



# North Boulder Branch Library

## Site Recommendation Report

Phase 1  
November 2018

Submitted By:  
WORK Architecture Company



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# Introduction

## Executive Summary

This report summarizes the results of a three-month period of analysis of two potential sites for a new branch library for the North Boulder community. Site 1, on the west side of Broadway between Violet and Rosewood Avenues, is currently owned by a private developer and Site 2, on the east side of Broadway at Rosewood and stretching between Broadway and 14th Street, is owned by the City of Boulder.

During this period a team of consultants led by architects WORKac collaborated with the City of Boulder and the Boulder Public Library on programming, community engagement, site analysis and test fits to determine the best site and program for the new branch library. The two sites were weighed equally against a series of criteria generated by this process and by almost every metric, Site 2 emerged as more able to meet the desires of Boulder residents and goals of the Boulder Public Library better than Site 1.

## Project Goals

The primary goal of this Phase One was to analyze two potential sites and identify the site best suited for a new branch library for North Boulder. To accomplish this task, the following secondary goals were established:

- To familiarize ourselves with the City of Boulder, the cultural and physical context of the two sites, the North Boulder community, and the Boulder Public Library system.
- To engage library staff in establishing a program of spaces and uses for the new library, building on the library's experience with other branch libraries and the main library, to build upon work started earlier this year by library staff and city representatives during a series of visioning sessions.
- To engage members of the North Boulder community, library patrons and community stakeholders in a series of discussions about a new branch library for North Boulder to determine the preferred site and to broaden ideas for ways the new branch library could be used.
- To work with the team of local consultants to analyze the potential sites from architectural, civil, sustainability and cost perspectives.
- To summarize the analysis of the possible sites and provide a clear recommendation for the site that will work best for the new branch library.



Site 1



site 2



Flatiron Mountains



Boulder Creek



Boulder Aerial Image

## Methodology

WORKac employed the following methodologies during this phase:

- **Visits to Boulder**  
The WORKac team visited Boulder three times during the course of Phase One, becoming familiar with the city and potential building sites, meeting with library and city staff and consultants, and engaging with members of the community.
- **Meetings with the City and the Library**  
The team held weekly meetings with city and library representatives and met with the library's Design Advisory Group at critical junctures. WORKac met with Boulder's Planning and Development Department in September to discuss issues and questions for both sites and WORKac met with representatives of BLDG 61, the main library's maker space, and with Boulder Reads.
- **Community Engagement**  
From Aug. 3-7, WORKac, and the library's Design Advisory Group held a series of community engagement events including open houses, homeowner events, and a stakeholder meeting. During these events the team spoke with over 250 members of the community and received 177 completed surveys detailing priorities for the new library and their reactions to each of the sites.
- **Work with Local Consultants**  
WORKac led and coordinated the work of its local consultants, including JVA Consulting Engineers (Civil), Rider Levett Bucknall (Cost) and WSP (Sustainability), and integrated the work of city consultant Fox Tuttle Hernandez (Traffic) into the detailed analysis of both sites, leading to a test-fit site layout for each property.

JVA and Fox Tuttle Hernandez provided information regarding zoning and code requirements, flood control, land use, access, parking, and public transportation. WSP advised the team on sustainable strategies and the advantages and disadvantages of each site including wind direction, solar orientation, geothermal heating and cooling, and stormwater control.

In addition, WORKac held preliminary discussions with two local developers regarding the feasibility of developing residential buildings on either of the two sites with test-fits and drawings.

- **Research and Analysis**  
WORKac conducted research to understand the cultural and geographic context for the new branch library including looking at demographics of library users, income analysis, and land-use. WORKac looked at the history of Boulder, and the development of the NoBo Arts District. At the scale of the sites WORKac examined the zoning, setbacks, easements, codes and regulations, floodplains and existing access and parking.

# Reading Boulder

WORKac's research into Boulder and its communities provided insight into the city that helped inform the site design of the new North Boulder Library. Two themes that give Boulder its unique cultural identity are a City in Nature and a city invested in the Creation of New Communities.

## A City in Nature

Boulder occupies a unique geological location, a moderate, flat, high-desert climate at the base of the Rocky Mountains. A sense of duality and contrast runs through Boulder's history as fortunes were plied in the mountains and lives were built in the city.

The rugged life of the early settlers was reflected in their architecture, with local stone used to create sturdy public buildings able to withstand the long winters and strong winds. Other structures took advantage of Boulder's topography, using the slope of the land to accentuate and enhance mechanical processes as materials passed from top to bottom.

Boulder's many waterways were similarly used to enhance mining and agricultural efforts, while also helping control floodwaters. Frederick Law Olmstead recognized this potential in his master plan for Boulder noting the creeks were a unique opportunity for civic life and beautification of the city. These working waterways remain the lifeblood of the city, creating shade, moisture and spaces for recreation, from bicycling, hiking, and rock climbing to floating down Boulder Creek through the middle of the city.

This sense of working with nature, harnessing it to create a more sustainable building and opening the building up to the outside in new ways will create an architecture that works specifically within Boulder's unique climate and geography. This approach will be important for the new library.

## A History of Communities

Boulder is a city carved from nature. The Arapaho created a distinct way of life on the land, moving between mountains and plains to maintain a rich and productive community. As settlers arrived, they attempted to create another culture for the city. From the inflated sense of the value of the original Boulder City Town Company shares (in relation to other neighboring towns), to the citywide admiration for and participation in competitions between fire districts, to the decades of pushing for the establishment of a public library, Boulder has been historically focused on strengthening community through strong civic participation.



Boulder Area Aerial Sat Image



Stamp Mill in Caribou, CO



Stone Boarding House, Caribou CO

In contrast with many frontier towns in the U.S., Boulder embraced cultural advancement, learning and self-improvement, exemplified by its embrace of the Chautauqua movement at the turn of the century. The movement valued lectures, concerts and exercise programs and included women and children in its activities. It is telling that the last remaining Chautauqua sites in the country are in Chautauqua, New York, where the movement originated, and Boulder.

This idea of an independent utopian community on the edges of the “known” world extends deep throughout Colorado’s history and continues into the 20th century. Southern Colorado’s Drop City and its later incarnation as Criss-Cross in Boulder are perhaps the best-known examples of countercultural movements that resulted in important contributions in art and technology. Today, Boulder continues to attract creative people from around the world.

The Boulder Public Library system has been a pillar of the community since its founding in 1895 with the opening of a free reading room, soon after the city itself was settled. Its commitment to community development is evident in the wealth of its offerings, from children’s programming, to Boulder Reads to its innovative maker’s space BLDG 61. The new North Boulder branch library aspires to continue this tradition of inclusiveness and innovation in the creation of new spaces for the community.



Boulder Chautauqua, 1899



Drop City, CO

# Engagement and Criteria

## Library Engagement

The first step in developing the program for the new building was engaging library staff to discuss the program for the new library, utilizing their expertise working in the main library, branch libraries and the current NoBo Corner Library, to help create a set of criteria for the site and program for the new library.

Staff utilized visioning sessions to establish priorities for the new branch, notably that the new building be net-zero energy building containing generous community and meeting spaces, a maker space, quiet reading spaces, front and back-of-house staff areas and a book drop. The staff also desired that the building be easily accessible for all with the potential for future expansion and demonstrate “iconic architecture.” Additional desires included outdoor spaces for the maker space, the relocation of Boulder Reads, community gardens and after-hours access. Many of these priorities were based on information and community input gathered during the recent process to update the library master plan.

WORKac built upon these visioning sessions in a series of meetings and branch tours with library staff. These meetings, combined with earlier work completed in the visioning sessions, provided the broad outline of the program for the new library and helped to inform the site selection criteria.



Boulder Public Library Visit



NoBo Corner Library Visit

## Community Engagement

The primary goal of the community-engagement effort was to meet members of the North Boulder community to understand their experiences with the North Boulder neighborhood and gather input on how the new library could best support their needs. The team was particularly interested in understanding any community desires that would preference one site over the other in the creation of a set of criteria to evaluate the two sites.

A secondary goal was to ascertain whether there were any additional programmatic considerations for the use of the new building. Since the broad outlines of the program had been established by the library during library engagement, and since it was assumed that either site would accommodate the same program, the site selection process took precedence in these discussions. Discussion of interior program elements such as collections and maker and community spaces were minimized to focus discussion on exterior elements and aspects that would impact the selection of the site. A separate engagement meeting with active users of the main branch's maker space was held to identify desires for the new branch's maker space.

From these meetings, discussions and completed engagement surveys, a clear set of criteria for the selection of a site emerged including generous community and children's spaces, a quiet environment, connections to nature, a children's playground, a safe and separate environment for children and gardens. Community concerns included parking and traffic management and ease of connection across Broadway.



Open House, NoBo First Friday



Open House, Amante Coffee



Open House, NoBo First Friday

## Site Criteria

Following meetings with library and city staff and community engagement events, a series of criteria for the site was established. While some criteria were voiced more frequently by the community than others, all were deemed to be equally important to consider in the design of the siting of the building. The established criteria were:

- **Connections to Outdoors**

This was the most discussed and desired criteria for the siting of the new library and was expressed as having a physical connection to outdoor trails and recreation areas as well as the idea of the library as a secluded space with outdoor space around it.

- **Quiet Environment and Views**

In conjunction with the idea of physical connections to the outdoors, the idea of a quiet space for adult reading with views to the outside was important to many people.

- **Outdoor Amenities**

Many different types of outdoor amenities were mentioned, from community gardens, to an outdoor maker space to a playground for children.

- **Orientation**

To maximize the utilization of Boulder's high solar energy potential and given the need to perform at the highest possible level of efficiency, the ability of the building's roof to be oriented towards the south needs to be taken into account. Prevalent winds to assist in natural ventilation also preference southern exposure.

- **Ability to Accommodate the Full Program**

Given the diminutive size of the current Corner Library there was agreement within the library and the community that the new building be large enough to accommodate the full program of uses, particularly to ensure adequate space for the children's area and related programming.

- **Vehicular Access and Parking**

Concerns over traffic on side streets and the ability of the library to accommodate patron parking on site were voiced by members of the community.

- **Access to Public Transportation**

Many patrons access the library by public transportation and the library requested this be factored into the site designs.

- **Bicycle and Pedestrian Access**

The ability to access the library by bicycle and the provision of bicycle parking was also identified as an important criterion.



Boulder Public Library



Community Garden



Roof Solar Panels



Multi-use Path along Fourmile Canyon Creek

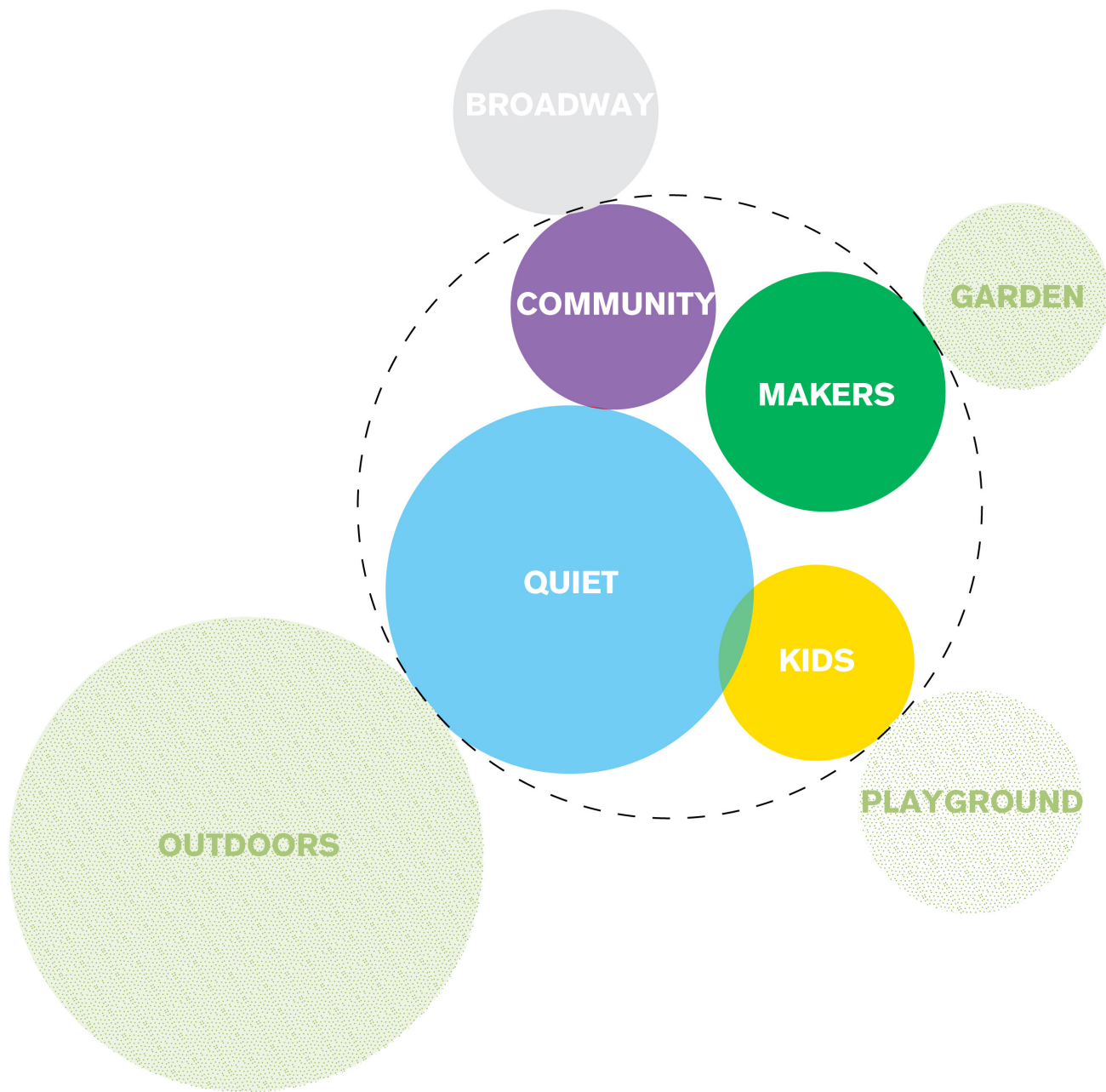
- **Connection Across Broadway**  
Community members on both sides of Broadway mentioned difficulties in crossing the busy thoroughfare and expressed a desire to improve the existing underground tunnel connection south of Rosewood.
- **Presence on Broadway**  
Less cited, the idea that the library have some physical presence on Broadway was mentioned, especially in combination with the idea of providing more generous community spaces.
- **Expandability**  
The library and city both emphasized the library building should have the potential for future expansion to provide flexibility as the community grows and develops.
- **Flood Protection**  
For cost and sustainability reasons, the city requires stringent adherence to flood design criteria and a preference to build outside of the floodplain.
- **Cost**  
The cost of site design was a required consideration when evaluating the two sites.
- **Support of the Community**  
During the Community Engagement process WORKac kept a running tally of people's generic preference for one site over the other in order to determine if there was a clear distinction.



View from Broadway towards Foothills



NoBo Art District Annual Group Show



Program Diagram - Criteria

## Program

WORKac used the library's initial list of programmatic criteria to create a basic outline of the interior program for the new branch. This was combined with the results of the community engagement effort to create a series of broad criteria for the indoor and outdoor spaces. To organize the program, WORKac combined four interior space descriptors and four exterior spaces and orientations:

- **Community/Broadway**

With generous new spaces for the community provided in the new library, a strong desire for visibility and after-hours access emerged. WORKac will seek to combine access to the community spaces with a presence on Broadway into the design concept.

- **Quiet/Nature**

For adult spaces, many patrons desired a quiet and calm space with views of the mountains and foothills from the reading spaces. The "Quiet" spaces of the adult collection and reading areas were designed to incorporate surrounding views.

- **Kids/Playground**

To distinguish the North Boulder branch library, the definition and extents of the maker space are proposed to extend into an area with plants and vegetable and fruit gardens. The maker space has the potential to be integrated into a kitchen or food production facility.

- **Maker Space/Gardens**

To distinguish the North Boulder branch library, the definition and extents of the maker space are proposed to extend into an area with plants and vegetable and fruit gardens. The maker space has the potential to be integrated into a kitchen or food production facility.

### Community

"They library needs an indoor space for communities to meet and host workshops. It needs to inspire the community."

- Alex

### Quiet

"I would like to have study space that is quiet and has good light."

- Kathleen

### Nature

"It is important that it is colorful, has lots of trees, plants, and grass. And a lot of flowers, lunch area, benches, and a lot of fun!"

- Eleanor

### Kids

"The kids will continue to take out books. They would stay longer if there was more opportunity for physical activity. I (parent) would come more and stay longer."

- Schwartz Family

### Playground

"It would be great for our children to have an outdoor space [...] for kids to play in."

- Christine

### Maker Space

"I would love to see a [makerspace]. This is a place where artists can work, and where people can learn how to make their invention come to reality."

- Calder

### Gardens

"I would love to see a library site that is well integrated into the existing landscape and that allows for the inclusion of an adjacent community garden."

- Sidney

A	B	C	D	E	F
No.	Program Designation	Accessibility	Number of Spaces	Area per Room (sqft)	Net Area (sqft)

## TOTAL NET AREA (sqft)

<b>A</b>	<b>Community</b>				<b>1100</b>
	Percentage of Total Area				9%
A.1	Large Community Room	Public	1		1000
A.2	Digital Display and Bulletin Boards	Public	1		50
A.3	Display Spaces for Art Integration	Public	1		50
<b>B</b>	<b>Maker-Space + Storage</b>				<b>1500</b>
	Percentage of Total Area				11.7%
B.1	Maker-Space + Storage	Public			1500
<b>C</b>	<b>Staff</b>				<b>950</b>
	Percentage of Total Area				7.4%
C.1	Private Workspace	Staff	1	200	200
C.2	Break Room	Staff			250
C.3	Manager's Office	Staff	1	150	150
C.4	Storage	Staff			120
C.5	Automated Materials Handler	Staff			180
C.6	Restrooms	Staff			50
<b>D</b>	<b>Main Space</b>				<b>5280</b>
	Percentage of Total Area				41.2%
D.1	Lobby	Public			350
D.2	Circulation Desk	Staff			50
D.3	Study Room	Public	3	50	150
D.4	Meeting Room (Boulder Reads Classroom)	Public	1	200	200
D.5	Gathering Space (large meeting room)	Public	1	500	500
D.6	Seating Area (with line-of-sight)	Public	1	500	850
D.7	Cozy Nooks and Reading Pods	Public	3	25	75
D.8	Adult Stacks	Public			1200
D.9	Children's Stacks	Public			1100
D.10	Children's Area	Public			685
D.11	Security	Staff	1	120	120
<b>E</b>	<b>Boulder Reads</b>				<b>520</b>
	Percentage of Total Area				4.1%
E.1	Office	Staff	2	120	240
E.2	Tutor Room	Staff	4	70	280
E.3	Storage	Staff	1	120	120
<b>F</b>	<b>Support</b>				<b>500</b>
	Percentage of Total Area				3.9%
F.1	Storage	Staff			200
F.2	Restrooms	Public	2	150	300

## Total Net Area 9850

Building Gross Area 2955

## Grossing Factor 30%

Grossing Area 12805

**Total 12805**

<b>G</b>	<b>Outdoor</b>				<b>8,100</b>
	Percentage of Total Area				63.3%
G.1	Parking	Public			28 Spaces
G.2	Bike Racks	Public			
G.3	Activated Outdoor Space	Public			5000
G.4	Community Garden	Public			1000
G.5	Children Playground	Public			1200
G.6	Outdoor Extension of Makers Space	Public			900

## Program Definition

Considering Boulder's other branch libraries and WORKac's experience in library design as a guide for space needs, WORKac created the final program for the new building and site, totaling 12,800 square feet of interior space for the new library building including a 30% grossing factor to accommodate construction, circulation and mechanical spaces. WORKac also identified a minimum of 8,100 square feet of outdoor program.

Using the program as a guide, WORKac and the library discussed the distribution of program per floor for the new building. It was determined that the community rooms, Boulder Reads, the staff break room, one library meeting room and three library study rooms could be located on a second floor, with the bulk of the program located on the ground floor. The result is a 9,000 square-foot footprint for the building, with 3,800 square feet on the upper mezzanine floor.

WORKac worked with WSP to establish a programmatic wish list of potential green technologies and systems that could be integrated in the building and site, both to achieve the City's goals of a Net Zero building, but also to create "iconic architecture" by utilizing innovative sustainable strategies visibly, allowing the library to act as a visual, pedagogic tool to impart to visitors best practices for new buildings. The main sustainable strategies under consideration are solar panels at the roof, natural ventilation fueled by prevalent winds, geothermal heating and cooling, and water reuse where possible. For this site selection phase, the main manifestation of this wishlist is in the orientation of the building in regard to wind and sun, but all four strategies will be important for the eventual design of the building.

WORKac and JVA reviewed the results of the city's traffic study and worked with staff from Boulder Planning and Development services to determine parking requirements for the new library building. From the Municipal Code, Section 9-9-6, a 12,800 square foot building requires 32 parking spaces. Planning and Development Services stated that City Council would likely request a reduction of between 20 and 25 percent from this number, resulting in a requirement of between 24 and 26 spaces. In alignment with parking needs at other branch libraries, the library asked the team to accommodate 28 spaces for each scheme and identify strategies to handle overflow parking to ensure adequate parking for all conditions.

# Site Design

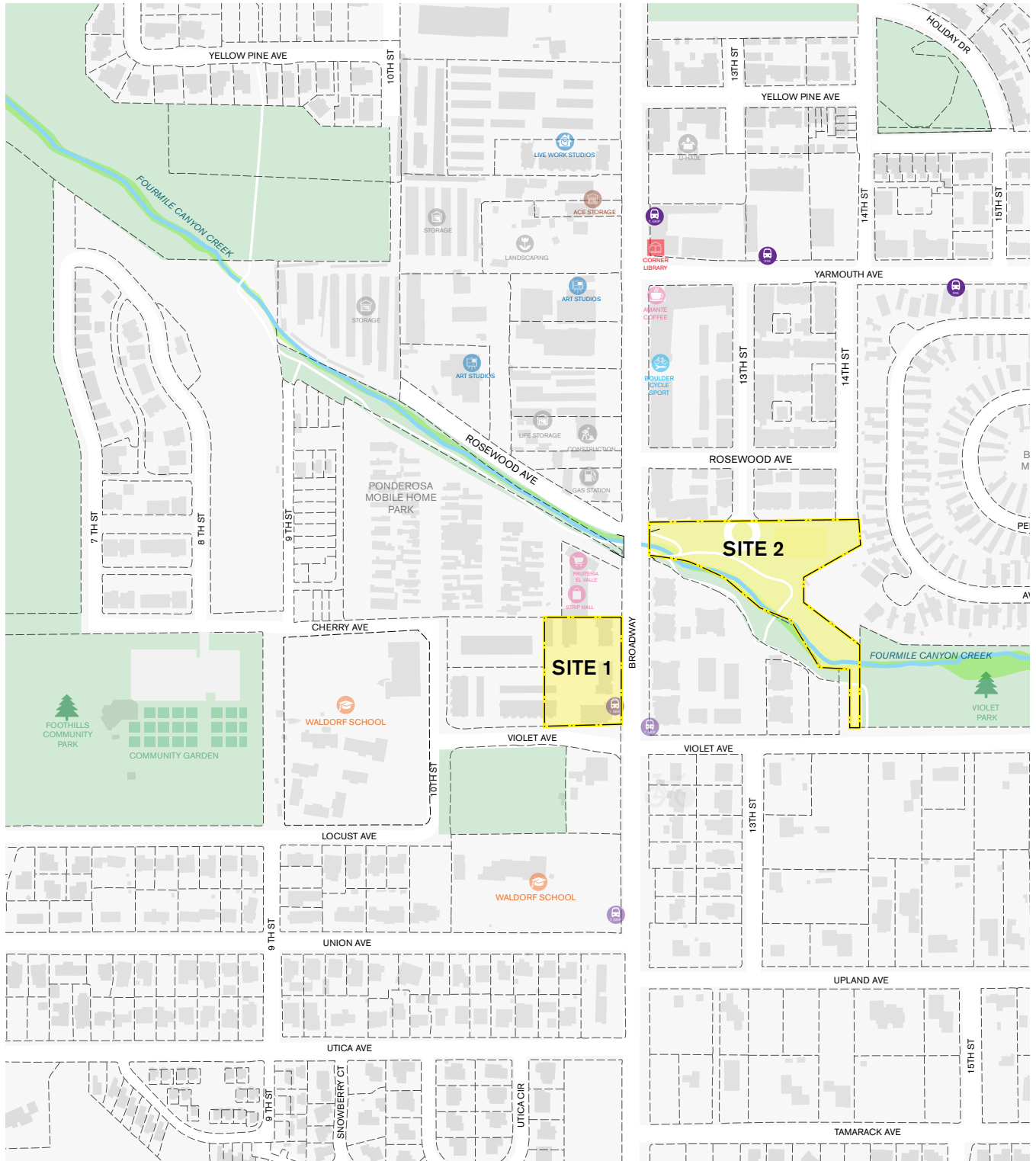
## Site Context

The two sites under consideration during this phase are located in close proximity to one another at the southern edge of the NoBo Arts District, on Broadway between Violet and Rosewood avenues. Site 1 is more urban with a strong presence on Broadway and limited outdoor space and is located within the floodplain. Site 2 is more serene, situated along Fourmile Canyon Creek with considerable access to nature and a greater distance from Broadway than Site 1.

The area is home to a wide range of housing types. There are two significant communities of manufactured homes. The larger community, Boulder Meadows, is proximate to Site 2 and the smaller community, Ponderosa, is west of Broadway next to Site 1. There are a variety of condominium and apartment developments, cooperative housing developments, Silver Sage Village Senior Cohousing and Wild Sage Cohousing, and a collection of single-family detached homes spread throughout the neighborhood.

The surrounding area also features a variety of land-uses:

- West and south of Site 1 along Violet Avenue is the Shining Mountain Waldorf School
- Retail and offices along Broadway
- Commercial and light industrial facilities north of Site 1
- Live/Work studies and artist studios to the north
- Foothills community park to the west (dog park, community garden, hang-gliding, birthday parties)
- Violet Park southeast of Site 2 (multiuse trails, connection to greater trails network and foothills)



North Boulder Context map



Scale: 1: 5,000 N

# Site 1

## Civil Analysis

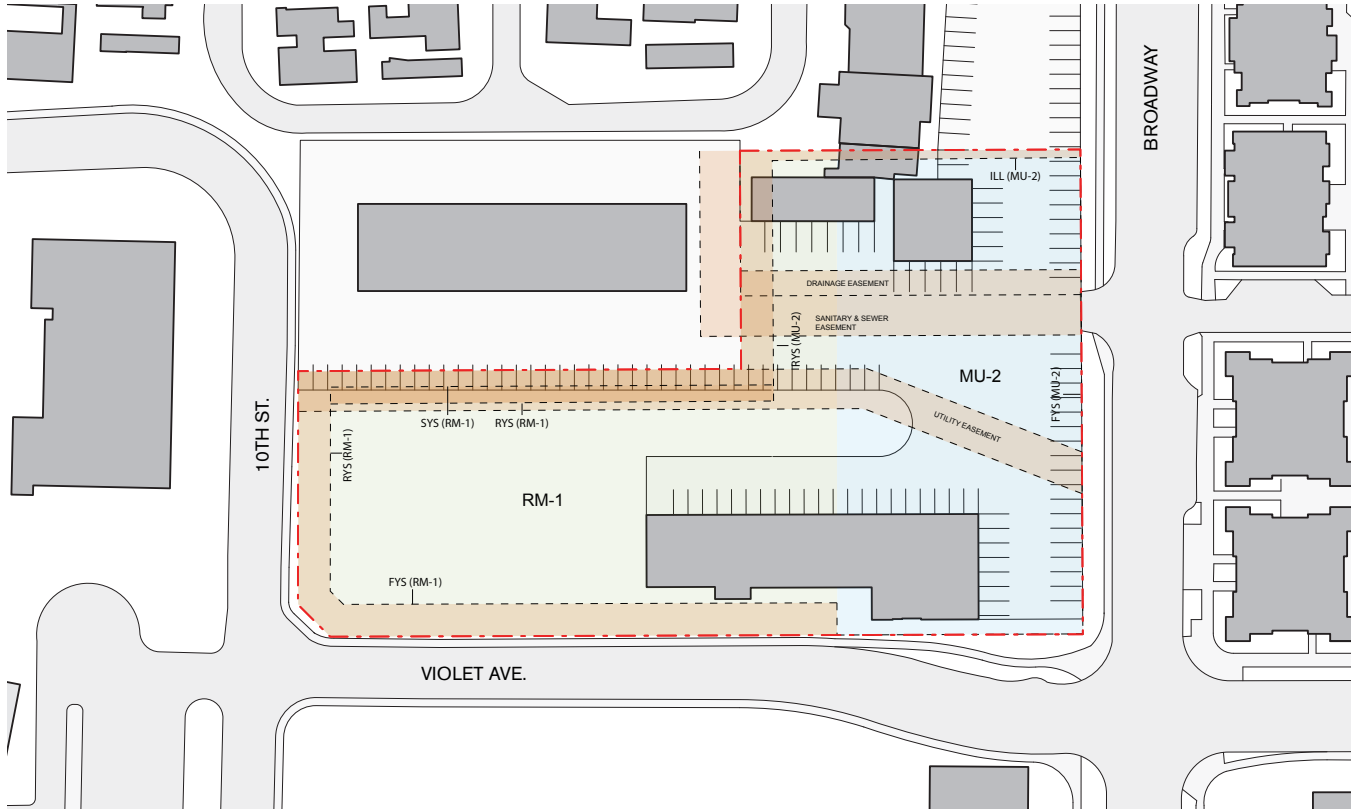
Site 1 is located at 4403 Broadway at the intersection of Broadway and Violet Avenue. The site is bordered by Broadway to the east, Violet Avenue to the south, and 10th Street to the West. A variety of commercial businesses are located just north of the site and three businesses are located within the boundary of Site 1.

A significant portion of the site is currently surface paved for parking with some undeveloped land on the western portion of the site. The site elevation is relatively flat, ranging from 5529 feet above sea level at the northernmost edge to 5520 feet above sea level at the southeastern corner. Site 1 is currently owned by Emerald Management Group, Inc. There have been previous plans to develop the site as a mixed-use development that would incorporate residential units with commercial businesses along Broadway. Emerald Management Group initially suggested that the library occupy the northernmost portion of the site.

WORKac and JVA completed an initial analysis of the site which indicated that the site is in Zoning District MU-2, which dictates a maximum building height of 35 feet and two stories. The maximum Floor Area Ratio (FAR) is 0.6:1, meaning that .6 square feet of development can be built for every 1 square foot of land. The maximum floor area of any single building is 15,000 square feet. In addition, 50% of the lot frontage must contain building and the primary building entrance must face the street.

Site 1 is completely within the FEMA 100-year flood zone. New construction is permitted with the following conditions:

- Buildings must resist hydrostatic and hydrodynamic loads
- First floors of buildings (including basements) must be elevated above the flood protection elevation (between 4.5 feet and 5 feet above ground level)
- Buildings must include flood damage-resistant materials and equipment
- HVAC, electrical, and plumbing must be elevated or flood proofed
- No parking can be located where floodplain depths exceed 18 inches



Site 1 Setbacks, Easements, Zoning, Floodplain

## Legend

### ZONING AND EASEMENTS

- - - PROPERTY LINE
- - - SITE BOUNDARY
- ZONING MU-2
- ZONING RM-1
- EASEMENTS & SETBACKS
  - 25' UTILITY EASEMENT
  - 25' SANITARY & SEWER EASEMENT
  - 0' FRONT YARD SETBACK (FYS)
  - 0-5' SIDE YARD SETBACK (SYS)
  - 10' REAR YARD SETBACK (RYS)

**OVERALL SITE AREA:** 120,000 SF

### MU-2 ZONING REQUIREMENTS\*:

MAX. HEIGHT:	35'
MAX. NO OF STORIES:	2
MAX. FAR:	0.6:1
MAX. FLOOR AREA:	15,000 SQ FT
MIN. OPEN SPACE:	15%

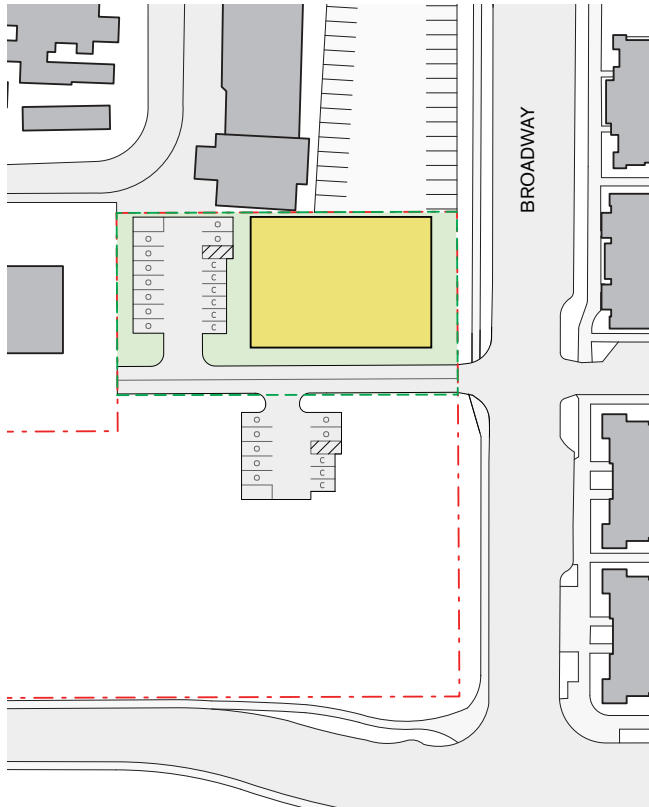
50% OF LOT FRONTAGE MUST CONTAIN BUILDING  
PRIMARY BUILDING ENTRANCE LOCATION TO FACE  
STREET

Scale: 1: 1,350

## Site Design Site 1

Early on it became clear that the area within the northern portion of Site 1 proposed by the developer would not be adequate to fit the 9,000 square foot footprint of the library, its required parking and access and the 8,100 square feet of outdoor space and program. The northern portion is limited by an existing Sanitary and Sewer Easement running west, perpendicular to Broadway. Boulder Planning and Development Services (P&DS) confirmed that this easement cannot be moved or built over, meaning that parking would need to be separated into two lots on either side of the easement and that the identified amount of outdoor space could not be accommodated next to the library.

Given these constraints, the team proposed moving the library to the southern portion of the site at the corner of Broadway and Violet Avenue with a new two-way access to be shared with the rest of the development and the library would maintain its own separate parking lot. This new site was sized to accommodate the 8,100 square feet of outdoor program and was made to fit 25 parking spaces (12 regular size, 11 compact, two handicap).



Site 1 Initial Parking and Access

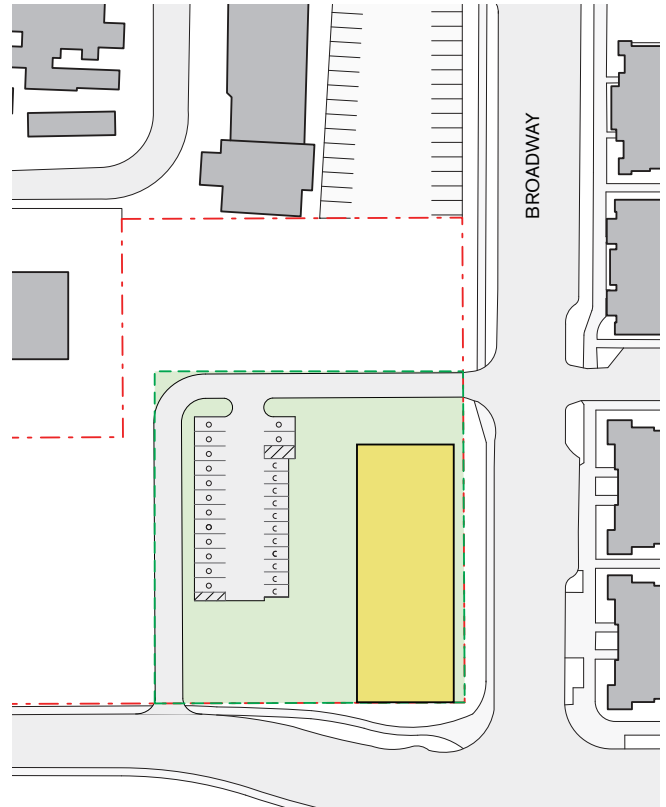
#### Legend

- PROPERTY LINE
- SITE BOUNDARY
- BUILDING SITING

**SITE BOUNDARY AREA:** 23,500 SF

#### Parking Area:

PARKING SPACES:	25 SPACES
REGULAR:	16
COMPACT:	9
ACCESSIBLE:	2



Site 1 Proposed Parking and Access

#### Legend

- PROPERTY LINE
- SITE BOUNDARY
- BUILDING SITING

**SITE BOUNDARY AREA:** 32,712 SF

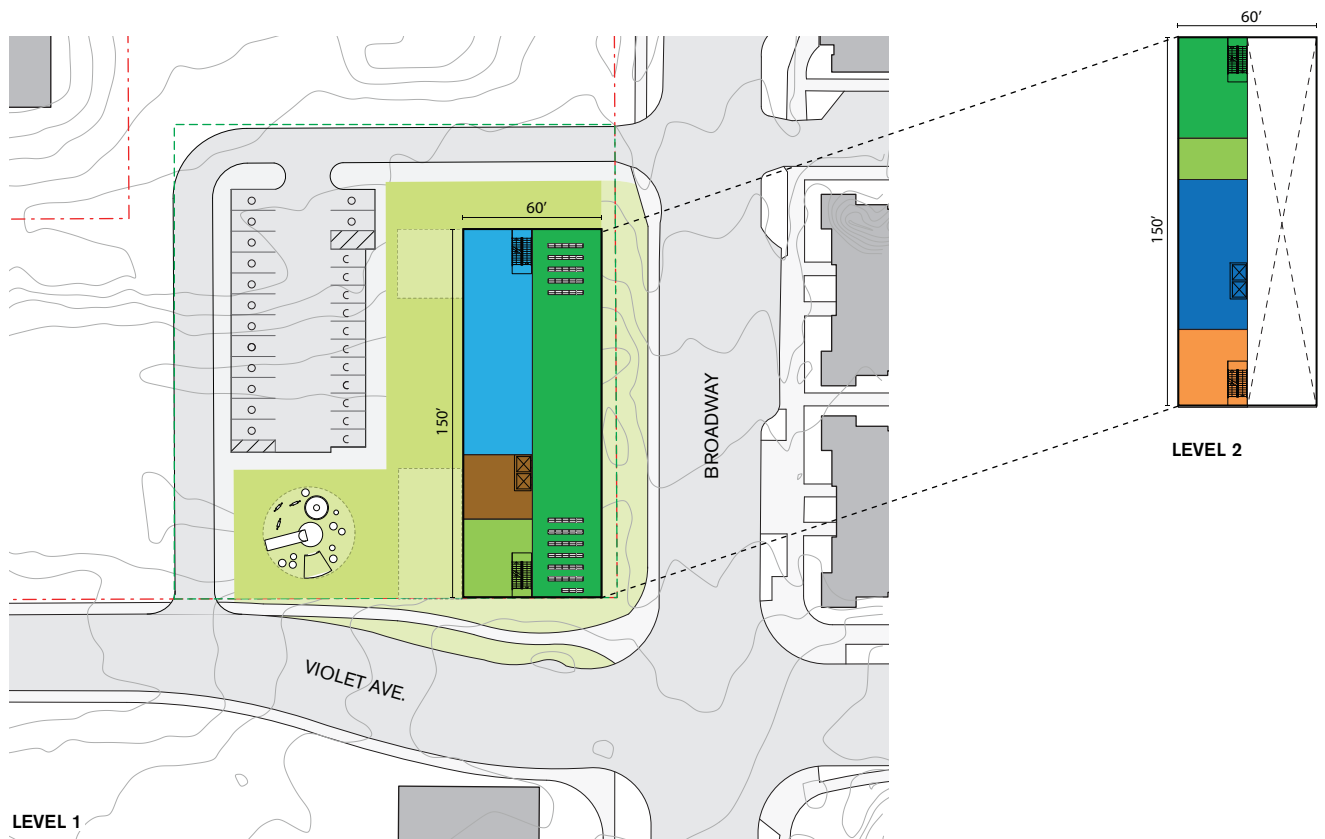
#### Parking Area:

PARKING SPACES:	25 SPACES
REGULAR:	14
COMPACT:	11
ACCESSIBLE:	2

## Test Fit Site 1

To test the new site, WORKac created a massing for the new library that accommodated the full program of indoor and outdoor spaces. The massing is useful as a test of the ability of the site to accommodate the program and not as an actual building design. The generalized massing of this test-fit is located at the southeast corner of the site running along Broadway. As a corner site on two high-profile streets (Broadway and Violet Ave), the building gains significant exposure from this siting. The building would be highly visible, potentially serving as a marker for the local NoBo Arts District.

The building is oriented so the longer facades face east for visibility to Broadway most pedestrian traffic, and west, where there are views to the foothills but an undesirable western sunlight. Outdoor programs are located west of the building, between the new access road and parking and the building location. This allows the building to act as a buffer from the noise and traffic on Broadway. Even with the new site, however, the program is a bit squeezed and there is no room for future expansion.



Site 1 Program Test Fit

## Program Distribution by Floor

### FLOOR 1: 9,000 SF

<b>B Technology</b>	<b>1,500 SF</b>
B.1 MakerSpace + Storage	1,500 SF
<b>C Staff</b>	<b>700 SF</b>
C.1 Private Workspace	200 SF
C.3 Manager's Office	150 SF
C.4 Storage	120 SF
C.5 Automated Materials Handler	180 SF
C.6 Restrooms	50 SF
<b>D Main Space</b>	<b>4,760 SF</b>
D.1 Lobby	350 SF
D.2 Circulation Desk	50 SF
D.6 Seating Area	850 SF
D.7 Cozy Nooks	75 SF
D.8 Adult Stacks	1,200 SF
D.9 Children's Stacks	1,100 SF
D.10 Children's Area	985 SF
D.11 Security	150 SF
<b>F Support</b>	<b>500 SF</b>
F.1 Storage	200 SF
F.2 Restrooms	300 SF

### FLOOR 2: 3,800 SF

<b>A Community</b>	<b>1,100 SF</b>
A.1 Large Community Room	1,000 SF
A.2 Digital Display and Bulletin Boards	50 SF
A.3 Display Spaces for Art Integration	50 SF
<b>C Staff</b>	<b>250 SF</b>
C.2 Break Room	250 SF
<b>D Main Space</b>	<b>850 SF</b>
D.3 Study Room	150 SF
D.4 Meeting Room (Classroom)	200 SF
D.5 Gathering Space (Large Meeting)	500 SF
<b>E Boulder Reads</b>	<b>640 SF</b>
E.1 Office	240 SF
E.2 Tutorial Room	280 SF
E.3 Storage	120 SF

Scale: 1: 1,000

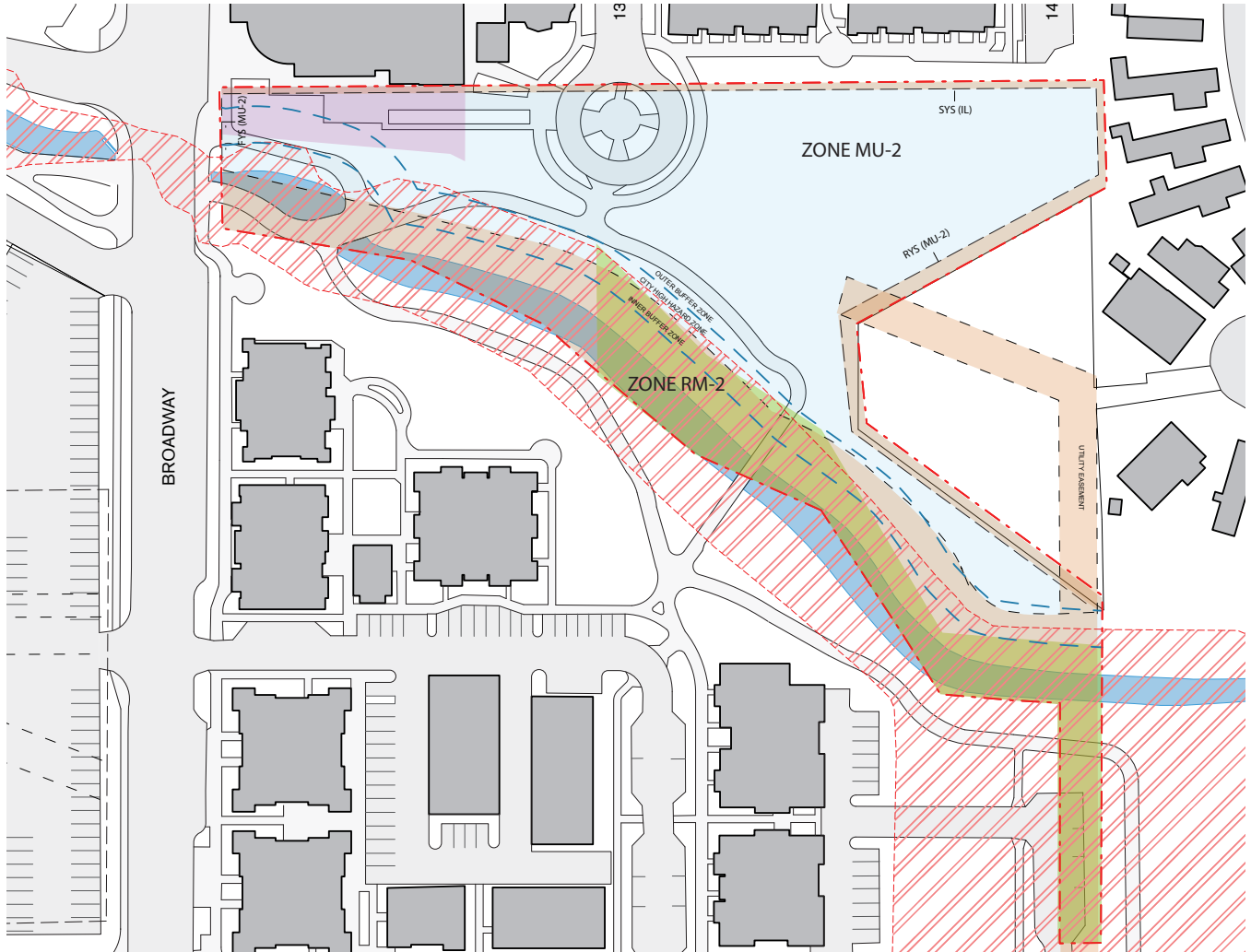
# Site 2

## Civil Analysis

Site 2 is located at 4540 Broadway at the intersection of Broadway and Fourmile Canyon Creek. It is bordered by Broadway to the west, Fourmile Canyon Creek to the south (with a small strip of the property extending south to Violet Avenue), the Boulder Meadows manufactured home community to the east, and the Uptown Broadway Apartments development to the north.

The site is currently undeveloped with a large cul-de-sac extending from 13th Street south into a large portion of the site. Along the creek existing multi-use trails extend from Violet Park to an underpass at Broadway. The site has fantastic views both south towards the Flatirons and foothills to the south and southwest. The site elevation ranges from 5532 feet above sea level at the northwestern corner to 5505 feet above sea level at the southeastern portion of the site. Much of the elevation change happens at the creek bank.

The site is primarily zoned MU-2 which will allow for a maximum building height of 35', a maximum of two stories and a maximum Floor Area Ratio (FAR ) of 0.6:1, meaning that .6 square feet of development can be built for every square foot of land. The maximum floor area for any single building is 15,000 square feet and 50 percent of lot frontage must contain building. The primary building entrance location must face the street. Site 2 is not in the floodplain and requires no special flood protection measures.



Site 2 Setbacks, Easements, Zoning, Floodplain

## Legend

### ZONING AND EASEMENTS

- PROPERTY LINE
- ZONING MU-2
- ZONING RM-2
- ZONING BMS
- EASEMENTS & SETBACKS
  - 25' UTILITY EASEMENT
  - DRAINAGE EASEMENT
  - 0' FRONT YARD SETBACK (FYS)
  - 0-5' SIDE YARD SETBACK (SYS)
  - 10' REAR YARD SETBACK (RYS)


- CITY WETLAND BUFFERS
  - OUTER BUFFER - FOR EVERY 1 SF OF STRUCTURE INSIDE BUFFER, REPLACE WITH 1 SF OF WETLAND ELSEWHERE ON SITE.
  - INNER BUFFER - FOR EVERY 1 SF OF STRUCTURE INSIDE BUFFER, REPLACE WITH 2 SF OF WETLAND ELSEWHERE ON SITE.

- CITY HIGH HAZARD FLOODPLAIN ZONE
  - NO NEW PARKING LOTS ALLOWED
  - NO NEW STRUCTURE INTENDED FOR HUMAN OCCUPANCY

**OVERALL SITE AREA:** 120,000 SF

MU-2 ZONING REQUIREMENTS*:	
MAX. HEIGHT:	35'
MAX. NO OF STORIES:	2
MAX. FAR:	0.6:1
MAX. FLOOR AREA:	15,000 SQ FT
MIN. OPEN SPACE:	15%

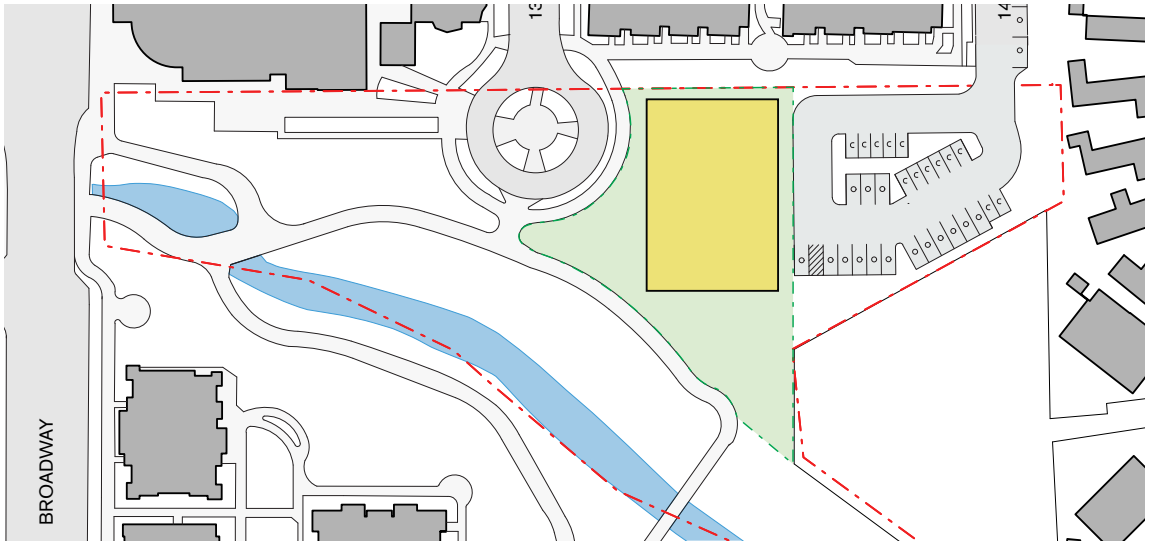
50% OF LOT FRONTAGE MUST CONTAIN BUILDING  
PRIMARY BUILDING ENTRANCE LOCATION TO FACE STREET

Scale: 1: 1,350 

## Site Design Site 2

Site 2 is currently accessed via the roundabout at 13th Street, and by 14th Street, which dead-ends at the edge of the site. Initial parking studies carried out by JVA and WORKac showed that the current roundabout occupies too much of the site. Planning & Development Services confirmed that dead-end access will not be acceptable and that the only way to remove the roundabout would be to connect 13th and 14th Streets with a new two-way access road. This will improve traffic and fire access and allow a building on Site 2 to be located closer to and be more visible from Broadway than originally anticipated, a major improvement over initial site studies. It is also consistent with the 1995 North Boulder Subcommunity Plan.

Eliminating the roundabout and creating the new access road allows us to create a two-way parking lot with 28 parking spaces (13 regular size, 13 compact, two ADA-accessible) located on the northeast portion of the site. This parking would be primarily accessed via 14th Street, and still allows for an eventual extension of 14th Street to Violet Avenue as laid out in the subcommunity masterplan, with minimal modification to the proposed scheme. This scheme also takes advantage of the street parking along the east side of 14th Street as overflow parking for library users during peak hours or special events.



Site 2 Existing Parking and Access

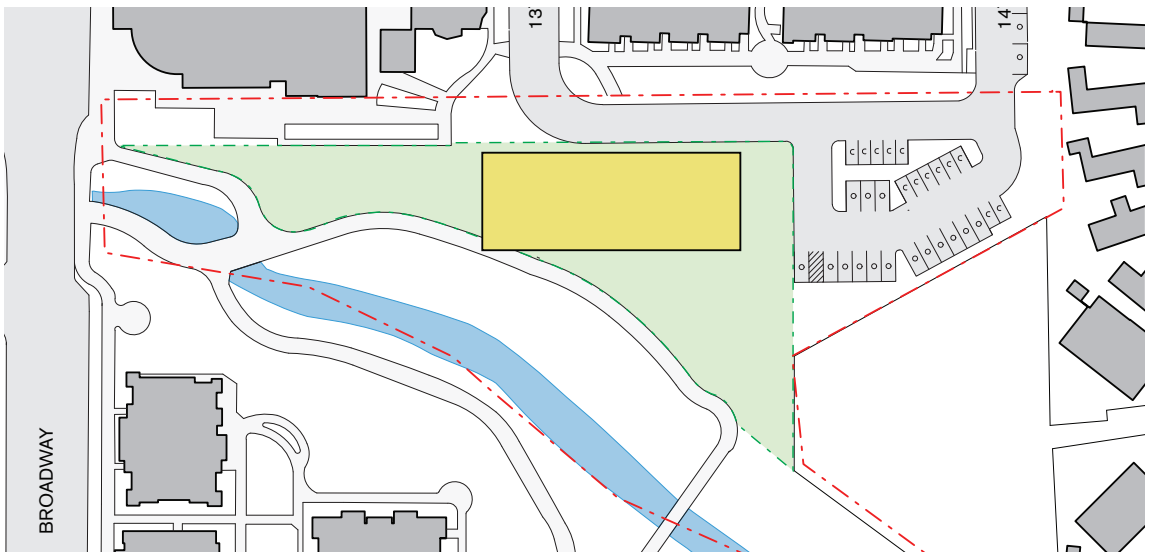
**Legend**

- PROPERTY LINE
- SITE BOUNDARY
- BUILDING SITING

**Parking Area:**

PARKING SPACES:	28 SPACES
REGULAR:	15
COMPACT	13
ACCESSIBLE:	2

**SITE BOUNDARY AREA: 22,460 SF**



Site 2 Existing Parking and Access

**Legend**

- PROPERTY LINE
- SITE BOUNDARY
- BUILDING SITING

**Parking Area:**

PARKING SPACES:	28 SPACES
REGULAR:	15
COMPACT	13
ACCESSIBLE:	2

**SITE BOUNDARY AREA: 31,950 SF**

Scale: 1: 1,350

## Test Fit Site 2

The building is placed at the terminus of 13th Street on the site of the roundabout and is oriented so the longer facades face south where the Flatirons and foothills provide favorable views, and north so that the building can take advantage of the desirable northern daylight. The building is placed as far west as possible on the site before the building height is reduced by the elevation drop-off of the creek. This results in a green buffer between the parking lot and building, as well as increased proximity to and visibility from Broadway. To the south and east of the building, outdoor programs are located away from Broadway for safety (children) and to create a desirable connection to the creek and multiuse trails.



Site 1 Program Test Fit

## Program Distribution by Floor

### FLOOR 1: 9,000 SF

<b>B Technology</b>	<b>1,500 SF</b>
B.1 MakerSpace + Storage	1,500 SF
<b>C Staff</b>	<b>700 SF</b>
C.1 Private Workspace	200 SF
C.3 Manager's Office	150 SF
C.4 Storage	120 SF
C.5 Automated Materials Handler	180 SF
C.6 Restrooms	50 SF
<b>D Main Space</b>	<b>4,760 SF</b>
D.1 Lobby	350 SF
D.2 Circulation Desk	50 SF
D.6 Seating Area	850 SF
D.7 Cozy Nooks	75 SF
D.8 Adult Stacks	1,200 SF
D.9 Children's Stacks	1,100 SF
D.10 Children's Area	985 SF
D.11 Security	150 SF
<b>F Support</b>	<b>500 SF</b>
F.1 Storage	200 SF
F.2 Restrooms	300 SF

### FLOOR 2: 3,800 SF

<b>A Community</b>	<b>1,100 SF</b>
A.1 Large Community Room	1,000 SF
A.2 Digital Display and Bulletin Boards	50 SF
A.3 Display Spaces for Art Integration	50 SF
<b>C Staff</b>	<b>250 SF</b>
C.2 Break Room	250 SF
<b>D Main Space</b>	<b>850 SF</b>
D.3 Study Room	150 SF
D.4 Meeting Room (Classroom)	200 SF
D.5 Gathering Space (Large Meeting)	500 SF
<b>E Boulder Reads</b>	<b>640 SF</b>
E.1 Office	240 SF
E.2 Tutorial Room	280 SF
E.3 Storage	120 SF

Description		Site 1 Rates Current At October 2018	Site 2 Rates Current At October 2018
		Total Cost (USD)	Total Cost (USD)
F1010	Special Structures	Excl.	Excl.
F2010	Building Elements Demolition	\$37,800	Excl.
G1010	Site Clearing	\$12,325	\$28,675
G1020	Site Demolition and Relocations	\$79,479	\$64,073
G1030	Site Earthwork	\$115,149	\$53,185
G1040	Hazardous Waste Remediation	Excl.	Excl.
G2010	Roadways	\$45,752	\$53,006
G2020	Parking Lots	\$39,198	\$52,440
G2030	Pedestrian Paving	\$128,060	\$202,450
G2040	Site Development	\$35,500	\$48,000
G2050	Landscaping	\$70,667	\$74,221
G3010	Water Supply	\$58,493	\$59,127
G3020	Sanitary Water	\$45,110	\$49,390
G3030	Storm Sewer	\$42,045	\$52,705
G3040	Heating Distribution	Excl.	Excl.
G3090	Other Site Mechanical Utilities	Excl.	Excl.
G4010	Electrical Distribution	\$70,000	\$70,000
G4020	Site Lighting	\$49,750	\$57,500
G4030	Site Communications & Security	\$10,000	\$10,000
ESTIMATED TOTAL COST		\$839,328	\$874,772
<b>MARGINS &amp; ADJUSTMENTS</b>			
Design & Estimating Contingency	10%	\$83,933	\$87,477
City of Boulder Use Tax (3.86% on Materials & Equipment)		\$19,601	\$20,429
General Conditions & General Requirements	8%	\$67,146	\$69,982
Bonds & Insurances	2%	\$20,200	\$21,053
Overhead and Profit	7%	\$72,115	\$75,159
Cost Estimation to a Q4 2019 Construction Start	5%	\$55,116	\$57,444
ESTIMATED TOTAL COST		\$1,157,439	\$1,206,316

Site 1 Cost Analysis

## Site Cost Analysis

Rider Levett Bucknall created a cost estimate for each site, taking into account the particular conditions necessitated by the test-fits. Site 1 requires demolition of existing buildings and flood mitigation measures including raising the building five feet and associated costs for ramps, railings and stairs. Site 2 includes a larger hardscaped plaza between the library and Broadway that connects with an existing plaza to the north. It also has a larger, library-specific, parking lot and a longer run for utilities.

As a result, the net cost for site improvements for the two sites is essentially the same for each site. However, Site 2 gives a slightly better value for this money as it has additional parking spaces and the larger plaza.

Criteria	Site 1 Score	Site 2 Score
Connection to Outdoors	● ●	● ● ● ● ●
Quiet Environment and Views	● ● ●	● ● ● ● ●
Outdoor Amenities	● ● ● ●	● ● ● ● ●
Orientation	● ●	● ● ● ●
Ability to Accomodate Full Program	● ● ● ● ●	● ● ● ● ●
Vehicular Access Parking	● ● ●	● ● ● ●
Access to Public Transportation	● ● ● ● ●	● ● ●
Bicycle and Pedestrian Access	● ● ●	● ● ● ● ●
Connection Across Broadway	● ●	● ● ● ●
Presence on Broadway	● ● ● ● ●	● ● ●
Expandability	●	● ● ● ● ●
Flood Protection	●	● ● ● ● ●
Cost	● ● ●	● ● ●
Support of the Community	● ●	● ● ● ● ●
Average	● ● ● ●	● ● ● ● ●
	2.9	4.4

Criteria Evaluation Chart

# Conclusions and Recommendation

At the conclusion of the phase, WORKac analyzed the results of the team's research and test fit in order to compare the benefits and disadvantages of each site, using the list of established criteria as a guideline:

- **Connections to Outdoors**  
Site 2 has a clear advantage over Site 1 in terms of its adjacency to Fourmile Canyon Creek and immediate connection to recreational trails.
- **Quiet Environment and Views**  
Site 2 is more removed and isolated than Site 1 and, due to its elevation and orientation, Site 2 also has more dramatic views towards the Flatirons and foothills than Site 1.
- **Outdoor Amenities**  
While both Site 1 and Site 2 can accommodate the same sizes of outdoor amenities by design, Site 2 can accommodate more space around these elements, allow them to expand, and has a larger plaza.
- **Orientation**  
Site 2 has better orientation for solar panels and for wind. For energy efficiency, Site 1 may require less shading.
- **Ability to Accommodate the Full Program**  
Both sites can accommodate the full program.
- **Vehicular Access and Parking**  
Both sites will be able to accommodate the required amount of parking. While Site 1 is more easily accessible and visible from Broadway, Site 2 can accommodate more spaces and better overflow parking.
- **Access to Public Transportation**  
Site 1 is closer to the bus stops on Broadway than Site 2.
- **Bicycle and Pedestrian Access**  
Both sites are easily accessible via bicycle. Site 2 is more directly adjacent to bike trails and in an area with less vehicular traffic.
- **Connection Across Broadway**  
The majority of library patrons will live east of Broadway and while both sites will require pedestrian crossing at Broadway, Site 2 will require less pedestrians to cross Broadway.
- **Presence on Broadway**  
Site 1 will have a more dramatic and urban presence on Broadway.
- **Expandability**  
Site 2 offers opportunities for future expansion. Site 1 does not.
- **Flood Protection**  
Site 1 requires major flood protection. Site 2 does not.
- **Cost**  
The cost of the two schemes is roughly equal. Site 2 offers more value in that it will have more parking and a larger plaza.
- **Support of the Community**  
In our meetings and discussions, the vast majority of community members favored Site 2 over Site 1.



Site 2 (Foreground)

## Recommendation

After reviewing the two sites against all of the established criteria, it is clear that Site 2 offers a superior site for the new north Boulder branch library. Site 2 will provide a secluded and protected quiet site, surrounded by nature and with expansive views towards the mountains. It will provide generous outdoor spaces and accommodate the full program without requiring any flood mitigation.

It is easily accessible and will accommodate both day-to-day traffic and parking as well as parking for special events. It will provide a fully functioning library for years into the future and can be expanded if desired. It was enthusiastically supported by most people we spoke with during the community engagement process. WORKac recommends Site 2 without reservation.

# Appendix

## **Appendix A.**

### **Community Engagement Report**



# NoBo Branch Library

Community Engagement Events

August 3 - August 7

August 21 - August 29

Summary Report

WORKac

Submitted By:  
WORK Architecture Company

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# Summary

As part of the Site Selection and Programming phase for the new north boulder branch library, WORKac worked closely with the Design Advisory Group (DAG) to organize a series of community engagement events. The events were primarily located in North Boulder to encourage participation from neighborhood residents.

Intended to engage the local community, the events were designed to provide information and encourage public participation through conversations about the proposed sites and library program. WORKac ensured that members of the community were aware of the city's expectations and the criteria considered when studying the two potential sites, listened closely to the community's concerns and desires for their new library, and thoroughly documented responses at each event.

Seven organized events were held, including three open houses, one invitation-only stakeholder meeting, one meeting with neighbors of the potential library sites and two events in low-income, Hispanic communities in North Boulder.

#### *Open House:*

- August 3rd: NoBo Arts District First Friday (outside Hoi Poiloi) - 60 people
- August 4th: Plaza outside Amante Coffee - 60 people
- August 6th: Boulder Public Library (main) - 30 people

#### *Stakeholder Meeting:*

- August 6th: Wild Sage Community House - 10-15 people

#### *Targeted Event:*

- August 21st: Uptown Broadway HOA - 20 to 25 people
- August 24th: Book Rich Environments - 25 to 30 people
- August 29th: Meadows Mobile Home Park - 30 people

At each event WORKac displayed boards with images of their previous projects, basic information for each potential north Boulder library site, a series of questions and a general timeline of the project. The architects and members of the DAG were available during the event to receive community feedback.

# Event Photos

*Open House - NoBo Arts District First Friday*



*Open House - Plaza outside Amante Coffee*



*Stakeholder Event - Wild Sage Community House*



# Questionnaire

At each community engagement event questionnaires were available to fill out at the event or at home. These forms, printed in both English and Spanish, encouraged attendees to participate further and provide feedback on several key issues. The questionnaire form was also available online for a period of time to align with active engagement dates.

The four questions, worded to avoid explicitly favoring a specific site, aimed to identify metrics that focused on which amenities and services would be most valued from a new branch library in north Boulder.

113 completed questionnaires were collected at events with an additional 64 forms submitted online. Those forms were carefully reviewed and analyzed to inform the following findings.

Example of Questionnaire:

## A new branch library for North Boulder

We want to hear from you!

**About you (Optional)**

Name

What is the best way to reach you if library staff would like to follow-up on your responses to this questionnaire?

Email:

Mail:

Cell:

**NoBo**

**1** What do you value about the NoBo community or the current NoBo Library? What do you feel is missing in the NoBo community?

**Library**

**2** What would make the NoBo Library more accessible or attractive to use more frequently? How would you use your new library? What service, amenity, or idea do you absolutely want to see included in your new library?

**Sites**

**3** What elements of the new library site are important to you? (for example, outdoor space with trees, near local businesses, blends into neighborhood, etc.)

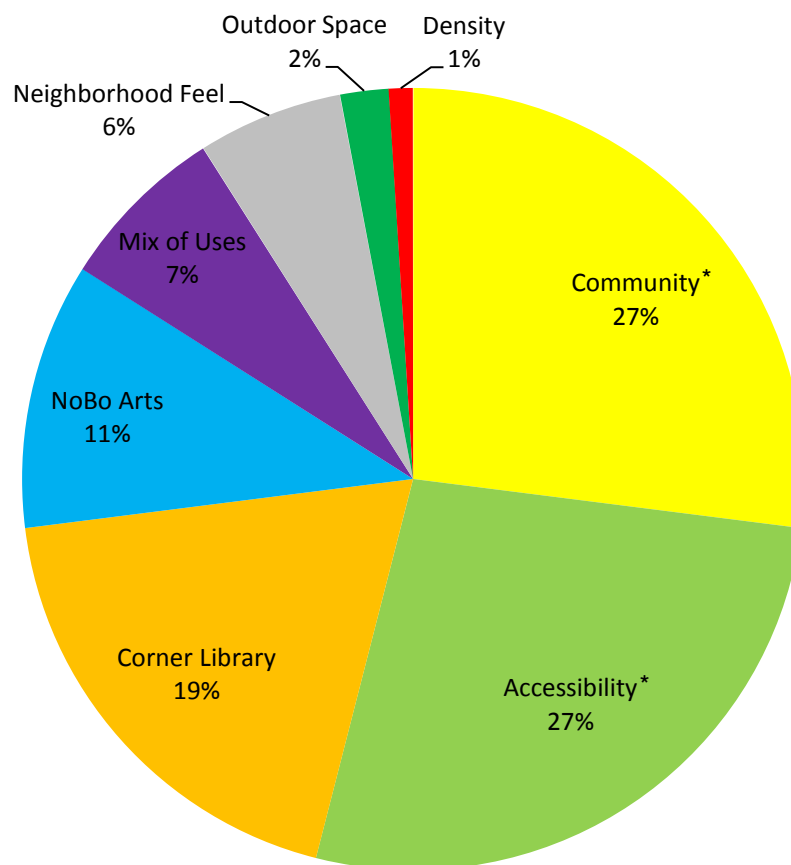
**4** Is there someone else you recommend we talk with about this topic? Is there anything else you want us to know?

For more information and project updates, visit [www.boulderlibrary.org/nobo-branch](http://www.boulderlibrary.org/nobo-branch)

## Question 1, part 1A:

### What do you value about the NoBo community?

Valued Elements of the NoBo Community



\* Certain categories refer to a range of related responses.  
A breakdown of common responses are listed below:

**Accessibility**

- walkability of neighborhood
- public transportation
- proximity to amenities

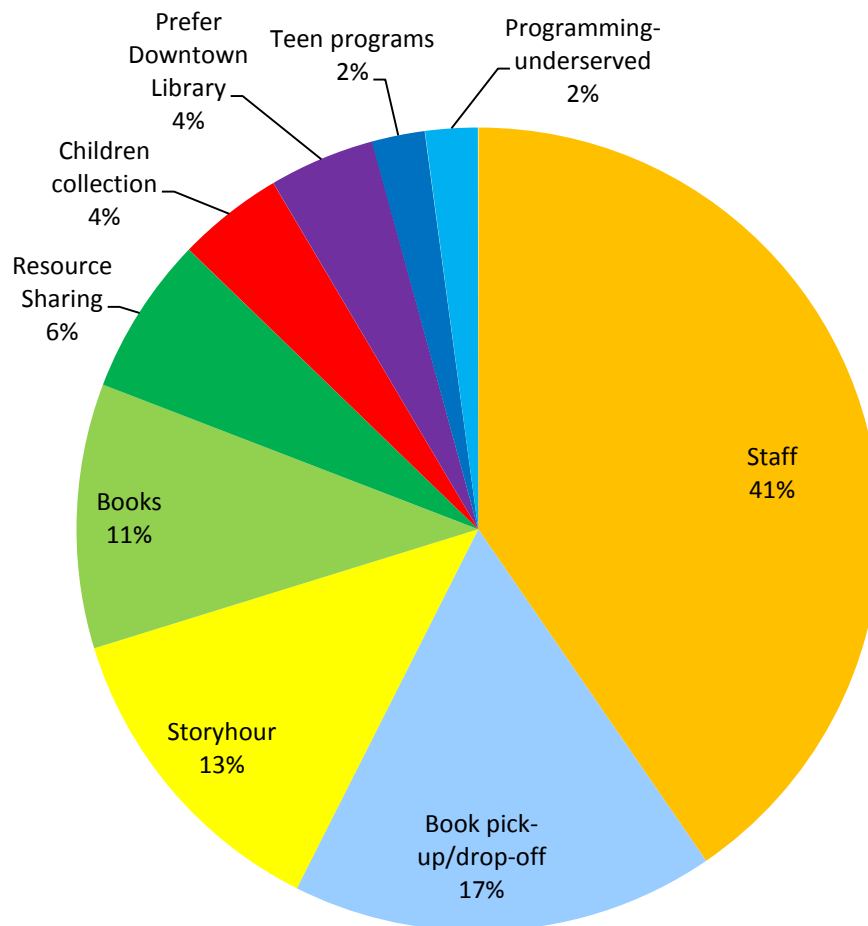
**Community**

- community
- people
- diversity
- creative community

## Question 1, part 1B:

What do you value about the current NoBo Library?

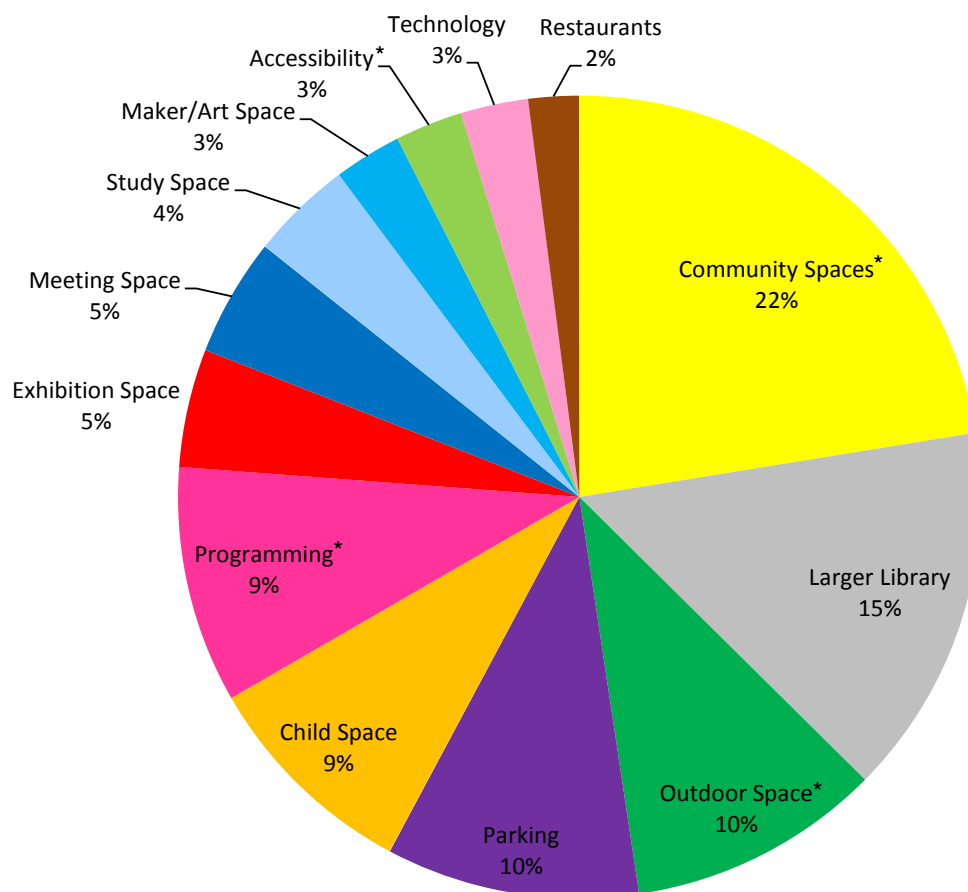
**Valued Elements of the NoBo Corner Library**



## Question 1, part 2:

# What do you feel is missing in the NoBo community?

Missing Services or Amenities in NoBo Community



\* Certain categories refer to a range of related responses.  
A breakdown of common responses are listed below:

### Community Spaces

- community space
- gathering space
- family space
- event space

### Outdoor Space

- outdoor space
- green space
- shaded area
- outdoor playground

### Accessibility

- car accessibility
- bike accessibility
- walkability
- in close proximity

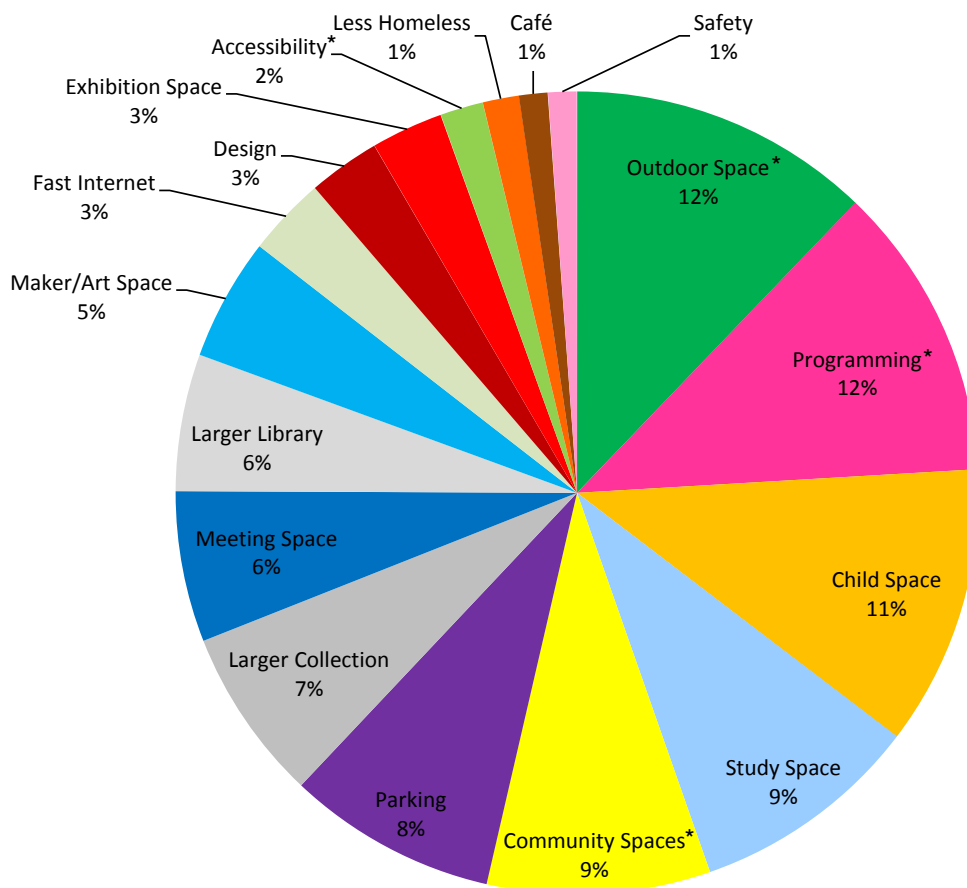
### Programming

- public events/lectures
- care/classes for children
- programs for adults
- bilingual classes

## Question 2

What would make the NoBo Library more accessible or attractive to use more frequently? How would you use your new library? What service, amenity, or idea do you absolutely want to see included in your new library?

Commonly Requested Service, Amenity, or Idea



\* Certain categories refer to a range of related responses. A breakdown of common responses are listed below:

### Community Spaces

- community space
- gathering space
- family space
- event space

### Outdoor Space

- outdoor space
- green space
- shaded area
- outdoor playground

### Accessibility

- car accessibility
- bike accessibility
- walkability
- in close proximity

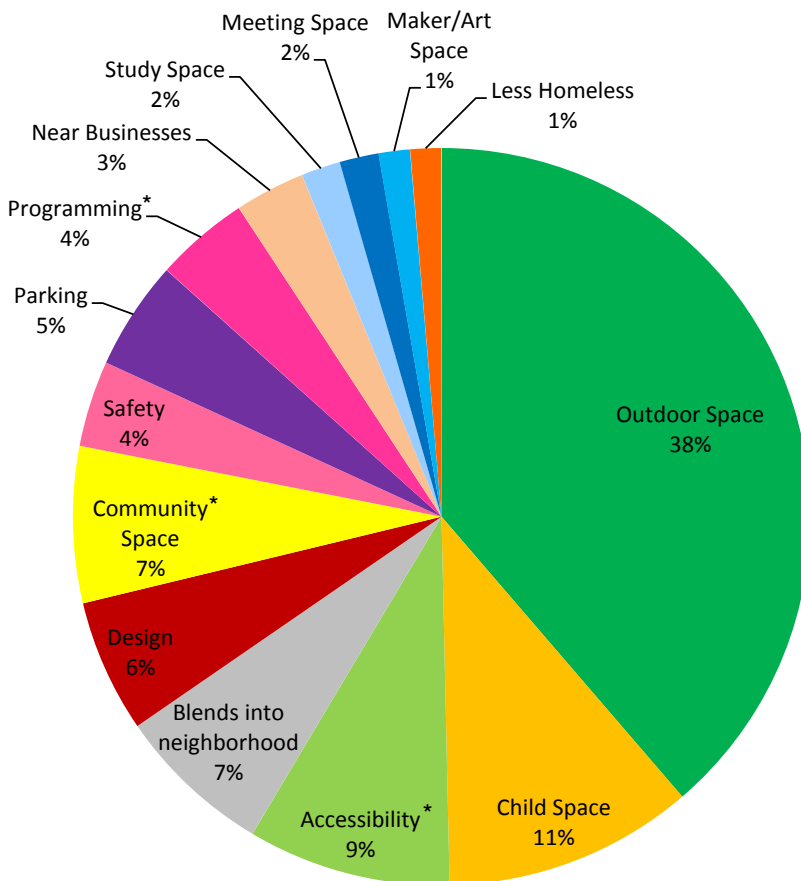
### Programming

- public events/lectures
- care/classes for children
- programs for adults
- bilingual classes

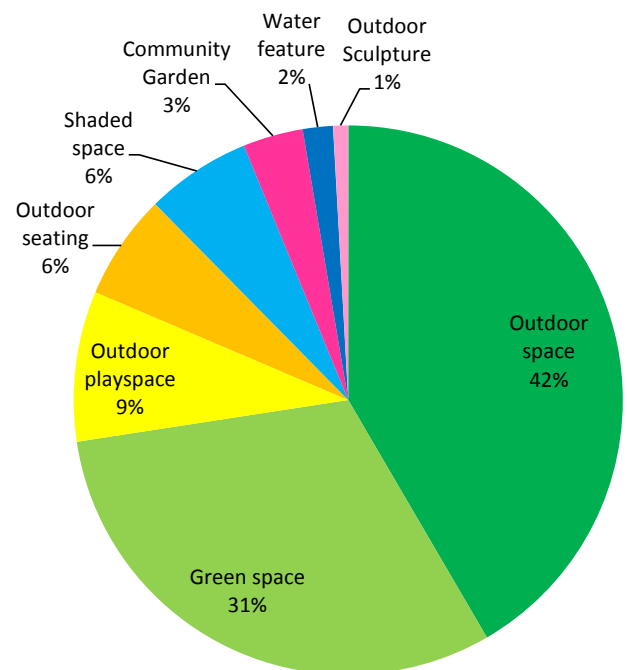
## Question 3

**What elements of the new library site are important to you?** (for example, outdoor space with trees, near local businesses, blends into neighborhood)

**Important Site Elements**



**Important Site Elements within "Outdoor Space"**



\* Certain categories refer to a range of related responses. A breakdown of common responses are listed below:

### Community Spaces

- community space
- gathering space
- family space
- event space

### Accessibility

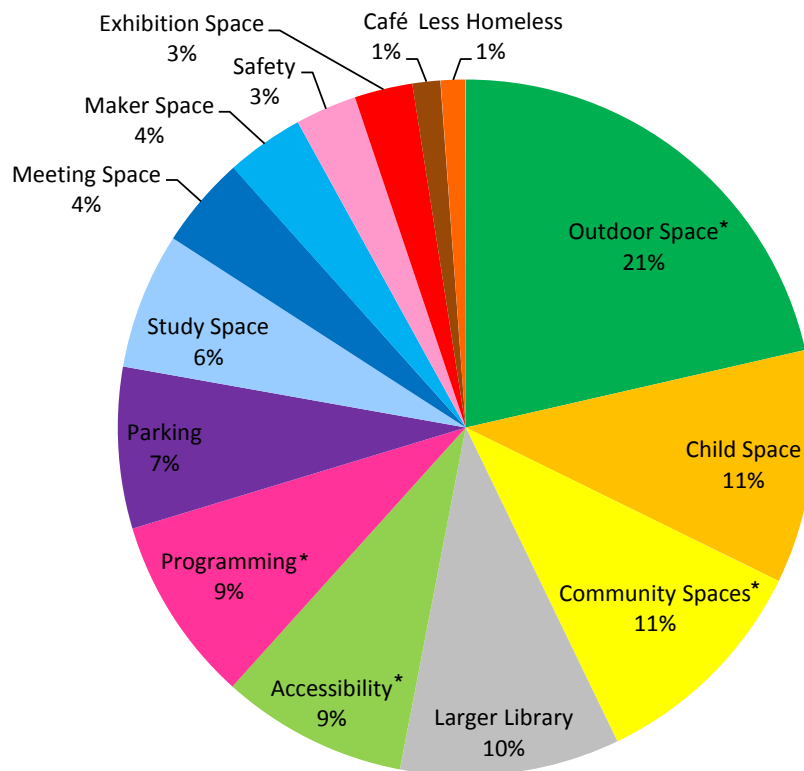
- car accessibility
- bike accessibility
- walkability
- in close proximity

### Programming

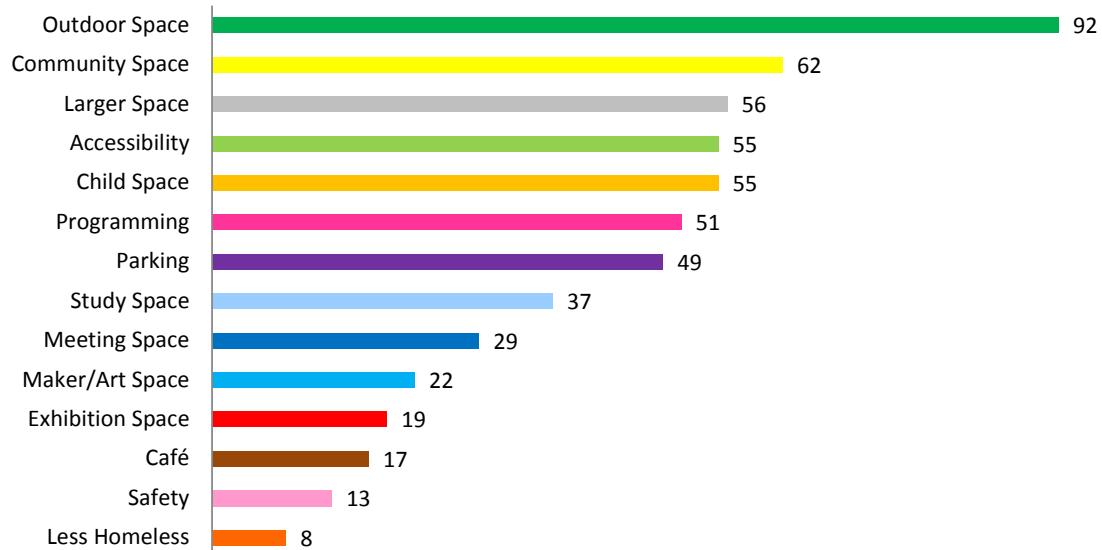
- public events/lectures
- care/classes for children
- programs for adults
- bilingual classes

# Question 1-3

## Requests as Percentage of All Descriptors



## Requests by Number of Respondents



\* Certain categories refer to a range of related responses.  
A breakdown of common responses are listed below:

### Community Spaces

- community space
- gathering space
- family space
- event space

### Outdoor Space

- outdoor space
- green space
- shaded area
- outdoor playground

### Accessibility

- car accessibility
- bike accessibility
- walkability
- in close proximity

### Programming

- public events/lectures
- care/classes for children
- programs for adults
- bilingual classes

# Makerspace

The prospect of a new makerspace was a continual point of interest during the engagement process. In addition to the ideas brought forth by the questionnaires or during events, 14 patrons of BLDG 61, the Boulder Public Library's successful makerspace, were polled for their thoughts on what a makerspace in the North Boulder could entail.

Some common themes include:

## Industrial Kitchen

- educational programming for kids and families
- a professional resource with after-hours availability for businesses
- a way to connect to the local community through farmer's markets, special events, or distributing food surplus'

## Hot Shop

- welding classes and workshops
- resources to repair and fix engines or other metal-specific equipment

## Design Lab

- work-share environment with software resources like Adobe Creative Suite
- access to digital fabrication tools, such as 3D printing, lasercutters, and large format printing
- classes and programs focused on computer science and programming

## Children's Makerspace

- makerspace more focused on children and family programs
- activities and resources for STEM education

## Art/Studio Space

- resources for art mediums such as painting and crafts
- opportunities to network and share ideas with other artists

## Fabric/Textiles

- a space for textiles, with equipment and classes for using looms and sewing machines

## "BLDG 61"

- a space similar to the one currently in the main library
- programs and classes similar to the ones currently held in the main library

In addition to these common themes, some residents and patrons suggested ways in which a makerspace could go beyond just providing a space to work and create. Ideas including a [storefront](#) connected to the makerspace, a [way for small businesses to launch or test a market](#), or possibly providing a [residency program for local makers](#).

# Final Impressions

Concluding the first set of community engagement events, WORKac met with the Design Advisory Group to discuss common concerns and requests expressed throughout the weekend.

The following is a list of main talking points brought up during the meeting:

## **Site Preferences:**

- The vast majority of people we spoke with at the community engagement events preferred Site 2.
- Nearly all families we spoke with preferred Site 2, with the exception of families in the Ponderosa Mobile Home park who preferred Site 1 because their kids would not need to cross Broadway to visit the library.
- Further analysis on Site 2 should consider a building footprint located closer to Broadway. This may help preserve the views of the condos to the north of the site, and improve the visibility and accessibility of the library.
- It is important to consider the possibility of future development of affordable housing on the Meadows parking lot and eastern half of Site 2.
- Many people who preferred Site 1 envisioned the library as a way to catalyze development on the west side of Broadway.
- Overall, participants were much more imaginative and inspired when discussing the possibility of a library on Site 2, becoming involved and more suggestive with ideas than when talking about Site 1.

## **Accessibility:**

- Improving the Broadway underpass from its current state of neglect to make the site safely accessible from either side of Broadway. This development should be coordinated and informed by the Greenways Trail, which has approved plans and funding to renovate the area.
- Making the outdoors more available to minority communities who don't feel it is accessible.
- Moving the northbound SKIP line bus stop on Broadway closer to site 2 would help make the area more accessible by public transportation.
- Increased street parking and traffic on Rosewood Avenue were major concerns for some residents. Further studies on vehicle access to Site 2 must consider the traffic study commissioned from Fox Tuttle Hernandez to be completed during phase one of this project, as well as coordination with the city regarding the possibility of removing the cul-de-sac on 13th street.

## **Amenities:**

- Preserving the sense of intimacy that people value at the current NoBo Corner Library in the new library.
- Bilingual signage and a partially-translated website.
- Mother's wellness room (required for staff).
- Gender-neutral bathrooms with a shared sink. Depending on code, these may be paired with gender-specific bathrooms.
- Other spaces that were common suggestions were:
  - Large community spaces.
  - A shaded outdoor space, children's play spaces and areas for outdoor seating.
  - A makerspace in the same mold as BLDG 61. The desired uses of a makerspace included textiles, food, technology and children's programs.
  - An exhibition space for local artists.
  - Performance and rehearsal spaces.
  - An afterhours space that is open and available after the library closes.
  - An outdoor plaza with a market or small amphitheater.
  - A co-working space or study space.
  - An exhibition space for the NoBo Arts scene. Members of the NoBo Arts District were flexible about what that space could look like.
  - Double-use spaces, or areas that are built to accommodate multiple programs.
  - Sustainability as something that is pedagogical and visible, such as looking into how wastewater or rainwater could be treated on site through recycling and filtration.
  - Close consideration of the spaces designed for children. While not explicitly wanting a childcare program, parents wanted to be able to watch over their children without being next to them. This could include creating a gradient of programs or mixing traditionally separated areas for kids and adults while maintaining clear sight lines.

## **Safety:**

- Issues and concerns over the homeless population were brought up several times over the weekend. While illegal and unacceptable behaviors will not be tolerated, their presence is a right.

## **Other thoughts:**

- It will be important to engage the youth of north Boulder at the start of the design phase
- Consider how the new library will become a gateway to both nature and the arts district.

## Follow-up Events:

- While WORKac and the DAG were able to speak with many north Boulder residents, the Hispanic population was largely underrepresented at the first set of community engagement events. In response to these concerns, the DAG organized follow-up events to hear feedback specifically from Hispanic populations in Boulder Meadows and Ponderosa mobile home park. Some key takeaways were:
  - *Book Rich Environments hosted by Boulder Housing Partners*
    - This community benefited from connecting with residents verbally rather than handing out surveys.
    - Attendees described a desire for programs and classes aimed towards both kids and adults. This could include homework help for children or bilingual classes for reading and writing.
    - Other suggestions included ongoing outreach from the library to the Kalmia community in the evenings when more families are home from work.
  - *Boulder Meadows Mobile Home Park*
    - Residents reiterated the need to provide easy access from Meadows Mobile Home Park to the new library.
    - Incorporate a tool lending library.
    - Some residents expressed interest in commercial kitchen facilities.
    - Attendees requested General Educational Development (GED) and citizenship classes.
    - Spanish speakers specifically mentioned many challenges to getting to the physical library locations and stressed the need for outreach and on-site programming that would come to their communities.

## **Appendix B.**

### **Library Visioning Concepts**

# **North Boulder Library**

## *Visioning Concepts Kickoff Meeting*

*February 1, 2018*

### **Participants:**

**Michele Crane** – FAM Design & Construction Manager  
**Sam VeuCasovic** – FAM Facilities Coordinator III  
**David Farnan** – Library & Arts Director  
**Jennifer Phares** – Deputy Library Director  
**Antonia Gaona** – Library Public Services Manager  
**Aimee Schumm** – Library E-Services Manager  
**Leanne Slater** – Corner Library Supervisor  
**Aspen Walker** – Library Community Engagement & Enrichment Manager

### **Must Haves:**

- Energy
  - Net Zero – Integrated Transparency & Education
  - No Natural Gas
  - LEED Silver Certified / Follow LEED Best Practices
  - Recycled Local Materials
  - Light – Maximize glazing and natural light
- Community
  - Large Community Room with Digital Display and Bulletin Boards
  - Art Integration & Display Spaces
- Technology
  - Technology Bar
  - High Speed Fiber and WiFi
  - Functional Power / Innovate Outlets
  - Automated Materials Handler (AMH)
  - Maker-Space
- Staff
  - Private Staff Workspaces, Break Room, and Restrooms
  - Manager's Office
  - Storage Space
  - Adequate Space for Sorter & Circulation
- Building Design
  - Low-maintenance Materials & Finishes
  - Accessible Parking & Bike Racks
  - Unique Display for Materials
  - Comfortable Seating Areas with Line-of-Sight
  - Private Spaces for Study & Contemplation
  - Open Floor Plan, as few walls as possible

- Flexibility – Spaces that can offer multiple functions when in use, and remain activated when not in use
- Gathering Space where you can be loud
- Casters on Shelf Ranges
- Multi-Purpose Rooms with modular flexibility
- Activated Outdoor Space, Community Garden, Balconies & Terrace

**Nice to Haves:**

- Building Design
  - Iconic and Unique Landmark Architecture
  - Multiple Access Points
  - Exterior Illumination
  - Intergenerational Space Opportunities
  - Cozy Nooks and Reading Pods
  - Study Rooms
  - Modern yet Cozy
  - Cool light fixtures
  - Salt Lake City Concept for Storefront Multi-use Spaces (florist, hair salon)
  - Drive-Through Book Drop
  - Floor to Ceiling Glass
  - Larger Maker-Space
  - Separate Outdoor Entrance to Maker-Space

## **Appendix C.**

### **Site 1 Cost Analysis**

# New North Boulder Library

## Phase 1: Site Selection R2

Site 1 - 4401 Broadway

Rates Current At October 2018

Description		Total Cost USD
F1010	Special Structures	Excl.
F2010	Building Elements Demolition	\$37,800
G1010	Site Clearing	\$12,325
G1020	Site Demolition and Relocations	\$79,479
G1030	Site Earthwork	\$115,149
G1040	Hazardous Waste Remediation	Excl.
G2010	Roadways	\$45,752
G2020	Parking Lots	\$39,198
G2030	Pedestrian Paving	\$128,060
G2040	Site Development	\$35,500
G2050	Landscaping	\$70,667
G3010	Water Supply	\$58,493
G3020	Sanitary Water	\$45,110
G3030	Storm Sewer	\$42,045
G3040	Heating Distribution	Excl.
G3090	Other Site Mechanical Utilities	Excl.
G4010	Electrical Distribution	\$70,000
G4020	Site Lighting	\$49,750
G4030	Site Communications & Security	\$10,000
ESTIMATED NET COST		\$839,328
<b>MARGINS &amp; ADJUSTMENTS</b>		
Design & Estimating Contingency		10 % \$83,933
City of Boulder Use Tax (3.86% on Materials & Equipment)		\$19,601
General Conditions & General Requirements		8 % \$67,146
Bonds & Insurances		2 % \$20,200
Overhead and Profit		7 % \$72,115
Cost Escalation to a Q4 2019 Construction Start		5 % \$55,116
ESTIMATED TOTAL COST		\$1,157,439

# New North Boulder Library

## Phase 1: Site Selection R2

Site 1 - 4401 Broadway

Rates Current At October 2018

Description		Unit	Qty	Rate	Total Cost USD
<b>F1010</b>	<b>Special Structures</b>				
2	NoBo Library	Note			Excl.
	<b>Special Structures</b>				<b>Excl.</b>
<b>F2010</b>	<b>Building Elements Demolition</b>				
7	Demolish existing one story warehouse building in its entirety	SF	10,800	3.50	37,800
	<b>Building Elements Demolition</b>				<b>\$37,800</b>
<b>G1010</b>	<b>Site Clearing</b>				
3	Clear and grub site including all existing vegetation	Acre	0.9	2,500.00	2,325
4	Temporary erosion and sedimentation controls	Sum			10,000
35	Dewatering - assumed not required	Note			Excl.
	<b>Site Clearing</b>				<b>\$12,325</b>
<b>G1020</b>	<b>Site Demolition and Relocations</b>				
8	Remove existing asphalt paving	SF	25,946	1.50	38,920
9	Remove existing slab on grade at existing building footprint	SF	10,800	2.00	21,600
10	Remove existing concrete paving	SF	2,435	2.00	4,871
12	Allowance to remove existing site utilities	LS	1	10,000.00	10,000
15	Allowance to remove existing trees	EA	15	250.00	3,750
16	Remove existing curb and gutter	LF	68	5.01	338
	<b>Site Demolition and Relocations</b>				<b>\$79,479</b>
<b>G1030</b>	<b>Site Earthwork</b>				
1	Over-excavation - assumed not required	Note			Excl.
5	Rough grade site	SF	39,837	0.50	19,919
6	Fine grade site	SF	39,837	0.30	11,951
14	5' Imported fill at building footprint to raise building height	CY	1,825	40.00	73,000
18	Additional imported fill to create new grade slope around new raised height	CY	205	40.00	8,200
36	Mass basement excavation - not required	Note			Excl.
37	Earthwork to above ground water detention - create embankment / sediment forebay	CY	149	14.00	2,079
	<b>Site Earthwork</b>				<b>\$115,149</b>
<b>G1040</b>	<b>Hazardous Waste Remediation</b>				
38	Hazardous waste remediation	Note			Excl.
	<b>Hazardous Waste Remediation</b>				<b>Excl.</b>
<b>G2010</b>	<b>Roadways</b>				
28	Asphalt paving to roadway - 7"	SY	781	30.00	23,418

# New North Boulder Library

## Phase 1: Site Selection R2

Site 1 - 4401 Broadway

Rates Current At October 2018

Description		Unit	Qty	Rate	Total Cost USD
29	Base course gravel to roadway - 8"	CY	174	40.00	6,944
30	Concrete curb and gutter to roadway	LF	744	18.00	13,390
41	New curb cut / access point	EA	1	2,000.00	2,000
<b>Roadways</b>					<b>\$45,752</b>
<b>G2020 Parking Lots</b>					
19	Asphalt paving to parking lot - 5"	SY	785	28.00	21,972
20	Base course gravel to asphalt paving - 6"	CY	131	40.00	5,248
21	Concrete curb and gutter to parking lot	LF	354	18.50	6,545
22	Pavement markings	LF	434	1.00	433
23	Allowance for directional signage at parking lot	LS	1	5,000.00	5,000
<b>Parking Lots</b>					<b>\$39,198</b>
<b>G2030 Pedestrian Paving</b>					
24	Hardscape concrete pavers	SF	5,138	12.00	61,651
25	Base course gravel to concrete pavers - 6"	CY	95	40.00	3,816
31	Concrete sidewalk	SF	6,317	6.00	37,901
32	Base course gravel to concrete sidewalk - 6"	CY	117	40.00	4,692
69	Allowance for ADA compliant ramps and railings	Sum			20,000
<b>Pedestrian Paving</b>					<b>\$128,060</b>
<b>G2040 Site Development</b>					
44	Playground equipment - by owner	Note			Excl.
45	Allowance for site furnishings (including trash receptacles, flag poles, benches, tables, bicycle racks, bollards etc.)	Sum			25,000
46	Allowance for monument sign including base	EA	1	3,000.00	3,000
71	Allowance for site retaining walls	Sum			7,500
<b>Site Development</b>					<b>\$35,500</b>
<b>G2050 Landscaping</b>					
26	Softscape landscaping - assumed irrigated sod	SF	5,459	2.50	13,648
27	Community garden	SF	994	45.00	44,744
47	Shade tree	EA	9	975.00	8,775
48	Water quality grass swale to above ground storm detention	SF	1,000	1.50	1,500
49	Riprap to above ground water detention	SF	100	20.00	2,000
<b>Landscaping</b>					<b>\$70,667</b>
<b>G3010 Water Supply</b>					
51	Domestic water supply connection to existing main	EA	1	3,000.00	3,000
52	Water supply piping - including excavation, trenching and backfill	LF	183	115.00	21,080

# New North Boulder Library

## Phase 1: Site Selection R2

Site 1 - 4401 Broadway

Rates Current At October 2018

Description		Unit	Qty	Rate	Total Cost USD
53	Fire water supply connection to existing main	EA	1	2,500.00	2,500
54	6" Fire water supply piping - including excavation, trenching and backfill	LF	183	125.00	22,913
55	Fire hydrant	EA	2	4,500.00	9,000
<b>Water Supply</b>					<b>\$58,493</b>
<b>G3020 Sanitary Water</b>					
56	Sanitary connection to existing main	EA	1	3,950.00	3,950
57	6" Sanitary piping - including excavation, trenching and backfill	LF	183	200.00	36,660
58	Sanitary manhole	EA	1	4,500.00	4,500
<b>Sanitary Water</b>					<b>\$45,110</b>
<b>G3030 Storm Sewer</b>					
59	Storm sewer connection to existing main	EA	1	4,500.00	4,500
60	Storm sewer piping - including excavation, trenching and backfill	LF	150	150.00	22,545
61	Allowance for storm inlets, drains etc.	Sum			10,000
70	Storm water detention - including concrete catch basin, risers, outlet control, barrel etc.	EA	1	5,000.00	5,000
<b>Storm Sewer</b>					<b>\$42,045</b>
<b>G3040 Heating Distribution</b>					
34	Snow melt	Note			Excl.
<b>Heating Distribution</b>					<b>Excl.</b>
<b>G3090 Other Site Mechanical Utilities</b>					
62	Site gas distribution - not required	Note			Excl.
<b>Other Site Mechanical Utilities</b>					<b>Excl.</b>
<b>G4010 Electrical Distribution</b>					
63	Site electrical distribution	LS	1	70,000.00	70,000
<b>Electrical Distribution</b>					<b>\$70,000</b>
<b>G4020 Site Lighting</b>					
64	Allowance for parking lighting - single pole	EA	7	3,500.00	24,500
65	Concrete base to single pole mounted light	EA	7	750.00	5,250
66	Lighting to building - included with building cost	Note			Incl.
67	General / miscellaneous site lighting	Sum			20,000
<b>Site Lighting</b>					<b>\$49,750</b>

# New North Boulder Library

## Phase 1: Site Selection R2

Site 1 - 4401 Broadway

Rates Current At October 2018

Description		Unit	Qty	Rate	Total Cost USD
<b>G4030</b>	<b>Site Communications &amp; Security</b>				
68	Site communications distribution	LS	1	10,000.00	10,000
	<b>Site Communications &amp; Security</b>				<b>\$10,000</b>
	<b>ESTIMATED NET COST</b>				<b>\$839,328</b>

## **Appendix D.**

### **Site 2 Cost Analysis**

# New North Boulder Library

## Phase 1: Site Selection R2

Site 2 - 4540 Broadway

Rates Current At October 2018

Description		Total Cost USD
<b>F1010</b>	<b>Special Structures</b>	<b>Excl.</b>
<b>G1010</b>	<b>Site Clearing</b>	<b>\$28,675</b>
<b>G1020</b>	<b>Site Demolition and Relocations</b>	<b>\$64,073</b>
<b>G1030</b>	<b>Site Earthwork</b>	<b>\$53,185</b>
<b>G1040</b>	<b>Hazardous Waste Remediation</b>	<b>Excl.</b>
<b>G2010</b>	<b>Roadways</b>	<b>\$53,006</b>
<b>G2020</b>	<b>Parking Lots</b>	<b>\$52,440</b>
<b>G2030</b>	<b>Pedestrian Paving</b>	<b>\$202,450</b>
<b>G2040</b>	<b>Site Development</b>	<b>\$48,000</b>
<b>G2050</b>	<b>Landscaping</b>	<b>\$74,221</b>
<b>G3010</b>	<b>Water Supply</b>	<b>\$59,127</b>
<b>G3020</b>	<b>Sanitary Water</b>	<b>\$49,390</b>
<b>G3030</b>	<b>Storm Sewer</b>	<b>\$52,705</b>
<b>G3040</b>	<b>Heating Distribution</b>	<b>Excl.</b>
<b>G3090</b>	<b>Other Site Mechanical Utilities</b>	<b>Excl.</b>
<b>G4010</b>	<b>Electrical Distribution</b>	<b>\$70,000</b>
<b>G4020</b>	<b>Site Lighting</b>	<b>\$57,500</b>
<b>G4030</b>	<b>Site Communications &amp; Security</b>	<b>\$10,000</b>
<b>ESTIMATED NET COST</b>		<b>\$874,772</b>
<b>MARGINS &amp; ADJUSTMENTS</b>		
Design & Estimating Contingency	10 %	\$87,477
City of Boulder Use Tax (3.86% on Materials & Equipment)		\$20,429
General Conditions & General Requirements	8 %	\$69,982
Bonds & Insurances	2 %	\$21,053
Overhead and Profit	7 %	\$75,159
Cost Escalation to a Q4 2019 Construction Start	5 %	\$57,444
<b>ESTIMATED TOTAL COST</b>		<b>\$1,206,316</b>

# New North Boulder Library

## Phase 1: Site Selection R2

Site 2- 4540 Broadway

Rates Current At October 2018

Description		Unit	Qty	Rate	Total Cost USD
<b>F1010 Special Structures</b>					
2	NoBo Library	Note			Excl.
<b>Special Structures</b>					<b>Excl.</b>
<b>G1010 Site Clearing</b>					
3	Clear and grub site including all existing vegetation	Acre	1.5	2,500.00	3,675
4	Temporary erosion and sedimentation controls	Sum			25,000
35	Dewatering - assumed not required	Note			Excl.
<b>Site Clearing</b>					<b>\$28,675</b>
<b>G1020 Site Demolition and Relocations</b>					
8	Remove existing asphalt paving	SF	4,335	1.50	6,502
10	Remove existing concrete paving	SF	7,216	2.00	14,431
11	Remove existing site stairs, ramps, planers etc.	SF	1,935	7.50	14,513
12	Allowance to remove existing site utilities	LS	1	10,000.00	10,000
15	Allowance to remove existing trees	EA	45	250.00	11,250
16	Remove existing curb and gutter	LF	420	5.00	2,097
17	Remove hardscape pavers	SF	2,640	2.00	5,280
<b>Site Demolition and Relocations</b>					<b>\$64,073</b>
<b>G1030 Site Earthwork</b>					
1	Over-excavation - assumed not required	Note			Excl.
5	Rough grade site	SF	63,882	0.50	31,941
6	Fine grade site	SF	63,882	0.30	19,165
36	Mass basement excavation - not required	Note			Excl.
37	Earthwork to above ground water detention - create embankment / sediment forebay	CY	149	14.00	2,079
<b>Site Earthwork</b>					<b>\$53,185</b>
<b>G1040 Hazardous Waste Remediation</b>					
38	Hazardous waste remediation	Note			Excl.
<b>Hazardous Waste Remediation</b>					<b>Excl.</b>
<b>G2010 Roadways</b>					
28	Asphalt paving to roadway - 7"	SY	1,063	30.00	31,902
29	Base course gravel to roadway - 8"	CY	236	40.00	9,456
30	Concrete curb and gutter to roadway	LF	647	18.00	11,648
<b>Roadways</b>					<b>\$53,006</b>

# New North Boulder Library

## Phase 1: Site Selection R2

Site 2- 4540 Broadway

Rates Current At October 2018

Description		Unit	Qty	Rate	Total Cost USD
<b>G2020 Parking Lots</b>					
19	Asphalt paving to parking lot - 5"	SY	1,022	28.00	28,624
20	Base course gravel to asphalt paving - 6"	CY	171	40.00	6,832
21	Concrete curb and gutter to parking lot	LF	625	18.50	11,567
22	Pavement markings	LF	417	1.00	417
23	Allowance for directional signage at parking lot	LS	1	5,000.00	5,000
<b>Parking Lots</b>					<b>\$52,440</b>
<b>G2030 Pedestrian Paving</b>					
24	Hardscape concrete pavers	SF	8,497	12.00	101,969
25	Base course gravel to concrete pavers - 6"	CY	158	40.00	6,304
31	Concrete sidewalk	SF	7,308	6.00	43,849
32	Base course gravel to concrete sidewalk - 6"	CY	136	40.00	5,428
42	Site stairs - assumed CIP concrete	SF	468	50.00	23,400
43	Handrails to site stairs	LF	56	250.00	14,000
69	Allowance for ADA compliant ramps and railings	Sum			7,500
<b>Pedestrian Paving</b>					<b>\$202,450</b>
<b>G2040 Site Development</b>					
33	Additional site footprint to remain unchanged	Note			Excl.
44	Playground equipment - by owner	Note			Excl.
45	Allowance for site furnishings (including trash receptacles, flag poles, benches, tables, bicycle racks, bollards etc.)	Sum			35,000
46	Allowance for monument sign including base	EA	1	3,000.00	3,000
71	Allowance for site retaining walls	Sum			10,000
<b>Site Development</b>					<b>\$48,000</b>
<b>G2050 Landscaping</b>					
26	Softscape landscaping - assumed irrigated sod	SF	6,148	2.50	15,370
27	Community garden	SF	1,057	45.00	47,551
47	Shade tree	EA	8	975.00	7,800
48	Water quality grass swale to above ground storm detention	SF	1,000	1.50	1,500
49	Riprap to above ground water detention	SF	100	20.00	2,000
<b>Landscaping</b>					<b>\$74,221</b>
<b>G3010 Water Supply</b>					
51	Domestic water supply connection to existing main	EA	1	3,000.00	3,000
52	Water supply piping - including excavation, trenching and backfill	LF	205	115.00	23,540
53	Fire water supply connection to existing main	EA	1	2,500.00	2,500

# New North Boulder Library

## Phase 1: Site Selection R2

Site 2- 4540 Broadway

Rates Current At October 2018

Description		Unit	Qty	Rate	Total Cost USD
54	6" Fire water supply piping - including excavation, trenching and backfill	LF	205	125.00	25,587
55	Fire hydrant	EA	1	4,500.00	4,500
<b>Water Supply</b>					<b>\$59,127</b>
<b>G3020 Sanitary Water</b>					
56	Sanitary connection to existing main	EA	1	3,950.00	3,950
57	6" Sanitary piping - including excavation, trenching and backfill	LF	205	200.00	40,940
58	Sanitary manhole	EA	1	4,500.00	4,500
<b>Sanitary Water</b>					<b>\$49,390</b>
<b>G3030 Storm Sewer</b>					
59	Storm sewer connection to existing main	EA	1	4,500.00	4,500
60	Storm sewer piping - including excavation, trenching and backfill	LF	205	150.00	30,705
61	Allowance for storm inlets, drains etc.	Sum			12,500
70	Storm water detention - including concrete catch basin, risers, outlet control, barrel etc.	EA	1	5,000.00	5,000
<b>Storm Sewer</b>					<b>\$52,705</b>
<b>G3040 Heating Distribution</b>					
34	Snow melt	Note			Excl.
<b>Heating Distribution</b>					<b>Excl.</b>
<b>G3090 Other Site Mechanical Utilities</b>					
62	Site gas distribution - not required	Note			Excl.
<b>Other Site Mechanical Utilities</b>					<b>Excl.</b>
<b>G4010 Electrical Distribution</b>					
63	Site electrical distribution	LS	1	70,000.00	70,000
<b>Electrical Distribution</b>					<b>\$70,000</b>
<b>G4020 Site Lighting</b>					
64	Allowance for parking lighting - single pole	EA	10	3,500.00	35,000
65	Concrete base to single pole mounted light	EA	10	750.00	7,500
66	Lighting to building - included with building cost	Note			Incl.
67	General / miscellaneous site lighting	Sum			15,000
<b>Site Lighting</b>					<b>\$57,500</b>

## Phase 1: Site Selection R2

### Rates Current At October 2018

Description		Unit	Qty	Rate	Total Cost USD
<b>G4030</b>	<b>Site Communications &amp; Security</b>				
68	Site communications distribution	LS	1	10,000.00	10,000
<b>Site Communications &amp; Security</b>					<b>\$10,000</b>
<b>ESTIMATED NET COST</b>					<b>\$874,772</b>





