



FREDERICK DOUGLASS PARK FAMILY CENTER

Program Verification +
Revised Schematic Design Report

JULY, 2021



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INTRODUCTION

FREDERICK DOUGLASS PARK FAMILY CENTER

PROGRAM VERIFICATION + REVISED SCHEMATIC DESIGN STUDY

This study is the second step in a much longer process that started with a design concept nine years ago and will continue now uninterrupted through the subsequent phases of design until a new Family Center is built.

This second step was made to pause and take into account the needs of the Martindale-Brightwood neighborhood that have changed since the initial Programming and Schematics from nine years ago in 2012.

The design phases to follow of Design Development, Construction Documents, Bid Documents and Construction will see a consistent increasing level of additional detail as the design moves ahead.

The intent of this report is to listen to the Indy Parks, the staff of the Frederick Douglass Family Center, and the residents of Martindale-Brightwood and reflect their comments, concerns, ideas and dreams in an updated Architectural Program and Schematic Design while driving toward a new cutting edge facility that serves them for many years to come.

METICULOUS and Moody Nolan consultants offer special thanks and acknowledgement to Andre Denman, Principal Park and Greenway Planner, Don Colvin Jr., Deputy Director, the Douglass Family Center staff: Candice Graves and Kenyatta Moore, and the active residents of Martindale-Brightwood for their insight and feedback in the development of this report.

BACKGROUND

PARK LOCATION AND BRIEF HISTORY

Frederick Douglass Park, which is part of Indy Parks, is a community park located on the near east side of Indianapolis at Andrew J. Brown and East 25th Street. The 43-acre park was established in 1921 and is in the Martindale-Brightwood Community. A swimming pool was added in 1927. Martindale, in the late 19th and throughout the 20th Century, was a segregated community for African Americans, which is still reflected in the predominantly African American population you see in the area today.

Brightwood was settled by European immigrants, primarily German, Irish, British, and their recent descendants in the late 19th and through the mid-20th Century. All these groups were attracted to the area by work created by several railroads and industries that had primarily developed in the Brightwood community. By the 1960s, the European-American families began to migrate out of Brightwood, a void filled by African Americans.

After WWII and through the 1960s, Martindale experienced growth in lower-middle to middle-class African American families, which in turn created greater and more diverse recreational demands on Frederick Douglass Park and its community center. A nine-hole golf course on the northeast part of the park was established, a new swimming pool was built to replace the old one, and some minor renovations to the existing family center were some of the improvements completed to meet these new demands. During this period, Douglass Park became very popular and well-used city-wide, especially by those in the African American community. Community meetings, popular city basketball games, and traditional family gatherings were just a few of the heavy uses for the park and the center.

Although the Martindale-Brightwood area experienced an economic decline from the 1970s and on, as did many urban areas nationally, in more recent years, a positive turn in the community is clearly evident. The recent infusion of new middle-income homes and younger families holds new promise for the community. Newer small businesses, churches, and greater racial diversity all point to a resurgence for the area. This is increasing demand for updated recreational needs as well as a location for community and health services.

(from frederickdouglassparkplan.com)

FAMILY CENTER PROJECT HISTORY

Indy Parks and Recreation engaged Moody Nolan, the country's largest African American-owned architecture firm, headquartered in Columbus Ohio to provide a Schematic Design Study that was completed in 2012. Moody Nolan launched a thorough Architectural Programming process with the Parks and residents of Martindale-Brightwood that resulted in 44,774 square feet of building space that was estimated at the time to a cost of \$13,393,548. Funding was not yet earmarked and the project was shelved.

Nine years later in March of 2021, The City-County Council approved a property tax (replacing a former tax coming off the books) that provides \$45 million in upgrades to four area parks including roughly \$20 million for the long overdue new Frederick Douglass Park Family Center.

METICULOUS Design + Architecture, an Indianapolis based African American-owned architecture firm, was brought in to pick up the project and quickly assembled a team of consultants that are 56% XBE certified, including Moody Nolan, JQOL GLOBAL LLC, KBSO Consulting, Shrewsberry, Skyview Aerial, V3 Surveying, and Engaging Solutions. The team set out first to validate and update the previous 2012 Architectural Program and Schematic Design which is detailed in this report.

COMMUNITY ENGAGEMENT SUMMARY

ENGAGEMENT BRIEF

The METICULOUS design team and Moody Nolan consultants know the residents of Martindale-Brightwood are very active in numerous neighborhood boards and groups and that this project is particularly important to them and the growth of the area. Engaging Solutions was brought in to help with the Program Verification part of this project.

Verification was designed to review the Architectural Program of spaces and amenities from the previous 2012 Schematic Study, and determine what needs changed during the 9 year interim period. A meeting schedule was established to alternate between an Advisory Committee composed of residents and representatives of the neighborhood groups, and the general neighborhood public. The process began by reviewing the project history, Program and Plan, opening up to feedback from the community, presenting a revised Program and Plan, and then opening up to another round of feedback. It was also determined that separate Youth Focus Groups would be necessary to hear the voices and needs of the upcoming generation of Park attendants.

MEETING SCHEDULE

- 04/13/21 Advisory Committee Meeting #1 - Historical Perspective, Presentation, & Feedback
- 04/20/21 Public Meeting #1
- 04/28/21 Tour of Irsay Family YMCA + Monon Center + Pike YMCA
- 05/04/21 Advisory Committee Meeting #2 – 1st Working Session
- 05/12/21 Public Meeting #2
- 05/14/21 Tour of Pike YMCA

- Youth Focus Groups + Online Survey
- 05/24/21 KIPP Prep Middle School – 12 students
- 05/24/21 KIPP Legacy High School – 6 students
- 05/25/21 Tindley Accelerated School - 8 students

- 06/8/21 Design Brief + Online Survey –Advisory Committee & One Voice
- 06/15/21 Advisory Committee Meeting #3 – Presentation of updates, & feedback
- 06/15/21 Public Meeting #3

MEETING AGENDA SUMMARY

- 1st MEETINGS - Project Purpose + Engagement Kickoff:
 - Review 2012 Schematic Design Report + Gather Feedback of Changed Needs.
- 2nd MEETINGS - Working Session:
 - Break-Out Groups to Discuss Needs that Changed Most
 - Kitchen,
 - Multi-Purpose Rooms,
 - Computer Lab,
 - General Connections (Indoor/Outdoor)
- 3rd MEETINGS - Working Session:
 - Review Revised Program and Plan + Gather Feedback on Success of Changes.

SUMMARY OF PUBLIC COMMENTS

The residents made many suggestions and recommendations for a successful Family Center regarding both looks and function. While some neighbors expressed concern that the next steps will happen, several shared that they were pleased with the plans and team involved: On the whole, the designs reflect the suggestions made throughout the engagement process.

HIGHLIGHTED PRIORITIES:

- CREATE A WORLD-CLASS FACILITY THAT HONORS THE PARK HISTORY
- KEEP THE CURRENT STAFF | CONTINUE THE PANTRY.
- SENIOR RESIDENTS | WINTER ACTIVITY, INDOOR WALKING, ELEVATOR
- CURRENT TECHNOLOGY | WIFI + EQUIPMENT FOR ALL AGES
- OUTDOOR CONNECTION | NATURAL DAYLIGHTING INSIDE, PATIO, STAGE + WALKING TRAIL OUTSIDE
- FLEXIBLE MULTI-USE SPACES | PARTY/RENTAL SPACES + STAGE
- CREATIVE SPACES | ART, DANCE, MUSIC, MEDITATION, + STUDY
- KITCHEN | INDOOR & OUTDOOR CONCESSIONS, ICE, HEALTHY FOOD CLASSES, + VENDING
- GYM | FOR A VARIETY OF SPORTS + TOURNAMENTS



COMMUNITY ENGAGEMENT SUMMARY

MEETING PHOTOS

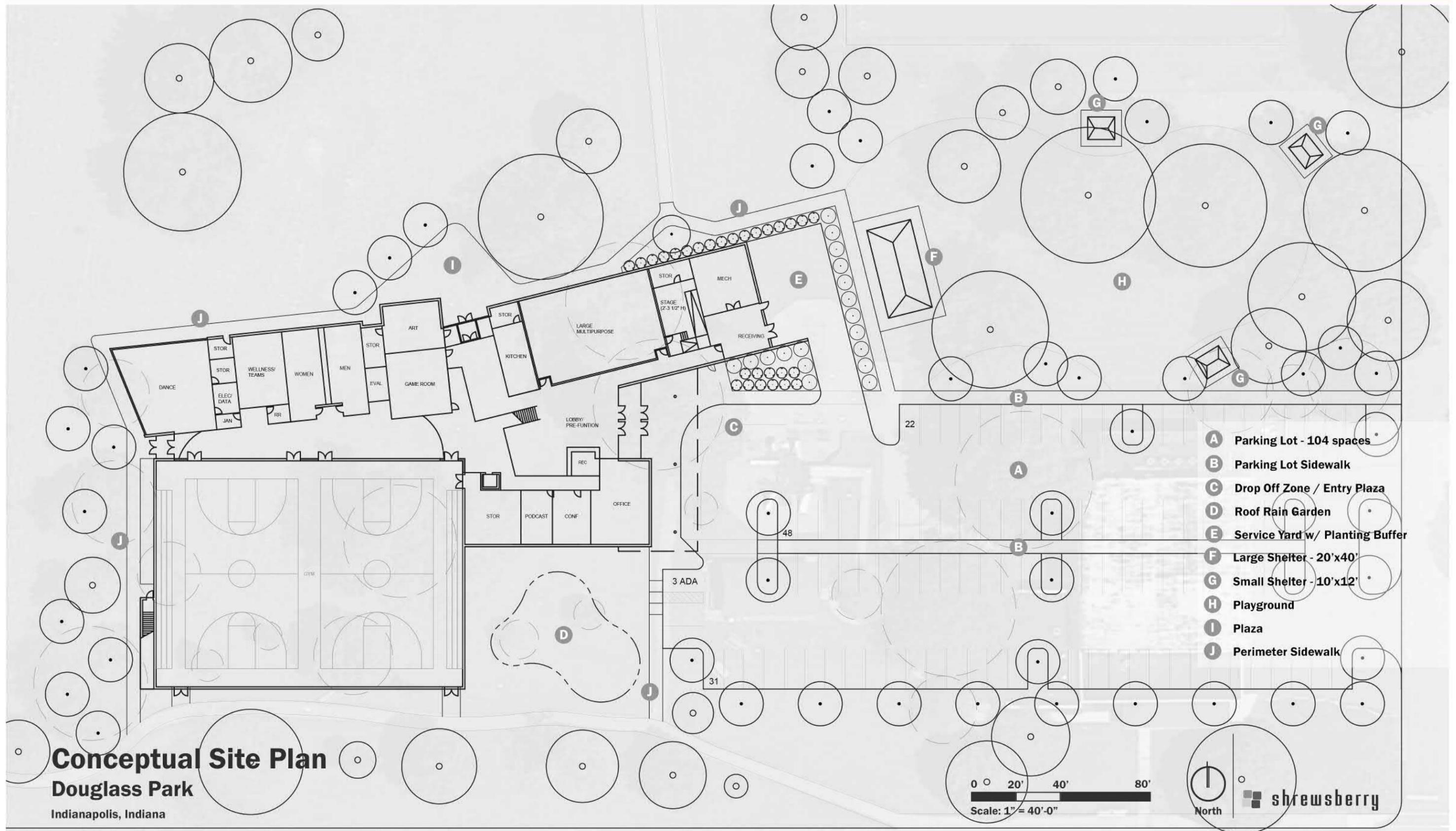


NARRATIVE

SITE PLAN

The main entrance and vehicle parking access will come off of East 25th Street, with light traffic coming from the north along Ralston Street. The existing parking lot will be demolished and replaced with a larger, 100 space, more efficient lot. A green space along Ralston will create a buffer between the lot and new Center from the homes located on the east side of Ralston. The existing building will also be demolished and the new building pulled further west, again creating a greater separation from the homes along Ralston. This is in response to a long standing complaint of the residents. Although they like being near the park, they often objected to the Center being too close to their homes. The playground will also be pulled a bit further into the park, but will be located on the site in a manner that it still can be seen from 25th Street and from the new parking lot. There will also be an improved visual connection from the Center itself to the playground.

Most pedestrians will come from the heavily residential areas from the north, east and south of the Douglass Family Center. Currently, fewer users are coming from the less dense residential area to the west, across Andrew J. Brown, but this could change if new housing replaces many of the abandoned lots. Most children will come from the east and south where the demographically younger families are. There is an issue of a lack of paved walks off-site on the north side of 25th Street and the west side of Ralston. By moving the Center deeper into the park, the design will integrate the existing trail system and the new Douglass Family Center. This will create a safer environment for pedestrians and greater opportunity for interaction between the Center and the users of the trail system. The new location will generate more interaction for the users between the existing outdoor sports fields and the new Center. The rest room facilities and any borrowing of sports equipment will be enhanced by the new location without interfering with the functions of the fields. With the indoor track being so visible to those either walking or driving by, the Center should encourage users of the trail to make walking a year round, all weather activity.



NARRATIVES

LANDSCAPE DESIGN

A strong indoor/outdoor connection was identified as a high priority for staff and Martindale-Brightwood residents, including requests for an outdoor stage, summer movie backdrop, trailhead to a walking path, pavilions, and an updated playground.

A large plaza at the north entrance of the Family Center provides the greater connection to the park outdoors, with potential spaces for an amphitheater stage/summer movie adjacent. A large rain garden provides a soft front yard at the main east entrance. Plantings buffer the spaces between service yard, the parking, and the playground. There are multiple mature 'heritage' trees on site that the plan works around.

Example images of a stage, rain gardens, and playgrounds:



NARRATIVES

ARCHITECTURAL

The 45,000 Square Foot building has been planned to maximize recreation programming opportunities, community gatherings social interaction and create a sense of community. The design maximizes views for both casual supervision and to see opportunities and activity on multiple levels and through the main concourse.

The center is organized into two functional program areas with a common entry lobby; The Community Civic Areas and the Recreation Activity Areas. The community/civic spaces are generally program specific such as art studios, classrooms and multi-purpose rooms. The recreation activity area spaces focus on Healthy Lifestyles and include a fully equipped fitness area, walking track, group exercise/dance studio and double gymnasium.

Entry: As one turns into the parking lot off Ralston Street, the Family Center's main entry door is clearly visible. The entry will be easily recognizable, well lit and promote a sense of safety. An extension of the canopy will allow for covered drop off of guests.

Lobby: The lobby welcomes and inform the regular guest and the first-time visitor. This is a multi-generational family center and serves all ages, therefore attention will be given to graphic and directional way finding. A major attribute of the lobby will be a reproduction of the large existing mural that celebrates Fredrick Douglass and the surrounding neighborhood residents. A second location will have a reproduction of the Frank R. Beckwith mural.

The high ceiling lobby will have visual connection to many of the internal activity spaces on the entry level including the large multi-purpose room, game room, gym arts, and dance. The mezzanine level includes an elevated track, fitness area and a secondary multi-purpose room. The use of glass and windows will allow the entry and lobby to "glow" in the dark.

Welcome Desk: Immediately visible as you enter the center is the open Welcome and check-in desk, located in the lobby. This check in location is at the hub of the facility, All visitors will check in at the main desk and then go to their respective destinations. The central control point of the center can accommodate multiple computer workstations; including point-of-sale computer cash drawer and user pass verification. The counter has visual connection to the entry doors, the lobby, corridor, the recreation activity corridor and many recreation activity spaces in the center. The control desk connects to the administrative offices and also functions as the equipment checkout for items such as basketballs, volleyballs, table tennis paddles and balls, etc.

Administrative Office Suite: The Douglass Park Family Center's program and supervisory staff will be housed in an office suite located immediately off the lobby with connection to the Welcome Desk. A combination of private offices and open workstations will comprise the suite. Included in the office suite is a workroom for office equipment and files and a conference room that accommodates up to twenty people with access from lobby for small community meetings in the evening.

MEETING AND ACTIVITY SPACES:

Community Hall: The multi-purpose Community Hall may be divided into two spaces with a high quality operable wall. The dividable MP Community Hall has durable higher end finishes materials. Large windows in the room offer views into the park. The MP community hall will have a stage on one end with quality audio and video technology and be able to be darkened for presentations. Variable lighting and 12' to 15' high ceilings create a grand and comfortable venue to host events from receptions and community special events to senior adult lunch programs and community meetings. The MP Community Hall is connected to the Warming & Demonstration kitchen. The entry lobby serves as a pre-function gathering space for the MP Community Hall rooms.

Group Exercise & Dance Studio: This studio space located on northwest corner of the building has an exceptional view of the park. The space has a resilient wood floor, good sound system, mirrors and cubbies for personal items and an acoustical separation from the rest of the building. Activities in this multi functional space can range from aerobics, yoga, dance and meetings.

Multi-purpose Room: This upper level multi-purpose room can host a wide variety of leisure classes and programs. It will accommodate 30-50 people in most configurations or a smaller exercise class of 16 people.

EXERCISE SPACES:

Fitness Area: The upper-level fitness area will have views to the elevated walk/jog track and to the park to the north. The large open space will accommodate cardio equipment; variable weight resistance machines, free weights and stretching. Also in the building is an evaluation room for private consultations for personalized fitness programs or other small personal consultations.

Gymnasium: The two court gymnasium will have two full size high school basketball courts at 84' x 50' with 8' safety zones around each court and can accommodate two volleyball courts and badminton/pickleball courts. The space will be dividable with a drop down curtain. Retractable bleachers can accommodate 208-300 spectators.

Elevated Walk/Jog Track: The elevated track will physically and visually connect multiple spaces within the center. It is elevated above the gymnasium and soars through the lobby with access from the upper floor near the group exercise and the small multipurpose room. The track has a wide walking lane and a standard jogging lane as it is both an active physical space as well as a social space. The track's length will be approximately 1/11.5 of a mile.

Wellness/ Team Room: This room will serve as a consultation and resource area for a variety of health and wellness related programs. It will also function as a changing area during large tournaments. It is opposite the gym off the main corridor.

SPECIALTY SPACES:

Arts & Crafts Studio: The Arts & Crafts studio will be used by all ages and will include secure casework with accessible storage for materials and supplies. The outside wall with northern exposure wall will have large windows with view to the surrounding park and abundant natural light. The Arts and Crafts studio will connect to an outside patio for expanded arts program activities.

Podcast and Computer Room: A computer centric room with casework and secure storage for computers is located adjacent to the Welcome Desk. The space will be treated to improve acoustics and have computers for general work as well as microphones and headsets for generating podcasts and other media. The entire center will have wireless internet access.

Game Room: Located just off the lobby this highly visible and acoustically separated space will be used by youth and adults playing table games, table tennis, and foosball or competing in EA Sports or other gaming systems. The game room can be used for teaching youth in a supervised setting the rules and techniques of many games. Glass between the game room and the main desk will allow for casual supervision.

SOCIAL SPACES:

Lounge Spaces: The building common areas are open, visible, and create opportunities for social interaction and gathering. They are divided into three main spaces.

- **The Main Lobby** is the prefunction space for the multipurpose room and hub for the center as it is near the main desk. This area may also have some furniture below the mezzanine near the gym where space will allow the development of a history wall expressing the history of the neighborhood.

- **Arts Lounge:** This space is between the concessions counter of the kitchen, and the entrances to the game room and arts rooms. Furniture in this space will foster gatherings before arts classes or use of the game room in a smaller space.

- **Community Lounge:** The community lounge is an area along the side of the gym in the main concourse this space will have tables and chairs for people to wait before or after events in the gym, the dance studio or to socialize.

SUPPORT SPACES

Warming & Demonstration Kitchen: The kitchen has three main uses. First is to provide counters and outlets for warming food for gatherings like potlucks for family and community events. Second is to space for warming carts and service by caterers for large events. The third use is for teaching healthy nutrition classes. Equipment includes a commercial ice maker to have ice for camps, larger events and overall facility use. It has a refrigerator and freezer and may have a larger refrigerator for summer programs. A residential electric stove with a locked switch allows staff to control use of the stove for the teaching classes. A standard hand sink and dishwasher rounds out the residential appliances. The kitchen has serving windows to the Multipurpose room and to the Arts Lounge for serving the gym.

Food Pantry Space: Located near the service entrance and with a connection to the main concourse and proximate to the Community Hall, the Douglass Family Center will have a food pantry to serve the needs of the community. This Pantry includes a walk in cooler, reach in freezer, and a dry goods area for storage and preparation of to go bags. The location allows for food to be brought in from receiving, refrigerated as needed, packaged and then either distributed through a dutch door, a counter or table in the corridor, or a series of tables set up in part of the Community Hall.

Restrooms with showers and changing: The mens and women's restrooms will have an individual shower and two changing spaces. Accessible day lockers will be located on the outside of the restrooms.

Family and/or Companion Assist Changing Room: The changing room will have a toilet, a sink and a changing bench. The lockers for this changing area are located outside the changing rooms.

Mechanical and Back-of-House Spaces: Adequate and appropriate mechanical space will be distributed throughout the center to maintain comfort and safety of guests and staff. Specific storage areas have been identified within the program and are distributed throughout the facility. Janitor closets and housekeeping electrical outlets have been planned for ease of facility management. A loading and receiving area is located adjacent to MP Community Hall and related service yard.

NARRATIVES

STRUCTURAL (BY JQOL GLOBAL LLC)

STRUCTURAL LOAD CRITERIA

Live Loads

1. Roof (Snow): 20 PSF + drifting snow
2. Supported Floors:
 - a. First Floor Corridors and spaces other than general spaces: 100 PSF
 - b. Corridors above First Floor: 80 PSF
 - c. Offices: 50 PSF
3. Reduction allowance: no reduction

Dead Loads

1. Weight of floors and roofs as determined by systems selected.
2. Mechanical piping and ductwork allowance of 3 PSF.
3. Electrical equipment allowance of 2 PSF.
4. Ceiling allowance of 5 PSF.
5. Solar Panels for Possible Future Installation: 6 PSF.

Lateral Loads

1. Wind for Primary System (International Building Code)
 - a. Basic Wind Speed: 120 MPH
 - b. Exposure Category: C
 - c. Importance Factor: 1.0
 - d. Internal Pressure Coefficient, GCpi +/- 0.18
 - e. Risk Category III
2. Seismic:
 - a. Site Class: D
 - b. Seismic Design Category: C
 - c. Importance factor I: 1.25
 - d. Ss: 0.156
 - e. S1: 0.085
 - f. SDS: 0.166
 - g. SD1: 0.136

STRUCTURAL SYSTEM CRITERIA

1. Concrete
 - a. Foundations: 4000 PSI, normal weight
 - b. Slabs on Grade: 4000 PSI, normal weight
 - c. Structural Concrete: 4000 PSI, normal weight
2. Reinforcing Steel
 - a. Reinforcing Bars: ASTM A615, Grade 60
 - b. Welded Wire Fabric: ASTM A185
3. Structural Steel
 - a. Wide Flanges: ASTM A992, Grade 50
 - b. Tube Sections: ASTM A500
 - c. Angle Sections: ASTM A36, Grade 36
4. Metal Roof Deck
 - a. ASTM A446, 1-1/2" deep, galvanized metal roof deck, typical

FOUNDATIONS

A Geotechnical Investigation has yet to be completed on site. Civil/Site and Structural will coordinate with Geotechnical engineer on testing required. All foundation designs are considered to be preliminary prior to confirming actual site conditions. All designs are completed assuming shallow foundations.

Based on this, the foundation for the new construction will consist of reinforced concrete pads at all column locations. The perimeter foundation will be reinforced concrete wall footings poured integrally with the column footings. The perimeter foundation/basement walls will be reinforced concrete built-up from the continuous wall footings and column pads. Continuous, rigid insulation will be positioned against the foundation walls and all basement walls will receive waterproofing. All perimeter foundations will be located below frost. Interior footings will be located nominally below the floor slab.

The slab on grade will be 4 inch thick (unless noted otherwise) with welded wire fabric for crack control. The slabs will be thickened under all interior masonry walls. The slab will be cast on a 6" layer of granular drainage fill and a 15 mil vapor barrier.

All foundation excavations will be properly backfilled and compacted.

All new sub-grade walls will be waterproofed and will have a perimeter drainage tile leading to the specified storm sewer system. All construction joints will have continuous waterstops.

All backfill will be controlled engineered fill designed to support the new construction.

FRAMING

The structure for new construction will consist of steel framed structure with wide flange beams for column bays. Grid spacing will follow roughly a 30 ft x 30 ft grid. Due to current market conditions and uncertainty on lead times, materials costs, and availability, two different structural systems will be assessed to determine the most cost effective and schedule conscious option for this structure.

OPTION 1 will be conventional steel framing with roof joists and standard metal deck for roofs, with floor joists and composite concrete on metal deck for floors and elevated walkways. Joists will be spaced at roughly 5'-0" on center. Due to current market conditions lead times will be evaluated throughout the design process to accommodate schedule and minimize construction cost.

OPTION 2 will be to utilize long span acoustical metal deck to minimize the amount of structural steel framing and omit the need for roof or floor joists. Framing bays will consist of Wide Flange Girders and Beams at a specified spacing to support the long span metal deck. Roof framing will consist of Epic Metals Toris Deck and floor systems will be comprised of composite concrete on Toris deck. Sections of exposed roofing will feature acoustical finished decking. All other decking will be standard galvanized unfinished deck. Epic metals long span deck has the capability to span between 14 to 30 feet depending on loading. Structural engineers will work closely with the manufacturer to determine the optimal bay spacing and beam spacing required.

FRAMING (continued)

The gymnasium framing will require custom long span joists to accommodate the span and hanging track loads imposed. Bottom chord joist extensions will be fabricated to attach to the column hangars at each joist for the hanging track

The hanging elevated track located in the gymnasium will be constructed from HSS column hangars supporting and structural steel Wide Flange frame that is simply supported from the hangars and steel framing or masonry walls where possible. Decking for the track will consist of composite concrete on metal deck which will be decided based on the decking system selected. Lateral loading will be resisted by a combination of structural steel braced frames where possible, as well as reinforced ordinary masonry walls and steel moment frames as required

NARRATIVES

HEATING, VENTILATION, AND AIR CONDITIONING (BY KBSO Consulting)

BASIS OF DESIGN

APPLICABLE CODES

The Mechanical Systems shall be designed in accordance with the following Codes:

- Current Indiana Building Code (2012 International Building Code with Indiana Amendments)
- Current Indiana Mechanical Code (2012 International Mechanical Code with Indiana Amendments)
- 2010 Indiana Energy Conservation Code (ASHRAE 90.1-2007 with Indiana Amendments)

APPLICABLE GUIDELINES AND STANDARDS:

The Mechanical Systems will be designed in accordance with appropriate portions of the following Guidelines and Standards:

- ASHRAE Standard 90.1-2007 Energy Standard for Buildings except Low-Rise Residential Buildings
- ASHRAE Standard 62.1-2007 Ventilation for Acceptable Indoor Air Quality
- ASHRAE Fundamentals Handbook – 2013 Edition

OUTDOOR DESIGN CONDITIONS

Summer:

- Dry-Bulb Temperature: 95°F
- Wet-Bulb Temperature: 78°F
- Dew Point Temperature: 75.4°F

Winter:

- Dry-Bulb Temperature: -10°F

INDOOR DESIGN CONDITIONS:

	Summer		Winter
	Dry Bulb Temperature (°F)	Relative Humidity (%)	Dry Bulb Temperature (°F)
Office/Conference Areas	75	60	70
Corridors/Lobbies	75	60	70
Multipurpose Areas	75	60	70
Dance	75	60	70
Stage	75	60	70
Fitness	75	60	70
Basketball Courts	78	60	68
Conference/Training	75	60	70

Heating and Cooling Loads – Internal Heat Gains

The occupancy heat rejection shall be based on the 2013 ASHRAE Handbook of Fundamentals, Chapter 18, Table 1, as well as the expected occupant density as established by analyzing the building floor plans. RAMING (continued)

The lighting heat loads shall be as determined by analyzing the lighting layout and performing lighting load calculations based on actual light fixture calculations. The equipment heat loads shall be determined by analyzing the architectural equipment layout and making determinations based on accepted practice.

HEATING AND COOLING LOADS – VENTILATION RATES

Ventilation rates shall be as follows:

- Office/Conference Spaces: 0.06 cfm per square foot plus 5 cfm per person
- Multipurpose Areas: 0.06 cfm per square foot plus 5 cfm per person
- Dance: 0.06 cfm per square foot plus 10 cfm per person
- Stage: 0.06 cfm per square foot plus 10 cfm per person
- Basketball Courts: 0.30 cfm per square foot
- Fitness: 0.06 cfm per square foot plus 20 cfm per person
- Corridors/Lobbies: 0.06 cfm per square foot
- Restrooms: 0.06 cfm per square foot

HEATING AND COOLING LOADS – INFILTRATION

The building heat loss calculations will include an infiltration load based on a criterion of 0.3 air changes per hour. Performance criteria for building envelope construction materials shall be based on the Architectural documents.

HVAC SYSTEM DESCRIPTION

AIR-COOLED VRF SYSTEM:

The heating and cooling system for the building will be comprised of an air-cooled variable refrigerant flow (VRF) heat recovery system paired with multiple Dedicated Outside Air Systems (DOAS) air handling units for delivery of the required outside air. The air-cooled condensing units for the VRF system will be installed within a roof well, hidden from visibility.

Refrigerant piping will be routed from the roof-mounted condensing units to branch selector boxes located throughout the building. Each branch selector box will be piped to up to concealed ducted, vertical, or horizontal VRF fan coil units. The exact layout and quantity of indoor units will be dependent on the final interior design for each floor. The branch selector boxes will allow for simultaneous heating and cooling among zones. Each zone will be served by its own fan coil unit.

As previously described, ventilation air will be delivered to the building from multiple DOAS units distributed within mechanical rooms in the building. At this time, it is anticipated that there will be three DOAS Units. Supply and exhaust ductwork from the DOAS units will be routed from each unit utilizing galvanized steel ductwork and delivered into plenum boxes at the inlet of every fan coil unit within the space.

EXHAUST SYSTEM:

All toilet rooms will be exhausted through the DOAS systems in order to take advantage of energy recovery. The exhaust air for the entire building will be pulled through the DOAS systems and exhausted out the building.

DISTRIBUTION:

Air-side distribution will be carried out utilizing rigid galvanized steel ductwork throughout the building. Supply, return, and exhaust ductwork will be galvanized steel ductwork. Runs of flexible ductwork not exceeding 6-feet will extend from branch ductwork to supply diffusers in the space. All supply ductwork will be insulated with 1.5-inch fiberglass insulation.

Refrigerant piping will originate from each roof-mounted condensing unit and connect to fan coil units through branch selector boxes throughout the space. All refrigerant piping is to be soft-drawn copper piping. All refrigerant piping will be insulated with Armaflex insulation.



NARRATIVES

PLUMBING AND FIRE PROTECTION SYSTEMS (BY KBSO Consulting)

APPLICABLE CODES

The Plumbing Systems will be designed in accordance with the following Codes:

- Current Indiana Building Code (2012 International Building Code with Indiana Amendments)
- Current Indiana Plumbing Code (2006 International Plumbing Code with Indiana Amendments)
- Current Indiana Fire Code (2006 International Fire Code with Indiana Amendments)
- Current Indiana Fuel Gas Code (2005 International Fuel Gas Code with Indiana Amendments)
- Current Indiana Energy Conservation Code (ASHRAE 90.1-2007 with Indiana Amendments)
- 2002 NFPA 101 Life Safety Code
- 2010 Americans with Disabilities Act

PLUMBING SYSTEM DESCRIPTIONS

DOMESTIC WATER DISTRIBUTION SYSTEM

A new incoming water service will be in a main mechanical room at the North-East corner of the building. It will include meters and backflow prevention devices. Based on preliminary calculations, the building will need a 4-inch incoming water line. The supply capacity for the cold and hot water piping will be determined by fixture counts and by using recognized engineering standards.

A packaged duplex booster pump shall be located in the main mechanical room (pending results of a pressure test). The system shall be designed to provide sufficient pressure to operate plumbing fixtures and equipment during peak demand.

A duplex water softening system, located in the main mechanical room, will provide softened water to the domestic hot water system.

The water service main, riser, and branch to a group of fixtures shall have isolation valves. Stop valves will be provided for each fixture. Vacuum breakers and backflow prevention devices will be provided to protect against cross-connection. Dielectric unions shall be installed between the connections of pipe of dissimilar metals.

Water hammer arrestors shall be installed in accessible locations on the cold water and hot water piping where flush valves and any other quick closing valves are used. Water hammer arrestor sizing shall be sized and installed per the Plumbing and Drainage Institute (Standard PDI-WH-201) requirements.

The domestic hot water system shall consist of (1) electric water heater. The system will include a thermal expansion tank, a high-low thermostatic mixing valve, and circulator pump(s). The system will be designed to limit the occurrence of Legionella bacteria and opportunistic waterborne pathogens.

Domestic water piping shall be either CPVC with solvent weld fittings, or type L copper seamless tube with wrought copper press seal or ring fittings by Viega or approved equal. Copper soldered fittings are also acceptable.

All domestic water piping shall be insulated with 1-inch fiberglass insulation with paper jacket and preformed PVC insulation fitting covers. 1/2-inch fiberglass insulation is acceptable within stud wall cavities.

STORM DRAINAGE

Roof drains, overflow drains and interior storm piping will convey rainwater to the site storm sewer. Internal drain piping shall be Schedule 40 solid core PVC. Roof drain bodies and the horizontal piping run shall be insulated. Vertical storm leaders shall be routed down through the building and connect below-grade to the storm sewer system. The exact location of the vertical leaders will be coordinated with the architect. In sound sensitive areas of the building piping shall be Schedule 40 solid core PVC completely insulated.

SANITARY WASTE AND VENT

All sanitary waste and vent systems will be provided for all plumbing fixtures and other equipment, appliances, etc., as required. Plumbing fixtures will be drained by gravity through conventional soil, waste and vent stacks to the site sewer. All fixtures will have traps and will be vented through the roof. Vent terminals will be located away from air intakes, doors, operable windows and parapet walls at distances required by the plumbing code.

Above-grade and below-grade sanitary waste and vent piping shall be schedule 40 solid core PVC DWV.

NATURAL GAS

A natural gas system, including service meter and regulator, will be provided for all new gas fired equipment in the mechanical rooms, or on the roof, and any gas appliances throughout the building. Gas piping will be schedule 40 black iron piping, plastic piping will not be allowed.

PLUMBING FIXTURES

All plumbing fixtures will be new, commercial grade products. Each type of fixture will be provided with trim and fittings including faucets, supplies, stops, traps, tailpieces, waste nipples, carriers, plates, brackets, anchors, supports, hardware, and fastening devices required for a complete installation.

Lavatories will be ADA compliant (where required), wall-hung, white vitreous china with high back basin for concealed arm carriers. They will be provided with open grid strainers and with faucet holes on 4-inch centers with floor mounted concealed arm support. Faucets will be ADA compliant, heavy-duty with a hard-wired sensor operation.

Water closets will be ADA compliant (where required), 1.28 GPF, wall-hung, white vitreous china with a hard-wired sensor type flush valve.

Urinals will be ADA compliant (where required), 1.0 GPF, wall-hung, vitreous china, wash-out type with a hard-wired sensor type flush valve.

Sinks will be stainless steel, ADA compliant (where required), with cast brass faucet, 8" centers, gooseneck spout, basket strainer(s), and disposer (where required).

A recessed water supply box will be provided behind refrigerators.

Electric water coolers will include bottle filler and replaceable water filter as part of the fixture.

Freeze-less wall hydrants, recessed lockable box type, will be located along the perimeter of the building spaced at approximately 150 feet apart.

Floor drains will be provided in the Restrooms and Mechanical rooms.

FIRE PROTECTION SYSTEM

The Fire Protection Systems will be designed in accordance with the following Codes:

- Current Indiana Building Code (2012 International Building Code with Indiana Amendments)
- Current Indiana Fire Code (2006 International Fire Code with Indiana Amendments)
- 2010 NFPA 13 Installation of Sprinkler Systems (With Indiana Amendments)
- NFPA 20 Installation of Stationary Pumps for Fire Protection.
- 2002 NFPA 101 Life Safety Code

A new incoming fire protection service, including a double check valve assembly, will enter the mechanical room on North-East corner of the first level. Based on preliminary calculations, the building will need a 6-inch incoming fire protection line.

The new wet-pipe fire protection system will comply with NFPA 13.

The automatic sprinkler system shall be designed for Light Hazard, 0.10 gallons per minute (gpm) per square foot (sqft) over a 1,500 sqft, and a 100 gpm hose stream allowance. Areas such as

Mechanical/Electrical rooms, Kitchens, and Storage shall be designed for Ordinary Hazard, 0.15 gpm per sqft over 1,500 sqft.

(Pending the results of a pressure test), a Fire Pump and Jockey Pump shall be provided in a 1-hr rated room and be designed to provide adequate pressure for the automatic sprinkler system.

Automatic sprinkler heads will be provided with the following finishes:

- Upright, pendant and sidewall Styles: Chrome plated in finish spaces, exposed to view; rough bronze finish for heads in unfinished spaces and not exposed to view. Heads shall be wax-coated where installed exposed to acids, chemicals, or other corrosive fumes.
- Concealed Style: Rough brass, with painted white cover plate. Friction fit plates are not acceptable.

Provide the following types of automatic sprinklers in the following types areas:

- Concealed heads with white covers in all areas with finished ceilings (ie: drywall or acoustical lay-in tile)
- Upright sprinklers in mechanical equipment rooms or any space without ceilings (exposed to structure).
- Sidewall sprinklers in drywall bulkheads or where impractical for ceiling sprinklers.

NARRATIVES

ELECTRICAL SYSTEMS (By KBSO Consulting)

BASIS OF DESIGN

APPLICABLE CODES

THE ELECTRICAL SYSTEMS WILL BE DESIGNED IN ACCORDANCE WITH THE FOLLOWING CODES:

- 2014 INDIANA BUILDING CODE (2012 INTERNATIONAL BUILDING CODE WITH INDIANA AMENDMENTS)
- 2009 INDIANA ELECTRICAL CODE (2008 NATIONAL ELECTRICAL CODE WITH INDIANA AMENDMENTS)
- 2014 INDIANA FIRE CODE (2012 INTERNATIONAL FIRE CODE WITH INDIANA AMENDMENTS)
- 2010 INDIANA ENERGY CONSERVATION CODE (ASHRAE 90.1-2007 WITH INDIANA AMENDMENTS)

APPLICABLE GUIDELINES AND STANDARDS

The Electrical Systems will be designed in accordance with appropriate portions of the following Guidelines and Standards:

- ASHRAE Standard 90.1-2007 Energy Standard for Buildings Except Low-Rise Residential Buildings
- National Electrical Code 2008

SYSTEM DESCRIPTIONS

DEMOLITION

Any electrical site demolition required in preparation for new construction of facility to be determined by site surveyor.

SERVICE

The building will be fed with a 208V three phase system. The utility transformer will be located adjacent to the East parking lot but accessible by service truck. Utility transformer will maintain 4-foot clear to the sides of the transformer and 10-foot to the front. Protective bollards will be placed as directed by Duke Energy.

ELECTRICAL DISTRIBUTION

Electrical distribution for the building will be through an electrical room located centrally on the first floor. A MDP panel will feed larger mechanical equipment and subpanels located in the same 1st floor electrical room and in an additional electrical room centrally located on the 2nd floor.

- Duplex receptacles will be provided throughout all transient spaces to allow for maintenance and cleaning.
- A duplex receptacle will be provided in all storage rooms adjacent to the latch side of the door.
- A minimum of one GFCI-type receptacle will be provided in each restroom adjacent to the lavatory or lavatories.
- A minimum of one duplex receptacle per wall capable of receiving a wiring device will be provided in all offices, conference rooms, work rooms, and training rooms with additional being provided if a wall is over 18-feet long.
- Duplex receptacles will be provided for all refrigeration or coffee making equipment.
- Duplex receptacles will be provided at locations of monitors.
- Double duplex receptacles will be provided at all locations shown as workstations.
- All receptacles within the kitchen will be ground fault interrupting type.
- Any receptacles located within 6-foot of a water source are to be ground fault interrupting type.
- Floor boxes are to be utilized in training spaces to accommodate the most common furniture layout as shown on architectural drawings.
- Flush floor receptacles are to be utilized for any power only requirements located without a wall connection.
- Electrical whips will be utilized to power any systems furniture within the design. No more than 4 workstations will be fed from a single circuit.
- Minimum conductor size within the facility will be #12AWG copper. For a 20A/120V circuit, provide a maximum of 1920 watts of load (16A) per circuit for receptacle type loads. Loads requiring more will be sized per NEC requirements.

- MC Cable or EMT are acceptable when routing above accessible ceilings, within walls, or within 6-foot lengths from wiring device or light fixture to junction boxes in exposed ceilings. Exposed MC cable in these instances to be neatly ran and supported.
- Install EMT when routing above all hard or inaccessible ceilings.
- Install EMT when routing through an exposed condition.
- Install EMT at connection into panels. No flex or MC Cable will be allowed to enter directly into a panel board enclosure. This includes branch panels.
- Mechanical to be a VRF type system. Power will be provided to all equipment including but not limited to Condensing Units and DOAS units.

EMERGENCY POWER

The entire building will be provided with a backup power generator. It is the intention for the facility to function as a shelter if necessary.

LIGHTING SYSTEMS

All lighting within the building will utilize an LED source and be DLC or Energy Star listed.

- The open office will make use of aircraft cable suspended direct/indirect linear fixtures and will be controlled with occupancy sensors and multi-way switches.
- Transient spaces will make use of recessed downlights and will be controlled with occupancy sensors and multi-way switches.
- The training room will make use of aircraft cable suspended direct/indirect linear fixtures and will be controlled with occupancy sensors and 0-10v dimming switches and will be zoned to enable A/V mode lighting.
- The conference rooms will make use of aircraft cable suspended direct/indirects and architectural pendants as directed by architect and will be controlled by occupancy sensors and 0-10v dimming switches on multiple switchlegs to allow for additional control.
- The private offices and small conference rooms will make use of recessed linear fixtures and be controlled by occupancy sensors and 0-10v dimming switches.
- The reception area will make use of small cylinder fixtures and architectural pendants over the reception desk and controlled by occupancy sensors and multi-way switches. Any storage or utility spaces will make use of chain hung lensed strip fixtures and controlled by occupancy sensors and snap switches.
- Gymnasium areas will make use of high-bay lensed LED fixtures
- All exit signs are to be brushed face with red lettering.

FIRE ALARM SYSTEM

The fire alarm system for the space shall be an addressable fire alarm system and comply with all code requirements.

- The open office and transient spaces will make use of ceiling mounted notification devices.
- Offices of more than a single user, conference rooms, and focus booths will make use of wall mounted notification devices.
- Smoke detection will be employed in all storage spaces and within the social hub near any cooking equipment.
- A post indicator valve will be monitored and report to the FACP.
- Flow switches and Tamper switches will be provided on all required valves per fire protection documents.

VOICE/VIDEO/DATA SYSTEM

Infrastructure will be provided for all data requirements as identified by the architect and owner. Data drops will be provided at all offices, conference rooms, and any other areas as required by the project scope.

Audio visual design will account for all areas with TV screens or communications equipment as required to meet the owner's intent. Receptacles to power any voice/video/data systems will be provided as required.

SECURITY/ACCESS CONTROL SYSTEMS

Infrastructure will be provided for all security and access control requirements as identified by the architect and owner, or owner's representative. Receptacles to power any security or access control systems will be provided as identified by architect, building owner, or owner's representative.

Douglass Park Family Center 7/21		2021-V1.0
Program Space	Notes:	Activity Spaces (NSF)
CORE LOBBY/ENTRY		
Covered Drop off	Entry Canopy with covered passenger side drop off	1,770
Vestibule	Main Entrance: Double door with space on sides for waiting	325
Welcome Desk	Welcome Desk for signing into building.	100
Lobby/Lounge/Gallery	Main Lobby, check in, displays, murals, prefunction for MP room	1,550
Arts Lounge	Space in front of Arts room/Concessions/lounge	565
Community Lounge	Seating areas in front of gym	840
Subtotal Core Lobby Spaces		3,380

OFFICES		
Senior Park Manager	Private Office/safe	120
Assistant Park Manager	Private Office	100
Kids Programming workroom	Workroom for Summer Camp and After School Coordinators	120
Workroom	Copier, server, printer, work table	250
Instructor Space	Circulation, Security or other office space	115
Conference Room	Access from offices & center	400
Staff Restroom	Staff Restroom	50
Storage	Storage within Suite	50
Subtotal Office Suite		1,205

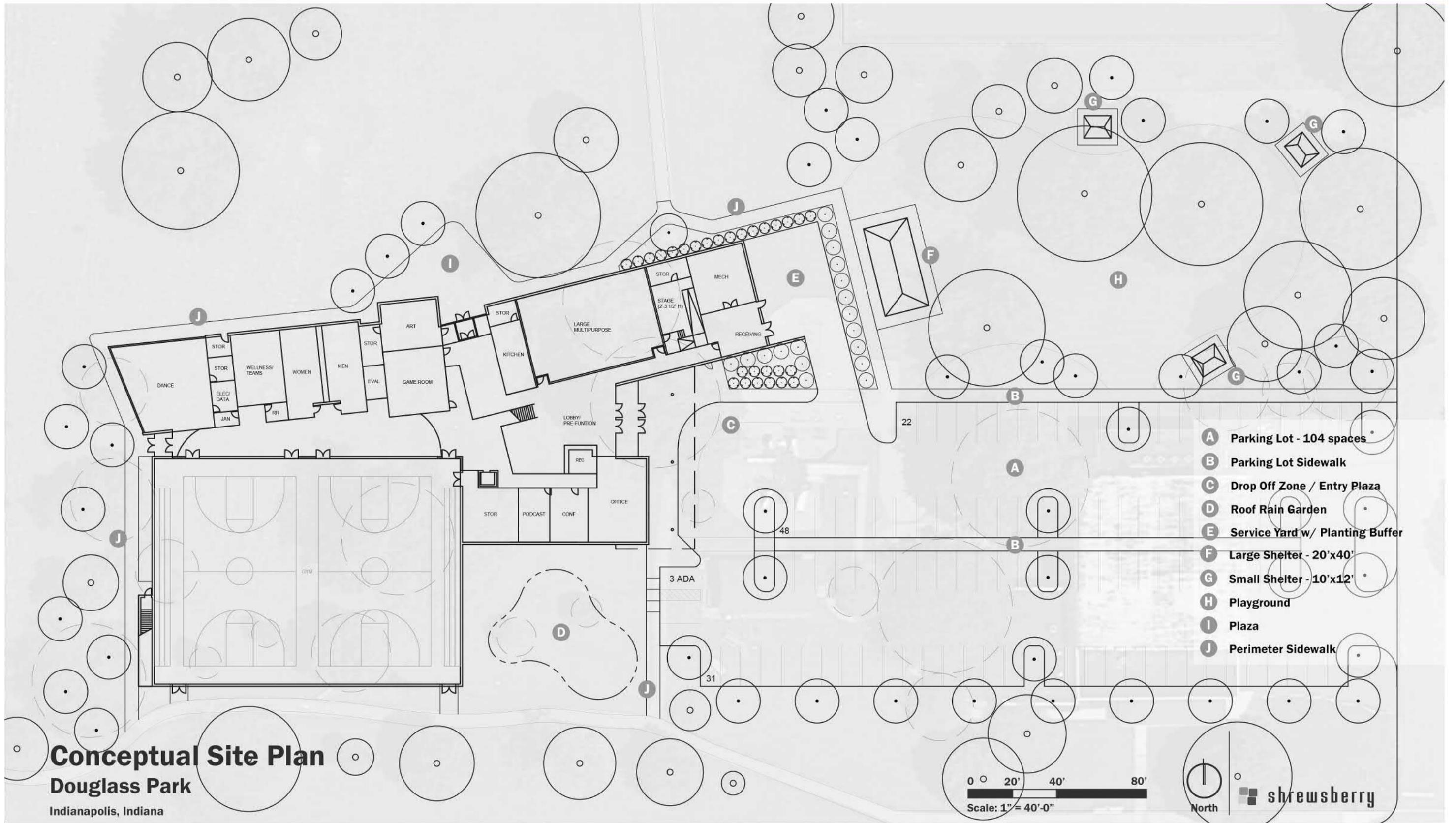
PROGRAM ACTIVITY SPACES		
Large Multipurpose Room (1)	Dividable, integrated technology; higher end finishes NEED Space for 20 round tables (serving 8 people) and 6 2x6 tables	2,440
Stage		330
MP Room Storage	20% of MP Rm for tables & chairs storage	165
Medium MP room (2)	Located on 2nd level	840
MP Room Storage	20% of MP Rm for tables & chairs storage	185
Wellness/Healthcare/Teams (3)	Smaller Meeting room designed to also function as team changing space	650
Evaluation Room	Office for Fitness Evaluation, Social Worker or other program	130
Dance/MP Room (4)	Dance room also available as a meeting room	1,460
Dance Storage	Storage for Dance/Tables/Chairs	220
Game Room	Transparency for visual supervision. May include gaming sports	780
Arts Room	Arts Room with windows to north	550
Storage off of Arts	Arts Storage	170
Podcast/Computer Lounge		265
Kitchen	Warming, concession & nutrition classes	430
Storage	May be split 50/50 with MP room	120
Food Pantry	80SF Cooler, Reach in Freezer, 80SF Pantry	200
Subtotal Program Activity Spaces		8,935



FITNESS		
Fitness Area	Cardio/Selectorize/Free Weights (55 -60 sf @ workout station)17+/- workout stations	1,030
Storage	Share between fitness meeting room	75
Storage	General Storage	70
Elevated Track	3 lane; 1/11.5 mile (may vary on final plan)	3,740
Subtotal Fitness		4,915
LOCKER ROOMS		
Male Restroom/Changing	Restrooms/Changing- Will have single shower and 1-2 changing spaces within restrooms	625
Female Restroom/Changing	Restrooms/Changing- Will have single shower and 1-2 changing spaces within restrooms	625
Team Lockers	(See Wellness Teams Space above)	
Day Lockers	Public day lockers near restroom/changing	100
Mothers Room	8' x 8' (Nursing/quiet room)	64
Uni-sex Toilet	4 Unisex restrooms- 1 at entry, 1 next to restrooms 2 upstairs	280
Subtotal Locker Rooms		1,694
GYMNASIUM		
Gymnasium	84' x 50' + 8' safety zones w/divider curtain	12,800
Bleachers in Gym	3 row retractable bleachers (150 persons per side)	800
Storage		750
Subtotal Gymnasium		14,350
MECHANICAL SYSTEMS		
Security system/Cameras	Monitors in Office Area (Data room 140SF)	140
Janitors Spaces	One per floor	220
Main Mechanical Room	Main Water/Electric Room	490
Air Handler rooms	2nd level	2,145
Receiving		200
Storage	custodial & maintenance equipment	150
Subtotal Mechanical Spaces		3,345

Subtotal TOTALS	assigned space only	37,824
CIRCULATION, WALLS, TOILETS & MECHANICAL SYSTEMS	~84% Efficiency Normally 70%. Higher in this program based on counting intended toilets, gross SF and air handler rooms. May adjust depending on final toilet counts, and mechanical design	7,246
TOTAL CONSTRUCTION	Gross Square Feet	45,070
Optional Additional Space: Not in Base Program		
<i>*Potential spaces depending on estimate and funding</i>		
Potential Meeting room (4)	Infill 2nd floor volume above Dance Room for Potential Meeting room with storage (1100sf+230sf Storage)	1,330
Potential Meeting room (5)	Infill Exterior space above offices for Meeting Room (Encloses space, adds floor area, may add stair)	1,300
Potential Infill 2nd floor corridor between track and gym	Infill 2nd floor volume above the west lobby/community spaces between the track and the gym with fitness space. Current Proposed fitness room to become a classroom/multipurpose space	1,800
PARK FEATURES		
Playground	Replace and Enlarge (Size TBD)	
Shelter	Replace Existing	
Outdoor Arts Space	Space for doing outdoor arts	
Ampitheatre	Seating for outdoor activities on north side of building	
Parking	70-100 spaces (Based on need - zoning flexible)	
Existing Building	Demolish when new building close to opening.	
Existing Murals	To be high resolution photographed, edited and reproduced inside building on wall fabric	
Gross SF per Floor		
1st floor		34600
2nd floor		10460
Gross		45070



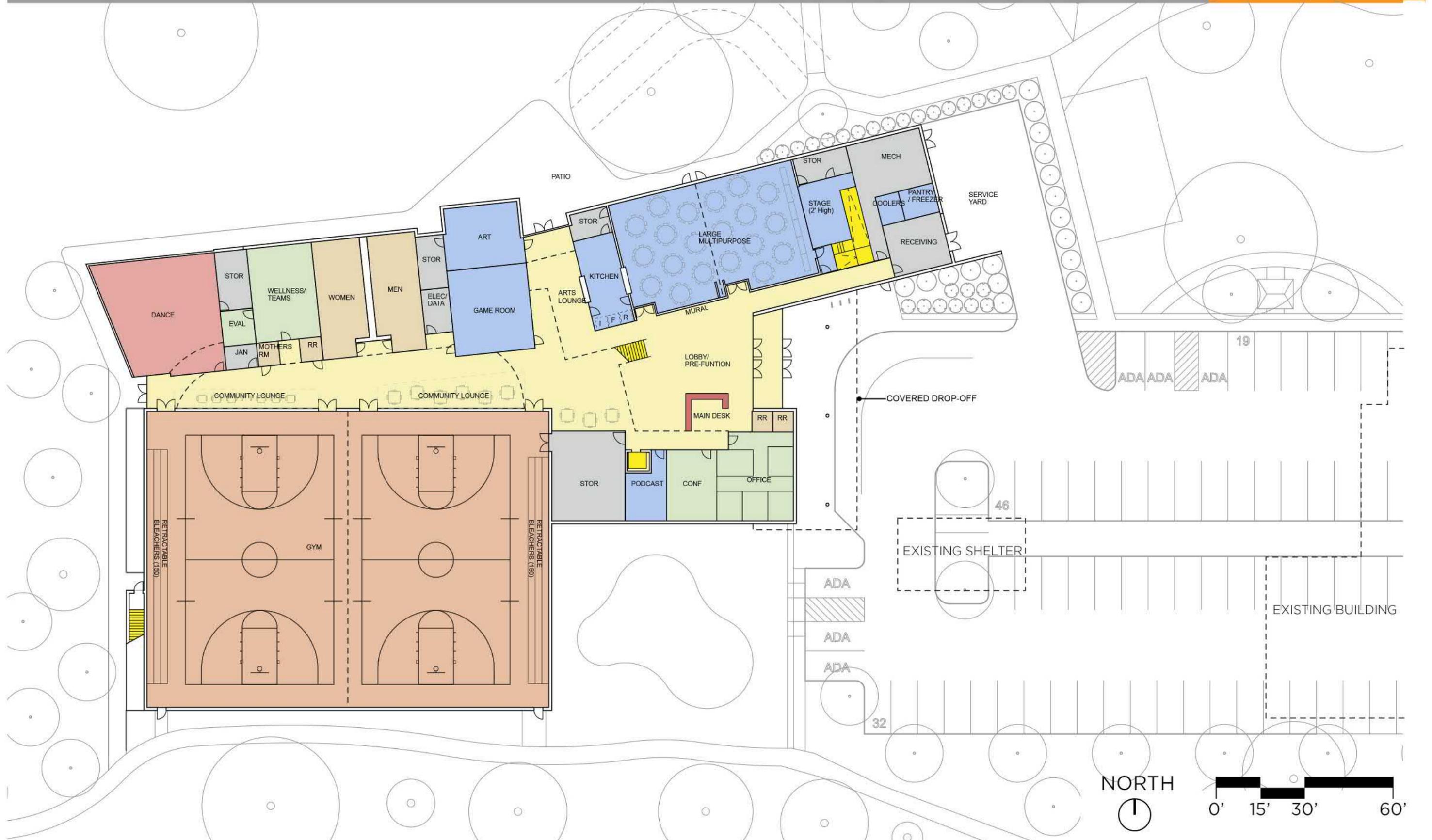


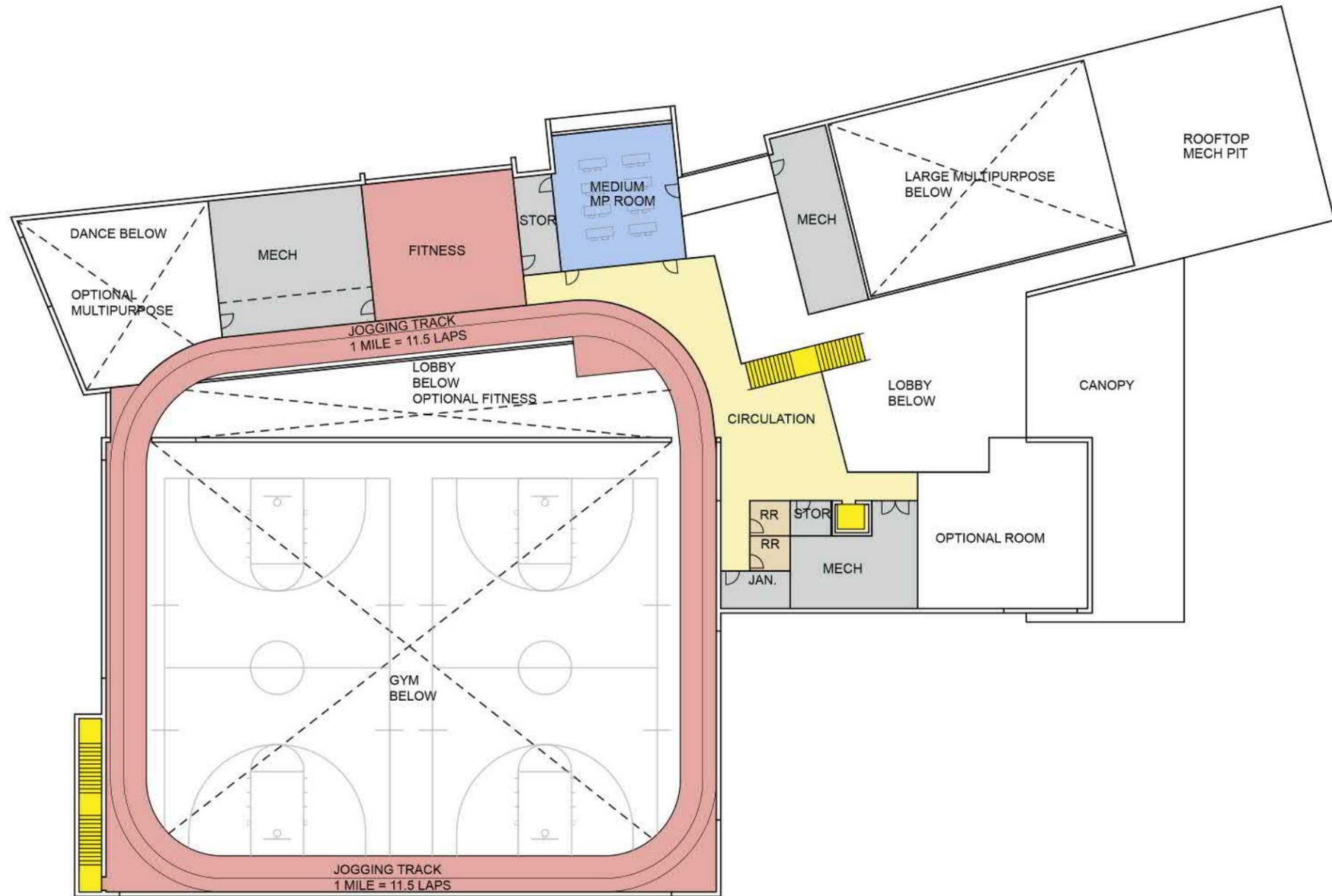
Conceptual Site Plan
Douglass Park
 Indianapolis, Indiana

- A** Parking Lot - 104 spaces
- B** Parking Lot Sidewalk
- C** Drop Off Zone / Entry Plaza
- D** Roof Rain Garden
- E** Service Yard w/ Planting Buffer
- F** Large Shelter - 20'x40'
- G** Small Shelter - 10'x12'
- H** Playground
- I** Plaza
- J** Perimeter Sidewalk

0 20' 40' 80'
 Scale: 1" = 40'-0"









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