

# Master Plan

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October 17, 2014

Dear City of Boise Planning & Zoning Commission and City Council:

St. Luke's has been caring for the Boise community since 1902. In its more than 100-year history, St. Luke's has evolved in order to meet the changing needs of the people we serve. As a community-owned asset, our mission is to improve the health of the people in our region and our vision is to transform health care by aligning with physicians and other providers to deliver integrated, seamless, and patient-centered quality care across all St. Luke's settings.

As an organization, our evolution must continue. Health care is changing and the needs and expectations of patients are becoming more personalized. Our community is growing. Its residents are aging, and living with more chronic illnesses. All of these factors point to more people needing health services in the future and to St. Luke's need to develop, in new patient-centered ways, to meet this community need.

The information contained in the document that follows provides the background, details, and context for the development St. Luke's is proposing for its downtown Boise facility. The plan has been collaboratively developed with our partners, including our neighbors, public agencies, community business leaders, boards and steering committees (for a full list, see "Acknowledgments & Credits"). The plan is evidenced-based, considers development planning to the year of 2030, and respects the unique attributes of the neighborhood setting where the hospital currently resides.

We are inspired by the collaboration that has supported the development of this Master Plan. We believe it is a solid road map for the future development of healthcare services in this region and look forward to the opportunity to review and discuss the details as we move through the approval process.

Chairman St. Luke's West Region Board of Directors

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Kathy Moore

Chief Executive Officer St. Luke's West Region

# Acknowledgements & Credits:

St. Luke's Health System and St. Luke's Boise Medical Center extend a sincere thanks to all involved in the development of this facility master plan for their input, insight and expertise.

A special thanks to St. Luke's West Region Board of Directors for their vision, leadership and perseverance:

Mike Mooney, Chairman A. J. Balukoff Jim Everett Carol Feider Dean Hovdey Thomas Huntington, MD George Iliff John Jackson Joy Kealey Kathy Moore, CEO Leslie Nona, MD Catherine Reynolds, MD **Bill Ringert** Ron Sali **Bishop Brian Thom** Brad Wiskirchen

Thanks to the citizens of Boise, neighbors, and public agencies, including:

East End Neighborhood Association North End Neighborhood Association Downtown Boise Neighborhood Association The Bannock Arms Boise Independent School District Elks Rehab Hospital Boise VA Medical Center US Geological Survey Bureau of Reclamation Valley Regional Transit Capital City Development Corporation The City of Boise Ada County Highway District

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# **1.0 EXECUTIVE SUMMARY**

"A hospital is a living organism, made of many different functions, but all these must be in due proportion and relation to each other, and to the environment, to produce the desired general results. The stream of life which runs through it is incessantly changing; patients and nurses and doctors come and go, today it has to do with the results of an epidemic, tomorrow with those of an explosion or fire, the reputation of its physicians or surgeons attracts those suffering from a particular form of disease, and as the one changes so do the others. Its work is never done; its equipment is never complete; it is always in need of new means of diagnosis, of new instruments and medicines; it is to try all things and hold fast to that which is good."

> Iohn Shaw Billings Designer, Johns Hopkins Hospital May 7, 1889



# I.I INTRODUCTION

St. Luke's Health System is the largest and only Idaho owned notfor-profit healthcare system. Its service area stretches from eastern Oregon to eastern Idaho and from northern Nevada to north Idaho. The system is comprised of seven hospital facilities located in central and southern Idaho, numerous clinics and rural physician practices, and partnerships with healthcare providers all over Idaho and surrounding service areas. It is committed and invested in each community it serves. The flagship tertiary care center is located in Boise, where the most acute cases from the service area are referred for the most specialized care.

St. Luke's Boise facility has existed for more than a century, and over that time has witnessed incredible population growth, the Great Depression, two World Wars and numerous military conflicts, the AIDS epidemic, and the proliferation of cancer diagnosis and treatment. It has struggled and prospered, all the while providing dedicated care for its community, and of equal importance, the region. Its downtown location has grown from a single residence converted to a hospital accommodating six patients, to a hospital with more than 380 inpatient beds and a collection of buildings providing needed care to hundreds of people a day.

According to 2012 population projections considered by this plan, by the year 2030 there will be an additional 291,000 people living in the Treasure Valley. The perceived impact to the current St. Luke's Boise facility is one element influencing this master plan.

The hospital began at 1st Street and expanded through the decades, east. Each new building and addition touching the last, and progressively increasing in size to accommodate the needs of the time. This pattern demonstrates careful planning and fiscal responsibility, as well as the importance of maintaining connectivity to current departments within the hospital, limiting disruptions to current operations. Departmental adjacency and proximity to one another can mean the difference between degrees of successful patient outcomes, and, in more extreme instances, life and death. One only needs to look at the statistics the healthcare industry monitors in emergent conditions to see the value of seconds in success rates.

Rendering at the intersection of Avenue B and Warm Springs Avenue of the St. Luke's Boise facility, which illustrates the future expansion

Having reached Avenue B, the building cannot continue to grow further east without great complication, compromise and the uncertainty of success. Therefore, this plan explores alternate approaches to address future expansion.

In this plan, great effort has been taken by St. Luke's Administration, community leaders, stakeholders including the City of Boise and Ada County Highway District, as well as St. Luke's team of consultants, to test and explore available options for the next major hospital development and supporting elements. The consultant team is made up of regional and national experts in their respective fields offering their insight and experiences to the benefit of St. Luke's and the community. A complete list of contributors to this document can be found in the acknowledgement section opposite the Index. This document is the culmination of a decade of careful assessment, evaluation and reevaluation in reaction to trends and policy. The timing is right and the importance cannot be understated.

# 1.2 PURPOSE OF PLAN

The goals and objectives of any facility master plan should identify the needs and vision of the organization, then strive to provide a clear, albeit flexible, roadmap for coordinated development; a path to modernize existing facilities and systems; and evolutionary planning to replace structures that are nearing the end of their useful lives. Additionally, healthcare facility planning requires imperatives including, most importantly, patient safety and evidence-based design. The plan must be adaptable to offer opportunity to future needs.

By its nature, health care is dynamic. Inherently, challenges from the insurance industry, government agencies and policies, treatment and care delivery protocol, ever-improving technologies, and the evolution of illness make the planning of healthcare facilities an ongoing task. Spaces and infrastructure must be planned to be as flexible as possible and anticipate future needs and trends to ensure a maximum usable life. So, too, must be the hospital facility.

This master plan projects needs and planning to the year 2030; any further projections become unreliable and any less becomes too limiting to be useful. The document will serve as a living outline for future development and as such will be periodically updated, presented and recorded with the agencies having jurisdictional interest and approval. It has been discussed the plan would be revisited at a minimum of every 3-5 years depending on need and activity. The master plan is illustrative of a full build-out of the facility; however, based on changing conditions and market need, individual buildings may be phased or scaled back accordingly.

# **1.3 PLANNING CONSIDERATIONS**

The planning framework considers first and foremost the needs of the hospital and its patients. Health care is, at the end of the day, the charge of any healthcare organization. Secondarily, urban and transportation planning objectives have been considered to the extent they do not conflict negatively with the first priority. To be successful, this plan must achieve an acceptable balance and wherever possible improve the lives of those who are impacted. Where ideals of the second priority cannot be met due to the imperatives of the first, the plan offers enhanced alternatives developed with the help and commitment of the community.

The iterative plan development process progressed through a concentrated series of workshops with the interested agencies, numerous neighborhood meetings and public open houses. The initial plan was presented and evaluated by all parties, discussion and concerns recorded, and the plan adjusted to address feedback where at all possible, and re-presented. If concerns could not be completely addressed, the team offered explanation to the greatest degree possible.

Hospital Planning Considerations

- Patient First Organizing the built environment around the patient experience, from wayfinding to treatment and everything in between.
- Maintain and Improve Connectivity - Relating not only to straightforward wayfinding and departmental organization, but to building services and distribution.
- Facility Renewal & Evolution - Responsible planning makes use of existing assets and respects current investments where possible. Considers future phases.
- Provide Flexibility Health care is dependent upon technology.

The built environment and building systems must be adaptable to future technological and treatment needs.

- Affordable Care Act Effects include increased access to healthcare coverage, translating to more users of diagnostic services. Reimbursement is dependent upon patient outcome. Nationally, this could reduce overall bed need; however, in Idaho the effect will be negligible due to a pre-existing low utilization and length-of-stay rate.
- 24-hour Building Occupancy & Operation The hospital cannot simply be shut down during construction activities, requiring more complex planning and phasing of projects.

Transportation/Urban Planning Considerations

- Maintain or Improve Neighborhood Connectivity Community connectiveness and walkability are key to sustainable urban design. The plan provides adequate access to amenities such as sidewalks, paths, bicycle facilities and maintaining and improving the transportation network in and around the study area.
- Minimize Negative Impact on Infrastructure Mitigate impact on public systems.
- Improve User Experience Where possible improve and encourage usability of existing facilities, create new amenities, and destinations. Such as incorporating open space and creating opportunities for public art.
- Reduce Environmental Impacts Use existing facilities and structures on previously developed land to the extent possible to reduce resource consumption and unnecessary land and infrastructure development.

# 1.4 COMMITMENT TO COMMUNITY

It is important to acknowledge St. Luke's commitment to the community and its betterment. Since 1902, St. Luke's Boise has taken care of patients, both from around the corner and from around the state. It strives to be a responsible steward of community development, the environment, and a healthy lifestyle. As an example, St. Luke's offers a nationally recognized robust employee transportation alternative program incentivizing employees who bike, walk or utilize the public transit systems. Participants receive gift certificates good toward equipment, tune-ups, footwear, and transit passes. It is St. Luke's intention to continue to consider support of new public transportation systems as they develop.

Essential to community vibrancy and enhancing quality of life are protecting open space and creating culture. With this in mind areas for installation of public art and creation of public outdoor space have been integrated in this plan. More information is included in the Recommended Streetscape section.

St. Luke's has also received environmental-focused awards from Idaho Power for reduced energy consumption, construction waste recycling awards from the John William Jackson Fund, and was recipient of the 2011 iYERP Environmental Stewardship Award and 2008 EnviroGuard Award from the City of Boise. Many of these commitments or past acknowledgements highlight St. Luke's adoption



of sustainable design and operation practices in its existing and new agencies, organizations and neighbors. St. Luke's did not only present facilities. information on the plan, but the attendees were able to provide feedback and insight, to further shape and focus this document. The The initial phases of this master plan carry a significant financial outreach effort is anticipated to continue throughout the public investment not only to St. Luke's downtown facilities, but over the approval process. In addition, St. Luke's website, www.stlukesonline. next decade it is estimated several hundred million dollars of rollover org, provides updated plan details and links to relevant resources.

economic benefit and job growth will be provided to the larger community.

Further, there are many challenges and safety concerns related to the transportation system near St. Luke's and the East End Neighborhood. St. Luke's is deeply committed to participating with ACHD, the City of Boise, and the citizens of Boise to improve transportation and connectivity at all levels around its downtown facility, regardless of whether or not the issue is directly caused by St. Luke's development plans. As an example of this commitment to the community, St. Luke's is engaged in a robust outreach campaign with the intent of keeping interested parties updated on developments specific to its master plan. The engagement began well over a year ago and has encompassed over forty separate meetings with

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Timeline of St. Luke's Outreach Efforts.

In the plan that follows, there is an assessment of the existing transportation conditions, identifying areas of concerns and proposing solutions for broader consideration. The team has analyzed four levels of transportation: transit, automobiles, bicycles, and pedestrians. Great care has been given in any of the offered solutions to address safety, performance, and comfort. It is St. Luke's intent to enhance its downtown facility with improvements, encouraging use by the public and improving satisfaction with each system.

# 2.0 HISTORY OF THE HOSPITAL

The following highlights the story of St. Luke's Regional Medical Center, from its humble beginning as a frontier hospital to its current presence as part of the only not-for-profit health system based in Idaho. Selected passages contain information from *St. Luke's Regional Medical Center: A Century of Community, 1902-2002.* 

# Years 1902-1910



St. Luke's Hospital, 1903.

St. Luke's Hospital opened its doors in a magnificent Romanesque home on December 1, 1902, and accepted its first patients a week later. Its founder, The Rt. Rev. James B. Funsten, was acting on an immediate need: medical care for retired Episcopal Church workers, and missionaries. But the six-bed hospital quickly accepted other patients--becoming an institution with a larger mission: a community hospital.

Hospitals are woven from the fabric of their communities. The city was bustling with arts, theater, education, and the exercise of politics. Social and club life was active and righteous: caring for the poor and the orphaned, working with the schools, and supporting the hospitals. This potent idealism, the blending of progressive thinking with caring for the ill and the injured, the very young and the very old, is the philosophy that has compelled St. Luke's to compassion and innovation.

At the time, scarlet fever, smallpox, diphtheria, tuberculosis, and typhoid fever were at epidemic rates and homes were quarantined weekly. Men were trampled when horses and wagons rolled on them at reclamation sites, and they fell off rolling trains and were crushed under massive iron wheels. Families were lost in mountain blizzards. Murders and suicides were common occurrences in the valley and the mining camps.

St. Luke's opened its doors to trauma and disease, providing help and hope in dangerous days.

In April 1903, just four months after opening, Bishop Funsten announced planning for St. Luke's first major expansion because the hospital had been operating at capacity. St. Luke's hired J. E. Tourtellote & Co., the men who would later design the Capitol Building. St. Luke's ongoing reputation for meeting the needs of the growing citizenry was solidified from the beginning. In 1906, St. Luke's was incorporated as St. Luke's Hospital and Nurses' Training School, with a charter that directed any profits into benevolent and charitable work and the development of the facilities. That same year construction of a three-story annex began--a gloriously modern facility with a granite facade. The first floor had nine new patient rooms, the second floor an operating room with huge windows and "mobile electric lights suspended over the operating table. The walls have an enamel finish and may be scrubbed." The upper story had a new dining room with a modern kitchen, with a dumbwaiter used to transport not only food, but supplies and laundry as well. The new basement had a laundry and storage.

By 1907 the new hospital had both private and ward beds, for more than seventy patients, served by twenty nurses and twenty-five physicians.

According to St. Luke's 1907 annual report, the most frequent surgical procedures were those for "female problems," gunshot wounds were common, and diseases treated at the hospital included cancer, heart disease, diabetes, and arthritis, as well as hysteria, opium habit, delirium tremens, melancholia, and indigestion (an astonishing 54 cases).

St. Luke's is known for its skilled, caring, and compassionate nurses, a foundation set early on. At St. Luke's, the nurses, all young women, lived together at the Mary Douglass Burnham Memorial Home for Nurses, a gift of Mrs. W. R. Cochran of New York City. The home was furnished by the St. Luke's Guild. By 1910, two more cottages were added to house twenty-five nurses.

The St. Luke's Hospital Guild, established by Mrs. James Funsten in October 1902, was instrumental in raising substantial amounts of money, sewing for the hospital, and making bandages and sponges. As each of the expansions was completed, the Guild undertook the financial and physical obligation of outfitting patient and treatment rooms. This was of inestimable help. The original twelve members increased to thirty members by 1907.

Early on, St. Luke's attracted benefactors from all over the country. One of the most compassionate gifts was \$5,000 donated by Mrs. Thomas J. Emery to provide a free bed in the hospital for the care of the indigent. The 1908 board of directors' minutes reflected this sentiment: "We further express our deep appreciation of this gift in behalf of suffering humanity and fully realize that its influence for good will be lasting."

# Years 1911-1920

St. Luke's Hospital was challenged by the growth of the community, a harbinger of St. Luke's future. By 1915, the hospital had cared for about 8,000 people in total and trained more than one hundred nurses. The hospital had 70 beds, three operating rooms, and a plant that was worth more than \$100,000. A "diet kitchen" was added in 1911, as well as an automatic elevator. A new x-ray machine was purchased in 1915; the old one was "less than successful." A new nurses' home was built for \$17,000 in 1918.



St. Luke's Children's Ward, 1913.

By 1919, St. Luke's was beginning to plan for the new hospital, which would be completed in 1928; their initial cost projection: \$150,000. The hospital was turning away patients, paying and otherwise; there weren't enough beds.

In 1910, St. Luke's began its first pediatric services in a donated house close to the hospital and in 1920 established its first nursery.

During this decade, medicine was still practiced primarily in homes rather than in clinics or hospitals. There were a number of unlicensed physicians practicing in the valley. Some of these practitioners provided alternative care, such as the Chinese herbalists and the midwives, in much the same way they do now. But in a few instances, outright fraud was committed.

To ensure that patients would be treated only by licensed physicians, the Boise Physicians and Surgeons Club was formed in 1912. The objectives also were to meet twice a month to discuss recent advances in medical science. General good health of the city also was discussed. Any reputable physician in the city was eligible for membership.

The flames of war leapt high in the spring of 1917; the managing of the hospital was increasingly difficult. Bishop Funsten wrote to the Missionary District of Idaho, "... but this great World War has cast its shadow over us. It has created new problems and put upon us heavy burdens. The cost of living has in some cases doubled and tripled. It makes St. Luke's Hospital much more expensive to run. ... We have as a whole had to pay heavy tribute and gain but few advantages..." Bishop Funsten also believed that St. Luke's contribution to the war, the training of nurses, was a moral imperative.

Because so much money and resources were funneled into the war effort, St. Luke's struggled with fundraising. The local Episcopal Church remained steadfast in its support, and set aside the Sunday after Thanksgiving as "Hospital Sunday" to take up special offerings. The gifts included linens, towels, caps and gowns for surgeons, and the proceeds from the opera H. M. S. Pinafore, which contributed almost \$600 for the reduction of St. Luke's debt in 1915.

While community need was almost St. Luke's undoing, the Boise community and the Episcopal Church also were St. Luke's foundation and sustenance.

Then – and now – a hospital is not something apart from its community.

Years 1921-1930

St. Luke's old hospital had severe limitations: a tiny kitchen in the attic, no place to segregate patients with similar infirmities, no place to house violent or mentally ill patients, no isolation unit for communicable diseases, and no room for expansion or technical improvement. The hospital increasingly had to turn away patients. The never-ending problem: not enough beds.

The 1921 board of directors had the good sense and good fortune to hire Miss Emily Pine as superintendent, and she changed the focus and direction of St. Luke's Hospital. Miss Pine created an environment for expansion, professionalism, and interaction with hospitals across the nation. St. Luke's entered the practice of modern medicine, which met not only community need, but also met national standards of practice.

On May 26, 1927, the board of directors voted "to build a new hospital"--a four-story facility that would rival any modern hospital in the West.

So acute was the need for the new hospital that 50 community leaders came forward in the spring of 1927 with this proposition: Build a new hospital for \$250,000; the citizens of Boise would provide \$125,000; the Episcopal Church would be invited to contribute the other \$125,000. Bishop Funsten died in 1918, and following in his footsteps, The Rt. Rev. Middleton S. Barnwell accepted the challenge.

The campaign moved like a hurricane through the city. Three full days after the campaign started, \$146,000 was raised in half the time allotted. Construction started in the fall of 1927, and the doors to the gleaming, modern hospital opened in 1928.



The new St. Luke's, 1929.

The new building was four stories high with reinforced concrete on brick-bearing walls (St. Luke's still uses red brick, a symbol of tradition, strength, and commitment). The exterior of the hospital, with its stone belt course and sandstone cornice, faced 1st Street. The entrance was in the middle of the block, opening to the terrazzo lobby, and adorned with potted ferns and dark, elegant furniture.

Private patient rooms as well as wards were housed on the ground floor and second floor; each room had a bathroom and a closet. A nurses' station was placed in the center of each floor to save steps and time. The lovely new chapel, filled with sunlight, was in back of the nurses' station on the first floor. The third floor housed the surgery suites, physiotherapy, and utility rooms, along with more patient rooms, a work room for lab and nursing, a dressing room for surgeons, plus waiting and consultation rooms. St. Luke's provided 100 new beds for the patients.

In 1922, St. Luke's Hospital affiliated with the American College of Surgeons. St. Luke's medical practice began to exceed those of most hospitals in the interior West. In 1929, St. Luke's installed one of the first electrocardiographs in the West outside of Salt Lake City, Seattle, and San Francisco.

# Years 1931-1940

During this decade, the Great Depression had taken hold. St. Luke's, like the balance of the nation, was fiscally stretched. As a result, the hospital saw little physical growth, but increased patient demand and new services. St. Luke's further developed its Laboratory and Radiology departments and, for the first time, established a Children's Department.

St. Luke's would not have survived those terrible years without the continuing support of the community.

# Years 1941-1950

By the early 1940s, St. Luke's 1928 hospital was inadequate: no isolation ward, limited pediatric space, and a general lack of bed space. A new laboratory, operating rooms, and laundry also were critical needs. Saint Alphonsus was also feeling the pinch, so the two hospitals banded together in a fundraising effort that was postponed during World War II. It resumed again in 1947 and netted more than \$800,000 by 1949. Because the bids for hospital construction had changed considerably in the intervening years, St. Luke's share, \$400,000, was less than half the money needed for construction of the new wing. Another \$600,000 was raised over the next two years. St. Luke's altered its plans a bit, and the new wing was completed in 1952.

# Years 1951-1960

The decade of the 1950s was one of stability, optimism, and growth. Boise's population was booming, growing from 40,000 in 1940, to 50,000 in 1950, to 70,000 in 1960. Some of these new Boiseans were the 1,000 or so babies born at St. Luke's each year in the early 1950s - today's Baby Boomers.

The technological changes that began in the 1950s transformed the way the world works - the way St. Luke's works - in less than 20 years.

St. Luke's celebrated its 50th anniversary in 1952 by opening the new "Million Dollar Wing," the culmination of the late 1940s joint fundraising campaign with Saint Alphonsus.



Constructing St. Luke's "Million Dollar Wing," 1951.

"Modern medical care at its finest is no longer a distant dream," the March 13, 1952, Idaho Statesman reported. "It has become a reality with the opening of new and remodeled facilities at St. Luke's Hospital, now Idaho's largest."

"The hospital now has 245 patient beds, including bassinets for the newborns. Additional changes have been made throughout existing facilities, as well as construction of the entire new wing, to provide all the auxiliary services needed to care for a large number of patients."

Mrs. Helen Ross, superintendent of St. Luke's during the 1950s, guided St. Luke's as the hospital recovered from the war years, through the building and funding of a new wing and the beginnings of massive technological change. She was elected as the second vice president of the American College of Hospital Administrators in 1954, the first St. Luke's administrator to hold office in a national professional organization.

In 1954 St. Luke's received its first accreditation from the loint Commission. Because of the accreditation, St. Luke's was able to apply for and receive a \$66,000 grant from the Ford Foundation, the beginning of grant-making opportunities. Local excellence brings national recognition and a chance to raise funds for vital improvements, an acknowledgement lost on no one - then or now.

By 1959, the physical plant was too small, outpaced by community need. A long-range plan for expansion would cost \$2,000,000 and provide 300 beds. St. Luke's was awarded more than \$303,000 in Hill-Burton funds via the United States Department of Health, Education, and Welfare for a new lab and an x-ray diagnostic and treatment center, about half the money required for the project.

An isotope laboratory, radiotherapy, and cobalt therapy were established using cancer research and treatment funds, and by 1955 St. Luke's Tumor Board was comprised of six doctors for the purpose of supervising the tumor registry, conducting tumor conferences and pediatric cardiology; and Dr. Bonnie Vestal in pediatric oncology; and clinics, and the oversight of cancer cases. In 1956, St. Luke's Tumor so many more. This extraordinary expertise and leadership shaped Board received approval from the American College of Surgeons, the context of medical care at St. Luke's, and paved the way for one of the first "cancer facilities" in Idaho to receive that recognition. more physicians of exceptional talent to practice at St. Luke's. Their contributions and dedication resulted in huge strides forward in the Years 1961-1970 development of hospital programs and quality of care. As a result, St. Luke's was well on its way to becoming a premier hospital, a referral In the early 60s, St. Luke's was building again to meet the community's center for people with very serious illness or injury from all over need for healthcare services. A new addition gave the hospital 18 the region.

new medical beds, five new obstetrics beds, and three new pediatric beds; air conditioning and a new heating system; a new recovery room; a new pharmacy; a central sterile supply department; a new main entrance off Bannock Street; a centralized admission area; an enlarged coffee and gift shop; new visitors' lounges; and remodeled physical therapy, maintenance, and administrative areas. The new wing was dedicated in September 1962.

As significant as the new wing was, it wasn't as significant nor as far-reaching as the new Medicare and Medicaid legislation, signed into law by President Lyndon Johnson in 1965. In the fall of 1967, St. Luke's accepted its first Medicare patient. The advent of Medicare and Medicaid, which seemed like a godsend to older Americans and the indigent at the time, introduced a whole new era of governmental control, regulation, influence, and payment, which remains both a benefit and a challenge to healthcare providers today.

In 1968, Dr. Rodney Herr performed Idaho's first open heart surgery at St. Luke's, setting the cornerstone for what would become Idaho's largest, nationally-recognized cardiovascular services department. The hospital expanded to include a cardiac catheterization lab for diagnosis and treatment, a four-bed intensive care unit, and a cardiac surgery suite.



Bannock Street Entry, 1962.

# Years 1971-1980

As overwhelming as the growth during the 1970s and 80s was, it had an unexpected silver lining: there was sufficient patient population to support many subspecialists in both medicine and surgery. Physicians settling in at St. Luke's came with spectacular curriculum vitae: such stellar names as Dr. David Ashbaugh in thoracic surgery; Dr. David Merrick in pulmonology; Dr. Marshall Priest and Dr. James Smith in cardiology; Dr. Robert Burton, neurology; Dr. Mike Nichols,



One of the first cardiac surgeries at St. Luke's.

St. Luke's had been raising funds for another major expansion - this time, the south wing. The new south wing "truly is magnificent. The new areas include a new five-level addition to the hospital itself and a central services building. Total cost of the project is \$10 million, of which \$2.4 million was donated in the largest fundraising effort ever carried out in Boise," an editorial in The Idaho Statesman read. St. Luke's now had 300 beds; an outpatient department; new surgery, pre-op, and recovery areas; a new nursery and neonatal unit; new labor and delivery rooms; new coronary and intensive care units; and ample space for support services.

The dedication was held in the fall of 1977. Governor John Evans said, "The addition marked St. Luke's 75th anniversary, a milestone in the progress of medical care in Idaho."

During President Lyndon Johnson's administration, legislation was enacted that provided grant monies for the prevention and treatment of cancer, heart disease, and stroke. With the grant deadline rapidly approaching, then hospital president E. E. "Gil" Gilbertson wrote a federal grant that would provide part of the financial foundation for Mountain States Tumor Institute (MSTI). Fred Bagley, a Boise businessman and St. Luke's trustee, successfully lobbied Governor Cecil Andrus and the Idaho Legislature for state funds that supported MSTI's mission. Thanks to Gil's efforts, those of local internal medicine specialist Dr. Maurice Burkholder, and many others, Mountain States Tumor Institute opened on the St. Luke's Boise campus in 1971; today, St. Luke's MSTI is Idaho's largest and most comprehensive provider of cancer care services for both adults and children.



MSTI radiation treatment room, 1972.

### Years 1981-1990

In September of 1980, St. Luke's Hospital and Nurse's Training School, Ltd. became St. Luke's Regional Medical Center. St. Luke's was, by then, a major referral center for patients from southern Idaho, northern Nevada and eastern Oregon.

St. Luke's continued to provide advancements in services and technology during this decade: an outpatient surgery center, pediatric intensive care, education and support for women and seniors, home care, lithotripsy, evaluation for children at risk of abuse and neglect, family-centered birth and parenting services, an epilepsy center, sleep disorders center, computerized tomography (CT) and magnetic resonance imaging (MRI), formalized diabetes education programs (which would later become St. Luke's Humphreys Diabetes Center), and the hospice program at St. Luke's MSTI. These services were supported by a \$19 million remodel, then by a \$7.5 million renovation, and further, by planning phases of construction of a \$48 million hospital tower, ten stories tall.

This rate of growth was driven by the population explosion in the region and the meteoric rise of advancements in technology, medicine, surgical intervention and expertise.

Edwin E. "Ed" Dahlberg came to St. Luke's in 1985 and assumed the position of president of St. Luke's Regional Medical Center in 1988. During his tenure, which ended in 2010 when he retired as president and CEO of St. Luke's Health System, St. Luke's formed centers of excellence in cancer care, cardiac services, and women's and children's services. The concept of patient care teams was enlarged and encouraged throughout all of the hospital units and services, often regionally.

The Robert Wood Johnson Foundation and Pew Charitable Trust grant allowed St. Luke's to support patient care in the rural areas surrounding Boise. Partnerships were established with hospitals and institutions of higher education throughout the region.

Thanks to these committed partnerships, St. Luke's Health System's continuum of quality care now extends 300 miles in any direction, and today St. Luke's Boise Medical Center is the hub of an entire community of care providers.

St. Luke's was the first hospital in the country to become a Children's Miracle Network telethon partner, even before officially becoming accredited as a children's hospital, which occurred in 1999 to the benefit of severely ill and injured youngsters and their families across the region.



St. Luke's Boise.

# Years 1991-2014

St. Luke's has long been in the business of transforming the delivery of health care, so much so that the organization updated its vision statement in 2010 to reflect its commitment, shortly after current President and CEO David C. Pate, MD, JD joined the organization. The vision statement is, "St. Luke's Health System will transform health care by aligning with physicians and other providers to deliver integrated, seamless, and patient-centered quality care across all St. Luke's settings."

There were no maps, no models for piloting the changes St. Luke's undertook during the decades of the 1990s and early 21st century.

There were structural transformations to undertake: the building of three multi-million dollar hospitals and the expansion of St. Luke's Mountain States Tumor Institute, and the move from paper-based systems to electronic systems for everything from communication to ordering supplies to billing. These transformations continue today, including facilities construction and renovation, and hundreds of millions of dollars being invested in the creation of a single electronic medical record that will improve patient safety and staff and provider efficiency across St. Luke's.

Over these years, clinical transformations have stretched the idea of what is possible: autologous bone marrow transplants; minimally invasive and robotic surgeries, immunotherapy, open-heart surgery patients who go home in two or three days. These seem like miracles, even though they arose from hard science and years of • clinical research.

There were cultural transformations as well. As the population in St. Luke's service area reached nearly half a million people, it became imperative for St. Luke's to take critical services, starting with cancer care in Nampa, to places where patients could comfortably and conveniently come. All of these efforts have come together over the years to help meet the ongoing need for high quality, evidence-based, compassionate care, and to further St. Luke's mission "To improve the health of people in our region."

Now, St. Luke's is planning another critical development that will By the late 1980s, it was obvious that the older building St. Luke's allow its Boise hospital to deliver on its commitment to patients and inhabited could no longer serve patient care needs, and they did continue to provide the level of care that in 2014 helped St. Luke's not meet local or national codes for earthquake safety. Since the Health System become recognized by Truven Analytics as one of the Rocky Mountain region is very active geologically (the 1983 quake Top 15 Health Systems in the United States. Over the course of many sent massive dietary carts scurrying down the tiled halls; the first years, this planned development will result in a new Children's Pavilion, indication of a major guake in southern Idaho) it was imperative that expansion of the Children's Hospital, modernization and renovation St. Luke's construct a safer habitat for everyone. of the main hospital tower (critical care units, labor and delivery, emergency department, operating suites, and about 60 additional So in 1990, St. Luke's announced a much-needed development: a new patient rooms), expansion of St. Luke's MSTI cancer services, and hospital addition that would be two stories down and four stories construction of a new central plant and parking structure.

So in 1990, St. Luke's announced a much-needed development: a new hospital addition that would be two stories down and four stories up, and soon another six stories would follow. Opened in 1993, the \$48 million dollar hospital provided state-of-the-art patient care rooms; a new pediatric unit; birthing suites; an ICU and a CCU that provided large private rooms for every patient, plus the technology and equipment required when life is very fragile.

# THE MAKING OF A LOCAL HEALTH SYSTEM

In the early 1990s, SunValley and Blaine County Commissioners asked St. Luke's to submit a proposal for construction and management of a new Wood River hospital facility. The commissioners' trust in St. Luke's, coupled with the ongoing relationships with other hospitals throughout the region, was the groundwork for the eventual formation of what would become St. Luke's Health System, Idaho's only not-for-profit, locally-governed health system.

- The new St. Luke's Wood River opened in 2000.
- In 2001, St. Luke's Meridian Medical Center opened as a fourstory, full-service community hospital.
- In 2006, Magic Valley Regional Medical Center joined with St. Luke's and St. Luke's Health System was officially formed among St. Luke's Boise, Meridian, and Wood River hospitals and MVRMC, which became known as St. Luke's Magic Valley. In May 2011, a new, state-of-the-art hospital was built in Twin Falls to serve the area's growing healthcare needs.
- In 2010, McCall Memorial joined St. Luke's, becoming St. Luke's McCall.
- In 2011, St. Benedicts joined St. Luke's, becoming St. Luke's Jerome.
- In 2012, St. Luke's Nampa opened, providing physician clinics, diagnositic services, and 24-hour emergency services in Canyon County.
- In 2013, Elmore Medical Center joined St. Luke's, becoming St. Luke's Elmore.

 In 2014, St. Luke's Fruitland medical plaza opened, providing physician clinics, diagnostic services, and 24-hour emergency services.

"St. Luke's has been advancing healthcare and providing for the needs of the people in our region for well over a century and we continue to shape the transformation of medicine in the West and beyond. Wherever we go in the future – medically, technologically, or structurally – and however we get there, we will do so as a team, hand-in-hand with the communities we serve, guided by our not-for-profit mission and our values of integrity, compassion, accountability, respect, and excellence."

> David C. Pate, M.D., J.D. President and CEO St. Luke's Health System





# 3.0 EXISTING CONDITIONS

Beginning in 2009, the consultant team was asked to provide a series The older portions of the facility are made up of sections built in of comprehensive assessments of the existing St. Luke's Boise facility. 1927, 1950, 1962, 1977 and 1985 (see attached diagram). All of these The analysis consisted of a series of building system investigations buildings will likely require seismic and other structural upgrades if and walkthroughs of the Boise facility. The assessment considered they are to be remodeled for future healthcare use, with the exception all aspects of healthcare delivery as well as site conditions, existing of the 1927 building, which has already been upgraded. Many of these infrastructure, surrounding neighborhoods and historical structures, portions of the hospital have undergone numerous remodels and interior finishes, patient and staff circulation, existing building codes, use changes over the years. Floor-to-floor heights range from 10' and forward looking consideration of pending healthcare guidelines to 12' and are very tight to accommodate the needed mechanical, and standards. electrical and plumbing utilities inherent in most healthcare uses. The facility uses a primary central corridor system conveying visitors, 3.1 ENVIRONMENT OF CARE ASSESSMENT patients, staff and materials. While this system is not a code violation, the preferred system would be to separate staff and patients from visitors, where material movement can occur on a support floor.

# Purpose of Review:

The purpose of this review was to establish the existing condition of for addition and/or remodeling.

All of these portions of the building were built around an inpatientthe hospital. In particular, this evaluation is to establish the potential focused model. Outpatient services were a very small portion of care at that time and required minimal technology. Today, outpatient services account for approximately 90 percent of hospital visits; Basis of Evaluation: therefore, most of the outpatient diagnostic and treatment areas have grown, and will continue to grow, far beyond what was originally I. Existing physical condition. envisioned. Many of these services (Surgery, Emergency Department, Diagnostic Imaging, Lab, etc.) have been relocated into the newer 2. Compliance with codes that would be in effect if remodeled or an portions of the building (to the east and covered in the next section). addition was added. Some other challenges with these older portions of the building include:

3. Site availability for addition.

Existing Physical Condition:

The following review represents a visual and plan evaluation of the 2. Aging mechanical and plumbing systems, minimal air changes, and facility. There was no specific testing for items behind walls, ceilings, aging infrastructure. or floors; however, there was opportunity to look above ceilings and below floors in a couple of access points. All mechanical and 3. Inadequate medical gas outlets in some areas and aging conveyance electrical rooms were visually reviewed. The roof was viewed. A systems. basic understanding of the existing mechanical and electrical systems was achieved. Building was reviewed for space and architectural only. 4. While finishes are well maintained, some are worn and lack Reports for mechanical and electrical systems are not included. coordination, making cleaning and maintenance more difficult.

# Site Analysis:

The site is fully used at the present time. Any addition or new building older buildings that would be a concern. would require loss/relocation of parking and/or other buildings. Site improvements such as pavements and sidewalks, while in reasonable 6. Storage may be a concern. While not in violation of codes, most condition, show some signs of aging but appear to meet accessibility departments have expressed concern over the lack of storage standards. Site landscaping is mostly simple and mature, except for convenient to their unit. the existing Sequoia of immense size located to the north of the hospital across Jefferson Street.

Parking availability is adequate for both visitors and staff, except some of the staff parking is a considerable distance from the hospital. Parking is primarily provided in structured parking with minimal existing surface parking. It is not feasible to add on to the existing parking structures; therefore, new parking accommodations for visitors and staff must be provided and convenient to any new construction.

Existing phases of expansion at St. Luke's Boise

Portions of Hospital Built 1927-1985:

I. Aging emergency power, data and electrical outlets upgrades to present codes.

5. Accessibility appears to have been well dealt with for the present uses; however, if more intensive uses needed to expand into these

The greatest challenge of these older buildings (besides the structural concerns above) is the size of rooms. Every few years, codes related to the size of healthcare spaces are updated and typically grow in size required. When originally designed, the sizes were not a concern; however, today those that have not been recently remodeled are problematic.



Existing endoscopy room at St. Luke's Boise.



Existing corridor at St. Luke's Boise.

Portions of the Hospital Built 1987-2001:

These newer portions of the facility are made up of sections built in 1987, 1995 and 2001 (see attached diagram). The South Tower that includes oncology, clinics, and conference space was constructed in 1990 and most of the following comments also apply to that

building. All of these buildings will likely meet current seismic and other structural requirements and are adequate for their present use or to be remodeled for future healthcare use. Many of these portions of the hospital are still being utilized for the same use they were originally designed for. Floor-to-floor heights range from 10'-12' and are (like the older buildings) very tight to accommodate the needed mechanical, electrical and plumbing utilities that are inherent in most modern healthcare uses. These were built to these tight floor-to-floor heights in order to connect to the existing floors. The facility uses a primary central corridor system that conveys visitors, patients, staff and materials. While this system is not a code violation, the preferred system would be to separate staff and patients from visitors, where material movement can occur on a support floor.

These portions of the building were built around a more outpatientfocused model compatible with how facilities are designed today. Outpatient services in these buildings have sufficient space for needed technology. Many of the most intensive services (OR, ED, DI, Lab, etc.) have been relocated into these portions of the building and work well today. If expansion/additions are needed, these spaces could easily be added on to with minimal code concerns.

The greatest challenge of older buildings is the size of rooms. Every few years, codes related to the size of healthcare spaces are updated and typically grow in size required. Most spaces in these buildings meet present code; however, many of the inpatient rooms are of a difficult shape for nursing access and visibility. If possible, these rooms would be remodeled to accommodate modern shape and flow. Storage appears to be a concern in most of these units and would optimally be augmented.



Existing procedure room at St. Luke's Boise.

Summary:

Though the building is quite well maintained, portions of the building have significant inherent structural, mechanical/electrical/plumbing infrastructure, flow, and site concerns that would require large capital expenditures to solve. This does not take into account the many other things that limit modern-day services. It is therefore recommended that all portions of the building older than 1987 (except for the 1927 portion that has been structurally upgraded) be phased out and ultimately demolished, as new additions are constructed. This could create additional site for future projects that would be better able to accommodate modern healthcare buildings and programs. All portions of the building that are newer than 1987 are worth maintaining for the foreseeable future; however, many of the inpatient units would benefit from a remodel to the inpatient rooms to modify their shape and add unit storage.

# 3.2 LANDSCAPE ASSESSMENT

During the fourth week of July 2013, a visit to the Boise facility, and specifically the areas owned by St. Luke's Health System that will be impacted by the Master Facility Plan, was conducted. The visit was to review all trees and provide a preliminary assessment for the health and desirability of those trees. The complete landscape assessment is located in the Appendix of this document. Final assessment will need to be provided by an approved arborist for the health of all existing trees four-inch caliper and greater, per the Landscape Ordinance adopted earlier this year (Chapter 11-07-05.2.F).

The preliminary review was for all trees, both in the Right of Way that are City-owned and those located on private property, but fall within the Landscape Ordinance. Any trees to be removed as part of future building projects and are assessed as healthy and desirable will require mitigation per Ordinance and any new trees planted within the Right of Way will require a permit for planting from the Boise City Forester to ensure compliance with tree species and specific planting locations.

A review with a landscape contractor to determine the cost for relocating any trees that are healthy, desirable, and of the caliper that could be relocated was also conducted. Estimated transplanting costs are noted for individual trees that could be relocated. It is also noted that any plant material determined to be capable of relocation should be relocated during the proper season (after leaves have fallen in autumn or before leafing out in spring).

Shrubs are briefly described in the assessment to present a complete inventory.

Generally, the area observed contains over 150 individual trees consisting of a mix of silver maple ranging in age from 40-60 years, oaks, elms, ashes, and multiple species of conifers including a 100-year old giant Sequoia. The Sequoia is located in an area of probable future expansion. Thus, St. Luke's is exploring relocation due to its perceived significance to the community; however, a new location has not been identified.

Overall, the species and spacing of trees within the Right of Way are consistent and complementary to the surrounding neighborhoods. In the opinion of the surveyor, most trees surveyed were in fair health at the time of the assessment given their respective ages, except for those specifically noted. As previously indicated, an official assessment of health is under the jurisdiction of the City of Boise.



Existing Landscape around St. Luke's Boise.

# 3.3 UTILITIES ASSESSMENT

Idaho Power Company (IPCo) is the purveyor of power to the SLHS facility in downtown Boise. The facility receives power from the Grove Street Substation, which is located just north of the Ada County Courthouse, and east of S. 3rd Street. The substation contains three transformers rated 44 mega-volt-amperes (MVA) each. These provide power for up to twelve feeder circuits, each of which is rated at 10 MVA. Currently, the substation supplies eleven feeders to the surrounding area, and has one position that is spare. The feeder designated as GRVE-13 provides power to a majority of the facility.



required in and around the expanded facility, primarily along N. Ist Street, E. Jefferson Street, E. Fort Street, and Avenue B. If a second feeder is required to be supplied from the Grove Street Substation, construction activity could be expanded south to include the south end of N. Ist Street, E. Warm Springs Avenue the area around the south St. Luke's parking garage to the Grove Street Substation.



Switch station located in the St. Luke's Boise parking garage.

Grove Street Substation.

Circuit GRVE-13 is dedicated to the SLHS facility, meaning that it feeds no other customers, and there are no plans for it to feed other customers. IPCo, through a contract with SLHS, provides a guaranteed capacity of 10 MVA for the facility on this circuit. The point of demarcation of GRVE-13 is a switch station denoted as 'SW1.' This switch station is freestanding primary S & C switchgear that is located beneath the section of the SLHS parking garage that spans the northeast corner of N. Ist Street and E. Idaho Street It is where the primary revenue meter is located. Downstream of SW1, the circuit is looped, which allows it to feed the full 10 MVA to the facility in two directions.

Another circuit from the Grove Street Substation, GRVE-14, is able to provide a limited, alternate source of power to the SLHS facility in the event that the primary source of power, GRVE-13, is not available. The facility can be manually switched from GRVE-13 to GRVE-14 at SW1. GRVE-14 does not have a guaranteed capacity for the SLHS facility. It currently provides approximately 6 MVA to the statehouse complex and other customers to the west. The remaining capacity on GRVE-14 is insufficient to fully support the existing SLHS facility, which has a measured demand of 7 MVA according to IPCo.

Projecting this demand load to the year 2030 and escalating it for the anticipated build-out, the demand load is anticipated to be just less than 11 MVA. This may require that a second primary-metered feeder be brought to the facility. IPCo will be contracted to perform a load study and to recommend the best alternative to economically provide the power needed to support the development of the facility. The new design will take into consideration the recommendations of IPCo, but it is anticipated that a second primary loop feed capable of being separately metered will be required. Construction will be



# **4.0 HEALTH CARE NEEDS**

St. Luke's is committed to being the most caring partner Boise-area residents can have for their health. This means St. Luke's must plan to provide exceptional care not just today, but well into the future. The simple fact of the matter is in the future there are going to be more, a lot more, Boise-area residents who need a caring health partner.

According to John Church and Idaho Economics, the population of the Treasure Valley is expected to increase from 2012 data by almost 300,000 people by 2030.

# POPULATION + 291,000 up 46% in 2030

The realities of an aging population, the increasing incidence of obesity, and the number of patients with chronic conditions compound the significant population growth driving the need for transforming St. Luke's downtown hospital. Doing so will allow St. Luke's to continue to deliver innovative and exceptional care to patients, just like it has since the first building was constructed in the early 20th century.

But what does this combination of factors specifically mean for the downtown hospital?

The Affordable Care Act is changing the way health care is delivered and collaterally, the facilities delivering care must react and remain flexible. In the past, the location of the physician's office could have In the simplest of terms, it means the hospital needs to be bigger because more space is needed to treat those additional patients; been blocks or miles away from the actual hospital, with the doctor patients with one or more of those compounding factors. Every proceeding to deliver outpatient care in his office and once or twice a major kind of care provided at the hospital will have more patients, day checking on his patients who are in the hospital. As pressure has from emergency to cardiology to radiology to the Children's Hospital. increased to shorten the length of stay and decrease the cost of care, the physician finds himself regularly involved in the activities going More and larger operating rooms are needed, which means more on inside the hospital itself. Particularly, in tertiary care centers such pre-op and post-op areas, more equipment storage and processing as St. Luke's Boise facility, the interaction among patients, physicians, areas. diagnostic technicians, and nurses occurs frequently throughout the day. This has required the integration of physician office practices, not More beds are needed to care for a greater population of more only in the neighborhood of the hospital, but physically connected acutely ill patients. to the hospital to allow frequent movement of staff and physicians between the inpatient setting and the outpatient setting. This shift, Space for technology is needed. Health care by its nature is constantly which gradually began to take place before the turn of the 21st innovating and evolving. As it evolves, more new and better tools are century, has accelerated not only because of the changing practice developed. of health care, but because of St. Luke's Boise Medical Center's role changing as the facility became the center of the St. Luke's Health The physical plant built in 1962, needs to be completely replaced and System. This change drew patients not only from Boise, but also the its capacity increased to meet the future demand. surrounding region, to the Boise facility for more specialized care. The need for more space is not unique to today. Indeed, St. Luke's Further, healthcare reform is predicated upon shorter lengths of has faced the need for more space before. Since the first downtown stay, better outcomes, and lower costs, thus accelerating the need hospital was built in the early 20th century, there have been a number for physician and staff interaction in both inpatient and outpatient of developments to meet the growing demand of previous times. settings.

It is also important to recognize that over the course of the decades, a lot has changed about the patient health care experience. Nearly 90 percent of patient visits are for outpatient services. This is a major change from decades ago.

What this means is the downtown hospital needs to be designed so the ten percent of patients who stay in the hospital are comfortably receiving the care they need, while the other ninety percent can come, get their care efficiently, and return home.

Convenience, safety, ease of finding your way, and especially proximity to the right doctors, nurses and technology each patient needs, are critical to ensuring a patient receives the best experience possible from their healthcare partner, St. Luke's.

As healthcare has evolved, planners and caregivers learned the benefits of creating convenience and efficiency through horizontally locating care delivery components adjacent to one another. This practice, called an Integrated Care Model, strives to place the specific physicians, the diagnostic and treatment spaces and equipment required by the treatment plan, next to inpatient beds. Thus, providing more connected care. Rather than having to travel to multiple places around the hospital, the patient is able to go to their doctor's clinic, get a procedure done, if needed, and/or be admitted, on the same floor in an integrated fashion.

If a patient comes into the hospital via the ED, they can be stabilized and then moved to the appropriate floor for the particular kind of care they need. This is ultimately better for the quality of care a patient receives; it is more efficient and it provides for a more personalized patient experience, and ultimately a better quality outcome.

# 4.1 LOCATING GROWTH COMPONENTS

Changes in Healthcare Delivery:





Linpatient Beds Diagnostic & Treatment Services Diagnostic & Treatment Services

Diagram illustrating traditional vertically-oriented care model where inpatient beds, diagnostic and treatment services, and physician offices are located on separate floors and/or separate buildings.

The new organization of St. Luke's Boise Medical Center physically needs to mirror the operational changes that have aligned five centers of excellence, or service lines, to take care of major disease groups within the medical center. These service lines are heart and vascular, women's, ortho/neuro, children's, and cancer. As much as possible within the context of the existing facilities, the planning of the new facility works to horizontally align impatient beds, outpatient physician offices, and the diagnostic and treatment components important to each of the service lines to allow the physicians and staff to flow between inpatient and outpatient settings. This process allows for increased productivity on the part of the staff, thereby reducing costs, and a higher quality of care can be delivered when the right people are in the right place at the right time.

Understanding the Interrelationship of Service Line Departments:

As indicated in "St. Luke's Organizational Model," the relationship between departments of a service line interact with each other through the process of care delivery. In the diagrams following are several illustrated typical examples of steps of care being delivered to patients, usually beginning in the outpatient department and continuing through a diagnostic and treatment and inpatient stay. The flow illustrated demonstrates that the relationship between component departments of any service line are key indicators of success when they can be horizontally adjacent.

Taking Advantage of the Investment in Existing Facilities:

It would be an inappropriate cost for the community to bear to require such extensive renovation of the existing facility so as to not make full utilization of the existing infrastructure the community has invested in already. Therefore, the facility planners have considered the needs described above and taken into account the maximization of the existing hospital infrastructure with the potential of immediate adjacent growth to interconnect new and old in such a way to minimize the new facilities required when existing buildings will provide the necessary opportunities.

As a result, in order to retain the investment of the existing facilities, the facility planners have proposed broad connections on all levels of the existing facility to the new building, which is illustrated in more detail in the previous diagram.

Diagram illustrating a new intergrated care model where physician offices (clinics), diagnostic components, and inpatient facilities exist on a single floor.

# **5.0 ALTERNATIVES ANALYSIS**

As part of the master plan process, the St. Luke's Design Team identified possible expansion sites adjacent to the existing facility. Sites were considered initially regardless of current ownership, but as illustrated in the commentary, ownership was a consideration. Each location was then populated with large blocks representing approximate building square footage required to address each need and conceptually arranged based on best practice departmental adjacencies. The resultant options were then evaluated based on a set of healthcare planning criteria aligning with the institution's commitment of fiscal responsibility and St. Luke's Triple Aim: better care for individuals, better health for populations, and lower costs. The options were vetted thoroughly through an iterative process with both internal and external stakeholders, including impacted neighbors and citizens.

Possible expansion locations explored include:

- East Location includes the two full blocks east of the existing hospital bound by Jefferson Street, Warm Springs Avenue, Avenue B and Avenue C. Properties include both St. Luke's-owned and non-St. Luke's-owned interests.
- South Location includes the full block bound by Bannock Street, Warm Springs Avenue, Avenue B and Avenue C, and the area directly in front of the main hospital entry currently occupied by the existing Patient/Visitor Parking Garage. Properties include both St. Luke's owned and non-St. Luke's owned interests.
- West Location includes two full blocks to the west of the existing hospital bound by State Street, Bannock Street, 2nd Street, and 1st Street, currently housing St. Luke's Medical Office Plaza and smaller hospital-owned properties.
- North Location includes two full blocks north of the existing hospital bound by State Street, Fort Street, Jefferson Street, and 2nd Street. Properties include hospital Central Plant and smaller hospital-owned properties.

In the following sections, the evaluation criteria is explained, each alternate solution is described and evaluated, and the preferred option illustrated. In addition, the team explored additional variations to the preferred location option, and commentary is included addressing challenges encountered.

# 5.1 EVALUATION CRITERIA

The four possible expansion options were individually evaluated on the following criteria. Each criteria is described in detail in an effort to establish a consistent understanding for application. Individual criteria have been categorized under the Triple Aim component it most closely represents, although some criteria fit within multiple objectives.

### Better Care

Internal Circulation Connectivity - Traditionally, hospitals grow and evolve over time; as a result, corridors become buried within masses

of building and where there was a door or window yesterday, there is a wall today. If not considered up front as an organizing element, staff efficiency and patient and visitor comfort may be sacrificed. This criteria addresses the need to simplify, maintain, and enhance existing corridors and connectivity into possible expansion areas.

Minimize Disruption to Current Operations - The hospital serves the community and region by providing care for the sick and injured. Key to this objective, the hospital and its services must maintain operations 24 hours a day, 7 days a week, 365 days a year. Its services cannot be interrupted nor stopped without significant consequence.

Visibility/Patient Accessibility and Convenience - The hospital entrances and access must be readily accessible and intuitive to patients. This is especially true in emergency situations when patients and family under situational stress need to find the hospital, park if needed, and locate the entrance as expeditiously as possible.

Sufficient Future Capacity - As previously stated, interruption to hospital operations can be disastrous and costly. By providing the maximum amount of future capacity and flexibility that can be afforded over meeting current needs, the hospital can minimize future impacts.

Parking Near Entrance(s) - Akin to patient access, adequate parking near entrances is imperative for patients who are of limited mobility and for those responders charged with their care.

Better Health

Reduce/Eliminate Pedestrian-Vehicular Conflicts - One of the principle precepts of medical ethics that all students are taught in medical school is "First, do no harm." The hospital facility should, by its nature, be safe. In an urban setting where cars, pedestrians, and bikes exist, care should be given to reduce the possibility of instances where pedestrians and cyclists can potentially be struck by vehicles.

Minimize Negative Impact on Public Infrastructure - This criteria gauges expansion scenarios on their perceived impact on existing utilities like power, water, and sewer, as well as existing roadway, pedestrian, and bicycle networks.

Connects to Most Recent Construction - Over time, building codes and technologies advance, becoming better at protecting and serving building occupants. An example of this is revisions to building codes as a result of failures due to earthquakes and other natural disasters. Portions constructed post code revisions are more advanced and in turn have more longevity than previously constructed sections and do not directly depend on older infrastructure for delivery of services. Connecting to the most recently constructed portion of the hospital is not only safer, it also helps ensure better long-term viability by not attaching to construction that may be nearing the end of its functional life, ultimately needing to be replaced.

Lower Costs

Enable Facility Regeneration - As a not-for-profit, St. Luke's strives to be sustainable and a positive community steward. Aligned with its mission to lower costs, it must responsibly use resources, one



St. Luke's facility alternate locations for expansion.

of which is the land the Boise facility occupies. To ensure there is room to grow in the future and to mitigate impact to its neighbors, the options were judged on how well they protect future growth opportunities without sprawl.

Connection to Central Plant - The Central Plant houses building systems essential for the operation of the hospital facilities. New construction needing these services must be able to reasonably connect to the Central Plant in order to avoid costly and unnecessary redundancies.

Respects Existing Investments - Being a not-for-profit means St. Luke's has to invest wisely in its facilities and its delivery of health care. Its financial resources are limited and existing investments, like recent investments in surgeries and emergency services, must be maximized.

Constructability - The end solution must be able to be efficiently built and flexible to adapt to future needs, so as not to waste limited resources.

In Section 5.3 ALTERNATIVES, the preceding criteria have been applied and tabulated to inform site preference.

# 5.2 BUILDING ORGANIZATION

The expansion of St. Luke's Boise facility is a result of deep fundamental changes that have taken place in Boise, the Treasure Valley, and in the national delivery of health care. First is the fundamental shift of delivery of health care from a mostly inpatient model where care is delivered in the hospital to resident patients, to a mostly outpatient model where patients are only admitted to the hospital overnight if there is simply no other way to deliver appropriate care. This shift has been and will be more pronounced by the recent Affordable Care Act, which pressures hospitals and doctors to shorten stays and at the same time improve the quality of care and reduce the overall cost of that care. The result is to place the specialist physicians more and more in both the hospital providing care and in the outpatient clinic on an hour-by-hour basis to provide care. Gone are the days when a specialist physician can have his office blocks or miles away.

Additionally, the role of St. Luke's Boise facility has changed in the delivery of care in the Treasure Valley, as St. Luke's has become a multi-hospital system. St. Luke's Boise Medical Center is the tertiary care center of the health system, caring for the sickest of patients through transfers from other less well-equipped hospitals in the health system. The result has been a boon for patients overall by having excellent specialists available to all in the Treasure Valley.

The result of these fundamental changes in healthcare delivery has been a need for more specialized care capability at the Boise facility and the deeper integration of physician clinics in close proximity to the care delivery modalities of surgery, radiation therapy, imaging, neonatal intensive care, cardiac cath, and other vital technologies that save lives. Hospitals are an integrated whole and as a modality such as surgery expands, the footprint of the area needed is beyond the available footprint of the existing blocks. Current planning suggests that the integrated footprint that needs to properly integrate the Boise facility is five floors of functions expanding across the existing lefferson Street and an additional five floors of corridor connectors.

# 5.3 ALTERNATIVES

In the table below, the previously described site opportunities have been evaluated per the criteria outlined in Section 5.1 EVALUATION CRITERIA. Based on the results and more detailed investigation, the North solution provides the best opportunity to achieve the evaluation criteria from a healthcare planning perspective, in addition to aligning with the goals of the Triple Aim.

### SITE SELECTION EVALUATION

		EAST	south	WEST	NORTH
	Internal Circulation Connectivity			٠	•
ARE	Minimize Disruption to Current Operations	•			•
BETTER CARE	Visibility/Patient Accessibility and Convenience	•	•		•
BE	Sufficient Future Capacity	•	•	•	•
	Parking Near Entrance(s)			•	•
НТН	Reduce/Eliminate Pedestrian- Vehicular Conflicts			•	•
BETTER HEALTH	Minimize Negative Impact on Public Infrastructure			•	
BETT	Connects to Most Recent Construction	•	•		•
	Enable Facility Regeneration	•			•
COSTS	Connection to Central Plant			•	•
LOWER COSTS	Respects Existing Investments				•
	Constructability	•		•	•

To further illustrate the rationale for the recommendation, each alternative has been taken to a greater level of development and an additional layer of traffic planning evaluation was undertaken to further inform the decision-making process. Each are provided here with further commentary for consideration.

# EAST SOLUTION

- With some exceptions, St. Luke's does not currently own the property required to accommodate the East Solution.
- Jefferson Street between Avenue B and Avenue C would be required to vacate and close.
- Bannock Street drop-off would require closure of Bannock Street to through traffic, leaving access to the East End only from Warm Springs Avenue and Reserve Street.
- Additional access points to new facilities would be necessary on Avenue C, increasing congestion deeper into the East End.
- New hospital development connected to existing inpatient areas via bridge at upper levels, making departmental efficiencies and care delivery a challenge.

- The buildable footprint available for the hospital development All new traffic volume is concentrated at Warm Springs/Avenue would be insufficient for the anticipated building program. The B/Main/Idaho Street intersection, further congesting an already overall height of the expansion would increase, further impacting congested area. the adjacent neighborhood.
- Development to the east straddles Zoning Districts H-S and R-3, and a Minor Arterial. Rezoning to allow the new use and necessary additional height involves risk and decreases possibility of success.
- Street-level connectivity between new construction and existing presents safety challenges to pedestrians crossing Avenue B.



# SOUTH SOLUTION

- Locating the hospital development to the west of the existing building would necessitate a Jefferson Street drop-off for expanded and relocated services, increasing vehicular traffic Potential St. Luke's facility East Solution for development. on lefferson Street. The new medical office building would be required to be located on the north side of Jefferson Street for efficiency, further increasing congestion. Locating building access • With some exceptions, St. Luke's does not currently own the along lefferson Street would also increase pedestrian crossing property required to accommodate the South Solution. at street level, increasing the opportunity for vehicular conflict.
- Development to the east across Avenue B straddles Zoning This option would require vacation and closure of 1st Street Districts H-S and R-3, and a Minor Arterial. Rezoning to allow between Bannock Street and Jefferson Street to allow for a the new use involves risk and decreases possibility of success. larger building footprint.
- Internal connectivity and circulation becomes inefficient and Increased traffic, as a result of the development, would be problematic between the medical office building (MOB) and the distributed around the facility rather than at a single point. expansion.
- Older, seismically challenged portion of the existing building Bannock Street MOB drop-off and garage access would require becomes 'landlocked' and in the way of the next major closure of Bannock Street to through traffic. development, potentially causing future connectivity and disruption issues.
- Additional access points would be necessary on Avenue C, increasing congestion deeper into the East End.
- New hospital development not connected to clinics or existing inpatient areas, making departmental efficiencies and care Insufficient floor area for the anticipated building program would delivery a challenge. Location increases potential redundancies, cause the height of the proposed expansion to increase. and construction and staffing costs.
- Expansion to the south causes redevelopment of the entire front of the existing hospital. Patient and visitor access to front door is problematic.
- Access to the Emergency Department becomes challenging.
- Parking is potentially eliminated at the main hospital entrance. All parking would be located across Avenue B from the main hospital.

Street level connectivity between new construction and existing presents safety challenges to pedestrians crossing Avenue B.



Potential St. Luke's facility South Solution for development

# WEST SOLUTION



# NORTH SOLUTION

- The floor area illustrated is required to meet anticipated building program, and critical relationships can be satisfied on contiguous floor plates.
- New and existing primary hospital functions like surgery, emergency department, and associated support functions connect to create a horizontally integrated care model only if Jefferson Street is closed. This approach is most efficient for healthcare delivery and provides the best opportunity for successful healthcare outcomes.
- Jefferson Street east of 1st Street provides an opportunity to develop shared outdoor space for public and hospital users.
- The new 1st Street drop-off would cause increased congestion at 1st/State/Fort intersection. Although, the resultant congestion could be mitigated.
- Vacation of 1st Street is desired to allow control of setbacks and maximize buildable footprint. 1st Street could remain open for local access.
- The North Solution distributes increased traffic volume, driven by St. Luke's development around the facility, rather than at a single point.
- Solution creates more compact facility and limits sprawl potential.



Potential St. Luke's facility North Solution for development.



Conceptual Jefferson Street Section

# 5.4 PREFERRED SOLUTION ALTERNATIVE

As illustrated, the North Solution ranks best of all locations explored. However, perceived execution of the concept necessitates a road vacation and closure to allow existing departments on lower floors, containing some of the more expensive and heavily invested space, to expand horizontally. As previously discussed, contiguous space within key departments is operationally and fiscally more efficient. A detailed look at current floor heights relative to existing adjacent street elevations illustrates the challenge of maintaining the street. Thus, the solution would impact public infrastructure.

In an effort to explore alternative approaches within the North Solution and further minimize impact on existing infrastructure, St. Luke's team explored bridging the street. Considering impacts to the healthcare and building organization approach previously discussed, a bridge option would necessitate relocation of key departments to floors above the street to effectively address perceived needs and best-practice adjacencies.

In this case, existing departments needing large contiguous space would have to move up in the structure to a floor capable of supporting this need, causing abandonment of multi-million dollars' worth of previous investment and sacrificing current relationships to supporting ancillary functions. Some ancillary functions may require duplication to continue to support these relocated departments.

Collaterally, the resultant smaller floor plate of the new building would necessitate a less than ideal vertical adjacency of departments like Emergency and Imaging, as well as potentially isolating future pediatric emergency services from the balance of the Children's Hospital, or causing redundant emergency services.

Ignoring the financial, departmental, and patient experience impact and focusing solely on public infrastructure, Jefferson Street would remain open and usable to automobiles, pedestrians, and bicyclists. The structure bridging it would be in the order of 400 - 500 feet in length and five to six full floors in height beginning at the third floor. This is conceptually taller than if the road were to be closed and larger floor plates were able to be accommodated at lower levels.

The compromises to patient and public safety inherent in this alternative are too great and the alternative is not feasible with the plan's current objectives. Thus, St. Luke's cannot support this approach.

Following are several examples of where similar approaches have been implemented elsewhere, as well as a conceptual rendering illustrating the specific condition described.



Legend

- Philadelphia Convention Center, Philadelphia, PA
- 2 First Street Parking Garage, St. Luke's, Boise, ID



3 Salt Lake Convention Center, Salt Lake City, UT
4 Conceptual Jefferson Street rendering, looking west





# 6.0 HISTORICAL ASSESSMENT

# 6.1 EVALUATION OF HISTORICAL SIGNIFICANCE

# PURPOSE

The National Register of Historic Places is an official listing of This architectural survey is an effort to determine if selected historically significant sites and properties throughout the country. properties within the defined block area of W. Bannock to W. State It is maintained by the National Park Service, U.S. Department of Street between N. 1st Street and N. 2nd Street are potentially the Interior. To be considered eligible, a property must meet the historically significant and worth more detailed survey efforts. The National Register Criteria for Evaluation. This involves examining the study block area included 15 properties. property's age, integrity, and significance.

# **BACKGROUND INFORMATION**

The study block area is part of the original Boise City Townsite, the way it did in the past? recorded in 1867, an area extending from Fort Street on the north to Front Street on the south, from 1st Street on the east to 16th Street Significance - Is the property associated with events, activities, or on the west. Several national historic districts have been established developments that were important in the past? With the lives of within the original Townsite. Immediate to the study block area is people who were important in the past? With significant architectural the State Street Historic District. Established in 1978, the district history, landscape history, or engineering achievements? Does it have is generally bound by W. State Street on the north to W. Jefferson the potential to yield information through archeological investigation Street to the south and N. 2nd Street on the east to N. 3rd Street on about our past? Does it possess the integrity of location, design, the west. The area was considered significant based on its association setting, materials, workmanship, feeling and association? with persons and architects/architecture important to the history of Boise.

In May of 1997, the Boise City Planning Department and the Boise This architectural survey involved evaluation of information City Historic Commission retained the services of Donna Hartmans contained in the 1997 survey report previously referenced, and of Arrow Rock Architects to perform a reconnaissance-level survey existing conditions through field work conducted along the streets of a study area bounded on the north by Fort Street, on the south systematically in a property-by-property fashion. Field work involved by Jefferson Street, on the east by 1st Street, and on the west by a visual observation of the individual properties to determine if 16th Street. The purpose of the survey was to determine which physical changes had occurred since the earlier survey work that properties were historically significant and to propose boundaries for could potentially change the property's significance and integrity. An a potential locally-designated historic district. Established in 2004, the interior review of a building was performed if the exterior integrity Hays Street Historic District comprises almost a twenty-two block of the building was relatively intact. Research was conducted on area within the surveyed area. The properties within the 100-block properties not included in the 1997 survey through examination of study area were within the survey boundaries but were not included Sanborn Fire Insurance Maps, building permits and resources available in the formation of the historic district. All of the properties within at the State Archives. the 100-block study area are classified as "contributing in a potential district," with the exception of 111 and 115 W. State Street and 414 DETERMINATION N. 2nd Street, which are classified as "non-contributing." Properties located at 115 and 121 W. Jefferson Street and 124 W. Bannock Street Of the properties within the study block area, all have achieved were not included in the 1997 survey.

Boise City defines a historic property as "a district, site, building, which were classified as noncontributing in the 1997 survey based structure or object that is eligible or listed on the National Register of on an age of less than 50 years. Those properties (111 and 115 W. Historic Places." The term contributing is defined as "a contributing State Street) are still not eligible based on the 50-year consideration. building, site, structure, or object that adds to the historic architectural qualities, historic associations, or archeological values for which a Although the Aldecoa House, located at 190 W. Jefferson Street, was property is significant because (a) it was present during the period of originally constructed between 1912-1949, thus satisfying the 50 significance, and possesses historic integrity reflecting its character years or older criteria, the property was moved from its original at that time or is capable of yielding important information about location (212 E. Idaho Street) to its current location during the the period, or (b) it individually meets the National Register eligibility mid-1980s. Typically, properties that are moved are not considered criteria." The term noncontributing is defined as "a noncontributing eligible. They may become eligible for consideration once they have building, site, structure, or object that may possess characteristics achieved the 50-year mark in their current location. that make it important to the overall historic character of the district such as, but not limited to, mass, scale, streetscape features, setbacks For a property to be considered historically significant it must not or proximity to contributing structures. A building, site, structure or only be shown to be significant under the National Register criteria, object within a district may be noncontributing because (a) it was but it also must have integrity. Determining integrity is based on the not present during the period of significance, (b) due to alterations,

disturbances, additions, or other changes, it no longer possesses historic integrity reflecting its character at that time or is incapable of yielding important information about the period, or (c) it does not individually meet the National Register eligibility criteria."

Age and Integrity - Is the property old enough to be considered historic (generally at least 50 years old) and does it still look much

# PROCESS OF EVALUATION

consideration for historic eligibility based on the 50 years or older criteria with the exception of the previous mentioned properties, judgment of the consultant as the evaluation of integrity is sometimes a subjective decision. Integrity is the ability of a property to convey its significance. Historic context is the basis for judging the significance of a property. A property must represent a significant part of history, architecture, archeology, engineering, or culture of an area, and it must have the characteristics that make it a good representative of properties associated with that aspect of the past.

The fifteen properties located within the block study area are located within the boundaries of the original Boise City Townsite of 1867. The study block area is identified as Block 61 of the 140 block plat. The historic context of this particular block area is the residential development pattern that occurred after the 1890s. This pattern of development was not isolated to this particular block, but typical to surrounding blocks as well. The development of the original platted townsite for residential purposes is integral to the understanding of the history of Boise, but does not represent an important aspect or event of its history.

The block study area and surrounding neighborhood historically was developed as residential uses; single-family residences and apartment houses were prevalent throughout the area with residents of varied socio-economic levels. Over the past 40 years, the greater neighborhood has seen a shift from primarily residential to officeand business-type uses. Many of the existing houses were simply converted into offices or were demolished to provide for new construction (111 and 115 W. State Street, 166 W. Jefferson Street). As part of the change to a commercial use, the setting and character of the area was altered; large parking areas were provided off of the alleys, side and back yards were modified, and in some cases parking lots were developed in the front of the property, all of which diminish the residential character original to the area. There are several structures that maintain residential uses (412 and 414 N. 2nd Street and 117 W. State Street). Current zoning of the study block is H-S (Health Service) with surrounding blocks zoned as R-O (Residential Office) and R-3 (Multi-Family). The residential setting and feeling associated historically with this area is no longer existent and potential development and uses allowed under the current zoning classifications do not support the retention or increase in residential uses.

The property at 124 W. Bannock may be worth additional study as it is associated with J. O. Jordan, a predecessor to the Jordan-Wilcomb Construction Company. J. O. Jordan was founded in the early 20th century and during their early years in business they constructed houses designed within their own company that were based on plan books published during that time. They went on to become a major construction firm contributing to the built environment of presentday Boise, constructing significant structures. The Egyptian Theater, schools for Boise School District, and St. Mary's Catholic Church are just a few.

Based on previously published information and research completed during this survey, there is no indication the properties within the study block area were associated with an important person in Boise's history. None of the properties are known to be associated with or designed by one of Boise's noted architects or architectural firms. Architecturally, the study block consists of modest examples of particular architectural styles; Queen Anne, Bungalow and Colonial Revival. The detailing and character is common throughout the older neighborhoods of Boise. The exterior character remains essentially intact for most of the properties, but with the conversion from a residential to office use the interiors have been remodeled to where very little of the original architectural character, arrangement of spaces, or surface materials still exists. There are exceptions, as the Bishop Foote House has retained much of the historic character and features in the interior of the main floor.

It is judged by the consultant that the historic context associated with the study block area is not considered significant to the history of Boise. Several properties within the study block area reflect the historic architectural character of the development period to which they are associated, but are not exceptional examples of a particular architectural style or work designed by an important architect. Although these structures may retain much of their orginal character and detailing, the use, site, and setting are no longer associated with the historical residential use of the property.

On June 16, 2014, St. Luke's presented the historic assessment to representatives from local, state, and national historic organizations. Outcome from the meeting included expanding the scope of the survey, mutual agreement to explore relocation solutions beyond demolition, as well as a plan for further engagement. As the planning process progresses, further details regarding each structure can be explored, including donation and relocation to other properties.

# 6.2 RELOCATION OF EXISTING BUILDINGS

In June of 2014, St. Luke's hosted a presentation focused on the Survey of Historic Significance included in this plan to several representatives from historic preservation focused agencies. Participants included: Preservation Idaho, Idaho State Historic Preservation Office, Idaho Heritage Trust, National Trust for Historic Preservation, City of Boise Department of Arts and History, and the City of Boise Historic Preservation Commission.

Although the survey did not support the properties as meeting requirements for consideration as historically significant, there was strong sentiment focused on trying to preserve some of the structures in place, or to preserve with purpose on alternate receiving sites. The group suggested looking at collecting several of the properties on the existing surface parking lot located at Second Street between Bannock Street and Idaho Street. Unfortunately, the parking lot serves the patients of the Anderson Plaza Medical Office Building and could not be repurposed without significant expense. Better understanding the concerns of the group, St. Luke's agreed to explore suggestions from the discussion and engage in further discussion with the group. While the group has not yet reconvened, St. Luke's has identified a possible relocation strategy for several structures on properties it currently holds along Avenue B, between Warm Springs Boulevard and Bannock Street. Conceptually, the newer existing structures would be removed, allowing selected structures currently located in the footprint of the master plan to be relocated and repurposed. If acceptable, the solution will provide an opportunity to create a strong street presence by redeveloping the frontage and increasing density. To make the most of the opportunity and to preserve the ability to relocate as many structures as possible, St. Luke's will request a rezone to H-S zoning designation.

To determine which properties are candidates for relocation, St. Luke's will ask participants from the previous discussion to participate in a selection process. The following plan and images illustrate the concept. The properties represented are only for discussion.



















Possible Relocation Relocation Candidates



Possible Relocation Perspective - Option 1



Possible Relocation Site Plan - Option I

Possible Relocation Perspective - Option 2



Possible Relocation Site Plan - Option 2

# 7.0 TRANSPORTATION ANALYSIS

# 7.1 EXISTING CONDITIONS

The existing roadway system serving the area is described as follows:

- Avenue B is a minor arterial with four lanes with left-turn lanes • at intersections and a traffic signal at lefferson Street.
- State Street is a two-lane minor arterial (to 15th Street) that terminates at Fort Street/Ist Street.A traffic signal exists at this location and just beyond the study area at 5th Street.
- Fort Street is an urban two-lane collector located northwest of • the area. Traffic signals exist at Washington Street/Robbins Road and 5th Street.
- Main Street and Idaho Street are one-way minor arterials that converge at Broadway Avenue/Avenue B/Warm Springs Avenue with a traffic signal at their intersection.
- Broadway Avenue is a multi-lane minor arterial that terminates at the previously noted intersection. It becomes a principal arterial south of Front Street.
- Warm Springs Avenue and Jefferson Street are two-lane minor arterials.
- Reserve Street and 1st through 4th streets are two-lane urban • collectors.

Within the roadway network, several intersections were targeted for detailed review as part of the traffic analysis effort. This proposed study area was reviewed and accepted by ACHD prior to study development.

A thorough data collection effort was undertaken to establish baseline traffic conditions. Existing turn movement counts (TMCs) were collected at key intersections for both the A.M. and P.M. peak hours. To capture peak-hour conditions, counts were recorded during the weeks of April 23, 2013, and April 30, 2013, from 7:00 A.M. to 9:00 A.M. and from 4:00 P.M. to 6:00 P.M. TMCs available through ACHD's existing traffic count database were used to supplement this data. As existing counts were recorded over a span of several days and by different sources, some data balancing between intersections was necessary to establish baseline traffic conditions within the study area.

The proposed closure of lefferson Street will reroute both through and local access traffic. To quantify the amount of through traffic that would be diverted, an origin-destination study in the form of a license plate survey was conducted on Tuesday, October 4, 2011, from 6:00 A.M. to 9:00 A.M. and from 3:00 P.M. to 6:00 P.M. Recording stations were located on Jefferson Street, west of Avenue B and west of 2nd Street, and on 1st Street, north of Main Street and north of Jefferson, to capture through vehicular traffic volume. Resultant counts indicated that through traffic demand was light along both streets, ranging from 11 to 16 percent on 1st Street and 11 to 14 percent on Jefferson Street during these time periods. These volumes suggest that lefferson Street and 1st Street in the vicinity of the medical center mostly serves medical center employees, patrons, and datients.

# 7.2 FORECAST NO BUILD CONDITIONS

For purposes of developing future traffic condition, forecast model data were requested from the Community Planning Association of Southwest Idaho (COMPASS) for the 2012 (existing) and 2035 forecast year periods. COMPASS link volume projections require some post-processing to arrive at forecast turn movement conditions. These procedures follow the methodologies presented in National Cooperative Highway Research Program (NCHRP) Report 255. Year 2035 peak-hour model link volumes were compared to the existing model results to determine relative differences in link volume (deltas) for each period. These deltas were then applied to the existing balanced ground count, as established above, entering/ exiting link volumes at each intersection to determine 2035 link volumes. The Furness Method was then used to derive forecast turn movements (without the proposed development) using the balanced existing turn movement volumes and the calculated future link volumes. 2024 No Build volumes were interpolated from the existing and 2035 No Build volumes.

# 7.3 FORECAST BUILD CONDITIONS WITH ST. LUKE'S DEVELOPMENT

Site traffic generation is estimated by procedures recommended in the latest edition of the Trip Generation Manual (8th Edition) published by the Institute of Transportation Engineers (ITE). The trip rates are estimated from actual site studies performed on a nationwide basis and are representative of the St. Luke's facilities based on past traffic impact studies. As indicated previously, two development scenarios are proposed, including a 2024 interim condition and a 2035 full build condition. The interim 2024 condition assumes full buildout of the development with approximately 70 percent occupancy. The following trip generation conditions are applicable for the 2035 condition:

	Children's Pavilion - Medical Office Building		Trip Gener	ation
Land Use	Quantity	A.M.	P.M.	Daily
Medical Office Building (ITE 720)	85,000 square feet	198	245	3260
Existing Medical Office Building	6,790 square feet	-20	-26	-63
NET		178	219	3197

The trip generation was reduced to reflect the trips generated by the existing Medical Office Building on the site.

Hospital De	velopment	Gross	Trip Gener	ation
Land Use	Quantity	A.M.	P.M.	Daily
Hospital (ITE 610)	357,000 square feet	443	465	5808

The 357,000-square-foot hospital development will include various services such as a heart/vascular center, a women's center, and surgery. The development is considered to generate new trips based on the additional square footage.



Shippiı	ng & Red	eiving	Gros	s Trip Genera	tion
Land Use	е	Quantity	A.M.	P.M.	Daily
Single Tenant (ITE 715)	Office	15,000 square feet	@50%=24	@50%= 29	382

The Shipping and Receiving office building provides services for The Warm Springs Medical Office Building will provide physician offices, exam facilities, and minor outpatient services. Trip rates will hospital operations and distribution. It is assumed half of the trips be consistent with those established for the Children's Pavilion. occur during off-peak time periods. The trip generation was reduced accordingly. In 2024, the Children's Pavilion and Shipping and Receiving offices are assumed to be completed. These two land uses assume the At 2035 full buildout, total trip generation is as follows: same trip generation as the 2035 summarized above. Approximately 63 percent (225,000 square feet) of the hospital tower is assumed to be occupied in 2024. Based on this assumption, 328 A.M. trips and 362 P.M. peak-hour trips will be generated in this year.

Forecasted 2035 No Build Traffic Volumes: AM (PM)

Warm Springs Medical Office Building		Gross	Trip Genera	ation
Land Use	Quantity	A.M.	P.M.	Daily
Medical Office Building (ITE 720)	100,000 square feet	230	282	3875

A.M.	P.M.	Daily
875	995	13,262





To determine impacts, the peak-hour generated trips must be distributed and assigned to the existing roadways and intersections. These new trips were distributed to the network assuming the closure of Jefferson Street between Avenue B and 1st Street and the major use of 1st Street from State Street to Jefferson Street to be hospital access. Based on the regional influence area and discussion with hospital staff regarding patient service area, this distribution pattern was assumed as follows:

- 40 percent to/from the south via Broadway Avenue (and east to I-84)
- 30 percent to/from the west via Myrtle Street/Front Street (and I-184)
- 20 percent to/from the north via Fort Street and State Street
- 10 percent to/from the east via Warm Springs Avenue

These site-generated traffic volumes were then added to 2024 and 2035 No Build forecast turn movements to create 2024 and 2035 total traffic conditions with the proposed medical center development and Jefferson Street vacation.

# 7.4 TRAFFIC ANALYSIS

A traffic operations review of roadway segments and intersections within the project study area was conducted for each analysis scenario. ACHD has developed level-of-service (LOS) standards for roadway segments based on directional peak hour volumes for various functional classifications, number of lanes, and left-turn treatments. In accordance with the current ACHD Policy Manual, the minimum acceptable LOS for a roadway segment is LOS E for principal arterials and LOS D for minor arterials.

Intersection operations were analyzed in accordance with current Highway Capacity Manual procedures. LOS values for signalized and unsignalized intersections are defined in terms of the average control delay per vehicle. Another measure of performance is the volume to capacity (v/c) ratio. For signalized intersections, the maximum acceptable overall intersection v/c ratio is 0.90. The intersection v/c ratio for roundabouts and unsignalized intersections is undefined by the Highway Capacity Manual; therefore, review by lane group is necessary. The maximum acceptable lane group v/c ratio for signalized and unsignalized intersections is 1.0, and 0.85 for roundabouts.

Roadway Segment and Intersection Traffic Operations Review

Location	Analysis	Scenario	Threshold Exceeded
Fort Street, 1st Street to 4th Street	Roadway Segment	Existing, 2024 No Build, 2024 Total, 2035 No Build, 2035 Total	LOS D
Fort Street and	Intersection	Existing	v/c ratio (WB
Reserve Street	Operations		LT)
State Street, 1st	Roadway	2024 Total, 2035	LOS D
Street to 5th Street	Segment	Total	
Broadway Avenue/ Ave B, Front to Bannock	Roadway Segment	2035 No Build, 2035 Total	LOS D
Broadway Avenue and Front Street	Intersection Operations	2035 No Build	v/c ratio (SB RT)
Ave B/Fort, Bannock to 1st Street	Roadway Segment	2035 Total	LOS D
3rd Street and State	Intersection	2035 Total	Intersection v/c
Street	Operations		ratio
2nd Street and Main	Intersection	2035 Total	Intersection v/c
Street	Operations		ratio
lst Street/Fort Street/State Street	Intersection Operations	2035 Total	v/c ratio (SB LT)
Avenue B and	Intersection	2035 Total	v/c ratio (NB RT,
Jefferson Street	Operations		SB LT)
Avenue B and	Intersection	2035 Total	v/c ratio (WB
Bannock Street	Operations		LT)

Threshold criteria were exceeded at several locations throughout the study area. When threshold criteria were exceeded, improvement options were considered to resolve or enhance traffic operations to acceptable conditions, or to the extent practical. As a result of this review, locations requiring some level of improvement are summarized in the previous table.

# 7.5 AVENUE 'B' LANE REDUCTION INVESTIGATION

At the request of City staff, St. Luke's has tasked CH2M Hill traffic engineer's to perform a detailed engineering analysis of the Ave B/Fort Lane Reduction alternative. This report is included in this submittal within the appendix. The report clearly concludes that any benefit to the surrounding neighborhood relative to bicycle and



pedestrian circulation, would be greatly overwhelmed by the negative impacts on vehicular level of service, congestion, air pollution and emergency response time. It is St. Luke's position, that these negative impacts would have a dramatically negative impact on our ability to serve patients and the community, and therefore advancement of this alternative cannot be supported for further consideration.

It is also St. Luke's opinion, the proposed Fort Boise Transportation Plan developed jointly by the City of Boise, ACHD and St. Luke's will achieve many, if not most of the benefits desired by the majority of stakeholders who provided valuable input throughout the extensive public outreach process. These benefits include: As stated previously, St. Luke's is committed to working with the City of Boise, ACHD and community stakeholders to implement transportation solutions that greatly enhance the transportation experience for all stakeholders.

- I. Increased traffic safety
- . Improved traffic operations and circulation

Forecasted 2035 Build Traffic Volumes: AM (PM).

- 3. Traffic calming (reduced vehicle speeds)
- 4. Increased bicycle and pedestrian safety
- 5. Increased bicycle and pedestrian alternative choices
- 6. Opportunities for enhanced green space and streetscape amenities



<sup>7.6</sup> MULTIMODAL TRANSPORTATION

The St. Luke's campus and surrounding area are served by the ValleyRide transit system.ValleyRide connects users between Canyon Bicyclists and Ada Counties and within the counties, focusing on downtown Employees who bicycle to work at least 60 percent of the time areas. From a sustainability standpoint, St. Luke's downtown facilities between May I - October 31 receive a coupon worth \$40 to a provide a high amount of connectivity, access, and transportation participating local, full-service bike shop. This amount may be applied opportunities for employees and Treasure Valley residents. By the toward tune-ups, repairs and/or merchandise. Secure bicycle parking, nature of its location and support of alternative transportation, in line with sustainable best practice, is available at both the Boise and growth in this location could help reduce emissions from single Meridian facilities. St. Luke's also provides lockers and showers to occupant vehicle travel created by distant or less connected facilities. further encourage alternative transportation by its employees. Transit in the St. Luke's area generally consists of the bus, though ValleyRide also offers ACCESS, a paratransit service to complement Walkers the regular bus system. ACCESS is available to people not able Employees who walk to work at least 60 percent of the time year to use the bus system because of disability. The primary service round receive a coupon worth \$25, twice a year, to a participating route consists of a loop serving the St. Luke's and Boise Veterans local walking/running store. Administration Medical Center and then extending out to Coston Street on the Warm Springs corridor. The service runs every 30 to Additionally, St. Luke's is a prominent sponsor of the Boise Bike Share 60 minutes.

The staff at Valley Regional Transit (VRT) have expressed no concerns regarding the proposed changes at the campus. They have requested an opportunity to review the approved master plan in order to finalize bus stop locations with the design team at the appropriate phase of the project and to ensure proper design parameters that support the access of buses and paratransit vehicles are being used in the design process. Based on the proposed configuration of the St. Luke's facility expansion, the existing bus stops can remain effective in their approximate current locations along First Street.

St. Luke's Employee Transportation Alternatives (ETA) program was originally created to help alleviate increases in traffic/parking congestion and address air quality issues in our community. The following commuter benefits are provided:

# Bus Riders

St. Luke's maintains a contract with ValleyRide so that an employee ID badge is a FREE bus pass to anywhere on the ValleyRide route system. Employees simply show their ID badge to the driver upon boarding the bus.

# Vandool

Joining a Commuteride vanpool allows employees to ride free for the first month.After that, St. Luke's issues monthly commuter checks for \$24 to apply toward vanpool fare. In addition, new riders are eligible for \$20 Transi-Check coupons during their second, third, and fourth months. These provide an additional \$20 off of the vanpool fare.

The September 28, 2013, CH2M HILL bicycle-specific count was focused solely on cyclists commuting to and through the St. Luke's campus, along Jefferson Street in particular. Figures 3 and 4 show Carpool the total number of riders in the intersections, including approaches A carpool consisting of two or more St. Luke's employees is eligible from all directions, as well as the number of riders who passed all the for a discounted parking rate in the South Tower garage at the Boise way through the hospital facility on Jefferson Street. The definition location. Each party pays \$20 monthly, via payroll deduction. One used for "thru bicycle traffic" was between the east side of the parking permit (mirror hanger) is issued for the parties to share. intersection of lefferson Street and 2nd Street to the west side of the intersection of Jefferson Street and Avenue B. The figures are split Guaranteed Ride Home between morning and afternoon peaks; as with the overall counts All participants in the ETA program are eligible for the Guaranteed above, the counts were recorded from 7:00 A.M. to 9:00 A.M. and from 4:00 P.M. to 6:00 P.M.

Ride Home (GRH) program. This allows for a free taxi ride home in the event of an emergency or schedule change on a day an employee

didn't drive. Guaranteed Ride Home covers six taxi rides or \$300 in taxi fares each year.

program. Furthering St. Luke's commitment to create a healthy and sustainable lifestyle for Treasure Valley residents. The program will be a division of Valley Regional Transit and have a network of bike borrowing hubs in several locations throughout downtown, including one on the St. Luke's campus.

Other alternative transporation methods are also being considered by the City. A community workshop was held for residents to give their input on a downtown circluator intended to provide better connection to downtown and destinations around the city. It is St. Luke's intention to continue to consider support of new public transportation systems as they develop.

# 7.7 EXISTING BICYCLE VOLUMES

Bicycle and pedestrian counts were taken at several different dates throughout project development. Figure 1 provides a summary of these counts and records the dates. Morning counts were obtained between 7:00 A.M. and 9:00 A.M., and evening counts were obtained between 4:00 P.M. and 6:00 P.M.

Figure 2 shows overall bicycle-only volumes (no pedestrians included) from Pline Engineering, Inc. and a bicycle-specific count by CH2M HILL on September 28, 2013. Bicycle counts were also conducted by the Treasure Valley Cycling Alliance and are included in this figure. Count times were 7:00 to 9:00 A.M. or 4:00 to 6:00 P.M. as noted. The numbers represent cyclists approaching the intersection from all directions.





In both the morning and evening, fewer than 1 in 6 riders passed through the facility on Jefferson Street. Many riders entered the campus on lefferson Street and stayed, while others may have turned north or south within the facility to reach either another local hospital destination or a destination outside of the facility, but presumably not along Jefferson in the downtown core.

This trend seems to match with the findings of Figure 2 of the originally approved DBIP in fall of 2013, and incorporated in "Preferred Bicycle Routes," located on this page. This figure was developed during one of the open house events for the project. The figure shows the currently preferred routes of cyclists. Interestingly, Jefferson Street through the hospital facility was not identified at all during this exercise.

Several popular moves were noted during the counting period on September 28, 2013. They are as follows:

- The right turn movement for northbound cyclists on 1st Street is significantly higher in the afternoon (16 instead of 1). Input from several cyclists indicated that due to the current one-way traffic on Jefferson, they return to the East End via Bannock Street until they reach 1st Street, where they can access lefferson Street as a two-way street.
- A significant number of cyclists, 19 in the morning and 29 in the afternoon, navigated around the northeast corner of Jefferson Street and Avenue B/Fort Street, behind Jefferson Medical Office Plaza. In the morning, the cyclists moved generally westbound to northbound on Fort Street, while in the evening, the cyclists navigated from southbound on Fort Street to eastbound on Jefferson Street.
- North-south movement on Avenue B at lefferson Street is one of the more heavily used moves, with 18 cyclists traveling through the intersection in the morning and 30 traveling through in the evening.

Other general observations that were made during the count period include:

- · Many cyclists on the north side of Jefferson Street (typically westbound) use the sidewalk for safety and to push the pedestrian signal button.
- A.M. cyclists generally include elementary, junior high, and high school students, and adults commuting to work.
- Getting a walk/green light to cross Avenue B was slow; many pedestrians push both Jefferson Street and Avenue B "Walk" push buttons in order to get the quickest one.
- A potential conflict exists between southbound Fort Street drivers turning left onto lefferson and northbound cyclists on Avenue B — vehicles have flashing yellow arrow; cyclists have green light or walk sign.







Other general observations from the DBIP exercise effort include:

- · Jefferson Street through the campus was not identified as a preferred route.
- No preferred route seemed to include a continuous northsouth or west-east distance completely through the downtown study area.

Figure 2: Bicycle volume.

Preferred bicycle routes - interactive open house exercise (Figure 2 of the DBIP)





Downtown Boise Implementation Plan Study Area identified by ACHD.



Downtown Boise Implementation Plan street impacts around the St. Luke's facility

# 7.8 CIRCULATION

St. Luke's Boise facility serves as a regional destination for patients and visitors. As such, connectivity and access to the facility and its front door is of the utmost importance. The current vehicular and bicycle circulation network consists of minor arterials bordering the east and south edge of the facility, providing expedient vehicular access, with urban collectors serving the facility interior and west edge. Pedestrian access is facilitated by a complete sidewalk and crosswalk network to and through the current facility. For safety reasons, the framework effectively limits internal vehicular traffic within the interior of the site and thus limits the opportunity for pedestrian-vehicular conflict, increasing the safety of facility users and visitors.



Existing St. Luke's facility pedestrian circulation site plan.

Originally adopted in the fall of 2013, the Downtown Boise Implementation Plan will coordinate major roadway improvements in the area of downtown Boise from 16th Street to Broadway/Avenue B, and State Street to the Boise River. Recommended improvements include conversion of several of Boise's one-way streets to twoway, intersection improvements, as well as expanded and enhanced pedestrian and bicycle facilities. The plan is currently being updated; it is anticipated the most current plan will not be adopted until spring 2015. The approved DBIP, flavored with the most current information is being used in this plan.

St. Luke's facility is located at the eastern edge of the plan study area. As illustrated in the images to the left, specific impacts to the area include conversion of Jefferson Street west of 1st Street to two-way traffic, similar to Jefferson Street east of 1st Street. The original DBIP includes the existing shared lanes on Bannock, plus the shared lanes on Idaho, Main and State streets, as well as a bike lane on Jefferson; basically covering all east-west connections.

The following disussion inlcudes, the addition of buffered bike lanes along Idaho and Main streets from Warm Springs Avenue to the



west, and a standard bike lane along Avenue B from Warm Springs Avenue to Jefferson Street. ACHD conducted a buffered bike lane pilot project during the month of May. The results of that project are still being evaluated. Without more definitive information, this plan presumes that some form of bike connectivity will exist on Main and Idaho streets as shown in both the approved and updated DBIP discussions. The addition of buffered bike lanes along the Idaho and Main corridors will affect current on-street parking availability; however, the impacts to St. Luke's can be mitigated through additional capacity added as part of this master plan.

In addition, the DBIP identifies shared bicycle routes, where bicyclists and motorists share the same lane, along Fort Street between Avenue B and 1st Street and continuing along State Street to 8th Street. Shared space along vacated Bannock Street between St. Luke's main entrance on East Bannock Street and 1st Street is also proposed. The latter is plaza area owned by St. Luke's and is located between St. Luke's South Tower and the main hospital. The area presents challenges to commuter cyclists due to the geometry of hard surfaces, pedestrian cross-traffic, and patient-family relaxation space. St. Luke's has engaged with stakeholders, including area cycling groups, to assess mitigation strategies to benefit both pedestrians and cyclists. Discussions with cyclists have revealed that the majority of commuting cyclists, typically seasoned cyclists moving more quickly to get to and from work, do not want to use the Bannock space due to the significant congestion. Neighborhood cyclists taking family trips into and out of downtown are more likely to use the space slowly, with children on the weekends.

Given the extensive input with users, including cyclists, the Bannock Street Pedestrian Plaza will continue to be an alternative route for cyclists, recognizing the significant use by pedestrians (neighbors, visitors, patients and staff).

An additional request from the neighborhood meetings revolved around the use of lefferson on weekends to capture non-commuters, including in particular the Saturday Market users. In response, St. Luke's conducted an additional bike count and conducted a survey of bike users on Saturday, May 17, from 9 A.M. to 2 P.M. This timeframe captured weekend, family-oriented cyclists generally found to be using lefferson Street to access the Saturday Market. Because those are weekend users and not representative of the peak hour commuter cyclists counted previously, their numbers (similar to commuter peak hours) were not included in previous tables.



St. Luke's Bannock St. Plaza.



Detailed information on the count and survey response is provided in the Traffic Impact Study.

Bridging Avenue B from the east side of Bannock west over the plaza to 1st Street was reviewed, but was found to be in conflict with the future sky bridge from the existing hospital to MSTI.

# 7.9 PARKING ANALYSIS

St. Luke's Medical Center has hired Walker Parking Consultants to prepare a Parking Demand Analysis for their main facility, located in downtown Boise. This report addresses the existing parking needs for the hospital, using two different approaches:

- 7. Parking spaces required by City Code, and
- 8. Parking spaces needed based on the observed current usage (with an appropriate adjustment for the design day).

This analysis also provides a review of this master plan and projects possible future parking needs based on the revised 2030 build-out horizon.

# Parking Required by Code

Parking required for the facility may be subject to some interpretation, as different buildings may be located outside of the overlay zone, and/ or may fall under older code standards or variances which have been grandfathered in. Based on Walker's interpretation of Title 11, the following has been concluded:

- The existing facility includes a total of 3,206 parking spaces located in lots and garages within the study area. This figure excludes an estimated 528 public on-street spaces located within I-2 blocks from the campus;
- The off-street parking capacity is compared to an estimated minimum code requirement of 1,319 parking spaces;
- The estimated code requirement for the hospital includes roughly 474 parking spaces that are located outside of the "core" hospital zone and includes parking at various clinics, medical office buildings, and ancillary support facilities. Each of these facilities is assumed to meet its own code requirement on site.

# Parking Recommended Based on Usage

To determine existing parking usage, Walker conducted a facilitywide parking occupancy survey on Wednesday, July 10, 2013. Results were compared to historical parking occupancy data from 2001 and 2005. The survey day results were also adjusted (based on hospitalprovided statistics) to model an appropriate design day, which is defined as the 95th percentile day in terms of overall facility activity.

Based on this analysis, Walker concludes that the existing system has an effective surplus of of roughly 213 spaces for the core campus and 394 parking spaces overall. This surplus excludes any overflow capacity available on the streets surrounding the facility. The calculated effective parking sufficiency by user group is listed below:

- Core hospital employee parking = 85 space surplus
- Core hospital visitor/patient parking = 128 space surplus
- Ancillary lots (all) = 181 space surplus

Clearly, parking for the core hospital zone - which includes the hospital itself, Anderson Medical Plaza, St. Luke's Medical Office Plaza, and St. Luke's Mountain States Tumor Institute - has less overall sufficiency than the ancillary buildings. Though not currently showing a deficit of parking, employee parking facilities for the core hospital are close to effective capacity.

Projected Future Parking Needs

Walker reviewed the build-out plan for the facility, including the proposed master plan and capital projects projected through 2030. Based on assumptions provided by the architect and planning team, Walker recommends that the following parking capacity be added to the facility to support projected growth.

Keep in mind that the "net" parking recommendations above do not factor in any surface parking lots that may be displaced as part of the building process. Therefore, future garage sizes may need to be somewhat larger than the totals indicated below, if any of the existing facility parking capacity (2,732 spaces) is impacted.

Projected Parking Needs	2013 Design Day Parking Needed	Growth Factor	2030 Projected Parking Needed	Core Campus Inventory	New Spaces Needed
Hospital Employees	1,006	1.57	1,581		
Patient/Visitor	418	1.30	542		
Main Campus MOBs	1,095	1.00	1,095		
Sub-Total:	2,519		3,218	2,732	486
<u>Ancillary</u> Facilities (new <u>MOBs)</u>			<u>New</u> Demand	<u>Impact</u> <u>on</u> Supply	<u>Net</u> Impact
Children's Pavilion <sup>(1)</sup>	85,000 SF		340	246	94
Children's Pavilion <sup>(1)</sup> First Street Medical Office Plaza	85,000 SF 105,000 SF		340 420	246 -83	94 503
First Street Medical	105,000				

I. The Children's Pavilion will displace an estimated 28 cars from the Jefferson Plaza overflow lot, but will add 274 garage spaces; therefore, the net impact on the supply is shown as +246.

# STUDY AREA

The study area for this project includes all off-street parking associated with the St. Luke's Boise facility, plus any St. Luke's clinics, support buildings, and/or medical office buildings (MOBs) located within I to 3 blocks of the main hospital building. The adjacent figure shows the study area for this project.



# 8.0 RECOMMENDED DISTRIBUTION OF USES

# 8.1 EXISTING ZONING ORDINANCE

Current zoning designations surrounding St. Luke's Boise facility include: R-2 Combined Residential, R-3 Multi-Family Residential, R-O Residential Office, L-O Limited Office, A-1 Open Space, C-1 Neighborhood Commercial, C-5 Central Business, and H-S Health Service. The adjacent map illustrates the boundaries and extents of zoning districts in the area of discussion.

St. Luke's is bounded by a Residential Office zone to the west and south, Parks and Open Area to the north, Combined Residential and Mulit-Family Residential to the east. St. Luke's facility is zoned as Health Service. There are no perceived non-conforming uses being envisioned as part of the proposed master plan.



Aerial photograph of St. Luke's Boise (Google © 2010).

However, at the request of the City, St. Luke's has assessed current H-S zoning requirements in the context of anticipated development needs and perceive some challenges with current dimensional requirements related to maximum height and setbacks. If this plan is approved, it is St. Luke's intent to engage with the City to explore each challenge and offer recommendations for revisions consistent with other local adopted zones and national best practices. In addition, St. Luke's currently owns properties on the north side of Jefferson east of Avenue B and on the east side of Avenue B north of Warm Springs it is proposing to be rezoned to H-S.

# 8.2 EXISTING ADJACENT PROPERTY USES

The property to the north of the hospital grounds is currently occupied by city park facilities, Boise Little Theater and Elks Rehab Hospital.The park and foothills beyond provide viewing opportunities from inpatient areas of the existing hospital.



The neighborhood to the west is reflective of neighborhoods in transition from residential use to more dense and commercial in nature. Many single-family homes have been converted into commercial-use offices, including those directly related to the hospital and its activities.

Uses to the east are primarily residential in nature and range in density from single-family residences to the 9-story Bannock Arms apartment building. Other uses include the historic Pioneer Cemetery located on Warm Springs Avenue. Uses to the south include a convenience store, chiropractic clinic, and retail store frontage along Broadway Avenue, just south of Warm Springs Avenue. While St. Luke's currently holds the master lease to the retail store frontage on Broadway, St. Luke's has decided to release the lease in response to residents' interest in seeing retail services close to their homes restored.

Existing downtown zoning map.

# 8.3 MASTER PLANNED DISTRIBUTION OF USES

The proposed facility plan is a continuation of established best practice hospital facility planning. Careful study shows today's hospital and cadre of ancillary facilities has followed a similar hub and spoke development model throughout its history. In concept, the inpatient functions and highly specialized care occur at the center, or in the hospital proper with ancillary and support functions, like parking facilities, building services and medical office buildings, concentrically located at the periphery.

This arrangement allows convenient public and outpatient access to the higher-activity, more frequently used functions associated with and housed on the grounds of the hospital without having to penetrate deep into the heart of the development. Items such as physician offices and outpatient imaging and testing are located conveniently at the edge with immediate access to parking, major streets and transit facilities. Inpatient functions, typically characterized by longer lengths of patient stay and acute care involving more staff and more equipment, occur at the center of the facility.

The needs articulated in this master plan require large unobstructed floor plates to grow existing departments and to better address critical interdepartmental adjacencies that are currently challenged. In the case of St. Luke's, the option for expansion within the existing city block grid system is not realistic without street reclamation, which allows for larger contiguous floor plates, in turn allowing a more efficient growth model.

By allowing vehicular access at the edge and limiting through traffic, the potential for pedestrian/vehicular conflicts is reduced and internal hospital transport of compromised patients can occur horizontally in a controlled healthcare environment without having to traverse streets, either by traveling via elevator and sky bridge, or cross at street level.

# 8.4 EXISTING & PLANNED FACILITY ZONES

In addition to planning concerns expressed in the previous section, consideration is also given to respect the livelihoods of the facility's neighbors by organizing hospital activities in a complementary fashion. In looking at the way the current facility is organized, the observation



can be made that the more regular business hour operations happen adjacent to the more residential neighbors and the more 24-hour functions occur either at the center of the development buffered



by those that cease to operate in the evening, or adjacent to nonresidential neighbors, like the park and businesses to the north.

The benefits of such planning concepts mitigate obtrusive noise caused by around the clock operation and emergency services, as well as excessive traffic on neighborhood streets, and parking lot lighting that can be zoned to be turned off after a certain time of night to prevent unwanted nighttime light intrusion.

As the diagrams indicate, the proposed organization continues this approach. Emergency traffic, such as ground ambulance and activities will continue to be accessed from Jefferson and Avenue B. The main Emergency Department public entrance and drop-off will continue to be accessed as it is today. The expanded diagnostic and treatment areas, and inpatient beds, would unfurl to the north, adjacent to the park and neighboring businesses. New outpatient functions, central plant, and supporting parking facility will be located to the northwest, abutting mixed residential and office uses.



Facility map illustrating the existing locations of the hospital that operate 24 hours a day, 7 days a week compared with the quiet zones, which typically operate from 7am to 5pm, 5 days a week.



Facility map illustrating the planned locations of the hospital that operate 24 hours a day, 7 days a week compared with the quiet zones, which typically operate from 7am to 5pm, 5 days a week.



St. Luke's facility proposed transportation site plan.

# 9.0 RECOMMENDED TRANSPORTATION **SYSTEMS**

# 9.1 APPROACH

This section of the plan focuses on planning for pedestrians and wide sidewalk to accomodate Pedestrians. bicyclists. Through neighborhood meetings, the design team has clearly heard that there are several types of cyclists using the Connections to the west from the facility to downtown would consist streets and sidewalks around St. Luke's. Cyclists range from very of the buffered, or other bike lane on Idaho and Main streets as well experienced commuters who ride alongside vehicles on a daily basis, as the shared lanes on State Street, according to the approved DBIP. to road cyclists getting excercise or training for races, to families with children accessing the downtown farmer's market, parks, or other The bicycle facilities discussed in this document coincide with the opportunities. Considering these different types of users helped proposed expansion of the bicycle network in the approved DBIP. encourage the team to review the site with safety, convenience, Both plans suggest adding bike facilities to State, Main, and Idaho comfort, efficiency, and sustainability in mind. streets - major east-west connections that tie in well with the master plan to create a more fluid appearance around the neighborhood and to add improved amenities for bicyclists and pedestrians.

To offset the potential delay of bicyclists having to navigate around the hospital development, where accommodations are very minimal or non-existent, more efficient options are being explored to improve bicyclists' experience as well as encourage use of facilities instead of riding in the streets or on sidewalks. These facilities could be located on the edge of the hospital grounds so the interior streets and paths are used by local traffic, which will reduce the number of conflicts and delays for all modes of transportation.

The proposed approach includes shared lanes and bike lanes. The along the micro path. latter is similar to others around the city and is used exclusively by bicyclists and may be wide enough for bicyclists to ride side by side. To increase the safety of bicyclists traveling through intersections The idea behind the bike lane is to provide a safer alternative to riding and to shorten their commute time, improvements are discussed on busy arterials, which see more than 20,000 vehicles per day. The in this document to transform the intersections located along the design standard for a bike lane is that it flows in the same direction as recommended bicycle facilities that make riders a priority. Some of traffic and is located on the right side of those lanes. Adjacent to the these intersections are illustrated in the following pages and provide bike lane may either be a raised sidewalk or a parking lane. a description of the individual elements that could be implemented.

The bike lane is designed for users to quickly get from one destination As can be seen on the following page, the intersections around to the other with few interruptions. However, if a bike lane does the campus are significantly improved to accommodate bikes and encounter a driveway or an intersection, proper precautions can be pedestrians in the most efficient and safe manner. As noted above, taken to ensure the safety of riders. This can include "yield" signs, this report recognizes that specific elements such as buffered bike painting the bike lane for easy identification, and providing proper lanes may not be the solution. Other developments such as the visible clearance for motorists and bicyclists. Additionally, the bike Downtown Circulator may occur and could be considered in the lane is at street level, thus there are no bumps for motorists to cross. final design.

It should be noted the installation of the bike lane along State Street and Fort Street would not change the existing curb-to-curb width Currently, there are many potential conflicts arising from bicyclists of those streets, if approved. St. Luke's would absorb additional lands trying to cross intersections around the St. Luke's downtown facility. required as part of the overall project development to facilitate These intersections can be very daunting and time-consuming for implementation. However, elsewhere where existing buildings are pedestrians, bicyclists, and motorists. This can cause pedestrians constructed to the required setbacks and there is not enough room and bicyclists to create their own routes by darting across traffic to accommodate the full build-out of the lanes, sidewalk, and buffers, lanes and riding on sidewalks. Anecdotal information shared at neighborhood information meetings indicates that pedestrians still the vehicular travel lanes or parking lanes would have to be adjusted to accommodate the bike lanes. cross Avenue B at Bannock Street, even though there is no signal. The St. Luke's team is continuing to examine opportunities to change For this particular project, a 5-foot bike lane is proposed to connect behavior by creating infrastructure that encourages users to make from Warm Springs/Avenue B/Main/Idaho intersection north all good, smart choices.

the way around Fort Street to connect into the proposed shared route on State Street past the Ist/Fort/State intersection. The lane The design team met with Bannock Arms residents on July 2, 2014. These residents frequently cross Avenue B at Bannock to enjoy morning coffee or lunch and to socialize at St. Luke's. Renewed efforts have been made, and are continuing, regarding this crossing. Ideas range from installing a Rapid Flashing Beacon, or HAWK System to integrating a shuttle program operated by St. Luke's.

would also extend along For to 6th Street. The bike lane would be developed on both sides of Fort Street, State Street, and on the northbound side of Avenue B. As shown in the corresponding image, a cycle track is being proposed on the southbound side of Avenue B. A landscape buffer would provide a physical, vegetated barrier

between the southbound traffic and a 10-foot wide, two-way cycle track.

Adjacent to the cycle track and encircling the St. Luke's facility along Ave B. Fort Street, and State Street to 2nd Street would be a 10-foot

Another proposed improvement that differs from the approved and updated DBIP is the implementation of micro paths. These paths would create a safe, alternate connection to other pedestrian facilities in the vicinity. The micro paths shown on this page link Broadway Avenue users, from behind the Idaho Water Center, to either the intersection of Main and 1st streets, or to the St. Luke's campus, in front of MSTI. The Warm Springs parking garage and the proposed Warm Springs MOB could be stopping points or destinations located





Possible intersection improvements at Jefferson Street and Avenue B.





Possible intersection improvements at Idaho Street and 1st Street.

Possible intersection improvements at Fort/State Street and 1st Street.

Possible intersection improvements at Warm Springs/Main/Idaho and Avenue B/Broadway Ave.

# 9.2 BICYCLE SYSTEM PLANNING ELEMENTS

The bicycle amenities listed below correlate with the illustrations on the previous page. They are being considered to help improve the efficiency and safety of bicyclists who are traveling to, through, or around the St. Luke's facility. Not all amenities are required, but a combination of them may be used based on the traffic volume of those roadways and on the current/projected number of bicyclists traveling through this end of downtown.

The amenities illustrated have been implemented in various cities across the country and the world, and have proven to be effective. The descriptions of each are taken from the Urban Bikeway Design Guide, created by the National Association of City Transportation Officials (NACTO), which assists in the proper installation of bicycle transportation systems. Some of these amenities also follow ACHD's bicycle design guidelines in their Roadways to Bikeways Plan.

# **BIKE LANE**



Example of a standard bike lane.

Bike lanes are exclusive travel lanes for bicycles located next to vehicle travel lanes. They typically flow in the same direction as vehicular traffic and are located on the right side of the street.

Bike lane widths may be between 4-6 feet. The bike lane width is exclusive of the gutter. The desirable minimum width is 5 feet if located next to a parking lane, which helps to prevent conflicts between open car doors and bicyclists.

A solid white line should separate the bike lane from the vehicle travel lane. These lines are typically 6-8 inches wide.

A bicycle symbol or the word "Bike Lane" along with an arrow should be placed inside the bike lane to help define the area that is for bicyclists only.

At the beginning of a marked bike lane, a "Bike Lane" sign may be used to help with identification of that lane.

"No Parking" signs may be used to help prevent motorists from parking in a bike lane.

### TWO-WAY CYCLETRACK



Example of a two-way cycle track.

Similar to multi-use paths, which are separated from travel lanes, but are exclusively for bicycle travel. May accommodate one-way or two-way travel. Cycle tracks are preferred in areas that have few driveway entrances as this creates more conflicts with motor vehicles. However, added measures can be taken to ensure the safety of bicyclists.

The bicycle symbol and an arrow should be placed at the beginning of the cycle track and periodically along its path to define the separate bicycle travel lanes and their direction.

A physical median or a striped buffer shall be used to separate the two-way cycle track from vehicle travel lanes, or parking lanes if necessary. The striped buffers are recommended in areas where city buses and shuttles need access to the curb for picking up and dropping off passengers.

### BUFFERED BIKE LANE



Example of a buffered bike lane.

While similar to a standard bike lane, a buffered bike lane has a buffer space that separates the bicycle lane from the vehicle travel lane. Adding a buffer provides a greater level of comfort for bicyclists. The buffer may be comprised of striped lines or a physical barrier. Typical applications are on streets with high traffic volumes.

Buffered bike lanes have the same requirements as standard bike lanes.

A buffer is marked with two solid white lines that are at least 18 inches apart. If they are 3 or more feet apart, then they should have diagonal stripes or chevron markings between them.

The combined width of the buffer and the bike lane may be considered the bike lane width, if bicycle volumes on that route are high. If so, the desired bicycle travel width is 7 feet.

# **BIKE BOX**



Example of a bike box.

A bike box is a designated area at the front of traffic lanes at signalized intersections that provides bicyclists with a safe place that allows them to become visible and to get ahead of queuing traffic, and prevents right turn conflicts when accompanied by a "No Right Turn on Red" sign.

Bike boxes should be contained between two lines that are separated 10-16 feet. These lines are typically a crosswalk and a stop bar. The deeper the box, the less likely it is for a motor vehicle to encroach into the box. A "No Turn on Red" sign may be installed to prevent vehicles from entering the turn box.

A stop bar is used to indicate where motor vehicles are required to stop at an intersection.

Proper pavement markings are centered in the bike box to designate the correct space for bicyclists. If needed, pedestrian crosswalks may be adjusted or realigned to allow space for a queue box.

A "No Turn on Red" sign may be installed at intersections with bike boxes to prevent vehicles from entering the bike box space.

A "Stop Here on Red" sign may be posted at the stop bar, or the marking "WAIT HERE" may be used in conjunction with the stop bar and/or the posted sign. Both improve drivers' observance of the stop bar.

The pavement enclosed by the bike box may be painted for greater visibility and compliance by motorists and bicyclists.

TWO-STAGE TURN QUEUE BOX



Example of a two-stage turn queue box.

A two-stage turn queue box permits bicyclists to make a safe left turn at signalized intersections from a right-side bike lane, or cycle track that prevents bicyclists from merging into traffic to turn. Multiple positions are available for these queue boxes. Typical applications for queue boxes include multi-lane roadways, signalized intersections, and intersections where a significant number of riders make left turns.

Queue boxes should be placed in protected areas such as between a bicycle lane and pedestrian crosswalk. Or they may be placed between the vehicle travel lane and the bicycle lane as long as the queue box doesn't protrude into the vehicle travel lanes.

Queue boxes have pavement markings that include a bicycle and a turn arrow that indicate the proper direction of travel.

The pavement area within the queue box may be painted to improve visibility for bicyclists and motorists.





Example of a through bike lane.

A through bike lane allows bicyclists to correctly position themselves

at intersections. This helps to reduce conflicts with right-turning traffic. These lanes are located to the right of through traffic lanes, but to the left of right-turn lanes.

At intersection approaches, the words "Bike Lane" or a bicycle symbol along with a straight arrow should be used to indicate the intended path of bicyclists traveling through the intersection.

Dotted lines should identify the merge area where vehicles transitioning into the right-turn lane cross the bike lane. Depending on the traffic volume, these dotted lines should begin 50 to 100 feet before the intersection.

Through bike lanes should not be used when a through vehicle travel lane turns into a right-turn only lane. This can create greater conflicts between bicyclists and motorists.

Right-turn only lanes should be as short as possible to help reduce the speed of cars in the right-turn lane.

# COMBINED BIKE/TURN LANE



Example of a combined lane.

Intersections that lack proper width for a through bike lane may use a combined bike/turn lane, which features a shared lane marking on the left side of a right-turn lane. This helps to correctly position bicyclists when they are traveling through an intersection. It also gives bicyclists priority in the travel lane.

To help bicyclists and motorists identify a combined lane, shared lane markings should be used near the intersection to delineate the space. A dashed line may also be used to show where the right edge of the bike lane would have continued. This helps to push motorists farther to the right of the turn lane to allow adequate space for bicyclists.

A combined lane may also be used at bus stops when there isn't enough space for a dedicated bike lane and an adjacent parking/ transit lane. It still requires shared lane markings to tell bicyclists and bus drivers to be aware of each other when buses are pulling up to and away from bus stops.

# CONFLICT AREA



Example of a conflict area.

A conflict area highlights areas of concern at intersections and driveways where bike lanes and vehicle travel lanes intersect. Features include dashed and painted bike transition lanes for greater visibility.

Dashed white lines should be used along the edges to distinguish the boundary of the conflict area with the conventional bike lanes.

Green paint may be used within the conflict area to improve the visibility and awareness of intersecting lanes for both drivers and bicyclists.

At the beginning of the conflict areas and at driveway crossings, a "Yield to Bikes" sign may be used to remind everyone that they are approaching a conflict area and bicyclists have the right-of-way.

Bicycle stencils and shared lane markings may be used within the conflict area to better identify the space.

### **BIKE SIGNAL DETECTION**



Typical bike detection sign and signal.

Bike signal detection systems are used to alert other traffic of bicycle movement at intersections. This may occur by automatic means or by push-button operation. Automatic signal detection can be used in bike boxes, two-stage turn boxes, or even bike lanes approaching intersections. These may also be paired with bicycle-specific signal heads that allow riders priority when traveling through intersections while the light remains red for motor vehicles.

Where used, in-pavement loop detectors should be adjusted to guarantee detection of bicyclists. The loop detectors should be located in the intended travel and/or wait path of bicyclists. This includes in the center of the bike box, the center of the two-stage turn box, in the bicycle approach lane, and immediately behind the stop bar in a bike lane.

Video detection is another source that may be used for automatic detection. Similar to their use for motor vehicles, these cameras are aimed at bike lines, bike boxes, etc. They are calibrated to detect when a bicyclist is approaching, or when they have stopped in a designated location.

Signs and/or stencil markings should be used to indicate where bicyclists should position themselves at intersections to activate a green light.

Wayfinding signs should be placed along all bike facilities that are If push-button activation is used, it should be located in an area that part of the bicycle network. They help guide bicyclists to their bicyclists can reach without dismounting. A sign indicating the pushdestinations and keep them on a designated bicycle route. While all button activation should accompany the button. wayfinding signs serve the same purpose, they may vary in appearance and information provided, but contain common elements such as the If a separate bicycle signal head is used, then a supplemental, halfbicycle symbol.

sized signal head may be installed next to the waiting bicyclists for greater visibility and improved awareness.

# INTERSECTION CROSSING



Example of intersection crossing markings.

Intersection crossing markings may or may not be used, depending on the safety precautions that are to be used at these intersections. They indicate the intended path of bicyclists traveling through intersections, and allow greater visibility, and caution both motorists and bicyclists at these intersections. It also reassures motorists by making bicycle movements more predictable.

The crossing space for bicyclists should be bound by dotted lines that cover the length of the intersection. These lines should also be adjacent to vehicle travel lanes.

The crossing-lane width should match the width and positioning of the leading bike lane.

Additional markings within the dashed lines may be used for greater visibility. These markings include chevrons, shared lane markings, or colored pavement.

# WAYFINDING SIGNAGE



Example of a decision wayfinding sign.

Confirmation signs simply notify riders that they are on a designated bike route. They typically don't include destinations or arrows. Placed frequently along a bicycle route, these signs help remind motorists to use extra caution when driving on these roads

Turn signs let riders know when the designated bike route changes direction, or continues onto a different street. These signs include arrows and may include destinations.

Decision signs inform riders that a junction with two or more bike routes is approaching. Placed in advance of a junction, these signs include destinations, arrows, travel times, and distances.



Possible bike lane with 10-foot sidewalk. View of Fort Street, looking east.



Possible 10-foot cycle track and 5-foot sidewalk. View of Avenue B, looking north.



Possible buffered bike lane. View of Idaho Street, looking west.



# STREET SECTIONS

The street sections on this page show examples of how the discussed improvements around the St. Luke's facility may look. These illustrations depict the existing conditions (top) and the proposed improvements (bottom) of Idaho Street and Avenue B. The section of Idaho Street is based on the DBIP pilot study, as it is more conservative to install (more space required, etc). Additionally, the Average Daily Traffic (ADT) for Main Street is 7,591 and 5,063 for Idaho Street; the recommended limit for sharrow facilities is under 3,000 ADT.

As shown in the existing conditions, there currently isn't a dedicated bike lane, or other bike system marking on any of these streets, so bicyclists are forced to either ride in the unmarked vehicular travel lanes or on the detached sidewalks. With improvements, bicyclists would have dedicated lanes that will help connect them safely to Boise's existing and proposed bicycle network. These improvements will also increase safety by separating cyclists from traffic and making movements more predictable.

To accommodate a dedicated bicycle lane along Idaho and Main streets, the curb-to-curb width would remain the same, but the onstreet parking on one side of each street for several blocks west, would be eliminated. As the DBIP process reaches the next approval stage, and the Downtown Circulator project gains definition, these sections and the necessary crossing can be refined. St. Luke's is dedicated to working with the community in considering these projects.

As noted above, the proposed Avenue B bike lane and cycle track will efficiently move bicyclists between Fort Street and the Warm Springs Intersection, and beyond. Adding the bike lane within the right-ofway of Avenue B would impact the current location of the curbs and create the opportunity to modify the lane widths.







Existing section through Idaho Street (Main Street is similar).















Existing section through Avenue B.

Section through Avenue B after recommended improvements.

# **10.0 RECOMMENDED STREETSCAPE**

# **10.1 LANDSCAPE TREATMENT**

The basic premise for the concepts is to identify the properties and make people aware that they are entering St. Luke's Health System's Boise location. It is the intent to provide a common theme for all intersections and streetscapes that are functional, attractive, and relatively low in maintenance for St. Luke's, ACHD, and the City of Boise.

### Intersection Concept:



Typical intersection concept.

The concept is to ensure consistency with Boise City and ACHD recommendations for pedestrian intersection ramps and emphasize the St. Luke's facility landscape theme. To also be consistent with the Boise East End, detached sidewalks are proposed with lawn and Class 2 or Class 3 street trees between the curb and the sidewalks. To emphasize the intersections, dark charcoal integrally-colored concrete is proposed for the pedestrian ramps and 10' along the sidewalk areas. At that point, the sidewalk would be of a higher albedo concrete. In the detached sidewalk area adjacent to both sides of the pedestrian ramp are proposed planter areas with low-growing perennials and woody plant material that will not create a vision hazard within the intersection's Clear Vision Triangles. Behind the pedestrian ramp and sidewalk is a proposed pedestrian bench, historic street light, and plantings consistent with the entire St. Luke's facility.



Existing bench and charcoal-colored concrete.



Typical intersection concept with integrated bus stop.

At intersections throughout the facility where bus stops are to be located, the planter areas would be eliminated on the side of the ramp where the bus stops are located. All other aspects of the intersection would be consistent with the typical intersection as described previously. The proposed shelter would be consistent with the typical Boise City shelter and as already located at the St. Luke's facility.



Existing corner landscape treatment consistent with proposed concepts.

Existing Street Tree Concept:

Along streets with existing healthy street trees, it is proposed that three historic street lights be spaced equally between the intersections. At each area where the lights are located are small planter areas on both sides of the sidewalks. These would be planted with perennial and woody plant material to provide color and texture throughout the year and be consistent with the rest of the facility landscape. If existing street trees are in declining health and the Boise City Forester recommends removal, it is proposed that new trees be planted to conform with the New Street Tree Concept.

# New Street Tree Concept:

This is consistent with the Existing Street Tree Concept, with the exception that the new trees would be planted between the historic lights. The required number of trees would comply with Boise City Landscape ordinance and City Forester's recommendations.



JEFFERSON STREET

Existing street tree concept.

# JEFFERSON STREET

New street tree concept.


# could be used for not only the benefit of those visiting the hospital, but also for the community.

In the summer of 2014, St. Luke's Healthy U collaborated with Capital City Public Market and Global Gardensto organize a pop-up produce stand on the hospital lawn. One day a week, a tent was setup offering fresh produce to visitors and the public.

The previous illustration identifies where opportunities for public art and outdoor space is proposed.



# 10.2 OPEN SPACE & PUBLIC ART

There are many studies and articles available documenting the benefits art has on health and healing. St. Luke's downtown facility currently has several areas throughout the grounds and internal to the building where art is displayed for the benefits of patients, family, staff and the public. One such example is the Bannock Street plaza. Open Space and Public Art Site Plan.

The area displays sculptures, water features and a labrynth adjacent to the pediatric infusion play area.

The master plan identifies opportunities where art can be integrated into new open spaces created between structures and where a strong visual connection can be made from interior waiting and lobby areas to exterior plazas and courtyards. It is the intent these areas

# 10.3 WAYFINDING

This section describes key wayfinding elements around St. Luke's downtown facility for the public and staff. The present plan is part of the master plan for this project. These elements will be further developed as the project progresses.

Wayfinding - Key Decision Points and Drop-offs

Please refer to the Wayfinding – Key Decision Points and Drop-offs diagram. This wayfinding diagram displays key circulation routes that will be utilized by the public and staff when heading to St. Luke's campus. Highlighted in this diagram are primary and secondary transportation routes, decision points, drop-off locations, and parking.

Wayfinding - Key Decision Points and Drop-offs diagram.

When navigating to the St. Luke's downtown campus, there are five key decision points that the public and staff will encounter, which will provide direction to parking and various drop-offs around the hospital. These decision points are represented as purple circles on the wayfinding diagram.

One key decision point, unique from the others, is located at the intersection of Jefferson Street and Avenue B. At this location, public access is available onto Jefferson Street, but is not available at the ambulance entrance across from Jefferson Street. Appropriate material and signage are needed to properly convey to the public that the ambulance entrance is not a place of public access.

Patient access involves drop-off, parking, or both. The main drop-off locations are marked by black squares and are located at each major department and/or building entrance. Most of the public parking currently exists on the south end of the facility. Additional public parking will be provided on the north end of the facility and below the Children's Pavilion.

The new parking structure located on the north end of the facility will provide direct access to the outpatient main entrance. Staff and patients can enter/exit the parking garage from 1st Street, and an additional staff entrance will be provided into the garage from 2nd Street. The public parking below the Children's Pavilion will be accessed from Jefferson Street.

Use of public transportation is another means of accessing the facility. The existing bus stops are depicted on the diagram as blue squares. These bus stop locations are in close proximity to the inpatient and outpatient entrances, MSTI, and Children's Pavilion. Valley Regional Transit (VRT) noted there are no significant issues with the plan from their perspective and will work with St. Luke's to determine exact locations to support the master plan once adopted.

Major deliveries and truck traffic will access the loading docks behind St. Luke's Medical Office Plaza off of 2nd Street. This separation of traffic will minimize blockage of main public access routes and other drop-off locations.

Wayfinding – Signage



Existing St. Luke's pedestal sign at Broadway and Warm Springs Avenue.

Please refer to the Wayfinding – Signage diagram. This diagram shows the location and types of signage that will be used to help the public and staff navigate the hospital facility.

Located near the intersection of Broadway and Warm Springs avenues is an existing St. Luke's pedestal sign that will remain. This sign is not so much a wayfinding sign, but rather signifies to the public their arrival at the St. Luke's campus. Beyond this point, wayfinding signs will be strategically placed to guide the public to their destinations.

The types of signs to be used are pedestals and wall-mounted signs. The wayfinding diagram displays examples of these types of signs and appropriate locations for each type.

Pedestal signs are represented by rectangles. A short pedestal, indicated by a green rectangle, directs access to a single entrance and department. A tall pedestal, indicated by a yellow or orange rectangle, directs access to multiple entrances and departments. The difference between the two types of tall pedestals is that one boldly locates the Emergency Department.

Wall-mounted signs are represented by circles. Entrances to the major departments are made noticeable with wall-mounted signage, indicated by a blue circle. The St. Luke's Children's Hospital sign is unique to the department and is denoted as a pink circle. Parking entrance signs are indicated by a purple circle. The emergency sign, indicated by a red circle, will be large and back-lit so the public can clearly locate the Emergency Department at all hours.

Near the ambulance entrance, appropriate signage is needed to prevent public access.

#### 10.4 LIGHTING

The downtown facility outdoor lighting system is well developed, and consists of decorative. historic luminaires and poles. The outdoor lighting system will maintain the standard already developed. The poles will consist of straight-fluted shafts 10 to 14 feet in height, colored black, and will feature separate arms for hanging flower baskets and flags. The luminaires will be decorative acorn style to match the existing Holophane Granville model used throughout the facility. The lighting system will be designed



Existing St. Luke's historic facility street light.

to enhance security and allow for safe movement along paths, sidewalks, roadways, and drive entries. Target horizontal illumination levels will be 0.5 foot-candles maintained.



Outdoor lighting will match the historic standard established for the downtown facility.

Wayfinding – Signage Diagram.



## 11.0 BUILDING DESIGN STANDARDS

The hospital St. Luke's built in 1927 at the corner of Bannock and 1st streets established the precedent for the architectural vocabulary that has characterized St. Luke's facilities for more than 80 years. Over this era, many St. Luke's visionaries and their chosen design professionals have continued to develop the aesthetic into today's recognizable building brand. Although no two buildings are exactly the same, many of the additions and new facilities possess trademark design elements and a common material palette. Regardless of type of care, number of stories, size or scale, all locations and facilities evoke the feeling of "this is a St. Luke's facility."

The following discussion identifies common elements and variations indicative of the timeless quality found throughout St. Luke's Health System's family of facilities.

#### **11.1 EXISTING TYPOLOGIES**

#### **TYPOLOGIES - BUILDINGS**

The landscape of St. Luke's, like health care, is ever changing and continually growing. In the early 1990s, St. Luke's began expanding its services to outlying communities. Planned community hospitals and medical office plazas, buildings, and clinics were being constructed throughout Boise and Meridian. Later that decade and into the 2000s, the communities of Wood River and Magic Valley were brought into St. Luke's Health System. St. Luke's support included new hospitals and supporting medical office buildings.

Over the past five years, existing hospitals in McCall, Jerome, and MATERIAL USE Mountain Home joined St. Luke's. While the existing hospitals don't necessarily showcase the design elements of St. Luke's facilities, they are the face of health care for those communities.

Facilities currently at the Boise location include: the hospital, a collection of professional medical office buildings and clinics, subterrainean and multi-story parking structures, as well as the facility's central power and distribution plant. Each facility type has different requirements of access/entry for the public and staff, visibility, security, privacy, and service. Along with these requirements, consitent building elements have been established from existing building typologies that will continue as the facility continues to evolve and expand.

#### **TYPOLOGIES - BUILDING VOCABULARY AND FEATURES**

Typically, St. Luke's buildings are constructed with a common material palette. The building's size, scale, climate, and use will affect the amount of each material used. Although strong and iconographic, not all identifiable design features will be incorporated into each new facility. However, the design of a new St. Luke's building will have a material palette, including a few consistent building elements, as the baseline.

Typical design elements include: stepped pediments, stepped parapets with flat roofs, brick banding (coursing arrangements) and relief in the brickwork, inset corners at the building edges, columns and pilasters, patterned window arrangements, ornamental grilles and screens, and transparent lobbies and entrances.

St. Luke's building palette embodies three primary materials: red brick, bronze anodized aluminum window frames and tinted glazing systems, and grey-white colored exterior insulation finish system (EIFS). Other complementary building materials have been introduced into the palette at different facilities, including: stone, buffcolored brick, architectural precast concrete, translucent sandwich panel skylights/roof panels, and ornamental steel. They have been utilized for their effect, appropriateness and durability.

The red brick has been, and will continue to be, the signature material symbolizing St. Luke's buildings. It is the primary and most used building material. The arrangement of the brick can be characterized in a simplistic large planar arrangement that incorporates soldier coursing at floor breaks, and window head and sill conditions. It is best utilized at areas of buildings that require little to no transparency and protection from public visibility. Openings are usually oriented vertically (tall and narrow).

Typically, entrances and lobbies maximize the use of window and glass systems for their transparency, but more importantly as a wayfinding element for the public to find the "front door." In addition, where possible, these systems are utilized along public corridors fronting exterior walls, again to aid as a wayfinding element. Having exposure to natural light is important for patients admitted for extended stay and recovery. Patient rooms capture natural light, but at a smaller scale. Privacy and screening are factors when determining opening sizes and placement.

Exterior insulation finish systems (EIFS) are used as the primary building cap and parapet elements. The lighter contrasting color of the EIFS to the red brick usually draws great attention and adds visual

rhythm. The precedent has been to incorporate varying thickness, steps, and reveals into the rigid foam to break long runs while continuing vertical lines from lower design elements at both brick and window systems. St. Luke's architects use EIFS for its flexibility to create multiple shapes and profiles, efficient cost, and because it is a light, durable building material.

#### **ICONOGRAPHY**

Probably the most identifiable building element on the Boise facility is the stepped pediment located at the top of the public elevator lobby. It has been interpreted and slightly modified on almost every ensuing St. Luke's building. Other than the stylized use of the Episcopalian cross paying homage to the hospital's humble beginnings, it is the iconic feature of the St. Luke's brand. Other highly recognizable elements are window frames and their arrangement, the inset corner elements at both brick and EIFS, and simple brick banding and relief.

# 11.2 RECOGNIZED ELEMENTS & IMAGES

#### GENERAL OVERVIEW OF BUILDING FACADES

The arrangement and order of the St. Luke's building palette often gives the impression of buildings that are predominantly vertical. Although there is a presence of both vertical and horizontal building lines, the balance of differing materials and mass evoke a vertical building. The following examples of building elements and imagery will be described starting from the bottom (base) and finishing at top (roof).

BASE



Use of reveals and coursing in the brick to create a base at the 1927 St. Luke's Boise hospital.

Bases are generally well articulated on St. Luke's buildings. Examples vary from the field-color brick blend and utilizing a recess, soldier, or corbelled course(s) and often terminate as a recognized design element at the ground level window sill.

Other examples of building materials utilized as a base element are: exposed concrete, EIFS, ground-faced concrete masonry units, accent colored brick veneer, and other stone products.

#### BODY

The overall body building material is red-brick blend. As previously discussed, it is the iconic material that characterizes St. Luke's facilities. The arrangements are seen as large simplistic planes and are visually vertical. Coursing and relief are predominantly located at window head and sill conditions. Insets are often integrated at columns, pilasters, window openings, and building corners to soften harsh edges.



The exterior body of St. Luke's Boise Medical Center is predominantly brick and windows.



Brick used as a screen for mechanical equipment at St. Luke's Boise Medical Center creates an ornametal pattern on the building exterior.



The exterior of the 1927 Boise St. Luke's hospital is mostly brick and windows. Brick is used in various formats to create patterns that break up the exterior of the building and bring order to the body.

#### STEPPING/RELIEF

Stepping and relief occur in both plan and elevation. Brick and EIFS are often inset at building corners, columns/pilasters, and door/ window openings to soften edges and create relief.

Reveals (both horizontal and vertical) and varying thickness of EIFS, and recessed and corbelled soldier brick-coursing create relief while at the same time dividing up facades that articulate patterns and repetition.



This corner at the St. Luke's Boise facility illustrates how depth and relief are produced through material change, with stepping and relief.

# BANDING

### ENTRANCES

The horizontal banding originated with St. Luke's first building and has been applied to several buildings in a complementary arrangement. Visually, the strongest presence is noticed when applied as a groundlevel base element. Many examples utilize brick or stone coursing arrangements, recessing, corbelling, and face texture that create relief.



Recessed brick creates horizontal bands around the perimeter at St. Luke's Boise facility.

Banding in the brick aligns with

together separate parts of the

building.

adjacent building elements, tying



Reccessed brick creates interest at exterior walls at the St. Luke's Boise facility.

Main entrances for St. Luke's facilities are extensions of their lobbies and waiting areas, which emphasize transparency as a wayfinding locator for the public. Many times, brick elements are minimized and medium bronze anodized aluminum window frame and tinted glazing systems are the dominant building material.



Main walk-in entrance at St. Luke's Boise.



Entrance at St. Luke's Boise that is surrounded by windows.

Entrances are protected from the elements for the public's safety with building elements in the St. Luke's architectural vocabulary by the use of projected eyebrows with overlapping drop-off canopies, recessed entry doors, and vestibules.

#### WINDOWS

Windows are used in various formats to provide transparency, natural light, and for aesthetics.



Glazing is broken up with mullion patterns and EIFS at St. Luke's Boise.

Windows are typically recessed from the face of the building, which breaks up the exterior and adds relief. Windows on St. Luke's buildings are typically divided by vertical and horizontal window mullions that are aligned with other adjacent elements on the building's façade. The placement of these mullions creates a unique identifiable grid that helps create another St. Luke's element.

At entrances and lobbies, transparency is integrated into the design to help patients and visitors easily identify critical points of entry. This is important so patients can quickly find main entrances with minimal confusion. St. Luke's typically has open, and often twostory, lobbies with large amounts of natural light to provide for an inviting entry for patients and families when entering the hospital facilities. Natural light is also provided at patient rooms as well as other critical patient care areas, as required for healthcare buildings. You will typically see these windows aligned in a vertical format along the exterior of the hospital.

Windows typically tie in with other materials and elements on the building while breaking up the exterior to create complexity, rhythm, and interest.



Large amounts of vertical glazing divided with EIFS at St. Luke's Boise.

#### COLUMNS AND PILASTERS

Columns and pilasters are used to divide large segments of the exterior facade. Breaking up the exterior is a successful way of introducing a pattern to what could be a monolithic exterior wall.

Columns and pilasters are also used to identify key areas, extending above the parapet to help identify a point of entry into the hospital. Elements such as these assist patients and visitors to identify the appropriate points of entry, especially in emergency situations.



A column at the St. Luke's Boise facility that has vertical relief and horizontal relief to help identify the main entry.

#### FLAT ROOFS AND PARAPETS

St. Luke's large-scale buildings have flat (low slope) roofs and parapets. Traditionally, the parapets are EIFS of varying thicknesses (relief) with both horizontal and vertical reveals. Parapets usually have a turn-down vertical leg at the building corners. This is a prominent building element at all St. Luke's facilities. The turn-down leg usually will have multiple horizontal reveals that are equally spaced to the overall vertical dimension. Long dimensions in parapet runs will also be broken with either a step in elevation or relief, as an example, to create visual interest.

The roofs themselves are typically finished with membrane or ballasted roofing. In some cases, when it makes sense, "green" or

vegetated roofs have been employed for various purposes at St. Luke's facilities. Vegetated roofs can reduce peak storm water runoff by up to 50 percent, decrease local heat island effects, and reduce overall heat load on major building systems.



Vegetated roof helps to reduce runoff and heat island effects at St. Luke's Magic Valley.

#### STEPPED PEDIMENT

Easily, this is the strongest and most identifiable feature used at all St. Luke's facilities. It has been interpreted and modified to a small degree, but visually is the iconic feature of the St. Luke's brand.



St. Luke's uses a combination of reliefs, steps, and materials to create a stepped pediment.



An iconic image of St. Luke's Boise, which illustrates the stepped pediment.



The iconic stepped pediment occurs on a large scale at building caps, as well as on a smaller scale at building entries, which is easily identifiable for patients and staff.



Corners of St. Luke's buildings are typically identified by steps in parapet heights as well as depth. This creates a strong element that represents the St. Luke's brand.



The Iconic Image of St. Luke's Boise that illustrates how St. Luke's uses the stepped pediment to create an identifiable icon for St. Luke's.

### MECHANICAL GRILLES

Mechanical grilles at St. Luke's are designed into the architecture of the buildings. Color, style, and design are intended to match the existing vocabulary of the building.



Mechanical grilles are used and arranged in the same fashion as glazing to break up and divide exterior walls.

The color of the mechanical grilles matches the window mullion color used on St. Luke's projects. Vertical and horizontal mullions are used to divide the mechanical grilles into smaller segments. The mullions typically align with other building elements such as recessed brick or reveals in EIFS. The mechanical mullions are used in a similar arrangement as the window mullions on St. Luke's buildings.



Mechanical grilles at St. Luke's Boise match adjacent window color. Grilles are divided by vertical and horizontal mullions that match the vocabulary of the adjacent glazing systems.

Along with blending into the design of the buildings, mechanical grilles are also used to break up space and divide exterior walls into smaller segments. The mechanical grilles are often recessed from the adjacent building face to help further break up the exterior façade.



A building on the St. Luke's Boise campus that illustrates how St. Luke's uses a flat roof along with steps in the parapet.

#### CANOPIES

To help protect patients and visitors from harsh environmental elements, St. Luke's utilizes canopies at vehicular drop-offs located at all patient and visitor entry points into their facilities.



Main patient drop-off at St. Luke's Boise.

St. Luke's has used a few different types of canopies to protect patients and visitors. The most common canopies used are integrated with the design of the buildings. These canopies typically use the brick and EIFS that are common to the St. Luke's brand of hospitals. Some canopies have introduced the use of copper as another building element to highlight points of entry.

Another type of canopy used on St. Luke's facilities is a detached canopy. The detached canopies are typically constructed with translucent panels that provide the passage of filtered sunlight into the drop-off area. The structure for these canopies is exposed ornamental steel that is painted to match the existing color palette on the facility. The translucent panels slope away from the vehicles in order to keep water away from patients and visitors.

St. Luke's uses a variety of canopies, but all canopies use the same vocabulary and style common to the adjacent buildings. The canopies also create enough attention to help patients and visitors easily find the appropriate entries as well as provide a protected drop-off in times of harsh weather.



Emergency Department canopy at St. Luke's Boise Medical Center.



Entry canopy at St. Luke's Boise Mountain States Tumor Institute.

#### ORNAMENTAL

The integration of ornamental elements into St. Luke's facility fabric are often seen near public entrances, gathering areas, and approaches. Examples are way-finding markers, bollards, custom lighting, paving patterns, outdoor seating areas, and drop-off canopies. The material palette will often use some, if not all, elements of the St. Luke's exterior palette: brick, stone and bronze-colored metal. They are often proportioned to the human scale, elegant yet simple, and often are arranged with symbolism of key architectural elements and forms from St. Luke's buildings.



The arrangement of brick through relief and banding creates symbolism at St. Luke's Boise facility.

### LANDSCAPE FEATURES

St. Luke's Health System successfully implements landscape elements to enhance the aesthetics of its facilities. Landscape features are designed and maintained to provide a link between the built and natural context within which they reside. Beyond streetscapes, previously discussed in section 9.0, St. Luke's landscape elements combine areas of hard and softscapes for a variety of purposes including beautification, external auto and pedestrian circulation, recreation, and respite.



Typical downtown landscape treatment.

In parallel with serving the previously mentioned functions, an integrated and thoughtful approach to landscape areas can help reduce environmental impacts. For example, landscapes can reduce or eliminate storm water discharges from built improvements, while improving water quality. Landscape plantings, especially trees, improve air quality and mitigate heat islands by reducing or shading impermeable surfaces such as asphalt and concrete. Strategies can include incorporation of permeable paver systems and bio-retention planter areas.



Native and drought-tolerant plantings.



Native and drought-tolerant plantings.

Landscapes can also reduce water use through incorporation of native and drought-tolerant species. Such plantings are used in combination with more traditional turf type landscaping at many of St. Luke's facilities. Throughout the St. Luke's Health System, differing climate conditions afford opportunities for a variety of approaches for landscape treatments. Incorporating climate and region-appropriate landscape treatments help conserve water while also helping to reduce operating and maintenance costs.



Permeable pavers and bio-retention designed into pedestrian circulation.



Permeable pavers and bio-retention designed into pedestrian circulation.

The environmental benefits of site landscapes are less evident than the obvious aesthetic appeal of well-landscaped sites. But at the numerous St. Luke's facilities across Idaho that incorporate these landscape elements, the benefits are already being realized.

#### **11.3 SUSTAINABLE BUILDING PRACTICES**

One of the most important parts of creating a successful, sustainable facility is the internal elements that are not always visible. St. Luke's Heath System is particularly interested in taking such elements into consideration in order to improve energy efficiency and provide a high quality indoor environment for both staff members and patients.

St. Luke's Health System pursues efficiency through both design and operational practices. Hospitals and healthcare buildings typically have some of the highest energy intensities of all other building types. Due to the high energy use, utilities can be a substantial operating cost. To mitigate this cost, St. Luke's designated design and operational Beyond saving energy to improve the natural environment, St. Luke's is also focused on providing a high quality, healthy indoor environment within their facility. In order to provide such environment, designs must be centered on the incorporation of natural light, clean-filtered air, and providing a connection to nature. The materials used in the facility are selected upon a criteria of durability, ability to increase air quality, and cleanliness to lessen the spread of bacteria. The conservation of energy, incorporation of nature indoors, and meticulous material selection all work cohesively to create an indoor setting that utilizes the positive effects of nature on personal and environmental health.

As previously mentioned in the Landscape Features section a variety of best practice storm water control features have previously been introduced at various St. Luke's facilities including at the down town hospital. Planning for future low impact, sustainable storm water development at the downtown facilities will be included in the overall planning process. This process will include, but will not be limited to the following design principles for storm water management.

• Understand the site and its watershed setting context. This step should include gaining better understanding of local hydrological features, such as water table depth, design storm flows, and floodway impacts for example.

• Apply conservation design. Working within the context of an urban setting, appropriate building and landscape interactions can be explored to minimize the impacts from development on natural and man-made hydrology.

• Manage rainfall where it originates. Landscape and architectural features should be designed to retain and absorb water onsite, rather than convey it away.

• Design with construction and maintenance in mind. Systems should be evaluated for their proven track record and durability

• Calculate runoff volume and water quality. Total volumes and quantities should be compared against existing and proposed design solutions.

# 12.0 DEVELOPMENT PHASING

St. Luke's plan to maintain and develop its current facilities in Boise is a significant commitment to be phased over the next decade. Although exact timing of the projects will be somewhat dependent on philanthropic involvement from the community and hospital board approvals, a conceptual phasing sequence is articulated in the following section. For information regarding timing and extents of roadway improvements, see "13.0 Planned Roadway Improvements & Timing."

The timing of each phase is relative to the issuance of the submission date of this document and denotes potential construction start dates.

#### Phase I: Children's Pavilion

#### Anticipated Start Date: 6 months - 2 years



Phase I will include construction of a new stand-alone pediatric medical office building located at the corner of East Jefferson Street and Avenue B. The currently entitled facility is a four-story building with below-grade parking structure for staff and visitors. The building will house pediatric-oriented physician clinics and is planned to connect to the main hospital via sky bridge.

Also included in this phase will be the demolition of existing St. Luke'sowned properties to the north and west of the existing hospital in order to make room for a new central utility plant, parking garage, and shipping and receiving building located along 2nd Street.

#### Phase 2: Central Plant Relocation/Shipping & Receiving

Anticipated Start Date: I-3 years



Phase 2 activities will include the demolition of the existing central plant, after the completion of the new central plant between 1st and 2nd streets. The new central plant is planned to be integrated into the 3-4 story parking garage facility, and will connect to the existing and expanded hospital via underground utility tunnels, similar to current practice.

The shipping and receiving building is planned at 2nd Street between Jefferson and Bannock streets. It is anticipated it will be a three-story building with underground access into the tunnel system for transfer of materials.

Vacation of Jefferson Street between Avenue B and 1st Street will clear the way for major hospital development that will occur during the next phase.

#### Phase 3: Hospital Development/Outpatient Physician Clinic Building

Anticipated Start Date: 3-5 years



Phase 3 includes a 9-10 story inpatient bed tower, with existing expanded diagnostic and treatment facilities located on the first 4-5 floors with two additional floors underground. In addition, a new 6-9 floor medical office building is planned to span 1st Street, linking the new parking garage to the main hospital.

Phase 4: Existing Hospital Renovations



Anticipated Start Date: 5-7 years

The fourth and final major phase of construction planned as part of

this master plan will be extensive remodels of the existing hospital and South Tower. It is anticipated this will take many interim logistical phases to complete once the expansion is complete and can be used for temporary swing space. This phase will most likely be confined to interior remodels of the existing buildings and development of a new Children's Hospital entry to be located adjacent to the existing main entry.



Future Phases:

The planning team has included conceptualized possible locations for future construction as a potential starting point for planning beyond the scope of this current plan. The locations illustrated, size, and uses are all subject to change as future demands are currently unknown.

# 13.0 PLANNED ROADWAY IMPROVEMENTS & TIMING

As noted previously, several roadway segment and intersection locations are anticipated to exhibit poor traffic operations under existing and future traffic conditions without additional capacity enhancements. These impacts can be attributed to both normal traffic growth and the effects of additional St. Luke's development. Recommended improvements and the timing of these measures is summarized in the following table.

While some roadway segments are expected to exceed LOS thresholds with the proposed improvements, all associated intersections operate below v/c thresholds. These improvements, while currently under ACHD review, achieve a balance of acceptable traffic operations and feasible transportation network enhancements. Improvements are generally limited to traffic signalization and intersection configuration measures. Alternative intersection forms were evaluated at certain locations that merit mitigation improvements. It should be noted that at these locations, other solutions were also found to be workable.

Improvements beyond a conventional signalized intersection may offer reduced vehicular delay and improved operations, but should be considered within the context of the local transportation system. Further review and discussions related to these locations is expected. Additionally, the financial responsibility for construction of these recommended improvements has yet to be determined. All recommended improvements, including Baseline Mitigation and Fort Boise Master Plan elements, and the respective timeframe in which they are needed, are summarized below.

#### Recommended Improvement Summary

Location	Recommended Improvement	Timing
Fort Street, 1st Street to 4th Street	WB LT turn lane – 2nd St/ Fort and 4th St/Fort	Existing or immediate need
Fort Street and Reserve Street	Roundabout	Existing or immediate need
State Street, 1st Street to 5th Street	EB and WB LT turn lane accommodations	2024
	Median control, channelized LT turn lanes	2035
Broadway Avenue/Ave B, Front to Bannock	Median control, channelized LT turn lanes	2035
Broadway Avenue and Front Street	SB Shared RT turn lane	2035
Avenue B/Fort, Bannock to Ist Street	Median control, channelized LT turn lanes	2035
3rd Street and State Street	Traffic signal (or roundabout)	2035
2nd Street and Main Street	Traffic signal	2035
lst Street/Fort Street/State Street	Additional SB LT turn lane and geometry	2035
Avenue B and Jefferson Street	NB RT turn lane	2035
Avenue B and Bannock Street	WB LT restriction	2035
3rd Street and Robbins Road	Roundabout	2035



Additionally, the City of Boise has recommended other improvements

for consistency in their master planning effort (Fort Boise Master Plan). The culmination of these projects is illustrated in the St. Luke's

Baseline Mitigation Plan and the Boise Master Plan figures.



Boise Master Plan figure.

# 14.0 IMPROVING NEIGHBORHOOD CONNECTIVITY

As illustrated in the body of this document, St. Luke's Health System is deeply committed to improving the health of the region. To this end, St. Luke's worked closely with the City of Boise when the City realized the St. Luke's project could be a catalyst for development of the larger Fort Boise area, and embarked on a master planning effort for the greater area. As part of the City's Fort Boise Master Plan effort, St. Luke's is currently partnering with the City of Boise, ACHD, and interested neighborhood stakeholders to envision new growth and diverse development opportunities with improved transportation and bicycle connectivity and accessibility, and enhanced safety.

The area under consideration as part of the Fort Boise Master Plan is bounded on the west roughly by 5th Street, on the east by Ave. B and Reserve Street, the north by Mountain Cove Road and the foothills, and the south by Warm Springs Avenue and Main Street. Throughout St. Luke's outreach efforts, this area has been identified as an area of significant public concern. If agreement of vision and scope can be reached between the parties, this opportunity for redevelopment could happen concurrently through a Development Agreement with the implementation of this master plan at a significant value to the public. By partnering, the participants can achieve far greater community improvement than each can achieve separately.

Development Participants and Benefits:

#### City of Boise

• The City can achieve flexibility for future development in the Fort Boise area, improved connectivity and enhanced transportation infrastructure.

Ada County Highway District

• ACHD achieves infrastructure improvements beyond the normal Capital Improvement Program (CIP).

#### St. Luke's Health System

• Partnership in the Development Agreement enables St. Luke's to move forward with the Downtown Capital Improvement Program.

The Development Agreement partnership will deliver the community improved transportation infrastructure at an accelerated schedule and reduced cost as well as an enhanced healthcare delivery system.

Although outside of current development policy, St. Luke's is actively participating in the planning of enhancements to the roadway network. Improvements above and beyond those noted as St. Luke's Baseline Mitigation Plan in the Traffic Impact Study are illustrated in the image to the right. Additional improvements noted under this plan include a roundabout at Fort Street and Reserve Street; a roundabout at 3rd Street/Fort Street/Robbins Road; realignment of the north approach at the 1st Street, Fort Street, and State Street intersection; and bicycle network and sidewalk improvements west of Avenue B, adjacent to the hospital.

# **APPENDIX**

The documents attached as part of this appendix are included for additional relevant detail and are referenced in the appropriate sections of the greater document. Additional materials provided include:

# TRAFFIC IMPACT STUDY

AVENUE B LANE REDUCTION TRAFFIC OPERATIONS REVIEW

PARKING ASSESSMENT

HISTORICAL ASSESSMENT

LANDSCAPE ASSESSMENT

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