

ADDENDUM NO. 1

**CITY OF BELEN
GREAT BLOCKS GRANT ON MAINSTREET DESIGN 2017
RFP NO. 2017-06**

TO: All Offerors

RE: Great Blocks Grant on MainStreet Design 2017

Attached are copies of the City of Belen Downtown Master Plan/Metropolitan Redevelopment Plan and the 2016 DPAC Study, Envisioning the Future of Belen.

3-1-2013

Envisioning the Future of Belen

Mark Childs

Jose Zelaya

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Envisioning the Future of Belen

University of New Mexico
School of Architecture & Planning
Design Planning Assistance Center
Fall 2004

Photograph by Nell Farrell





Envisioning the Future of Belen

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Ms. Corine Trujillo and the students of her CAD class at the Belen High School

Members of the Heart of Belen Community Team

Belen City Councilors

The many community members who shared their ideas with us.



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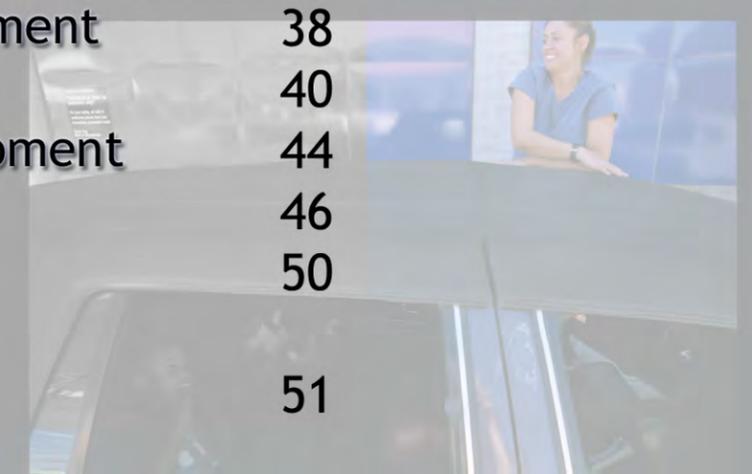
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Photograph by Nell Farrell



INTRODUCTION

The Design Planning Assistance Center (DPAC) is a community service center of the School of Architecture and Planning at the University of New Mexico. DPAC works with community groups and non-profit organizations throughout New Mexico on architectural, planning, and landscape projects. DPAC was established in 1969 and is staffed by graduate students in the Architecture, Landscape Architecture, and Community and Regional Planning programs.

During the fall semester of 2004, a group of graduate Architecture and Community and Regional Planning students worked with the community of Belen to envision the design possibilities for the commuter rail stop and the surrounding neighborhoods. The design options included in this report are separated into the following three districts: the Rail District, the Downtown District, and the Acequia District.

These districts capture the project's goals to:

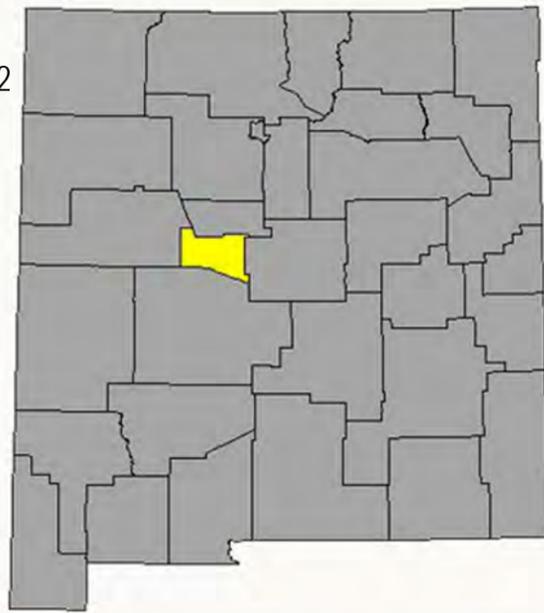
- Propose new housing opportunities
- Present several means of crossing the railroad tracks
- Illustrate approaches to revitalize the downtown area through infill development and adaptive reuse
- Provide a connection between the commuter rail and the downtown area via a multi-use acequia pathway

The proposed commuter rail platform is located on the east side of the railroad tracks, north of Reinken Avenue. The location of the platform immediately raises the concern of pedestrian access to and from the commuter rail station. Due to this safety issue, several designs address the needs of pedestrians, cyclists, and motorists.

According to the Mid-Region Council of Government (MRCOG), 30% of the land in Belen is vacant. This is an exciting opportunity for infill development that meets the interests and needs of the community. There are several designs that speak to these empty spaces found within the area surrounding the station.

This report is targeted to all members of the community including youths, residents, city officials, local business owners, and nonprofit organizations. The purpose of this report is not to offer final design solutions, but to generate discussion within the community. It has been designed to show possible outcomes for Belen. Therefore, community members should utilize this report to discuss what the city should look like in the future.

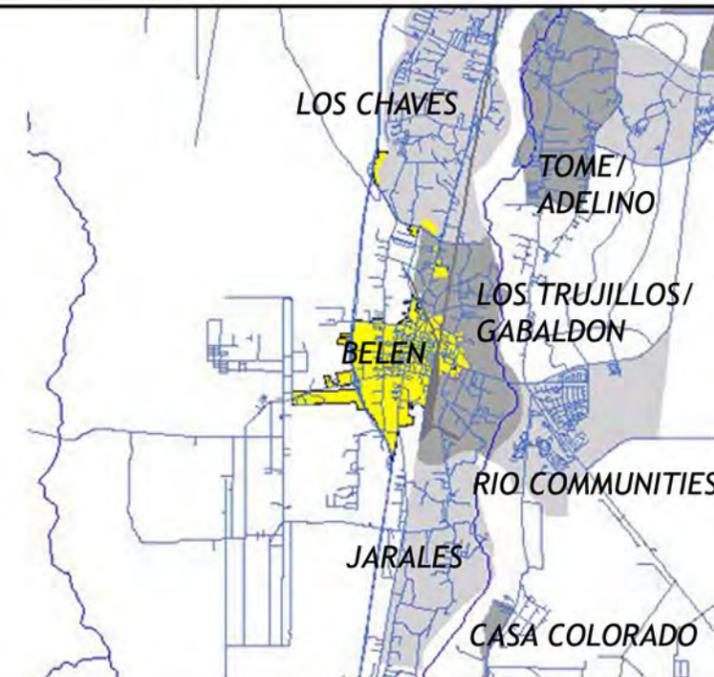




NEW MEXICO_VALENCIA COUNTY

Valencia County is the smallest county in New Mexico. The history of this region dates back to 1540 when Francisco Vasquez de Coronado led the first exploration into the region. In 1740, Captain Diego Di Torres and 32 other families settled the town of Belen via a land grant. However, the region became a part of Mexico in 1821 after Mexican residents rebelled against Spain. After the Mexican-American War of 1846, New Mexico became a US territory. In 1852, Valencia County was established, spanning the area between Texas and Arizona. By 1880, the railroad tracks ran north and south through New Mexico, including Belen and Los Lunas. In 1912, New Mexico became the 48th state in the union.

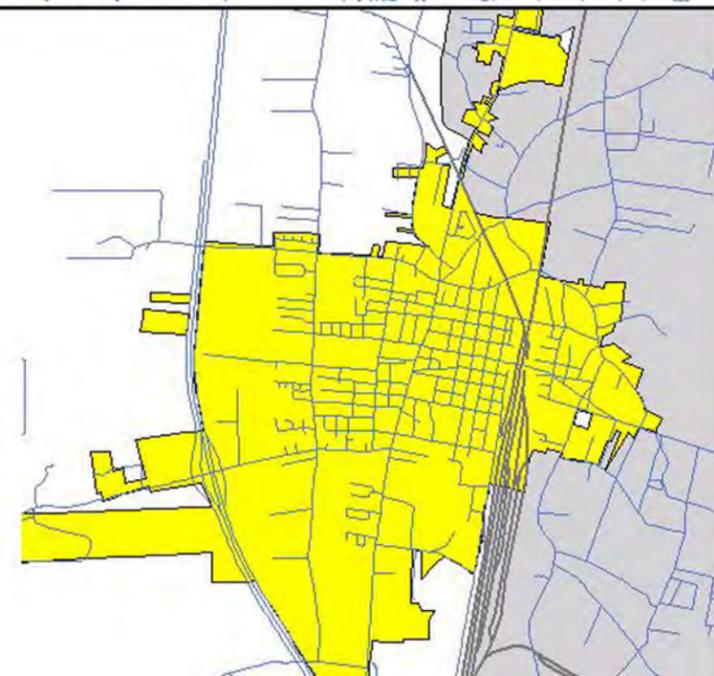
Agriculture was the main economy of the area before the arrival of the railroad. Acequias, which drew valuable water for irrigating crops, continue to be a symbol of life today. The railroad spur of 1907 connected Amarillo, Texas and the West. This strategic location provided modern resources to this small desert community. With the rise of automobiles, interstate highways were developed through many parts of the county. Today many residents of Valencia County commute to employment in Albuquerque.



BELEN_RIO COMMUNITIES_LOS CHAVES_JARALES_TOME/ADELINO_EL CERRO/MONTEREY PARK_CASA COLORADO

The surrounding, unincorporated areas utilize Belen as a cultural and social hub. Many services are provided in Belen that are not available in these other sparse communities. When considering the effects of changes to Belen, we must also take into account the larger context of this area. During a Belen High School Charrette, we realized the amount of students coming in from different surrounding areas, proving that Belen serves as the nexus to unite the southern county. These surrounding areas also provide great sources of pride, from the Tome Hill Pilgrimage to the Pueblo Casa Colorado.

Many historical markers provide a connection between these communities. Services that are located in many of these communities benefit the whole region. For example, the University of New Mexico-Valencia Campus Branch College is located on the east mesa overlooking the Rio Grande Valley in Tome. Programs, such as Suparte, help low-income residents obtain training that will help them support themselves. Currently, over 1,700 local residents utilize this valuable resource. Examples such as UNM-Valencia Campus demonstrate how these communities prosper from one another. In examining the new commuter rail system and its connection to the community, we strive to maintain the important link and camaraderie that exists between these communities.



BELEN

Founded in 1740, Belen has matured to a city of 6,901 residents (2000 Census). Belen is called the Hub City based on its central location and importance as a railroad center. Belen has grown significantly in population over the years, which has had an impact on the built environment. Early development was positioned close to the Rio Grande River and railroad. With the rise of the automobile, development has spread towards Interstate 25, displacing Becker Avenue with Main Street as the major retail corridor. While Belen remains small in area, the automobile has become essential in navigating the city.

Belen is host to a number of festivals that bring the community together. Rio Abajo Days in October celebrate life in New Mexico. The Valencia County Fair commemorates the end of the growing season and features everything from livestock to jars of jelly. The All-American Independence Day and Music Fest enlivens Main Street Belen on July 3. The new Belen Grower's Market at Anna Becker Park provides local produce, bread and honey to the community every Friday between July and October. The Harvey House off First Street houses a wonderful museum of Belen's railroad history. Clearly, Belen provides its residents with many opportunities to socialize and enjoy the many local products available. The current administration envisions a return to Becker Avenue as the city moves to renovate the corridor.

DESIGN PROCESS

According to Kevin Lynch, successful urban spaces are those that consist of paths, edges, districts, nodes, and landmarks. "Every city can be broken down into these five parts and its spatial structure analyzed and used as a basis for design."*

Design is an interactive process between community members and architects and urban designers. This interaction is critical to ensure that future designs are in alignment with the vision of the community.

During the semester, we conducted several meetings with community members including a high school charrette and two open houses. These public meetings provided us with invaluable insights.

The high school charrette informed us of the following ideas:

- Development of the area should align with the historical significance of Belen as a railroad town
- Youths need more activities and places to hangout, including shops, theatres, and restaurants
- The character of Belen should maintain the small town feel

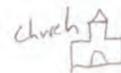
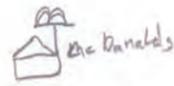
The community open houses provided us with feedback on preliminary design ideas. From community members, we heard the following:

- Walking should not be the only means of crossing the railroad tracks; other alternatives, such as a shuttle service and bicycle access, should be included
- Locating housing too close to the railroad tracks would be too noisy for those residents
- Do not relocate Pete's
- Becker Avenue needs more commercial activities, such as restaurants
- Some services are needed at the commuter rail station, yet too much commercial activity near the station may draw people away from Becker Avenue
- Art should be incorporated into festivals
- Provide an assisted living facility
- Address safety along the Acequia

Interaction with the community was critical and informed our design process. We tried our best to incorporate what we heard from the community into the designs captured in this book.

*Source: [Finding Lost Space: Theories of Urban Design](#)





COGNITIVE MAPPING

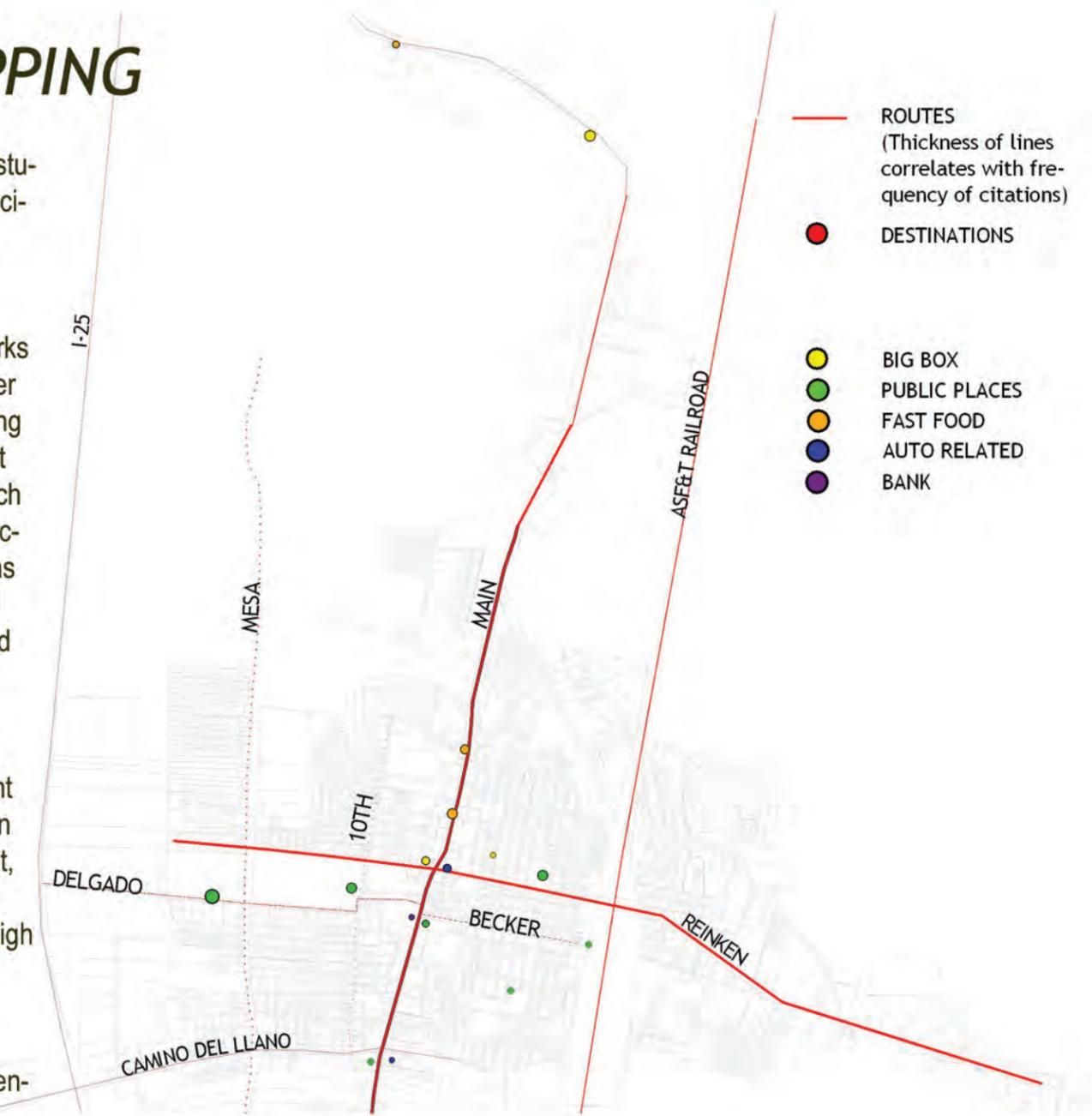
On October 1, 2004, several high school students from Ms. Trujillo's CAD course participated with us in a cognitive mapping exercise.

Cognitive mapping originated with the works of Kevin Lynch, a pioneering urban planner of the mid-20th century. Cognitive mapping teases out perceptions of the environment by asking individuals to draw a map. Lynch "was mainly interested in how people structure their image of their environment, so as to design city layouts which would accord with the ways we perceive and understand our environments."

At the high school, we asked students to draw maps of Belen. The map on the right highlights the most popular features drawn by these seventeen students. Main Street, Reinken Avenue, and the railroad tracks were the most cited routes, while Belen High School and Wal-Mart were the most cited places.

Students also used various symbols to identify structures in Belen. For instance, several students drew the golden arches for McDonald's and the logo for Circle K. Traditional symbols, such as the cross, identified various churches found in Belen. Other sacred sites were depicted with a train next to the Harvey House and a box with a pitched roof representing the student's home.

The individual maps also show whether the student lives within the City of Belen. The map on the left is drawn by a student who lives outside of Belen. The level of detail shown in the map on the right shows her familiarity with the City.



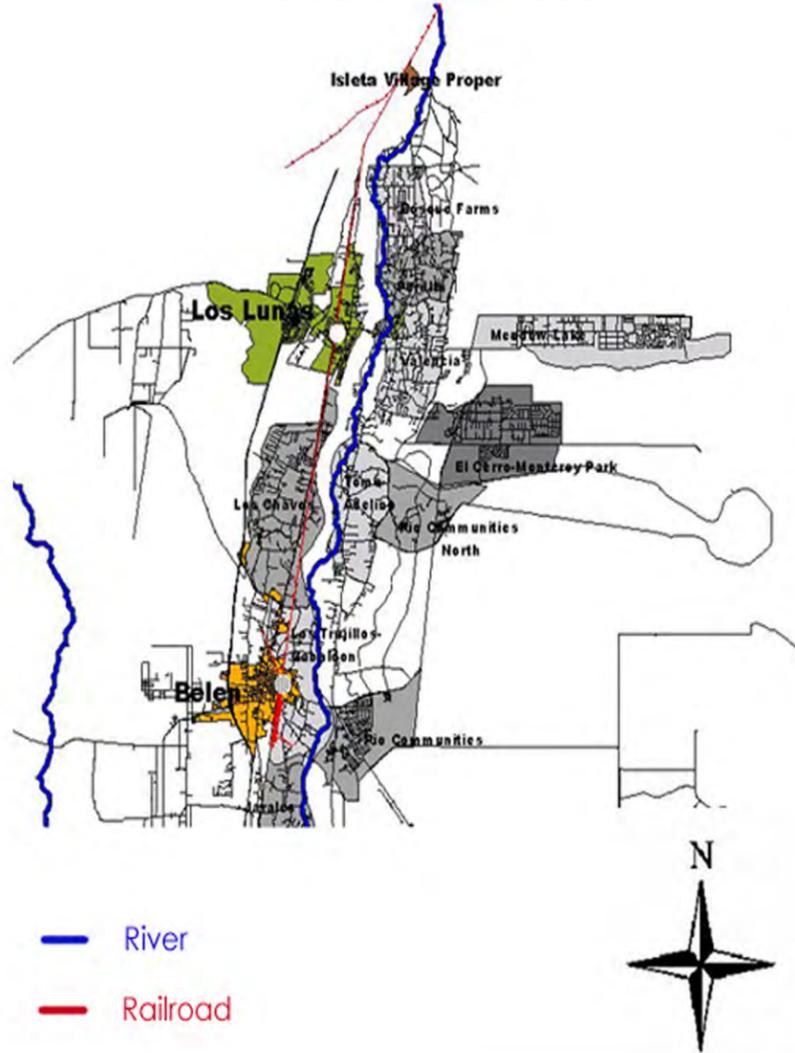
VALENCIA COUNTY COMMUTER RAIL CORRIDOR PUBLIC ART MASTER PLAN

Public Art Working Zones

Zone 1- Belen

Zone 2- Los Lunas

Zone 3- Isleta



Public art is an often forgotten yet important element of community design. Therefore, the Public Art Master Plan has been developed for the Valencia County commuter rail corridor. While a multifunctional system will transport individuals from one site to another, public art can facilitate our understanding of these sites as unique places that are parts of a larger regional system.

The Public Art Master Plan addresses the quarter mile area surrounding the planned commuter rail stations at Belen, Los Lunas, and Isleta. While a plan for all of Valencia County can be developed in the future, that is currently outside the scope of this project. However, it has been written with the intention that public art will go beyond the quarter mile area into the rest of the county. Further details can be found in a separate document titled, Valencia County Commuter Rail Corridor Public Art Master Plan.

The commuter rail line and the accompanying stations will bring changes to these towns. Public art can be used as a way to help these communities make sense of these changes and give them an opportunity to be active agents in deciding how their communities will grow and evolve. Each of the identified sites in the map below corresponds to public art projects found throughout this book. These identified sites are appropriate places to concentrate public art, as they will support revitalization efforts in Belen.



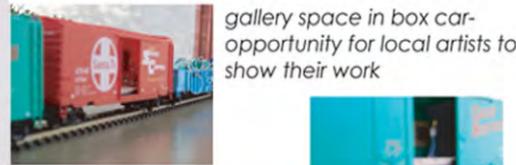
PUBLIC ART PROPOSALS

the art train is a public art proposal for the Commuter Rail Project that will run from Belen to Bernalillo, and eventually to Santa Fe. The Art Train would travel from station to station, spending approximately a month at a pullout adjacent to the stations. One of the boxcars is a gallery space where local artists can show their work. It would give local artists the opportunity to gain exposure in other communities while also connecting the regional art community.

The other boxcar would be a gift shop that sells postcards, posters, prints, etc. The revenue from the gift shop will support the costs of the project. The final boxcar would house the Art Bike Program (see description to the right). The assortment of flat cars, tank cars, and freight cars would serve as a canvas for large-scale pieces of art. For example, the art could be applied to the cars, and/or the cars could be filled with art. These large-scale pieces will allow the art to be viewed while the train is traveling. They will also serve as advertisement for the train, as they will be visible from a distance, and hopefully be intriguing visual elements.



the art train



gallery space in box car-
opportunity for local artists to
show their work



funding and promotion of tourism-
gift shop and restrooms in box car



freight car--tank car--flat car

these cars are art in themselves, they
provide a unique opportunity for
community based art projects

the art bike program

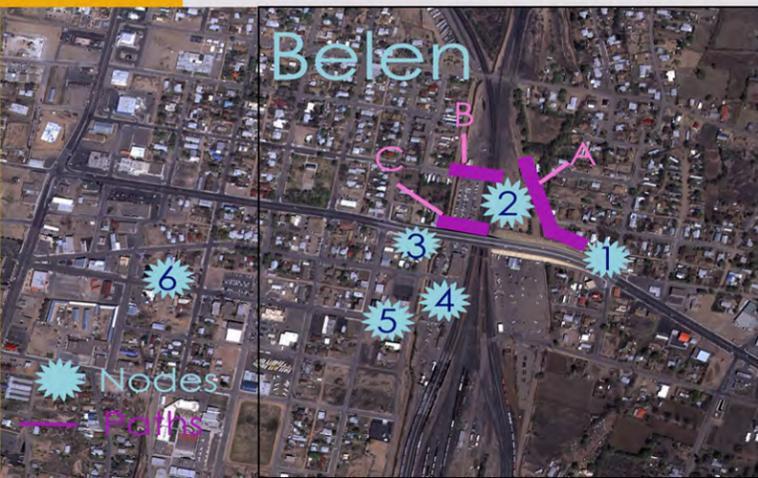
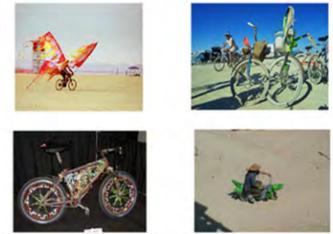
is another public art proposal for the Commuter Rail Project. The Art Bike Program is a summer program for local youth in which donated old and/or broken bikes are fixed and transformed into creative pieces of self-expression by community youth. Then, the respective towns and cities could either buy the bikes in order to start a "free bike" or "bike share" program, or the bikes could be sold to local community members at art bike auctions.

One consideration for the program is understanding where to store the bikes. One option is to house them in one of the boxcars on the Art Train. The train could carry the bikes from station to station, and after the train is docked, the activity of repairing and transforming the bikes could spill outside of the train, adding an element of life and activity to the station. The other option would be to house the program in stationary buildings inside the towns. Housing the Art Bike Program in one of the boxcars is ideal because it would support the Art Train and the commuter rail by attracting more visitors.

art bike program



art bike precedents

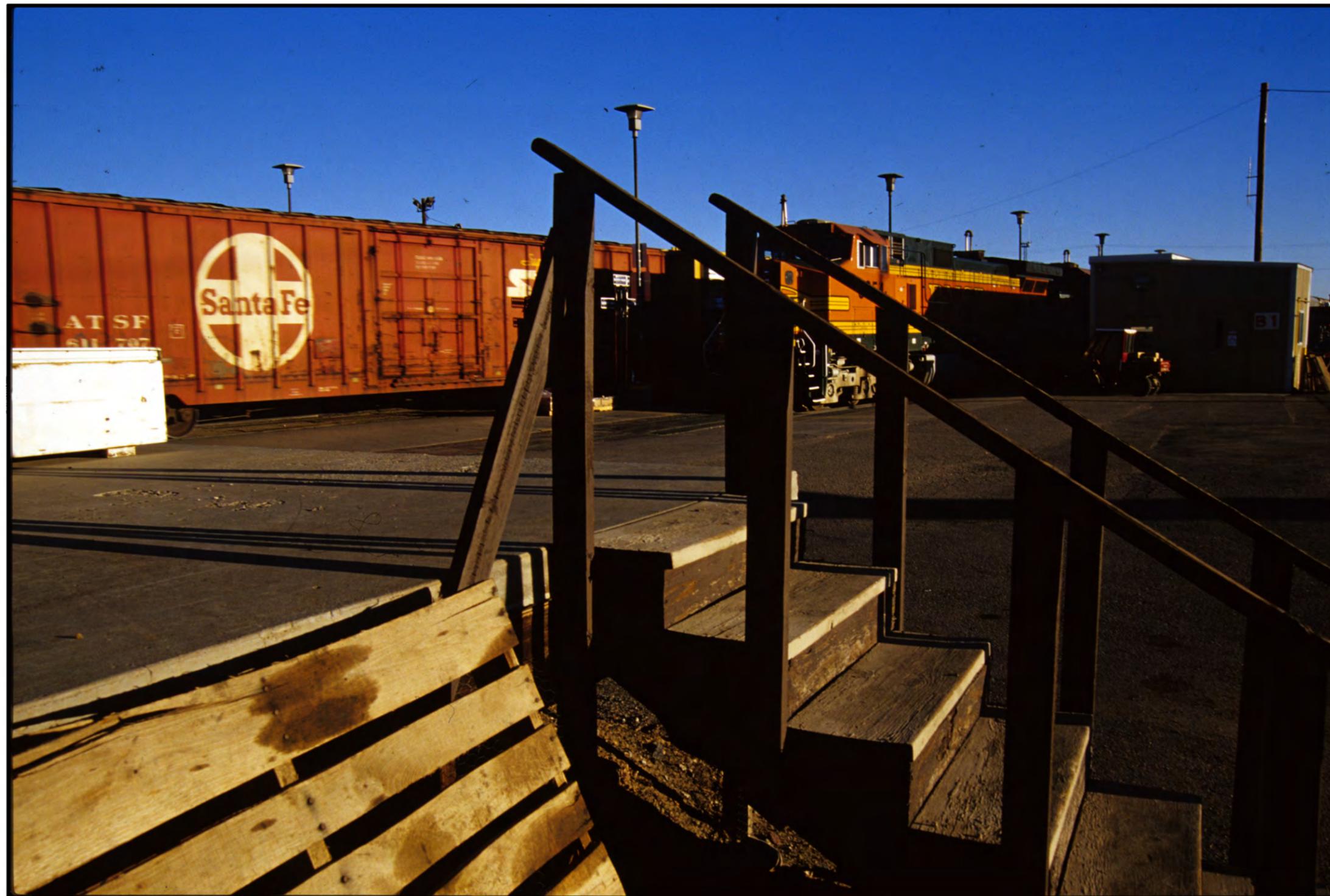


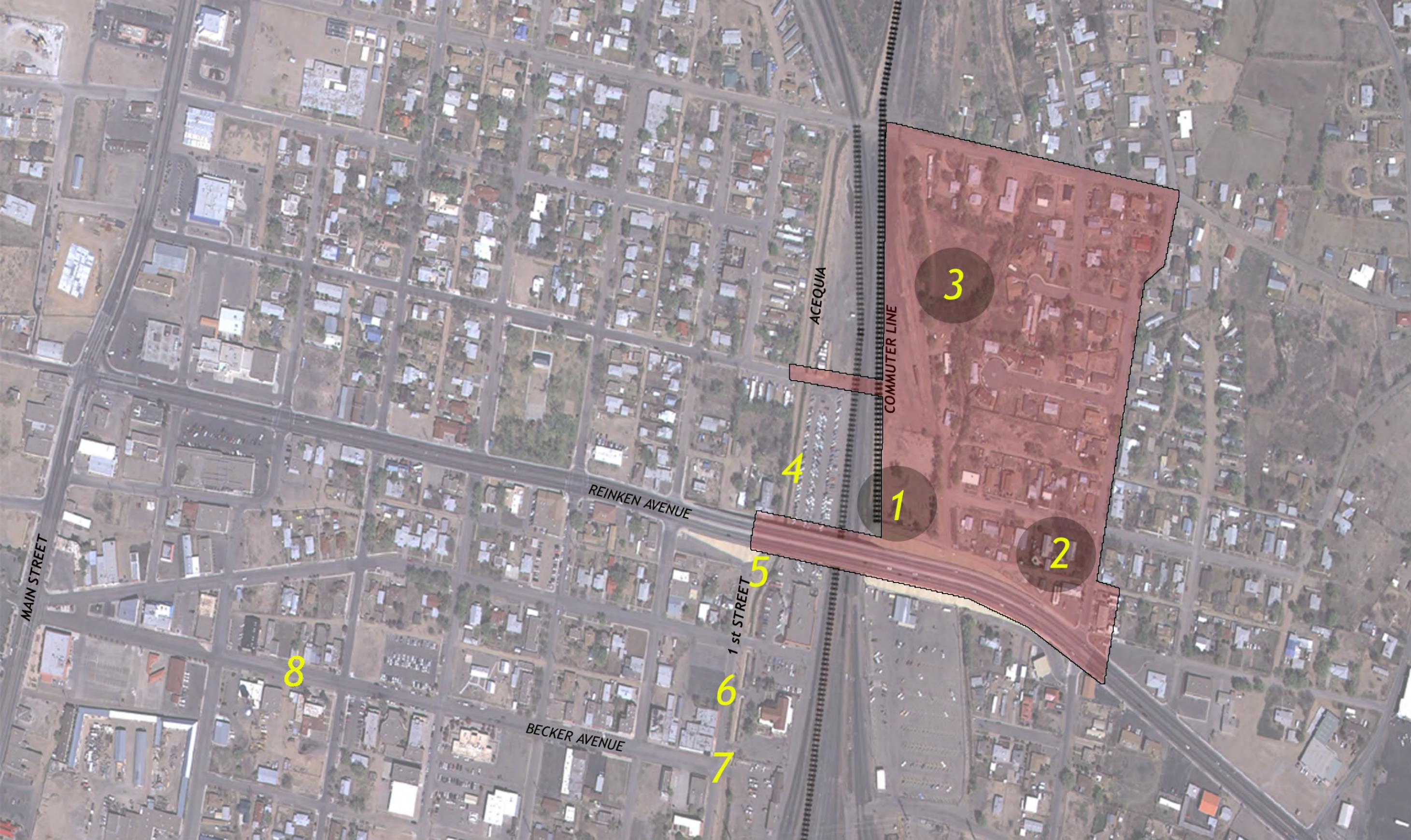
ENVISIONING THE FUTURE OF BELEN_MASTER PLAN



1-3 RAIL DISTRICT
4-5 ACEQUIA DISTRICT
6-9 DOWNTOWN DISTRICT

Photograph by Nell Farrell





1 PLATFORM INCLUDING STATION IDEAS - PARKING INFRASTRUCTURE - PEDESTRIAN/BICYCLE BRIDGE ACROSS TRACKS
2 ACCESSING THE COMMUTER RAIL STATION
3 SUSTAINABLE HOUSING RESPONDING TO TOD POTENTIAL

These 16 photographs represent the existing conditions in the immediate area of the rail district. As a group we have identified four areas of design interest in the rail district area.

Pictures 1-4 show the conditions associated with the platform /station /bridge proposal. In these pictures the qualities of nature and built form merge together to create a very dynamic condition. The bareness of the site reflects the grit of the railroad hub.

Pictures 5-8 identify examples of housing in the rail district as well as the proposed site for sustainable housing. There are two predominant housing types in this area: mobile homes and single family housing.

Pictures 9-12 display the entrance to the future commuter rail stop. The current strategy is to route motorists through the alley between Reinken Avenue and De Soto Avenue. The photographs reflect the need for planning intervention to remedy this entrance.

Pictures 13-16

show the life along De Soto Avenue as it waits for the commuter rail. The impact on this community by heavy traffic must be addressed.



1 commuter rail site



2 site looking south to bridge



3 bridge from northwest



4 old hotel and bridge



5 rail district housing



6 local mobile homes



7 local single family dwelling



8 site of proposed housing



9 reinken/wisconsin intersection



10 de soto street to station



11 alley to station



12 embankment down the alley



13 de soto housing



14 child playing in rail district



15 more de soto ave. housing



16 alley/de soto backyards





TOD__transit oriented development

Why is this important for Belen?

Transit Oriented Development is not just a buzzword, but also an important design strategy that focuses on making alternative forms of transportation viable. By rethinking how we build communities and invest in our future, TOD is a new approach to development that builds on synergy. This form of development results in places and regions that meet the demand for location-efficient mixed-used neighborhoods, support regional economic growth strategies, and increase housing affordability and choice.

The decision by the state of New Mexico to connect a commuter rail system from Belen to Bernalillo provides an excellent opportunity for the community of Belen to address issues of growth. This decision to promote the commuter rail by the state of New Mexico is founded on a concern for transportation infrastructure. Currently, I-25, the major transportation vein into Albuquerque, is becoming increasingly congested at peak hours. Such concerns as well as rising gas and insurance prices are making the commute to Albuquerque very difficult for numerous Valencia County residents. In Belen, nearly 70% of the population makes this commute.

Beyond the clear advantage of the commuter rail as a transportation alternative, we see the situation in Belen as a GREAT opportunity for the community to rethink its growth strategy as well as prepare for possible increased economic growth based on rail tourism. Belen has grown at the city edges leaving its historical downtown lifeless. Our proposal connects Belen's new transportation source with a pedestrian/bicycle path to the historic Becker Avenue. We see this not only as a way of experiencing Belen's history (railroad, acequias, shopping), but also an opportunity to encourage the revitalization of this area with pedestrian and bicycle friendly paths. The very theme of transit-oriented design is to connect a great network of neighborhoods and activities.

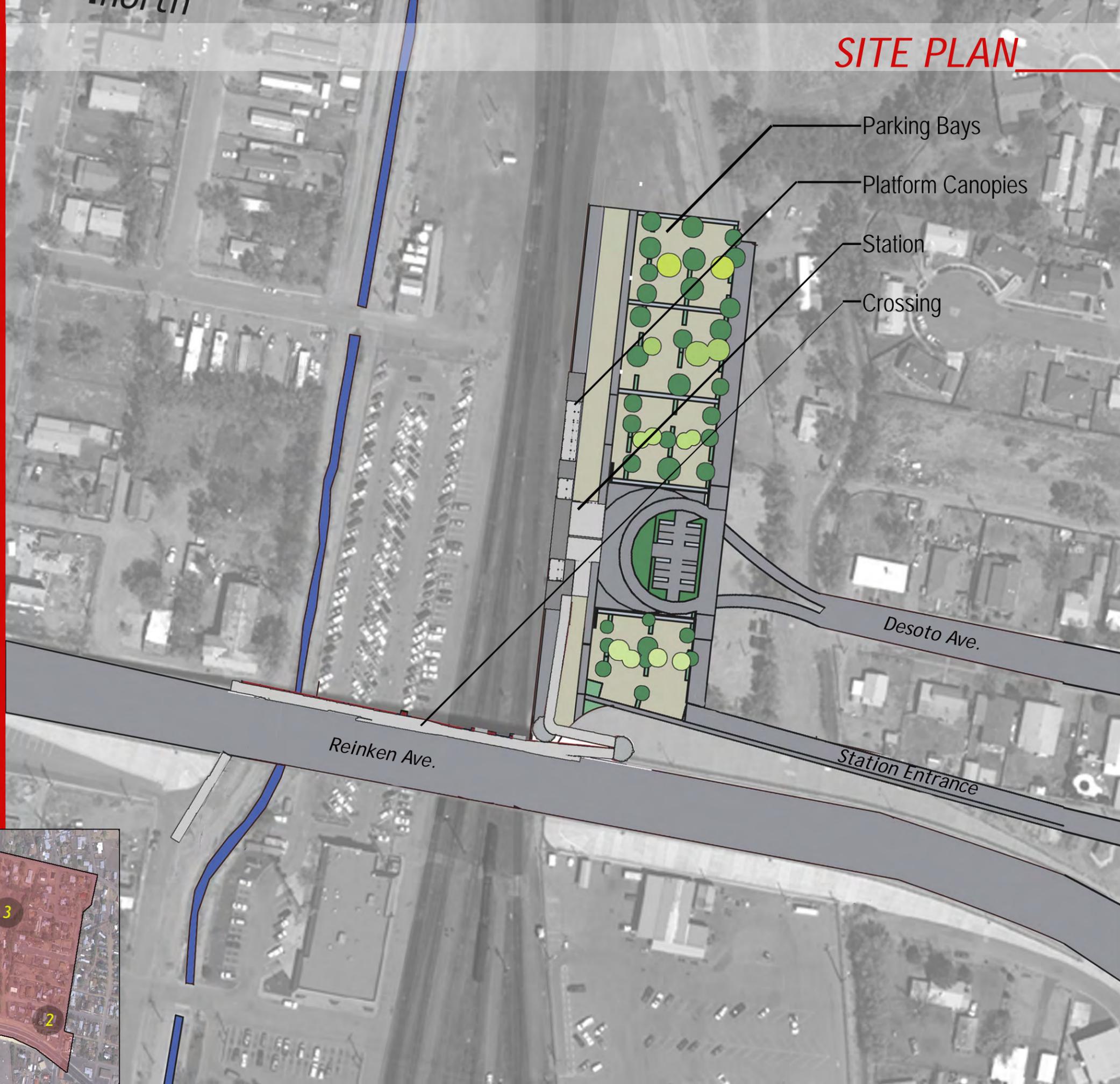
Other components of our proposal address the neighborhood impact and housing needs adjacent to the station. The housing proposal is meant to promote a healthy living environment and investment for the future. By providing research and proposals in these arenas, we hope to prepare Belen for the decisions that will shape their future.

“The baby boomers are getting older, and although they may be driving farther today for shopping and errands (since 1969, 88% farther for shopping, 137% farther for family and personal errands - provided by the Surface Policy Transportation Project), they'll drive less as they age. Many will be unable to drive at all, and those trapped in unwalkable communities will lose their independence.” -Andrea Oppenheimer Dean



SITE PLAN

PROJECT THESIS

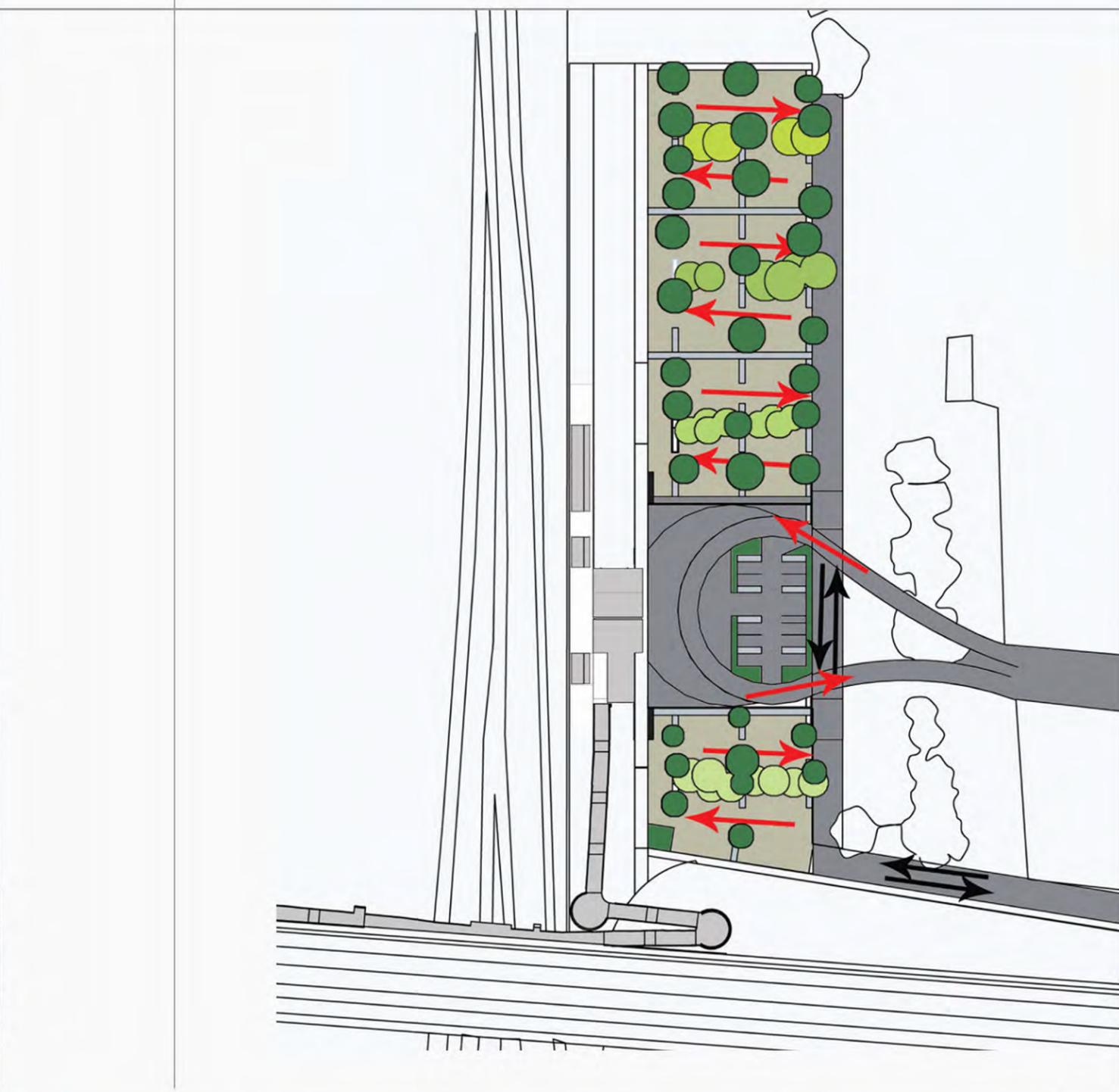
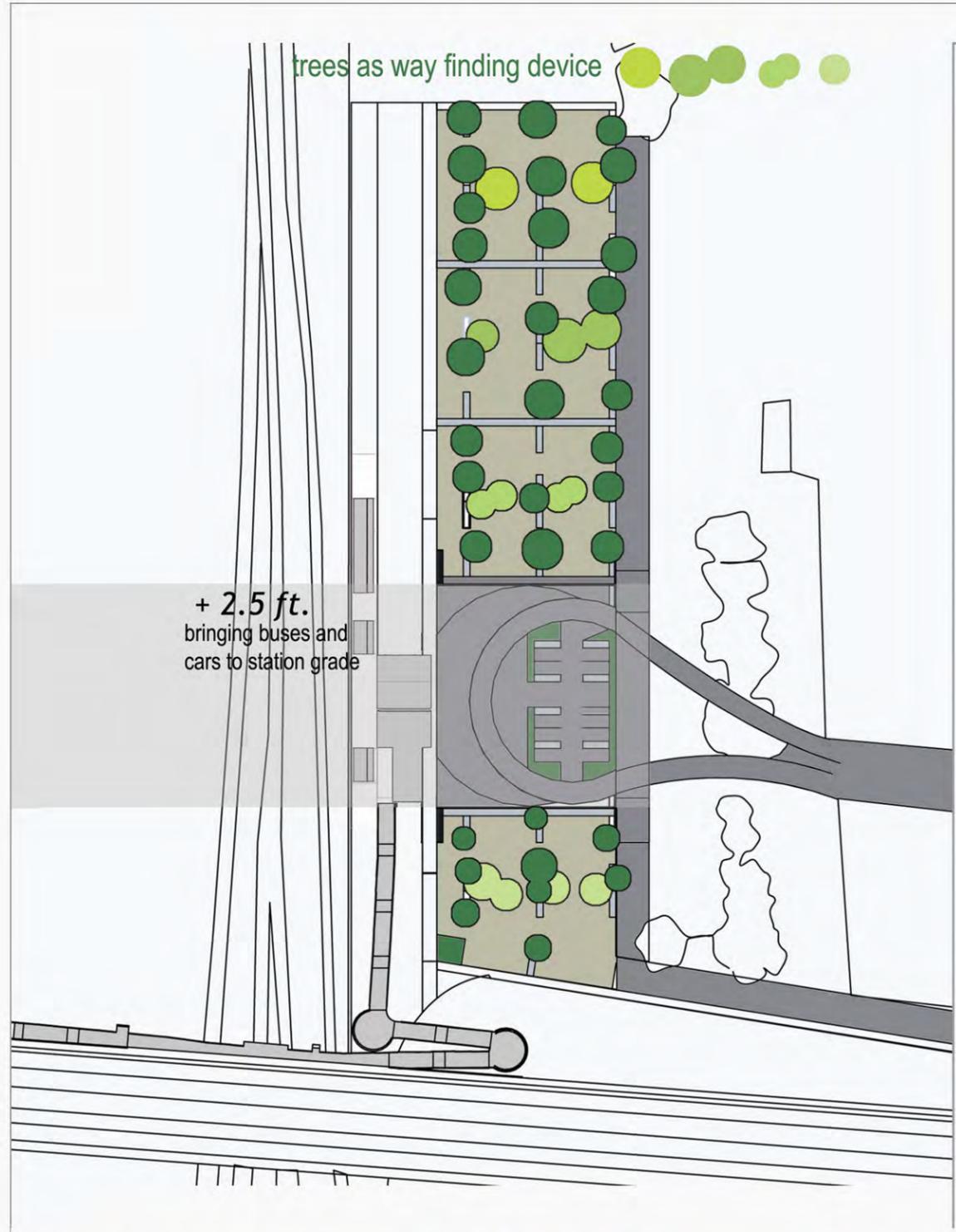


The process of change is in the air in the community of Belen. The incoming commuter rail will potentially restructure the nature of transportation and therefore life in this community. This portion of the Belen project will address the immediate implementation of the commuter rail system into the fabric of the city, particularly how this service will be accessed, what amenities will be provided, and how guests utilizing this service will connect to the greater infrastructure of Belen.

While this project is full of constructed imagery, its goal is to encourage a dialogue not about particular forms but about the potential ideas for handling change. These images are founded in design principles about how people interact with their environments. The specific principles that have been explored include Transit Oriented Development, Way Finding Devices, and Sustainable Strategies for Run-off and Parking Design. The following 3 pages will further discuss these issues in the context of the project.

Aside from these guiding issues, other design strategies were investigated to understand how a person experiences the Belen station within the larger cultural and historical context of Belen. More precisely how does architecture reflect the nature of a particular place (materials, imagery).





PARKING STRATEGIES **DROP-OFF** **PICK-UP**

Parking lots are often ignored, leaving much of the landscape a sea of cars on asphalt, whereas very simple strategies can provide a very pleasant parking experience that not only benefits the community but also the local environment. The diagrams above highlight parking strategies for the Belen commuter rail site that encourage serious consideration of alternative approaches to the normal sea of parking.

The left diagram communicates several concepts. First, the commuter rail platform engages the site at a 2' - 6" elevation. The raising of the entire middle parking bay would allow the drop-off / pick-up / handicapped parking to join the platform at grade. By raising this bay the handicapped user can now park and ride with minimum hassle. Secondly, by only paving this heavily used central bay, the other 3 bays could be paved in a permeable crusher fine to ease the impact of automobiles on the land. Finally each of these parking bays could be identified by separate trees (way finding) which helps commuters locate their automobiles in an alternative fashion. This design also provides a buffer between the tracks and the nearby neighborhood. The right diagram shows the effective one-way traffic concept to ease congestion and also provides a simple drop-off / pick-up system for automobiles and buses.





Station gateway entrance from parking lot



STATION

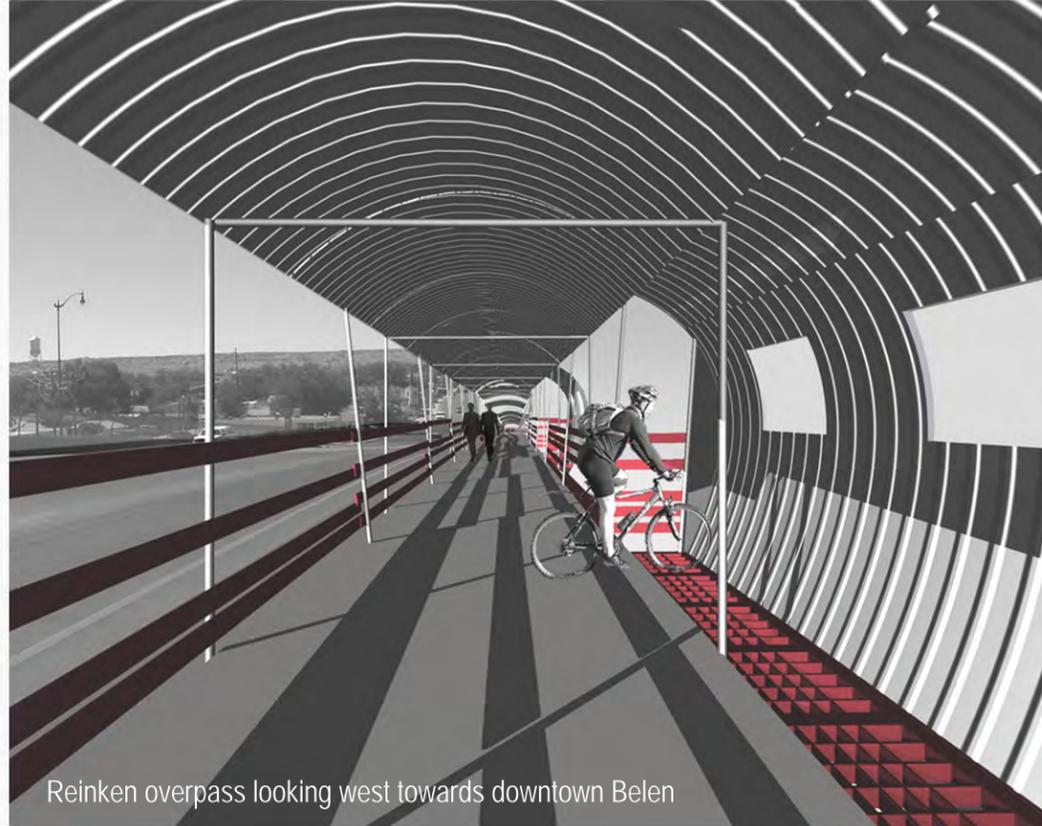
The following design was incorporated into the scheme provided by the architectural firm designing the platform. The nature of a train station is to act as the middle ground between where you are and where your going. For many people trains are seen as a historical phenomenon and therefore the architecture that receives them should find a place in this history. Today trains are seen more often as the beginning of a more sensitive strategy in transportation management. Station design should reflect this new optimism and be sensitive to modern concerns. The design of this station attempts to address these issues.

This station attempts to provide minimum services (newspapers, local information, bike rental, restrooms) while also being safe and accessible to local residents. The glass walls allow controlled natural light to enter the facility and open views from train to bus. The coffee counter would encourage comfort while in between locations. A local attendant could provide a warm experience for visitors as well as information on activities in Belen.

The final consideration for the station was the concept of identity. The hired architecture firm has proposed various materials to represent different communities. I see a different solution: the utilization of local imagery as a component of the architecture. By applying photographs of Belen's attractions and history to glass panels, the station becomes an introductory museum of local pride.

Station west elevation





Reinken overpass looking west towards downtown Belen



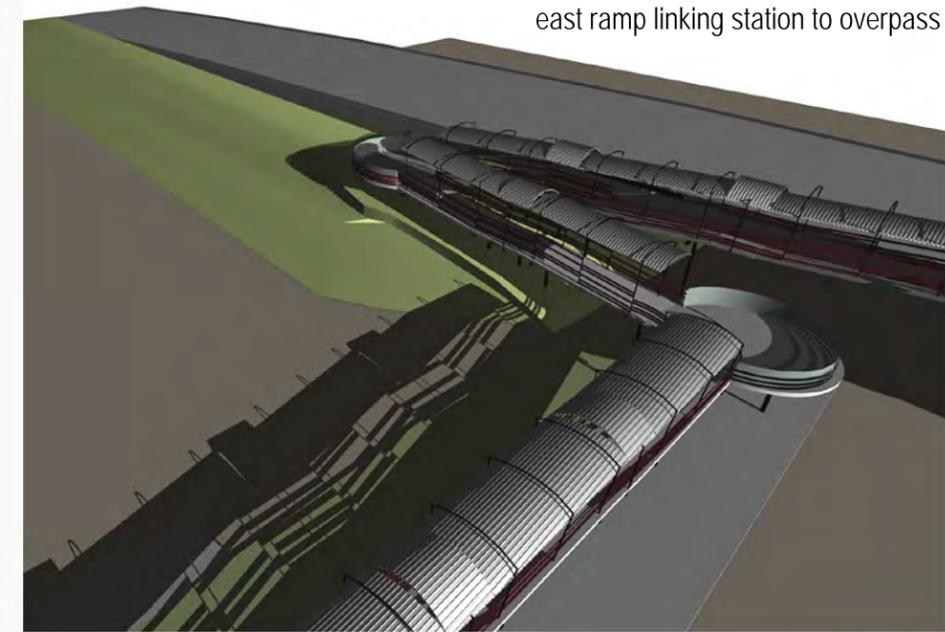
view from overpass looking north to station

WRAPPING REINKEN AVENUE PEDESTRIAN__BICYCLE OPPORTUNITIES

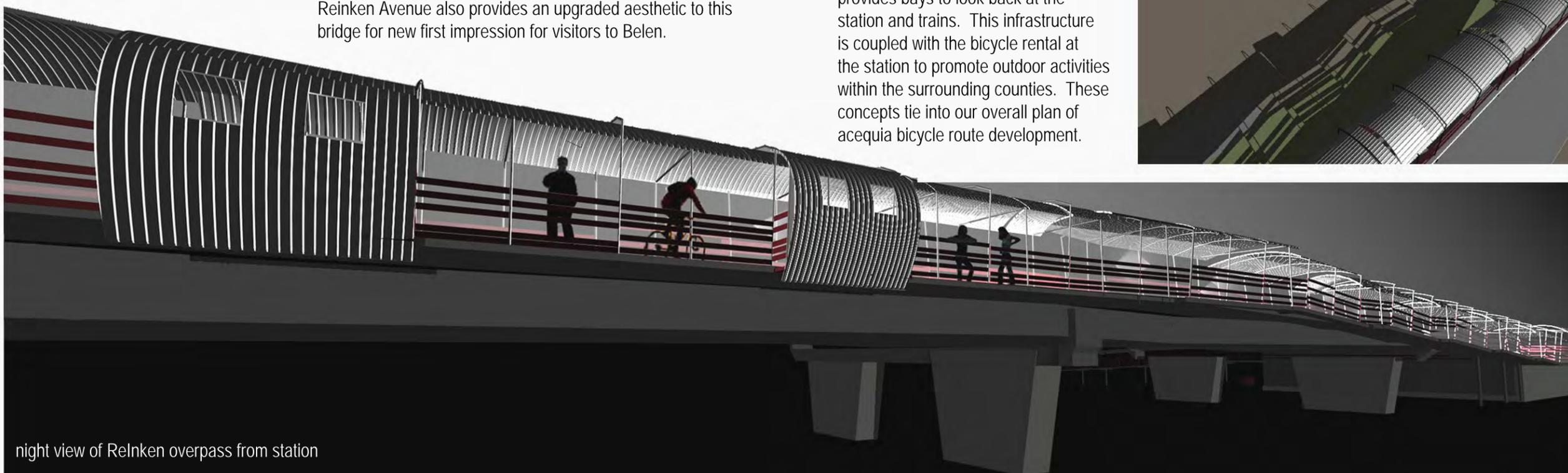
The final design problem was the adaptation of this site to include pedestrian and bicycle links to the larger project linking the commuter rail station to the heart of Belen. This is a long term strategy to promote active lifestyles for both local residents and visitors. These alternative forms of transportation also apply

Transit Oriented Development principles by incorporating housing close to the station. This connection consists of ramps on either side of Reinken overpass and the enlargement of the pedestrian zone on Reinken Avenue between these ramps. The wrapping of Reinken Avenue also provides an upgraded aesthetic to this bridge for new first impression for visitors to Belen.

A 12 foot path connects either side of the tracks. On the east ramp, two observation towers allow the user to enjoy views of the rail yard and the Manzano Mountains. Once on the bridge, the cantilevered structure provides bays to look back at the station and trains. This infrastructure is coupled with the bicycle rental at the station to promote outdoor activities within the surrounding counties. These concepts tie into our overall plan of acequia bicycle route development.

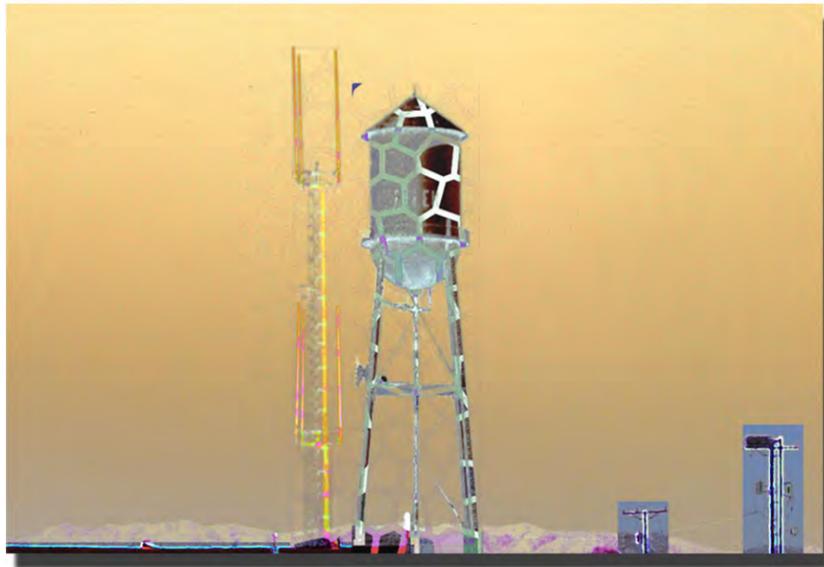


east ramp linking station to overpass



night view of Reinken overpass from station





ARRIVING AT THE FUTURE REQUIRES CHOOSING A PATH TODAY

Belen has a wealth of resources that prompt and inspire a reemphasis as 'Hub City'. The railroad that fueled the development of Belen now threatens to split Belen. Going forward, Reinken will become the only connection from east Belen to west Belen. Next fall, commuters will be isolated on the eastern side. Belen will continue to expand as will rail transportation, leaving a crowd of stranded riders and growing neighborhoods divided from each other. This design is a glance to what could happen. Building on Belen's strong community foundation, a new 'hub' of transportation will evolve. There will be more people, more commuters, and more tourists. They will be walking, driving, biking, skating, and who knows what else. The opportunity and the need to connect Belen's two sides and its link to the larger southwestern community will come. Implementation of these ideas will be built upon decisions made now.



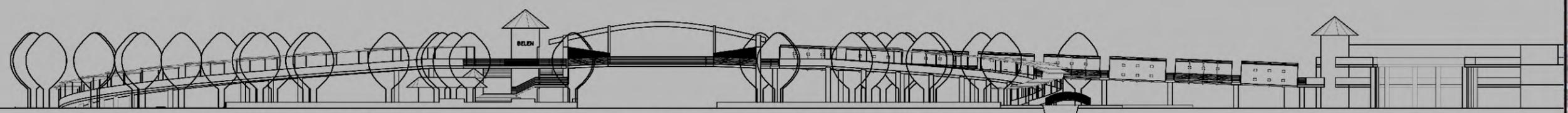
*We shape our buildings; thereafter they shape us.
Winston Churchill*



CONNECTING BELEN

- Sidewalks
- Gravel Parking
- Ramped Access
- Green Space
- Platform
- Stairs/Elevators
- Bridge(s)
- Acequia
- Acequia Paths
- Paved Access
- Mixed Use Integration
- Shade
- Vendor/Bathroom/Information Center
- City Observation
- Frieght Viewing
- Train Anticipation
- People Watching

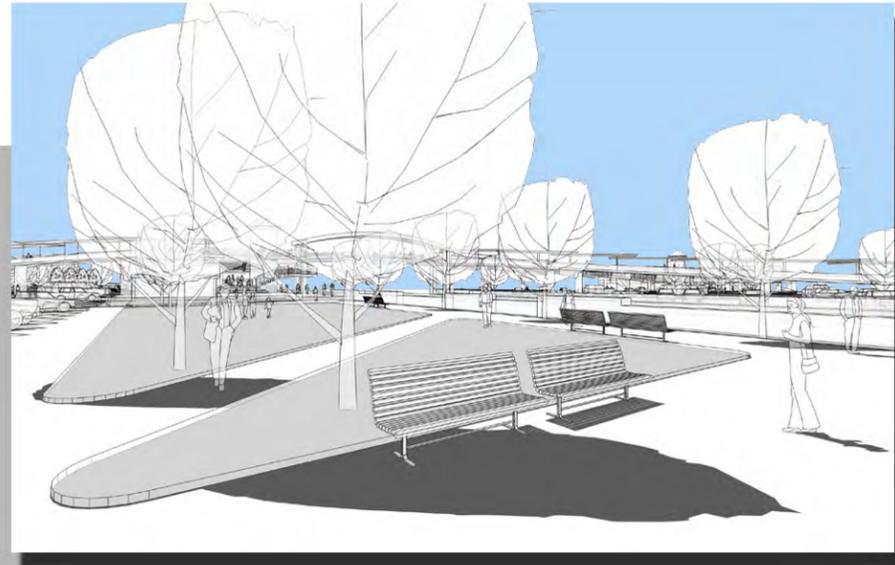
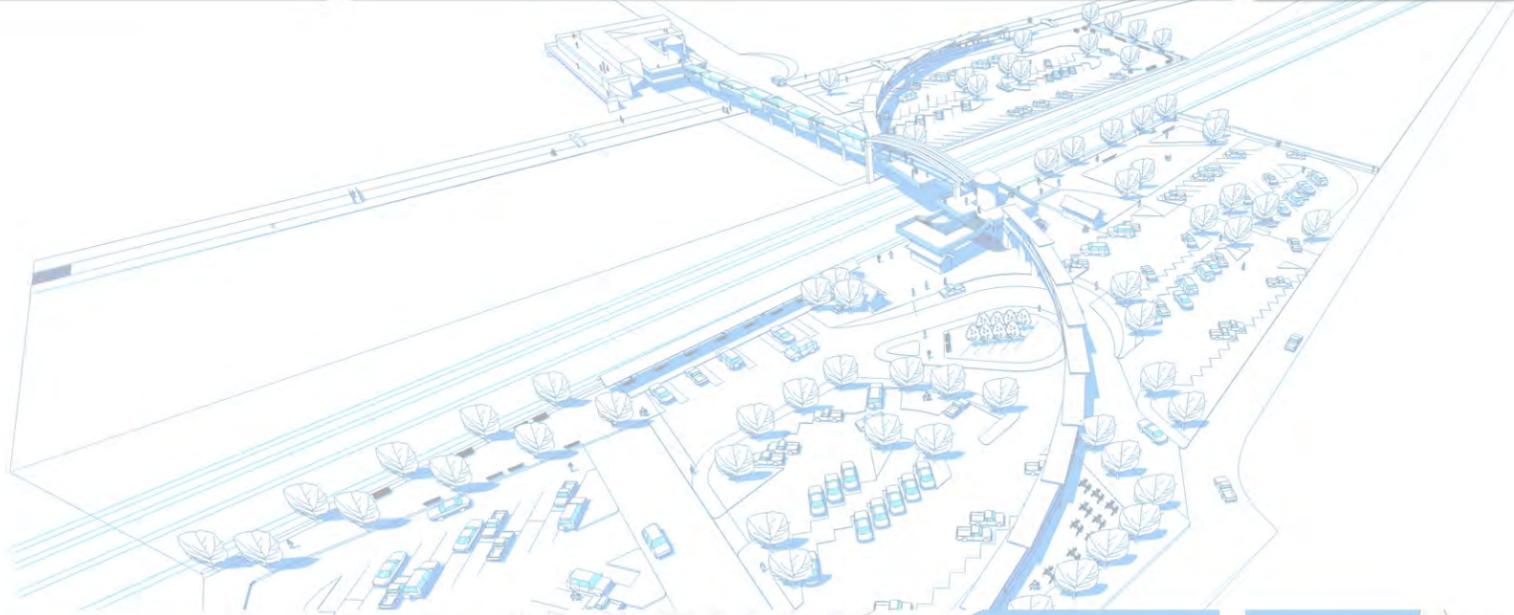
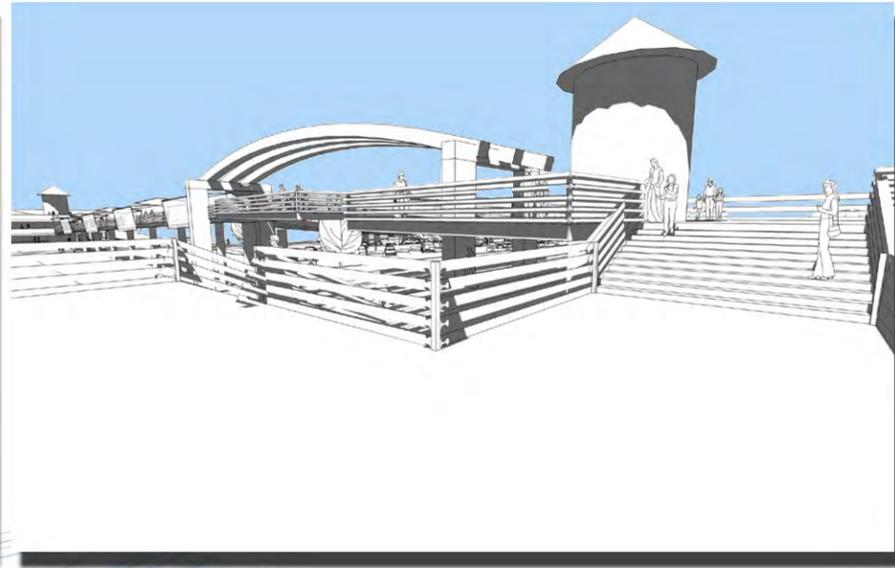
RAIL DISTRICT

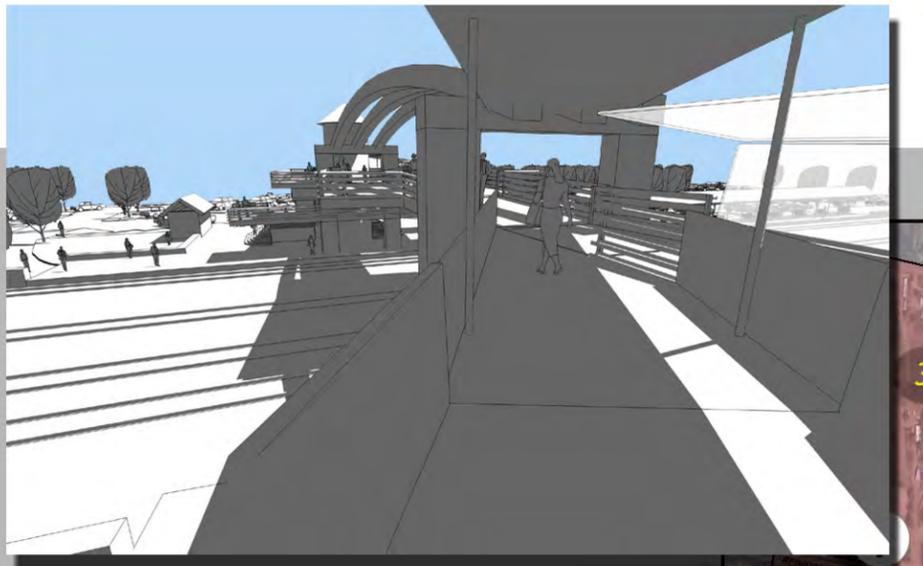
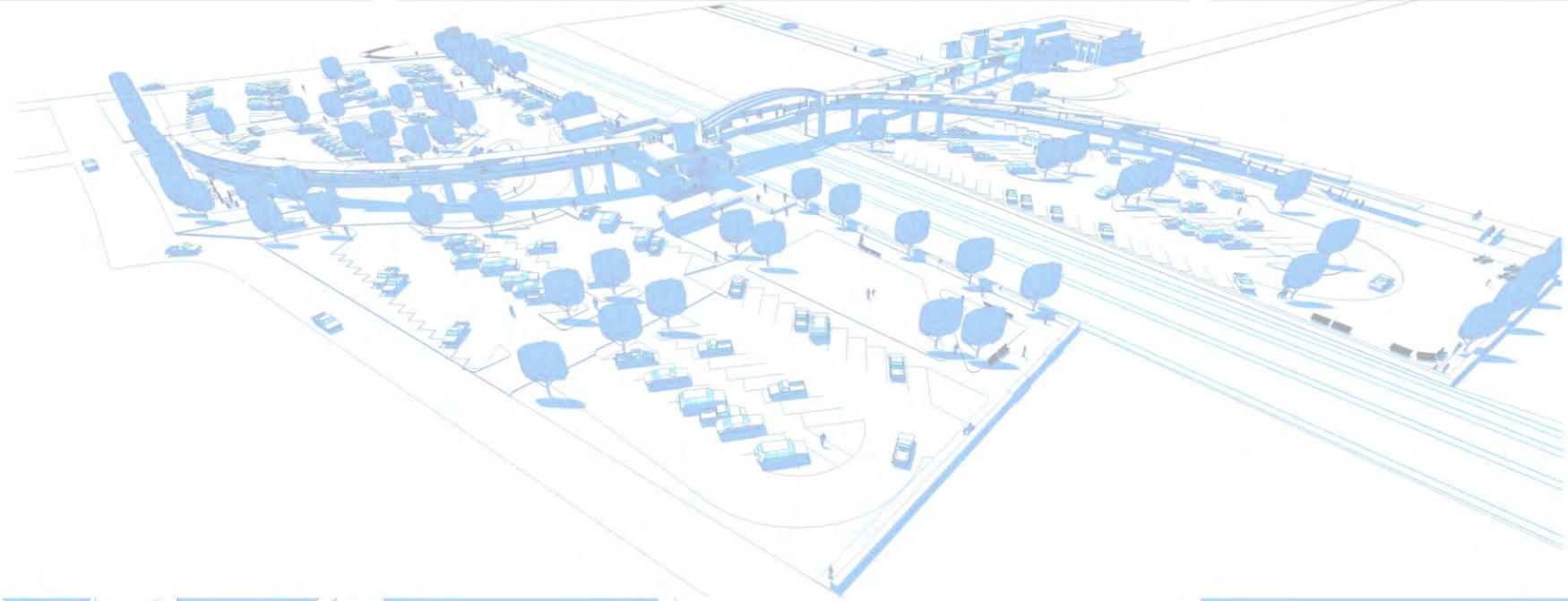
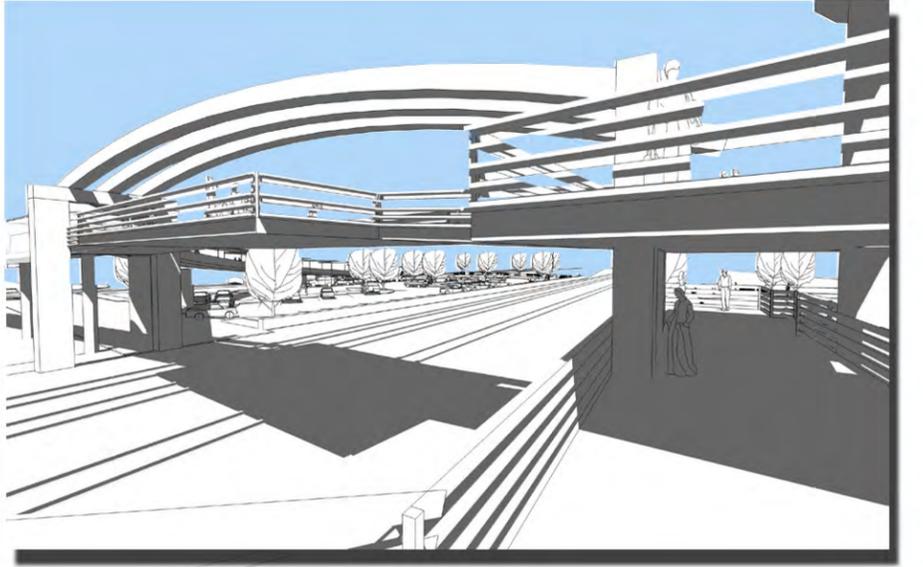


NOW ENTERING BELEN FROM THE NORTH



18
Jeremy Alford
STATION_PLATFORM_CROSSING_B





RAIL DISTRICT



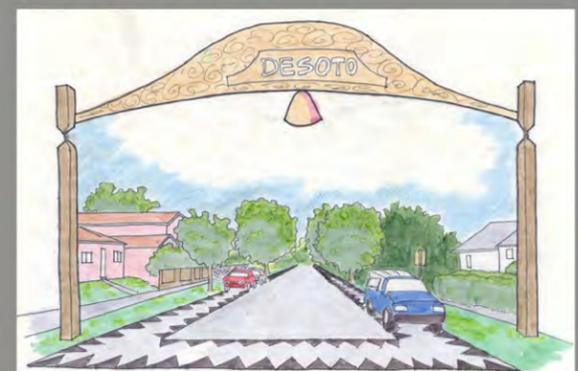
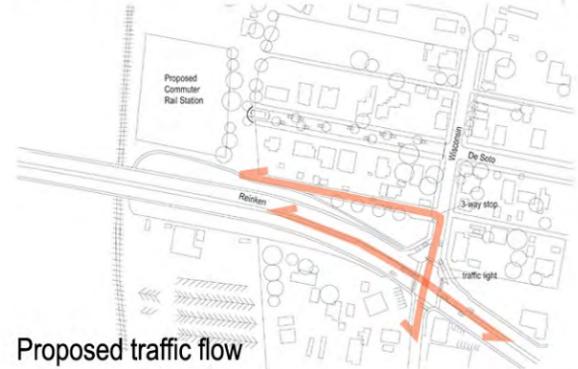
ACCESSING THE COMMUTER RAIL STATION__OPTION A

The proposed commuter rail platform will be located on the east side of the railroad tracks, north of Reinken Avenue. Option A directs commuter traffic around residential neighborhoods.

De Soto Avenue is of particular interest as it is the closest street to the commuter rail stop. The area is home to single-family detached dwellings. Swing sets in front yards indicate that young children live on this street. Option A protects the existing fabric along De Soto Avenue by directing commuter traffic through a nearby alley.

To access the commuter rail from Reinken, people can travel north on Wisconsin and west along the alley south of De Soto Avenue. The city can install traffic lights at Reinken and Wisconsin, while a three-way stop at Wisconsin and the alley will move traffic smoothly through this area.

To retain the character of De Soto Avenue, several design elements are prescribed. First, the west end of De Soto can be closed off to through traffic by creating an active space for residents, such as a park, basketball court, or other social space. A small wall and bollards can create a safe place from automobile traffic. Secondly, adding a gateway and changing the color or texture of the street signals to people that this space is unique, valued, and not an entrance to the commuter rail. Finally, traffic-calming devices, such as trees and parking spaces in the middle of the street, create obstacles and slow drivers down. These elements work together to protect the neighborhood.



ACCESSING THE COMMUTER RAIL STATION __ OPTION B

Option B presents a scenario where De Soto Avenue becomes the main access to the commuter rail station.

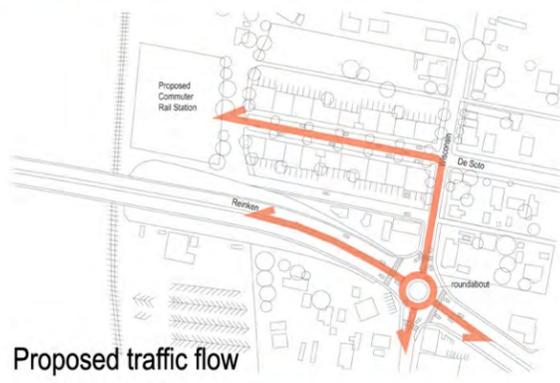
If the commuter rail is successful, there may be a need for shops and services that support commuters. De Soto Avenue can develop into a transit-oriented center similar to those found in Portland, San Francisco, or San Diego. Transit oriented development offers a mix of uses such as residential units above retail stores, pedestrian amenities, and other designs oriented to people rather than the automobile. While establishments along Becker Avenue are targeted at tourists, De Soto Avenue could provide commuter amenities such as a small grocery store, post office, bank, dry cleaners, and drop off boxes for movies and library books.

To access the commuter rail from Reinken Avenue, people can travel north on Wisconsin Street and west on De Soto Avenue. In this scheme, a roundabout is proposed at the intersection of Reinken Avenue and Wisconsin Street. "Roundabouts permit a continual stream of traffic to flow through the intersection, whereas a signalized intersection requires traffic to stop completely in one direction. Therefore, roundabouts are usually more efficient in keeping traffic in motion, thus reducing traffic congestion."* The roundabout also offers a prime location for public art.

*Source: Genesee Transportation Council



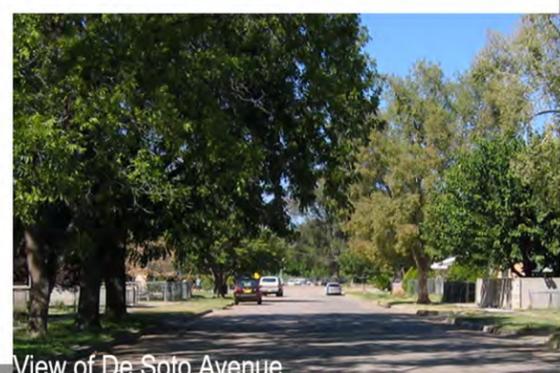
View of Reinken/Wisconsin intersection



Proposed traffic flow



Example of a roundabout



View of De Soto Avenue



Proposed transit-oriented development on De Soto



3 SUSTAINABLE HOUSING DEVELOPMENT

THERE EXISTS THREE CENTRAL QUESTIONS WHEN DISCUSSING THE POSSIBILITY OF A TRANSIT-ORIENTED HOUSING DEVELOPMENT IN RESPONSE TO THE ARRIVAL OF THE COMMUTER RAIL STATION IN BELEN, NEW MEXICO, WHICH WILL OPEN IN NOVEMBER, 2005:

primero

FIRST, **WHY** IS THERE THE NEED FOR NEW HOUSING IN THE VICINITY OF THE PROPOSED COMMUTER RAIL STATION?

segundo

SECOND, **WHO** IS THIS HOUSING BEING DEVELOPED FOR?

tercero

THIRD, **WHAT** IS A 'SUSTAINABLE HOUSING DEVELOPMENT?'



primero

The first, and most obvious, **reason that a need arises for housing** is the increase in the number of **people** to the area as a direct result of the anticipated construction and eventual use of the commuter rail station. The less obvious reason is responding to the lack of multi-family residential sites within a quarter-mile (i.e. walking) distance from both the commuter rail station and the "Heart of Belén" revitalization project for Becker Avenue.

segundo

From the professional type **who** moves to Belén for a calmer private life, to the lifelong farmer and rural homeowner who wants to move into town and have good access to the important social events of the community, as well as all those who fall somewhere in between in this life, this housing development is necessitated by the **people** who are both the future owners of the proposed housing units and the users of the soon-to-be constructed commuter rail station.

Sustainability considers the built environment's effects on the natural environment and provides methods to reduce these undesirable effects. Utilizing sustainability principles, various techniques are employed in the design to motivate the prospective owner to give each space a personal touch. In addition, using renewable natural resources for heating, cooling, lighting, and shading promotes and preserves the well-being of the Earth.

So now what? How does this project address these three central questions? These next few sections respond to these questions through:

- 1__A presentation of the design process, such as community meetings, precedent research and housing typology study, site visit and analysis, and site selection
- 2__A proposal of sustainable housing units utilizing Transit-Oriented Development principles in response to the opening of the commuter rail station

COMMUNITY MEETINGS:

Refer to previous sections entitled "Design Process" and "High School Charrette" for photographs and further explanations of the design process.

HOUSING PRECEDENTS & TYPOLOGY STUDY:



After exploring the housing infrastructure of Belen, seven housing typologies emerged: (1) single-family, single-level; (2) single-family, multi-level; (3) multi-family; (4) mixed use; (5) modular homes, (6) handicapped housing; (7) housing for the aged. The predominant housing type was the single-family, single-level housing. Several modular homes are located near the rail station, while there appears to be a lack of multi-family housing in the area. If the commuter rail is successful, the land values surrounding the rail station can increase, which may displace many of the nearby modular homes.

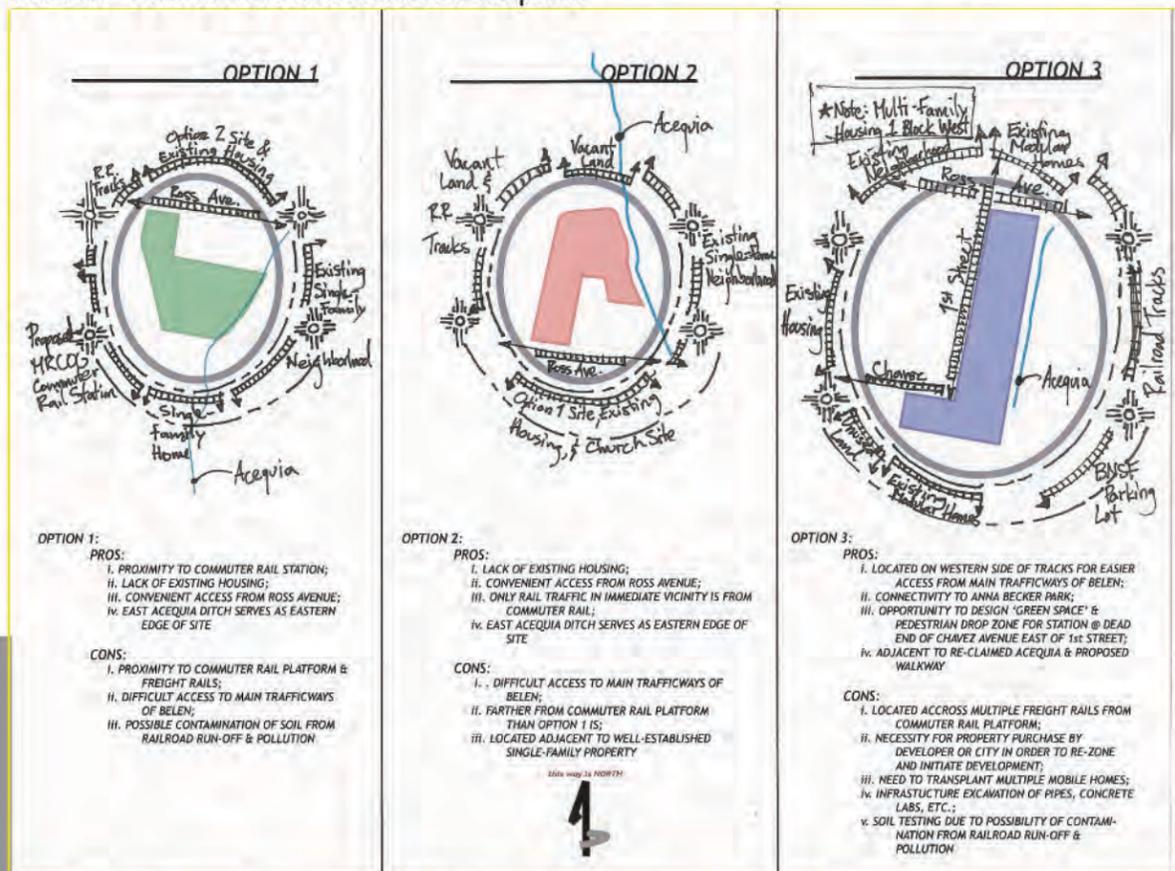
SITE VISITATION & ANALYSIS:



These photographs give an impression of the site principles for the three possibilities of future developments. To the left are photos of option #1 below, right option #2 and below, left option #3.



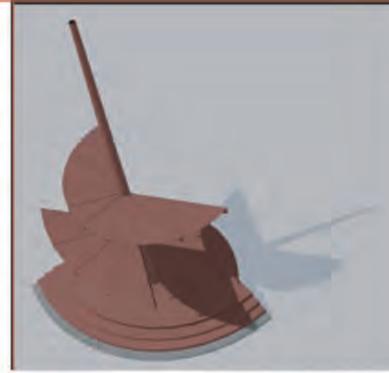
Below is a site analysis diagram, explaining the 360° relevant context of each site option



DEVELOPMENT OPPORTUNITIES FOR BELÉN:



A reminder of the principles of sustainable architecture. Sustainability is a consideration of the impact a structure might have on a site's ecosystem. There is an underlying principle of 'giving back' to the community. This can be achieved through the four elements of life: **fire**, **rain**, **earth**, and **wind**. Strategies include harnessing **solar** energy (sunshades for south-facing openings and sunscreens for west-face openings), the collection of **rainwater** through a 'cistern double column' and its reuse in gardening/landscaping, the ecologically-sensitive choice of material use in the construction, performance of the structure, and stack **ventilation** for passive cooling. Sustainability is not an afterthought, but the driving force behind design and construction.



Casas la



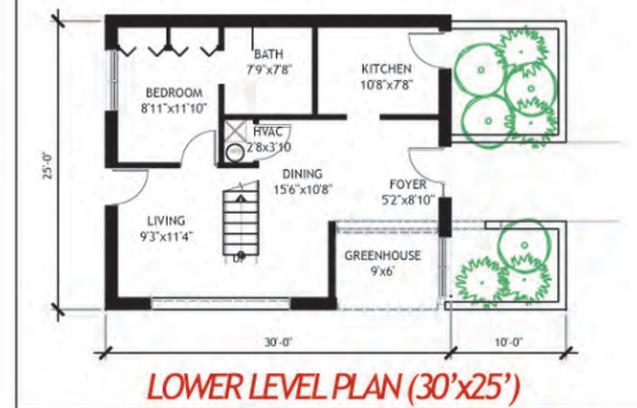
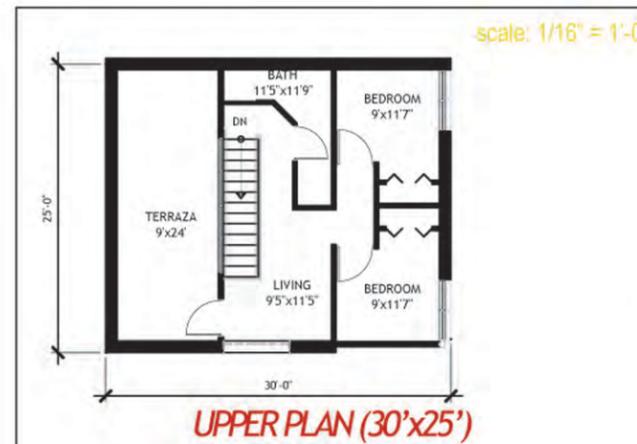
option 1 site & contextual vicinity

PRESENTING OPTION 1

Access to this site is through a narrow passage, which contains one existing modular home. This site currently contains a mixture of weeds and tall grasses, old discarded tree logs, and an acequia on the east side. Living and dead trees surround the central field.



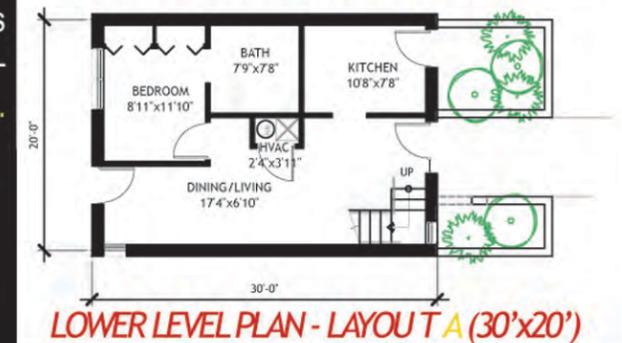
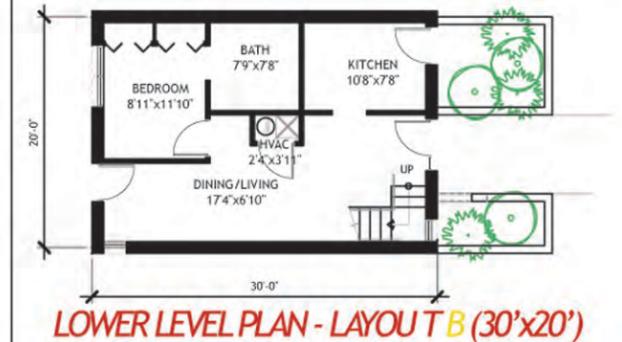
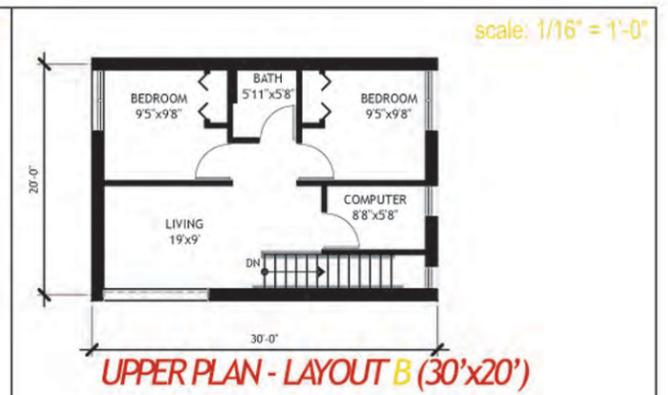
Conceptual sketches depicting how an arrangement of housing units was realized for this 2.54 acre site (w/ 12units/acre)



THE ALL-IMPORTANT PLAN

Although never seen in everyday life, the floor plan provides an ordering of that life, a mirror of the self.

Presented here are multiple arrangements of the **living space**, malleable and open to provide the inhabitant opportunity for individual manipulation. Some units include terraces, others include a greenhouse, according to varying sizes and needs. **Not all options shown.**

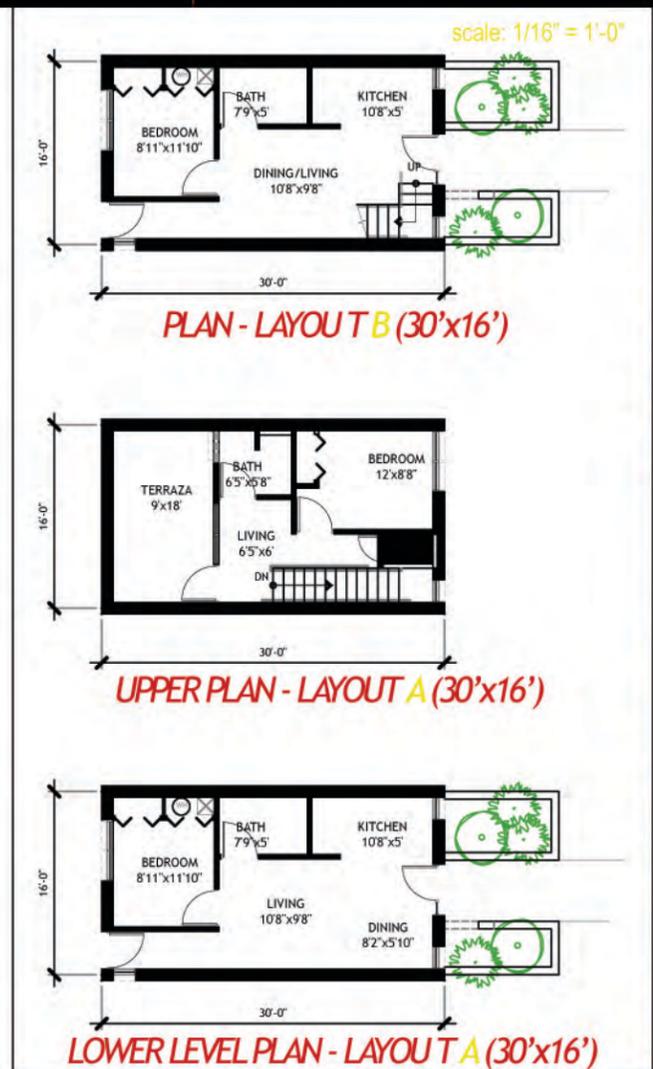


Aerial photographs w/ sketches exploring row housing arrangement possibilities for Option 1

una Posibilidad

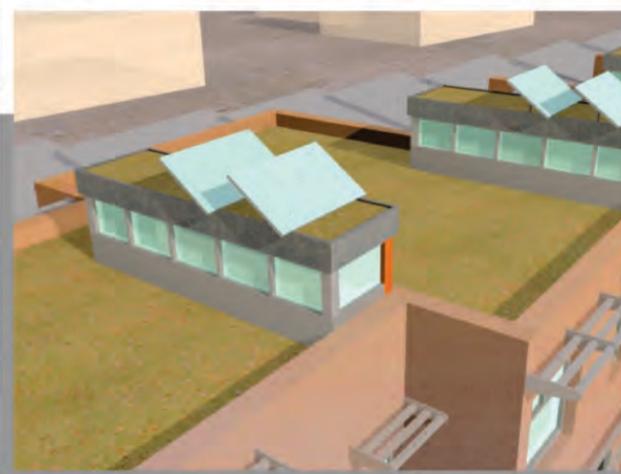
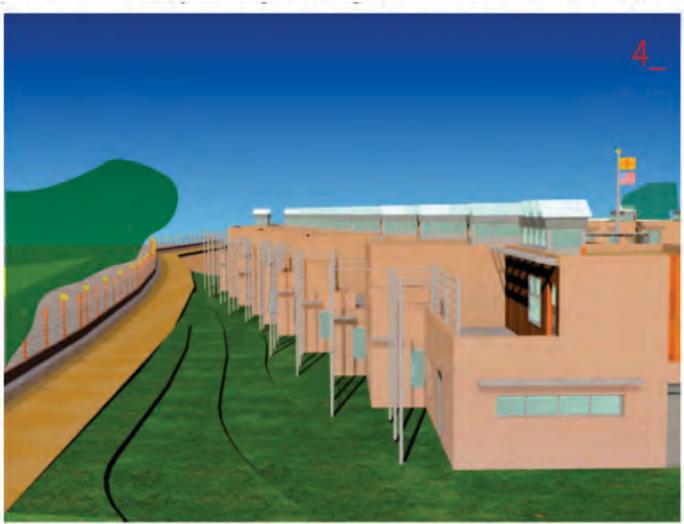
ONE POSSIBILITY

Sombra del ave



THE EQUALLY IMPORTANT VIEW IN THE PERSPECTIVE

Humans see in three dimensions, with depth perception and a horizon line. This is the everyday way of organization. Here are six renderings of potential sustainable housing on the option 1 site. Clockwise from above: 1_ detail of step-backs in the layout of the rowhouses; 2_ entry road view from NW; 3_ eye level view from SW; 4_ view of backyards & public walkway along western edge; 5_ view from commuter rail window; 6_ NW view of model house at entry.



▲ To the left and above are renderings of the cistern system. ▲

▲ Above right is a coloring of the organic sunshading system during the summertime; ▲ above left is a rendering of the stack ventilation clerestory unit & solar panels for hot H₂O

Photograph by Nell Farrell





- 4 ACEQUIA PATHWAY - PEDESTRIAN -BICYCLE FRIENDLY LINK FROM STATION TO BECKER AVENUE
- 5 ADDRESSING EMPTY SPACES ALONG THE ACEQUIA PATHWAY-COMMUNITY FRIENDLY POSSIBILITIES FOR THE VOID

Harvey House and acequia



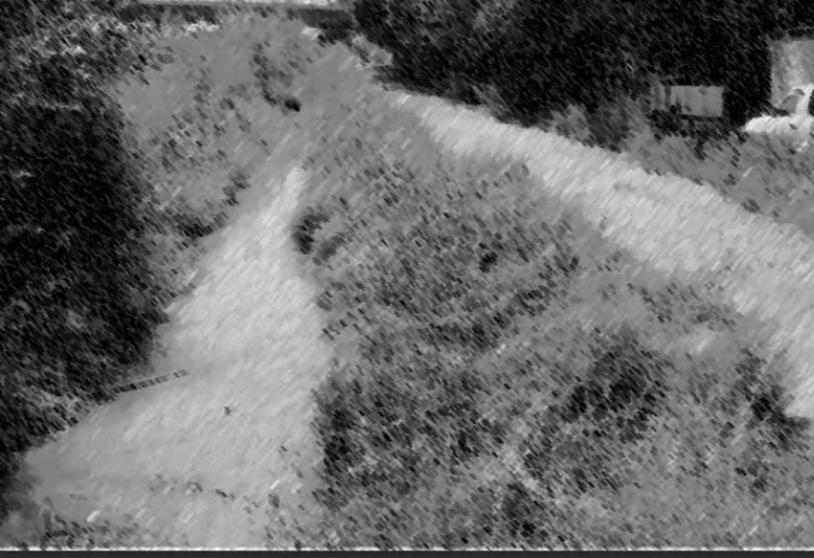
Acequia south of Reinken Ave.



Old hotel adjacent to the acequia north of Reinken Ave.

Acequia under Reinken Ave. and north of Reinken Ave.





ACEQUIA PATHWAY and EMPTY SPACES

The reclamation of the open space along the Acequia between Reinken Ave. and Becker Ave. is the cornerstone to the success of transporting commuter passengers from the commuter rail station to the revitalization of the Downtown District. Considerations for the design of this crucial link include pedestrian friendly elements such as lighting, benches, bridges over the Acequia, signage, and wetland landscaping. Design components of the empty spaces within this region include non mixed-use development, commercial and residential opportunities that take advantage of the pedestrian oriented safe urban environment.

Development projects within Belen should not forget to include attention to the amount of available open space within the urban environment. Future growth in Belen must take this element into account because it not only preserves and protects vital habitat, but also provides an inviting environment for the pedestrian. If one of the primary goals is the creation of a more walkable community, then the pathway becomes a vital public space. There must be an incentive for the pedestrian to utilize these multi-use trails. It is important to access what the needs are for the shared users.

The potential for gathering spaces within the natural surroundings of the Acequia is a strong asset to the community of Belen and should not be overlooked, but highlighted in future plans.

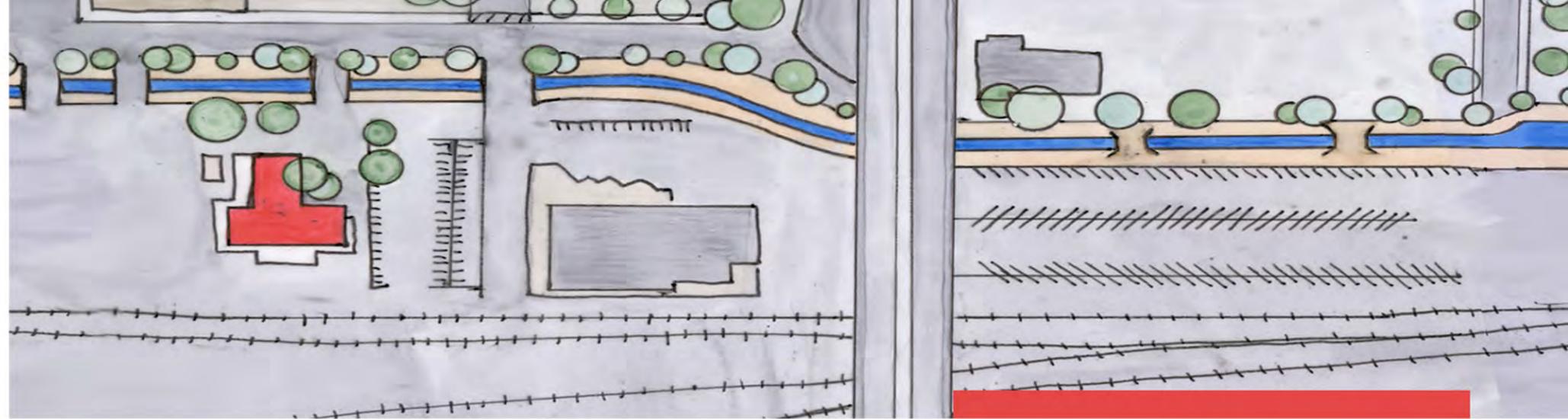
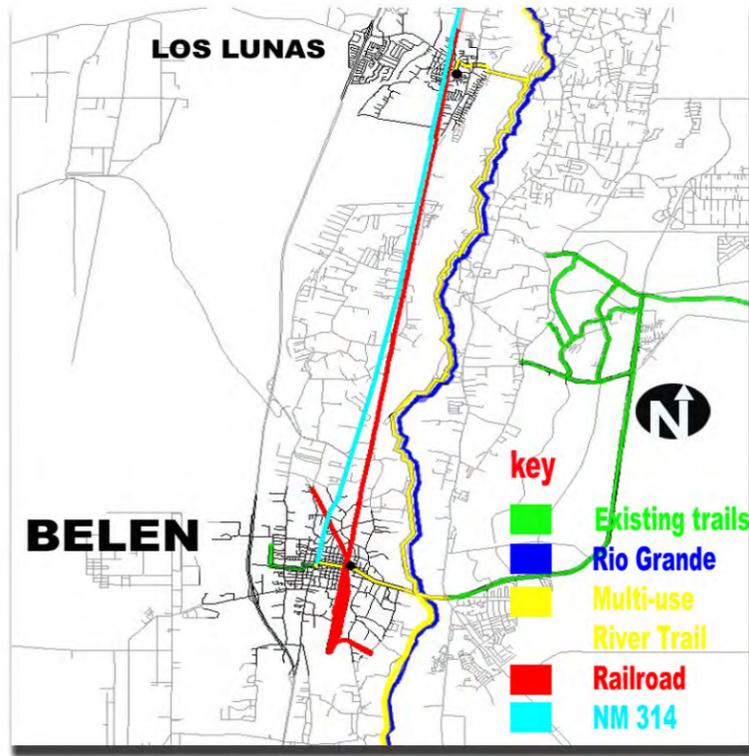
“ Although everyone lives in a region, only some of us are lucky enough to live in a neighborhood.”

Douglas Kelbaugh

“The form and location of multi-use trails are the cornerstones of their success. As yesterday’s primary transportation corridors, these trails can reconnect residential and industrial areas, cities and farmland, and new immigrant neighborhoods to established ones.”

Karen Lee Ryan Trails for the Twenty-first Century



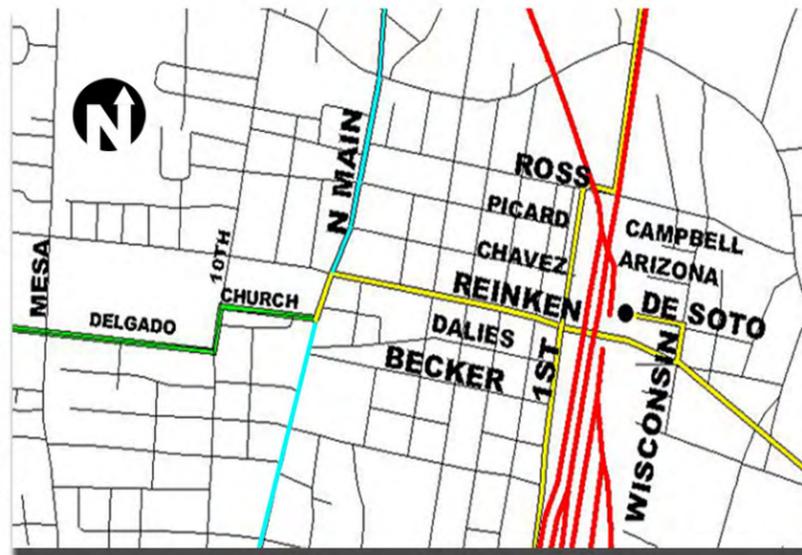


ACEQUIA PATHWAY

The first phase of these recommendations depends upon a focus to reclaim the space along the acequia within Belen. This reclamation is essential if the connection between the new commuter station and the revitalized downtown district is to be successful.

Community ditch clean-ups are the first step towards creating a trail district that promotes the protection and preservation of open space within Belen's downtown district. There is potential to add native xeriscape elements, substrate leveling options such as the conversion to soil cement, and the addition of trail infrastructure such as lighting, signs, bridges, and benches.

It is essential to think of Belen's future multi-use river trail in the context of how Belen's improved acequia network links into the Rio Grande Bosque and other cities' multi-use river trails.

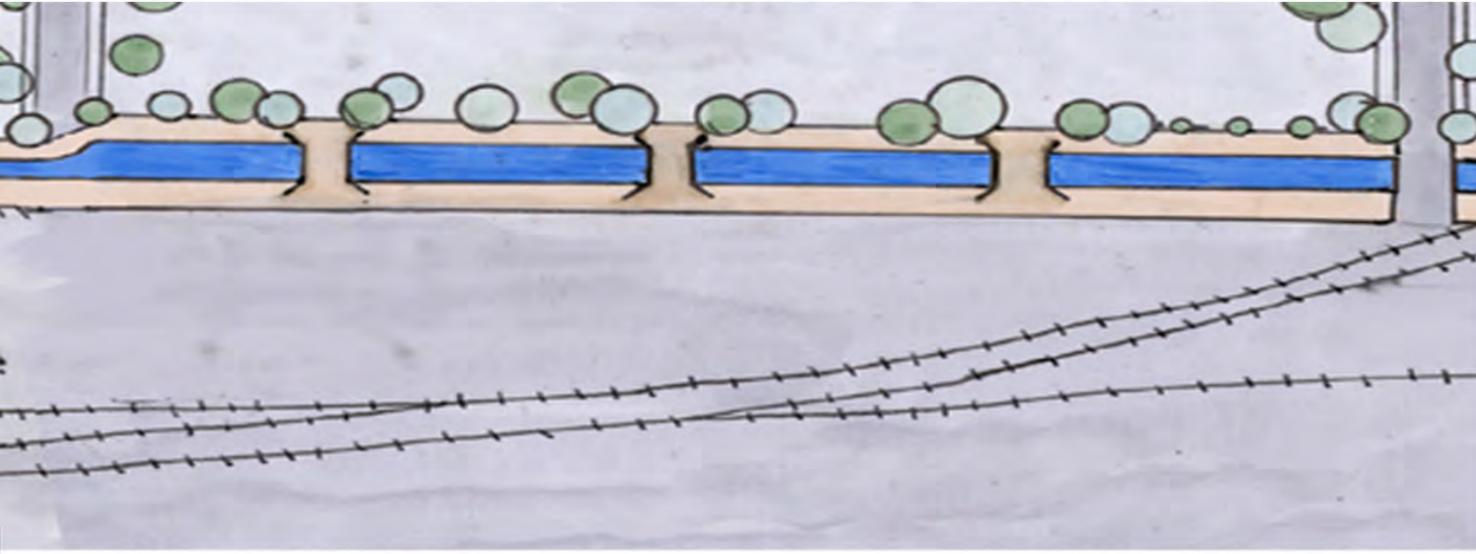


This trail network begins with improvements to connect the existing trails in Belen, Rio Communities, Los Lunas, and Bosque Farms with proposed trails along the Rio Grande and bicycle lanes along NM 314/Main St.

With respect to Belen, connection of the multi-use trail ending at Delgado St. and 10th St. with the proposed multi-use river trail will address bicycle lane improvements along NM314/Main St., Reinken Ave., Wisconsin, DeSoto, and 1st St.

The acequia network can be revitalized with safety measures such as lighting, while including pedestrian friendly elements such as interpretive signage, small pedestrian bridges, and trail infrastructure.





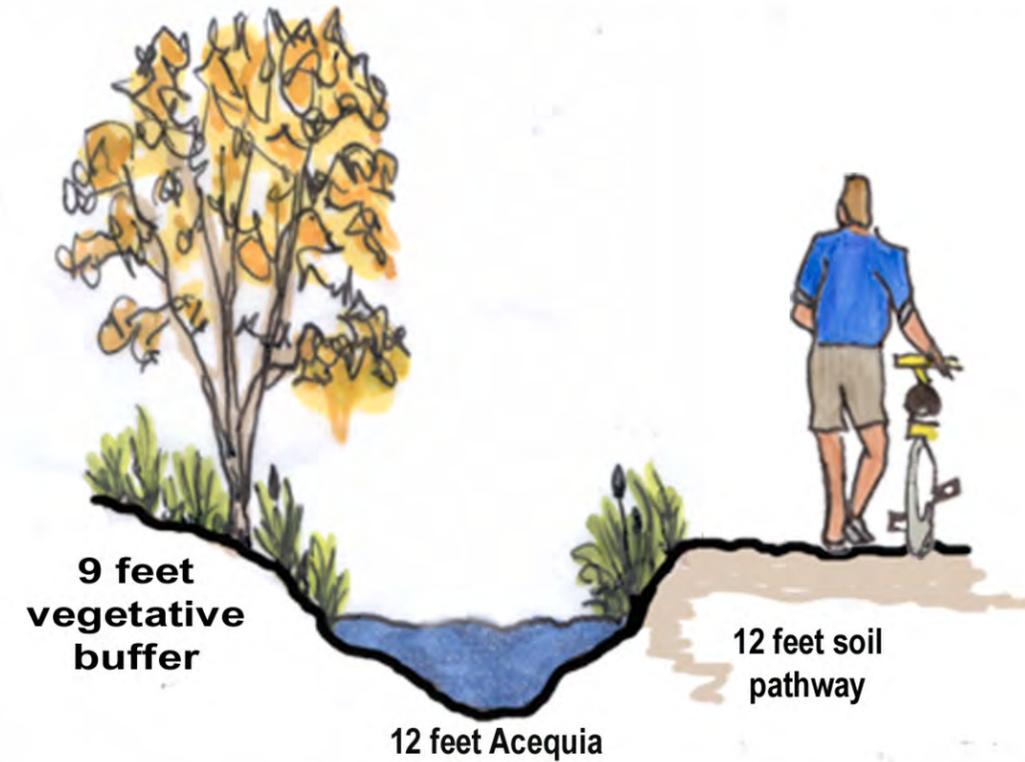
ACEQUIA PATHWAY CRITERIA:

**VEGETATIVE BUFFER
WETLAND LANDSCAPE
RIPARIAN RESTORATION**



The reclamation of the Acequia for the implementation of a wetland landscape is not only an effective tool for restoring the open space within Belen's downtown district and urban corridor, but also an asset to improving the local trail network.

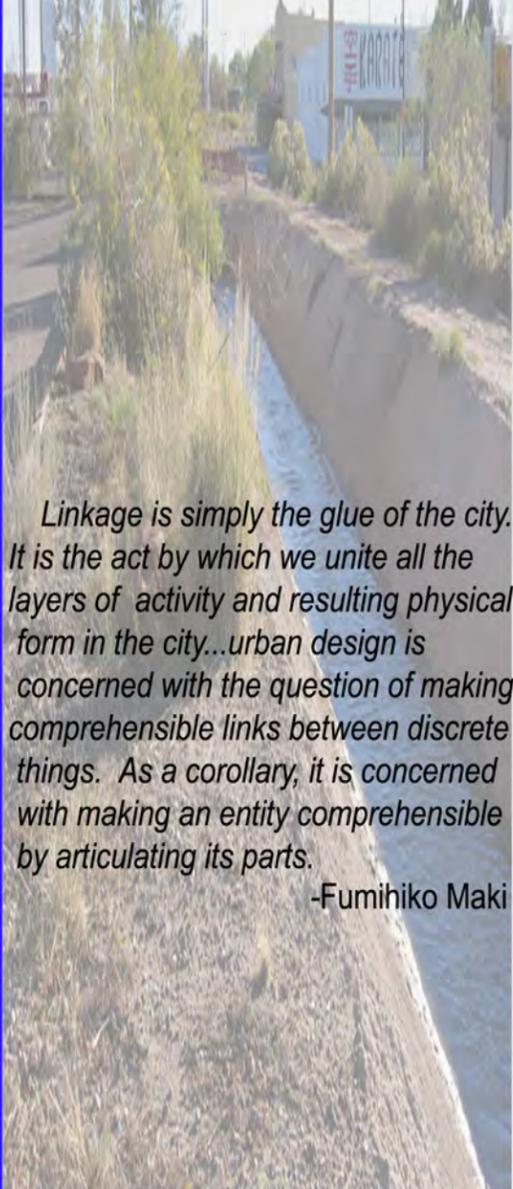
This restoration would involve widening the acequia by allowing a more natural and gradual slope on one side of the ditch. This slope could then be planted with quick growing wetland plants such as cattail, willow saplings, and native grasses. This type of open space preservation serves a dual purpose of providing key riparian habitat for migrating waterfowl along the Middle Rio Grande Valley and creating a pedestrian friendly multi-use trail.



Acequia cross section



ADDRESSING EMPTY SPACES ACTIVATING THE LINK TO BECKER



The empty spaces along the path provide excellent opportunities for development and rejuvenation. The acequia becomes the main director of traffic off the bridge towards a potentially thriving Becker Avenue. Along this path, one encounters an artist colony of sorts. A district complete with renovated art lofts, coffee shops, studios, workshops and open space to appreciate the beauty of nature. The path around and under the bridge is filled with murals, market space, and sculptural surfaces -- an extension of the community's acequia. This becomes the visitor's first introduction to the powerful close-knit culture of Belen through festivals, matanzas, and the arts within the neighborhood. The open space of the proposed park is an extension of the acequia. This extension reiterates the concept of community. The park is flanked by commercial and residential opportunities that take advantage of the pedestrian-oriented safe urban environment.

The articulation and differentiation of the solid and void on a street, in a neighborhood ... district...city. Providing gathering places, paths and transitions. An arena for discourse and interaction between and within the community.

Integrating parks and gardens into existing empty spaces creates a link to provide a meaningful transition between the commuter rail station and Becker Avenue.

It is possible to reconfigure empty spaces to allow a new relationship- a realm of community.

Linkage is simply the glue of the city. It is the act by which we unite all the layers of activity and resulting physical form in the city...urban design is concerned with the question of making comprehensible links between discrete things. As a corollary, it is concerned with making an entity comprehensible by articulating its parts.

-Fumihiko Maki

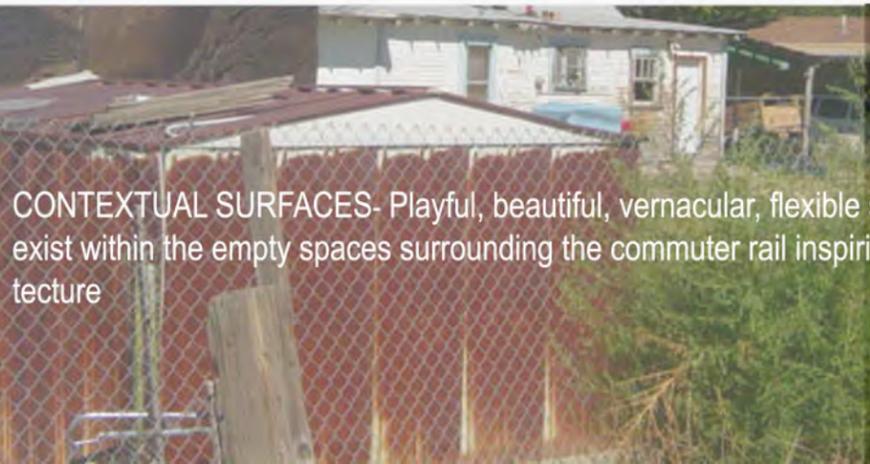
SITE PLAN



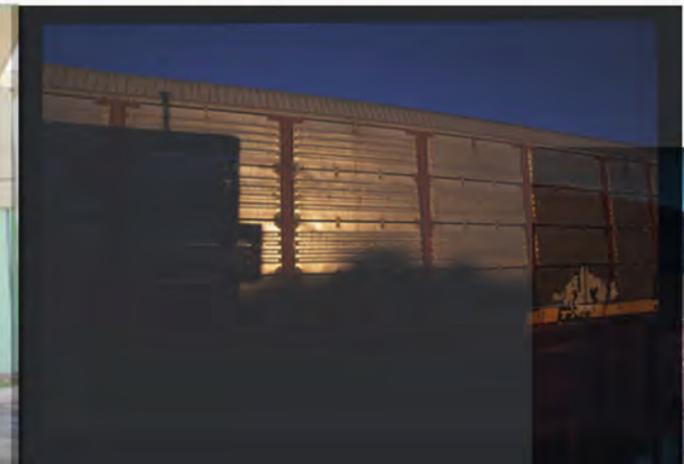
RENOVATION OF EXISTING STRUCTURES
Re-integrating existing buildings into the community in new forms



POSSIBILITY FOR MIXED USE DEVELOPMENT



CONTEXTUAL SURFACES- Playful, beautiful, vernacular, flexible surfaces exist within the empty spaces surrounding the commuter rail inspiring architecture



ADDRESSING EMPTY SPACES PUBLIC PARKS AND GARDEN



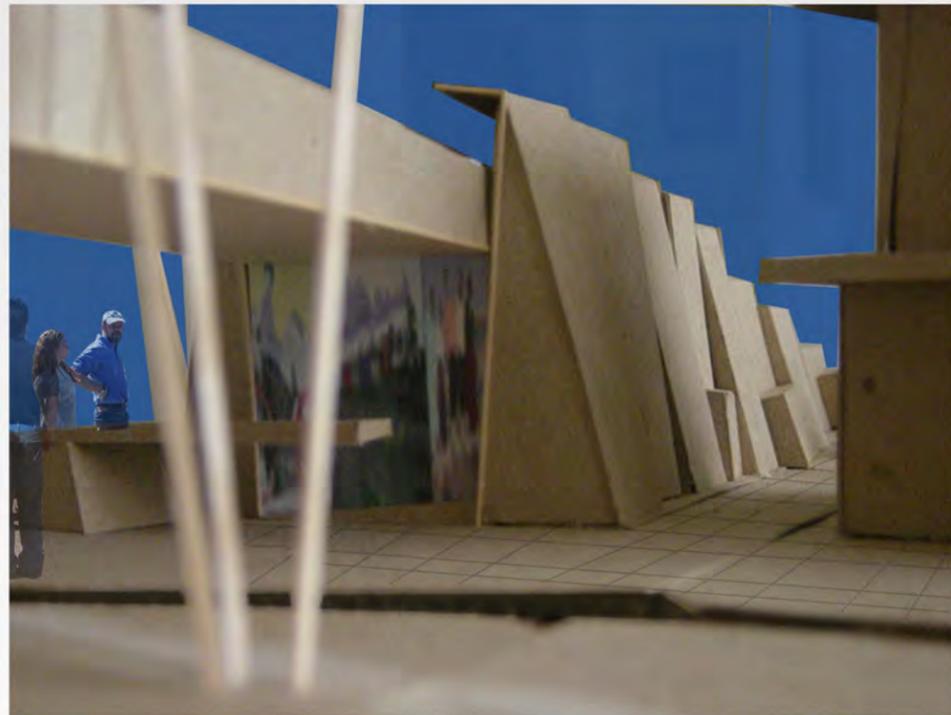
PLAYFUL EVERYDAY SPACES

Art gallery-public space. Everyday life and the relationship created between public spaces and cultural activity, including art, music, and playfulness, encouraging community interaction.

INTERVENTION

The structure evokes activity, performance and community presence within the interstitial spaces along the pathway.

"Instead of the sublime and beautiful, the near, the low, the common, was explored and poeticized. That which had been negligently trodden under foot by those who were harnessing and provisioning themselves for long journeys are suddenly found to be richer than all foreign parts. The philosophy of the street, the meaning of household life are topics of the time. It is a great stride. It is a sign...of new vigor when the extremities are made active, when currents of warm life run into the hands and feet." -Ralph Waldo Emerson

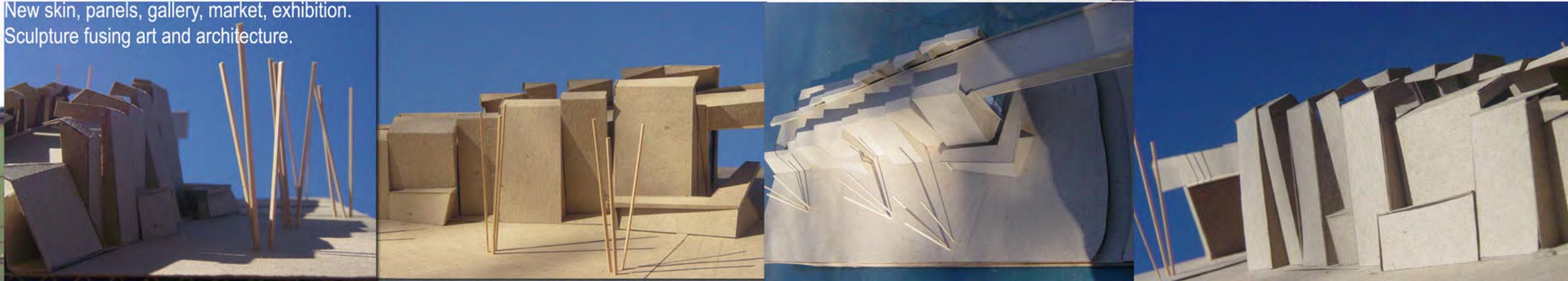


INTERVENTION

The structure evokes activity, performance and community presence within the interstitial spaces along the pathway.

- Revitalization of existing historic structures
- Mobilization of art district
- Activation of the path
- Implementation of lighting for additional safety
- Interest of landscaped acequia
- Renovation & new mixed-use development
- Community presence

New skin, panels, gallery, market, exhibition.
Sculpture fusing art and architecture.



Photograph by Nell Farrell





DOWNTOWN DISTRICT

- 6 FIRST STREET DEVELOPMENT**
- 7 ANCHOR PIECE / WIRE TRAIN SCULPTURE**
- 8 ASSISTED LIVING FACILITY**
- 9 a. POCKET PARK/ADAPTIVE RE-USE b. WATER TOWER REINVENTED**

1 ST STREET EXISTING CONDITIONS

RAIL YARD DISTRICT



PETE'S



ACEQUIA



HARVEY HOUSE



The 1st Street rail yard district is currently comprised of commercial structures including the 56-year-old Pete's Restaurant, the historic Harvey House, and the BNSF rail yard offices.

In addition, there are a few unoccupied buildings (NE corner of Becker Ave. & 1st Street) which provide an opportunity for rehabilitation.

There are also numerous larger vacant parcels south of Becker Avenue which provide the best opportunity for additional light industrial commercial as well as potential residential development.



1 ST STREET
VIEW TO NORTH



- RAIL YARD OFFICES
- PETE'S RESTAURANT

- LARGE UNDEVELOPED LAND PARCELS
- HARVEY HOUSE MUSEUM

1st STREET REDEVELOPMENT RAIL YARD DISTRICT

Redevelopment of 1st Street could include building design to enhance the attraction to both businesses and pedestrians.

Located on the west side of 1st street from Baca to Dailes Avenues, these flexible buildings would be inexpensive to build and of sufficient height (32') to also act as a sound wall, thereby insulating the downtown area from rail yard noise. These buildings would be modular in form, but flexible in that they could be attractive to a variety of tenants.



POTENTIAL BUILDING TENANTS

- Freight Forwarders
- Small Contractors
- Small Scale Manufacturing
- Restaurants
- Industrial Art Applications (Glass Blowing, Sculpture, Etc.)



Woonerf ("Street for living") is a Dutch term for common space created to be shared by pedestrians, bicyclists, and low speed motor vehicles. They are typically streets without curbs and sidewalks, and vehicles are slowed by placing trees, planters, parking areas, and other obstacles in the street.



VIEW TO NORTH



- ESTABLISHMENT OF 1ST STREET WOONERF
- SMALLER MONOLITHIC BUILDINGS TO ACT AS SOUND WALL AND SMALL BUSINESS INCUBATOR FACILITIES
- IMPLEMENT SUBSTANTIAL LANDSCAPING PLAN ALONG 1ST STREET (WOONERF)



BECKER AVENUE EXISTING CONDITIONS

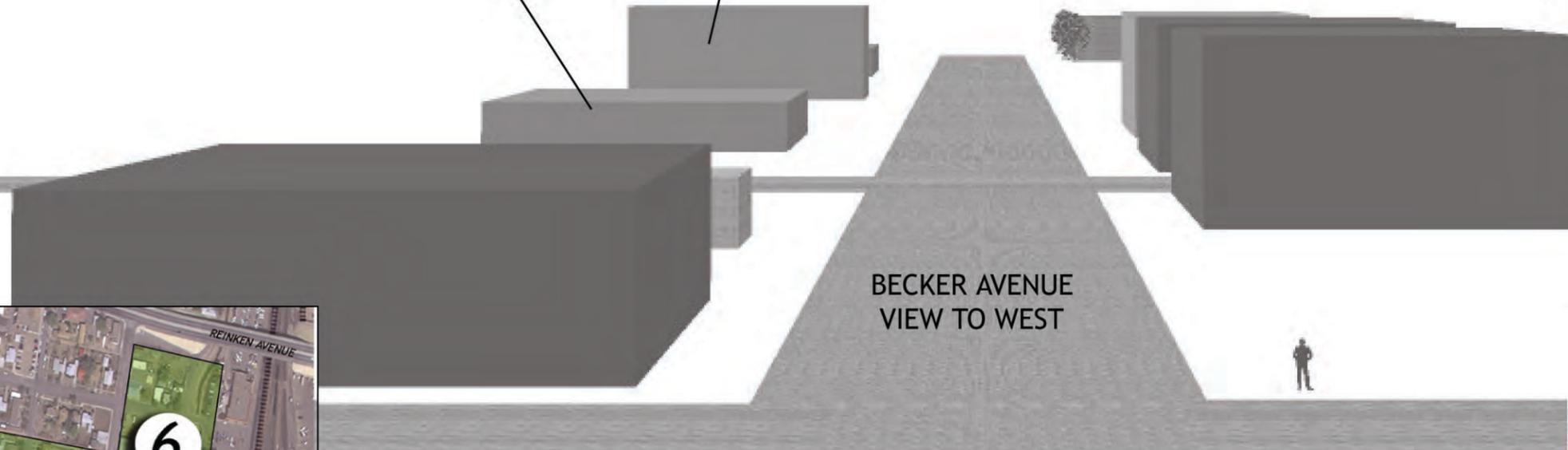
GALLERY DISTRICT

This district of downtown Belen offers many opportunities for future development of the community. Already an established area, the most unique buildings of the district are within easy walking distance to one another.

Historic renovatino opportunities as well as complimentary infill development should be encouraged.



1ST - 3RD STREET



- HISTORIC RENOVATION AREA
- ESTABLISHED ENTERTAINMENT DISTRICT

- INFILL LOT AVAILABILITY
- POTENTIAL FOR INNOVATIVE STREETScape

BECKER AVENUE INFILL DEVELOPMENT

GALLERY DISTRICT

The East Becker Avenue plan is centered around developing infill sites in a manner that would be complimentary to the existing fabric of downtown Belen

Development of light mixed use (not to exceed 2 stories) between 1st Street and 3rd Street could include retail shops, galleries, cafes and work-live loft style residential development.

Being in close proximity to civic services, the proposed commuter rail station would allow this area to develop into a pedestrian friendly environment which should be attractive to both potential merchants and residents.



MIXED USE OPTION A



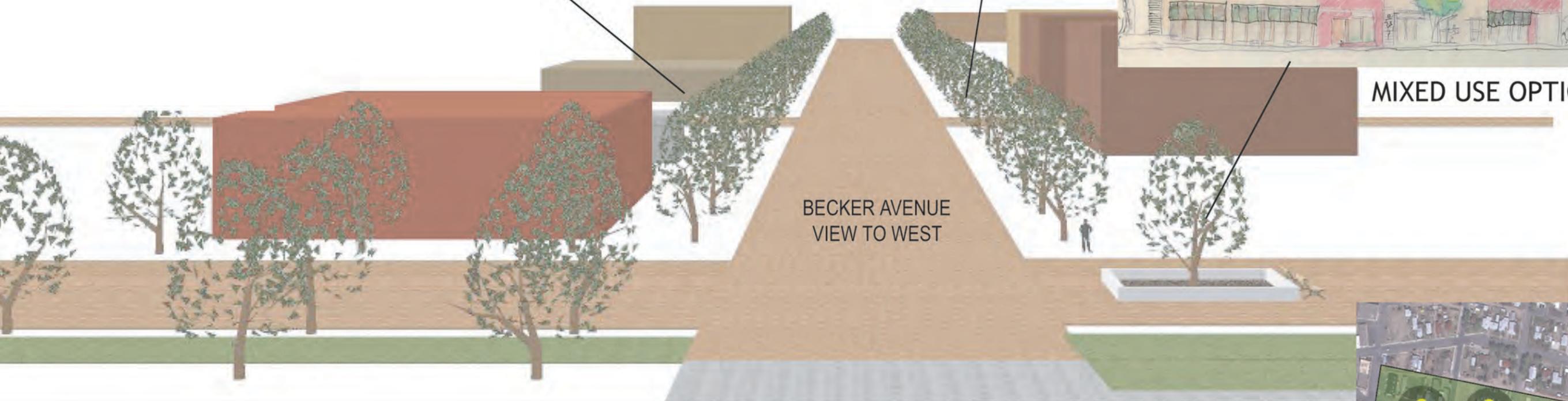
CAFES



GALLERY WALK



MIXED USE OPTION B



BECKER AVENUE
VIEW TO WEST

- INFILL DEVELOPMENT (1ST STREET TO 3RD STREET)
- COMPREHENSIVE LANDSCAPE PLAN

- RETAIL GALLERY SPACES, RESTAURANTS
- MIXED USE WORK / LIVE LOFTS



It's not readily apparent, but there are some fantastic elements at the east end of Becker Avenue

for instance, the hidden Harvey House

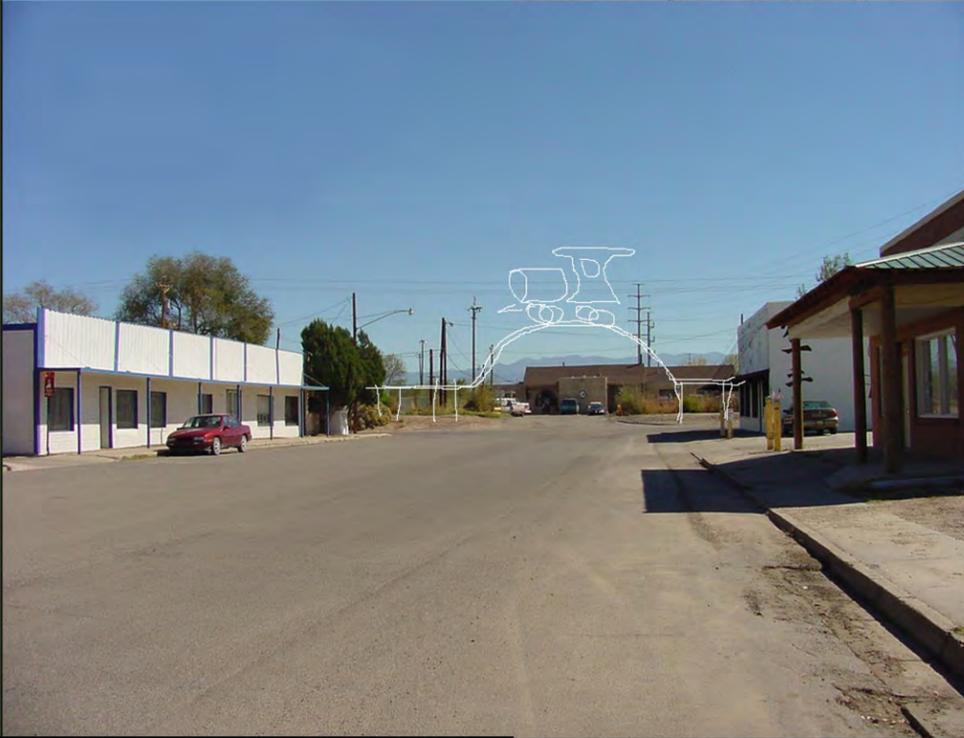
or WOW,

the new train station.

Hey Belen is Cool!



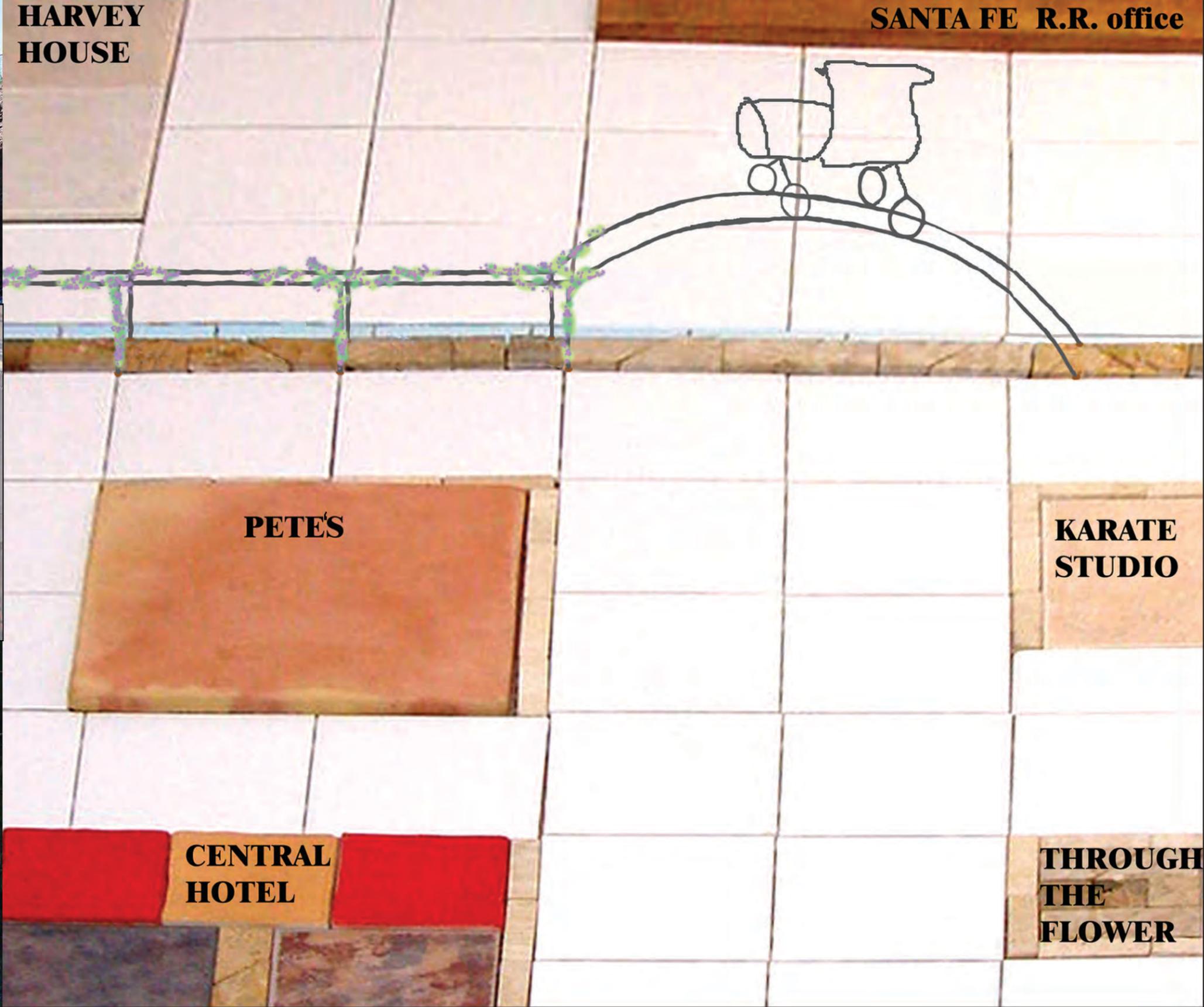
ANCHOR PIECE





HARVEY HOUSE

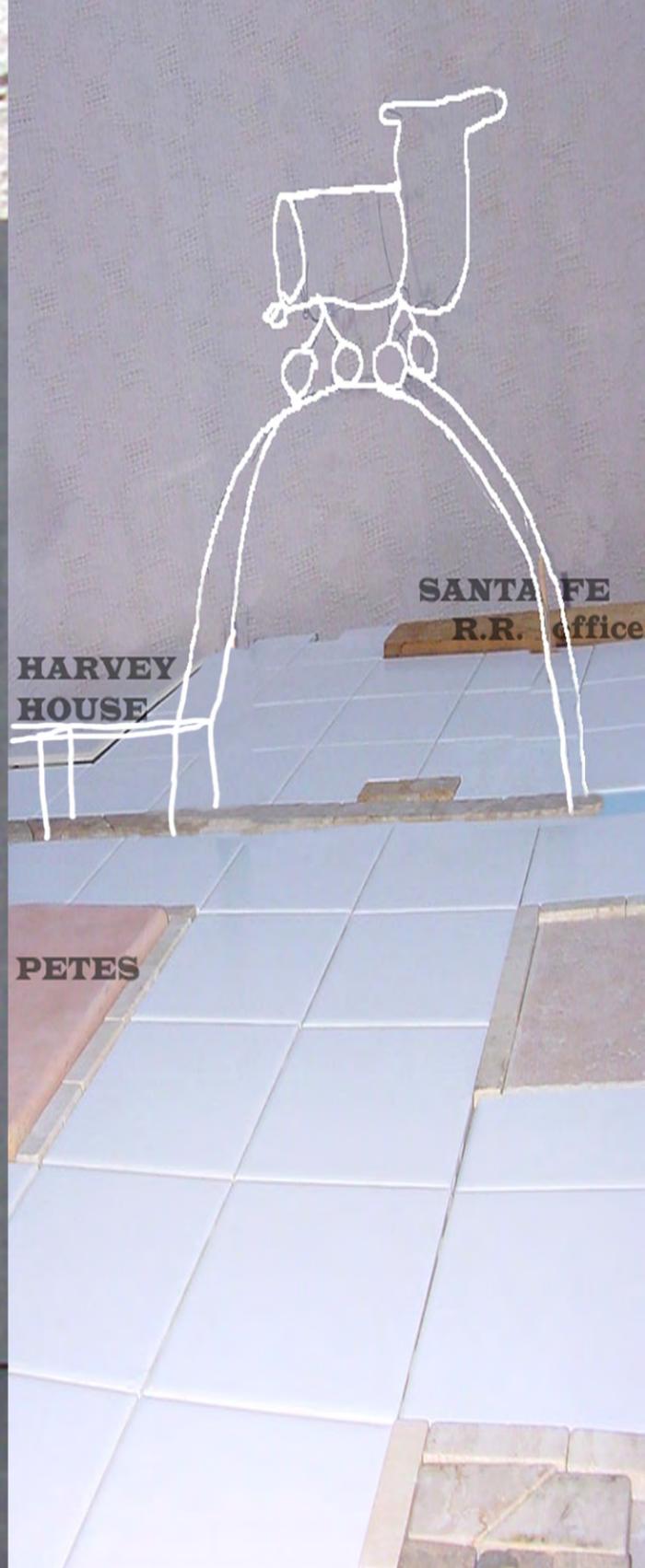
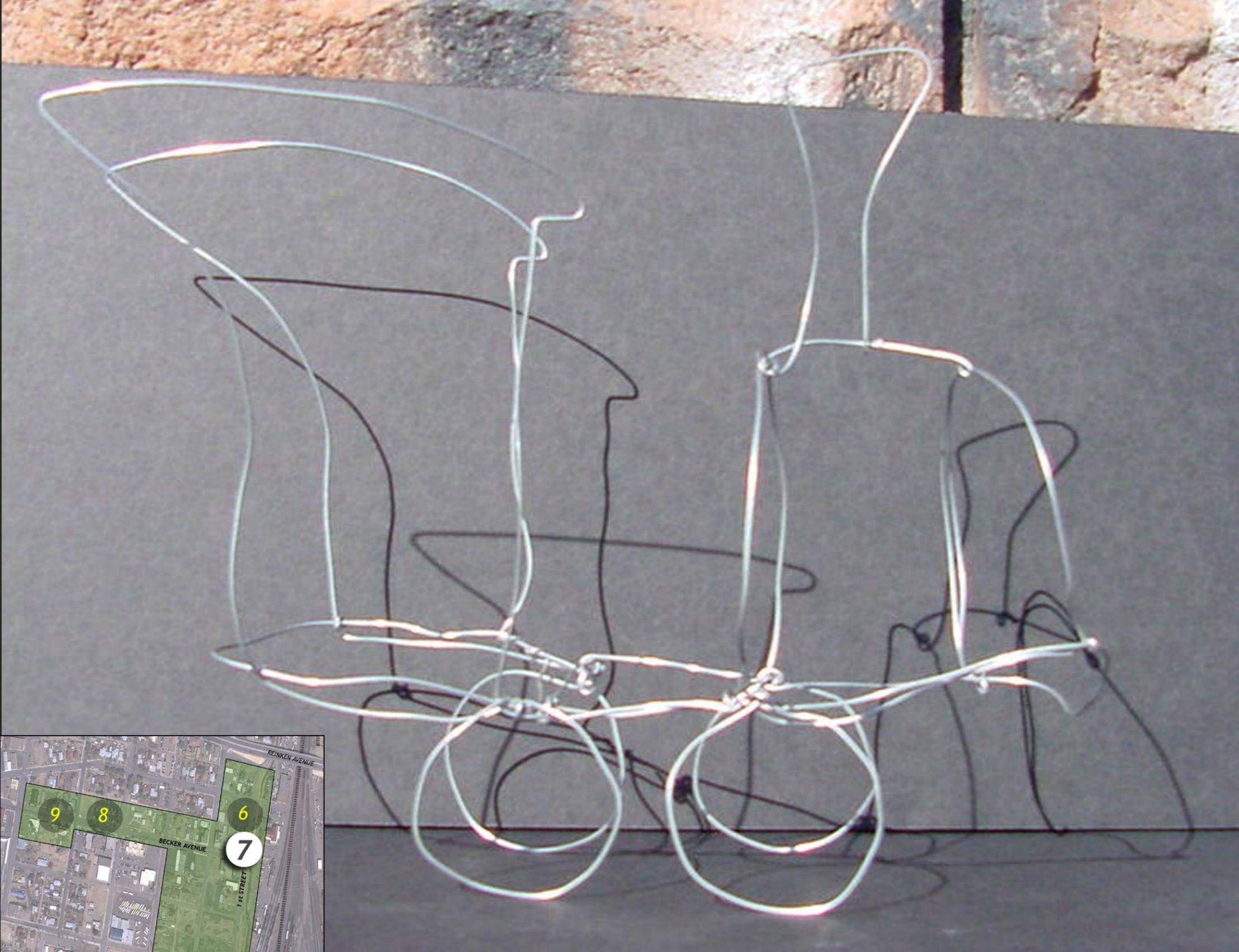
SANTA FE R.R. office

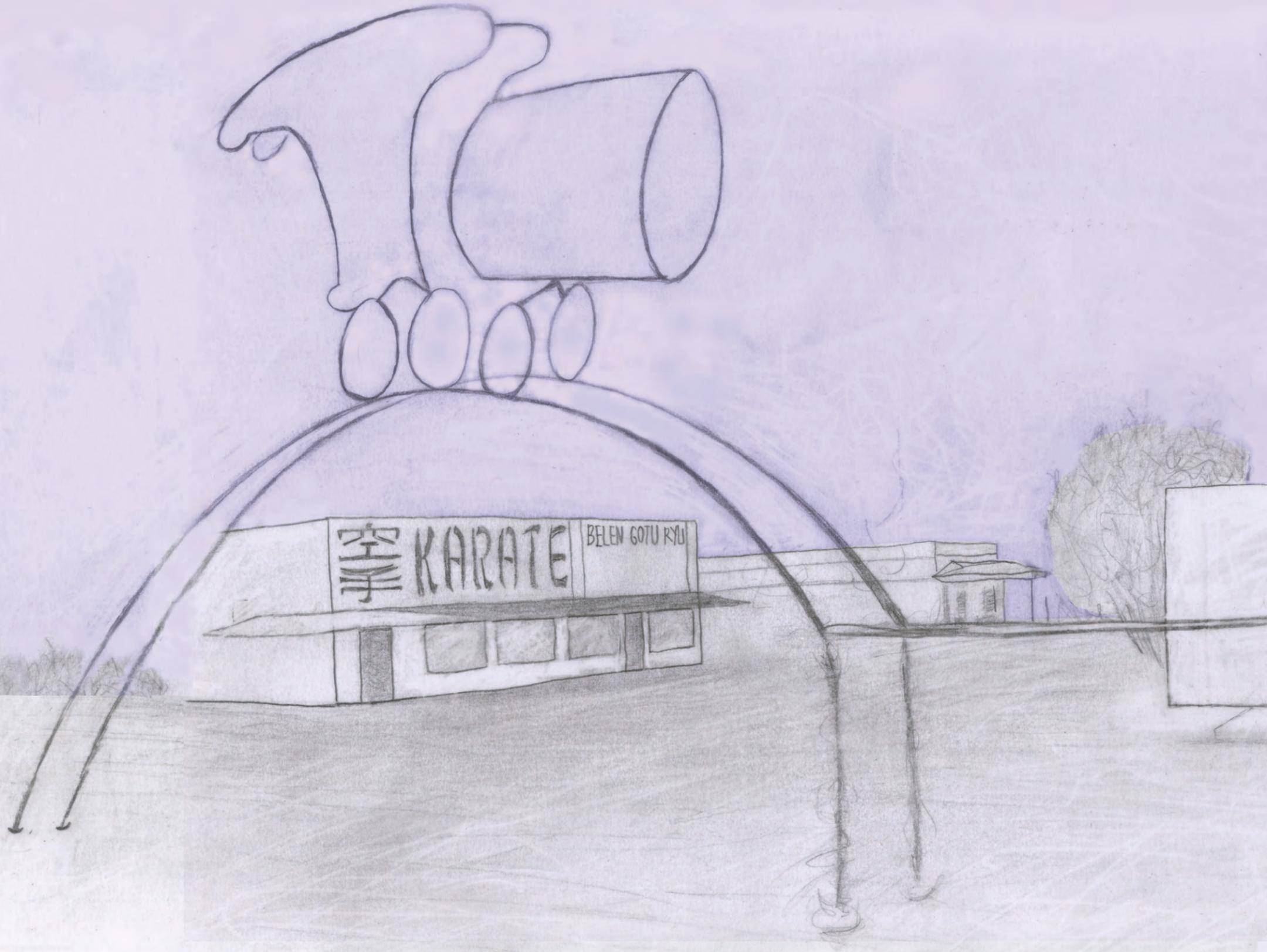


Imagine an enjoyable stroll under a wisteria shaded arcade linking Becker avenue to the train station

HEY BELEN IS COOL.

ANCHOR PIECE







WEST BECKER AVENUE AND 5TH STREET



ASSISTED LIVING FACILITY



TOWNHOUSE CONCEPT

ECONOMIC DEVELOPMENT

WEST BECKER AVENUE & NORTH / SOUTH GALLERY DISTRICT

There are numerous opportunities within the downtown area of Belen to expand housing and encourage business development.

For example, one approach would be to encourage the development of an assisted living facility on Becker Avenue between 4th and 5th Streets.

This site is in close proximity to essential services (Rexall Drug, Lowes, Public Library, Anna Becker Park) and would serve the community in multiple ways by fulfilling an eventual community need as well as creating employment.

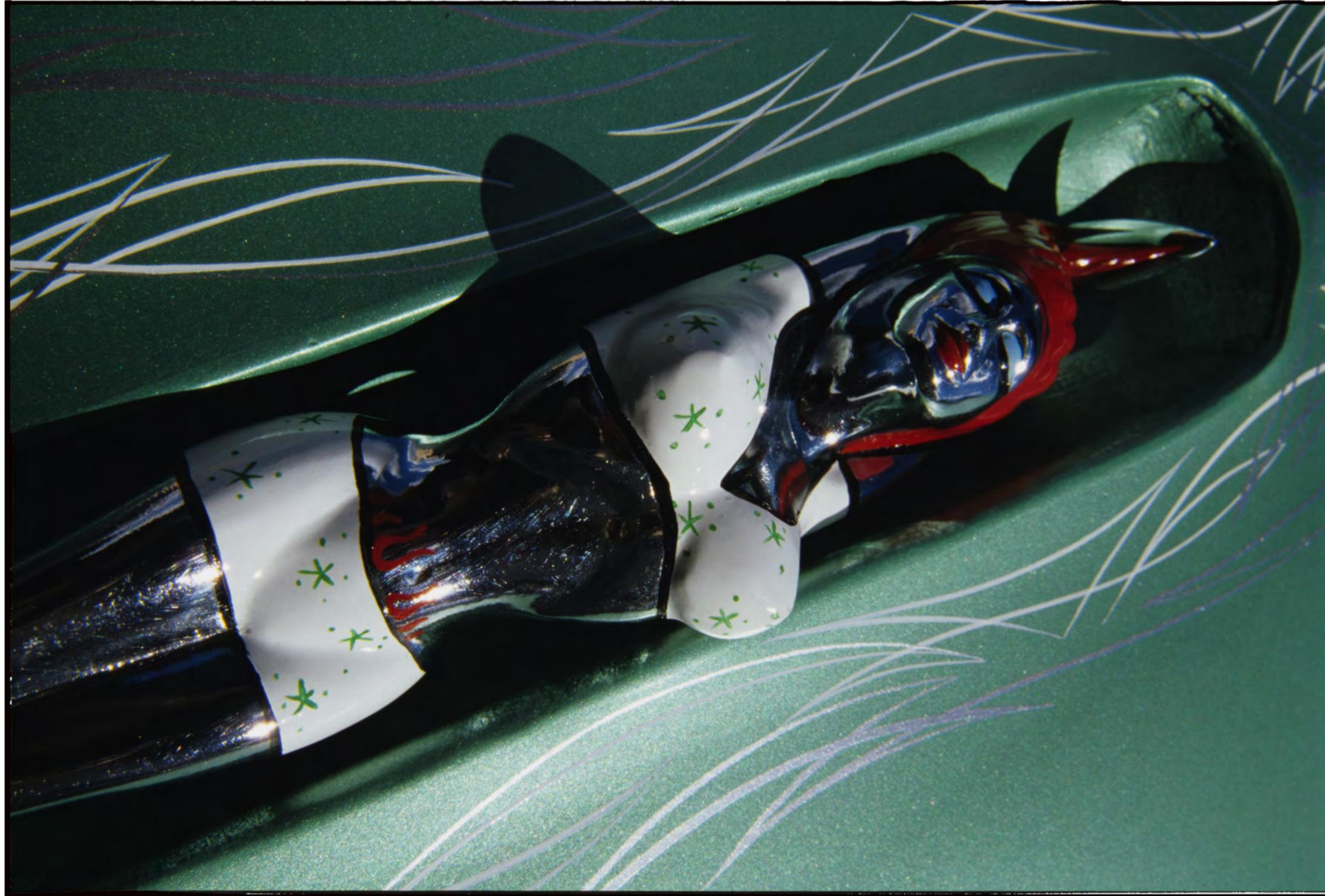


POTENTIAL HIGH DENSITY RESIDENTIAL SITES



- HIGH DENSITY MIXED USE PROJECTS ON STRATEGIC CORNERS
- HIGH DENSITY RESIDENTIAL BLOCKS SOUTH OF BECKER AVENUE GALLERY DISTRICT
- ASSISTED LIVING FACILITY
- ADAPTIVE REUSE

Photograph by Nell Farrell





ADAPTIVE REUSE



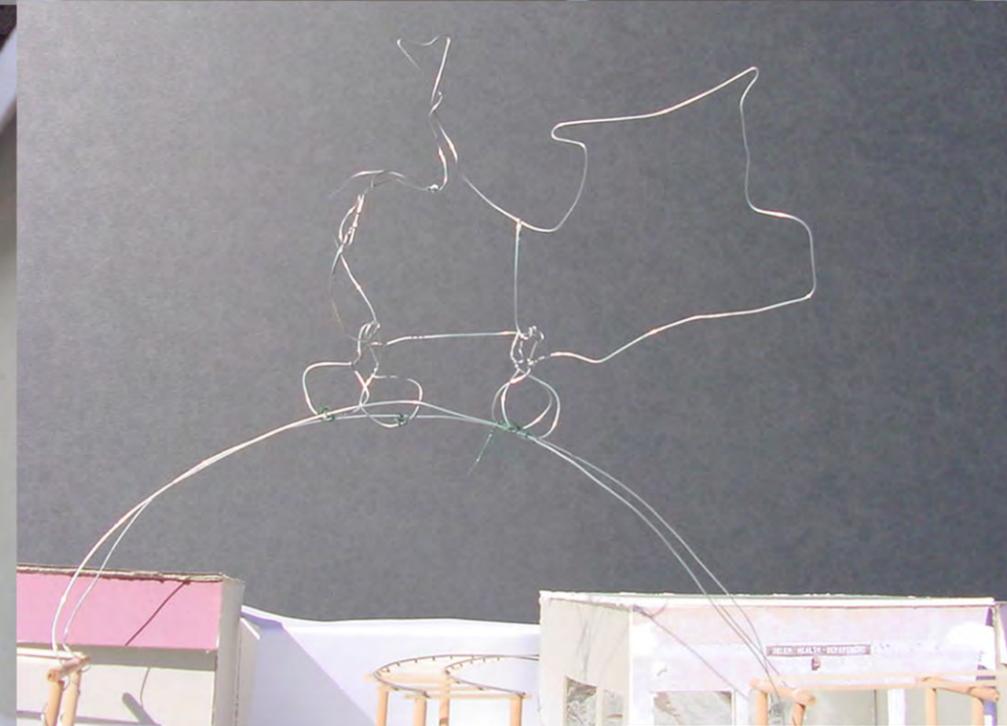
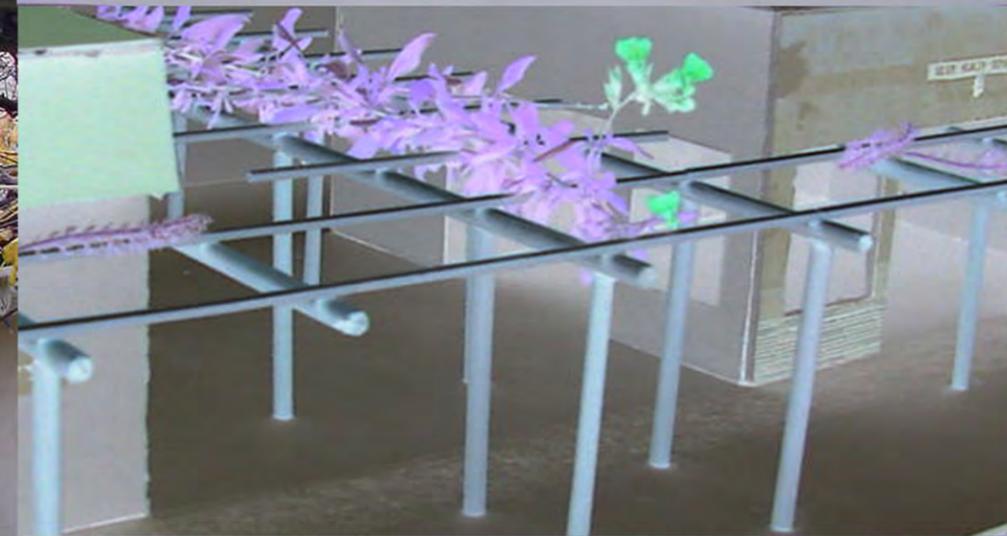
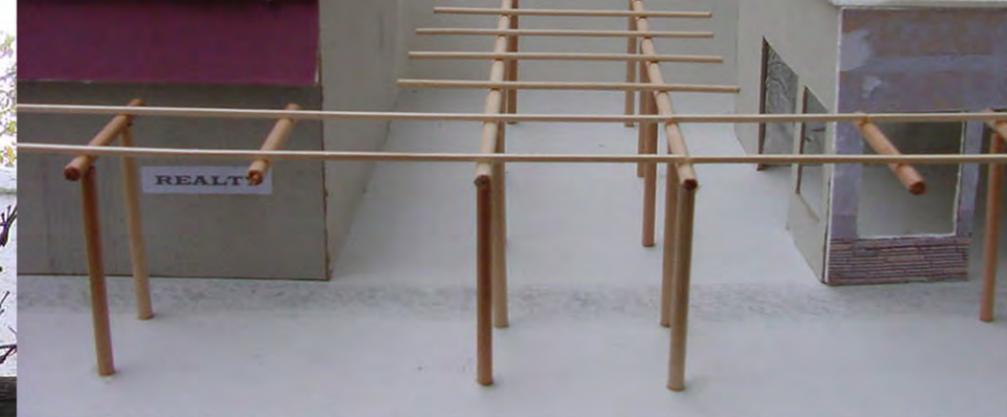
BESIDES ANNA BECKER PARK, WHERE DO CIVIC MINDED PEOPLE PICNIC FOR LUNCH ?

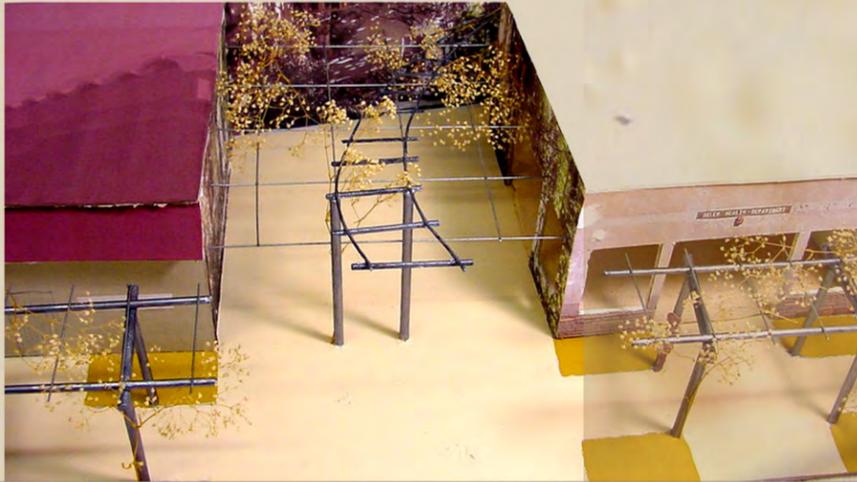
HOW ABOUT ACROSS THE STREET FROM WORK, IN A POCKET PARK ALONG THE CIVIC PROMENADE?

I SAW OPPORTUNITY RESTING

AND OPEN COURTS FOR LEISURE HIDING

BEHIND QUIET UNDEVELOPED
FRONTAGE



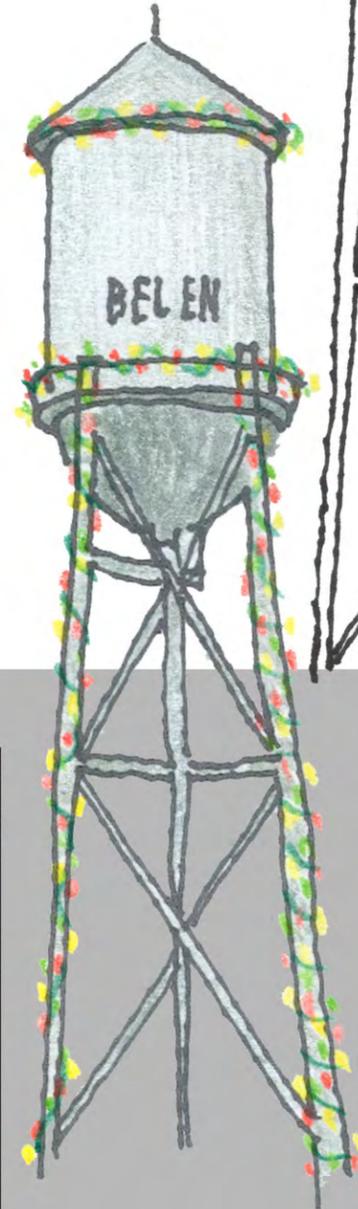




DOWNTOWN DISTRICT

THE FORGOTTEN LANDMARK:

The water tower *is* the visual marker for Belen. However, it appears that it is mostly forgotten. Visitors to Belen invariably photograph the tower. When you ask locals about 'Belen', you get a wealth of history and descriptions, none of which include the tower.



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