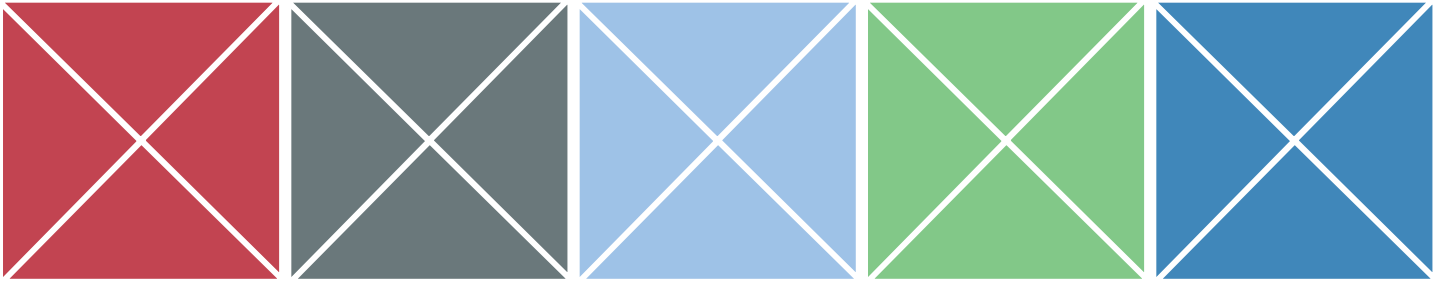




# STEAM Campus Master Plan

March 4, 2019 draft

Prepared by







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## PROJECT TEAM

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# STAKEHOLDERS

## **Community & Neighborhood Associations**

- (SANA) Sawmill Area Neighborhood Association
- Sawmill Community Land Trust
- Wells Park Neighborhood Association
- Old Town Merchants Association
- Old Town Neighborhood
- NM Museum & Education Associations
- (MCC) Museum Cooperative Council
- NM Museum of Natural History and Science
- Math and Science Advisory Council
- (NMAEYC) New Mexico Association for the Education of Young Children
- Albuquerque Museum

## **Government & Universities**

- City of Albuquerque
- New Mexico Chamber of Commerce
- State Legislators
- Albuquerque Mayor
- New Mexico Governor
- (APS) Albuquerque Public Schools
- NM Out of School Time Network
- (UNM) University of New Mexico
- (CNM) Central New Mexico Community College
- City of Rio Rancho

## **Statewide Partners**

- State Libraries
- Sandia National Labs
- (EPSCoR) New Mexico's Experimental Program to Stimulate Competitive Research
- STEM Professionals
- STEM Industries
- School Educators

## **Explora Network**

- Founders
- Donors
- Volunteers
- Caterers
- Staff & Families

## **Community & Public**

- Citizens of Albuquerque
- Infants & Toddlers
- Young Scientists
- High School Students & Teens
- Parents
- Educators

## **Private Sector**

- Heritage Hotels
- Business Network Groups
- Construction Companies

**CREATIVITY IS  
CONTAGIOUS,  
PASS IT ON.**

- ALBERT EINSTEIN





## Executive Summary

Explora is a learning space that provides hands-on exhibits and programs to people of all ages. This museum creates an engaging environment by blending science exploration and education with dynamic play. Explora has grown into a significant community organization and continues to develop meaningful programs and activities using feedback from their visitors and community members.

After conducting a series of listening sessions, the bulk of which took place between 2014-2016, Explora developed a list of shared aspirations based on the identified issues that the community is facing with the intention of strengthening themselves as an anchor and facilitator of change within the community. The information gained has led to new collaborations, research, and programs to fuel the growing interest in science, technology, engineering, art, and math (STEAM) subjects.

Recognizing the impact that STEAM education has on children and teens, Explora developed an initiative that will bridge the gap between youth exploration and applied knowledge at a career level. This initiative, the Cradle through Career STEAM Learning Strategic Focus, draws from local resources and partnerships to provide continued learning and focused pathway opportunities to Albuquerque students and families. In an effort to support this broad initiative, Explora is reevaluating their museum campus to optimize space and accommodate future growth.

On September 5, 2018, Explora hired Studio Southwest Architects (Studio SW) to develop a STEAM Campus Master Plan to include the current Explora site and the adjacent site at 1810 Bellamah Avenue NW. Studio SW is tasked with conducting an existing site analysis, developing a new program, presenting Explora with conceptual design options, and compiling a final master plan document.



## Existing Conditions

Studio SW started by reviewing all existing documents and initiatives conducted in previous years. In 2016, a study of the Explora campus was completed by Henry Architects out of Taos, NM. Three potential land use options were developed:

- Land Swap – which explored the possibility of the NM Natural History Museum Research facility moving across the street to occupy the 1810 property, allowing Explora the opportunity of expanding to the north;
- Stick to What We Know – which looked at optimizing the two existing properties as is;
- United Campus – which proposed closing 18th street and developing a larger integrated museum campus.

Using these three plans and a new map of the area reflecting developments and current construction, Studio SW conducted a visioning charrette with Explora and their staff.

Studio SW also conducted an analysis of the new zoning of the IDO to discuss new constraints and options for each site. They also reviewed As-Built drawings to evaluate infrastructure.

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*To see the comments generated by this review, please reference Appendix A.*





**DON'T WAIT FOR  
OPPORTUNITY.  
CREATE IT.**



## Program/Design Process

### **Visioning Charrette:**

On September 13, 2018, Studio SW conducted a half-day charrette with Explora administration, project managers, and staff from the exhibit, visitors services, and education departments. The purpose of this charrette was to gather information from the participants about what they see as successful components of a STEAM campus, their aspirations and goals for the use of the two properties, how they envision staff and visitors functioning in the space once it's developed, and potential challenges or obstacles they foresee.

After a brief introduction of campus possibilities and examples of other sites, a map illustrating the current pedestrian pathways and circulation was developed with input from the participants. With this in mind the participants then reviewed previous land use options and indicated strengths and challenges for each one. Participants used post-it notes to write their comments on each board.

Studio SW and the participants then gathered for a collaborative brainstorming session on potential Campus Needs. These needs, which were informed by staff experience and user feedback, ranged from restaurant and commercial components to parking and community art. Zoning allowances for both the Explora and 1810 Bellamah sites were reviewed, offering a variety of innovative and community-oriented ideas.

The participants then broke into three groups. Each group was given a large scale plan of the neighborhood and several building blocks that represented different size footprints (10k sf, 20k sf, 40k sf). Each team had 30 minutes to develop a custom site plan reflecting the components identified in the Campus Needs exercise. They considered building placement, parking solutions, pedestrian and vehicular pathways, and unique community components such as a garden and water features that could serve as 21st-century teaching tools for Explora's programs.



Studio SW consolidated the comments for each team's master plan concept into three options. Each option included the following key components:

- Teen STEAM Workforce Development Center - 7,000 sf
- Early Learning Center (ELC) /Playground - 20,000 sf
- Community Services Center - 12,000 sf
- Café/Restaurant/Lease space
- Landscape Program
- Parking
- Outdoor Discovery
- Amphitheater/outdoor plaza
- Spur Line Pedestrian Corridor
- Speed Table
- Science Kiosk

### **Staff Workshop:**

On October 22, 2018 Studio SW conducted a workshop with Explora's staff to review the outcomes of the Visioning Charrette. During this workshop Studio SW presented conceptual drawings of each team's master plan.

The group discussed further details and logistics of each option's feasibility.

Overarching topics included:

- Infrastructure location and ease of access/modification
- Outdoor learning space for the ELC beyond a playground
- Link between other museums in the neighborhood
- Pros and cons of a parking garage solution and its placement
- Preserving mountain views
- Physical connection/proximity with Explora's main building

These comments were documented and later incorporated into the two options that were chosen for refinement - Option 1 and Option 3.

Ultimately Option 2 was removed due to the feasibility of phasing for the Teen STEAM Workforce Development Center given that the funding model and design was underway at the time of this study.





### **Stakeholders Open-house**

Using factors such as budget, schedule, and the goals of Explora’s administration, two of the three plans were selected and refined.

On November 12, 2018 a Stakeholders Open-house was held at Explora. Our goal was to inform staff, board, donors, members, and neighbors about the details of the master plan and listen to their feedback, comments, and concerns.

The half-day event was broken into two groups - early and late afternoon. Each group was given a short presentation by Studio SW, who provided context to the plans and facilitated a group discussion.

Presentation boards of each Option were shown alongside images of the existing sites (Explora’s campus and Bellamah.) Participants were encouraged to make notes and mark up the Options with their feedback.

The overall feedback was positive and the general topics of discussion involved:

- Security and safety
  - of cars and valuables in the parking garage
  - of employees and users walking between Explora sites
  - Teen day & night functions (in regards to distance of parking being on Bellamah site)
- Parking solutions
  - Placement and size of garage
  - Potential use by neighboring businesses
  - ADA concerns with distance
- Outdoor activity areas
  - Injury liability
  - Staffing/supervision

Additional conversations related to larger ideas beyond the scope of the Master Plan work being conducted for this report. Those details have been captured and appear in the upcoming *Future Program Considerations for the Building and Site* section of this report.







## PHASING PLANS





### Explora MP Legend

- 1 ¡Explora! – 54,346 sf
- 2 Teen STEAM Workforce Development Center
- 3 Café/Restaurant
- 4 Parking
- 5 Traffic Calming Median

## Explora STEAM Campus Master Plan

### Phase 1

Phase 1 of the master plan focuses on the development of the Teen STEAM Workforce Development Center (WDC) and additional parking. Awarded in 2018, this project was already in the design phase at the time of the master plan development.

Phase 1 time duration: 24 months

#### Teen STEAM Workforce Development Center

The Teen STEAM WDC is a freestanding addition on Explora’s main campus. This new addition will accommodate 7,000 sf of program space for use by Explora for its STEAM workforce development programs. A new title, X Studio, and logo for this center were introduced in January 2019 during the development of the Master Plan.



#### Cafe/Restaurant

A portion of the STEAM WDC square footage is planned as potential commercial lease space. One of Explora’s goals is to offer a food amenity to guests of the main campus.

#### Parking

Phase 1 includes the addition of parking on the Bellemah campus. Currently, [at the time of this master plan study] the main campus has 164 parking spaces, which meets zoning requirements exactly for the current museum.

The addition of the STEAM WDC building will increase the parking requirements by 21 spaces. Since the current campus doesn’t have room to accommodate an increase in parking, an option would be to provide the spaces on the Bellemah site.

#### Traffic Calming Median:

In preparation of Phase 2 construction on the Bellemah site, a later component of Phase 1 is to begin reducing traffic speeds along 18th street. This plan calls for a speed table and calming median, made of textured concrete, to reduce the speed of through traffic.





## Explora STEAM Campus Master Plan

### Phase 2 - Early Learning Center

Phase 2 of the master plan focuses on the development of the Early Learning Center.

Phase 2 time duration: 30 months

#### Early Learning Center

This phase includes a 20,000 sf Early Learning Center (ELC), with outdoor recreation area, and 50 additional parking spaces to accommodate zoning requirements. This parking could be developed surrounding the new ELC for a total of approximately 71 spaces on the Bellamah site. A new title, Brillante, and logo for this center were developed and introduced in January 2019 during the Master Planning process.



#### Museum Corridor

The southern most portion of the Bellemah campus is envisioned as a well designed and intentionally landscaped circulation area. Possible uses include community gardens and green energy exhibits that can be used as part of Explora's hands-on-learning education model.

Ultimately the corridor will connect west to the future development of the "Spur line" in Phase 3.

#### Explora MP Legend

- 1 ¡Explora! (Ph1)
- 2 Teen STEAM Workforce Development Center
- 3 Café/Restaurant (Ph1)
- 4 Parking (Ph1)
- 5 Traffic Calming Median (Ph1)
- 6 Early Learning Center
- 7 Museum Corridor (partial)





### Explora MP Legend

- |   |                               |
|---|-------------------------------|
| 1 iExplora! (Ph1)                         | 6 Early Learning Center (Ph2) |
| 2 Teen STEAM Workforce Development Center | 7 Museum Corridor (Ph2)       |
| 3 Café/Restaurant (Ph1)                   | 8 Parking Garage              |
| 4 Parking (Ph1)                           | 9 Community Services Center   |
| 5 Traffic Calming Median (Ph1)            | 10 Spur Line Corridor         |
|   | 11 Museum Plaza               |

## Explora STEAM Campus Master Plan

### Phase 3 - Full Build Out

Phase 3 of the master plan completes all the intended building, parking, and landscape components. On the Bellemah site, Phase 3 includes a parking garage, a commercial lease space for use as a Community Services Center and possibly a restaurant, and the development of deliberate outdoor space along the rail spur.

Phase 3 time duration: 36 months  
 \$450,000 surface parking (100 spaces)  
 \$5.6M two-story garage (approx. additional 200 spaces)  
 Total parking cost: \$6.05M

#### Parking

The loss of surface parking, resulting from the development of the Museum Plaza on the main campus, could be recovered with 120 surface parking spaces on the Bellemah site. Minimum parking requirements between both sites is 235 spaces.

There is an option to build a 300+ multi-story parking structure on the Bellemah site that will service both sites and the surrounding area. This optional component of the final build out may include a grow wall or other organic masking solution to create a buffer from community activity.

#### Community Services Center

The Community Services Resource Center is a unique idea that aligns with Explora’s Cradle-to-Career program. This space would provide offices and meeting areas for wrap-around services including mentorship/training opportunities, lectures, workshops, and access to professional resources.

As an additional component of the HUB Community Services Center the master plan explores the possibility of providing lease spaces on the Explora campus. A variety of potential uses were discussed including a medical clinic, restaurant, or other Explora partner.

#### Spur Line Pedestrian Corridor

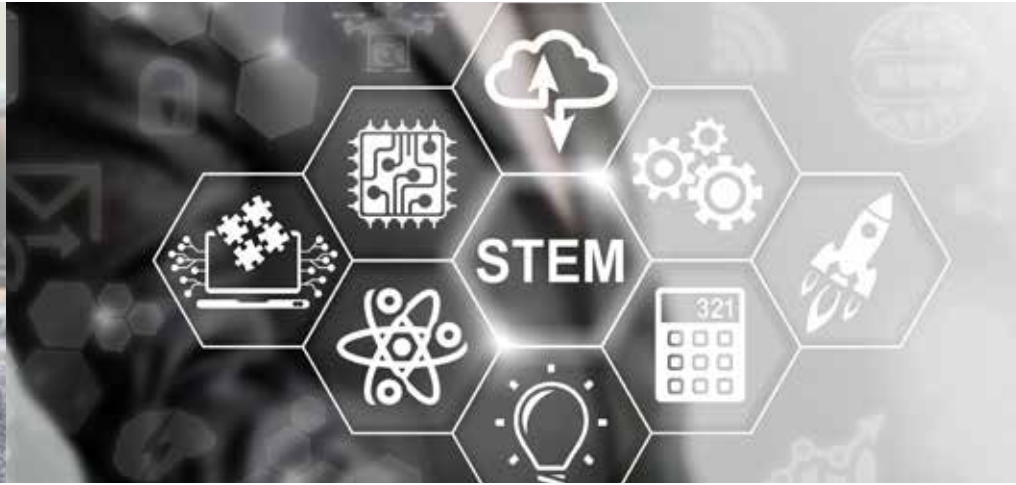
The spur line will be developed as a pedestrian walkway to create a connection from residential and commercial developments at the north to the “museum district,” Old Town, and Tiguex Park at the south. This connection will be intersected with a connection to the Explora Campus.

#### Museum Plaza

The Museum Plaza will be constructed on the main campus. This outdoor element could consist of an amphitheater and outdoor discovery elements to promote physical activity and education. The amphitheater can be used for public gatherings, exhibit displays, and multi-generational engagement opportunities.







## PROGRAM

These are the main criteria points that we evaluated for optimal success in the final master plan.

### X Studio

In order to address the community’s aspiration for students better prepared for a future workforce and for jobs that end the cycle of poverty, Explora plans to build a STEM Education and Workforce Development Center, called X Studio, for our future science leaders, ages 13-adult. Ultimately, the Center will prepare students for STEM jobs, accelerate innovation and entrepreneurship, and generate private investment. This Center will enable new learning experiences, including new science and computer labs for physics, chemistry, robotics, and coding; a Maker Space that will provide engineering and fabrication opportunities; space for expanded programs—like Teen Science Cafés—that will bring scientists and teens together in a “lounge” environment; an exhibit hall that will showcase exhibits related to local STEM industry; and more, like space for our expanded middle school apprenticeship and high school internship program, which will employ up to 60 teens.

<b>X Studio Program</b>	
	<b>area</b>
Maker Space	600
Teen Lounge/Kitchen Space	600
Computer Lab/Classroom	650
Multi-purpose Classroom #1	650
Multi-purpose Classroom #2	700
Exhibition Space/Event Space	1600
Office #1	100
Office #2	100
Storage and Materials Prep Space	250
Accessory Spaces	1500
<b>Estimated Total</b>	<b>6,750</b>

**X Studio – 6,750 sf**

**Construction Cost Budget: \$250-300/sf = \$2M**

**Timeline: Design – 1 year/Construction – 1 year**



**Brillante**

Brillante will be an accredited, museum-based program and will serve as the lab school for early learning studies for CNM and other higher-education institutions. It will be a home for multi-generational classes aimed at young children and their parents and will provide high-quality child care desperately needed by Albuquerque families. The Early Learning Center also will provide opportunities to expand Explora’s existing early childhood and family programs, additional space for outdoor learning experiences, and the potential for expanded early childhood exhibit activities.

<b>Brillante Program</b>		
	<b>comments</b>	<b>area</b>
Exhibit/Dining	30x100	3000
Living Lab	20x20	400
Classroom - Kindergarten [2]	750 sf each (15 students and 2 sf storage/student)	1,560
Classroom - 1st - 5th [8]	640 sf each (20 students and 2 sf storage/student)	5,200
Low sensory nooks [2]	200 sf each	400
Pre-school Drop-off/ Reception	10x20	200
Family Restrooms [2]	8x8 each	140
Reflection Space		500
Kitchen/ Food Prep	1000 sf min.	1,000
Conference room 12-15 ppl	15x20	300
Staff Offices [5]	120 sf each	600
Media Center/ Resource/ Library	20x20	1,000
Maintenance/ Storage	.5 sf / student	100
<b>Total Program Space</b>		<b>14,400</b>
<b>Estimated Total w/ 30% tare</b>		<b>18,720</b>
*required space based on PSFA adequacy standards (6.27.30 NMAC) based on 190 student enrollment		

**Brillante – 18,720 sf**  
**Construction Cost Budget: \$250-300/sf = \$5.6M**  
**Timeline: Design – 1 year/Construction – 1 year**



### Community Services Center

The Community Services Center will provide space for wrap-around family services that relate to the Cradle through Career STEAM Learning Strategic Focus; this could be a combination of Explora programs (like additional summer camp spaces) and programs and services provided by other community-based organizations. Examples could include programming space for multi-generational programs and teacher professional development; space for CNM's early childhood business accelerator; a toy lending library; space for serving meals or providing basic medical services (like flu shots); a cafe for museum guests; and rental spaces for other education- and STEM-focused businesses or organizations.



**Community Services Center – 12,000 sf**  
**Construction Cost Budget: \$200/sf = \$2.4M**  
**Timeline: Design – 1 year/Construction – 1 year**

### Spur Line & Museum Corridor

The spur line would be developed as a pedestrian walkway to create a connection from residential and commercial developments at the north to the “museum district”, old town and Tigues Park at the south. This connection would be intersected with a connection to the Explora Campus.

**Spur line (33,950sf) /  
Museum Corridor (44,200sf) – 78,150sf**

**Construction Cost Budget: \$25/sf = \$2M**

**Timeline: Design – 1 year/Construction – 1 year**

*This work could include relocating utilities and drainage underground, not included in the cost estimate.*



### Structured Parking

This is an optional component of the Bellamah site’s final build out. It would provide an excess of parking to the surrounding area and may include involvement from the surrounding stakeholders.

**Structured Parking  
(200 spaces above surface parking)**

**Construction Cost Budget: \$28,000/space = \$5.6M**

**Timeline: Design – 1 year/Construction – 1 year**



## Future Program Considerations for the Proposed Buildings and Site

### Program Considerations of Teen STEAM WDC

- Teen day and night functions.
- Security/supervision considerations.
- Café/eatery component.

### Program Considerations of ELC

- Integration of Explora museum programs.
- Crossover of staff between two facilities (main and ELC.)
- Outdoor learning opportunities beyond the enclosed playground. Utilization of outdoor discovery component of Museum Corridor.
- Incorporate STEAM curriculum for early learners (community garden.)

### Program Considerations of Community Services Center

- Multi-functional Spaces.
- Explora “Partner” Space.
- Lease Space/Rental.
- Variety of Potential Wrap-Around Family Services.
- Auditorium/Presentation/Flexible/Modular
- Adaptable/Universal.
- Connection Hub.
- Jobs/Professionals.
- Resource Center.
- Social Worker.
- Traveling Exhibits.

### General Program Considerations

- Ensure security within parking garage.
- Manage parking garage use for non-museum patrons.
- Integrate public transit.
- Implement “Urban design standards” by reducing asphalt and developing plaza design with STEAM principles.
- Consider multi-use applications of each space.
- Incorporate photovoltaics when applicable.
- Consider including EV charging stations for electric bikes and cars.
- Incorporate learning opportunities wherever possible (surfaces of exterior walls, walkways, structural elements, etc).
- Multi-generational physical activity areas.
- Multi-generational uses in Museum Plaza.
- Safety considerations:
  - bike rack locations.
  - lighting in evening hours.
  - outdoor recreational elements (supervision/liability.)
- Incorporate alternative power generators.
- Incorporate sustainability features for function and education (water harvesting.)
- Creative use of cultural elements and symbolism.
- Restroom accessibility
- Accessible to users-specific.
- Fully emergent.
- Floating/Visiting Exhibits.
- Technology.
- Walkable, secure, intentional open spaces.
- Public art.

## Community Concerns

Each concern lists ways that this master plan addresses them.

### Neighborhood Educational Opportunities

- New Early Learning Center
- New Teen STEAM Workforce Center
- New Community Services Center
- Possible lease space for STEAM partners and professionals and/or wrap-around family services.

### Collaboration

- Resource center for community.
- Neighborhood organization active participants in the learning campus.

### Opportunities for healthy things to do

- public access to activities on campus – ropes course, skate park on museum plaza, etc.
- Well-functioning, authentic and organic neighborhoods.
- Connection to surrounding areas – maintain pedestrian paths.
- Provide new connection with spur line to arts and soon to be retail.

## Site Considerations:

### Circulation

#### **Pedestrian and Vehicular**

Pedestrian and bicycle Accessibility/Connectivity is an important consideration of the development of this plan. There are a few key components to consider, including current pedestrian connections, a more pedestrian friendly connection across 18th street, and a connection north/south along the rail spur.

To best integrate into the neighborhood, it is important to maintain current pedestrian connections. There is a major connection from Rosemont Ave. in the residential neighborhood to the east. This connection runs along the north side of the existing museum and is maintained in the current master plan.

As the plan expands to the Bellamah site, the consideration for a more pedestrian friendly crossing at 18th street becomes more vital. Starting with the expansion of parking in the first phase, there will be increased pedestrian activity.

The development of the rail spur will create an intermediate access in a large City block. This will provide an option for a shorter path throughout the area to promote a walkable neighborhood.

#### **Vehicular Control**

Currently there are issues with traffic moving too fast on 18th and some vehicles cut through the parking to travel northbound on 18th street. The proposed master plan suggests that speed tables are to be provided to slow traffic and includes a median and narrowing of the drive lanes. The intension of narrowing the drive lines is to slow traffic, minimize pedestrian crossing time in drive lanes, and create an environment that makes pedestrians the priority in this area. The slowing of traffic in this area could deter cut through.

#### **Parking Phases**

Phase 1 parking modifications include the designation of 21 existing surface parking spaces on the Bellamah site. This additional surface parking accommodates the increased requirements resulting from the new Teen STEAM WDC at the Explora site. More spaces can be appropriated on the Bellamah site to provide additional parking for Explora.

Phase 2 parking modifications increase the Bellamah surface parking capacity to 50 spaces to accommodate the development of the Early Learning Center. More spaces can be appropriated on the Bellamah site to provide additional parking for Explora.

Phase 3 parking modifications increase the Bellamah surface parking capacity to 120 spaces to accommodate the development of Museum Plaza on the Explora site. Phase 3 also shows the option to build a multi-story parking structure that would accommodate 300+ spaces. This parking structure would replace the surface lot developed in Phase 2.

### Security and Safety

Conceptual physical perimeter barriers and access.

Crime Prevention Through Environmental Design (CPTED)

#### **Natural surveillance**

- Design streets to increase pedestrian/ bicycle traffic.
- Use passing vehicular traffic as a surveillance asset.
- Create landscape designs that provide surveillance, especially in proximity to designated points of entry and opportunistic points of entry.
- Use the shortest, least sight-limiting fence appropriate for the situation.
- Utilizing curved streets with multiple viewpoints to multiple entrances as well as making the escape route difficult to follow.

#### **Natural access control**

- Use a single, clearly identifiable, point of entry.
- Use shoulder-level, open-type fencing along lateral property lines. They should be sufficiently unencumbered with landscaping to promote social interaction between neighbors.

#### **Natural territorial reinforcement**

- Provide trees in areas. Research results indicate that, contrary to traditional views within the law enforcement community, outdoor spaces with more trees are seen as significantly more attractive, more safe, and more likely to be used than similar spaces without trees.
- Avoid chain link fencing and razor-wire fence topping, as it communicates the absence of a physical presence and a reduced risk of being detected.

- Placing amenities such as seating or refreshments in common areas in a commercial or institutional setting helps to attract larger numbers of desired users.

### Infrastructure

After a preliminary review by the architect, it is determined that it will be necessary to obtain an updated survey for future work, including water, sewer, power, and cable/fiber at both the museum site and the Bellamah site.

### Museum Site

Currently site utilities are located at the SE corner of the property. The STEAM Workforce Development Center building will have access to existing utilities. All storm

drainage slopes to SW corner of the property. Currently storm drainage is stored in the proposed site for the new building. The sighting of the building will be important to consider how storm water will be managed. Retainage will need to be redesigned, and there could be possible use of underground water storage.

### Bellamah site

The site survey indicates utility easements on both the west and the east side of the property site. It is assumed that there are accessible utilities within these easements. Electrical and sewer should be available to the west. It is assumed that other utilities are located within the utility easements on either side of the property.

## Additional Design Considerations

It will be important to create articulation of campus identity and design guidelines for future improvements to visually and physically define the extent of the campus. Signage and a consistent design language for the campus as a whole will help to define wayfinding and the identity of a cohesive campus. Existing campus architecture should be taken into consideration with respect to scale and massing, historical precedent, materials and symbolism.

The Explora team has some specific concepts that should be considered when developing the identity of the campus:

- “The Flood” is a concept that designs should utilize. Everything as a teaching opportunity. Learning should be incorporated into all aspects of the environment. For example, colored signs should have the opportunity to identify the color through words as well as through the color itself.
- Learning through culture and symbolism. Recognizable cultural symbolism should be thoughtfully incorporated into campus design. This creates a more relatable and comfortable environment for the patrons. The local environment could be incorporated into open spaces, and design should celebrate families.
- Community contribution from schools and other facilities could be incorporated to achieve design goals. “One Albuquerque” movement could be utilized to bring in different groups, as well as coordinating with surrounding neighbors and stakeholders to expand the “Museum” district.
- There should be a connection to beyond New Mexico.
- Sustainability is key value for Explora. It is important to incorporate green space and sustainable design throughout the campus, and utilize it as a learning opportunity. Some options include community gardens, wetlands/biomes, green energy exhibits, water harvesting and sustainable power options.

## Future Coordination Options

- Coordinate with NM Museum of Natural History and Science to extend parking into dirt lot north-east of existing Explora parking.
- Coordinate with City of Albuquerque (COA) to provide traffic calming measures on 18th street between Museum of Natural History and Explora property.
- Coordinate with surrounding developers (Heritage Hotels), the NM Museum of Natural History, and COA to develop a communal use parking garage and pedestrian connections in current NM Museum of Natural History parking lot.
- Coordinate with the Sawmill Community Land Trust (SCLT) to develop connections to the property north of the Bellamah site.
- Coordinate with Heritage Hotels, SCLT, and COA to coordinate final train stop at Bellamah site.





# APPENDIX A

## Site Plan Land Use Review - notes from participants

### LAND SWAP

- Yes! (in regards to green space along rail spur illustrated)
- Bicycle/Footpaths – very good for creating flow between museums and shopping district
- Expansion for Explora is limited in this plan
- One parking lot entry so people don't drive through
- Greenspace!! Love the idea of encapsulating the museums w/ green perimeter. Feels inviting, speaks to nature science, better open space for events outside.
- Like early childhood next to Explora - less walking for little ones.
- What happens to our loading dock area? Safety with little kid drop-off?
- Like green space right outside classrooms
- Encourage the use of bikes by having a bike parking lot
- Early childhood drop-off zone is key
- If we do this, we should really just aim for the whole museum campus
- Really like the idea of landscape spaces, amphitheater, etc.

### STICK TO WHAT WE HAVE

- What to do w/ this parking area?
- Another green walkway through buildings?
- Like whole area for Early Childhood campus and connection to rail spur
- Like the green space rail spur
- Coffee Shop and Self Sustainable offices
- Like the connection to the current building (4 'ditto' marks)
- Roundabout zone 6 with future?? Wasted space in center
- Safety – getting people from building to building

- Big enough building fit here? (2 'ditto' marks)
- If it is possible to connect the museums by a covered bridge?
- Enough parking? (ditto mark)
- What happens to our loading dock area?
- Would one parking entrance work?
- 3 makes good use of 'dead' space.
- Green walkways to/from zones 11/10
- Lot B2B west Parking? Benefit both? currently not utilized
- Like seeing photovoltaic
- Covered parking gives us control and protection
- More green space please

### UNITED CAMPUS

- Like mega hub of learning. Is it even possible?
- This plan seems to have ideal parking.
- Plan eliminates traffic cut-through issues – diverts
- This opens up options for more outdoor features (auditorium retail carts)
- Continue [northern most road surrounding proposed development] to ACE?
- What city/state partners would we need? Major champion needed.
- Like #8 new landscape program
- This plan offers great opportunity for green energy exhibits
- Like pedestrian path through campus
- Like closing off 18th/unify campus areas - eliminate some traffic bottlenecks and safety issues.
- More people hanging out on campus? Could be safety concern. (this note is placed near an example of a covered connection tunnel/bridge.)



# APPENDIX B

## Visioning Charrette Team Development Detail

### Team 1

Team 1 explored using the Bellamah site to contain the majority of new construction. This option includes outdoor details such as:

- Outdoor Amphitheater
- Community Garden
- Windmills
- Special play yard for the Early Learning Center
- Possible interactive component: Ropes course connecting the two new buildings
- A bridge or covered crossover solution for the connections over 18th street
- Turning the existing parking lot on the Explora site into a green space

Their concept outlined two new buildings. The Early Learning Center (ELC) is shown in the southwest corner of the site, backing up to the Spurline and NM Natural History Museums' parking lot. Adjacent to the ELC, in the northeast corner, is a building with mixed use. The STEAM Teen Workforce Center is shown on the second story with parking and some limited commercial space underneath. Access to the STEAM Center and commercial spaces is granted

from 18th street, keeping public access/use near the street. The courtyard created between these buildings offers a location for an outdoor amphitheater, community garden, ropes course, and secured ELC play yard. Vehicular circulation is illustrated with a driveway for ELC pick up/drop off along the southern portion of the site with access from 18th street. Additional outbuildings for storage and a Resource Center buffer the driveway from Natural History's parking lot.

Modifications to the Explora site are limited. A large parking structure is located in the northeast corner with the existing parking lot being replaced with green space. An above ground bridge or covered tube bridge system would connect the two sites across 18th Street.



Team Concept

## Team 2

Team 2 explored using both Explora and Bellamah sites for portions of new construction, using a four-prong roundabout on 18th street to connect the campus. Outdoor details of this concept include:

- Addition of covered surface parking on Bellamah site for use by ELC
- Outdoor amphitheater and green space on Bellamah site
- Windmills
- Expanding the Explora loading dock
- Creating a parking extension to the north and northeast of the Explora site, behind the Natural History Resource Center
- Adding additional green space around the south end of the Bellamah site to connect with the Spurline to the west.
- Four-prong roundabout with textured (brick) road



Team 2 Concept

Team 2's concept develops the landscaped space on the west side of the Explora site with a new 2-story building. The second floor would house the STEAM Workforce Development Center and have an elevated connection to the main Explora building. The ground floor would be for public use, with spaces like a café and exhibition hall. These commercial spaces face 18th street and will provide additional amenities to patrons and staff of Explora and the NM Natural History Museum. On the east of the Explora site, attention is paid to expanding the loading dock area providing materials storage and some additional visitor parking.

The connection point between the two sites is proposed as a four-prong roundabout. The sundial that is currently located on the Explora site could be moved to the center of the roundabout creating an anchor with public art. The portion of 18th street that runs from the north edge of the Bellamah site to the STEAM Workforce Development

Center is illustrated as brick or other textured surface to slow traffic and create visual unity between the sites.

At the Bellamah site, Team 2 places the majority of new construction on the east, creating a street facing public entry for the ELC along 18th street. A pick-up/drop-off loop is proposed in front of the ELC building with covered surface parking directly to the south. An additional building to the west of the ELC is proposed as a health clinic or other wrap-around family service. The remaining space to the west of the construction, approximately half of the site, is designated as green space that would support outdoor education, community garden, amphitheater, etc. An additional buffer of green space is proposed along the southern property line that touches the Natural History Museum's parking lot. Team 2 envisions this as a walking path that takes pedestrians from the roundabout all the way to the Spurline at the west edge of the property. There would be entry points along the path for easy access to the ELC and outdoor learning areas.

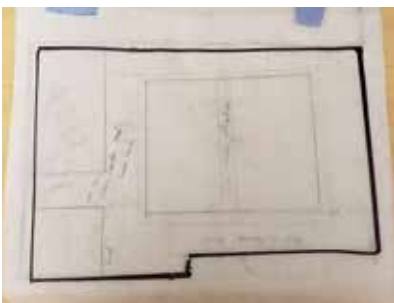
### Team 3

Team 3 focused the majority of the new development to the Bellamah site. This option included outdoor design elements such as:

- Glass connection bridge
- Green roof
- Water feature at the retention space on the Explora site
- Bike path along Spurline at west of Bellamah site
- Secured courtyard for ELC
- Greenspace as a connector across 18th, along the southern border of the Bellamah site, and around the west into the Spurline.



Team 3 Concept



Team 3's concept centered on one large 2-3 story building located on the Bellamah site. This single development would house the educational components currently identified by Explora (ELC and the STEAM Workforce Development Center), conference rooms and collaboration areas, as well as commercial spaces. These common areas were designed with the intention of providing space for visiting scientists and researchers. This building concept is designed with an open air center core on each floor, with the first floor being a secured courtyard.

Team 3 envisioned the ground floor being primarily designated for the ELC, their offices, a small performance space, and a secured center courtyard.

The second floor would have additional office space, conference rooms, and an upstairs patio space on the southwest corner. The second floor would have an open mezzanine to view the courtyard below.

The top level of this development would consist of an open air rooftop garden. This area would support hands-on classroom activities and outdoor learning. It could potentially have a greenhouse and a glass bridge that passes over the mezzanine and ground floor courtyard.

Team 3's design for the Explora site included slight modifications to the front side of the Explora building along Mountain Road. Placement of a café facing Mountain Rd (and the adjacent Tiguex Park) would connect to the Explora gift shop. By the end of the charrette, Team 3 decided they'd move the café to the Bellamah site, or along 18th, for better access and visibility. This team also explored the option of adding a parking garage below grade on the Bellamah site.



# Exhibit A

## ZONING

### EXPLORA SITE: MX-T Allowable Uses

- RESIDENTIAL USES**  
 Dwelling, live-work  
 Dwelling, multi-family
- CIVIC AND INSTITUTIONAL USES**  
 Child day care facility  
 Elementary or middle school  
 Vocational school
- COMMERCIAL USES**  
 Agriculture and Animal-related  
 Community garden  
 Kennel  
 Nursery  
 Veterinary hospital
- Food, Beverage, and Indoor Entertainment  
 Auditorium or theater
- Motor Vehicle-related  
 Parking structure
- Offices and Services  
 Medical or dental clinic  
 Office
- Retail Sales  
 Farmers' market
- Telecommunications, Towers, and Utilities  
 Geothermal energy generation  
 Solar energy generation  
 Wind energy generation

### BELLAMAH SITE: NR-LM Allowable Uses

- RESIDENTIAL USES**  
 • Dwelling, live-work
- CIVIC AND INSTITUTIONAL USES**  
 • Child day care facility  
 • Community center or library  
 • Elementary or middle school  
 • Museum or art gallery  
 • Parks and open space  
 • Sports field  
 • Vocational school
- COMMERCIAL USES**  
 Agriculture and Animal-related  
 • Agriculture, general  
 • Community garden  
 • Kennel  
 • Nursery  
 • Veterinary hospital
- Food, Beverage, and Indoor Entertainment  
 • Auditorium or theater  
 • Restaurant
- Motor Vehicle-related  
 • Light vehicle repair  
 • Parking structure
- Offices and Services  
 • Blood services facility  
 • Medical or dental clinic  
 • Office  
 • Personal and business services, small  
 • Personal and business services, large  
 • Research or testing facility
- Outdoor Recreation and Entertainment  
 • Amphitheater
- Retail Sales  
 • Farmers' market  
 • General retail, small
- INDUSTRIAL USES**  
Manufacturing, Fabrication, and Assembly  
 • Artisan manufacturing  
 • Light manufacturing
- Telecommunications, Towers, and Utilities  
 • Geothermal energy generation  
 • Solar energy generation  
 • Wind energy generation
- Waste and Recycling  
 • Recycling drop-off bin facility



### IDO Zoning Districts









## EXPLORA CHARRETTE / PREVIOUS STUDIES

### EXPLORA STEM CAMPUS - KEY COMPONENTS

October 22, 2018

#### - STEM Teen Center

#### - HUB/Resource Center

- Multi-functional Spaces
- Lease space/rental
- Medical Clinic
- Auditorium/Presentation/Flexible/Modular
- Adaptable/Universal
- Connection Hub
- Jobs/Professionals
- Resource center
- Social worker

#### - Café

#### - Landscape Program

- Community Gardens
- Market – Farmers
- Wetlands

#### - Parking

- Expand parking – more opportunity
- Parking structure multi-level – green roof

#### - Outdoor Discovery (all ages)

- Ninja course/adventure forest
- Ropes course
- Interactive with
  - Technology
  - Natural Environment (active/focused)
- Bike Course
- Greenspace within the campus – unifying

#### - Pedestrian Pathways

- Science Theme
- Importance of managing foot traffic

- Expansion opportunities for existing Explora [function related]
- Multi-Family Housing



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- Future Design Considerations
  - o The Flood - Utilize everything as a teaching opportunity
  - o Cultural Aspect-
    - Learn thru symbolism?
    - Community contribution
    - “Messaging”
    - ABQ “All is One”
    - Connection to beyond NM
    - Celebrates Families
  - o Restroom easily Accessible
  - o Accessible to users-specific
    - Fully emergent
  - o Floating/Visiting Exhibits
  - o Technology

### **Security/Safety**

Crime Prevention Through Environmental Design (CPTED)

#### Natural surveillance

- Design streets to increase pedestrian and bicycle traffic
- Use passing vehicular traffic as a surveillance asset.
- Create landscape designs that provide surveillance, especially in proximity to designated points of entry and opportunistic points of entry.
- Use the shortest, least sight-limiting fence appropriate for the situation.
- Utilizing curved streets with multiple viewpoints to multiple entrances as well as making the escape route difficult to follow.

#### Natural access control

- Use a single, clearly identifiable, point of entry
- Use shoulder-level, open-type fencing along lateral property lines. They should be sufficiently unencumbered with landscaping to promote social interaction between neighbors.

#### Natural territorial reinforcement

- Provide trees in areas. Research results indicate that, contrary to traditional views within the law enforcement community, outdoor spaces with more trees are seen as significantly more attractive, more safe, and more likely to be used than similar spaces without trees.
- Avoid chain link fencing and razor-wire fence topping, as it communicates the absence of a physical presence and a reduced risk of being detected.
- Placing amenities such as seating or refreshments in common areas in a commercial or institutional setting helps to attract larger numbers of desired users.

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### **Community Concerns**

- Neighborhood Educational Opportunities
  - o new EEC
  - o new Teen STEM Workforce Center
  - o new HUB resource Center
  - o possible lease space for STEM professionals – health clinic, tech labs
- Collaboration
  - o “hub” as resource center for community
- Opportunities for healthy things to do
  - o public access to activities on campus – ropes course/skate park on museum plaza, by Teen Center
- Well-functioning, authentic and organic neighborhoods
  - o connection to surrounding areas – maintain current pedestrian paths.
  - o provide new connection with spur line to arts and soon to be retail.

### **Explora Core Values**

- Learning
  - o STEM kiosks
  - o Learning through environment – ropes course and skate park, landscape program areas
  - o various exhibits
- Community
  - o physical connection to communities
  - o community areas within the campus - ropes course and skate park, landscape program area could be community garden
- Generosity - ?
- Sustainability
  - o wind – locate opportunity for wind harvesting
  - o PVs – cover parking
  - o water harvesting off building roofs
  - o green energy exhibits – utilize kiosks

