the same types and caliber of technical people. There is more demand in this area than supply.

Most Difficult Workforce Challenge:
It's really difficult to get qualified candidates and retain them when you do get them. Project Managers are a particular problem.

Most Significant Cause of Workforce Challenge:
We don't ask the right questions. Our interview process needs improvement. We end up hiring people based on our feelings (rather than their qualifications and fit). We don't get to know what the candidate's skills and abilities are. We rely too much on word of mouth references, which aren't all that good.

Best Realistic Solution to Workforce Challenge:
We've tried to create our own tests for writing and other skills.

Most Difficult Workforce Challenge:
Hiring mid-level Project Engineers and Group Leaders – We can find staff, but not as well as we can when we look in Fort Collins.

Most Significant Cause of Workforce Challenge:
There are not that many job opportunities here (in Laramie) for Project Engineers. We are normally looking for a combination of IT and Engineering skills.

Best Realistic Solution to Workforce Challenge:
We might have to do more contract work with Project Engineers outside this location. Our best source of (junior level) Project Engineers has been interns.

Most Difficult Workforce Challenge:
The cost of Healthcare benefits for employees. The company pays the full premium for employees and dependents. In an attempt to lower premiums, the company will pay employees higher salaries, if they take their spouses coverage (assuming the spouse is employed.) Presently, the company is paying an average of almost $25,000 in premiums per year per covered employee, under an age-based premium structure.

Most Significant Cause of Workforce Challenge:
The politicians – They don't want to do anything about reducing the cost of coverage.

Best Realistic Solution to Workforce Challenge:
Allow small business to get coverage under the State of Wyoming Plan. The company has looked at the Chamber of Commerce Plan, but feels it does not provide any cost advantages.

Most Difficult Workforce Challenge:
Finding qualified and experienced technical people. We tend to look at entry level candidates for hiring, because they are the easiest to hire (even if they are not exactly what we prefer).

Most Significant Cause of Workforce Challenge:
As a company, we prefer to grow our own technical people and mold them to fit our needs. Unfortunately, this leads to the perception that our ability to grow is limited.

Best Realistic Solution to Workforce Challenge:
No suggestions given.

Most Difficult Workforce Challenge:
We haven't experienced a major workforce challenge.

Most Significant Cause of Workforce Challenge:
Not Applicable.

Best Realistic Solution to Workforce Challenge:
Not Applicable.

Business Category: MANUFACTURING/REPAIR/CONSTRUCTION

Most Difficult Workforce Challenge:
Lack of talent at all technical levels – Not regarding technical knowledge, but with reference to work ethic and understanding of how business operates under a Capitalistic economic system. The generations coming out of college possess unrealistic expectations. (They need to understand that they need to first produce value before they can receive the benefits from that produced value.)

Most Significant Cause of Workforce Challenge:
Professors and instructors don't properly understand Capitalism. They may even tend to undermine it. How can you teach something you don't understand or can't accept?

Best Realistic Solution to Workforce Challenge:
Require technical people to take courses that focus on the free enterprise system.

Most Difficult Workforce Challenge:
Retaining Plant Operators.

Most Significant Cause of Workforce Challenge:
It's difficult to retain people because of our non-traditional work schedules, the location of our plant (quite isolated) and the fact that we primarily attract a young workforce. Work schedules are structured to accommodate travel and rest at home. Our location is determined by the location of the work. It's typically work that attracts a young, single workforce.

Best Realistic Solution to Workforce Challenge:
We haven't found a best solution.

Most Difficult Workforce Challenge:
Recruiting good trades and technical people – Most don't have the attention to detail that we need.

Most Significant Cause of Workforce Challenge:
There are fewer people going into the trades. There seems to be a lack of motivation on the part of those who do.

Best Realistic Solution to Workforce Challenge:
I generally look for young people with a good work ethic, and then try to grow and mold them. A lot of the older guys tend to want to do things their way, instead of listening to the way things should be done.

Most Difficult Workforce Challenge:
Hiring both experienced Business and Engineering professionals. Entry level candidates are relatively plentiful and easy to get.

Most Significant Cause of Workforce Challenge:
Laramie can be a hard place to live due to its weather. It's a small and relatively modest city for shopping and social outlets – not necessarily attractive to many female spouses. The tax base is low, which impacts the city's ability to build its infrastructure on its own.

Best Realistic Solution to Workforce Challenge:
Just stay persistent with your recruiting efforts and bulldog your way through until you find someone who meets your needs. We try to stay regional in our recruiting efforts, but also must consider a broader recruiting area as well.

Most Difficult Workforce Challenge:
Recruiting new experienced employees – We generally have no problem getting entry level people.

Most Significant Cause of Workforce Challenge:
Our company is still emerging, and therefore it's difficult to compete with other industries and more established or mature companies.

Best Realistic Solution to Workforce Challenge:
When we find a person who fits our needs, we compensate the person to the extent we must in order to get him or her. We end up reallocating our budget accordingly.

Most Difficult Workforce Challenge:
Finding employees who have technical (mechanical) skills and also interpersonal skills for dealing with clients.

Most Significant Cause of Workforce Challenge:
Typically, technical skills for the work out workforce performs are not as valued as finding someone with good soft-skills.

Best Realistic Solution to Workforce Challenge:
We hire people with good soft-skills and train them in the easier technical skills.

Business Category: IT SYSTEMS/SOFTWARE DEVELOPMENT

Most Difficult Workforce Challenge:
This company has a concentration of technical knowledge and skills, but is relatively weak in administrative, financial and sales skills and experience. We hire the majority of our employees directly out of school or out of their intern programs, and that seems to work fine for us.

At times we'll get projects requiring a very unique set of technical skills (i.e., Digital Artist for Virtual Reality). In those cases we are forced to hire employees or contractors from outside the area, which normally takes more time and effort.

Most Significant Cause of Workforce Challenge:
The four major stakeholders in the company are all technical people. We have not given enough attention to the importance of acquiring experienced skills in the administrative/financial/sales area. We did try bringing interns into some of those positions, but it was apparent that they didn't have the exposure or depth of practical knowledge that we need.

Best Realistic Solution to Workforce Challenge:
Recruit outside of the area to get the experience you need. This includes recruiting for technical people with unique skills we need. We'll retain contractors and extend employment offers to the good ones (like an extended probationary period).

Most Difficult Workforce Challenge:
Hiring a good number of people who turn out to be inflexible with regard to the work they will perform or the hours they will work, or just a poor fit for the job. This creates the need to periodically purge the workforce in economically advantageous times, when sales are low. At that time, you get rid of your worse people. (Going through such purge cycles can affect the company's reputation in the community, which makes it even more difficult to recruit good people.)

Most Significant Cause of Workforce Challenge:
Normally, in tight labor markets, you're forced to drop your preferred hiring standards.

Best Realistic Solution to Workforce Challenge:
We haven't found a good solution.

Most Difficult Workforce Challenge:
Finding leadership in technical areas – We don't have software leaders in this community. We need leaders, who can talk strategically, but also communicate with Software Engineers.

Most Significant Cause of Workforce Challenge:
The infrastructure for achieving an adequate supply of technical leadership isn't here yet. As we grow as a technical community, it may exist in 10 years or so. Right now, we can't support the leadership needs in this community.

Best Realistic Solution to Workforce Challenge:
Grow the infrastructure by bringing in the talent needed from outside the area, or grow our own talent. In many cases, bringing the talent in from outside, doesn't take as long as growing our own.

Most Difficult Workforce Challenge:
Recruiting experienced Software Developers – We hire a lot of candidates right out of school with great potential, but not much experience.

Most Significant Cause of Workforce Challenge:
There are not many Software Developers in this area. I'm speaking of experienced people, not the number of software firms. The supply of people is short in comparison to the demand.

Best Realistic Solution to Workforce Challenge:
Expand our search outside the area.

Most Difficult Workforce Challenge:
We have a limited applicant pool with the knowledge of our specific software. Consequently, we have to do a considerable amount of training.

Managing people while they are working off-site can also be challenging.

Most Significant Cause of Workforce Challenge:
Our software is so highly specialized.

The physical distance between our clients and our company affects our ability to manage people.

Best Realistic Solution to Workforce Challenge:
Prompt the government to provide conductivity with improved infrastructure and internet reliability.

Make better use of alternatives to travel (using Fed Ex, video conferencing, server location).

Business Category: SCIENTIFIC-TECHNOLOGICAL RESEARCH/ANALYTICS

Most Difficult Workforce Challenge:
Recruiting people who are qualified in our technology.

Being able to attract and retain employees with benefits like health insurance.

Most Significant Cause of Workforce Challenge:
The technical knowledge (reference to EMATS – signal processing) is somewhat unique and not taught at many universities.

Healthcare insurance is cost prohibitive, particularly for a start-up company. (Investigated the Chamber of Commerce Plan.)

Best Realistic Solution to Workforce Challenge:
We connected with a consultant who holds patents on EMATS – signal processing. We're looking at more recruiting activity at Iowa State, which teaches technology that matches our needs.

Most Difficult Workforce Challenge:
Hiring people with requisite qualifications in Composite Materials and Mechanical Engineering – We normally look for people with at least 3-5 years of experience.

Most Significant Cause of Workforce Challenge:
There is just a very small market for the requisite skills we need.

Best Realistic Solution to Workforce Challenge:
We opened an office in Seattle – to tap into the Boeing market.

Most Difficult Workforce Challenge:
Recruiting and/or developing people who can transition a product from Lab to commercial success. People who understand the considerations that need to be addressed in order to effectively get a product into the market.

Trailing spouses can also be a problem, particularly when that person is looking for employment in this area too.

Most Significant Cause of Workforce Challenge:
There is a lack of experience and training resources pertaining to "commercialization" for technical people. Based on where current employees are in their careers, they are not sufficiently exposed (or not that interested) in the end game of their work. They're really more interested in the technology than the marketing. Most technical people don't know how to perform a marketing analysis or a business analysis.

Best Realistic Solution to Workforce Challenge:
It's a cultural change thing. We need to continuously get them thinking about the end game – how are we going to market the product? We have to help them define the commercial results targeted and then help them develop set-back plans.

With regard to trailing spouses, maybe we have to research more opportunities to telecommute or work in virtual business environments. We should look for less of a reliance on traditional work environments.

Most Difficult Workforce Challenge:
Finding qualified candidates with working knowledge of composites, aerodynamics and aero-elastics.

Most Significant Cause of Workforce Challenge:
We have unique knowledge specifications.

Best Realistic Solution to Workforce Challenge:
So far, we've failed to come up with a good realistic solution. We rely on Dave Walrath at the University, and all its resources to a greater extent than we normally should.

Business Category: GRAPHIC DESIGN (WEB/PRINT)

Most Difficult Workforce Challenge:
Pay is a major issue. There is easy entry into this business. I can't afford pay structures that are more competitive outside of Laramie.

Most Significant Cause of Workforce Challenge:
Laramie needs to grow to support larger runs and more orders. Many problems can be solved with more business volume.

Best Realistic Solution to Workforce Challenge:
I've decided to use more interns from the University. Interns have the basic knowledge and possibly skill levels to do the required work.

Most Difficult Workforce Challenge:
Contractor recruiting is a challenge. Trailing spouses is another difficult challenge.

Most Significant Cause of Workforce Challenge:
The people you would like to retain are not always available when you need them. Some have regular employment elsewhere.

Trailing spouse problems are caused by our small community. There are not that many opportunities and a rather narrow range of traditional career paths that exist in larger metropolitan areas.

Best Realistic Solution to Workforce Challenge:
Possibly organizing a trailing spouses support group that is interested in exploring opportunities for its members.

Most Difficult Workforce Challenge:
Recruiting good, experienced Pressmen.

Most Significant Cause of Workforce Challenge:
Pressmen do not seem to want to live in Laramie, because there are insufficient good Pressmen in this city. Many Pressmen learned their trade when printing was an art. Today, there seems to be a higher need for repeatability.

Best Realistic Solution to Workforce Challenge:
We recruit all over the country, but we normally end up training our own.

Most Difficult Workforce Challenge:
Laramie has a lack of an available workforce above college age. Most of my workforce is in school or part of the transient work force. I would prefer to have some more of a mature, stable workforce that wants to work full-time.

Most Significant Cause of Workforce Challenge:
We offer typical, part-time work that most college students are looking for. We hire the kind of people that are typical in our business. That's who applies, and therefore, that's what I hire.

Best Realistic Solution to Workforce Challenge:
We really don't have a solution.

Business Category: NATURAL RESOURCES/CONSERVATION

Most Difficult Workforce Challenge:
Workforce scheduling due to variations in business – It is not feasible to hire additional people on a project basis. Our business levels are not highly predictable.

Most Significant Cause of Workforce Challenge:
Most causes of business variation are outside the company's control. We deal with assignments that cross many disciplines (i.e., zoology/physiology, climate change, water quality, wild life impact). It would be difficult to bring in any temporary staff or even contractors that could immediately hit the ground running, without giving people more training than it's worth.

Best Realistic Solution to Workforce Challenge:
We tend to staff lean and cover heavy workload periods by working more hours than normal. We have occasionally borrowed technical people from other firms, but that is not a usual practice or always a wise approach. One of the good things about our business is that deadlines are somewhat open-ended.

Most Difficult Workforce Challenge:
Recruiting professional staff can be a real challenge. We have brought in candidates from Texas, Arizona, Colorado, Utah, North Dakota and Illinois. There are not many people with the credentials we prefer in this area.

Most Significant Cause of Workforce Challenge:
We normally like to get people with a Master's degree in Biology or Wild Life Management, which narrows the field somewhat. There are people who don't care for our location – particularly the seasonal changes.

Best Realistic Solution to Workforce Challenge:
The most realistic solution seems to be expanding our recruiting into areas that have people with the credentials we prefer. We use Texas A&M recruiting sites to a considerable extent. Texas A&M has a broad reach into our industry.

Most Difficult Workforce Challenge:
I would like to get enough workload to get to at least a full-time level.

Most Significant Cause of Workforce Challenge:
Inconsistency in workload.

Best Realistic Solution to Workforce Challenge:

Work to increase my revenue and just put in the time it takes to cover variations in workload. I will occasionally work on projects for other companies in this industry.

Appendix B
Educational Credentials & Training Issues

Business Category: ENGINEERING & ENVIRONMENTAL CONSULTING

Required Technical Education	OJT * Training Provided	Most Beneficial Training
BS in Civil Engineering, or Environmental Engineering, or other technical disciplines (have hired Electrical Engineers).	CAD training. Company Policies & Culture Project Management. (* On-the Job)	Project Management that includes Contracts, Scheduling, Planning, Budgeting and Operations for invoicing. A course in Business Processes.
Business or technical degree –	No formal training.	Mapping (ARC view).
For Management only.		Auto-CAD Software training – need to schedule courses on weekends, when employees are available.
For Engineers, a BS in Civil or Structural Engineering.	Comprehensive training as dictated by assignment -	There are sufficient professional organizations that provide classes to meet our needs
For technicians, CAD courses, or equivalent including Intern training.	Either provided internally or through outside sources.	(ACE, etc.) Many times, UW or LCCC sponsor those classes.
BS in Civil Engineering, most of the time.	Safety & Health. Specialized training based on assignments and past experience.	Training needs assessed on individual basis. May not be justification for course or program.
Some type of Bachelor degree, except for Field Sales.	Safety & Health – normally our 100 day plan helps identify individual needs.	Understanding computers. Project Management skills (PSMJ). Business Analysis and Problem Solving skills.
MS in Civil Engineering (prefer). BS in Geology and Chemical Engineering.	Project Manager responsible for providing OJT to lesser experienced engineers.	We try to take advantage of any training program offered through Workforce Services.
BS in Mechanical or Civil Engineering.	Individually developed based on skill and experience.	Budgeting, Financial Accounting, Operational Accounting.
BS in Geology or Wild Life Management or Reclamation.	Reclamation Weed & Plant Training, (normally UW). OSHA & Hazwhopper Training.	Project Management – the analytical side (i.e., Writing Proposals, Budgeting,

		Project Set-up, Client Communications – all process steps).

Business Category: MANUFACTURING/REPAIR/CONSTRUCTION

Required Technical Education	OJT Training Provided	Most Beneficial Training
Two year Technical School degree or Military training. Must be able to understand Prints, Schematics, and Specifications	Not hired anyone we had to train.	Need Electrical Technician courses. Universities and colleges concentrate too much on software design, and not enough on hardware design.
Required Technical Education	**OJT Training Provided**	**Most Beneficial Training**
High school graduate.	Safety training and training on Crystallization.	Leadership courses.
BS in Mechanical, Software, or Chemical Engineering. We look for a Chemistry degree for our sales people.	ISO -9000 prescribed training. Laser Safety training. Common New employee Indoctrination.	Anything I would expect the University to provide is pretty much already a part of their degree program. Specialized software, Optics or Instrumentation training is provided through the product manufacturer.
High school graduate – prefer Some Community College.	DVD's on "How Houses Work" Also train in "How to Work with Insulated Foam" and "How to Hang Trusses."	Bring back Construction Technology courses at LCCC.
For Engineers and Professionals, BS in Engineering, but prefer MS in Engineering. For technical level, prefer some college for understanding of computers, software and project discipline.	Possibly some training for Technicians based on assignments and experience.	Possibly Six Sigma. Understood that the school needs to have sufficient demand to be feasible.
Some college or equivalent Experience suggesting the person has discipline to handle responsibility.	Pesticide Safety – Product of Dept. of Agriculture for UW and Northern Colorado.	Soft skills, such as Crew Cohesion. Forestry courses.

Business Category: IT SYSTEMS/SOFTWARE DEVELOPMENT

Required Technical Education	OJT Training Provided	Most Beneficial Training
BS in Computer Science or Engineering, Systems Administration, Chemical Engineering or Chemistry.	Company processes for validating and working with data bases.	We use LCCC to train people in Excel and Advanced Data Management techniques and Access.
Certificates in fields of their Specialties (i.e., Standard, Microsoft, Cisco, CompT).	Meditech software and AllScripts training. We send people to Boston for Training.	LCCC offers training for technical certifications we need.
No minimal educational standards. Hire mostly Computer Technicians. Interest more important – Ask, "At what age did you make your first computer?" Look for natural ability.	Assign new Computer Tech to experienced one. - Prefer no previous experience - Want to train the company's way of doing things.	Prefer to train our employees ourselves.
BS in Computer Science. Prefer Master degree. Have one Ph.D.	Consists of hands-on project work with a mentor.	We get a good assessment of talent at UW, and pretty much know each candidate's talents. New hires are sent to big industry conferences.

Required Technical Education	OJT Training Provided	Most Beneficial Training
College degree – field or specialty doesn't matter – Discipline to get the degree does matter.	Assign new hire to a mentor (Project Mgr). Work on real customer issues. May not have exact skills – we look for high aptitude	University does good in turning out with good problem solving skills. Leadership, like salesmanship and entrepreneurship is in the person's DNA.

Business Category: SCIENTIFIC-TECHNOLOGICAL RESEARCH/ANALYTICS

Required Technical Education	OJT Training Provided	Most Beneficial Training
BS in Mechanical Engineering, or equivalent. Ability to write user-friendly, error-free code.	Some software development.	Non-destructive testing and evaluation.
No need for a degree.	Wind energy, composite characteristics, aero-elastics, computer simulations and math modeling.	Theoretical models tied to engineering devices. Work planning, such as normally covered in Sr. Design courses.
Must have Engineering degree	Send new hire to 1-2 week	Wouldn't consider computer

(Software, Mechanical, Materials Science).	seminars on certain Engineering software. Training grants through Workforce Services.	science training through UW. Seems to be lack of commitment to good program. Follow own preferences. We discussed this with them in the past.
Typically Ph.D. for Lead Researcher. Research Engineer, Chemical Engineer, Material Science or Bio-Science degree. For Lab Tech, typically Associate Degree or equivalency.	Normally training associated with commercialization.	Product commercialization. For Government contracting courses.

Business Category: GRAPHIC DESIGN (WEB/PRINT)

Required Technical Education	OJT Training Provided	Most Beneficial Training
College degree in any field. Must be computer proficient.	Provide training in Adobe, Photo Shop, Illustrator, etc.	About 2 years ago, UW dropped several extended training courses in Adobe and Microsoft. LCCC filled the gap somewhat, but it would be good to bring some UW courses back.
Look for natural ability more than formal education.	Set person up with Lynda.com And engage them to learn, based on project at hand.	I would short-cut the schools and go directly to Ruben or Mona Gamboa, who have a direct pipeline into the University for training.
Prefer an old Stripper, who likes computers. People with Graphic Arts degrees don't always work out.	We train in pre-press work. Assign them to experienced Pressmen for shadowing. We can tell within 3 months if the person will be any good.	Problem analysis and solving skills. Train in the business of printing and printing processes. Seriously question if Graphic Arts should be in the Art Department of UW. Some universities put it in the School of Business.
Required Technical Education	**OJT Training Provided**	**Most Beneficial Training**
For Web Master, some college experience with Photo Shop.	Will train in Photo Shop if need be.	I appreciate the internships that can be set up at UW, but also think UW should set up courses to help business research issues (example, what it takes to implement EDI. All real life

		experience that could augment course study.

Business Category: NATURAL RESOURCES/CONSERVATION

Required Technical Education	OJT Training Provided	Most Beneficial Training
MS or MA level degree in related field.	Sometimes statistical or GIS software. Possibly, government regulations or legislation.	All new hires have been UW grads. School of Environment and Natural Resources. The curricula complies well with our needs.
Should be proficient in plant Identification.	Data collection. We follow Corps of Engineers standards.	No suggestions.
Prefer MS in Biology or Wild Life Management.	ARC – GIS Mapping. Hand-held computers. Send employees for Wetland Management –related certification. Train in some software.	Fish and Wild Life puts on some training in endangered species that is good.

LARAMIE ECONOMIC DEVELOPMENT CORPORATION

ANNUAL REPORT

Fiscal Year 2010 - 2011

LARAMIE ECONOMIC DEVELOPMENT CORPORATION
2523 East Garfield Street, Suite B
P.O. Box 1250
Laramie, WY 82073-1250
(Phone): 307-742-2212
(Fax): 307-742-8200
www.LaramieWY.org
www.ClimateCooled.com

Vision

LEDC will be recognized as a premier economic development organization that brings progress and prosperity to the City of Laramie and Albany County.

Mission

The mission of the Laramie Economic Development Corporation is to establish a comprehensive economic development program for the Laramie area, which will foster balanced growth and enhance the economic welfare of the citizens. This mission is advanced when the corporation:

* Promotes, stimulates, develops and advances the economic welfare of the City of Laramie and County of Albany and its citizens,
* Encourages and assists in the location and development of new business and industry in this area and assists existing business and industry,
* Champions existing business and industry, provides assistance to advance the ability to thrive, identifies and removes barriers to their growth, and
* Creates and retains primary jobs providing competitive wages for the residents of the City of Laramie and Albany County.

Economic Development at Work

Accomplished in 2010-2011:

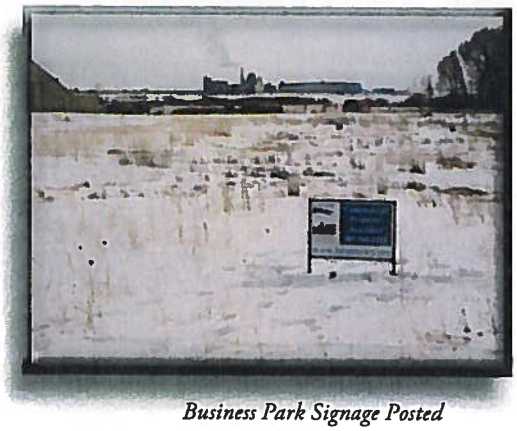
I. Business Development:

• South Laramie Trans-Load Rail Site:

- Created The LEDC, LLC, a new legal entity for the operation of the South Laramie Trans-Load Rail Site
- Negotiated 25 year property lease with Union Pacific Railroad
- Rezoned 170 acres to accommodate site activities
- Awarded $805,000 Business Ready Community Grant from WBC
- Awarded $500,000 Industrial Roads Grant from Albany County and WYDOT
- Borrowed $100,000 from the City of Laramie Economic Development Fund for lease payment to Union Pacific Railroad
- LEDC continues to make forward progress toward opening in the Spring of 2012

South Laramie Trans-Load Rail Site

- **Data Center Recruitment**
  - Rezoned 160 acres on North Laramie site to accommodate data centers
  - Identified redundant power sources at WAPA/ Rocky Mountain Power Ring Buss Site
  - Developed cool ambient climate strategy
  - Took appropriate action, which led to Verizon's announcement regarding execution of an option to purchase North Laramie property
  - Attracted national attention in the WSJ and other national publications regarding Laramie as a highly rated data center site location



Business Park Signage Posted

- **Market Properties for Sale**
  - Posted "For Sale" signage in LEDC's business parks & Turner Tract
  - Industrial Properties Committee reviewed LEDC Land Sale Guidelines *(October 2010)*

- **Lease/Sell Laramie Technology Building** *(Whole or part)*
  - Leased part of LTB to Happy Jack Software, Inc. *(December/January 2011)*
  - Continued to market the remaining areas of the LTB

HAPPYJACK SOFTWARE
"DELIVERING SOFTWARE SUCCESS"

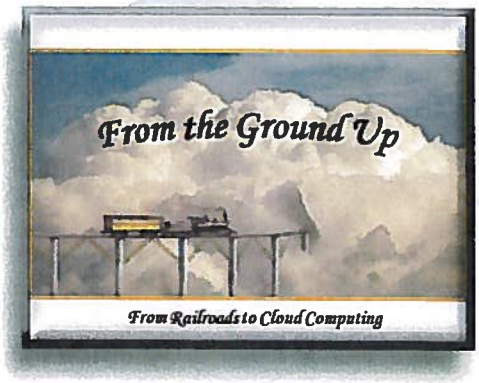
- **Marketing Tool – ZoomProspector**
  - 50+ commercial properties listed on ZoomProspector
  - 30+ commercial real estate brokers using this marketing tool

II. Revenue Generation – PIP-II Investment Campaign:

- With effective campaign leadership, conducted a successful Annual PIP-II Investment Campaign *(Completed March 2011)*
- Hosted a superb LEDC Annual Dinner on May 12, 2011
- Contacted appropriate governmental entities regarding Fee for Service Agreements
- Implemented changes in IRS status from 501(c)4 to 501(c)6, thus more appropriately reflecting tax exempt status

Mike Peck Leads PIP-II Investment Campaign

III. Support Key Strategic Partners/Opportunities:



- Conducted an open board meeting for PIP investors to introduce the rail spur project
- Continued establishing partnerships with existing business
- Offered services and assistance to existing business
- Established Fee for Service Agreement with Ivinson Memorial Hospital
- Through the Industry Partnership Solutions Grant, conducted outreach and fostered a collaborative partnership called SNAPIT with numerous technical sector employers, as well as educational and community support organizations in the Laramie area

IV. Enhance / Advance Relationships:

- Continued to advance relationships with the following Community Partnerships:
  - Albany County Commissioners
  - Laramie Area Chamber of Commerce/West Laramie Business Association
  - Laramie Main Street Alliance/Downtown Laramie Business Association

SNAPIT

- Developed Board approved Real Estate Commission Policy with commissions at a 7% rate
- Committed to encouraging and supporting community organization meetings and planning sessions
- Accommodated one-on-one meetings with commissioners, directors and other key players in municipal and community-oriented organizations
- Continued to position LEDC as the "Go-To" organization dealing with economic development in the City of Laramie and Albany County
- Maintained an effective LEDC communications program comprised of e-newsletters, news releases, websites, local presentations, and other forms of information exchange
- Published LEDC's accomplishments through Annual Report and other media

V. Optimize Funding / Mitigate Expenses

- Initiated the implementation of Laramie River Business Park Commons Area Association to more equitably establish shared responsibility of maintenance and improvement of commons area
- Initiated investigation into alternative leased office facilities
- Completed review of LEDC staff competencies to ensure compliance with LEDC Mission

Accomplished Since 2005

Assisted Wyoming Business Council Grants:

Over $17 Million in grant money brought into the city and county

- $.8M for South Laramie Rail Spur project
- $1.5M for the sewer and water grant for the Laramie Regional Airport
- $2.87M for the Laramie Technology Building
- $1.87M for the a spec building at the Laramie Regional Airport (Intevac Photonics DeltaNu, LLC is the current tenant)
- $3M for the InterTech E&E (CBMA) facility
- $4M for the Pete Lien & Associates project
- $1.5M for the Trihydro Corporation expansion project
- $1.5M for infrastructure at the Laramie Regional Airport Business Park (PARC)

Beautification Committee Projects

- South 3rd Street Landscaping
- East Grand Avenue tree planting projects
- South US Highway 287 tree planting projects
- South US Highway 287 clean-up projects
- Replaced 80 trees on US Highway 287
- West Laramie tree planting projects
- Yearly community spring clean-up projects

PUBLIC FUNDS GENERATED

From businesses located in LEDC's business parks and from LEDC's direct payments for property taxes, $2,034,473 was generated in Albany County Property Taxes with $292,964 going directly to the Albany County General Fund.

Laramie Beautification Committee Tree Planting Project

Butch Keadle

Dear Partners in Progress Investors:

We continue to add to Laramie's assets by undertaking projects that will lead to more capital investment and job creation. More specifically, LEDC began the 2010-2011 fiscal year by championing two major projects:

- **The South Laramie Trans-Load Rail Facility** – At present, the closest trans-load facilities to Laramie are located in Denver and Casper. A Laramie site opens the I-80 corridor to rail shipment between Omaha and Salt Lake City. This Laramie site, scheduled for completion in early 2012, will provide truck-to-rail or rail-to-truck freight shipping options on the Union Pacific Railroad. Local access to rail is a requirement that increasingly appears on requests for proposals from prospective businesses considering locating in Wyoming. Furthermore, Laramie currently has two high volume shipping businesses that are interested in using Laramie's trans-load facility, as opposed to constructing their own. This past year, LEDC was successful in negotiating a 25 year property lease with the Union Pacific Railroad to accommodate space needed for operations. The total projected cost to construct the South Laramie Trans-Load Rail Site is $1.75 million. LEDC has worked diligently to arrange financing for this project through approved grants and loans enabling this project to become operational.

- **Laramie Technology Workforce Project** – Just prior to the beginning of its fiscal year, LEDC was awarded an Industry Partnership Solutions (IPS) Grant through the Wyoming Department of Workforce Services and the Wyoming Workforce Development Council. This grant enabled LEDC to sponsor the creation of a technology sector business partnership for the purpose of identifying common workforce challenges in the Laramie area, such as employment, retention and career development. Initially, more than 50 technology-based companies were targeted for participation in a partnership, called SNAPIT. The partnership also consists of our regional educational institutions and the Laramie Workforce Service Center. At present, 30 participating technology companies have provided in-depth survey information regarding their workforce practices and experiences. Findings will be compiled and reported by the end of the IPS Grant period in 2012. These findings are expected to lead to recommendations, based on the collaborative analyses of partnership members.

As a result of LEDC's years of planning and preparation for business recruitment, the LEDC leadership and staff prepared the successful bid in convincing Verizon to select Laramie for a mega data center as part of its cloud computing business division. Although intervening events ultimately prompted Verizon to follow a different course, the many factors that led Verizon to conclude Laramie was a great data center location continue to present LEDC with excellent opportunities. Despite Laramie's removal from Verizon's present operating plans, Verizon continues to hold its original two-year option on Laramie property. The knowledge gained through interacting with Verizon prompted LEDC to aggressively pursue a third major project this year:

- **Active Recruitment of Data Centers** – As a result of its Verizon experience, both Laramie and Wyoming in general have received a remarkable amount of national press as worthy contenders for data center site selection. In its efforts to recruit data centers, LEDC participated in discussions with legislative representatives, which helped in the implementation of competitive sales tax incentives for large data centers with numerous employees.

These incentives are in addition to $14 million that Governor Mead has allocated for local infrastructure improvements to facilitate data center operations. To promote Laramie as a prime data center location, LEDC has launched ClimateCooled.com, a website focusing specifically on data center needs and Laramie's advantages for satisfying critical requirements. LEDC continues to enhance its data center marketing plan with the retention of industry experts, and by attending the Data Center World Conference, as well as other industry trade shows that attract industry site selectors.

Each one of the three major priority projects noted above requires LEDC to work collaboratively with city, county and state government, particularly as projects relate to infrastructure needs, regulations and financial matters. We are fortunate to be allied with such fine resources that share our economic development vision. In addition to working on these major projects, LEDC has continued to serve the Laramie community this year, as exemplified by the following:

- **Laramie Technology Building** – Assisted Happy Jack Software, Inc. to secure a lease agreement with the City of Laramie for approximately one-third of the facility. Marketing the remaining space is being ardently pursued.
- **Investor Communications** – Augmented communications through quarterly Partner In Progress events, e-newsletters, news releases, website development, one-on-one contact, and open board meetings with presentations on topical issues.
- **Partners In Progress Membership** – Increased membership to 158 local businesses and community supporters, resulting in a 9.9% increase in investment revenues over the previous year.
- **Community Project Grant Support** – Over the past several years, LEDC has assisted in securing over $17,000,000 in Wyoming Business Council grants for community improvements.
- **Property Taxes** – In conjunction with businesses inside its business parks, LEDC gave back to the community over $419,011 last year in property taxes to Albany County. These property taxes correspondingly increase as businesses continue to move into LEDC's Laramie River Business Parks.

We may look back on this past year as a "landscape changer" for Laramie. Progress achieved on such projects as the South Laramie Trans-Load Rail Facility, our SNAPIT technology sector study and our determined recruitment of data centers provide encouraging signs for a growth oriented future. Thank you for both your support and the energy you provided us along the way.

Butch Keadle
2010-2011 LEDC Chair of the Board

Governor Mead Signs HB 117 Data Center Incentive Legislation

2010-2011 Partners In Progress

Thank you to our Investors! You make it possible...

LEADERSHIP INVESTOR LEVEL
First Interstate Bank
Mountain West Farm Bureau Insurance
University of Wyoming

ADVOCATE INVESTOR LEVEL
American National Bank
Coffey Engineering & Surveying, LLC
CPA Group of Laramie
First National Bank of Wyoming
Gap West Broadcasting, LLC
Groathouse Construction, Inc.
Handel Information & Technologies, Inc.
Hamaker Excavation, Inc.
Insurance Unlimited, Inc.
Laramie Boomerang
Laramie Regional Airport
Mader, Tschacher, Peterson & Co., LLC
The Mortgage Source, Inc.
Mountain Cement Company
Mountain View Medical Park
Pence & MacMillan, LLC
Qwest Communications (CenturyLink)
Raving Real Estate/9H Ranch , LLC
Rocky Mountain Power
Stonehouse, Inc.
Trihydro Corporation
TownSquare Media
UniWyo Federal Credit Union
Western Research Institute
Wyoming State Bank
Wyoming Technology Business Center
WyoTech

ASSOCIATE INVESTOR LEVEL
Altitude Chophouse & Brewery
ACE Hardware and Paint, LLC
The ACRE Company
Advanced Clean Coal Technology
Albany Insurance Agency
Alpine Animal Hospital, PC
Alpine Appraisal, LLC
Anderson Construction, Inc.
Appraisal & Valuation Services
Aron & Hennig, LLP
Aspen-Banner Engineering
Basic Beginnings, Inc.
The Brick Bed & Breakfast
Brown & Hiser
Brown & Gold, Inc.
Brown, Kermit & Margaret
CB Properties, LLC
Century 21 Real Estate Center
Coal Creek Coffee Company and Roastery
Davis, Bob
Delta Construction, Inc.
Dodds Shoe Company, Inc.
Dona Coffey Trust
Dooley Oil, Inc.
DOWL-HKM
Downey & Associates
Dozier, Carol
Edwards Development Company
Eike Real Estate
Fairfield Inn and Suites
Farm Bureau Financial Services
Fortman's Paint & Glass
Fusestudios Media Consulting, LLC
Gault, George and Linda
Gem City Consulting
Goetz, Megan Overmann
Griffin, Ken
Happy Jack Software, LLC
Heather Plumbing & Heating, Inc.
Hilton Garden Inn & UW Conference Center
Hoffman, Paul and Sandy
Holiday Inn
Honeywagon Sanitation Pumping
Intevac Photonics DeltaNu, LLC
Jonatkim Enterprises
JS Building Company, LLC
Laramie County Community College
Albany County Campus
Laramie GM Auto Center
Laramie Plains Federal Credit Union
Lovejoy's Bar and Grill
Mangan, Thomas & Maleta
Manig, Herb
Marquardt, Mark
McCarty Honda-Nissan
McCraken, Karl
Medicine Bow Technologies
Mountain Valley Properties
Mullen's Heating & Sheet Metal
The Music Box
Negich, Gary and Kim
North Ridge Discount Liquors
Orrison Distributing, Ltd.
Patel Enterprises, Inc.
Peck, Mike and Becky
Powell Enterprises, LLC
Prehoda, Leonard and Janack, LLC
Quality Real Estate
Real Estate 1
Re/Max Quality Real Estate
Renascent Marketing Research, LLC
Rocky Mountain Reclamation, Inc.
Schmidt, Jerry and Jeanetta
Scott McFarland State Farm Agency, Inc.
Security First Bank, Laramie
SEH Engineering
Snowy Range Graphics
Source Gas
Source Office Products
The Property Exchange West
True Value Hardware of Laramie
University of Wyoming
College of Business
US Bank
VanPelt, Dick and Dianne
Voltech Electric, Inc.
Walrath, David and Christel
Westfield Business Park
David L. Weston
WWC Engineering
Young Appraisals

FEE FOR SERVICES AGREEMENTS
City of Laramie – Fee for Service Agreement
Ivinson Memorial Hospital –
Fee for Service Agreement
University of Wyoming –
Memorandum of Agreement

GRANTS
Albany County Commissioners
Guthrie Family Foundation
Industry Partnership Solutions
(WY Dept. of Workforce Services & WY Workforce Development Council)

BUSINESS DEVELOPMENT PARTNERS
Albany County Tourism Board
Laramie Area Chamber of Commerce
Laramie Main Street Alliance
Wyoming Business Council

2011-2012 Strategic Plan of Action

Top Five Objectives

I. Business Development:

- Market and Attract Laramie to Mega Data Center Clients
  - Develop marketing strategy
  - Attend trade shows
  - Visit Clients
  - Recruit another data center client to Laramie
- South Laramie Trans-Load Rail Facility
  - Complete construction of trans-load site
  - Support and encourage completion of UPRR / WYDOT Road Grade Crossing
  - Hire third-party transit company to manage trans-load site
  - Implement usage of the site by customers
- Acquire Funding to Complete Sub-Division Agreement in LRBP II
- Lease/Sell Laramie Technology Building *(Whole or part)*
  - Continue to assist and encourage existing clients
  - Market and attract client to the remaining areas of the facility
- Finalize Marketing Agreement with City of Laramie for Turner Tract
- Create Focus Groups to Identify Barriers & Opportunities for Business Growth
  - Unified Development Code
  - Casper Aquifer
  - Turner Tract

II. Revenue Generation – PIP-II Investment Campaign:

- Continue with the Successful PIP-II Investment Campaign
  - Consider two-three year campaign instead of annual
- Host a "Stupendous" LEDC Annual Dinner *(May 2012)*
- Renew Existing Fee for Service Agreements
  - City of Laramie
  - Ivinson Memorial Hospital
  - University of Wyoming
- Continue Discussions Regarding Fee for Service Agreements
  - Albany County
  - Laramie Regional Airport
  - LCCC – Albany County Campus
  - Other opportunities that may arise

III. Support Key Strategic Partners/Opportunities:

- Western Research Institute *(Existing Business)*
- Pete Lien and Sons *(New Business)*
- DKRW *(New Business)*
- Ivinson Memorial Hospital *(Expansion)*
- Qwest Communications/CenturyLink *(Encourage Upgrading Existing Community Infrastructure)*
- Other Opportunities That May Arise *(Be Flexible)*

IV. Enhance / Advance Relationships:

- Partnerships
    - Albany County Commissioners
    - City of Laramie City Council and Administration
    - State of Wyoming Departments and Agencies
    - Wyoming Business Council
        - Market Research Center
        - Manufacturing Works
        - Wyoming Small Business Development Centers
    - Wyoming Technology Business Center
    - University of Wyoming
    - Laramie Area Chamber of Commerce and West Laramie Business Association
    - Laramie Main Street Program and Downtown Laramie Business Association
- Encourage and Support Community Organization Meetings & Planning Sessions
- One-on-One Meetings with Each Commissioner/Council Member & Other Key Leaders
- Delegate and Engage LEDC Board Members to Attend Public Meetings
- Continue / Advance LEDC as the "Go-To" Organization
- Maintain LEDC's Established Communications Program
    - E-newsletters, news releases, website, local presentations, etc.
    - Quarterly Partners In Progress events
    - Publish accomplishments

V. Optimize Funding / Mitigate Expenses:

- Continue to Explore Effective Marketing and Client Outreach
- Laramie River Business Park Commons Area Association
    - Complete association agreement
    - Renew tree areas and walk/bike paths
- Review Staff Competencies
- Maintain Due Diligence on General and Administrative Overhead Expense
    - New office space – move and establish new presence with PIP and clients
    - Explore opportunities and options for upgrading office fixtures & furniture

Relocating Businesses Seek What Existing Businesses Appreciate

Our community's businesses benefit from the quality of work and the quality of life that Laramie offers. Our business-friendly orientation accommodates growth and prosperity.

LEDC provides business with advice, guidance, referrals and assistance pertaining to all services offered on a completely confidential basis.

Advantages of Doing Business in Laramie

Picture a place where your business can grow and thrive; then think of what that looks like in terms of benefits of doing business. It probably looks a lot like the City of Laramie in Albany County, Wyoming.
Consider the possibilities…

- No Corporate State Income Tax
- No Personal State Income Tax
- No State Inheritance Tax
- No Manufacturing Tax or Equipment Sales Tax
- Hathaway Scholarship
- Low Property Tax
- Low Worker's Compensation rates
- Low operating costs
- No smog
- No traffic jams
- Low crime rates
- Outstanding quality of life
- Room to expand

Business Assistance

LEDC is positioned to assist both local existing primary employers, as well as recruiting primary employers from outside the area. We customize our assistance to the client's needs. All of our services are gratis and 100% confidential.

- Introductions and referrals to the Small Business Development Center
- Referrals to Wyoming Workforce Development
- Letters of support to appropriate agencies
- Pro-business advocate
- Networking opportunities with local businesses
- Links on LEDC's ZoomProspector website for commercial real estate listings
- Be included in LEDC special events and dinners
- Laramie and Albany County business newsletter
- Market research
- Site of building location assistance
- Professional and friendly staff eager to assist businesses

Business Ready Community Grants & Programs

Wyoming Business Council (WBC) serves the citizens of Wyoming by working to increase wages and helping communities grow and diversify their economies. LEDC will assist with your business applications for the following programs:

- Business Ready Community Grants for infrastructure up to $1 Million with 15% match.
- Business Committed Grants for committed businesses up to $1.5 Million with 10% match.
- Wyoming Partnership Bridge Loan Program for loans up to 35% of project with maximum at $500,000.
- Wyoming Partnership Guaranteed Loan Program participation with local lender that has secured a federal guaranteed loan (i.e. SBA, USDA) to guarantee repayment of a loan made to a business. The maximum participation by WBC shall be 50% of the loan or $1 Million, whichever is less.
- Market Research through the University of Wyoming.

Wyoming Workforce Training Grants

This program is available through the Wyoming Department of Workforce Services to assist companies with workforce development. LEDC will assist with your business applications, as well as help facilitate customized classes.

- New employees may be eligible for $4,000.00 in training grants
- Current employees may be eligible for $2,000.00 in training grants
- Customized classes can be made available at Laramie County Community College at the Albany Campus for special training
- Letter of Endorsement from LEDC must accompany grant application

Trade Show Grants

Wyoming Business Council program assists businesses that want to market their product on a regional, national or international level to offset some on the expenses required to participate with a Trade Show Grant. LEDC will assist with your business applications.

- Up to $1,500 per year is available for companies wanting to attend Trade Shows
- Maximum $6,000 per business for total Trade Show grants
- Letter of Endorsement from LEDC must accompany grant application

Revolving Loans Fund Program

LEDC'S Revolving Loan Fund Program facilitates new and existing business in obtaining financing at optimum terms. ***All information is considered and treated as confidential.***

To be eligible a project should meet, but is not limited to, the following criteria:

- Creates new job opportunities through expansion, relocation, or start-up
- Diversifies the economic base of Laramie
- Has potential to increase the tax base

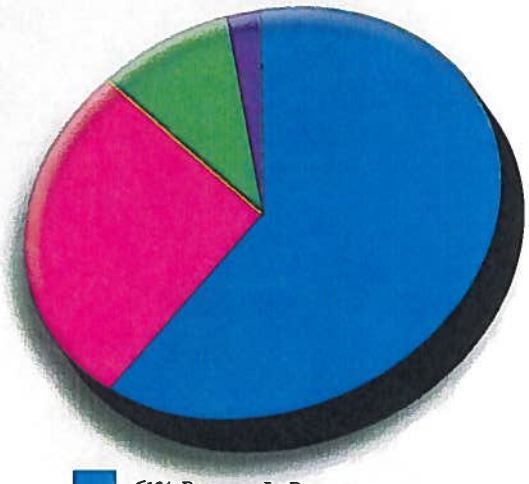
Eligible activities for the Revolving Loan Fund Program

- Acquisition of land, buildings, and leasehold improvements
- Construction of new buildings
- Rental of land, buildings, and improvements
- Renovation of existing buildings
- Acquisition of machinery, computers, and other equipment necessary for the operation of the project
- Payment of professional fees
- Acquisition of inventory
- Working capital
- Other activities the LEDC Financial Tools accepts as part of the project

Income & Expenses

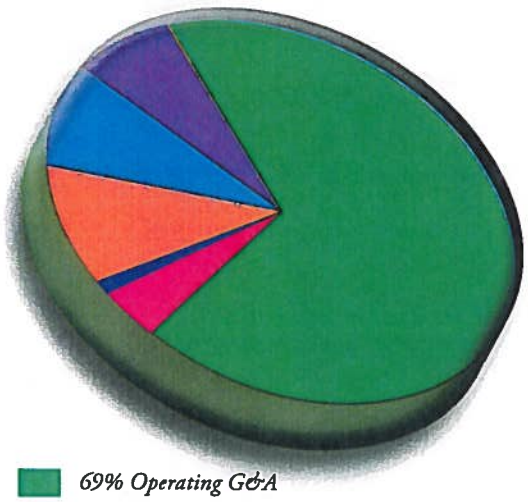
During the past fiscal year, almost two-thirds of LEDC's income was generated from Partners In Progress Contributions and In-Kind Trade. Similarly, approximately sixty-nine percent of expenses were attributable to Operating G&A requirements, which is standard for economic development organizations.

2010-2011 Income



61% Partners In Progress
27% Fee for Service Agreements
9% Grants
3% In-Kind Trade & Miscellaneous

2010-2011 Expenses



69% Operating G&A
4% Marketing
10% South Laramie Rail Spur Project
9% Investor Development
8% Land Maintenance and Development

2010 – 2011 Insight Into Operations

PROSPECT/CLIENT RECAP

An effective economic development program requires considerable interaction with prospects and clients within our business community to virtually anywhere outside the City of Laramie and Albany County. Here is a summary of performance experienced within the 2010-2011 fiscal year.

	Active	Cold	Successful	Dead	Unsuccessful
Entrepreneurial	1	4	0	4	0
Expansion (Local)	9	3	9	0	0
Expansion (Non-Local)	2	2	2	7	2
Recruitment	3	1	0	2	8
Relocation	1	0	0	2	0
Retention	1	0	0	0	0
Start-Up	0	2	0	0	0
Totals	**17**	**12**	**11**	**15**	**10**

Total of 65 prospects

43% Technology Based (57% still active)

27% Retail and Service Related

20% Manufacturing

10% Construction Trades

Prospect/Clients assisted in 2010-2011: 65

From outside the United States: 0
From outside of Wyoming: 19
From within Wyoming (non-local): 2
Local businesses assisted: 30
Regional Searches: 14

Economic Trends

A healthy economic base is key to a community's dynamic and productive economic development. Wyoming, Albany County and the City of Laramie have a history of economic strength, which enables business to grow and prosper.

2005-2010 Labor Force Estimate

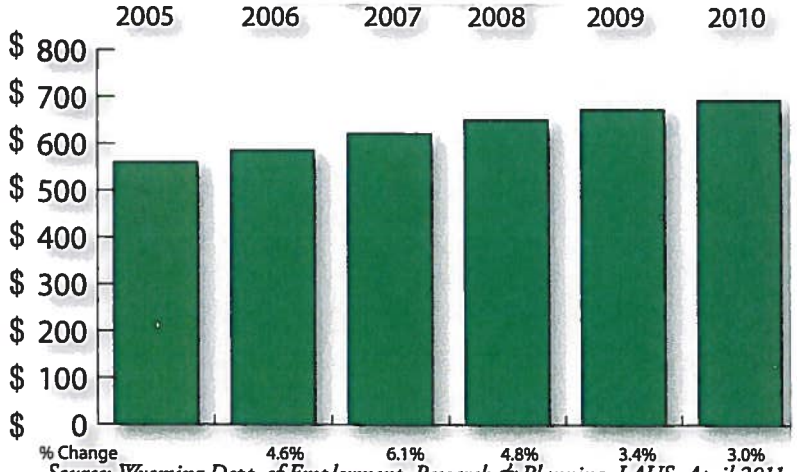
WYOMING	2005	2006	2007	2008	2009	2010
Labor Force	278,183	285,958	291,604	295,592	296,880	293,769
Employment	267,927	276,882	283,543	286,394	277,669	273,313
Unemployment	10,256	9,076	8,061	9,198	19,211	20,456
Unemp. Rate	3.7%	3.2%	2.8%	3.1%	6.5%	7.0%

ALBANY COUNTY	2005	2006	2007	2008	2009	2010
Labor Force	19,478	18,921	18,863	19,059	19,481	19,272
Employment	18,925	18,426	18,416	18,569	18,646	18,291
Unemployment	553	495	447	490	835	981
Unemp. Rate	2.8%	2.6%	2.4%	2.6%	4.3%	5.1%

Source: Wyoming Dept. of Employment, Research & Planning, LAUS, April 2011

2005-2010 Average Weekly Wages

Albany County



Source: Wyoming Dept. of Employment, Research & Planning, LAUS, April 2011

2009-2010 Total Population

	2009	2010
Albany County	33,979	36,290
Laramie	28,850	30,816

Source: Wyoming Center for Business & Economic Analysis, Inc.

Laramie Economic Development Corporation

Members of the Board of Directors	Partner In Progress Investor	Officer Position 2010-2011	Officer Position 2011-2012
Jack Bedessem	Trihydro Corporation		
Casey Campbell	Brown & Gold Inc.	(retired)	
David Challacomb	Mountain Cement Company		(new)
Dave Coffey	Coffey Engineering & Surveying, LLC	Treasurer	Treasurer
Don Collins	Western Research Institute		
Shane Cox	Source Office Products		
Gary Crum	Wyoming State Bank	Vice Chair	Board Chair
Bob Davis	Real Estate Broker		
Jeff Dodds	Dodds Shoe Company, Inc.		
John Dooley	Dooley Oil, Inc.		
Carol Dozier	Ivinson Memorial Hospital		
Dan Furphy	First National Bank of Wyoming		
Mona Gamboa	Happy Jack Software, Inc.		(new)
Megan Goetz	Pence and MacMillan, LLC	Secretary	Vice Chair
Butch Keadle	Insurance Unlimited, Inc.	Board Chair	Past Chair
Ray McElwee	Groathouse Construction, Inc.		
Brendan Murphy	Raving Real Estate / 9-H Ranch	(retired)	
Rajeev Patel	Patel Enterprises		(new)
Todd Pearson	Albany Insurance Agency		
Mike Peck	First Interstate Bank	Past Chair	
Karen Saunders	The Mortgage Source, Inc.		
Roy Schmett	Mountain West Farm Bureau Insurance		Secretary
Roger Strube	DOWL-HKM (Aspen-Banner Eng.)		
Nancy Stutzman	American National Bank		
Guy Warpness	WyoTech		
Calvin Young	Young Appraisals		

Ex-Officio Members	Affiliation	Title
Gordon Crow	Laramie Area Chamber of Commerce	Executive Director
Dr. William Gern, PhD	University of Wyoming	Vice President of Research
Janine Jordan	City of Laramie	City Manager
Jack Skinner	Laramie Regional Airport	Airport Manager
Dr. Lynn Stalnaker, PhD	Laramie County Community College	Dean – Albany County Campus
Tim Sullivan	Albany County	County Commissioner

Advisory Positions	Affiliation	Title
Dr. Jonathon Benson, PhD	Wyoming Technology Business Center	CEO
Scott Mullner	City of Laramie	Mayor
Tom Johnson	Wyoming Business Council	Southeastern Region Representative
Karl McCraken	City of Laramie	Member of City Council
Phil Nicholas, Esquire	Nicholas & Tangeman, LLC	Senator – State Senate District 10
Joe Vitale	City of Laramie	Member of City Council

Emeritius Board Members

Jim Cavalli	Mark Marquardt	Dr. David Walrath, PhD
Paul Greaser	John Schuster	
Mark Mader (Board Historian)	Dick Van Pelt	

LEDC Staff

Gaye Stockman, CEcD	President & CEO
Joe Somodi	Vice President of Business Research and Community Relations
Amanda Bohannon	Office Manager

Laramie Economic Development Corporation
Technology Prospects Since 2008

Project Code Name	Prospect Type of Business-Product	Lead Status	Prospect Type	Prospects Number of Employees	Building Specifications - sq. ft.	Land Specifications - acres	Conclusion
0307SINI	Computer technology products and service	Dead	Expansion	2	10,000	N/A	Client moved business to Idaho
0909DATA	Data Center	Dead	Expansion (non local)	Unknown	50,000	Unknown	No response from site selectors - Wyoming did not have sites that met their criteria
0109WEDA	Data Center	Dead	Relocation	Unknown	25,000	Unknown	Laramie was too far from location requirements: near a "major city" technology base and international airport.
1208WEDA	Data Center	Dead	Relocation	Unknown	8,000	Unknown	Laramie didn't meet selection criteria - existing facility with redundant power and fiber optic telecommunications.
1011DATA - Project Crossbow	Data Center	Dead	Expansion (non local)	30-50	Unknown	60-120	Wyoming was excluded from their site selection process because it does not fit their modeling criteria - no property tax abatements
0409OMAS	Data Center	Dead	Relocation	Unknown	Unknown	Unknown	Laramie could not meet selection criteria - redundant power and telecommunications fiber
0911DATA	Data Center - Co-locate	Dead	Expansion (non local)	15	20K - 30K	9-14	Client was not able to glean sufficient clients to justify building a co-locate data center. Client has not responded to our messages.
0511WEDA#3 - Project Summit	Data Center - Large Scale	Dead	Expansion (non local)	150-200 ($8 to $36/hr.)	Unknown	30 - 50	Client announced they will locate their new data center in Cheyenne. Cited lack of shovel ready site and faster date latency rate in Cheyenne.
0411CBRE	Data Center - Mega	Warm	Recruitment	150	Unknown	150 Acres	Staying in touch with site consulting firm for data centers
0311WEDA #2	Data Center - Mega	Dead	Recruitment	Unknown	Unknown	130 - 250 (1 million sq. ft.)	Client selected Cheyenne and is negotiating with Cheyenne Leads. Nov 2011 - project was scrapped.
1010ZEUS - Project Zeus	Data Center & Cloud Computing Service - Mega	Dead	Expansion (non local)	200 (120 IT & 80 Maintenance)	500,000	120 - 160	Due to a corporate merger, client announced they are putting their building a new facility in Laramie on hold
0909TEIN	Data Center and production facility	Dead	Expansion (non local)	50	25,000-40,000	Unknown	Client stopped communications
0210WEDA - Project Roosevelt	Data Center: Tier IV	Dead	Recruitment	100+	50,000-250,000	Minimum of 15 acres	LEDC did not submit proposal because no existing facility of their required size and couldn't meet infrastructure requirements.

Laramie Economic Development Corporation
Technology Prospects Since 2008

Project Code Name	Prospect Type of Business-Product	Lead Status	Prospect Type	Prospects Number of Employees	Building Specifications - sq. ft.	Land Specifications - acres	Conclusion
0108RING	Engineering	Completed	Expansion	Unknown	6,000	NA	Client did not require additional financing as anticipated and project is complete
0107IATES	Engineering firm	Completed	Expansion	48 existing 25 new jobs	10,000	3 acres	Assisted with Business Committed Grant. Successfully helped them fill their vacant space with new tenant
0808SEND	Engineering firm	Completed	Expansion (non local)	2 - 3	1,500 - 2,000	Unknown	Client has expanded office into Laramie
0507NETT	Research & Development	Dead	Entrepreneurial	Unknown	Unknown	Airport	Client continues to seek funding - No recent activity
0708HAWL	Research & Development	Dead	Entrepreneurial	5-15 Headquarters/100 Assembly	4,000	10 to 20 acres	Was unable to located investors to move forward with plans
0311GIES	Research & Development	Warm	Expansion	10	2,000	N/A	Considering expansion in the near future
0110TEMS	Research & Development	Warm	Entrepreneurial	Unknown	1,200	Unknown	Client received notice of award for their grant application to the US Dept. of Agriculture
0111OVEY	Research & Development	Cold	Expansion	6.5 current plus 5 more	6,400	Unknown	The company CEO moved the operations to Kansas citing lack of adequate facility that met their needs
0708LINS	Research & Development	Warm	Expansion	78	18,000	5	Continue to research expansion options
0109NNIS	Research & Development: Coal Gasification	Dead	Entrepreneurial	15	Unknown	35 Acres	Laramie's lack of adequate infrastructure eliminated Laramie from the selection process
0509RARO	Research & Development: Microbiology	Dead	Relocation	5	N/A	N/A	Client decided to stay in Colorado.
0309ETTI	Research & Development: Programming software and testing	Dead	Relocation	15	10,000	Unknown	Economic downturn prevented them from selling their property in California. They could not relocate and maintain two mortgages
1005ADRL	Research/Level II Containment Center	Dead	Expansion	Unknown	N/A	N/A	Announced decision to relocate the facility to Kansas
0708TROM	Software	Dead	Start-Up	Unknown	small office	N/A	Client dropped communications after receiving information
1008GIES	Software & technical consulting	Warm	Expansion	17	3,000-6,000	N/A	Client moved in to renovated space in community, but is outgrowing space rapidly
1008WEDA	Software and technical consulting	Completed	Recruitment	17	N/A	N/A	They have informed the WBC that they will be opening their facilities in Laramie.

Laramie Economic Development Corporation
Technology Prospects Since 2008

Project Code Name	Prospect Type of Business-Product	Lead Status	Prospect Type	Prospects Number of Employees	Building Specifications - sq. ft.	Land Specifications - acres	Conclusion
0507LAND	Software Development	Dead	Recruitment	Unknown	Unknown	Unknown	Client dropped communications after receiving information
0407DNAN	Software Development	Dead	Start-Up	Unknown	Unknown	Unknown	Unable to secure funding
0311LOGY	Software Development & Internet Services	Completed	Expansion	16	2,000	N/A	Expanded into a local facility with strong IT backbone. Considering additional expansions within next two years
0110ALEN	Software Development: HR Support	Cold	Entrepreneurial	5	N/A	N/A	Continue to keep communications open to assist with whatever expansion assistance they may need
0507AMER	Software product	Dead	Recruitment	20	NA	NA	Was unable to find investors - continues to do business in Texas
0410WARE	Software technology	Warm	Expansion	17.5 FTE	3,650	N/A	Client signed 3 year lease with the city for 3,650 sq. ft. of the Laramie Technology Building. Lease begins on December 1, 2010.
0712WEDA - Project Granite	Technology	Hot	Expansion (non local)	Not disclosed	120,000 (concrete tilt-up)	100 (flat or slightly rolling)	Area has not been eliminated from site search