

UNM FACULTY PRESENTATION // 08.26.2014

INNOVATE ABQ

MASTER PLAN

RESEARCH DISTRICTS REDEFINING INNOVATION

If you take the major research institutions and tech clusters that are being created, how do you take them and arrange them in a purposeful way with mixed use housing and amenities that attract talent but work for industry?

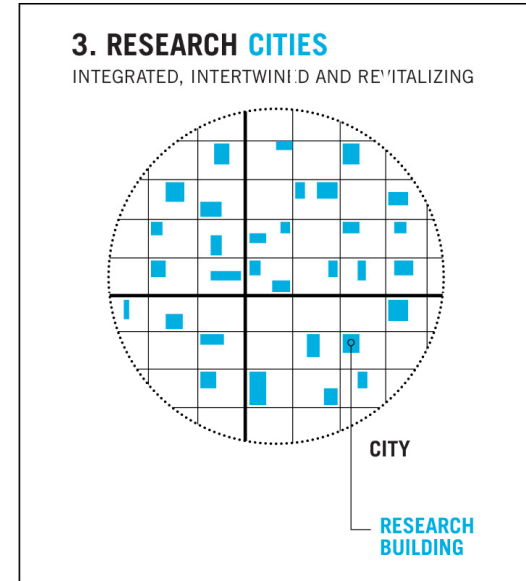
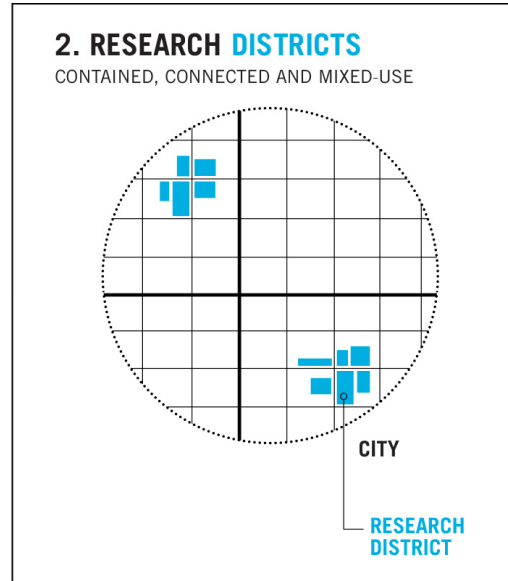
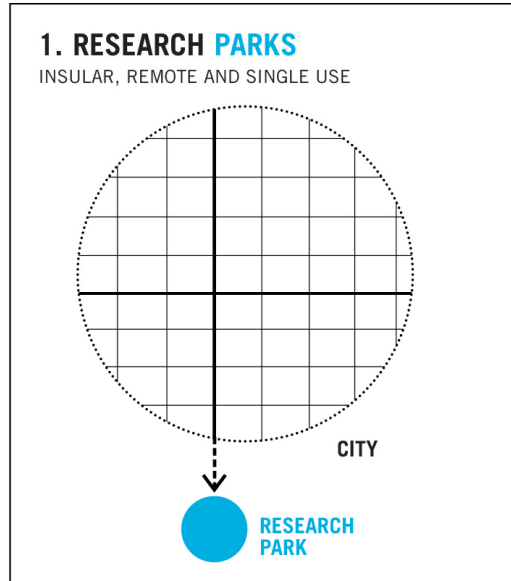
BRUCE KATZ /

**Brooking Metropolitan Policy
Program**

Wired Magazine, Feb. 2012

GOALS + OBJECTIVES /

The Evolution of Research + Innovation



GOALS + OBJECTIVES /

Creating a Research
District



MIT University Park / Cambridge, MA

GOALS + OBJECTIVES / Creating a Research District



QRDC Research District / Doha, Qatar

PLANNING FRAMEWORK

ENVISIONING INNOVATE ABQ

PLANNING FRAMEWORK /

Objectives

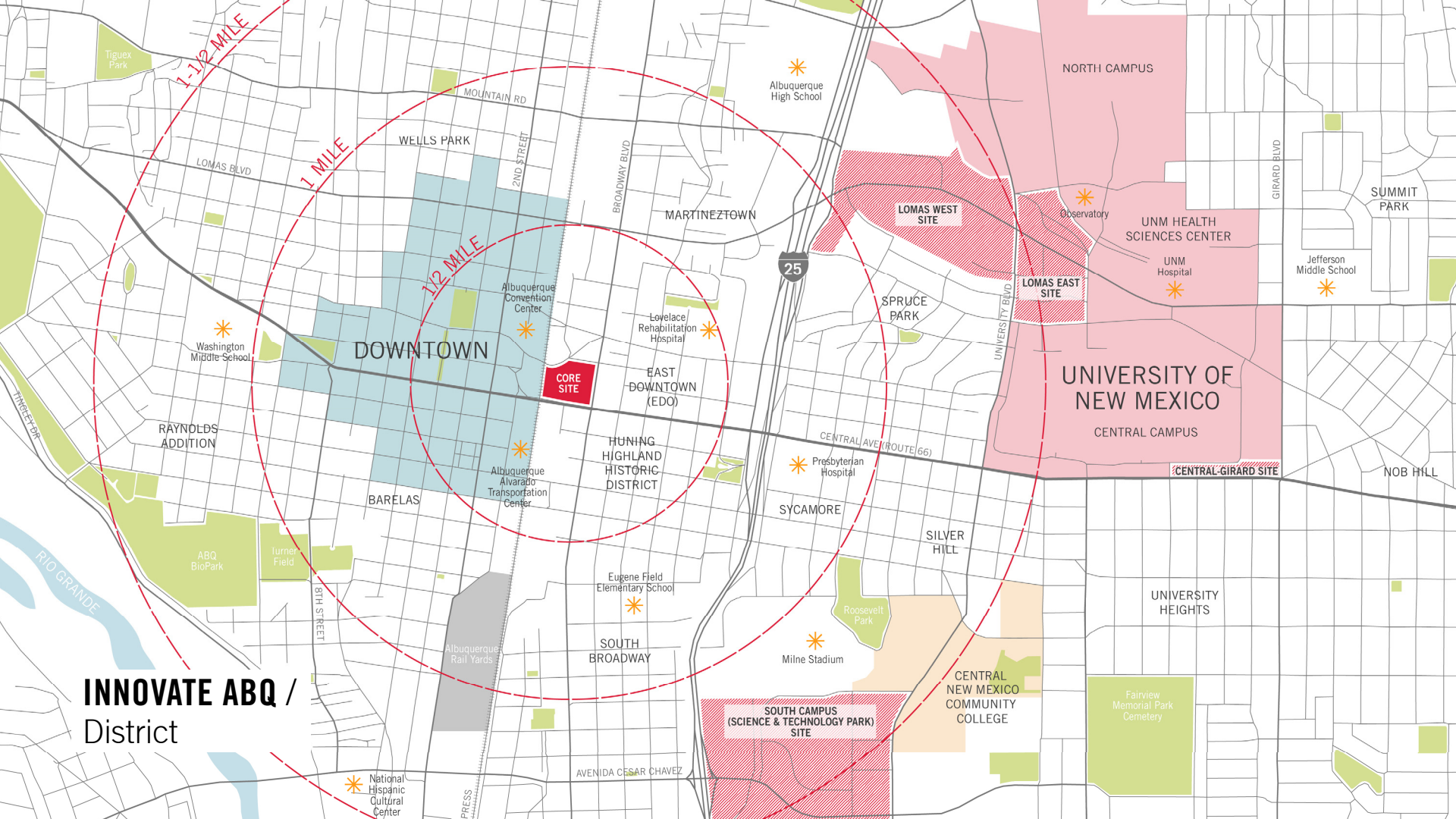


Leveraging both the assets of the city and the University, Innovate ABQ will be a catalyst for a new innovation economy in Albuquerque.

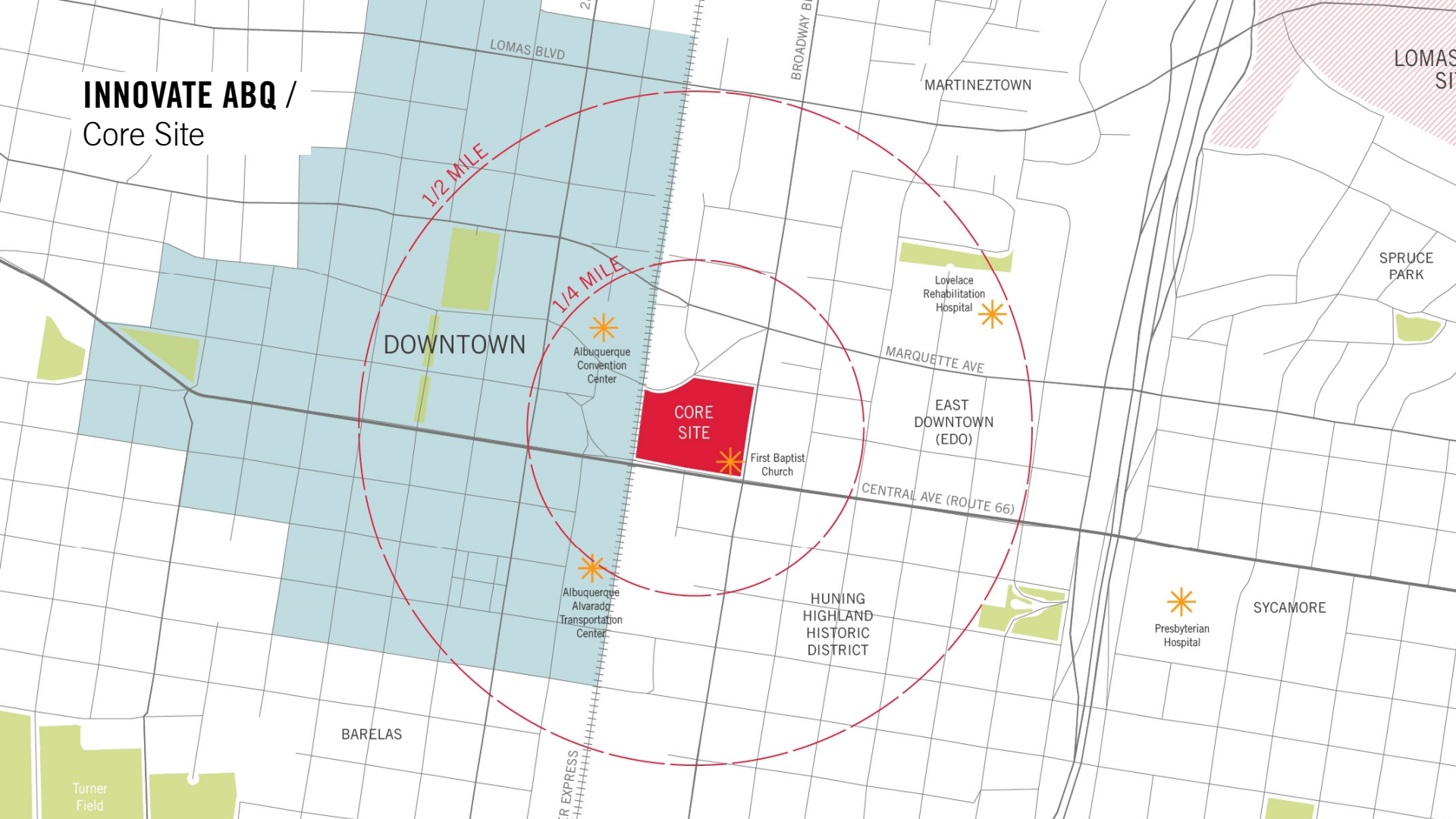
PLANNING FRAMEWORK /

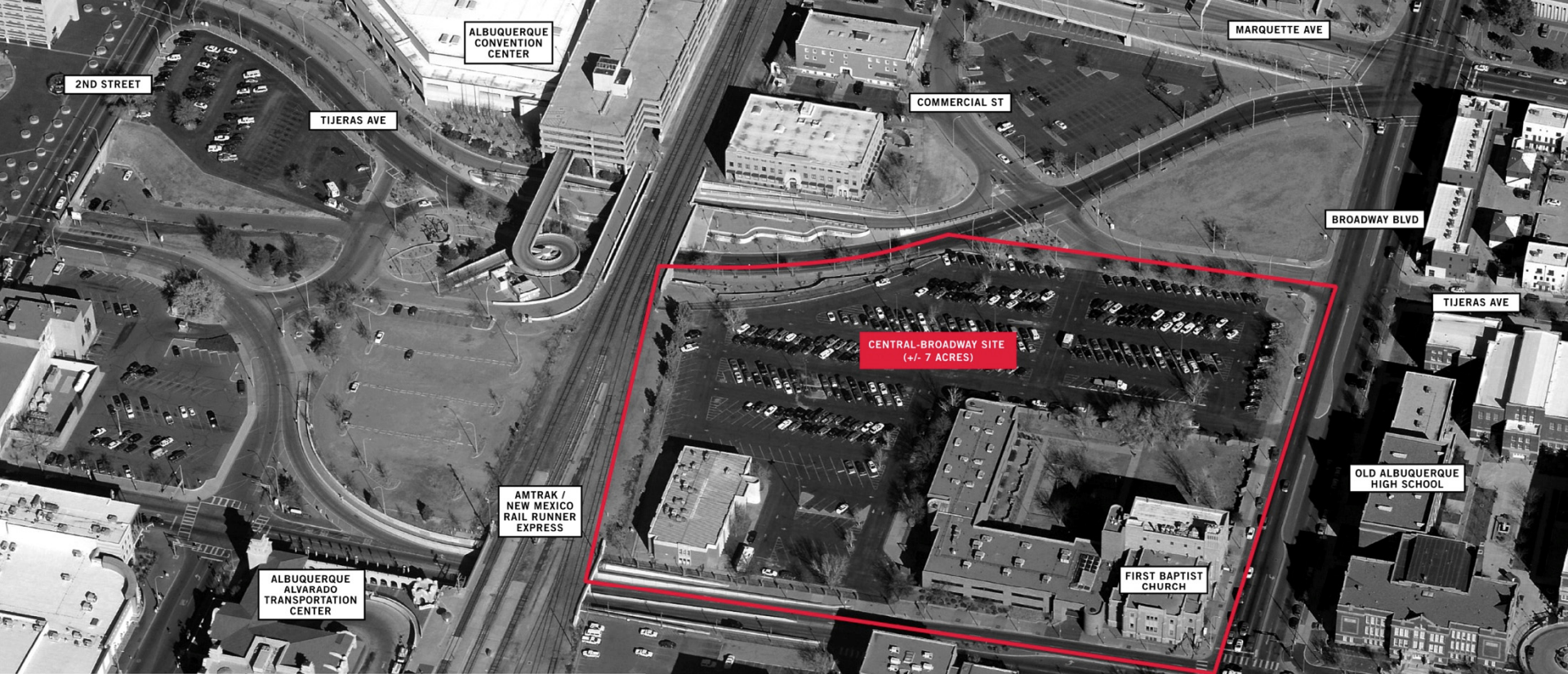
Site Assessment

	 PEOPLE	 ASSETS	 VIBE	 SUITABILITY	 PROXIMITY	 SYNERGY	 SPACE	 IDENTITY	 OWNERSHIP	TOTAL
SITE 1. SOUTH CAMPUS	3	2	0	5	3	2	2	3	5	25
SITE 2. LOMAS WEST	1	0	0	5	3	2	1	1	4	17
SITE 3. LOMAS EAST	3	3	1	5	3	2	3	2	4	26
SITE 4. CENTRAL- GIRARD	5	5	3	2	4	5	3	5	5	37
SITE 5. CENTRAL- BROADWAY	5	5	5	4	4	5	5	5	1	39
SITE 6. MESA DEL SOL	2	2	2	4	0	3	2	2	5	22



INNOVATE ABQ / Core Site





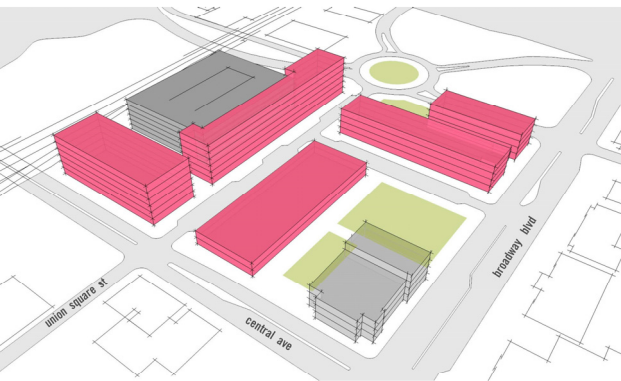
SITE 5. CENTRAL-BROADWAY

Smaller than the other sites but well-positioned, this +/- 7-acre site is the former home of Central Baptist Church at the corner of Central and Broadway. Removed somewhat from UNM but still connected by Albuquerque's signature street and high-frequency transit, the Central-Broadway site sits immediately across the railroad from downtown Albuquerque and its train station with service to Santa Fe. Surrounded by the emerging energy of the EDo district's handful of stores and restaurants, along with abundant sites for related redevelopment, the Central-Broadway site creates a landmark gateway to the City along the world-famous Route 66.



PLANNING FRAMEWORK /

Site Development Testing



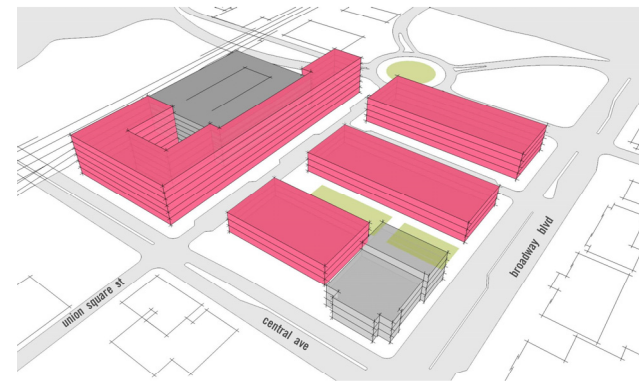
option a
SITE 5: CENTRAL - BROADWAY
08.02.2013

08



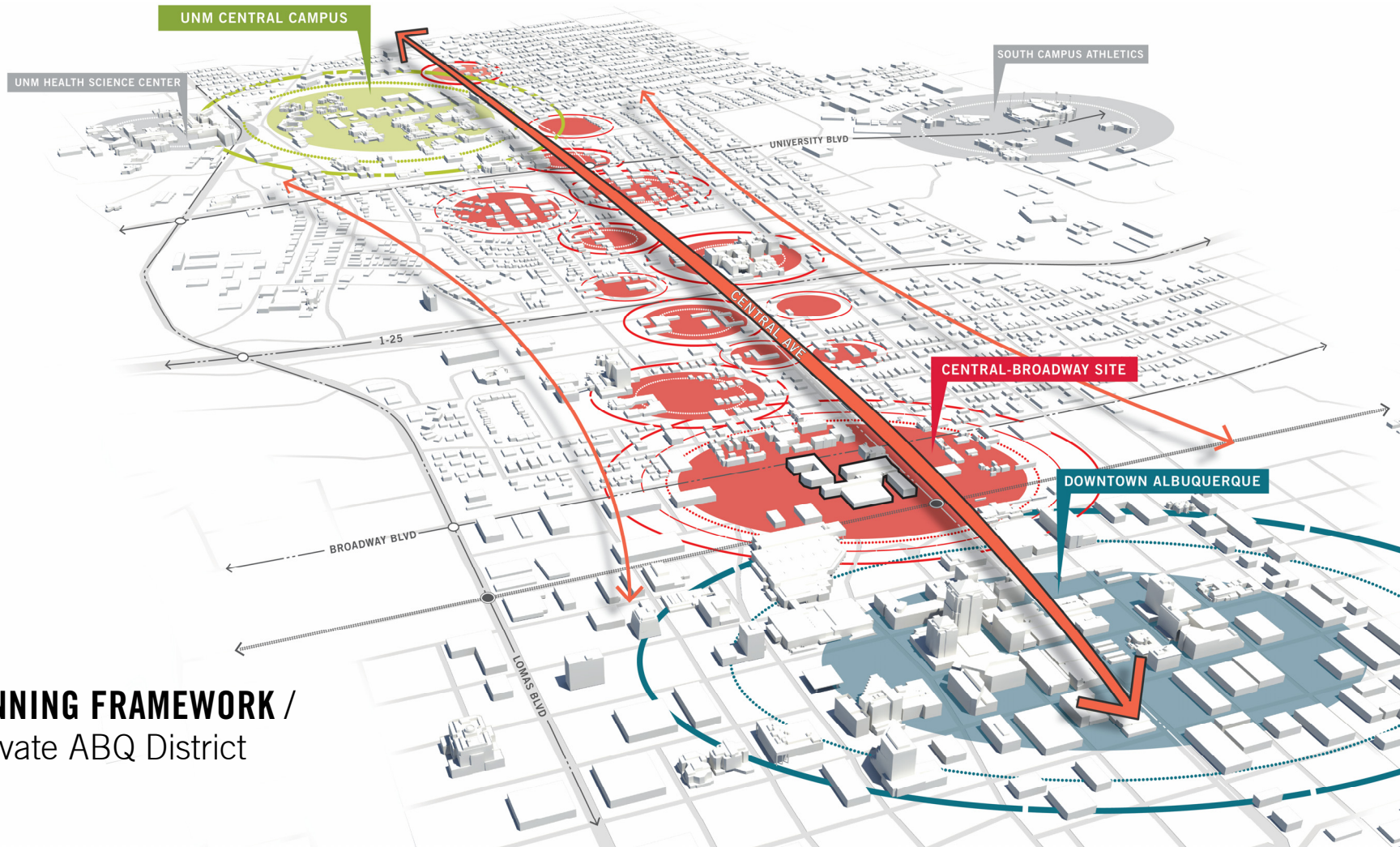
option b
SITE 5: CENTRAL - BROADWAY
08.02.2013

08



option c
SITE 5: CENTRAL - BROADWAY
08.02.2013

10



PLANNING FRAMEWORK / Innovate ABQ District

MASTER PLAN DESIGNING A RESEARCH DISTRICT

It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.

CHARLES DARWIN /

MASTER PLAN /

Principles / Livability

- It should be as easy as possible to live a rich and interactive life without relying on an automobile for the majority of one's daily routine.
- We should have a highly functional system of moving people and goods
- Development should be focused on the quality of the process, not just the speed at which these events unfold.
- Enhances retention of graduates and provides an environment for the creative class.

Livability is a strategy for creating a place where people want to live, and where they thrive as a result of living in this place.

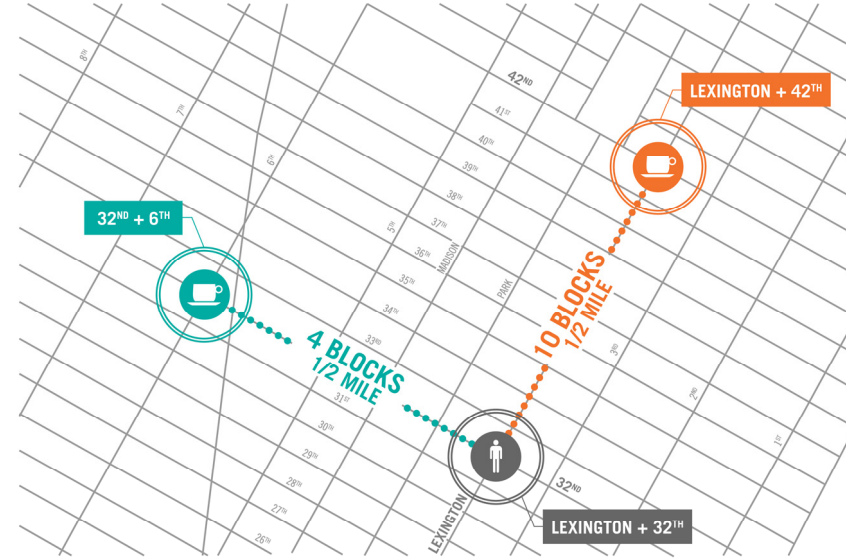


MASTER PLAN /

Principles / Accessibility

- Designing to accommodate as many people as possible as they all move through the city.
- Includes elements ranging from building access to transportation choices.
- Encourages systems that stimulate activity, and creates satisfaction with environment.

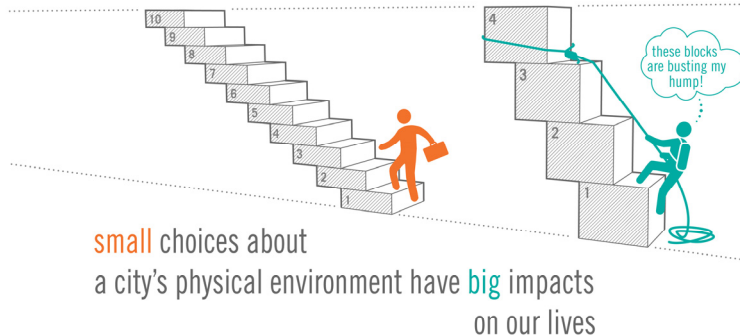
Simply put, accessibility is providing people with great options for getting around.



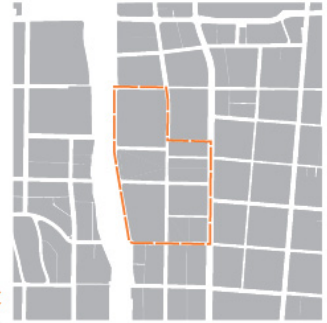
MASTER PLAN /

Principles / Walkability

- Critical to the success of a community and to the health of its citizens.
- Consists of a highly connected system of streets that supports healthy lifestyles and reduces dependency on automobiles.
- Creates conditions that promote the exchange of ideas and success of the community.



TECHNOLOGY SQUARE
ATLANTA, GEORGIA



MISSION BAY
SAN FRANCISCO, CALIFORNIA



INNOVATION SQUARE

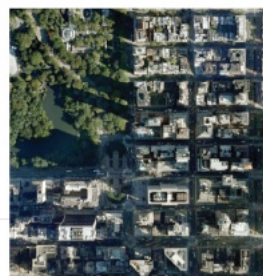


MASTER PLAN /

Principles / Adaptability

- Requires the existence of a framework into which components can be inserted, changed, modified and replaced with minimal impact.
- The framework should be permanent.
- Streets are the single most important element.
- Appropriately sized blocks to accommodate a variety of uses and easy of development.

The goal is to provide a lasting flexible system that will accommodate change long into the future with maximum efficiency.



MASTER PLAN /

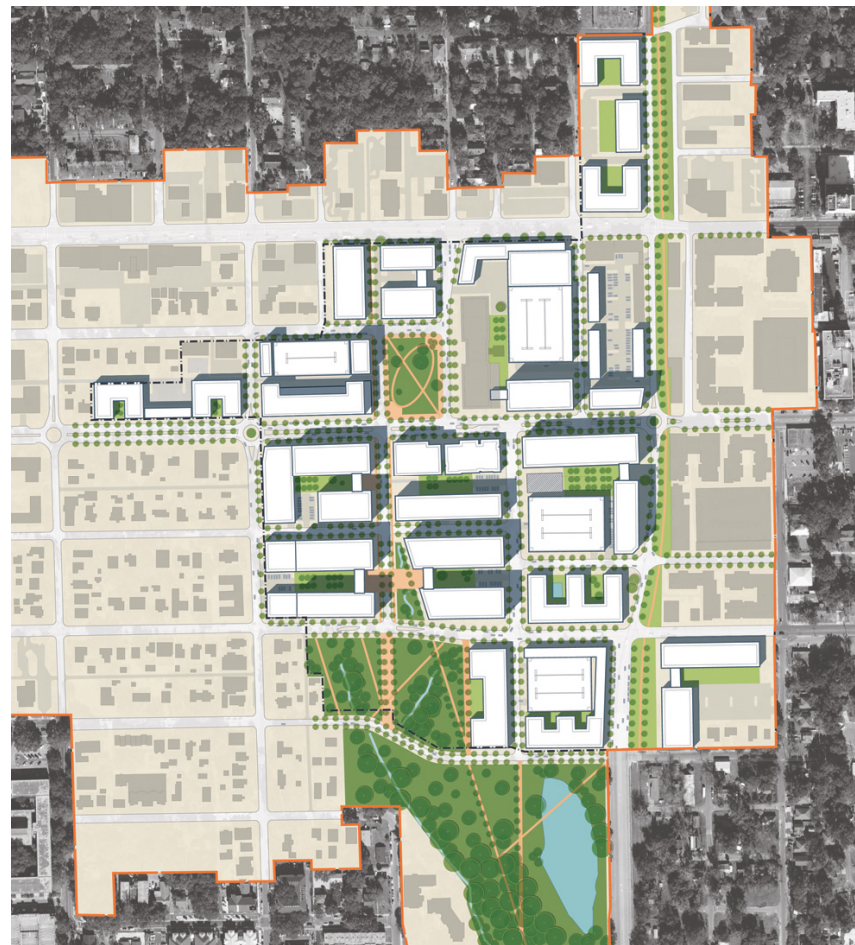
Principles / Sustainability

- We must align our actions with our goals.
- We should create a comprehensive strategy for creating better communities.
- We must constantly experiment and test.
- Courses can be modified to address alternative strategies, tactics, and components.

In highly complex processes simplicity and elegance are key to success.



MASTER PLAN / Vision



DESIGN GUIDELINES ACCOMMODATING FLEXIBILITY IN DEVELOPMENT

DESIGN GUIDELINES /

Development Guidelines

5.3.2. BUILDING PLACEMENT

All buildings are required to have a main entrance connecting to a Public Right-of-Way.

Buildings located on an Urban Street (See “4.2.1.1. Non-Urban Street, Type A” on page 70) are required to be built at the Build-to-Line. The Build-to-Line is located at the Property Line or at the Utility Easement edge, in cases where a Utility Easement is present.

Sidewalk connections to the public sidewalk shall be provided from all main building entrances that face Urban Streets.

FIGURE 5.3C. BUILDING PLACEMENT DIAGRAM URBAN AND NON-URBAN STREETS

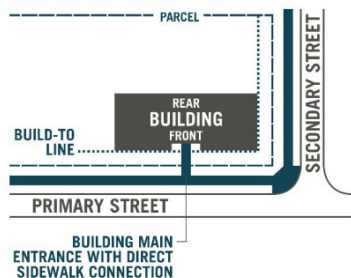
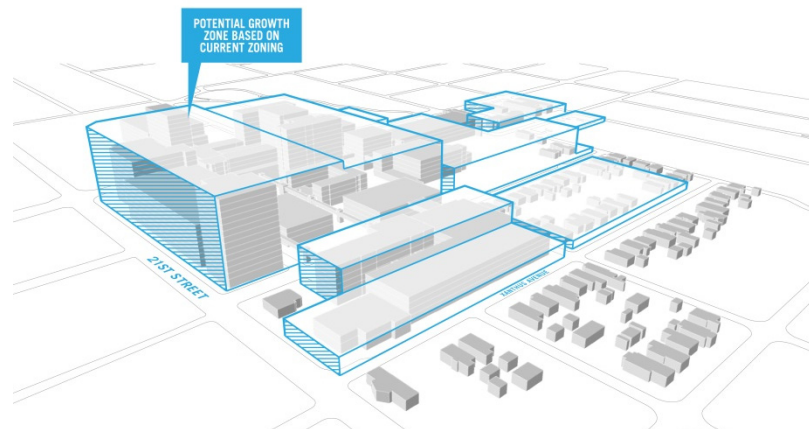
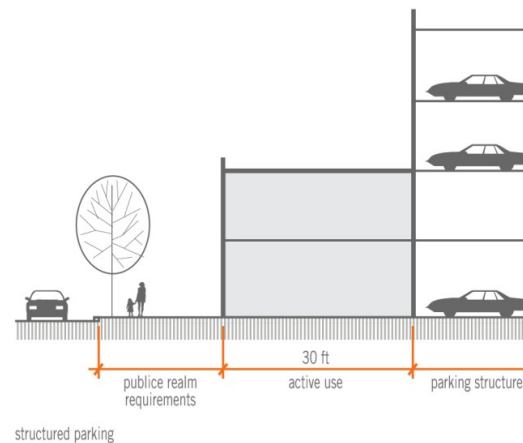
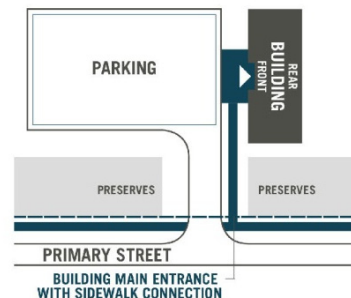
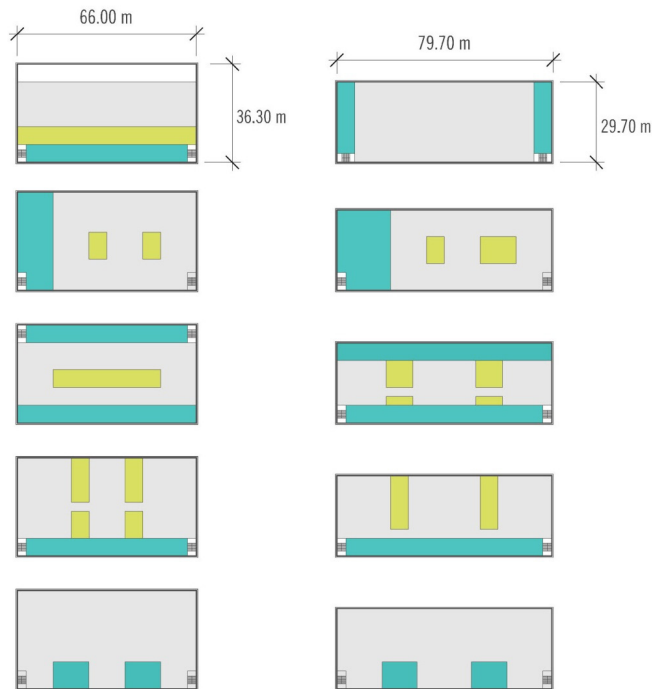


FIGURE 5.3D. BUILDING PLACEMENT DIAGRAM FOR NON-URBAN STREETS ONLY



DESIGN GUIDELINES /

Development Guidelines / Research Buildings



● Yes
○ Maybe

	VENTILATION DRIVEN LABS		HEAT GAIN DRIVEN LABS	
	"Supply Driven Min OA cfm > Fumehood cfm"	"Exhaust Driven Fumehood Exhaust > Min OA cfm"	"Non-Recirculating Air Zero Contamination - Samples Engineering"	"Recirculating Air Bio-Informatics, Computer Driven"
BENCHMARKS	Energy Use Intensity MJ/m ² -yr(kBTU/ft ² -yr)	2000-3500 (180-320)	2000-3500 (180-320)	2000-3500 (180-320)
	Carbon Emission Intensity Kg/m ² -yr (lbs/ft ² -yr)	225-375 (50-75)	225-375 (50-75)	225-375 (50-75)
	Outside Air Changes per Hour (for a 10' ceiling)	4-6 occupied, 2-4 unoccupied	> 6 occupied; depends on hood density	<4 occupied 0.5 (per ASHRAE 62 office std)
	Lighting Power Density - W/m ² (w/ft ²)	10.8 (1.0) - 11.8 (1.1)	10.8 (1.0) - 11.8 (1.1)	10.8 (1.0) - 11.8 (1.0)
	Equipment Power Density - W/m ² (w/ft ²)	10.8 (1.0) - 43 (4.0)	10.8 (1.0) - 43 (4.0)	53.8 (5.0) - 161.4 (15.0)
	Cooling Power Density - m ² /Ton (ft ² /Ton)	15 - 30 (150-300)	16 - 30 (150-300)	17 - 30 (150-300)
	Fan Power Efficiency- kW/L-s (kW/cfm)	0.14 - 0.32 (0.3 - 0.6)	0.14 - 0.32 (0.3 - 0.6)	0.14 - 0.32 (0.3 - 0.6)
	Total System Static Pressure - kPa (inches of Water)	1.25 (5)	1.25 (5)	1.25 (5)
	Contaminant sensors to allow for lower air change rates	●	●	○
	Use high performance, Low Flow Hoods	●	●	○
STRATEGIES	Underfloor Air Distribution	○	○	●
	Use Relief Air From Offices as Make Up Air	●	●	○
	Zone For Heat Gain	●	●	●
	Chilled Beams	○	○	●
	Radiant Ceilings	○	○	●
	Natural Ventilation			●
	Daylighting	●	●	●
	Night Temperature Setback	○	○	●
	Condensate Heat Recovery	●	●	●
	Energy Recovery & Enthalpy Wheels	●	●	●
	Supply Air Temperature Reset	●	●	●
	Solar Orientation and Shading	●	●	●
	Thermal Storage to Reduce Cooling Peak Loads	●	●	●
	Cogeneration/ Tri Generation	●	●	●
	Solar Energy (Thermal and Electric)	●	●	●
	Carbon Cap and Trade Between Tenants	●	●	●
	Bay Water Heat Rejection	●	●	●
	Waste Water Heat recovery	●	●	○
	Purchasing Plans for High Efficiency Equipment	●	●	●
	Effluent Modeling	●	●	●
	Measurement & Verification to Inform Benchmarks	●	●	●
	Submetering for M&V	●	●	●

DESIGN GUIDELINES /

Development Guidelines / Parcel Data



BLOCK A01

BLOCK DATA

TOTAL BLOCK AREA	+/- 80,574 SF [1.85 ACRES]
ZONING CATEGORY	UMU-2
MAX. BLDG HEIGHT	6 STORIES (8 STORIES WITH SPECIAL USE PERMIT)
TRANSITIONAL HEIGHT LIMIT	4 STORIES (50' FROM BUILD-TO LINE)

NOTES: 1. Block areas are based on the survey by CHW for the Gainesville Regional Utilities, dated 4.30.2012. Appendix B Block Data does not guarantee the accuracy of the information.
2. Appendix B Block Data is an overview of the site's zoning regulations. Refer to the City of Gainesville's UMU-2 zoning code for a complete description of the block's zoning requirements.
3. Block areas and build-to lines are diagrammatic and will need to be field verified to ensure proper location.
4. Block area is defined as the developable area within the build-to lines.

STREET TYPES

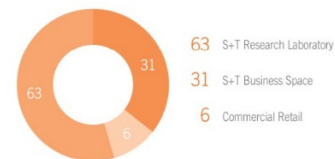
SW 2ND AVE	PRINCIPAL
NEW STREET	GREEN STREET
SW 3RD AVE	LOCAL
SW 10TH ST	PRINCIPAL

NOTE: Refer to Development Regulations for streetscape widths and ground floor program intent.

PROJECTED USE(S)

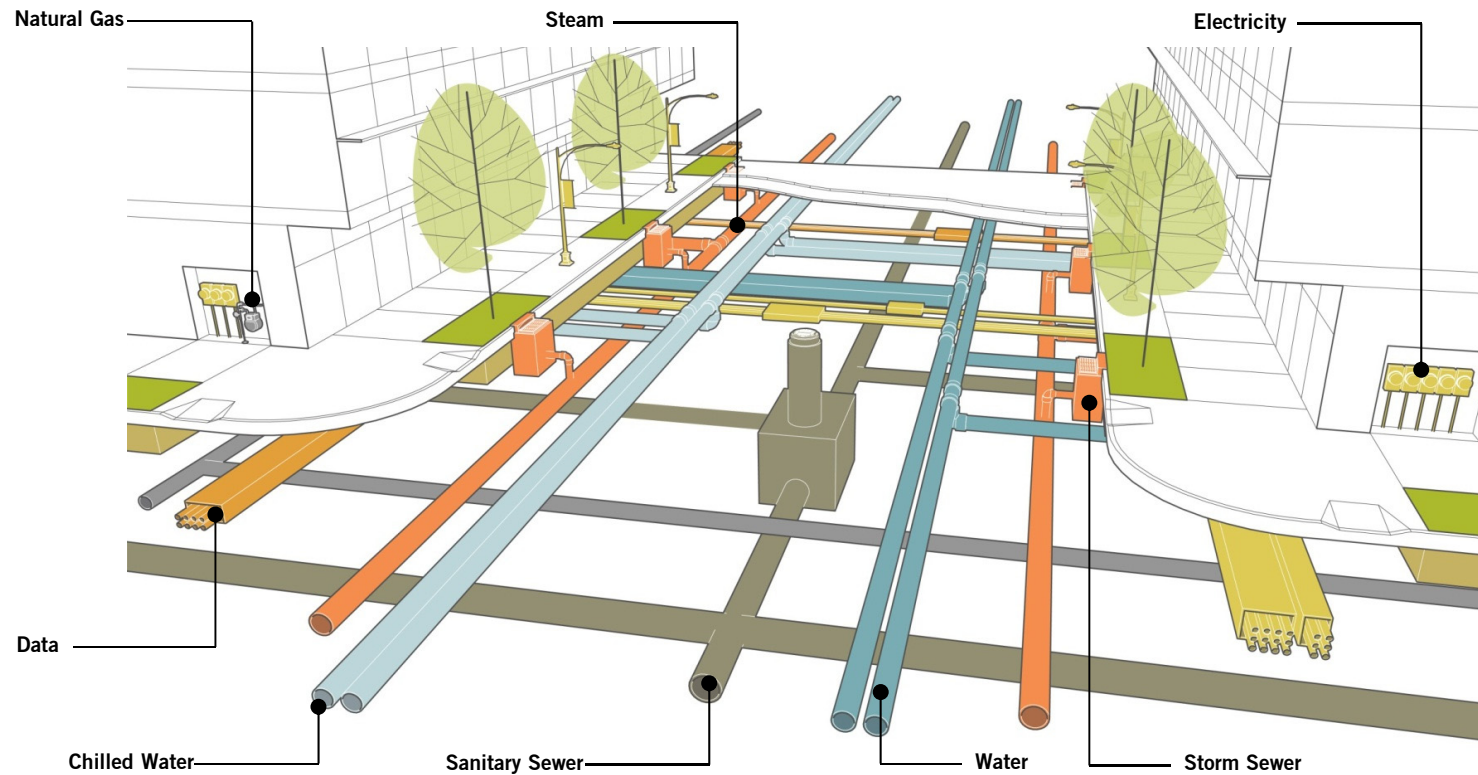
S+T RESEARCH LABORATORY	+/- 285,296 SF
S+T BUSINESS SPACE	+/- 140,040 SF
RESIDENTIAL + HOSPITALITY	-
COMMERCIAL RETAIL	+/- 25,690 SF
INSTITUTIONAL	-
TOTAL	+/- 451,026 SF

USE PERCENTAGES WITHIN THE BLOCK



DESIGN GUIDELINES /

Utility Guidelines



The goal is to make appropriate development as easy as possible to accomplish; removing roadblocks to doing the right thing.

PROCESS OUR APPROACH

PROCESS / Mapping & Analysis



EXISTING FACILITIES

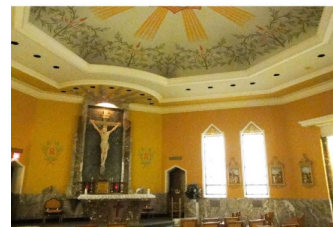
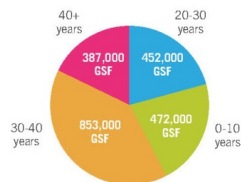
Building infrastructure can become obsolete very quickly as medical technologies evolve and needs change. Flexibility in the most basic building elements, such as column grid size, load capacity and floor-to-floor heights, can increase building lifetime. A healthcare building that is over 40 years old is typically considered for replacement, while buildings that are 20-40 years old are recommended for major renovation.

Today, more than a quarter of St John's facilities are over forty years old; by 2020, more than half of the campus will have passed the benchmark for end of building life expectancy.*

Among the aging structures is the 16-story J.A.Chapman Tower (1976), which hosts the core medical functions. The tower is flanked by two of the oldest buildings on campus—the Kravis Building (1937) and the Heyman Building (1957). The former, in particular, holds great potential for a future hospital building due to its proximity to the J.A.Chapman Tower. Another potential site for a new hospital is the site of the 1967 Holliman Medical Building across 19th Street.

*By square foot, not including parking structures

Today, over a quarter of St John's facilities are over forty years of age; by 2020, more than half of the campus will have passed the benchmark for end of building life expectancy.*

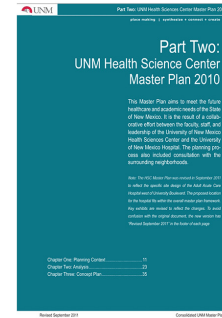


PROCESS /

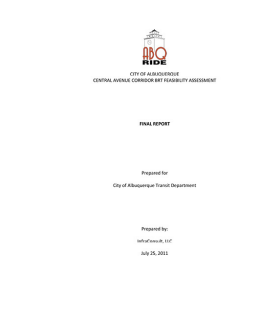
Understanding Planning Context



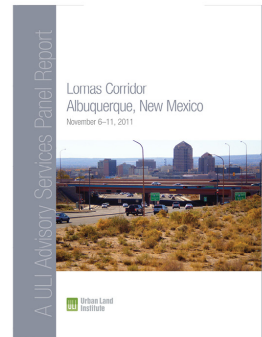
UNM MASTER PLAN UPDATE



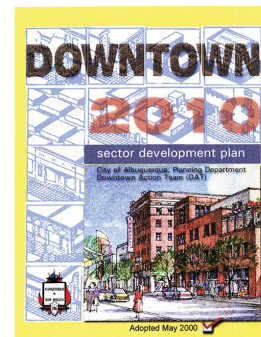
UNM HEALTH SCIENCE
CENTER MASTER PLAN



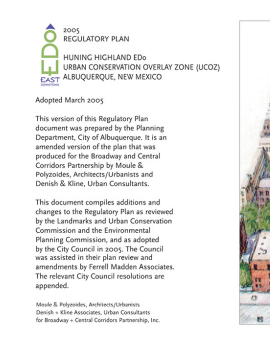
CENTRAL AVE CORRIDOR BRT
FEASIBILITY ASSESSMENT



LOMAS CORRIDOR
ULI REPORT



DOWNTOWN 2010 SECTOR
DEVELOPMENT PLAN



EAST DOWNTOWN (EDO)
REGULATORY PLAN

PROCESS /

Measuring & Benchmarking

REGIONAL ACCESSIBILITY

THE DIAGNOSIS: The health district is currently well positioned to evolve as a major medical center in the southeast. To live up to its potential as a destination, however, it will need to be better connected to rest of the nation.

AIR ACCESS

Current air travel through Baton Rouge Metropolitan Airport (BTR) provides access to key points in the Southeast, but strategic development of service to other airline markets and building connections to nearby regional travel resources could expand the Health District's reach even further.

DIRECT AIR CONNECTIONS TO BTR
(BTR) serves just under one million passengers per year with direct service to four major southern cities.



CONNECTIONS TO BTR + MSY
With strategic transit connections to Louis Armstrong New Orleans International (MSY), the Health District could benefit from a much more expansive network of non-direct flights and attract from the nearly 10 million passengers per year passing through that airport.



THE STATS

BATON ROUGE AIRPORT

25 FLIGHTS PER DAY
in and out of Baton Rouge per day to Houston, Dallas, Atlanta and Charlotte.

NEW ORLEANS AIRPORT

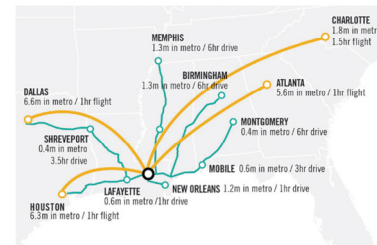
200 FLIGHTS PER DAY
to all major US hub airports and many non-hubs, just over one hour's drive from the Health District.

BTR AIRPORT CAPACITY

32% OF GATE SPACE
is currently unused, pointing to room for growth without major airport expansion projects.

HIGHWAY ACCESS

The Health District is in a location of strategic importance for regional access near the interchange of Interstates 10 and 12. This places it within reach of a much larger portion of the Southeast, with over 6 million people in metropolitan areas within a six hour drive distance in addition to the 20 million within a one-hour flight.



THE STATS

SOUTHEAST MAJOR MARKETS

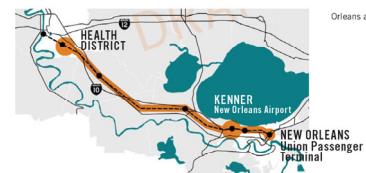
20.3 MILLION
people live in metro markets within one-hour flight of Baton Rouge.

SUBMARKETS

6.3 MILLION
additional people live within a half-day's drive of the Health District.

RAIL ACCESS

The Health District will benefit from its proximity to New Orleans, Louisiana's largest metropolitan area. The proposed passenger rail service linking New Orleans with Baton Rouge would potentially feature midway stops at the Health District and Kenner, from which shuttle service could connect to the New Orleans airport.



THE STATS

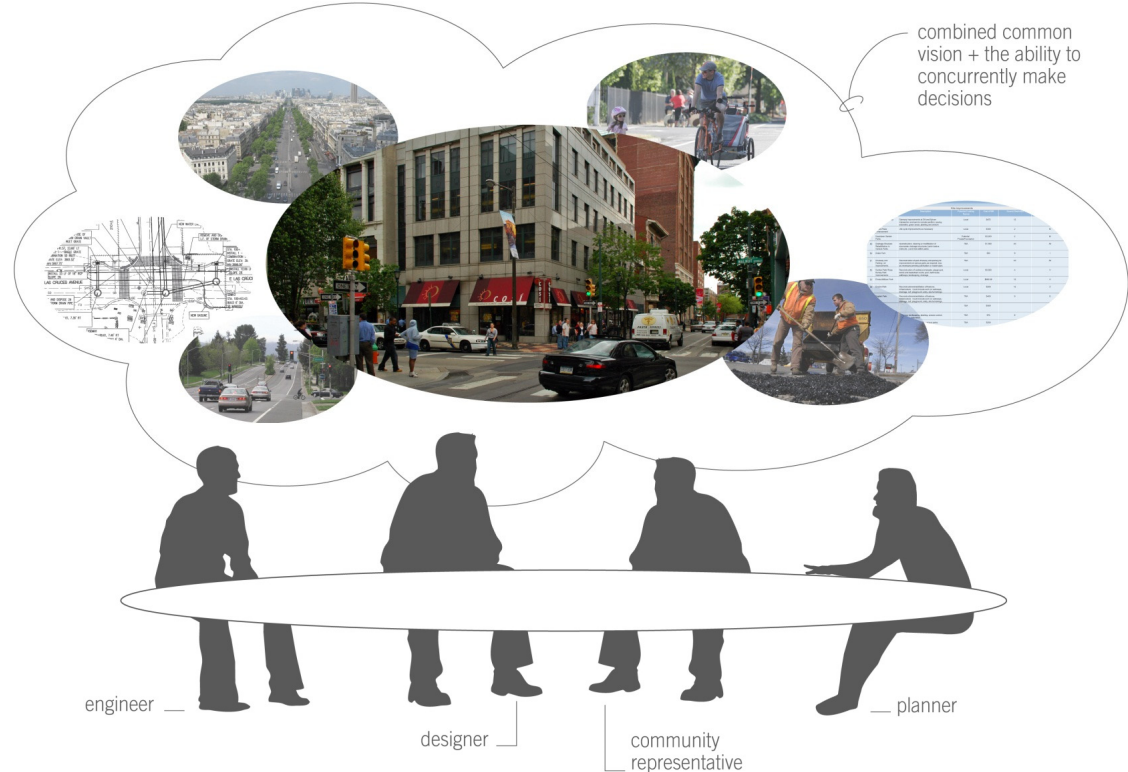
SOUTHEAST LOUISIANA

10 TRAINS PER DAY
proposed to and from New Orleans, including a stop at Kenner/MSY airport.

PROCESS /

Collaborating With Stakeholders

- Board of Regents
- University of New Mexico (UNM)
- UNM Health Sciences Center
- City of Albuquerque
- Bernalillo County
- Mid-Region Council of Governments (MRCOG)
- Architecture 2030
- Arts & Cultural District (ACD)
- Sandia National Laboratories (SNL)
- Innovate ABQ Task Force
- Central New Mexico Community College (CNM)
- East Downtown (EDo)
- Martineztown
- Laguna Pueblo
- Greater Albuquerque Chamber of Commerce (GACC)



PROCESS /

Prepare The Plan

1. PLANNING FRAMEWORK



Project Summary +
General Description

2. MASTER PLAN



Vision + Goals + Framework

3. DEVELOPMENT REGULATIONS



Detailed Development
Criteria

4. DEVELOPMENT GUIDELINES



Design Direction
+ Planning
Methodology

Sustainability
Transportation
Water+Drainage
Research Buildings

5. DATABASE

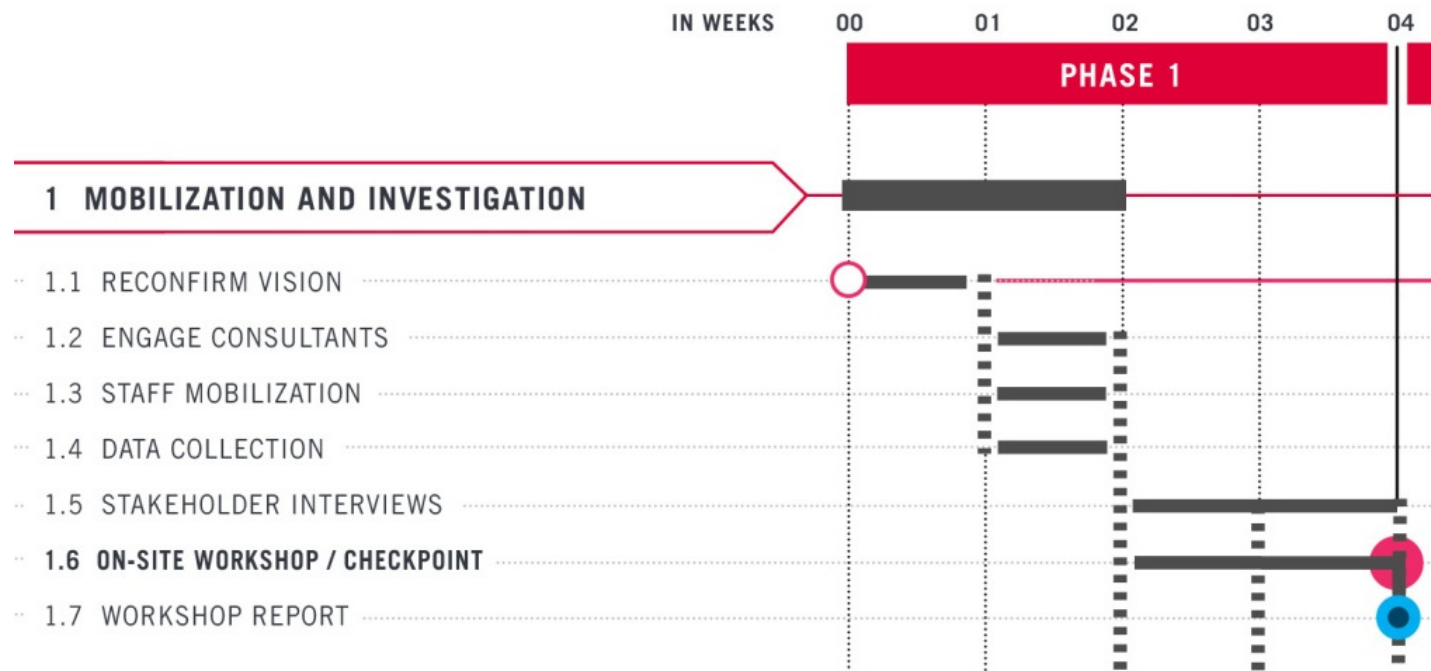


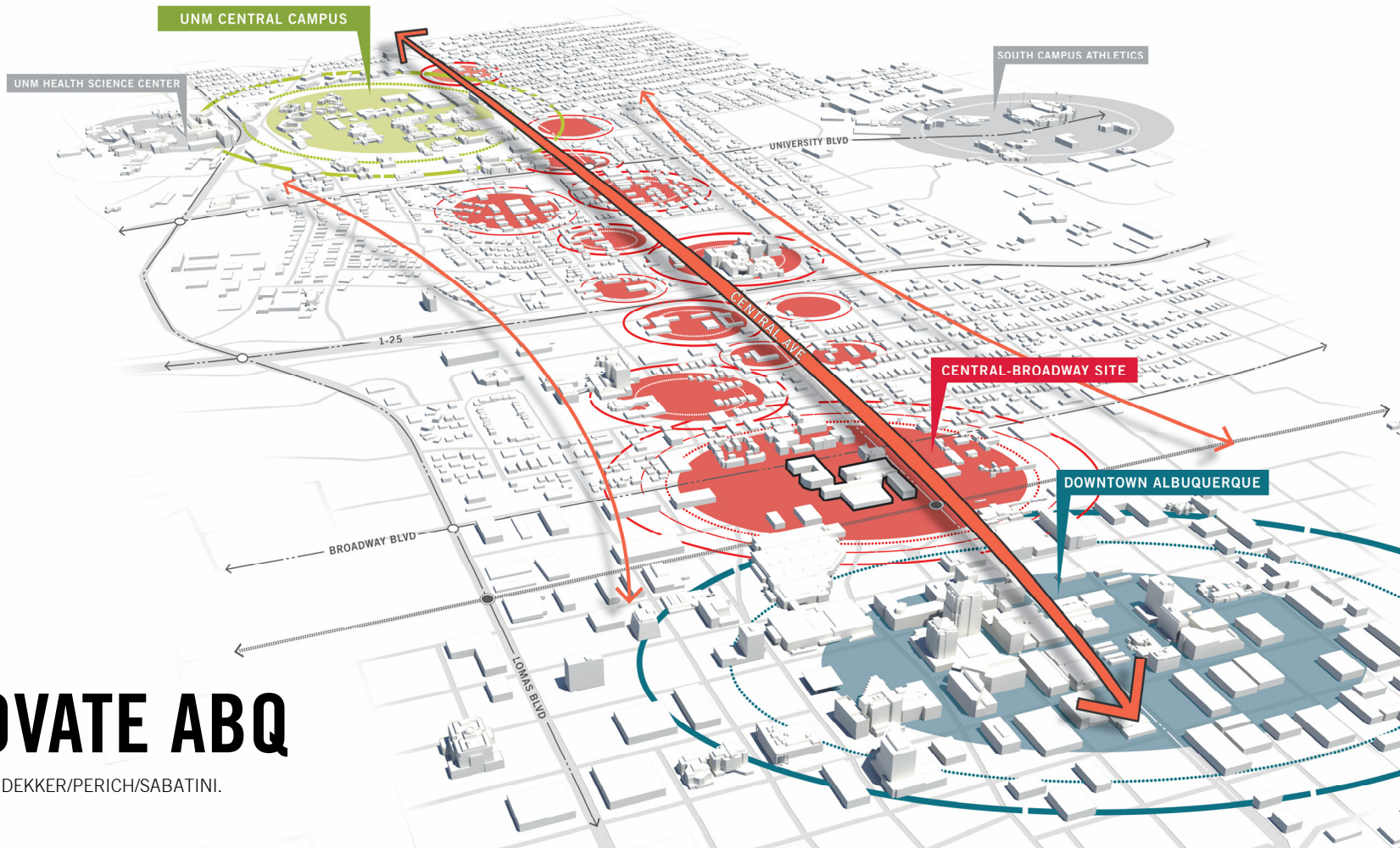
Operating Platform

NEXT STEPS **THE WAY FORWARD**

NEXT STEPS /

Phase 1





INNOVATE ABQ

PERKINS+WILL. DEKKER/PERICH/SABATINI.

