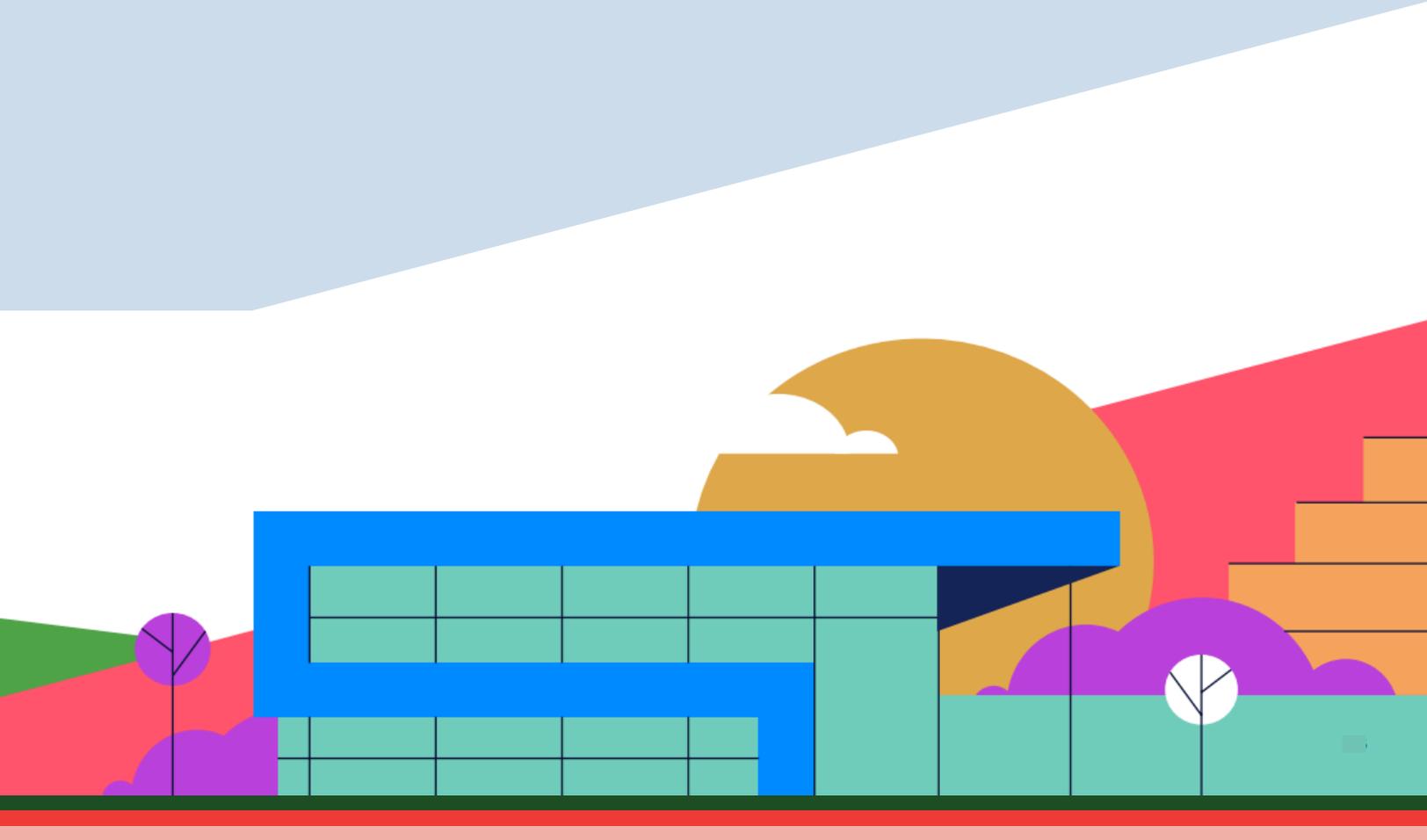


May 2025

# MAPS 4

## Clara Luper Civil

## Rights Center



**M4 - RF020**  
**Preliminary Report**



**MAPS4**  
**FREEDOM CENTER**  
of Oklahoma City  
ATELIER CORY HENRY  
BOCKUS PAYNE

**THE CITY OF OKLAHOMA CITY**

**APPROVAL SHEET**

M4-RF020

MAPS 4 Clara Luper Civil Rights Center

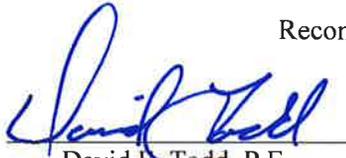
Prepared by

Bockus Payne Architecture  
1001 NW 63<sup>rd</sup> Street, Suite 300, Oklahoma City, OK 73116  
405-842-0858



Bockus Payne Architecture

Recommended for Approval



David E. Todd, P.E.  
MAPS Program Manager



Debbie Miller, P.E., Director  
Public Works/City Engineer

**RECEIVED** by the Council of the City of Oklahoma City this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

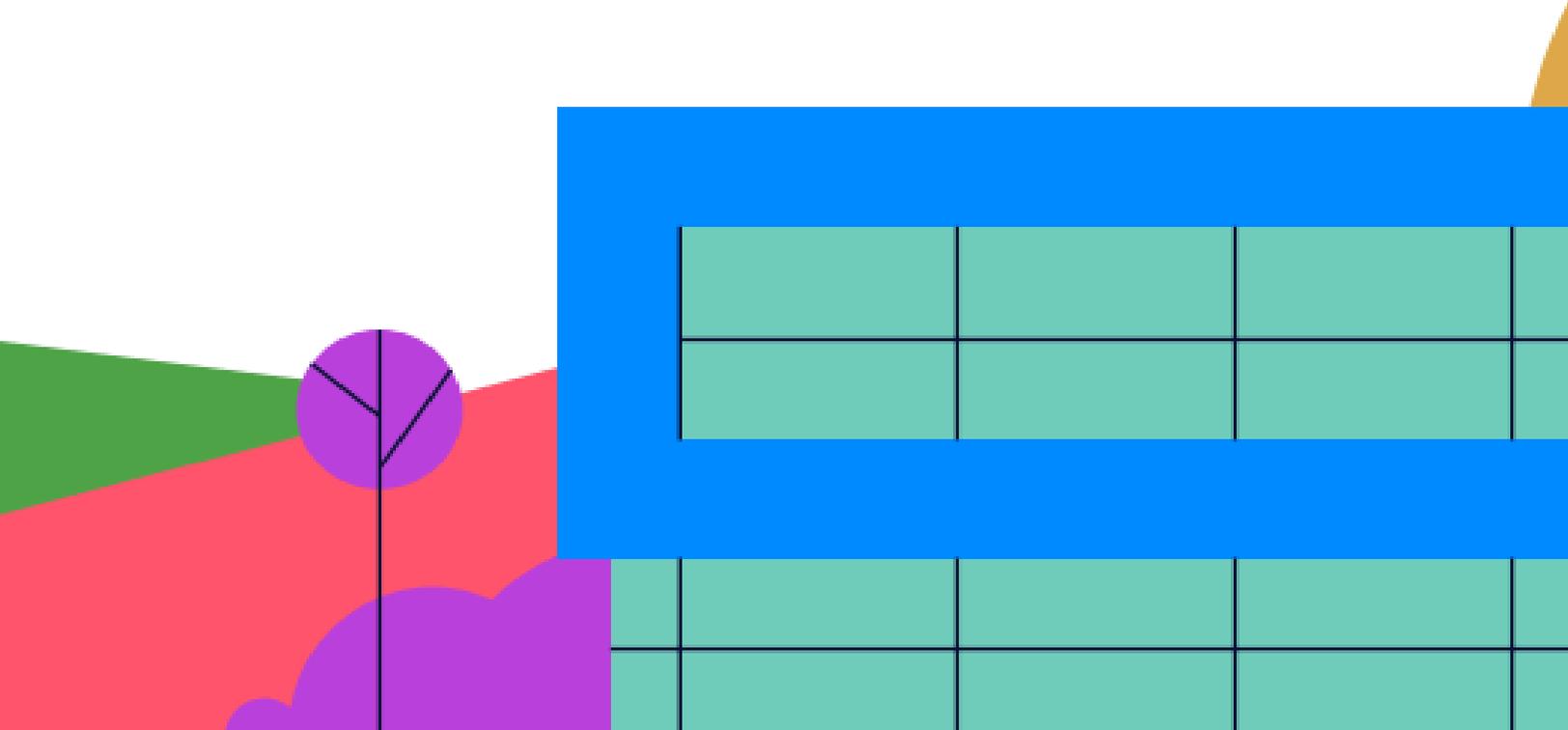
ATTEST:

**THE CITY OF OKLAHOMA CITY**

\_\_\_\_\_  
City Clerk

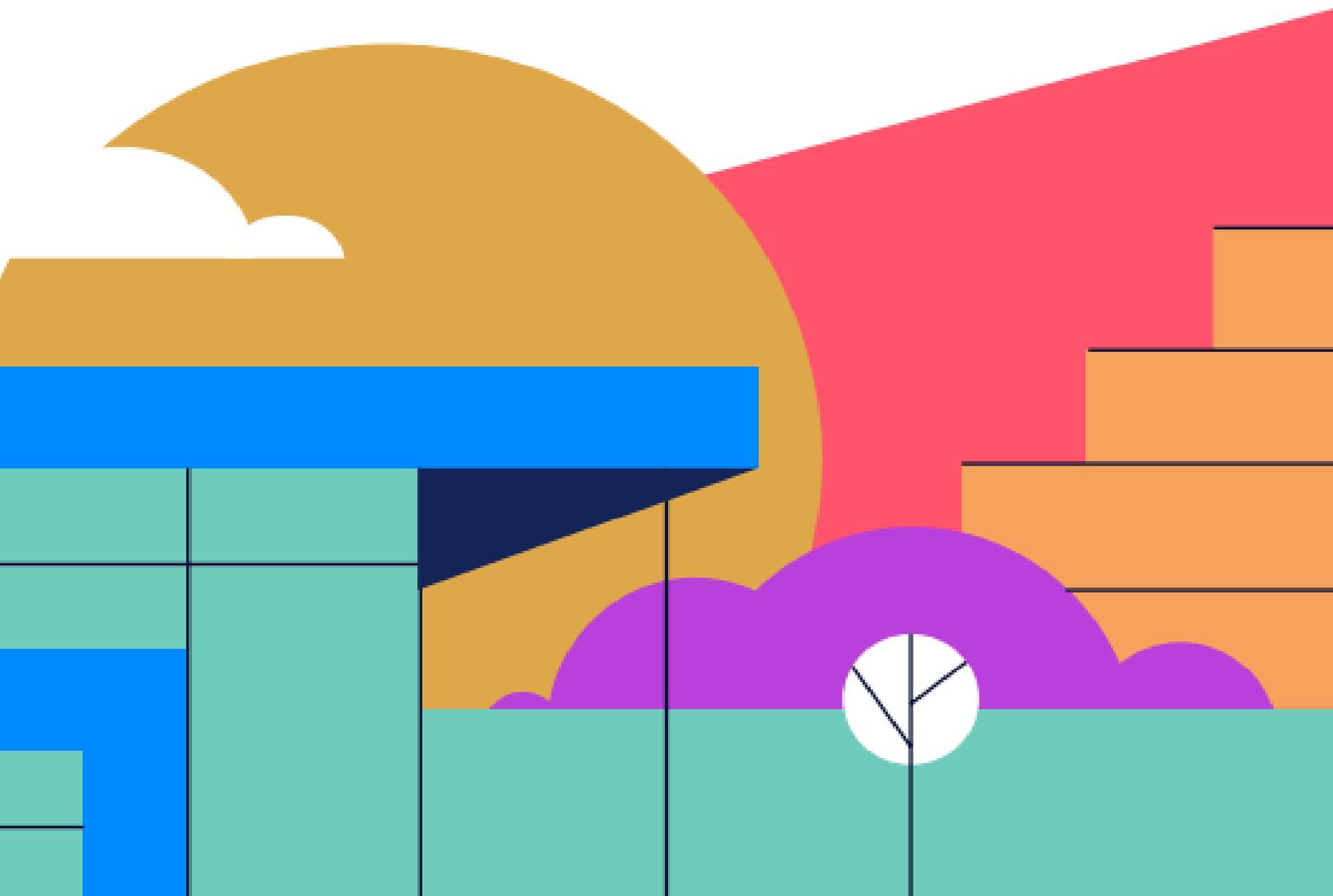
\_\_\_\_\_  
Mayor

**The Clara Luper Civil Rights Center, set to open in 2027, will serve as a beacon for education, community engagement, and activism, honoring the legacy of Clara Luper and her pivotal role in the civil rights movement in Oklahoma City.**



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01

# Executive Summary

# Executive Summary

## HISTORICAL CONTEXT

The Clara Luper Civil Rights Center, set to open in 2027, will serve as a beacon of education, community engagement, and activism, honoring the legacy of Clara Luper and her pivotal role in the civil rights movement in Oklahoma City. Clara Luper, an educator and activist, led the NAACP Youth Council in a series of sit-in demonstrations from 1958 to 1964, making significant strides in the fight for equality. The historic Freedom Center, which housed the council for nearly 40 years, is currently being revitalized to enhance the educational offerings as visitors journey to and from the of the new Clara Luper Civil Rights Center, ensuring that the lessons of the past resonate in today's community.

## SITE OVERVIEW

Located on the southeast corner of NE 24th and Martin Luther King Ave, the Clara Luper Civil Rights Center will connect the adjacent block, home to the recently renovated Freedom Center, creating a cohesive narrative of civil rights history. The Civil Rights Center will feature versatile event spaces, along with future planned exhibits that spark community participation and engagement.

## DESIGN VISION

Envisioned as a "diamond within the community," the design of the Clara Luper Civil Rights Center will create an immersive journey through Oklahoma City's civil rights history. The building's layout will emphasize accessibility and inclusivity, providing a welcoming environment for all visitors. The center will not only honor the past but also inspire future generations through its educational resources.

## COMMUNITY ENGAGEMENT AND PLANNING

The success of the Clara Luper Civil Rights Center is rooted in community connection. Our robust outreach campaign included:

- Listening Sessions at the Ralph Ellison Library, where community members shared their thoughts and ideas about the center's purpose and design.
- Neighbors Night Out events that brought together residents from surrounding neighborhoods to foster dialogue and build connections.
- Door-to-Door Outreach and Demolition Information to ensure that community residents were informed about the project and could voice their opinions.

Additionally, benchmarking tours to notable civil rights and cultural institutions, such as the Bob Dylan Museum, Gilcrease Construction Site, and Greenwood Rising, provided valuable insights into best practices for design and community engagement. These tours helped us gather inspiration for our approach and refine our vision for the center ensured that local voices were heard and considered throughout the planning process. This collaborative approach has helped us develop a design that reflects the community's values and aspirations.

## PROGRAM FEATURES

The Clara Luper Civil Rights Center will encompass a single story of approximately 17,835 square feet of flexible space, including:

- A welcoming lobby with lounge and prefunction areas
- Educational spaces for workshops and classes – two classrooms, a digital and maker's space
- Event spaces that can adapt to varying group sizes, complemented by a catering kitchen
- Future phases, while not funded within this project's initial scope, are planned as privately funded additions. These will introduce a visitor center featuring retail and café options, alongside exhibit space and archival storage, further enriching the community experience. The project will focus on:
  - Emphasis on educational resources rather than a traditional museum
  - Commitment to reducing barriers and ensuring accessibility
  - A holistic approach to community connection
  - Flexibility in space design to support diverse programs and generate alternative revenue sources
  - Long-term adaptability to meet evolving community needs

**PROJECT TEAM**

The project is guided by a talented team dedicated to realizing this vision:

- Lead Designer: Atelier Cory Henry
- Lead Architect / Architect of Record: Bockus Payne
- MEP/IT: Alvine and IP Design Group
- Structural: ZFI
- Civil: CEC
- Landscape: Laud
- Exhibit Designer: Gallagher & Associates
- Operator: Freedom Center of Oklahoma City (a 501(c)(3) organization)
- Owner/Developer: The City of Oklahoma City

**CONCLUSION**

The Clara Luper Civil Rights Center represents a transformative opportunity for Oklahoma City. By honoring Clara Luper’s legacy and actively engaging the community, we aim to cultivate an inclusive environment through design that educates and inspires. Our collaborative design process has involved residents, operators, and stakeholders, ensuring that diverse voices are heard and valued throughout each step of this process.

Our team has hosted workshops, community forums, and traveled to explore interactive exhibits that encourage participation and dialogue. These initiatives have not only enriched our project as it has unfolded but also deepened our excitement as we draw inspiration from other impactful efforts across the country.

We are committed to integrating feedback from community members and leaders, ensuring that the building truly reflects the needs and aspirations of those it serves, not only in these preliminary report findings, but as we continue the process of making the vision a reality. This project not only celebrates the trials and successes of history but also sets the stage for a brighter, more equitable future.

**SNAPSHOT OF COST ESTIMATE**

**PROJECT BUDGET:.....\$12,400,000**

MAPS FIXED LIMIT OF CONSTRUCTION:.....\$11,800,000

PRIVATE DONATION:.....\$600,000

**BASE BID CONSTRUCTION ESTIMATE.....\$12,306,593**

INCLUDES EXHIBIT/STORYTELLING ELEMENTS

**ALTERNATE #1**

CONCRETE STORM SHELTER.....\$105,688

**ALTERNATE #2**

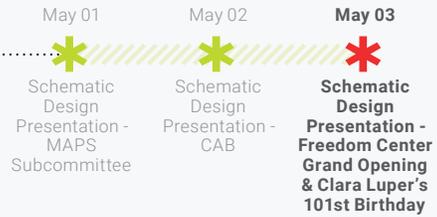
MLK POWER LINE BURIAL.....\$152,400

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# Project Schedule

## SCHEMATIC DESIGN

May 01 - May 03



## DESIGN DEVELOPMENT

May 03 - July 16

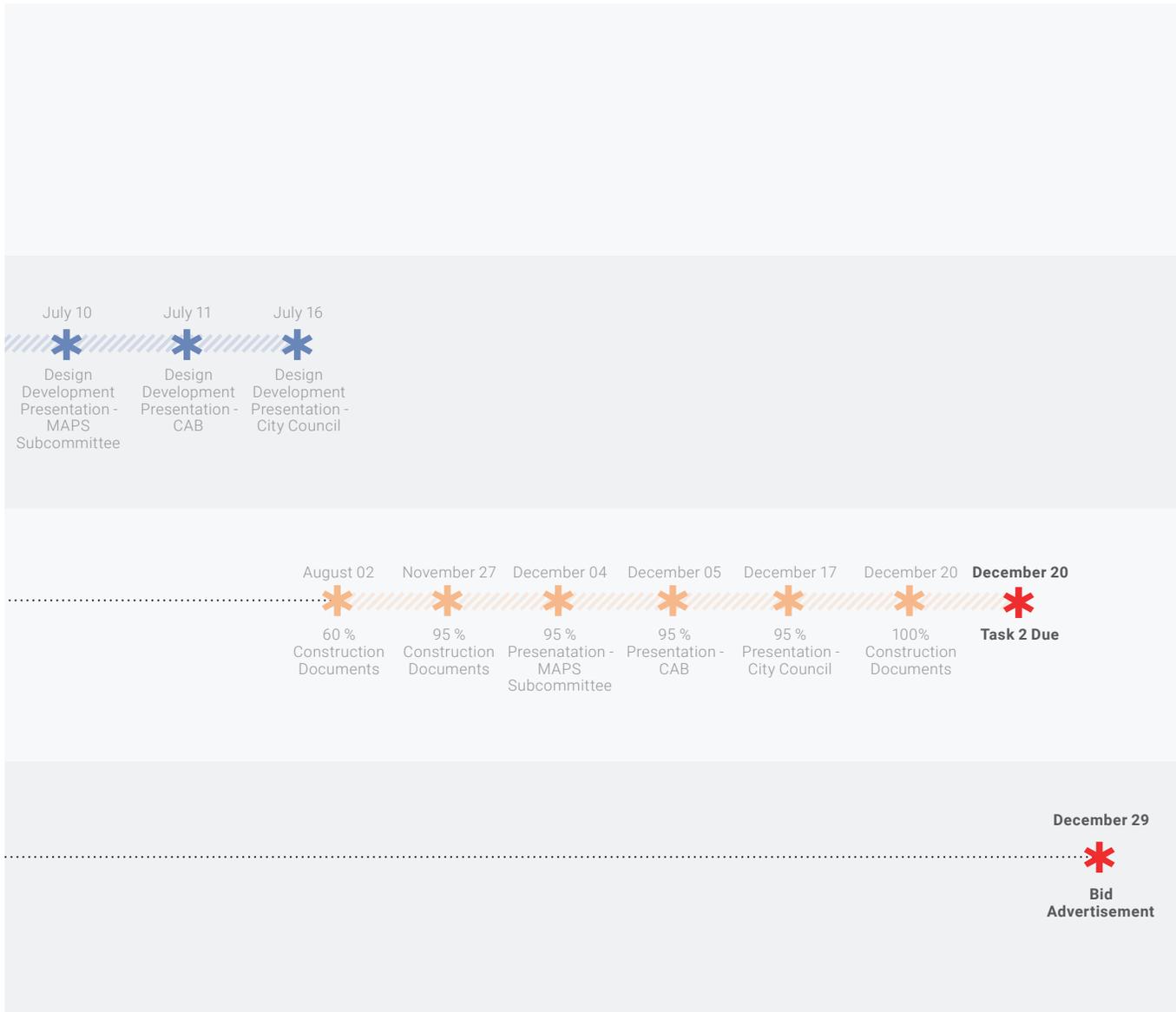


## CONSTRUCTION DOCUMENTS

July 16 - December 20

## BIDDING

December 20 - December 29



\* SCHEDULE INDICATES DATES THAT MAY HAVE BEEN MODIFIED TO ACCOMODATE VALUE ENGINEERING DESIGN TIME

02

# Project Program

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- Project Program

## Community Connection & Engagement

The Clara Luper Civil Rights Center’s success is built on meaningful community involvement. Our engagement efforts included interactive Listening Sessions at the Ralph Ellison Library, where residents shared their insights, as well as Neighbors Night Out gatherings that encouraged local dialogue. The team also conducted Door-to-Door Outreach to keep the community informed and involved in the project’s vision. Benchmarking tours of significant civil rights and cultural venues offered valuable lessons that shaped our design strategy and ensured that the community’s perspectives were prioritized.

Of the 17,865 sf program, we aim to focus on educational initiatives instead of a conventional museum format, with a strong commitment to accessibility and community engagement. Event spaces were integrated to assure opportunities for revenue production. Future expansions are planned to include a Exhibition galleries and support spaces as well as a visitor center with retail and café options, enhancing the overall experience while allowing for flexible programming to meet the community’s changing needs. Our goal is to assure we meet the needs of the Civil Rights Center as a part of this Phase I while also considering variables that will create a seamless connection with Phase II.



### Public Outreach Campaign

**Design architects and community leaders met often with residents of northeast Oklahoma City to share information and gather feedback on the Civil Rights Center.**

**ABOUT THE PROJECT**

MAPS 4 will construct the Clara Luper Civil Rights Center to transform OKC's knowledge of our civil rights history and to positively influence the future of northeast OKC and our entire community.



The Clara Luper Civil Rights Center will reactivate land held by the Oklahoma City Urban Renewal Authority (OCURA) for community use.

**FOLLOW MAPS 4**

- [twitter.com/maps4okc](https://twitter.com/maps4okc)
- [FB.com/OKCMAPS4](https://fb.com/OKCMAPS4)
- [@MAPS4OKC](https://@MAPS4OKC)

**FOLLOW FREEDOM CENTER OKC**

- [FB.com/FreedomCenterOKC](https://fb.com/FreedomCenterOKC)
- [@FreedomCenterOKC](https://@FreedomCenterOKC)

**CONTACT**

**Design and Construction:**  
maps4@okc.gov

**Future Operations:**  
info@freedomcenterokc.org

**Site and Demo:**  
info@theallianceokc.org  
(405) 604-6780



**MAPS4**  
in your neighborhood

**CLARA LUPER CIVIL RIGHTS CENTER**



**PROJECT SCHEDULE**

- Who:**
- **Developer:** MAPS 4 is a City of Oklahoma City program.
  - **Operator:** Freedom Center of Oklahoma City, LLC
  - **Design Team:** Lead Designer, Atelier Cory Henry, Architect of Record, Bockus Payne Architecture

- Total Budget: \$26.8M**
- \$17.2M for design and construction
  - \$9.6M operating and maintenance fund

- Projected Timeline:**
- Site Demo: Sept. 2023
  - Design: 2023 – 2024
  - Construction: 2024 – 2026

- Project Facts:**
- The City of Oklahoma City is beginning site work on this project in your neighborhood
  - There may be some noise and dust coming from the site during demo.
  - Crews will be working Monday through Friday during the hours of 7:00 a.m. to 5:30 p.m.

**HISTORY**

This project will honor the work of Clara Luper and enhance the public's ability to learn about and understand Oklahoma City's role in the national Civil Rights Movement to end segregationist policies

The historic Freedom Center building served as the home of Oklahoma City's NAACP Youth Council for nearly 40 years under the leadership of educator and activist Clara Luper.

Following the success of the Council's sit-in demonstrations between 1958 and 1964, the building was acquired in 1967 to serve as a permanent home for the Youth Council located at NE 25th St. and N Eastern Ave. (now N Martin Luther King Ave.)

The Freedom Center served as a hub for civil rights activity including Oklahoma City's sanitation workers Strike in 1969, the fight for fair housing, and more.

**LEGACY**

The new \$17-million Clara Luper Civil Rights Center will be operated by the Freedom Center of Oklahoma City, a 501c3 organization based in northeast Oklahoma City, established to educate, empower, and enlighten our nation to reflect on the past, present, and future of the Civil Rights Movement in Oklahoma. The Center will be a community gathering place named for our most famous civil rights leader.

**ABOUT MAPS 4**

MAPS 4 is a City of Oklahoma City debt-free public improvement program funded by a temporary penny sales tax that will raise a projected \$1.1 billion over eight years. The voter-approved sales tax funding MAPS 4 began April 1, 2020, and ends in 2028.

Learn more at [okc.gov/MAPS4](https://okc.gov/MAPS4) and [FreedomCenterOKC.org](https://FreedomCenterOKC.org).

**Neighbors Night Out (surrounding neighborhoods)**

The team prioritized engagement with the neighboring NE Oklahoma City communities throughout the project process to ensure homeowners were informed and involved in how these changes would affect them during demolition/construction, allowing them to connect with questions and concerns.



Bob Dylan Museum



Gilcrease Construction



Greenwood Rising

**Benchmarking Tours**

Benchmarking tours of other projects similar in scope were conducted to discover more about lessons learned and successes.

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Project Program

# Space Planning

Space allocation diagram shows a programmatic layout with for Phase 1 in connection with the potential Phase II future scope.

**Phase II**  
Visitor & Welcome Center (1,700 sf)

**Phase I**  
Education & Public Programs (2,700 sf)

**Phase I**  
Rentals & Events (7,900 sf)

**Phase I**  
Lobby (750 sf)

**Phase I**  
Building Support (2,820 sf)

**Phase II**  
Exhibitions and Collections (5,700 sf)

# Area Schedule

Lobby / Entry / Storage		
Function	Net (sf)	Remarks
Lobby/ Reception / Ticketing / Foodservice	300	Entry lobby including reception and information kiosks, grab-n-go food.
Public "Freedom Lounge"	300	Open social area for visitors to socialize, decompress, recharge, etc.
Lobby Support / Wheelchair / Stroller	50	General storage, stanchions, signage, cleaning supplies, etc.
First Aid / Sick Room	100	Standard fit out
Public Restrooms	GFA	Per code, included in gross building area
Preliminary Net	750	
Estimated Gross Area (30%)	225	
<b>Total</b>	<b>975</b>	

Education & Public Programs		
Function	Net (sf)	Remarks
Group Entry Marshalling Area	300	
Group / Student Lockers	50	Assume approximately 60 lockers, self serve, final count TBD
Group / Student Lunchroom	400	Dedicated for school groups, lunch, marshalling, etc
Education Classroom (Digital)	900	For public programs, digital equipped, divisible
Education Classroom (Maker)	900	For public programs, hands on accivities, 30-40 students
Public Restrooms	GFA	Per code, included in gross building area
Office (Program Manager)	100	Standard fit out
Workstation (Youth Program Manager)	50	Standard fit out
Preliminary Net	2700	
Estimated Gross Area (30%)	810	
<b>Total</b>	<b>3510</b>	

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## Area Schedule

Building Support		
Function	Net (sf)	Remarks
Office (Ex Director)	120	Standard fit out
Office (Director of Finance)	100	Standard fit out
Office (Director of Development)	100	Standard fit out
Open Workstation	50	Standard fit out / systems furniture - 1 person
Office - Curator	100	Standard fit out
Open Workstations (x8)	400	Standard fit out / systems furniture - 8 persons
Open Workstations (Flex x2)	100	Standard fit out / systems furniture - 2 persons
Staff Lunchroom / Kitchen	400	Standard fit out, 15 persons, digital equipped
Copy / Records Storage	50	Standard fit out
Staff Meeting Room	600	Conference rooms, 20-30 persons
Building Storage & Workroom	600	General storage for supplies, records, etc.
Office - Facilities	100	Standard fit out
IT / BMS Server Room	100	Standard fit out
Preliminary Net	2820	
Estimated Gross Area (30%)	846	
<b>Total</b>	<b>3666</b>	

Rentals & Events		
Function	Net (sf)	Remarks
Pre-Function Entry	700	General reception, information, queing
Grand Event Hall	4000	Flexible, to seat 250, divisible by 2-3 halls, digital quipped with stage
Community Event Room #1	1200	Flexible community / meeting / event room
Community Event Room #2	600	Flexible community / staff meeting / event room, 20-30 persons
VIP / Green Room	200	Prep room for meeting participants, speakers, etc.
Public Restrooms	GFA	Per code, included in gross building area
Catering Kitchen	300	Warming kitchen functionality (not commercial kitchen)
Food / Supplies Storage	300	Short term storage of food or event supplies
Office - Rentals Coordinator	100	Standard fit out
General Storage	500	Misc. storage of tables, chairs, podiums, etc.
Preliminary Net	7900	
Estimated Gross Area (30%)	2370	
<b>Total</b>	<b>10270</b>	

# Area Schedule

Exhibitions & Collections		
Function	Net (sf)	Remarks
Archival Storage / Object Study	1000	Remarks
Exhibit Gallery	3000	Divisible, environmental controls required
Shipping / Receiving	100	Standard loading bay
Crating / Uncrating	300	Can be combined with shipping / receiving
Temporary Storage / Crate Storage	400	Storage of collections or objects awaiting shipment or installation
Exhibit Prep (Clean	400	Secure, exhibit prep, mounting, etc.
Collection Storage (Mixed)	500	Storage of collections or objects awaiting shipment or installation
Preliminary Net	5700	
Estimated Gross Area (30%)	1710	
<b>Total</b>	<b>7410</b>	

Visitor & Welcome Center		
Function	Net (sf)	Remarks
Welcome Center	700	
Cafe (w/ Storage)	400	
Retail (w/ Storage)	400	
Office	100	
General Storage	100	
Preliminary Net	1700	
Estimated Gross Area (15%)	255	
<b>Total</b>	<b>1955</b>	

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Project  
Site

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# Project Site

## Project Description

The site is located along N Martin Luther King Ave between E Madison, spanning across NE 24th Street, and finishing south of NE 25th Street. The existing Freedom center is directly north across NE 25th Street. This site is currently owned by Oklahoma City Urban Renewal Authority. The proposed project site consists of a 1.55 acre south parcel and a 1.12 acre north parcel, which includes an existing 1,600 sq ft gas station. The existing gas station will be remodeled in a future phase. All other structures on the site have been demolished. The MAPS office is in the process to finalize the acquisition from OCURA. Remediation of contaminated soil at the site has been completed. The Project has been placed to allow for future expansion on the south side of the south parcel. Per OKC Planning Department, the south parcel must take frontage from N Martin Luther King Ave.

## Site Easements

The east-west alleyway has been vacated for the south parcel. A proposal to close and vacate the alley on the north parcel was made but was ultimately decided not to proceed. City public street & Utility easements, from 20' wide to 13' wide, exist along the eastern boundary of both parcels.

## Right-of-ways

The project fronts on three streets: N Martin Luther King Ave, N Madison, and NE 24th Street which provide vehicular access to the site. Primary entrances to the building will be from sidewalks on the north and south sides of the building. A secondary staff entry and a service entry are provided along the west façade, directly from a sidewalk adjacent to the main parking lot.

## Setbacks

A 25' building setback is required along N Martin Luther King Ave. The south and west property lines require a 15' building setback. There is no setback requirement along the south side of NE 24th Street.

## Site Screening

The site will require a minimum 5' landscape buffer along the west, south, and north property lines abutting R-1 zoned residential properties.

## Utility Relocation

The project team intends to pursue electrical line burial for the entirety of the site as an add alternate.

**Private Utilities**

All new private utilities will be provided for the building to connect into public services. No existing storm sewer service is nearby, so the site will surface drain.

**Public Utilities**

The public utilities, water, sanitary, and gas, located in the right-of-ways surrounding the site will remain. The sanitary line within the alley will be truncated to keep the building clear of the main line. A new fire line will connect from the north side of the site to the water line along NW 24th Street.

**Parking**

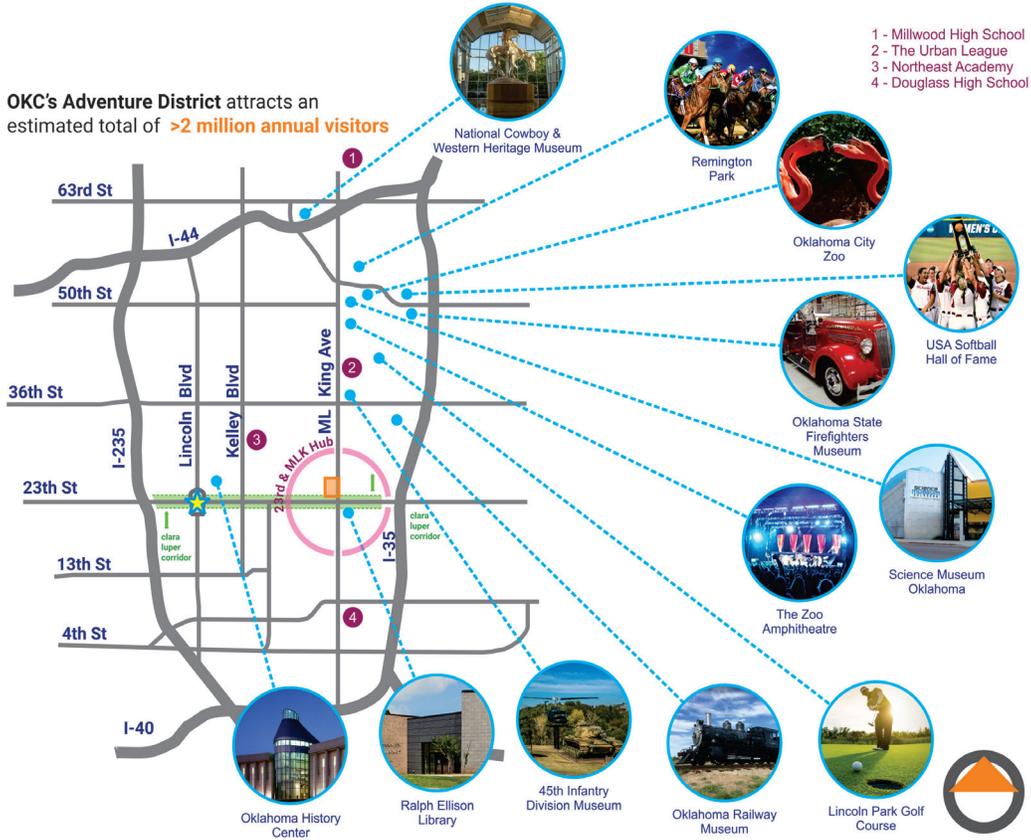
Per direction of City Zoning staff, use unit 8300.69: Spectator Sports and Entertainment: Restricted will be used. This use unit includes establishments or places engaged in provision of cultural, entertainment, athletic and other events to spectators as well as providing space for social or fraternal gatherings. These uses are conducted within an enclosed building with a capacity of 500 or less people, and include retail sales and storage facilities that are incidental to the operation of such uses. Typical uses include small theaters and amusement places.

This use unit will use parking computation methods from 8300.55 Participant Recreation and Entertainment: Indoor – Dance Halls @ 1/50 sf of club area and 10600.2 I: Retail @ 1/200 sf of remaining GFA. The future Exhibits & Collections area will receive consideration as use unit 8250.0 Cultural Exhibits @ 1/400. The tabulated areas total 160 required parking spaces. The project will seek a maximum parking reduction of 25% to deliver a total of 120 parking spaces. This will provide sufficient parking for the future phase II addition.

**Service**

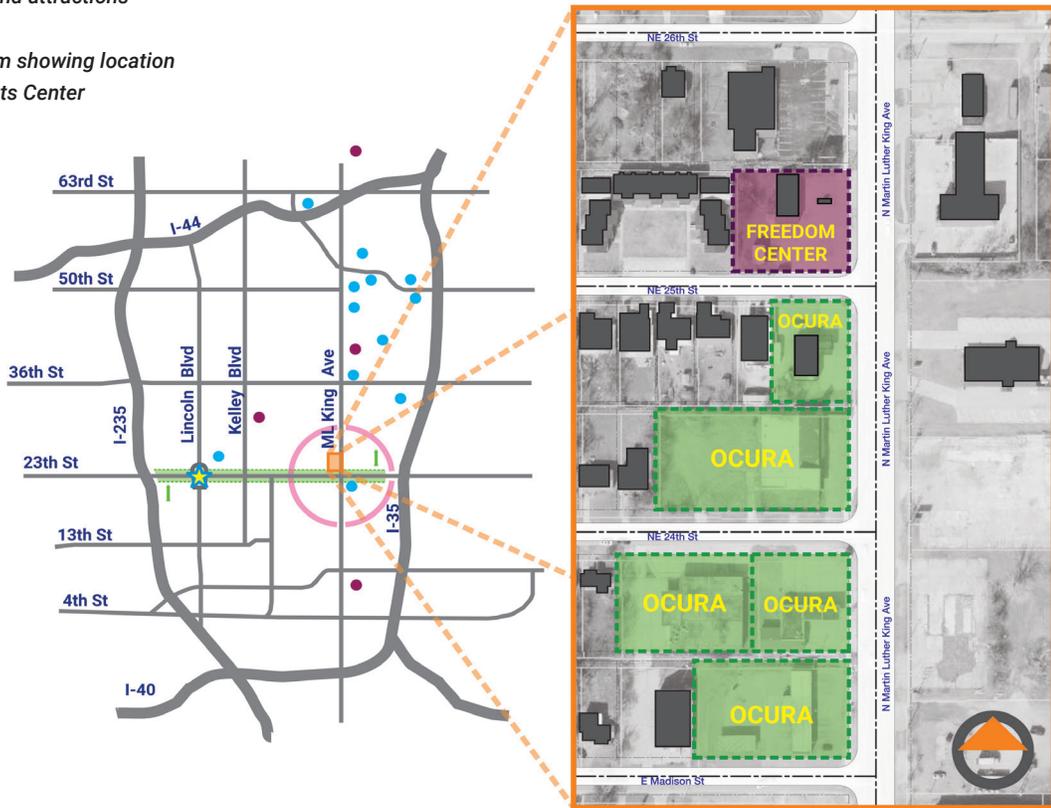
Trash collection is proposed to be at the west end of the south parking lot. The dumpster will be housed in a sight-proof enclosure.

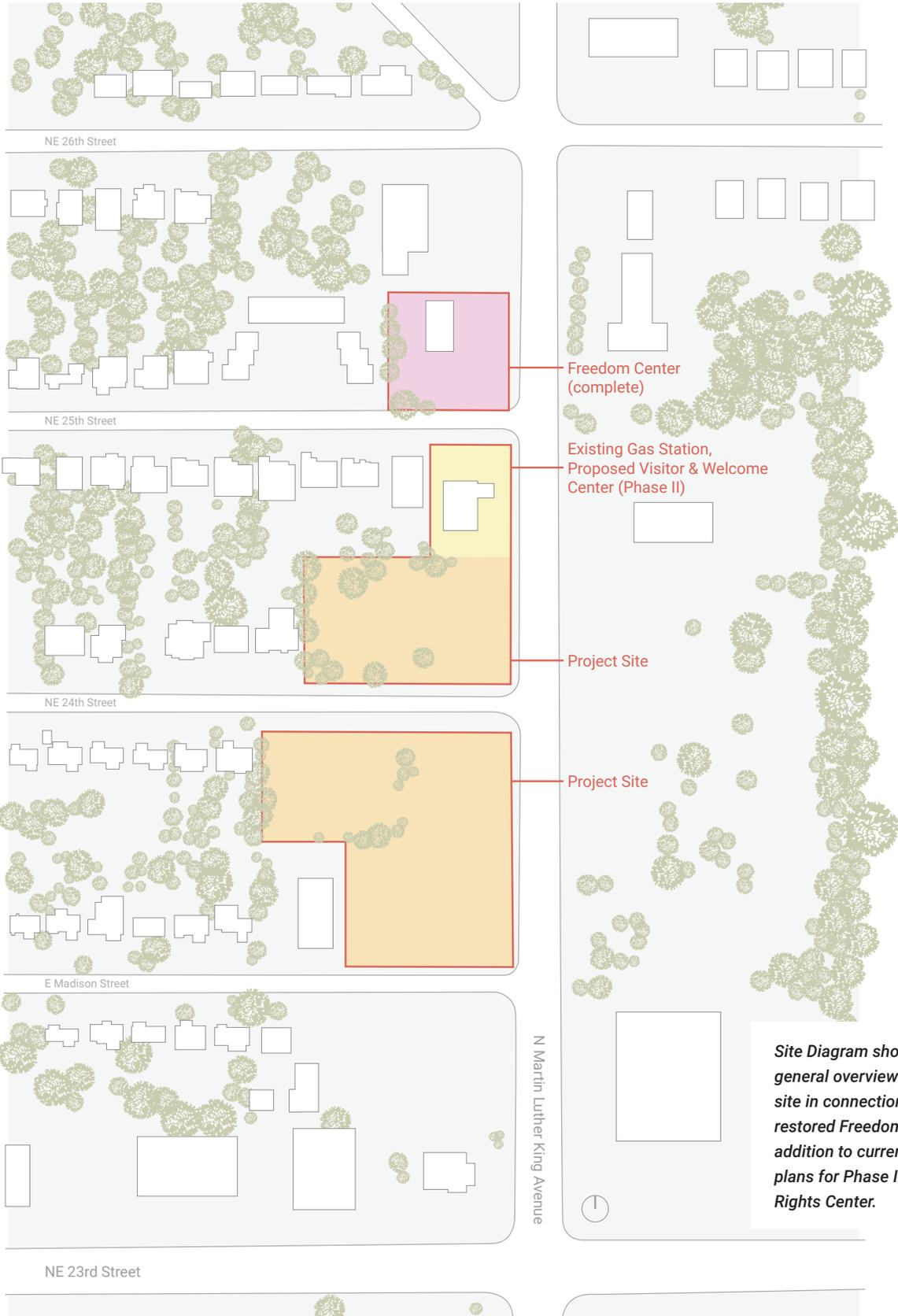
# Site Overview



Top: Diagram showing surrounding neighborhood and attractions

Bottom: Diagram showing location of the Civil Rights Center





04

# Architectural Design

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## Architectural Design Goals

This is a place of progress.

HISTORICAL EMPHASIS

LIGHT & AIRY

RESILIENT

COMMUNITY CONNECTED

STORY TELLING

EDUCATIONAL RESOURCES

LONGEVITY

SAFETY/ SECURITY

ENGAGE/ACTIVATE

BEACON

INTERACTIVE

CELEBRATION

GENERATIONAL

When envisioning the Maps 4 Clara Luper Civil Rights Center, we see a project that serves as a cornerstone for civil rights and equality education. From the moment visitors arrive, they will encounter a thoughtfully designed entrance that embodies openness and inclusivity. The layout will be balanced, catering to both staff and visitors, while the warm, inviting interior fosters community engagement and celebrates our shared history.

Imagine this program and building as a diamond within the community—a site and journey designed to transcend time with the goal of educating all. This project is about much more than constructing a building; it represents a vital investment in breaking barriers and educating Oklahoma City’s children and families about civil rights and equality. Versatile event spaces will accommodate both small and large gatherings, making the center a dynamic hub for community discussions, workshops, and celebrations of diversity.

**This project should...**

- Serve as an educational resource that emphasizes civil rights, not just a museum
- Reduce barriers to access and participation in civil rights education
- Ensure recognition and accessibility for all individuals and communities
- Be a tool to connect people and foster dialogue
- Provide flexible spaces to support diverse programs and alternative revenue sources
- Emphasize long-term adaptability to meet evolving community needs

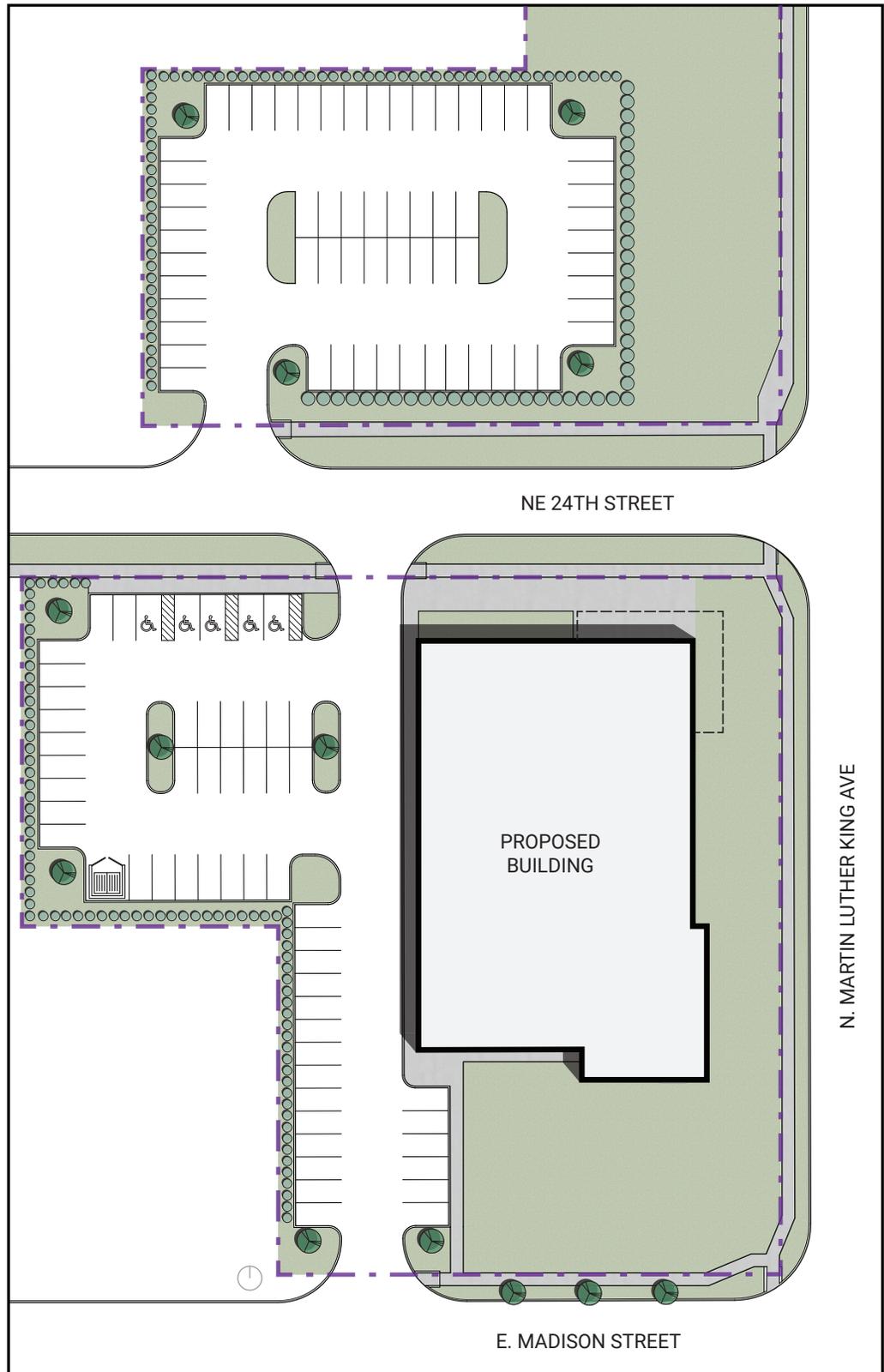
When educators, activists, and community partners come together, incredible transformations can occur. This coordinated effort can educate and connect our community, creating a place that embraces every guest. Imagine a space that is inclusive, where history and resources are shared with dignity, respect, and kindness.

We view this project as a transformative opportunity—not just for Oklahoma City, but for the entire state and the nation. Our goal is to create a space that serves as a beacon of civil rights and equality, paving the way for a world of inclusion, education, community, and celebration. Every detail of this endeavor is critically important, as this building has the power to unite and inspire.

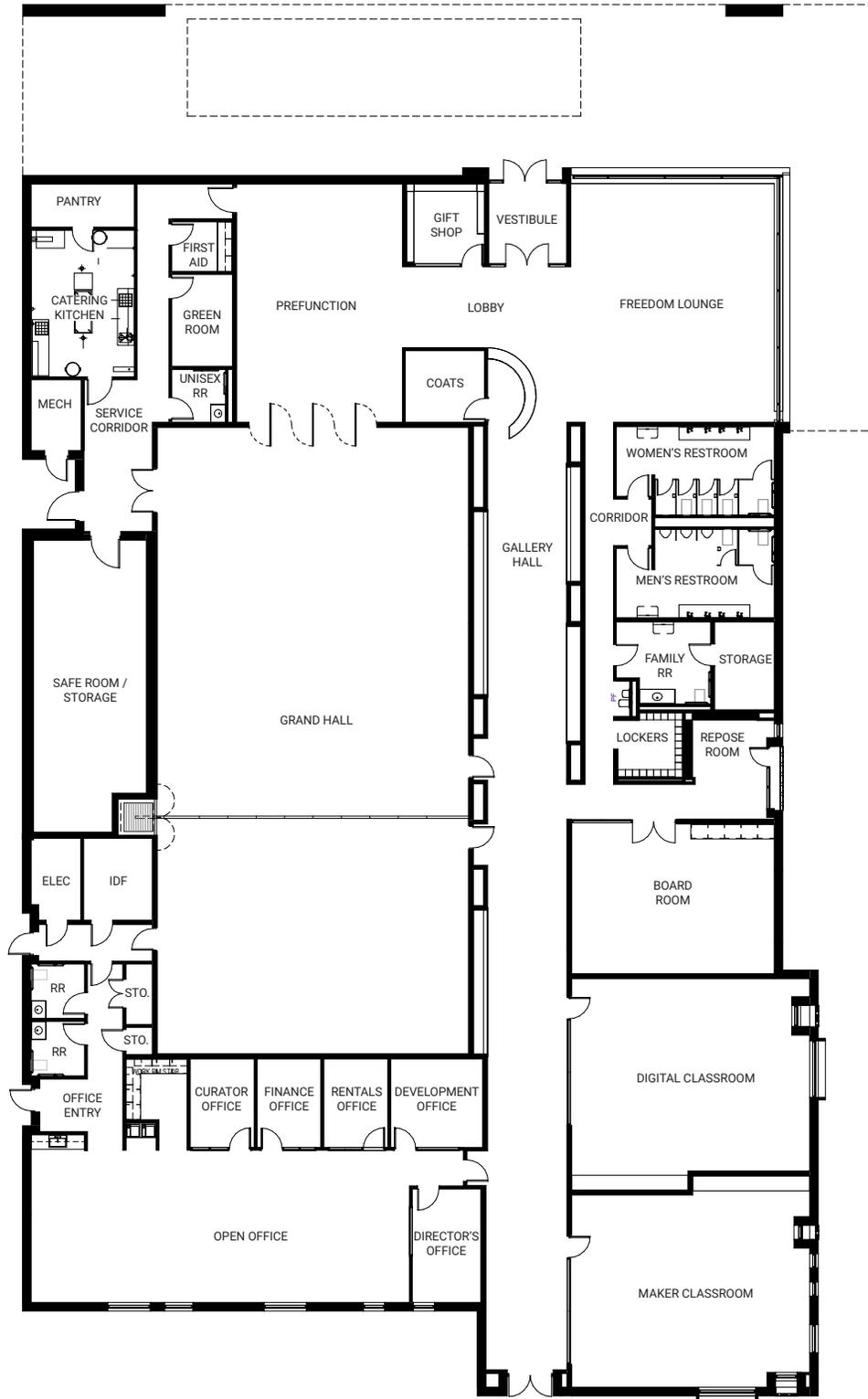
Buildings have the potential to change lives and redefine communities. This project aims to create an experience that reflects a city dedicated to the principles of justice and equality, serving as a platform for attracting families and fostering growth. Our design approach integrates human-centered design, architecture, interior design, and engineering, recognizing that collaboration across these disciplines is essential to fully realize the project’s potential.

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# Site Plan



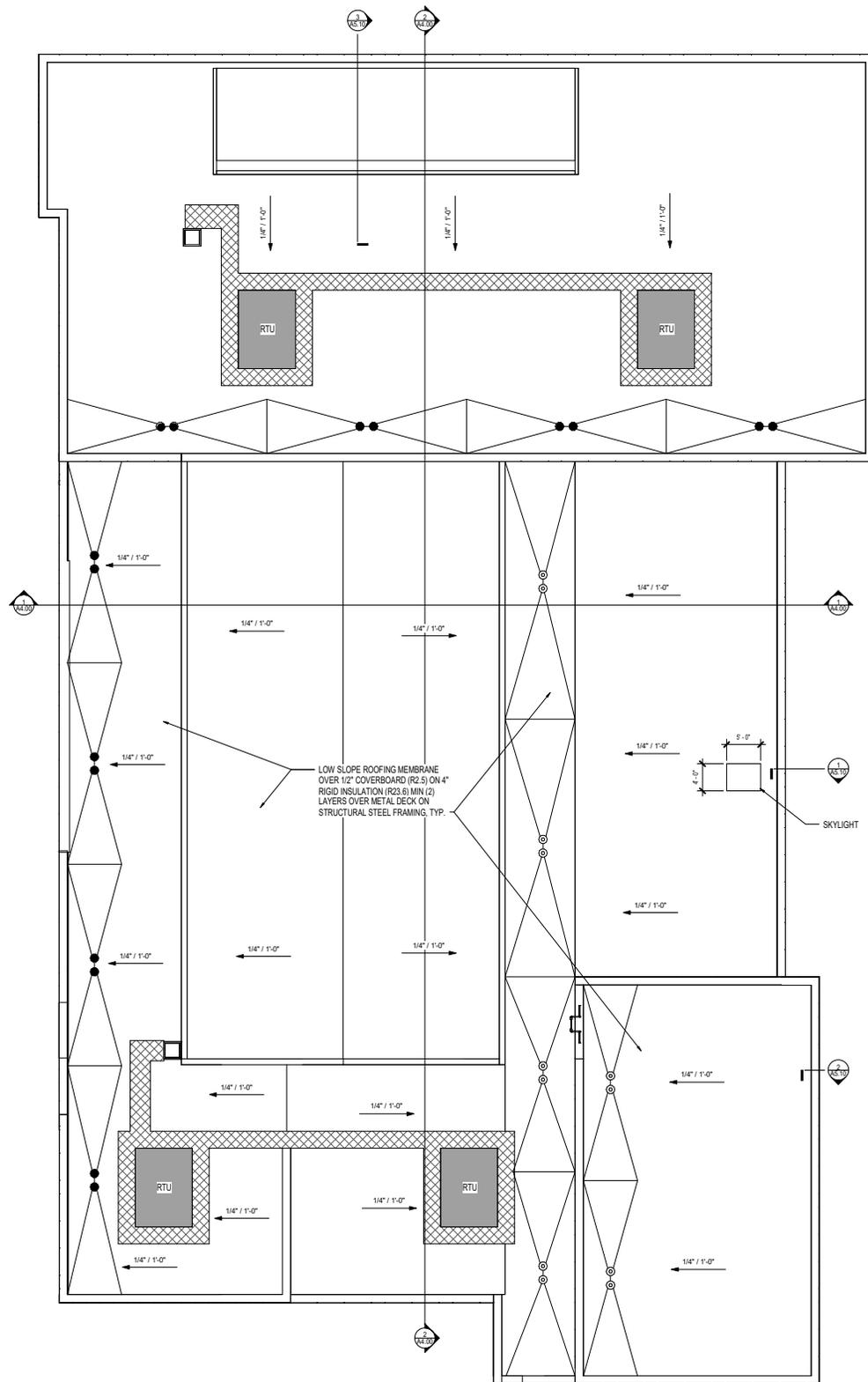
# Floor Plan



\* DRAWING INDICATES ELEMENTS THAT MAY HAVE BEEN REMOVED OR MODIFIED TO ACCOMMODATE BUDGET CONSTRAINTS

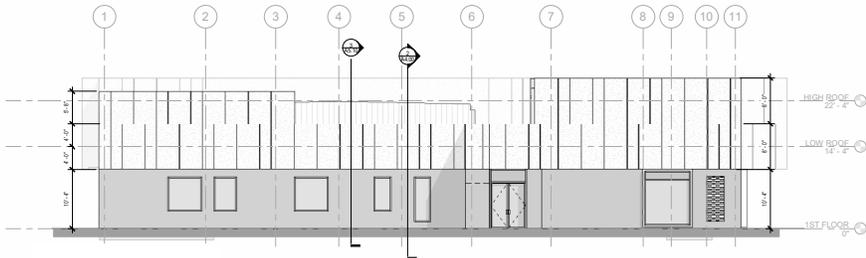
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# Roof Plan

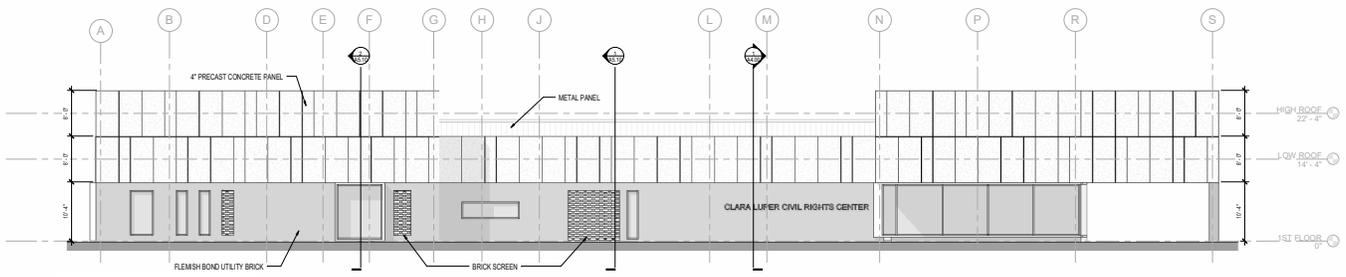


\* DRAWING INDICATES ELEMENTS THAT MAY HAVE BEEN REMOVED OR MODIFIED TO ACCOMMODATE BUDGET CONSTRAINTS

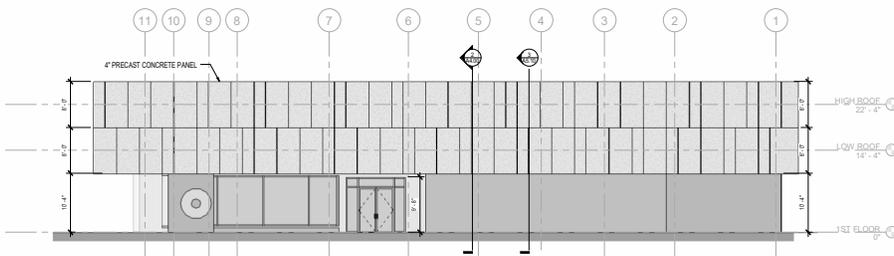
# Exterior Elevations



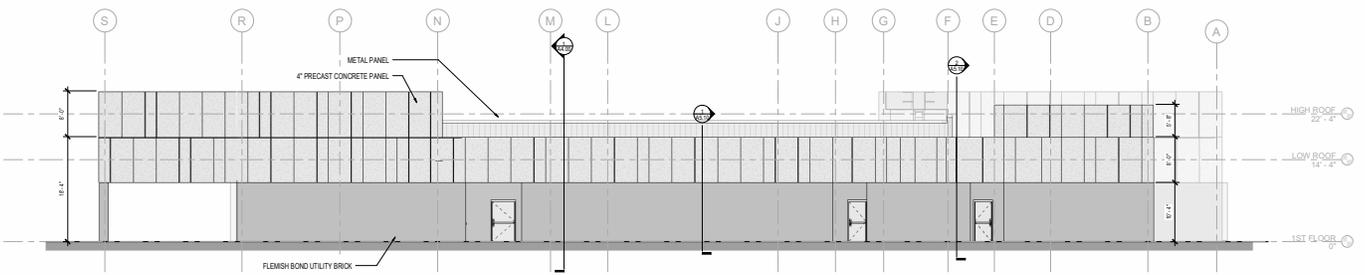
**SOUTH ELEVATION**



**EAST ELEVATION**



**NORTH ELEVATION**

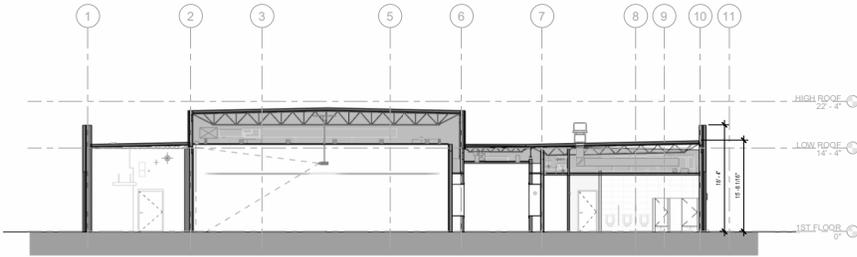


**WEST ELEVATION**

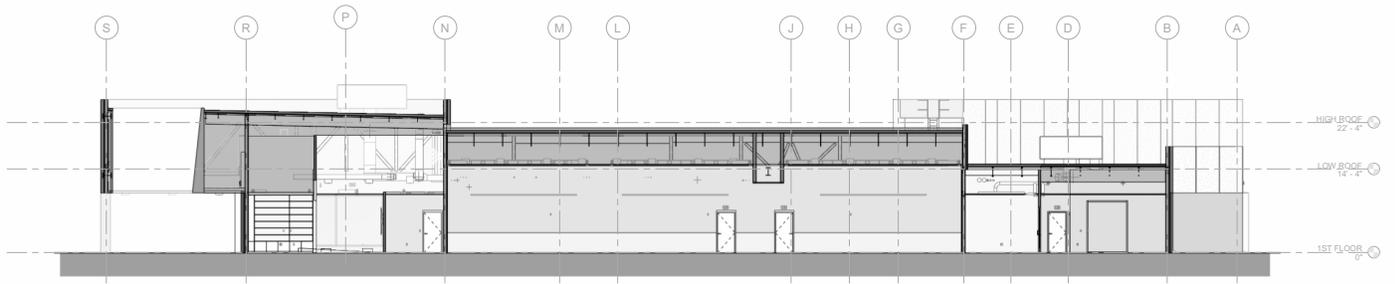
\* DRAWING INDICATES ELEMENTS THAT MAY HAVE BEEN REMOVED OR MODIFIED TO ACCOMMODATE BUDGET CONSTRAINTS

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# Building Sections



EAST-WEST BUILDING SECTION



NORTH-SOUTH BUILDING SECTION

\* DRAWING INDICATES ELEMENTS THAT MAY HAVE BEEN REMOVED OR MODIFIED TO ACCOMMODATE BUDGET CONSTRAINTS

**Architectural Design - Exterior**  
*East Elevation, at Dawn*



*Northeast Corner*



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Architectural  
Design

## Southeast Corner



## Architectural Design - Interior Freedom Lounge



## *Prefunction*



## *Gallery Hall*



05

Narratives

## **DESIGN DEVELOPMENT - CIVIL NARRATIVE**

### **Location**

The proposed Clara Luper Civil Rights center is located in Oklahoma City, Oklahoma. The site is located west of N Martin Luther King Ave, east of N Kelley Ave, north of NE 23rd St, and south of NE 36th St. The site is located in the SE Quarter of Section 23, Township 12 North, Range 3 West of the Indian Meridian, Oklahoma County, Oklahoma.

### **Existing Site**

All proposed work is situated within the property owned by the City of Oklahoma City, Oklahoma, which serves as the Authority Having Jurisdiction (AHJ) for this project. Both portions of the existing site comprise of abandoned parking lots, sidewalks running north/south and east/west, fence remnants, and trees. The site is zoned C-3 (Community Commercial), and it is assumed that this zoning classification will remain unchanged. A utility easement running through the center of the southern site will be vacated.

### **Demolition**

The construction of the proposed improvements will require the demolition of the existing parking lots, sidewalks, driveways, curb and gutter, fences, trees, and segments of utilities, including water, overhead electric, and sanitary sewer.

### **Parking, Sidewalks, & ADA Accessibility**

On-site parking will be situated on the north section of the site as well as the south side to the west of the proposed building. Access to the site will be from NE 24th Street and E Madison St. A drive running from north/south just west of the proposed building will allow fire truck and bus access to the building.

New sidewalks will traverse the north site along the east and south borders of the property boundary, and the south site along the north, east, and south borders of the property boundary.

ADA parking and accessible paths will maintain a maximum 2% cross slope and all ramps will meet ADA requirements.

The site will meet the requirements of the City of Oklahoma City and Oklahoma Department of Environmental Quality regarding storm water pollution prevention.

## Site Utilities

Utility atlas maps were obtained for the subject site and have been included in this report. Below is a summary of the findings as well as an evaluation of potential utility improvements needed to develop the site.

**Water:** A 12-inch water main runs north/ south along N MLK Ave in the immediate area of our site. A 6-inch line stubs off that main and runs through our site to the west.

### **Sanitary Sewer:**

An 8" sanitary sewer line runs along the north edge of the northern site. It is not expected to be disturbed or tied in to. A 10" sanitary sewer line runs through the middle of the southern site. It will need to be removed to the western property boundary. A new manhole will connect to the existing line and will be stubbed into to service the proposed building. It is unknown at this time what the size of the new service will be. City permit sets are anticipated.

### **Storm Sewer:**

There are no underground storm sewer systems in the immediate area of the proposed site. The current and planned drainage plan is to sheet flow off site. See Section VI.

### **Electric (OG&E):**

There are existing overhead electrical lines that run along MLK Ave. It is anticipated that these lines will be removed and relocated underground for the length of the project site.

**Telecommunications (Cox Communications & AT&T):** Cox Communications currently has an overhead communications line running east/west through our property. AT&T stated that they had no available services in the vicinity.

**Gas (ONG):** There is an existing 4.5-inch gas main that runs north/south along N MLK Ave. A service line stubs off that line and runs west through our site. Said facilities will be available to serve the proposed development.

## Drainage and Detention

Pending review of the pre- and post-impervious analysis with City staff, it has been anticipated that detention will not be required. However, fee-in-leu of may be sought if the city determines that detention is necessary. Surface drainage will be utilized to handle stormwater associated with development of the site. It is understood that the existing drainage pattern traverses the site to the North and West. The proposed drainage plan is to match the existing drainage pattern.

## Soils Investigation

Review of the NRCS Soils Map identified soils that include:

- BeUB – Bethany-Urban Land Complex
  - Slope: 0 to 3 percent
  - Depth to restrictive feature: more than 80 inches
  - Drainage class: well drained
  - Runoff class: very high
  - Depth to water table: more than 80 inches
  - Hydrologic Soil Group: C and D
    - Group C soils have a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.
    - Group D soils have a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have high shrink-swell potential, soils that have a high-water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

No geotechnical investigation has been conducted prior to this study of the immediate project site. A review of the previous fieldwork will be used if a new investigation is not completed.

## EXECUTIVE SUMMARY

### Project Description – Mechanical, Fire Protection, and Plumbing

1. Overview
  - A. Mechanical systems will be designed to provide adequate comfort levels in all occupied areas of the facility. The system will include minimum MERV 13 filters to reduce pollution.
  - B. The fire protection system will be an automatic sprinkler system throughout the building designed for light hazard. The system will be hydraulically calculated. The service will enter the mechanical equipment room and be provided with an outside fire department post indicator valve.
  - C. The plumbing system will utilize domestic water supplied from the city water service.
  
2. Design Criteria: The design of the mechanical system will conform with the following codes along with any local building code amendments:
  - A. 2018 International Building Code
  - B. 2018 International Plumbing Code
  - C. 2018 International Mechanical Code
  - D. 2009 International Energy Conservation Code
  - E. 2017 National Electrical Code
  - F. NFPA-13 – Installation of Sprinkler System
  - G. NFPA-90 – A/C and Ventilating System
  - H. NFPA-96 – Ventilation Control and Fire Protection of Commercial Cooking Operations
  - I. NFPA-101– Life Safety Code
  
3. The design of the mechanical systems shall conform to the following standards:
  - A. American Society Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE):
    - 1) ASHRAE 55-2013
    - 2) ASHRAE 62.1-2013
  - B. National Fire Protection Association Pamphlets (NFPA)
  - C. American National Standards Association (ANSI)
  - D. American Society of Mechanical Engineers (ASME)
  - E. Sheet Metal and Air Conditioning Contractors National Association (SMACNA)

4. Outside Design Conditions
  - A. Summer: 100°F, db, 73.4°F, wb
  - B. Winter: 14°F, db
  
5. Indoor Design Conditions
  - A. Summer: 75°F, ±3 degrees
  - B. Winter: 70°F, +3/-2 degrees
  - C. Humidity Control: 20%-70% RH
  
6. Site Utilities
  - A. The sanitary sewer will be routed to a point 5'-0" outside the building with continuation to the city sanitary mains as indicated on the civil plans.
  - B. The storm water will be routed to an exterior wall and daylighted through a downspout nozzle.
  - C. The domestic water will connect to the city water services. A separate service for irrigation will be provided, as required by code.
  - D. The fire service line will be connected to the city water main. The fire pump requirements will be determined following a review of flow and pressure test information to be submitted to the city. A double check backflow preventer will be installed inside the building.
  
7. Heating, Ventilating, and Air Conditioning (HVAC) Systems – Air-Cooled Rooftop Units (RTUs)
  - A. The system will consist of approximately four, single-zone, air-cooled rooftop units (13 EER / 16 SEER or higher) with an integral DDC control board and barometric relief. Rooftop units shall be provided with:
    - 1) Dehumidification/hot gas reheat humidity control
    - 2) Two stage compressors (2-25 tons)
    - 3) Digital scroll variable speed compressors (30 tons and larger)
    - 4) Direct drive ECM or variable speed supply fans (all units)
  - B. Supply air and return air ductwork to be internally lined with elastomeric duct liner for a distance of 10'-0" from the RTU connections. Return air will be through plenum return with minimal duct for noise control provided at each rooftop unit.
  - C. Heating: Heat will be electrical.
  - D. Cooling: The building will be cooled by means of a direct-expansion (DX) refrigerant RTU system. Economizer with enthalpy control will be used to provide free cooling when outside conditions are suitable.
  - E. The outside ventilation air will be provided at the RTU through the integral dampers.

- F. All air will be filtered through MERV 13 filters.
  - G. All balancing dampers to be located in readily accessible locations to allow seasonal adjustments by the building maintenance staff.
  - H. Spaces are to be divided and served by VAV terminal units with electric reheat.
  - I. Linear slot diffusers/registers to be provided in high visibility spaces. Standard 2x2 diffusers/register to be provided in back of house spaces.
8. HVAC Systems – A dedicated split-system will be utilized to cool any telecom room, IT room, and electrical room.
9. HVAC Systems – Heating only areas such as storage and vestibules shall be provided by electric heaters.
10. Building Controls – A building automation system will be provided that integrates the following aspects of the HVAC system:
- A. Remotely turn RTUs on/off
  - B. RTU unit status
  - C. Room temperature
  - D. Remote capability to change RTU setpoint
  - E. Scheduling of all the RTUs and exhaust fans
  - F. Occupied/unoccupied RTU setpoint and RTU controls
  - G. Monitoring RTU unit mode (heat/cool/off)
  - H. Tamper-proof thermostat that is not accessible to the public
11. The kitchen will be heated and cooled from the rooftop unit serving the adjacent spaces.
12. Exhaust Systems
- A. Toilet rooms will be exhausted at the rate of 75 cfm per plumbing fixture through roof mounted exhaust fans. Adjacent restrooms may share a single exhaust fan.
  - B. Janitor's closets will be exhausted at approximately 1 cfm/sq-ft through roof mounted exhaust fans. Janitor's closets adjacent to toilet rooms may share exhaust fans.
  - C. All toilet rooms, kitchens, janitors' closets, etc., shall be exhausted to the outside.

### 13. Fire Protection

- A. The fire department connection will be located on the building, accessible to a fire truck, and visible from the street.
- B. Sprinkler heads will be provided for all areas. Heads will be semi-recessed or concealed style in rooms with finished ceilings (concealed where required by architectural drawings). Sidewall heads will be used where appropriate.
- C. The exterior canopies may require fire protection if they are made of combustible construction or are required based on exiting requirements.
- D. Freeze proof heads shall be used where necessary.

### 14. Plumbing

- A. Plumbing systems including sanitary sewers, storm sewers, and domestic water systems will be provided in accordance with the applicable plumbing code:
  - 1) Sinks and toilets shall be mounted at appropriate heights for their intended users.
  - 2) Plumbing shall be designed with accessible clean-outs per local codes, as well as the fact that objects tend to find their way into plumbing lines.
  - 3) Exterior clean-outs, valves, etc., shall be carefully coordinated so as not to interfere with outdoor enjoyment areas and not to be visible from main building approaches.
  - 4) Domestic hot water heating capacity shall be provided as follows: hot and cold water to all fixtures. All hand washing sinks and lavatories to be provided with point of use mixing valves.
  - 5) Floor drains shall be provided wherever practical in wet areas, mechanical rooms, kitchen, and custodial rooms.
  - 6) Coordinate fixture heights with local and ADA requirements.
- B. Sanitary waste and vent system piping will be cast iron. Firestopping will be installed at through-wall penetrations of rated construction.
- C. The storm system will be cast iron. Firestopping will be installed at through-wall penetrations of rated construction.
- D. Domestic Water Systems
  - 1) Piping will be Type L copper with wrought copper fittings and no-lead solder. Underground piping will be Type K copper with no joints below ground. All domestic water piping will be insulated with fiberglass insulation and vapor barrier jacket per energy code requirements.
  - 2) 4" water entrance will include a water meter approved by local authorities.
  - 3) Domestic water service will include a pressure reducing valve.

- 4) A separate irrigation water service will be provided, as required by code.
  - 5) Roof mounted non-freeze hydrants will be provided at each group of rooftop equipment. Roof hydrants will be within 50 feet of equipment.
  - 6) Domestic hot water will be heated by two equally-sized, electric water heaters, and distributed throughout the building. Hot water circulating pump with recirculation piping will be provided for the hot water system to insure hot water is available at all fixtures.
  - 7) Hot water will be stored at 140°F and tempered through mixing valves at lavatories and sinks at 110°F.
- E. For plumbing fixtures, the basis of design will be American Standard fixtures and Sloan valves.
- 1) Plumbing fixtures will be commercial grade. Fixtures will be designed to meet the Americans with Disabilities Act (ADA) where required. Fixture types shall be as scheduled.
  - 2) Water closets will be flush-valve, wall-mounted type. Flush valves in public restrooms will be sensor activated, and all others will be manual flush valve type.
  - 3) Urinals will be sensor activated flush valve type.
  - 4) Wall-hung lavatories will be vitreous china with concealed carriers.
  - 5) Counter-mounted lavatories in main restrooms will be vitreous china.
  - 6) Counter-mounted sinks will be stainless steel with manual faucets.
  - 7) Janitor sink will be floor set molded stone with stainless steel caps and wall-hung faucets with wall brace.
  - 8) Floor drains will be cast iron body with nickel bronze grate. Stainless steel floor sinks will be provided in the kitchen.
  - 9) Sinks and lavatories not located in the main public restroom will have manual faucets. Public restrooms will have lavatories with sensor actuated faucets.
  - 10) All lavatories and sinks shall have 0.5 GPM aerators.

# EXECUTIVE SUMMARY

## Project Description – Electrical

1. Overview
  - A. Provision and distribution of electrical power to operate all electrically-operated devices, including those included under other services and those provided separately by the Owner; artificial lighting to illuminate spaces and tasks, both interior and exterior, independent of reliance on natural light; and grounding systems; compromising of the following elements.
  - B. Service entrance equipment, distribution equipment, transformers, motor control equipment, service and feeder wiring (conductors and raceways), monitoring, safety and control equipment, and other elements required for a complete functional system.
    - 1) Main Electrical Service: The utility will provide a service transformer to convert its distribution voltage to the building's utilization voltage.
    - 2) Service Entrance Location: Locate in a main electrical room.
    - 3) Panelboard Locations: Locate panelboards in main electrical room. Do not locate panelboards in public corridors, hallways, or stairwells.
  - C. Branch circuit wiring and receptacles and other branch circuit wiring systems, comprising the following elements:
    - 1) Branch circuit breakers
    - 2) Conductors and cable from panelboards to fixtures, wiring devices, and mechanical equipment
    - 3) Raceways and boxes
    - 4) Wiring devices, including, but not limited to, receptacles, floor boxes and plates, wall switches, wall dimmers, remote control switching devices, and wall plates
2. Design Criteria: The design of the mechanical system will conform with the following codes along with any local building code amendments:
  - A. 2018 ICC International Building Code and reference standards
  - B. 2018 ICC International Fire Code
  - C. 2018 ICC International Mechanical Code
  - D. 2009 ICC International Energy Conservation Code
  - E. 2020 NFPA 70 National Electric Code (NEC)
  - F. ADA Standards for Accessible Design
  - G. NFPA 101 Life Safety Code
  - H. Applicable State and Local Codes and Amendments

3. The design of the mechanical systems shall conform to the following standards:
  - A. 36 CFR 1191 - Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities; Final Rule; (ADA Standards for Accessible Design)
  - B. ASHRAE Std 90.1 - Energy Efficient Design of New Buildings Except Low-Rise Residential Buildings
  - C. IEEE 81 - IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System (Part 1)
  - D. IEEE 142 - IEEE Recommended Practice for Grounding of Industrial and Commercial Power Systems
  - E. IEEE 241 - IEEE Recommended Practice for Electric Power Systems in Commercial Buildings
  - F. IEEE 493 - IEEE Recommended Practice for the Design of Reliable Industrial and Commercial Power Systems
  - G. IEEE 739 - IEEE Recommended Practice for Energy Management in Industrial and Commercial Facilities
  - H. IEEE 1100 - IEEE Recommended Practice for Powering and Grounding Sensitive Electronic Equipment
  - I. IESNA (LH) - Lighting Handbook
  - J. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum)
  - K. NFPA 70 - National Electrical Code
  
4. Site Utilities
  - A. A new pad mounted utility transformer will be located to the west side of the building. Utility feed from secondary side of transformer will be routed underground to main electrical room located on West side of building.
  - B. Existing overhead utility power lines running East/West through the site will be removed and replaced with underground utility feed.
  - C. Existing overhead utility power lines running North/South along Martin Luther King Avenue will be removed and replaced with an underground utility feed.
  - D. Public utility will provide service transformer and make all terminations within the transformer.
  
5. Basic Function
  - A. Provide electrical power with the appropriate characteristics to operate all electrically operated devices, including those in other services.
    - 1) Lighting System Voltage: 277 volts
    - 2) General Receptacle and Miscellaneous Power System Voltage: 208Y/120 volt, 3-phase
      - a) Provide 208 volt, 3-phase receptacles as indicated on the drawings.

- b) Equipment Voltage: 480 volt, 3-phase
- 3) Interior Distribution Transformers: As required to serve building circuits and equipment plus 10 percent spare capacity.
- 4) Branch Circuit Panelboards: In accordance with code plus 10 percent spare capacity.
- B. Provide emergency power as required by code including the following:
  - 1. Emergency Lighting: Duration, as required by code
  - 2. Fire Detection and Alarm System: Duration, as required by code
- C. Distribution: Distribute electric power for equipment circuits, lighting circuits, receptacle circuits, electrical utilization devices, and Owner-furnished equipment, as required.
  - 1. 1000-amps, 480/277 volt, 3-phase service entrance rated distribution panel with main circuit breaker, ground-fault protection and surge protection to provide power to building and future expansion
  - 2. 400-amp, 480/277 volt, 3-phase MLO lighting panel with integral SPD
  - 3. 150kW, 480V delta 208Y/120V pad mounted transformer
  - 4. 600-amp, 208/120 volt, 3-phase, double-tub lighting panel with 500amp MCB and integral SPD
  - 5. 100-amp, 208/120 volt, 3-phase, MLO lighting panel and integral SPD
  - 6. (2) 100-amp, 208 volt, 3-phase company switch with connection chamber and camlocks
- D. Branch Circuits: Provide adequate electrical power and safe and efficient distribution from panelboards to lighting, wiring devices, equipment, and appliances, based on the project program, requirements of other sections.
  - 1. Connect a maximum of eight receptacles per circuit.
  - 2. Provide a dedicated branch circuit for each copier or appliance.
  - 3. Provide a dedicated branch circuit for each piece of user equipment.
- E. Provide lighting for all interior and exterior spaces.
  - 1. Provide lighting for all interior spaces that is adequate in quality and distribution for the performance of tasks typical for the type of space and the characteristics of the intended population, regardless of the availability of natural light. Lighting shall be 90+ CRI for all public areas.
  - 2. Use a combination of lighting control schemes:
    - a) Timeclock control
    - b) Occupancy sensor
    - c) Scene controls
    - d) Dimming

- F. Receptacles and Miscellaneous Power: Provide general use receptacles in all areas. Provide receptacles, as required, for cord and plug connected equipment.
  - 1) Provide a minimum of one receptacle per wall in each room. Locate receptacles a maximum of 12 feet on center, except corridor receptacles may be 25feet on center.
    - a) Provide one double-duplex receptacle at each desk location.
  
- 6. Interior Lighting
  - A. Admin/Office Area
    - 1) Provide linear flat panel troffers for general lighting throughout this space, utilizing Lithonia SIX luminaires as the basis of design.
  - B. Restrooms
    - 1) Provide perimeter mounted, linear recessed fixtures along wet wall of restrooms with downlights for general illumination. Provide linear vanity fixtures at sinks.
  - C. Freedom Lounge & Gallery Hall
    - 1) Provide recessed track lighting with adjustable zoom track heads, utilizing the Bruck SmartTrack system as basis of design. Provide downlights for general illumination.
  - D. Classrooms
    - 1) Provide recessed linear fixtures, utilizing Focal Point Seem 2 as the basis of design.
  - E. Freedom Hall
    - 1) Provide multiple layers of lighting to serve the various functions of the room. Lighting strategies to include cove lighting, recessed linears, decorative pendants, and downlights.
  
- 7. Exterior Area and Façade Lighting
  - A. Provide pole mounted lighting for parking areas, utilizing the Lithonia Radean Arm Mount luminaire as the basis of design.
  - B. In the Roscoe Dunjee Court area, provide in-grade linear luminaires, utilizing Lumenpulse Lumenfacade luminaires as the basis of design.
  - C. Provide 12' pedestrian scale light columns along the east and south extents of the site, utilizing the Luminis Lumistik luminaire as the basis of design.
  - D. Provide (2) uplights at each tree in landscaped areas, utilizing the Ecosense Rise F080 as the basis of design.

- E. Provide exterior rated, square downlights at north entry overhang for general lighting, utilizing USAI B3SA as the basis of design.
- F. Provide projection mapping equipment for lighting effect along the east façade. Provide allowance of \$150,000 for this equipment.

## 8. Amenity and Comfort Criteria

- A. Accessibility: Comply with ADA Standards for Accessible Design.
  - 1) Lighting Controls: Provide accessible lighting controls for all spaces, regardless of location.
    - a) Where accessible lighting controls are required, provide devices that are mounted so they can be reached from a wheelchair and are not more than 54 inches and not less than 15 inches from the floor.
- B. Light Levels: Provide maintained ambient illuminance values for various activities based on the primary visual tasks to be accommodated and that are within the ranges specified in the IESNA Lighting Handbook.
  - 1) Emergency Lighting: In addition to exit signs and means of egress lighting, provide emergency illumination of not less than 1 fc for a minimum of 1 hour in spaces as follows:
    - a) Lobby
    - b) Paths of egress
    - c) Gallery/Prefunction
    - d) Gallery Hall
    - e) Open office
    - f) Freedom Hall
    - g) Freedom Lounge
    - h) Restrooms
- C. Appearance:
  - 1) Conceal electrical conduit in walls and behind ceilings in the occupied spaces.

## 9. Service and Distribution

- A. Transformer Applications:
  - 1) Distribution Transformers for Ordinary Loads: Use dry-type transformers.
- B. Branch Circuit Panelboards:
  - 1) Busbars shall be copper.
- C. Circuit Breakers:

- 1) Shall be molded case circuit breakers. Provide electronic trip for breakers rated 225-amps or larger.
- D. Disconnect Switches:
- 1) Heavy-duty type
  - 2) Exterior disconnects shall be NEMA 3R
  - 3) Externally operable with means for locking in the OFF position
  - 4) HVAC equipment disconnects shall be fusible.

## 10. Conductors and Raceways

- A. Conductors:
- 1) Shall be copper.
- B. Insulation: Type THHN/THWN or THHN/THWN-2, except underground conductors shall be THHN/THWN-2 or XHHW-2
- C. Conduit:
- 1) Shall be one of the following:
    - a) Below Grade: PVC conduit with fiberglass elbows.
    - b) Exterior, Exposed: EMT, IMC conduit, or GRS conduit.
    - c) Interior, Exposed: EMT.
    - d) Interior, Concealed: EMT.
    - e) Metal-Clad cabling (Type MC) shall be permitted only for lighting whips to individual luminaires only, with a maximum length of 6 feet.

## 11. Branch Circuits

- A. Branch Circuit Wiring:
- 1) Shall be the following:
    - a) Copper conductor no smaller than #12 AWG.
      - i. Solid: #10 and #12 AWG conductor size.
      - ii. Stranded: #8 AWG and larger conductor size.
- B. Wiring Devices:
- 1) Wiring Provisions: Terminal screws for side wiring and screw actuated binding clamp for back wiring with separate ground terminal screw.
  - 2) Use the following:
    - a) Switches: 20 amp, 120/277V AC, specification grade switches.
    - b) Duplex Receptacles: 20 amp, 125V.
    - c) Special Receptacles: As required for equipment served.
  - 3) Device Cover Plates:
    - a) Shall be the following material and finish:
      - i. Back of House Spaces: Stainless steel, brushed
      - ii. Front of House spaces: Plastic with color selections by arch

# EXECUTIVE SUMMARY

## Project Description – Technology

1. Overview
  - A. A main telephone room will be located near the point of service to the building and centrally located within the building footprint. (2) 4" telecom service conduits will extend to the public right of way and terminate at 24"x36" pullboxes for a demarcation point. Coordination with the service providers to determine the meet-me point will be required. Conduits shall be PVC Schedule 40 routed underground to the service entrance room.
  
2. Applicable Standards: The technology systems for this project will be developed in compliance with the following standards:
  - A. ANSI/TIA-568-B.1 Commercial Building Telecommunications Cabling Standard Part 1 General Requirements
  - B. ANSI/TIA-568-B.2 Commercial Building Telecommunications Cabling Standard Part 2 Balanced Twisted-Pair Cabling Components
  - C. ANSI/TIA-568-B.3 Optical Fiber Cabling Components Standard
  - D. ANSI/TIA 569-A Commercial Building Standard for Telecommunications Pathways and Spaces
  - E. ANSI/TIA 606 Administration standard for the Telecommunications Infrastructure of Commercial Buildings
  - F. ANSI/TIA 607 Commercial Building Grounding and Bonding Requirements for Telecommunications
  - G. ANSI/TIA 526-7 Measurement of Optical Power Loss of Installed Single-Mode Fiber Cable Plant
  - H. TIA/TSB 67 Transmission Performance Specifications for Field Testing of Twisted-Pair Cabling Systems National Fire Protection Association (NFPA): NFPA 70 - National Electrical Code
  - I. Americans with Disabilities Accessibility Guidelines (ADA)
  - J. BICSI Telecommunications Distribution Methods Manual (TDMM), 14th Edition
  - K. ANSI/BICSI 007-2020 Information Communication Technology Design and Implementation Practices for Intelligent Buildings and Premises
  
3. Backbone and Horizontal Telecommunications Cabling Distribution
  - A. Horizontal pathways shall be provided, including a combination of raceways and cable trays to allow the telecommunications and CATV cabling to be routed throughout the building. Cable tray will be located in main corridors. A lighting panel shall be provided in the telecommunications service entrance room to provide ground circuits as service providers require.

- B. Category 6A, plenum-rated cable, and Category 6A jacks are terminated on patch panels in the telecom rooms. Infrastructure shall be provided for equipment requiring network connectivity, such as:
  - 1) Work area outlets (WAOs)
  - 2) Wireless access points (WAPs)
  - 3) Video surveillance security cameras
  - 4) Digital signage
  - 5) Lighting control panels
  - 6) Building automation headend equipment
  - 7) Security systems headend equipment and server locations
  - 8) Energy metering/monitoring equipment
  - 9) Dante AV network connection
  
- 4. A wireless local area network will be provided throughout the building.
  
- 5. Electronic Security Systems
  - A. Electronic Access Control
    - 1) An integrated solution for electronic access control (EAC) and electronic video surveillance (EVS) shall be provided for the building, including a single server and storage device with a combined software platform. The system shall be able to support active directory integration and have an open API.
    - 2) A touchless security system approach shall be considered in the design that will include Bluetooth or mobile credentials with card readers capable of supporting that technology solution.
    - 3) The access control server and field panels for door controllers will be located in IDF rooms throughout the building based on distance requirements and voltage drop to the device locations.
    - 4) 13.56MHz or Bluetooth-enabled card readers will be provided for strategic interior and exterior door locations. Exterior doors will be controlled and monitored from the system.
    - 5) Composite cable shall be provided from field panel door controllers to each controlled door location.
  
  - B. Electronic Video Surveillance
    - 1) The video surveillance Video Management Software (VMS) shall be an integrated enterprise solution with the EAC. The VMS shall be segregated such that each program component has dedicated camera management.
    - 2) Fixed-dome, megapixel IP cameras will be provided in specific areas to ensure secured ingress and egress within the property. Some locations will require pan/tilt/zoom (PTZ) cameras and will be coordinated with ownership.

- 3) Cameras shall be connected to the landlord/owner's network through a Category 6 network cable.
  - C. Security Intercom
    - 1) An IP-based intercom system shall be provided for residential visitor access. It shall be a cloud-based application integrated with the overall integrated building approach. Stations shall be provided at the residential lobby entrance.
6. Audiovisual Systems: Audiovisual systems shall be provided in designated spaces, including the Freedom Hall, classrooms, conference rooms, pre-function and gallery areas and the flexible event plaza.
  - A. The audiovisual system shall include the following:
    - 1) Video distribution
    - 2) Audio sound reinforcement
    - 3) Control system
    - 4) Digital signage
    - 5) Background music
  - B. Video Equipment
    - 1) Video equipment shall consist of flat-screen displays. Sizing and equipment selection shall be based on the room size and furthest distance calculations for viewers and intended viewing content for the designated spaces.
    - 2) Mounting equipment shall be provided consistent with the manufacturer's recommendations combined with ADA requirements.
    - 3) Camera types and locations shall be determined by the application for the designated space(s) to allow for adequate viewing angles and acceptable zoom capabilities.
    - 4) Appropriate inputs shall be specified for the required display equipment. HDMI and wireless presentation shall be considered for each space.
    - 5) Video switching and distribution equipment will be provided where required to allow for flexibility in the use and configuration of the spaces by providing the capability to send and receive video content from multiple locations.
  - C. Audio Equipment
    - 1) Sound reinforcement shall be provided for each identified space, including overhead loudspeakers with headend amplification equipment.
    - 2) Equalization, feedback control, and echo cancellation shall be managed through a digital signal processor (DSP).

- 3) The audio system shall utilize a Dante network audio solution, allowing for increased audio channels and flexibility in signal routing throughout the building.
- D. Control System: An audiovisual control system shall be provided and include the following:
- 1) Power on/off the system as a whole
  - 2) Control of individual system components, including, but not limited to, motorized screens, cameras, DVD or CD players, and projectors
  - 3) Selection of input devices for display
  - 4) Volume and mute control of applicable equipment
- E. Digital Signage
- 1) Each location will include a flat panel display, mount, electrical power, and network connectivity. A digital signage player or small form factor PC shall be provided at each display. Signage software and content shall be coordinated with the owner.
  - 2) Digital signage shall be provided in the lobby and pre-function area.
- F. Background Music
- 1) The system shall include loudspeakers, amplifiers, cabling, and headend audio-generating equipment. Head end equipment shall include internet radio, FM tuner, Bluetooth, and streaming service and shall be centrally located in a TR.
  - 2) Background music system control shall allow for source/content selection, zoning of content, volume, and mute control.
  - 3) Background music shall be provided in the lobby and pre-function area.