

Originator Parks and Recreation	Community Center Update
Agenda Section	Date
Other: Public Hearings	Monday, November 18, 2019

**Requested Action** 

No Action Requested

Item created by: John Bradford, Maintenance Superintendent

Presenter: Ann Kattreh, Parks and Recreation Director

Description

#### INTRODUCTION AND HISTORY

At the September 23, 2019 meeting, Council directed staff to continue moving forward with the Pre-Design work, conduct an accelerated public engagement process, and report back to City Council. Council further authorized up to \$100,000 of the consultant contract for pre-design and engagement, and directed staff to notice and prepare for a November 18, 2019 Public Hearing on the contract.

The Team working on the engagement and predesign process includes the Architects from MSR Designs, MJMA Architects, RSPDreambox, City of Bloomington staff from Parks and Recreation, Community Outreach and Engagement Department, Communications and Public Works.

#### **BLOOMINGTON COMMUNITY CENTER HISTORY**

1960	Creekside was built and opened as an elementary school.
Early 1970s	Creekside Elementary School was closed due to declining enrollments.
1975	The City of Bloomington leased Creekside building for City services.
1976	The City purchased the Creekside building from Bloomington Public Schools for \$500,000.
1990	A bond referendum for improvements to Creekside and other City facilities was defeated.
1998	The Parks, Arts and Recreation Commission conducted an assessment on recreation and arts facility needs in the community.
1999	A task force on aquatics, indoor recreation and arts released a recommendation for a bond referendum.

2008	The Park Master Plan Task Force recommended developing community gathering spots and improving facilities.
2013	City Council started examining the viability of Creekside as a community center and explored other options.
2014	The City Council hired HGA to conduct a needs assessment for a community center.
2015	The HGA needs assessment concluded that the money needed in basic improvements to the Creekside building would be better invested in a new facility. The needs assessment recommended that a new community center should include gymnasiums, fitness center, large and small meeting rooms and an indoor playground.
2016	The City Council established a Community Center Task Force to study the HGA needs assessment and provide feedback on a potential community center. The task force's recommendations included: 1) Replace Creekside; 2) include amenities that would attract and retain people of all ages; 3) locate amenities at a single site; 4) consider all funding options; and 5) find a partner.
2017	The City entered into a non-binding memorandum of understanding to explore a joint community center project with the YMCA of the Greater Twin Cities. A stakeholder working group consisting of representatives from the City and YMCA started meeting in October to discuss a joint facility partnership.
2018	The City and YMCA explored a potential partnership with the School District to locate a community center on the site of Valley View Playfields north of 90 <sup>th</sup> Street; the School Board determined that it wasn't a feasible option.
	A market research survey in June found that 65% of respondents believed a new community center would improve the quality of life in Bloomington. Respondents noted that indoor water/aquatics facilities was the one community need not currently being met in Bloomington.
	The City Council considered the YMCA's proposed investment in a shared community center in October and directed staff to send a letter to the YMCA that it would be looking into other options.
	The City explored the potential of locating the community center on the west side of Civic Plaza with Creekside as an alternate site. The City hired HGA in December to conduct analyses on amenities, building size, site and cost of both sites.
2019	A random sample survey of 800 residents conducted by Morris Leatherman Company in March found that 60% of respondents strongly supported or somewhat supported a sales or property tax increase for construction of a new community center with an indoor pool, fitness center and gymnasium.
	After considering different options at Creekside and Civic Plaza, it was determined that neither site was large enough for the community center being envisioned with the amenities residents and the task force had requested. At a study meeting in April, the City Council named Valley View Park at 90 <sup>th</sup> Street between Nicollet and Portland Avenues the preferred location because it was large enough to accommodate the community center being envisioned and already City-owned.

The City Council approved award of a contract in September to the architectural team of MJMA + MSR for pre-design architectural services and instructed staff to launch a community outreach and engagement initiative; a public hearing and subsequent action on the matter was scheduled for November 18.

The following discussion outlines the major points of the attached presentation; covering public engagement, Traffic and Parking studies, Valley View Park impacts and the next steps if Council elects to move forward with the pre-design work.

#### PUBLIC ENGAGEMENT

Extensive public engagement has occurred in preparation for the Public Hearing on November 18 including:

- 17 DROP-IN EVENTS
- 1,100 IN-PERSON CONTACTS
- 24 INTERVIEWS
- 2,074 SURVEY RESPONSES
- 954 POST CARDS MAILED
- 209 ONLINE COMMENT CARDS
- 7,087 WEBSITE PROJECT PAGE VISITS
- 17 SOCIAL MEDIA POSTS

The online survey had 2,074 responses and contained both open ended questions (qualitative information) and priority activity rankings and places (quantitative information). Because the survey and other information gathered is not a random sample from the City at large (people self-selected to be included), the quantitative information is not statistically significant.

However, the goal of the qualitative data gathering was to identify themes. When no more themes arise in interviews and comment forms (i.e. all data becomes repetitive), the sample size is valid to use for analysis and conclusions.

The findings of this analysis is shown in the attached power point and a detailed presentation and explanation will be provided at the Council Meeting.

#### **TRAFFIC AND PARKING**

Traffic and Parking studies have been conducted by HDR, Inc. A third party was utilized for this work in accordance with normal City practice for private developments. The studies are attached and a detailed presentation will be made at the November 12, 14, and 18 meetings.

The findings of these reports are preliminary as the final program for the proposed community center and the master plan for Valley View Park have not been completed. The studies assumed the community center would be located in the middle of the park, which may or may not be its final location if it remains in Valley View Park. These studies will need to be amended as the facility visions are refined.

HDR, Inc. collected parking data in July and August on a Wednesday night with softball and baseball leagues playing, and three Saturdays including the Fireman's Softball Tournament. HDR divided the park into three zones: Hrbek Baseball Fields in the west, Recreation/Aquatics Center in the middle, and Red Haddox/Softball Fields in the east.

Peak demand for parking in the Hrbek zone occurs in the early weekday evening with a demand for 281 spaces. A large number of vehicles park in the neighborhood because of the closer proximity to the fields.

Demand for a proposed community center in center of the park is more consistent throughout the weekday with an average demand of 250 spaces and peak demand of 293 spaces in the late morning and any early evening peak of 260 spaces. Saturdays generate a morning peak of 239 spaces at 9:00 am.

Demand for Red Haddox/Softball zone peak on the evenings at 195 spaces. Again, many of the vehicles using the softball diamonds park in the neighborhood due to the closer proximity to the fields.

Total peak demand for Valley View Park if a community center replaces the aquatic center and all current park uses remain in place is 736 spaces, which occurs during summer weekday evenings during league play. It is noted that the existing surface lot capacity at the park is 592 spaces. Many of the users of the Hrbek Fields and Softball Fields will continue to park in the neighborhood out of convenience regardless of how much parking is provided. Large weekend events will likely continue to spill into the neighborhoods. Also, the final park master plan will impact the number of spaces needed.

HDR has conducted a Traffic Impact Study (TIS) for the proposed Community and Civic Center development (termed "Proposed Project" in this study). The City is considering redeveloping a portion of Valley View Park for the Proposed Project. The purpose of this traffic study is to evaluate existing traffic conditions around the facility, as well as future traffic conditions with site-generated traffic from the Proposed Project. With the current site plan, the proposed development is estimated to generate approximately 3,697 new trips per day (total of entering and exiting), with 230 trips during the AM peak hour and 299 trips during the PM peak hour. It is noted that the Proposed Project land uses and sizes could slightly change as development plans for the site move forward.

For existing conditions, the TIS showed minor peak hour congestion with respect to queuing and higher delays at the signalized intersection of Nicollet Ave S and E 90th Street in the westbound direction during the AM peak hour, and in the eastbound direction during the PM peak hour. Review of the current signal timing indicates that updates at this intersection could significantly improve these operations and the City and County are currently investigating this update. Timing recommendations are included in this study.

With the addition of site-generated traffic from the proposed project minor delay is anticipated for left turning traffic exiting the Proposed Project site via E 90th Street during peak hours, as it may be difficult to find gaps to turn left due to relatively high east-west traffic volumes.

Recommendations in the study area are as follows:

- For existing conditions it is recommended that signal timing at Nicollet Ave S and E 90th Street be updated, while maintaining coordination with adjacent signals along Nicollet Ave S. Analysis of the AM and PM peak hour volumes and timing indicates that more green time can be given to the eastbound and westbound movements on E 90th Street and some can be taken away from the northbound and southbound movements while maintaining a 90 second cycle length and acceptable operations. The exact amount of green time should be field verified over a couple of days of observation. This greatly improves the unacceptable operations noted above. The City and County are currently aware of the operations and are investigating this update.
- Due to existing, and the anticipated potential increase in, pedestrian activity from the Proposed Project, it is recommended that flashing yellow arrow (FYA) indications be installed in place of the existing 5-section signal heads for all the left turn movements at the Nicollet Ave S and E 90th St signalized intersection. This type of a conversion is becoming more common in Hennepin County and the City at similar signalized intersections and provides more flexibility in operations, increased compliance, and is a safety improvement for pedestrians as a red arrow can be displayed for the conflicting left turn movement when the crosswalk pushbuttons are activated.

- A minimum of two site driveways are recommended on 90th Street and should line up with the cross-streets (Stevens Ave and 3rd Ave S). At both accesses, there should be two stop-controlled exiting lanes (one shared left turn/through lane and one right turn lane) and one entry lane. It is noted that adjacent cross-streets (Stevens Ave and 3rd Ave S) are also stop controlled.
- A minimum of two site driveways on 91st Street are recommended and they should line up with the crossstreets (Stevens Ave and 3rd Ave S). There should be one stop-controlled exiting lane (one shared left turn/through/right turn lane) and one entry lane. It is noted that adjacent cross- streets (Stevens Ave and 3rd Ave S) are also stop controlled.
- The current site plan shows the northwest and southwest parking lots being connected, which will provide opportunity for parkers to circulate. It is recommended that the other parking lots be connected to allow for internal circulation during high parking demand times.
- As the site plan develops, it is recommended that the drop-off and pick-up zone be designed to encourage site circulation.
- Within the parking lots and pedestrian paths, it is recommended that wayfinding signs be included to guide vehicles to parking areas and pedestrians to the facilities.

#### VALLEY VIEW PARK IMPACTS

A Capacity Study of Valley View Park has been done. No work on the park design or community center design has commenced.

The Capacity Study demonstrates that there are several possible locations within Valley View Park for a community center, including keeping all of the current amenities in the park. With more efficient parking and a well-designed community center, green space will not be negatively impacted. A thorough master plan of the park could significantly improve usable green space while updating park amenities to better reflect resident needs and interests. This flexibility allows the City to thoroughly engage in a park master planning process to decide what should be in the park if Council decides to proceed with the next steps.

At this stage of the project, we are at less than 1% design.

#### **NEXT STEPS**

If Council elects to move forward with the community center at this site, the following phases and steps would commence.

#### Contract

Staff would recommend executing the remaining full contract with MSR + MJMA for the remaining work presented at the September 23, 2019 Council Meeting. The contract can be terminated at any time that the City would wish an off ramp from proceeding. The full contract is \$768,268 less what has been spent of the \$100,000 not to exceed contract authorized on September 23, 2019.

#### **Dream Phase**

- 1. Continued Public Input and Engagement
- 2. Formalize Guiding Principles for the Project
- 3. Initial Park and Supporting Facilities Programming Studies
- 4. Initial Valley View Park Master Plan Studies
- 5. Initial Community Center Programming and Planning Studies

Concept and Pre-Design Phase

- 1. Continued Public Input and Engagement
- 2. Development of Dream Phase Items
- 3. Report Containing Pre-Design Scope
  - a. Park Master Plan
  - b. Facilities Concept
  - c. Cost Model
  - d. Schedule
  - e. Pro-Forma
    - i. Membership Model
    - ii. Staffing Model
    - iii. Operations Cost
    - iv. Financial Plan

Attachments:

Presentation Power Point Parking and Traffic Presentation Community Center Collateral Outreach Activities Preliminary Parking Study Preliminary Traffic Study

# ALEY MEW PARK& COMMUNITYCENTER ASSESSMENT

CITY COUNCIL MEETING NOVEMBER 18, 2019



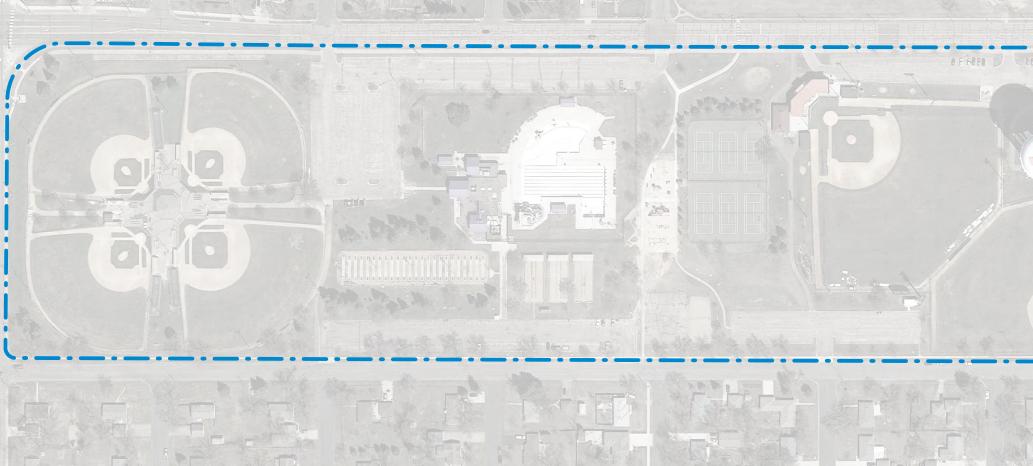




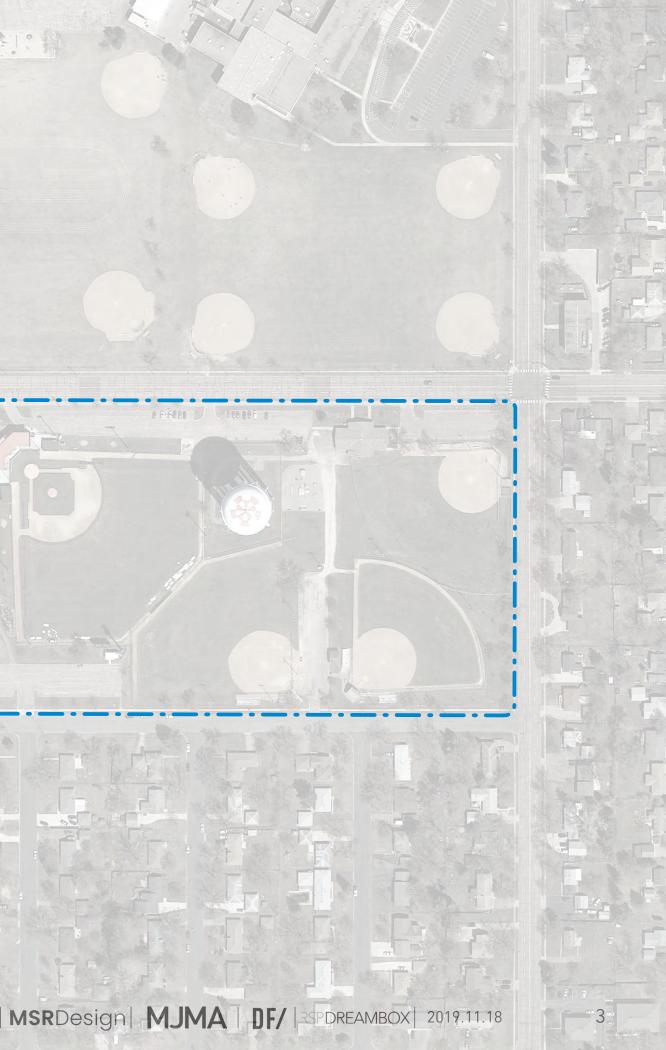
# **1.0 SCHEDULE & PROCESS** 2.0 DISCOVERY & RESEARCH FINDINGS **3.0 SITE ANALYSIS 4.0 SITE CAPACITY STUDIES**

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# **1.0 SCHEDULE & PROCESS**



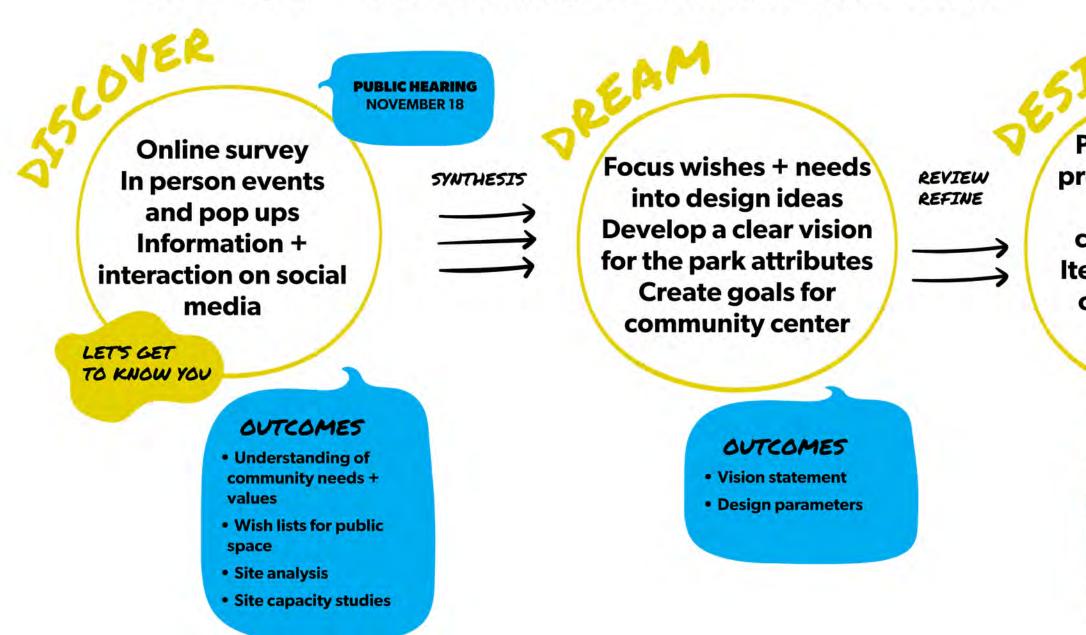
**BLOOMINGTON COMMUNITY CENTER** 



#### **SCHEDULE & PROCESS**

**OCTOBER 2019** 

We will engage with the community and stakeholders in three stages:



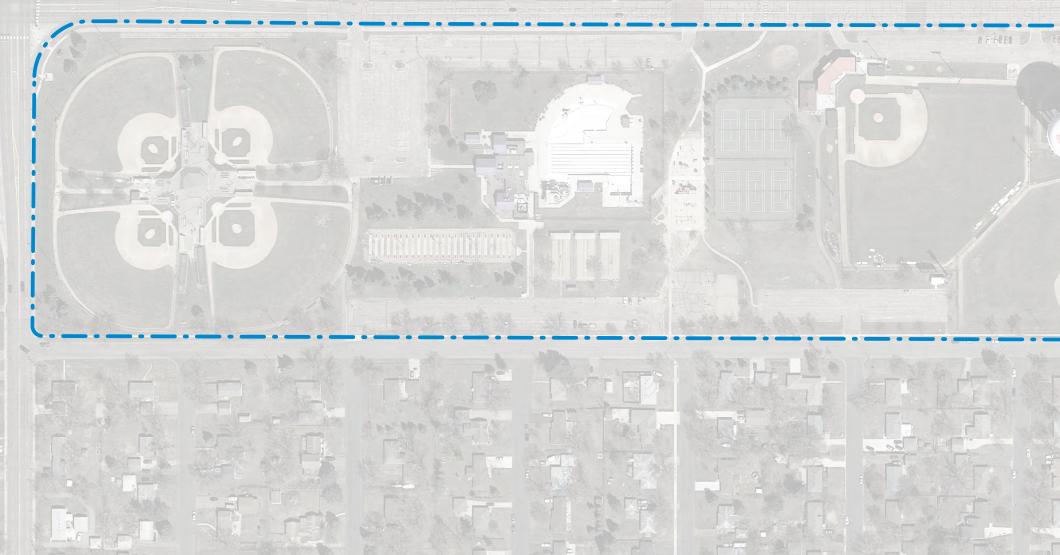
## **MARCH 2020**

Prepare + present preliminary program for park + community center **Iterate design based** on feedback from stakeholders + community

#### OUTCOMES

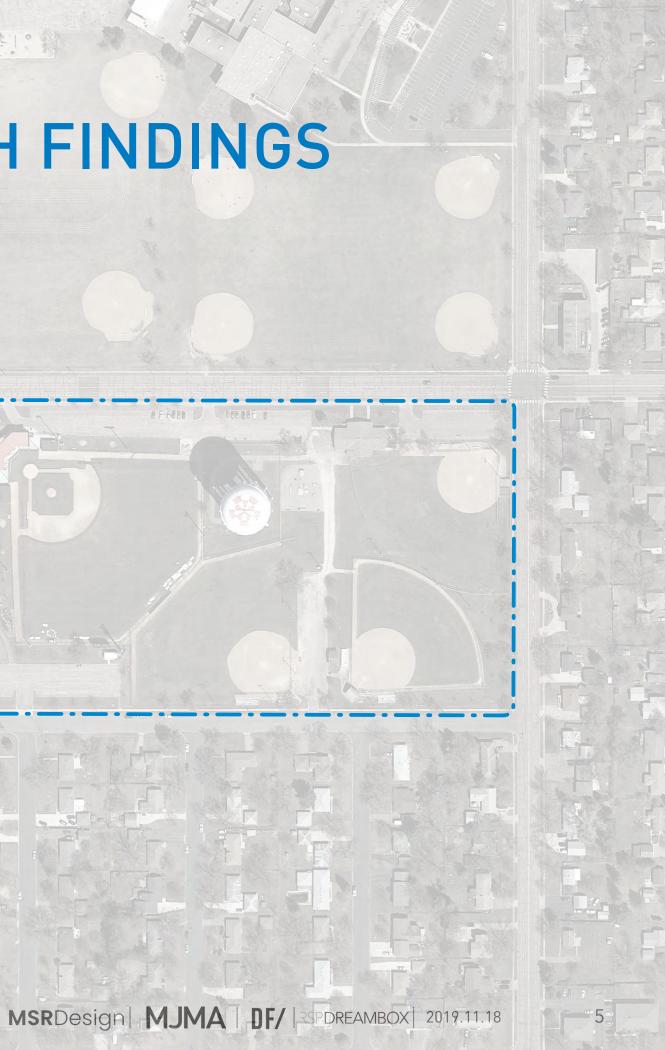
- A shared vision + program for the park and community center
- Cost model
- Proforma with membership and use rates

2.0 DISCOVERY & RESEARCH FINDINGS



**BLOOMINGTON COMMUNITY CENTER** 

19:2-10



## **IT'S BEEN GREAT GETTING TO KNOW YOU**



"I love everything at Creekside." - CREEKSIDE USER



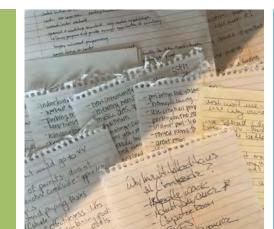
'We need places that are fun, safe and all ages ." -RESIDENT

"We want to give back. The community center would be a great addiiton to the community. " - RESIDENT



community space that celebrates everyone's background."

- RESIDENT



"What about a farmers or gardener's market there?" -RESIDENT

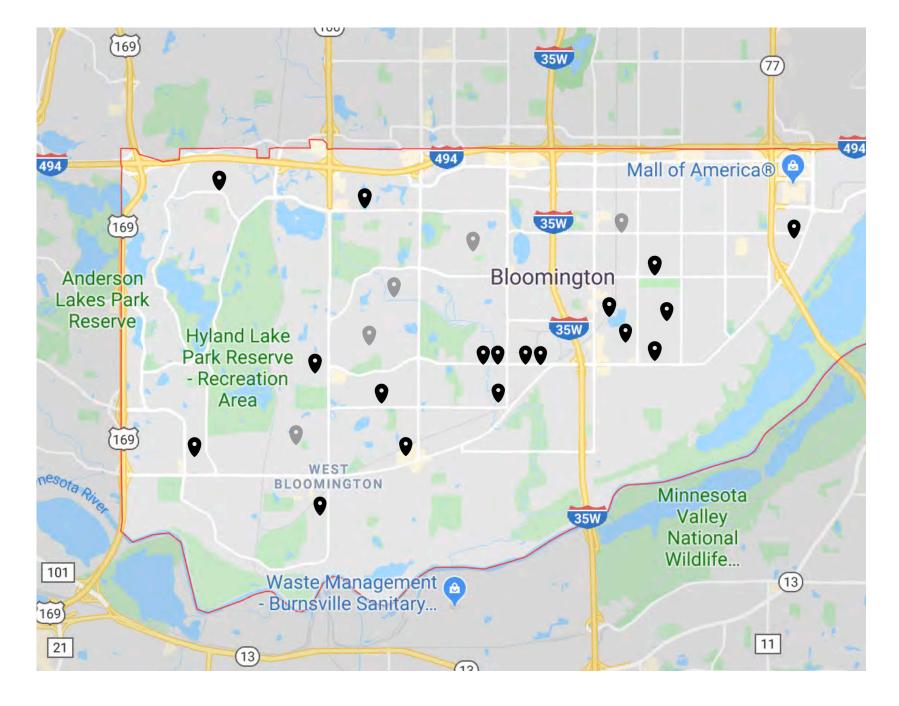


"More green space and places to walk. Also – REGULAR PARK USER



### WHERE WE'VE BEEN

#### PUBLIC MEETUPS



#### WE'VE BEEN AROUND

- CIVIC PLAZA
- CREEKSIDE
- VALLEY VIEW
- **FIRESTATION 1**
- **FIRESTATION 2**
- **FIRESTATION 3**
- **FIRESTATION 4**
- **FIRESTATION 5**
- **FIRESTATION 6**
- FARMERS MARKET
- NATIONAL NIGHT OUT
- CATALPA VILLAGE
- FARE FOR ALL
- GARFIELD COMMONS
- AFEAP

EFFERSON FOOTBALL GAME 'N VILLA APARTMENTS KENNEDY FOOTBALL GAME POND FAMILY CENTER

### HOW WE HAVE CONNECTED WITH YOU

#### ENGAGEMENT APPROACHES



- 17 DROP-IN EVENTS
- **1100 IN-PERSON CONTACTS**
- 20 INTERVIEWS
- 2074 SURVEY RESPONSES
- 954 POST CARDS MAILED
- 209 ONLINE COMMENT CARDS
- 7087 WEBSITE PROJECT PAGE VISITS
- 17 SOCIAL MEDIA POSTS

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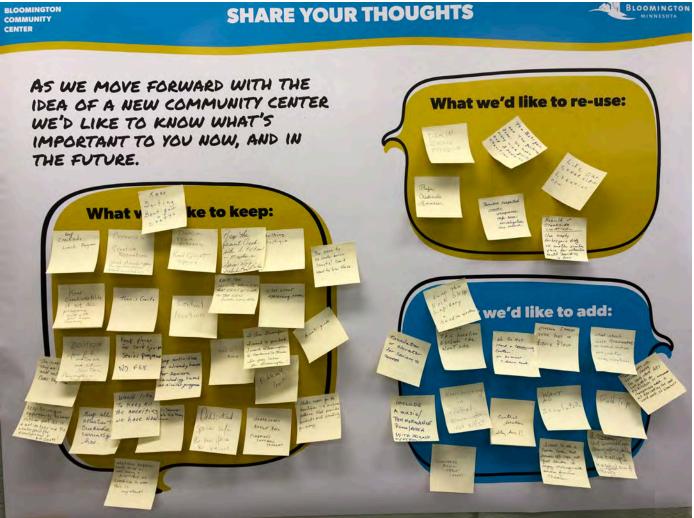
## QUALITATIVE DISCOVERY

## IN PERSON, WE SHARED + LISTENED

- PROCESS + CURRENT STATE OF THE PROJECT.
- WE ASKED WHAT IS IMPORTANT TO KEEP + ADD

## ON THE SURVEY, WE ASKED + LEARNED CURRENT + POSSIBLE FUTURE ACTIVITIES. CONNECT, LEARN, GATHER, ENGAGE + THRIVE PREFERRED ELEMENTS AND ACTIVITIES IN A PARK

LOCATION: WHAT WORKS WELL + WHAT DOESN'T



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### WHY QUALITATIVE DISCOVERY?

## STRUCTURED + UNSTRUCTURED SURVEY

- OPEN ENDED QUESTIONS
- RANKED PRIORITY ACTIVITIES + PLACES

## QUALITATIVE OUTCOMES + SIGNIFICANCE

- THEMES NOT NUMBERS\*
- SAMPLE SIZE
- INSIGHTS + SENTIMENTS



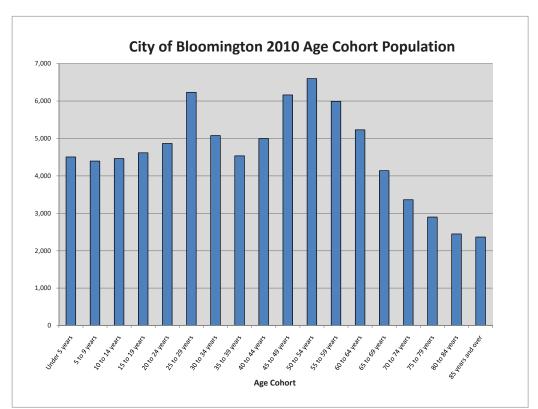
\* This is not a statistically significant (quantitative) survey. Any references to numbers and percentages of opinions are not relevant to this approach to research.

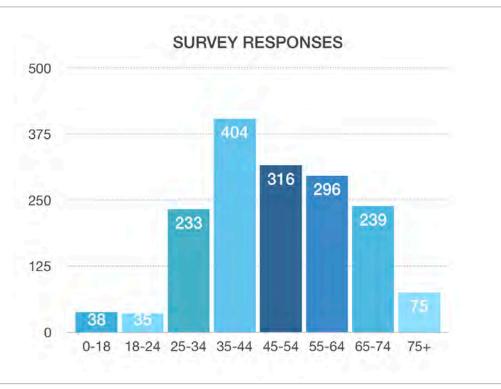
# YOUTH INPUT NEEDED

**VERBATIMS** REPRESENTATIVE

AGE REPRESENTATION

- **AWARENESS**
- **ATTITUDES + INTERESTS**
- OUTCOMES **ACTIVITIES + PLACES**
- DATES SEPTEMBER – OCTOBER



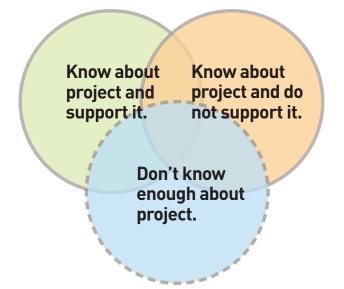


## **LEARNINGS: KEY AREAS & TOPICS**

#### **ATTITUDES (SENTIMENT)**



#### **COMMUNITY AWARENESS**



#### **A WORD ON APPROACH: QUALITATIVE & SENTIMENT ANALYSIS**

### A BROAD RANGE OF SENTIMENTS WERE SHARED ABOUT THE **PROPOSED COMMUNITY CENTER AND VALLEY VIEW PARK.**



PAID FOR.

**BLOOMINGTON COMMUNITY CENTER** 

DEFEAT IT.

ASSET FOR THE COMMUNITY.

**KNOW ABOUT** PROJECT + THINK IT WILL CREATE BELONGING IN THE COMMUNITY.

## TOP ACTIVITIES + INTERESTS

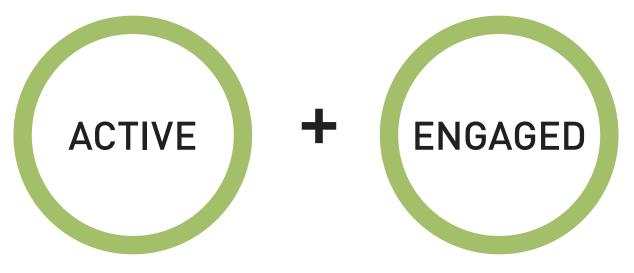
#### PLACES / **ENVIRONMENTS**

**OUTDOOR LEISURE** OUTDOOR ACTIVE PLAY OUTDOOR SEATING OUTDOOR TABLES SHELTERS **PICNIC AREAS** WALKING TRAILS **GATHERING INDOOR** OUTDOOR **BIKING TRAILS** 

#### **ACTIVE SPORT**

SWIMMING OUTDOOR SWIMMING INDOOR FOOTBALL BASEBALL SOFTBALL BOCCE BALL TENNIS SOCCER RUNNING **BASKETBALL INDOOR BASKETBALL OUTDOOR**  **HEALTH + WELLNESS** 

CARDIO CLASS STRETCHING CHILDREN'S POOL WATER PLAY STATIONARY BIKES WATER AEROBICS REHABILITATION MEDITATION YOGA WEIGHT LIFTING



COMMUNITY **BUILDERS** PUBLIC MARKET INTERPRETIVE NATURE PATHS / SITES **COMMUNITY MEET UPS** MENTAL HEALTH PROGRAMS VOLUNTEER **OPPORTUNITIES ADOLESCENT** ENGAGEMENT **CREATIVE ARTFUL** PLACES **EXHIBITION SPACE** 

## **THE PARK**

**MOVING:** WALKING TRAILS + HEALTHY ACTIVITIES FOR ALL AGES, PLACES / ACTIVITIES TO DRAW YOUNG FAMILIES

**GATHERING:** SAFE + INCLUSIVE, PLACES THAT BRING GENERATIONS TOGETHER, PICNIC + BBQ. POSSIBLY A PARK VENUE: MUSIC, LARGER GATHERING AREA, PUBLIC MARKET

**OBSERVING:** WATCHING SPORT + YOUNG + OLDER PLAYERS

**RELAXING:** QUALITY GREEN SPACES: DESCRIBED AS LARGE, PUBLIC GARDENS, PLACES FOR CONNECTION, SERENE + SAFE

**PLAYING:** ACTIVE PLAY + RECREATION AREAS: PLAY AREAS BALL FIELDS, POOL, COURTS, BOCCE, ETC.

WALKING + BIKING: TRAILS

SEASONAL FUN: OUTDOOR SWIMMING, SKATING, SLEDDING, ALL-SEASON SPORT INCLUDING HOCKEY



#### THE COMMUNITY CENTER

**LEARNING + GROWING:** CLASSES CENTERED ON A WIDE RANGE OF INTERESTS – ARTS, EXPRESSION, PRACTICAL SKILL-BUILDING, COMPUTER TRAINING / LABS

MAKING: MAKER SPACE FOR ALL AGES, WOOD-WORKING, CLAY, ETC.

**GATHERING:** CLASSES + CLUBS, HEALTH CLUB-LIKE, ART + COOKING CLASSES, AQUATICS, INDOOR / OUTDOOR ACTIVITIES + PROGRAMS IN NATURE, GARDENING

**MOVING:** A CENTER FOR ACTIVE LIVING, FITNESS + WELLNESS COACHING, HEALTHY LIVING CLASSES

**RESTING + CONNECTING:** INCLUSIVE OF ALL AGES, VARIED INTERESTS, SENIOR + AFTER SCHOOL PROGRAMS, INVITING TO YOUNG FAMILIES, CAFE WITH HEALTHY FOOD OPTIONS, GARDEN TO GRILL, GAMING ROOMS FOR MULTIPLE AGES

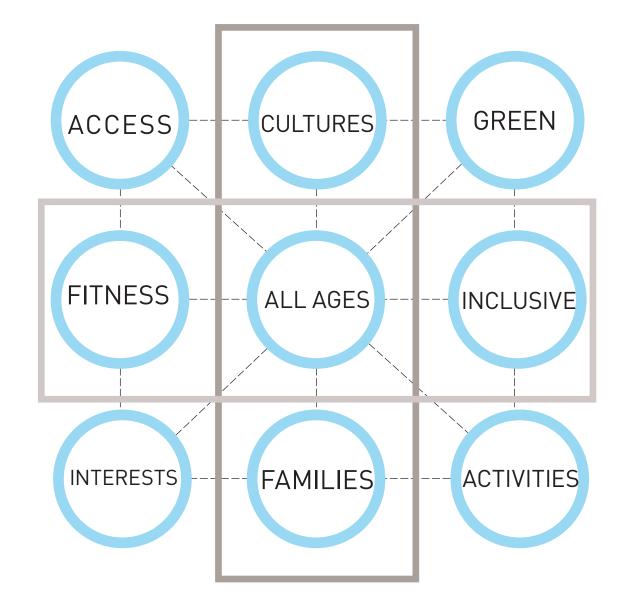


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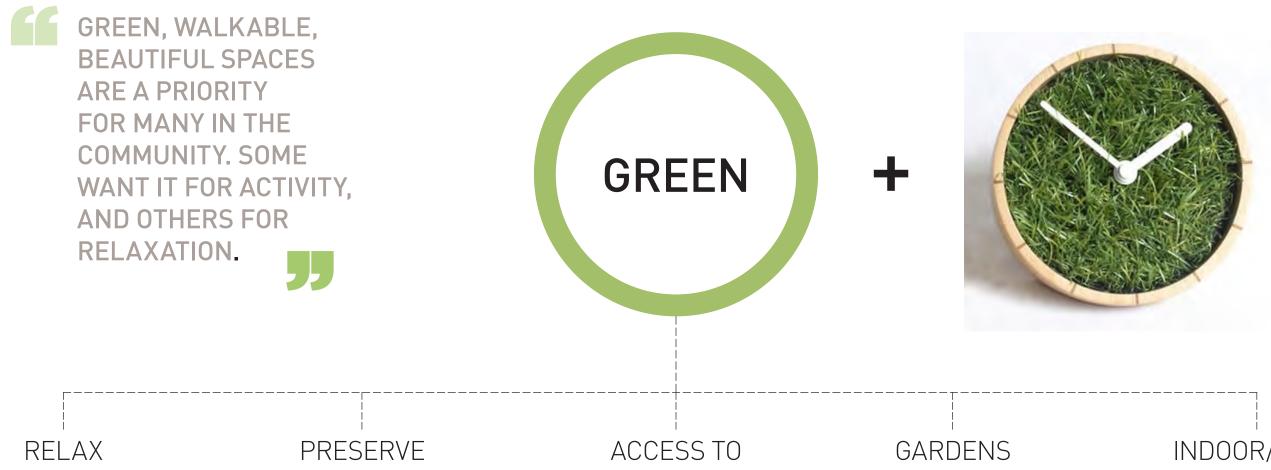
**LEARNINGS: THEME OF CONNECTION** 

THE LARGEST THEME IS A **DESIRE FOR CONNECTIONS ACROSS GENERATIONS. IT IS DESIRED BY MANY.** 





**LEARNINGS: THEME OF GREEN** 



## INDOOR/OUT

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**LEARNINGS: LEARNING & GROWING** 



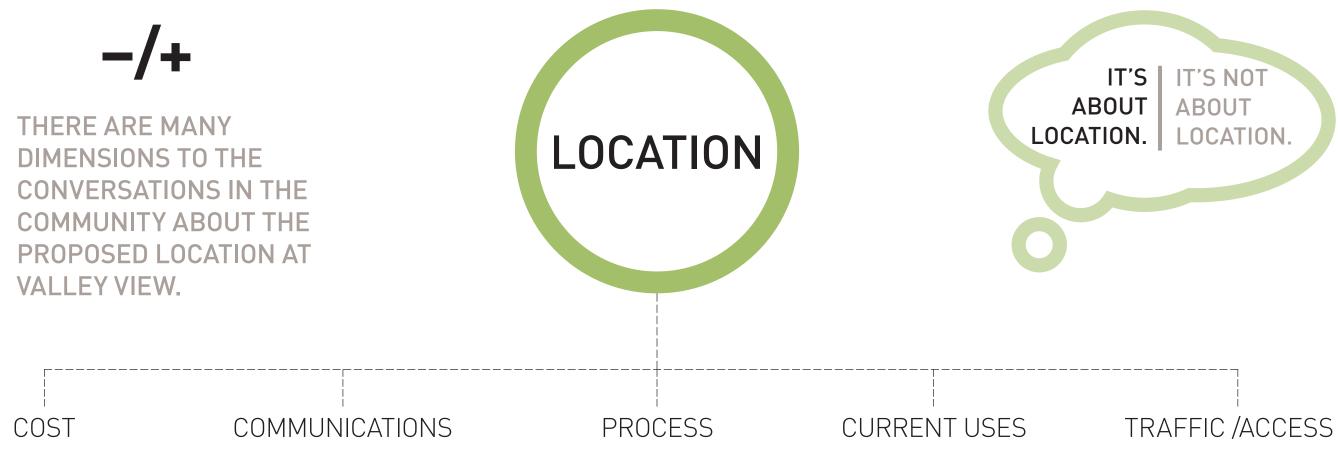
## ALL AGES LEARNING **OPPORTUNITIES**

**LEARNINGS: THEME OF GATHER & ACCESS** 



## CULTURAL

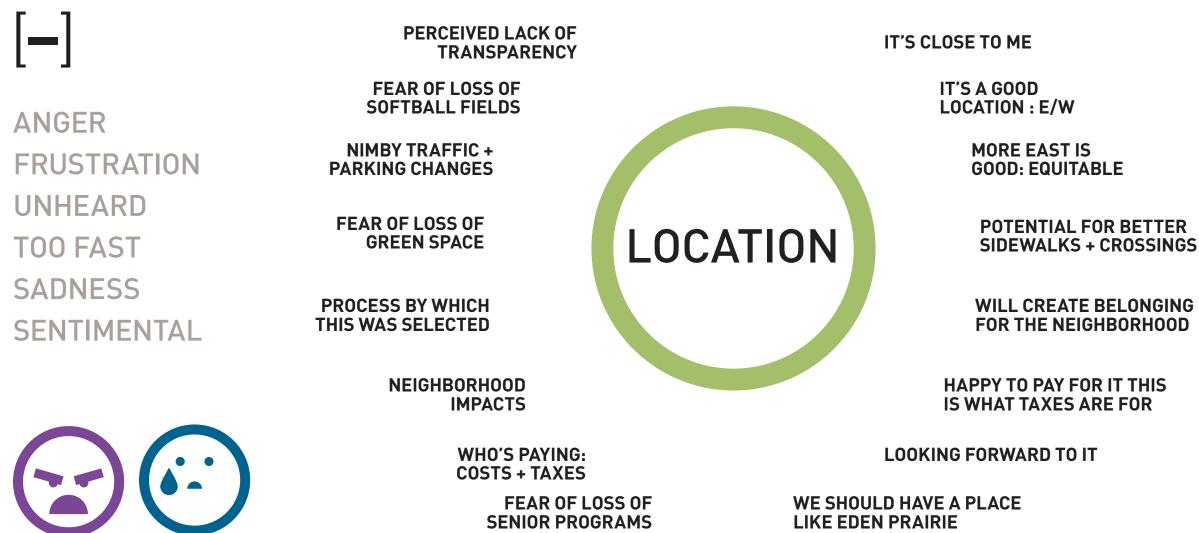
#### **LEARNINGS: THEME OF LOCATION**



APPROXIMATELY 18% OF SURVEY **RESPONSES WERE NEGATIVE ABOUT** THE VALLEY VIEW SITE\* \*NOT STATISTICALLY SIGNIFICANT SURVEY RESULTS

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### **LEARNINGS: THEME OF LOCATION**



+| EXCITED HAPPY INCLUDED **EAGER** POSITIVE **IMPATIENT** 

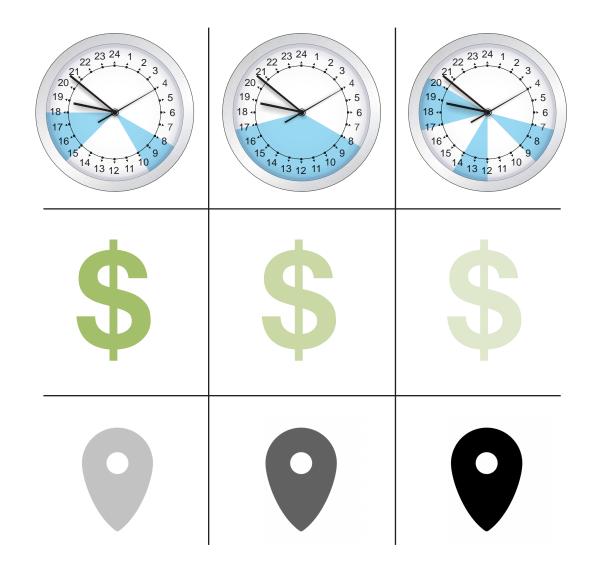


**SUMMARY: CONSIDERATIONS** 

**SHORT ON TIME** 

#### AFFORDABLE COST FOR USE

LOCATION AND TRANSPORTATION ACCESS



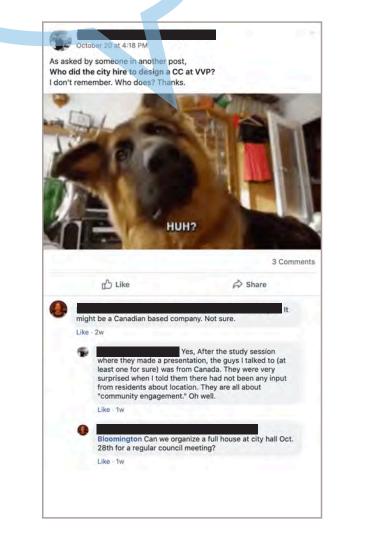
SOCIAL MEDIA SCAN

#### ■ INFORMATION SHARED BY THE CITY **IS PERCEIVED AS MARKETING**

TOLERANCE FOR CHANGING THE PARK ATTRIBUTES IS LOW.

TRUST IN DECISION MAKING AND PROCESS IS LOW.

"YOU'RE TAKING AWAY FREE PARK AND GREEN AREA."





"Will be chaining myself to the water tower if this green-space grab is not stopped."

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## SUMMARY: CONSIDERATIONS & INSIGHTS

**Concerns** mentioned about loss of green space



Safety + security is of great importance to all. This is defined differently by different groups.

Open hours need to work for park users and neighbors

Accessible. on all levels, physical, geographic, etc.

Free or low cost,

affordable spaces + activities are the goals for many

Survey responses were not all about this project, and brought up tangential issues.

Indoor/outdoor places programs + activities are desired

Concerns about loss of history and original uses of the park is top of mind for some.



Need for ongoing communications is very high among certain parts of the community. Inclusivity matters, as does learning about each other

> Priority to retain the best of the green and active spaces

Polarized perspectives and disinformation are creating friction and a lack of desire for some to participate



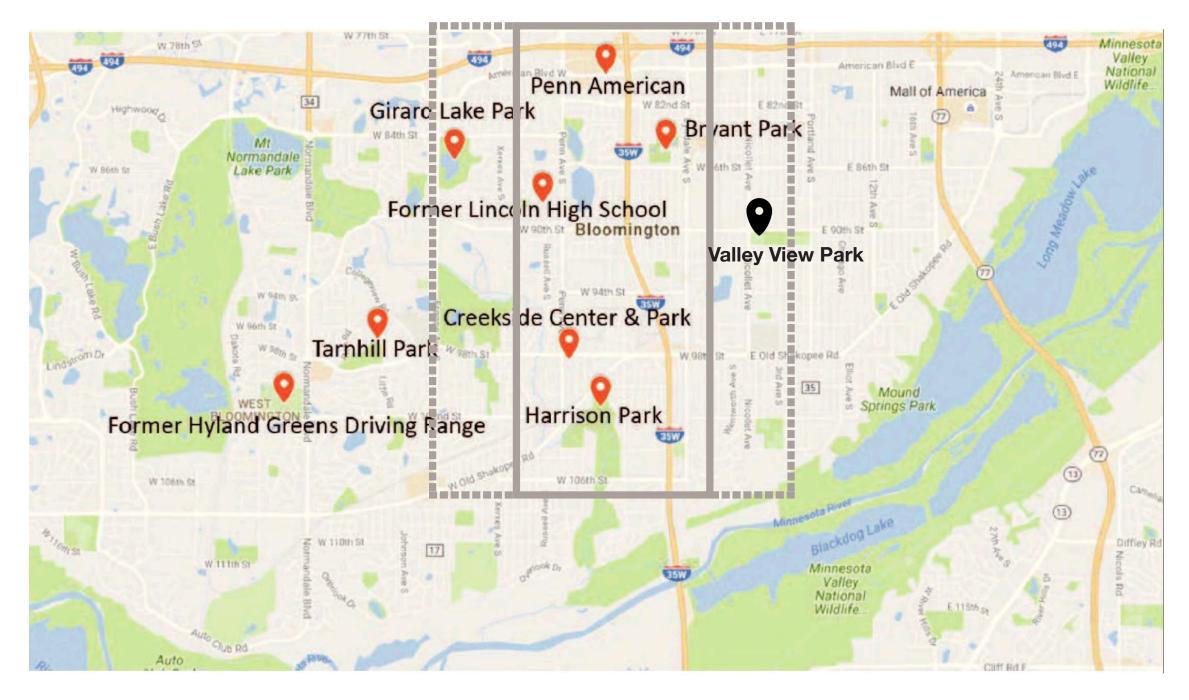
**Multigenerational** connections are desired

> Scale and design of building is important to neighbors and broader community

East + West Bloomington really is a thing, and it factors into perceptions about this project.

#### **TASK FORCE FINDINGS: SITE ALTERNATIVES**

#### VALLEY VIEW PLAYFIELDS WERE ORIGINALLY IDENTIFIED AS A POTENTIAL SITE, AND PREVIOUSLY STUDIED.

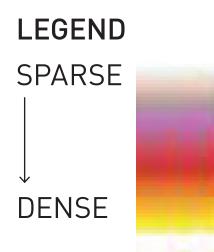


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#### **CURRENT FINDINGS: POPULATION CONCENTRATION**

### HEAT MAP DEMONSTRATES HIGHEST POPULATED AREAS OF BLOOMINGTON.

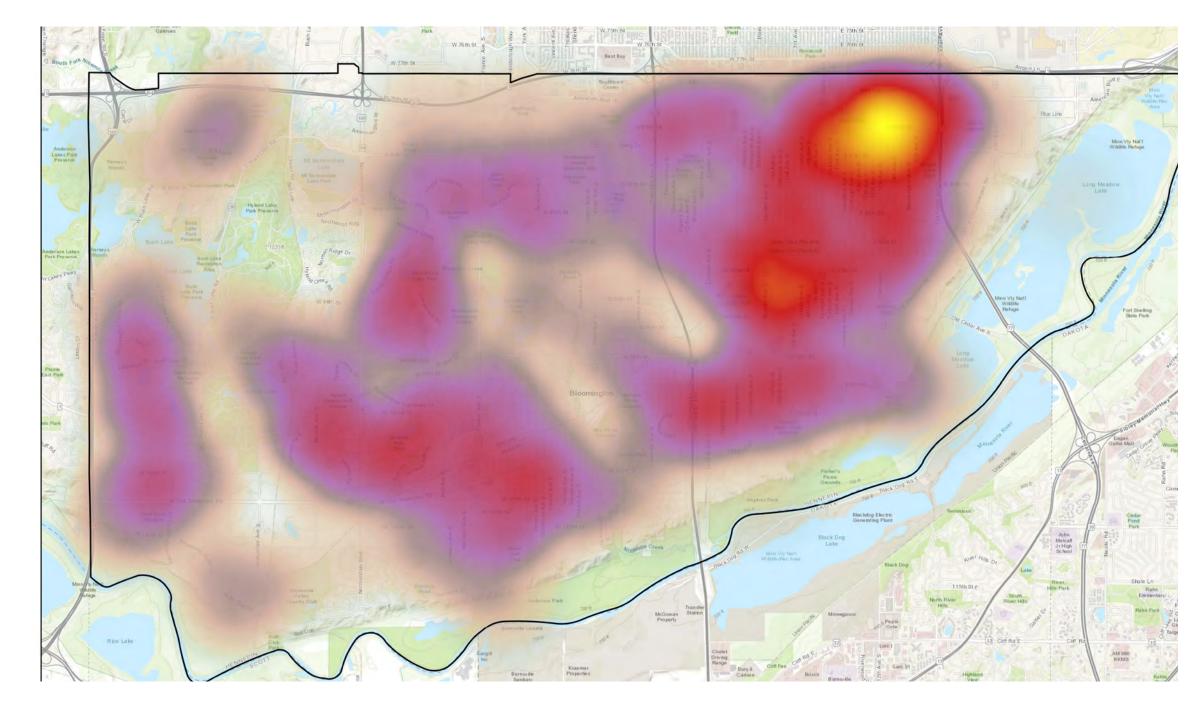


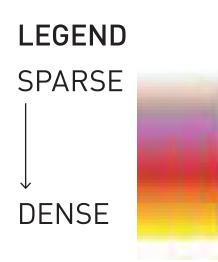


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#### AGES UNDER 18 DENSITY HEAT MAP

### HEAT MAP DEMONSTRATES HIGHEST POPULATED AREAS OF BLOOMINGTON.

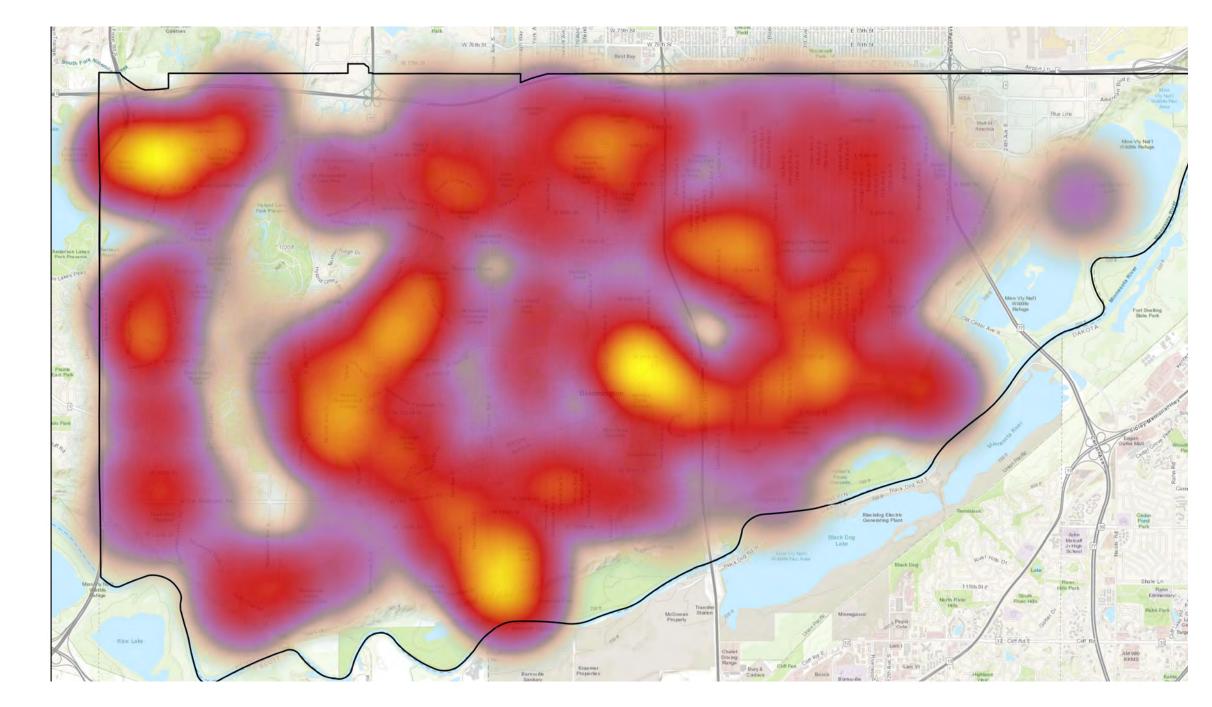


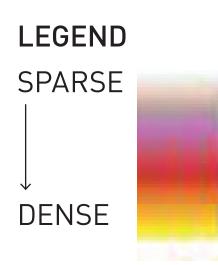


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#### **AGES UNDER 65 DENSITY HEAT MAP**

### HEAT MAP DEMONSTRATES HIGHEST POPULATED AREAS OF BLOOMINGTON.





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WHEN COMPARED TO **OTHER SITES CONSIDERED** THE VALLEY VIEW SITE **PROVIDES ADEQUATE** SPACE, ROOM TO EXPAND AND NO OR LOW COST.

Site	Acreage	Central location	No/low cost site	Transit access	Trail access	Room to expand
Creekside Center + Park 9801 Penn Ave. S.	8.8	Yes	Yes	Yes	Yes	No
Girard Lake Park 8401 France Ave. S.	16.4	Yes	Yes	No	Yes	Yes
Harrison Park 1701 W. 100 <sup>th</sup> St.	10.9	Yes	Yes	Yes	Yes	Yes
Former Lincoln High School 2575 W. 88 <sup>th</sup> St.	21.4	Yes	No	Yes	No	Yes
Tarnhill Park 9650 Little Road	17.1	No	Yes	Yes	Yes	Yes
<b>Valley View Park</b> 401 West 90th St.	34.4	Yes	Yes	Yes	Yes	Yes

#### **TASK FORCE SUMMARY: FOUNDATIONAL PILLARS**

**GOOD NEWS:** WHAT IS NEEDED **ALIGNS WITH THE GOALS ORIGINALLY IDENTIFIED BY** THE TASK FORCE. NO BIG SURPRISES HERE.

Attracting and Retaining All Ages, Families, Diverse Community and Creekside Users	Providing a Year-Round Facility with Indoor and Outdoor Spaces	
Swimming and aquaticsGymnasiumsChildren's play areaDaycareTots + teens gathering spacesHealth and wellness50+ services and programsIntergenerational center – seniors, teens, etc.Youth center and programsSenior center and programsHOME help servicesCommunity ServicesPublic HealthCity servicesHuman ServicesAll income levelsCommunity imageEasily accessible (location)Attractive outside spaceCommunity building – clear sense of community	<ul> <li>Activities indoors and outdoors for all ages</li> <li>Aquatics</li> <li>Gym space</li> <li>Health and wellness</li> <li>Teen center</li> <li>Youth center and programs</li> <li>50+ services</li> <li>Low-cost fitness programs</li> <li>Cardio</li> <li>Fitness center</li> <li>Gym</li> <li>Aerobics</li> <li>Walking/jogging track</li> </ul>	

#### Providing Community Gathering Spaces that Create a Sense of Community

- Large multi-use space .
- Community gathering space
- Banquet/ large meeting space
- Flexible/reserveable spaces . (meetings, events, weddings)
- Meeting rooms
- Flexible meeting spaces
- Classroom space
- Stage .
- Café gathering space
- Dining and kitchen

#### TASK FORCE SUMMARY: COMMUNITY FOCUSED

GOOD NEWS: CURRENT DISCOVERY ALIGNS WITH THE USER GOALS ORIGINALLY IDENTIFIED BY THE TASK FORCE. NO BIG SURPRISES HERE, EITHER.

Serve Creekside Users	Community Gathering Spaces	Community Image	Attracting and Retaining All Ages, Families, Diverse Community	Year-Round Facility – Indoor Use Space	Low-Cost Fitness Programs (Wise)	"One Stop Shop"
<ul> <li>Senior Programs</li> <li>Senior Programming</li> <li>Senior Center and Programs</li> <li>Home Help Services</li> <li>Community Services/Public Health Services</li> <li>Public Health</li> <li>City Services, Human Services, All Income Levels</li> <li>50+ Programs</li> </ul>	<ul> <li>Large Multi-use Space</li> <li>Community Gathering Space</li> <li>Banquet, Large Meeting Space</li> <li>Flexible/Reservable Space (Meetings, Weddings, Events)</li> <li>Stage</li> <li>Café Gathering Space</li> <li>Classroom Space</li> <li>Flexible Meeting Spaces</li> <li>Dining and Kitchen</li> <li>Meeting Rooms</li> </ul>	<ul> <li>Easily Accessible (Location)</li> <li>Public Use of Space to Add Value to the Community</li> <li>Attractive to Families, Serving Different Generations</li> <li>Community Building, Creating a Sense of Community</li> <li>Attractive Outside Space</li> </ul>	<ul> <li>Aquatic</li> <li>Swimming and Aquatics</li> <li>Gymnasiums</li> <li>Children's Play Area</li> <li>Daycare</li> <li>Tots + Teens Gathering Spaces</li> <li>Health and Wellness</li> <li>50+ Services</li> <li>Intergenerational Center – Seniors, teens, etc.</li> <li>Youth Center and Programs</li> </ul>	<ul> <li>Aquatics</li> <li>Gym Space</li> <li>Health and Wellness</li> <li>Teen Center</li> <li>Activities Indoors and Out for All Ages</li> <li>Youth Center and Programs</li> <li>50+ Services</li> </ul>	<ul> <li>Cardio</li> <li>Fitness</li> <li>Gym</li> <li>Aerobics/ Fitness</li> <li>Walking/ Jogging Track</li> <li>Fitness Center</li> </ul>	

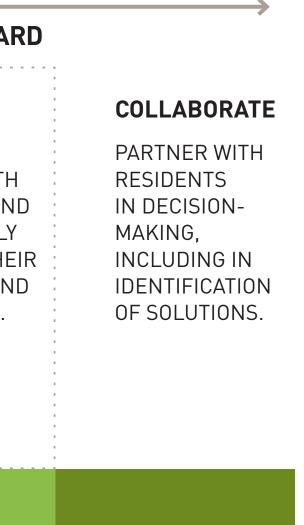
#### **ENGAGEMENT RECOMMENDATION: INFORM, ENGAGE AND RESPECT**

#### **MOVE FROM INFORMING COMMUNITY TO INVOLVING** COMMUNITY

#### Alternatives include:

- 2 day citizen design charrette
- 1 day stakeholder summit
- Community advisory review
- Council design session

	WE ARE HERE	MOVING FORWAR					
INFORM	CONSULT	INVOLVE					
PROVIDE RESIDENTS WITH INFO AND ASSIST IN UNDERSTANDING PROBLEMS, ALTERNATIVES	OBTAIN PUBLIC FEEDBACK ON ANALYSIS, ALTERNATIVES AND DECISIONS.	WORK DIRECTLY WITH RESIDENTS AND CONSISTENTLY CONSIDER THEI CONCERNS AND ASPIRATIONS.					



#### [CONTINUE TO INFORM + CONSULT]

# design opportunities

CONTINUE TO SUPPORT THE **CURRENT ACTIVITIES AND INTERESTS** OF THE COMMUNITY.

MAXIMIZE GREEN SPACE AND **GATHERING IN DESIGN SOLUTIONS** 

LEVERAGE COMMUNITY THEMES IN CONCEPTS FOR PARK AND **COMMUNITY CENTER.** 

CONSIDER THIS AN INNOVATIVE LEARNING CENTER, ONE THAT SUPPORTS LIFE LONG WELL BEING, SKILL BUILDING + ACTIVITY.

REMOVE REAL AND PERCEIVED **BARRIERS FOR NEIGHBORS TO ENGAGE EASILY IN THE PARK AND** CENTER.

REFLECT THE COMMUNITY IN THE DESIGN THROUGH **CREATIVE PLACEMAKING AND INTERPRETATIVE MOMENTS.** 

ESTABLISH WALKING PATHS AND **GARDENS FOR REFLECTION AND** LEARNING.

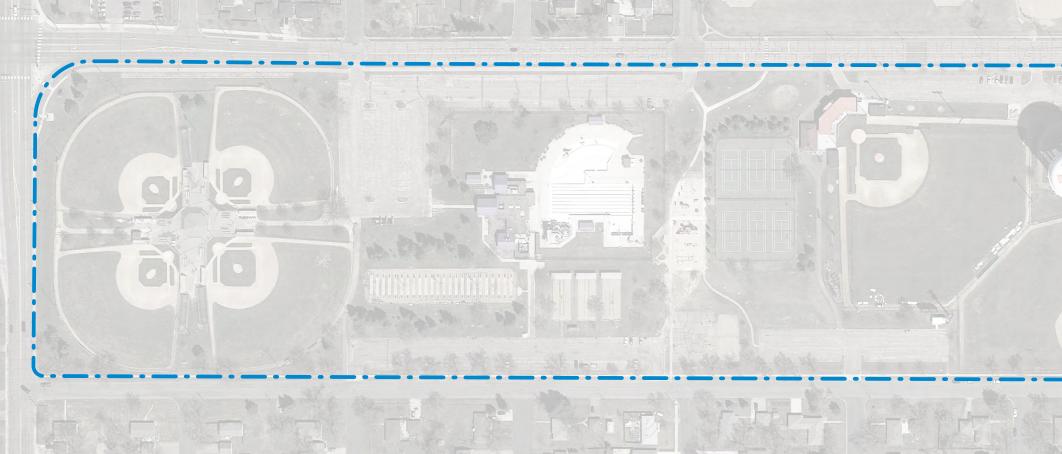
ENHANCE GATHERING **OPPORTUNITIES THROUGH PROGRAMMING AND CAFE AMENITY.** 

PRESERVE AND EXPAND THE MAKER SPACE TO SUPPORT EXISTING **PROGRAMS AND CREATE NEW ONES.** 

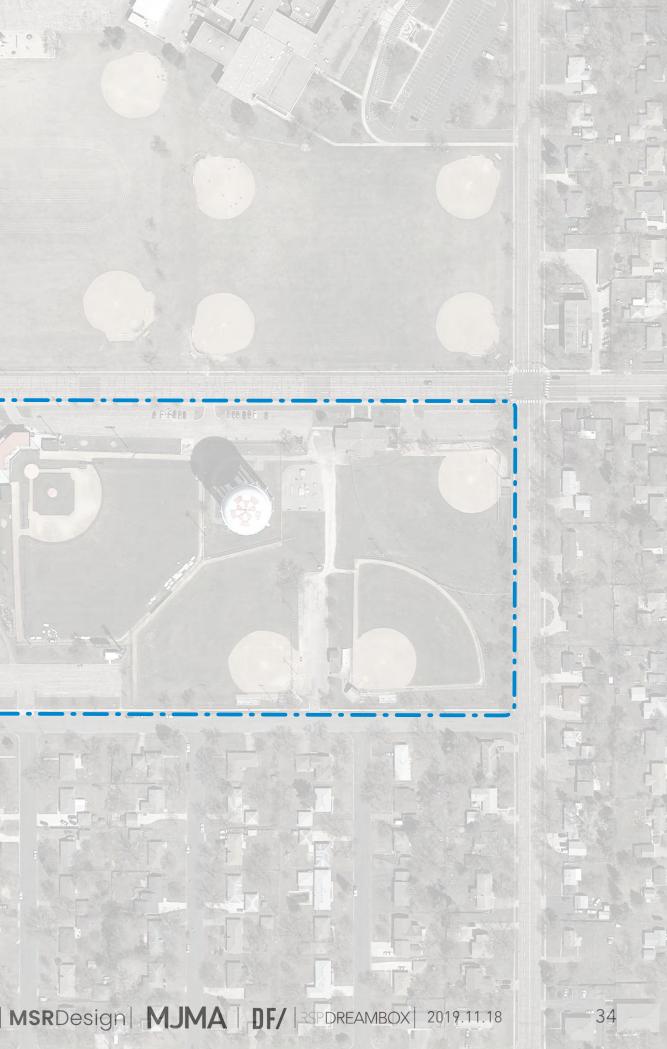
#### CREATE A SEAMLESS INDOOR/ **OUTDOOR EXPERIENCE OF THE PARK** AND CENTER THAT CAN BE USED **DURING ALL SEASONS.**

#### MAKE IT SAFE AND WELCOMING TO ALL, AND TO ALL AGES.

## **3.0 SITE ANALYSIS**









### VIEW **MIDDLE SCHOOL**

#### E 90TH ST

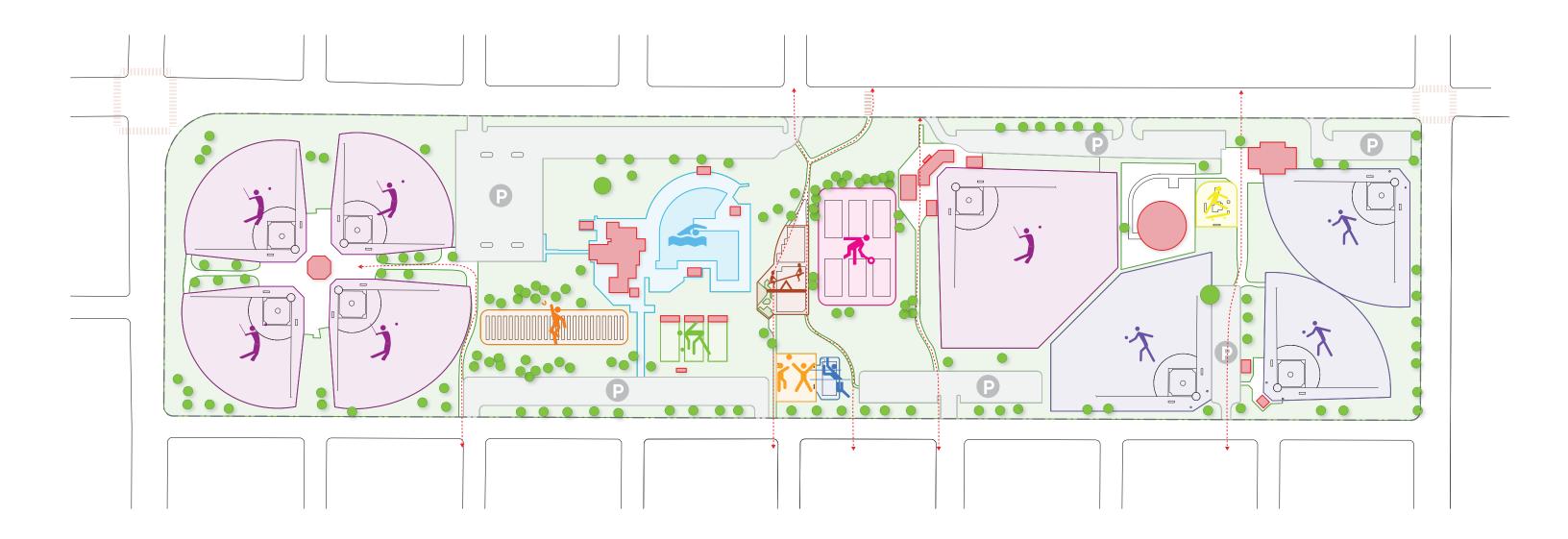
# PORTLAND AVE 5

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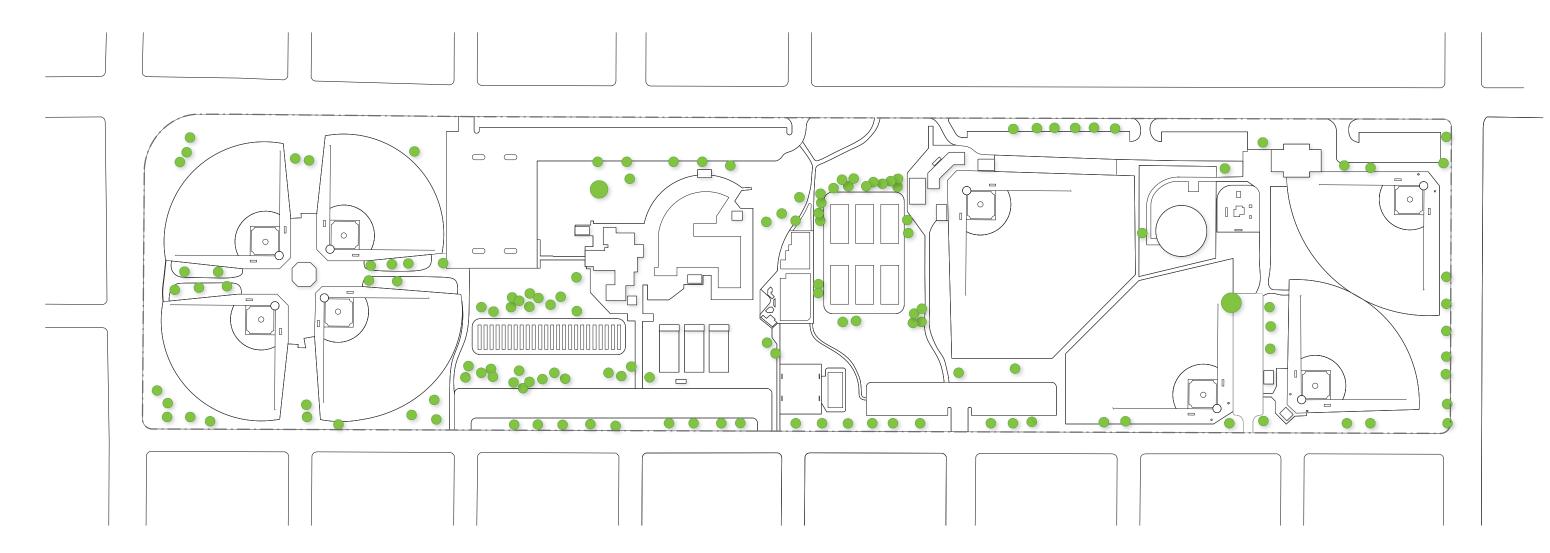
#### **EXISTING PARK AMENITIES**



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### **AIM TO PRESERVE EXISTING TREES!**

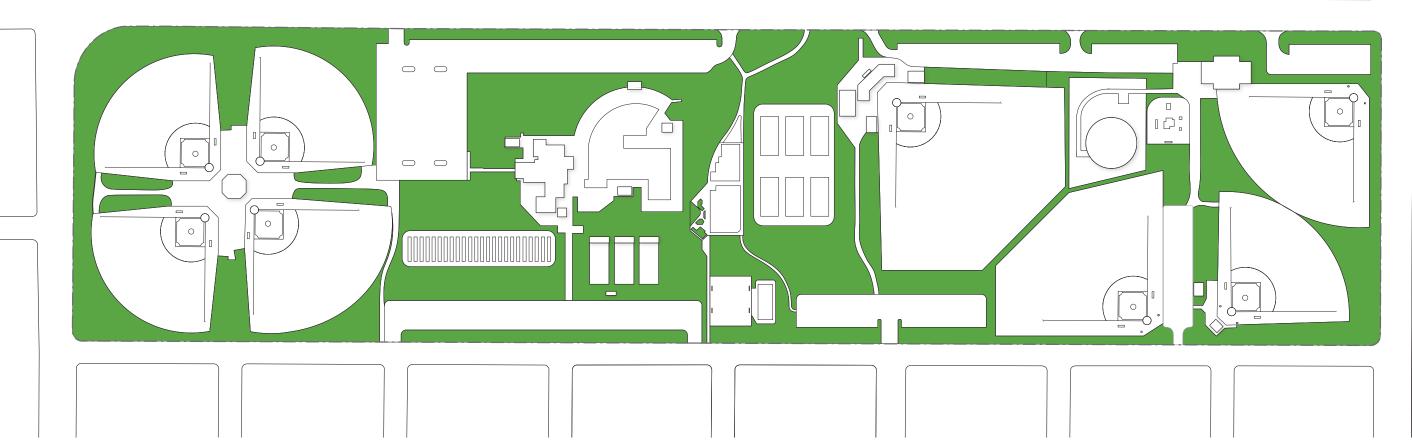


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#### **GREEN SPACES**

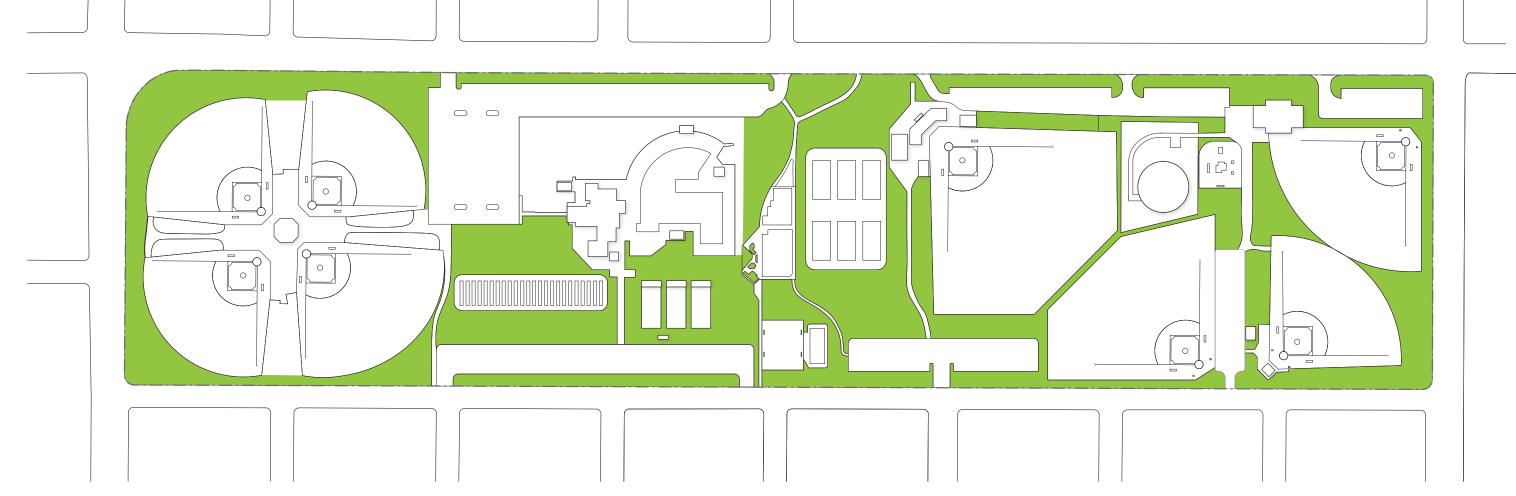






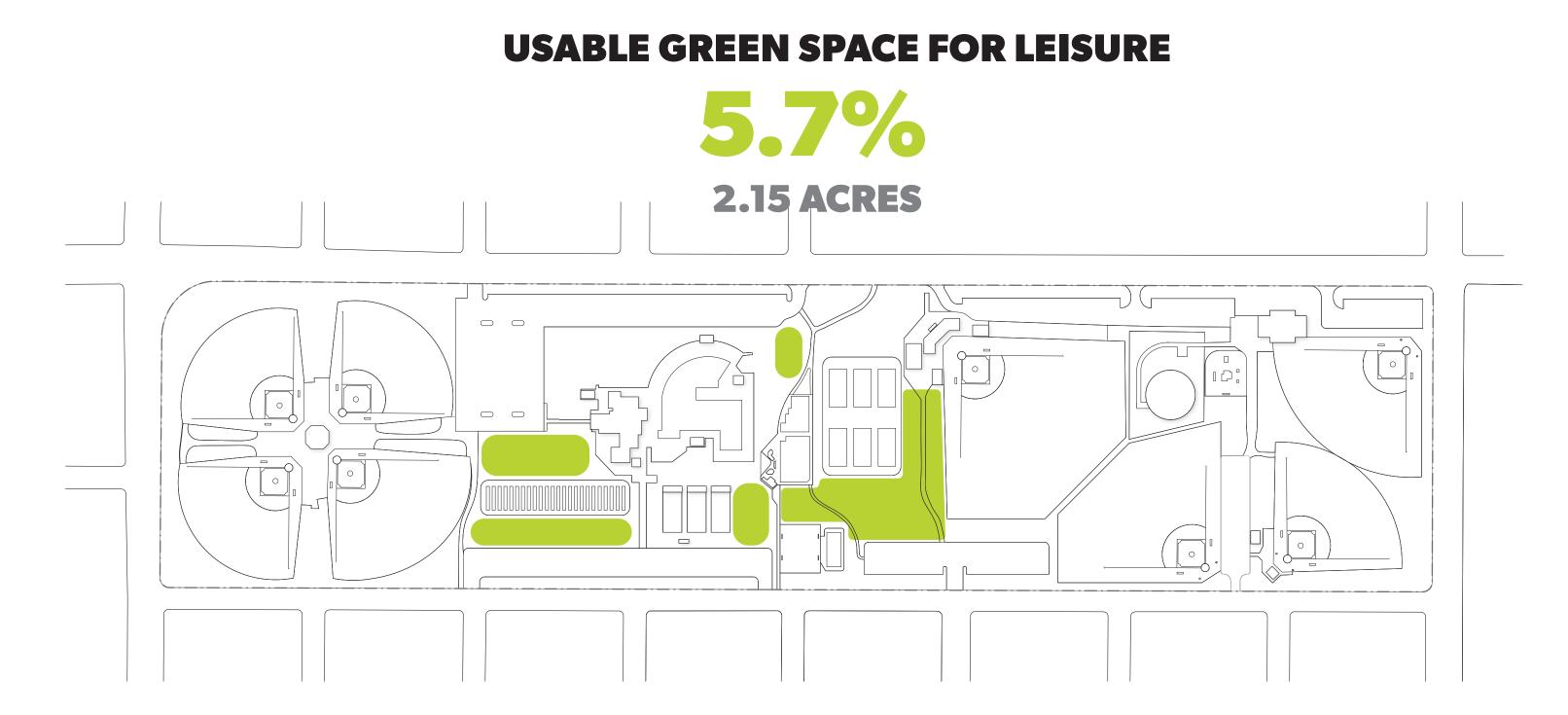
#### **GREEN SPACES**

### **TOTAL OPEN GREEN SPACE** 32%

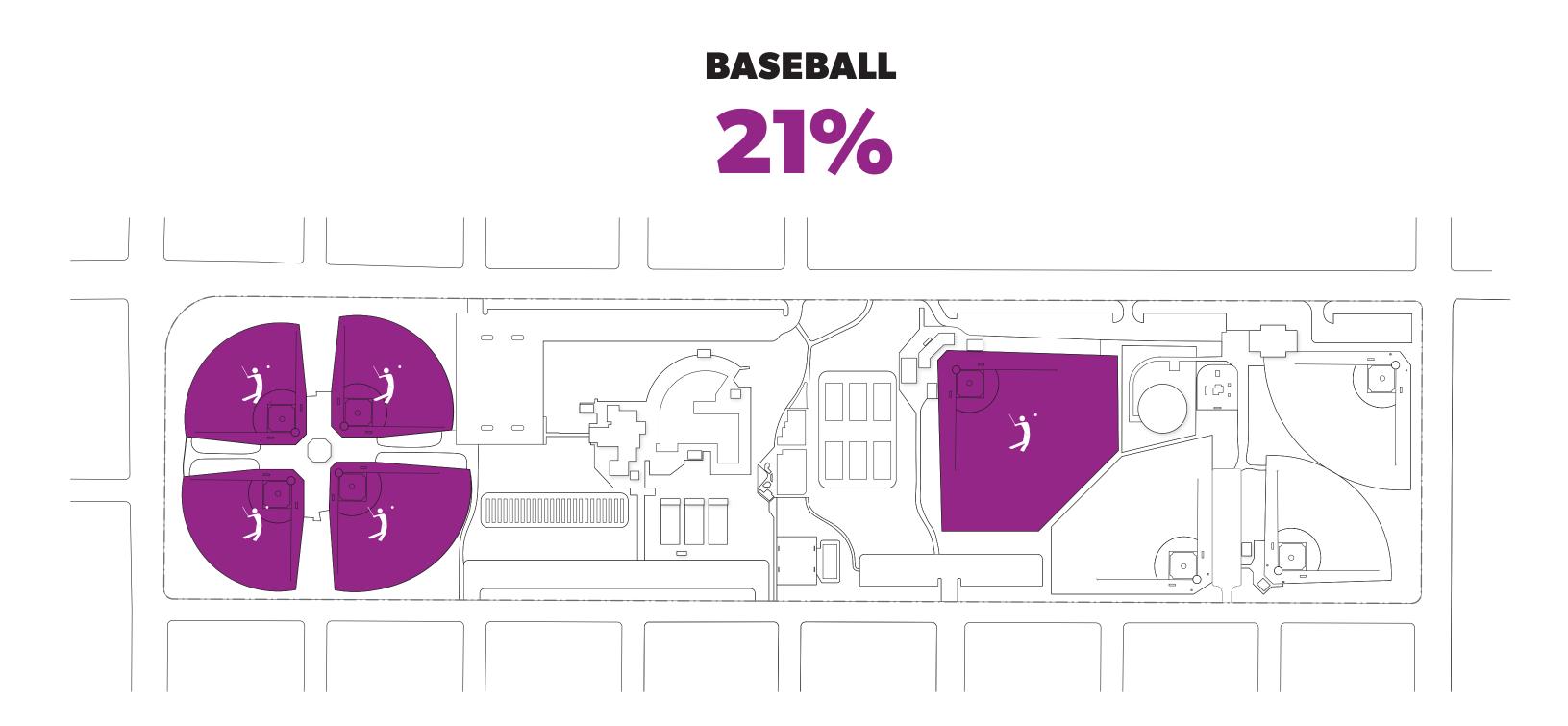


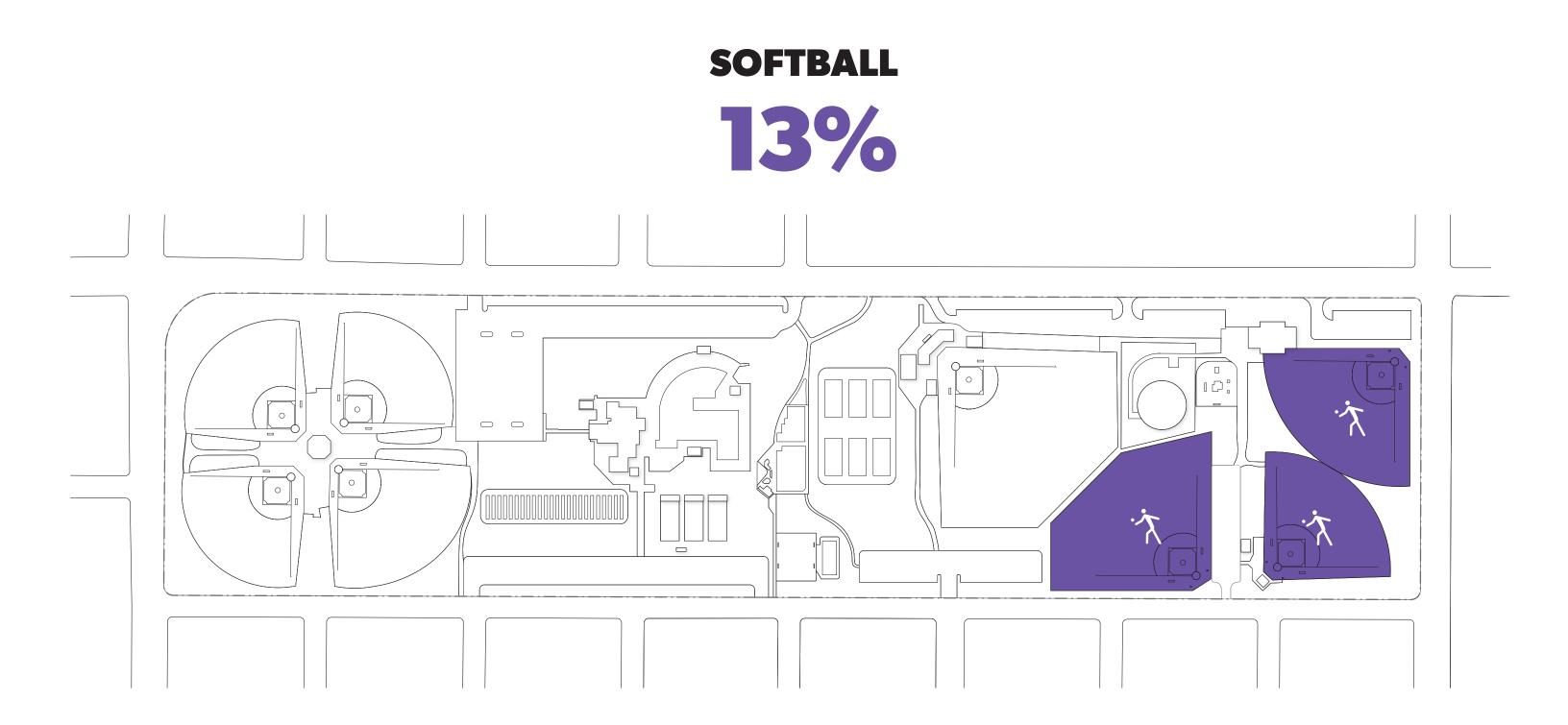


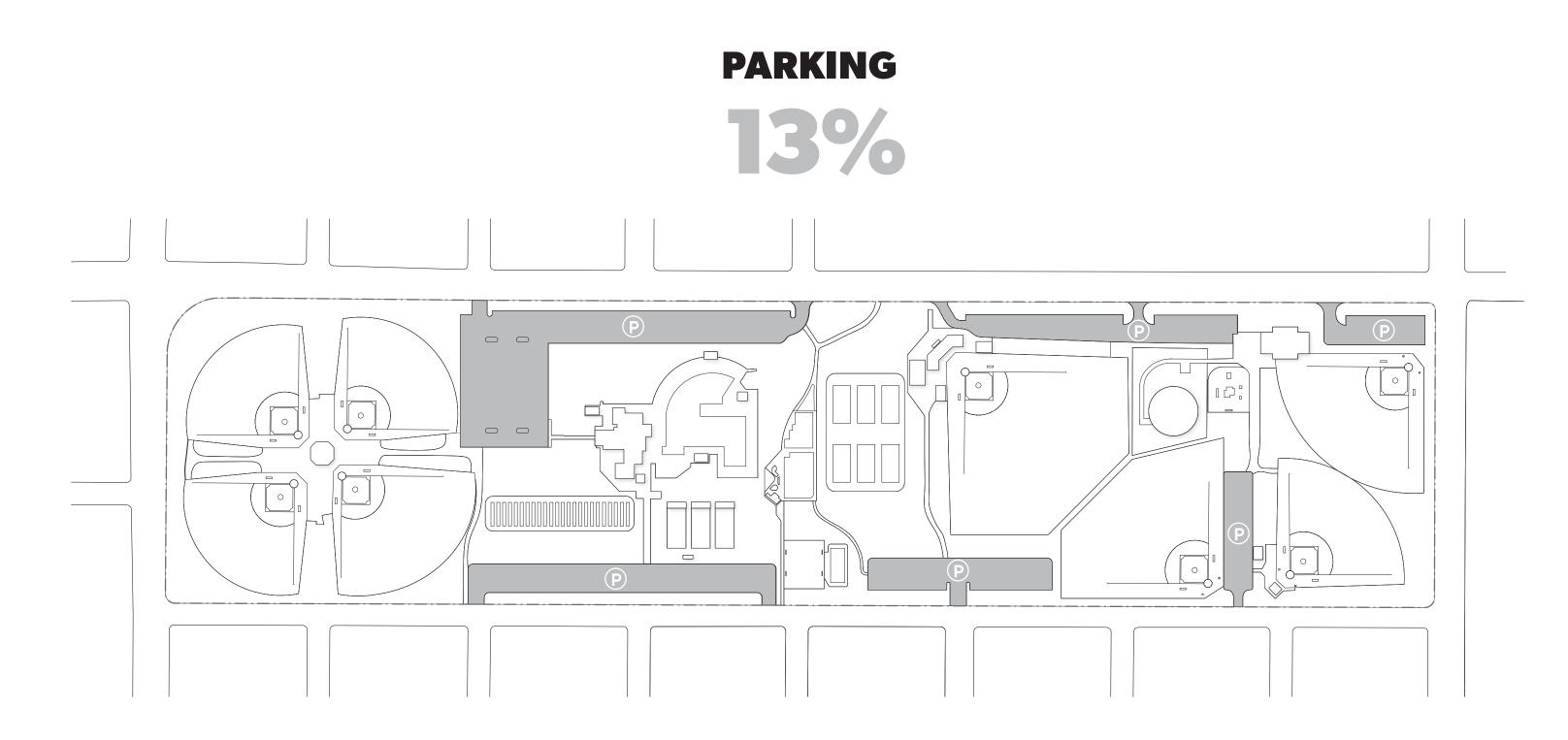
#### **GREEN SPACES**



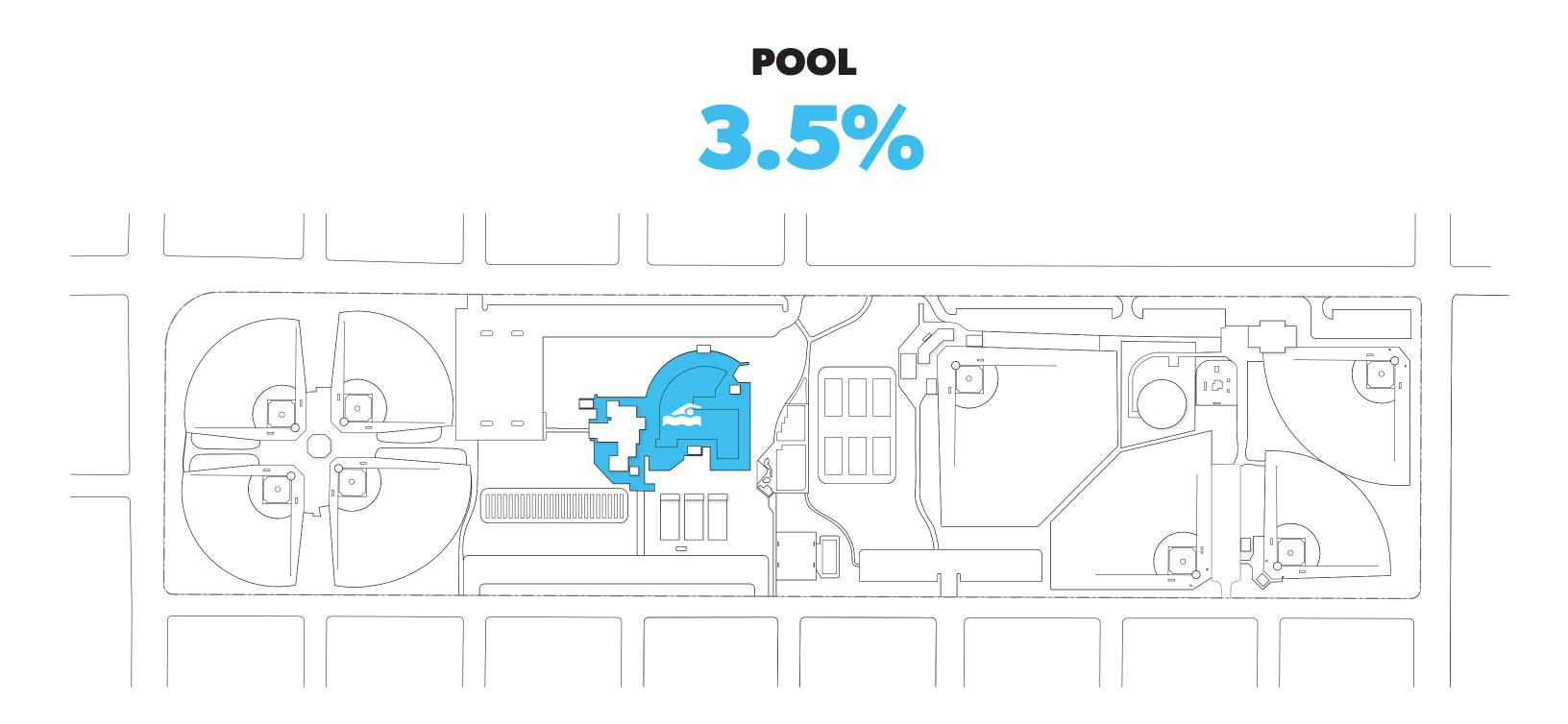
#### **MSR**Design **MJMA DF/** RSPDREAMBOX 2019.11.18

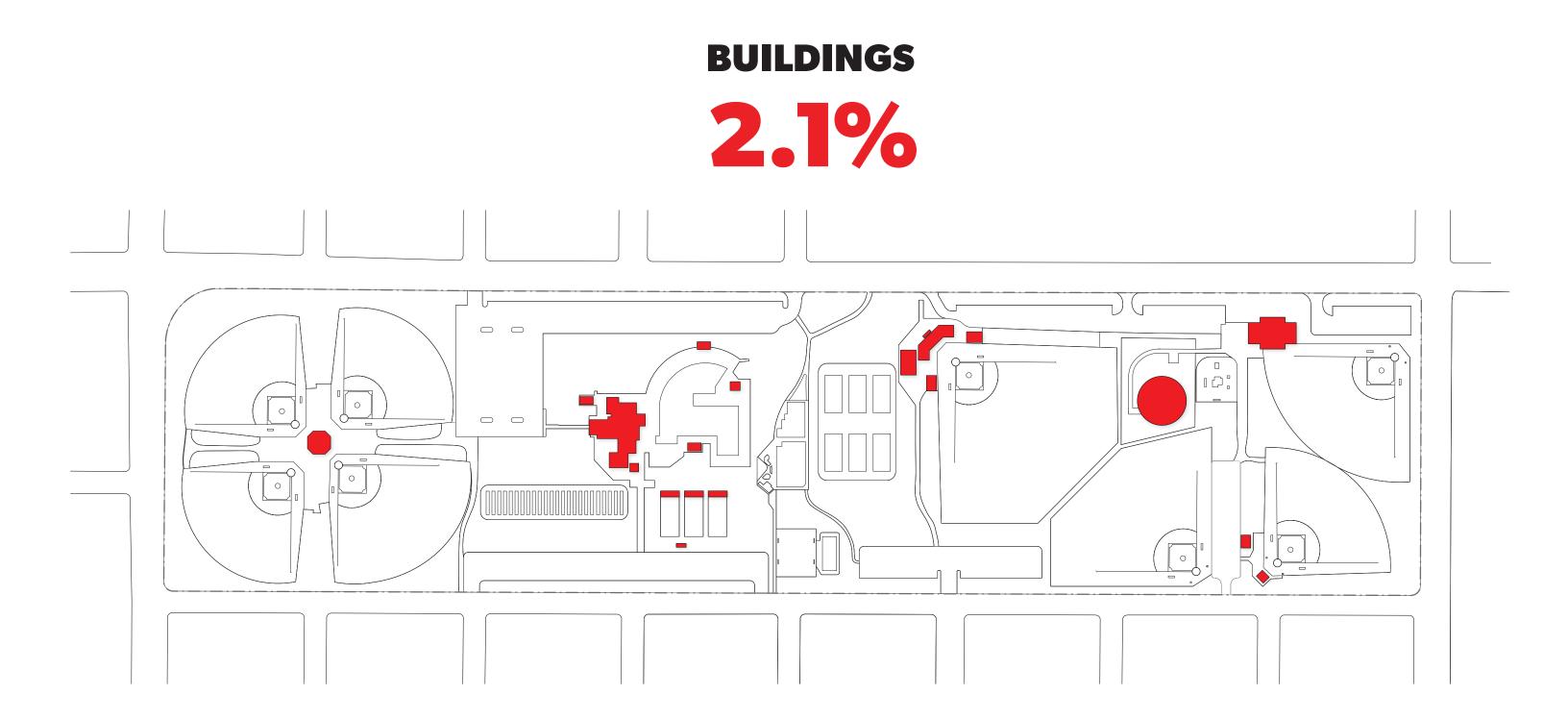




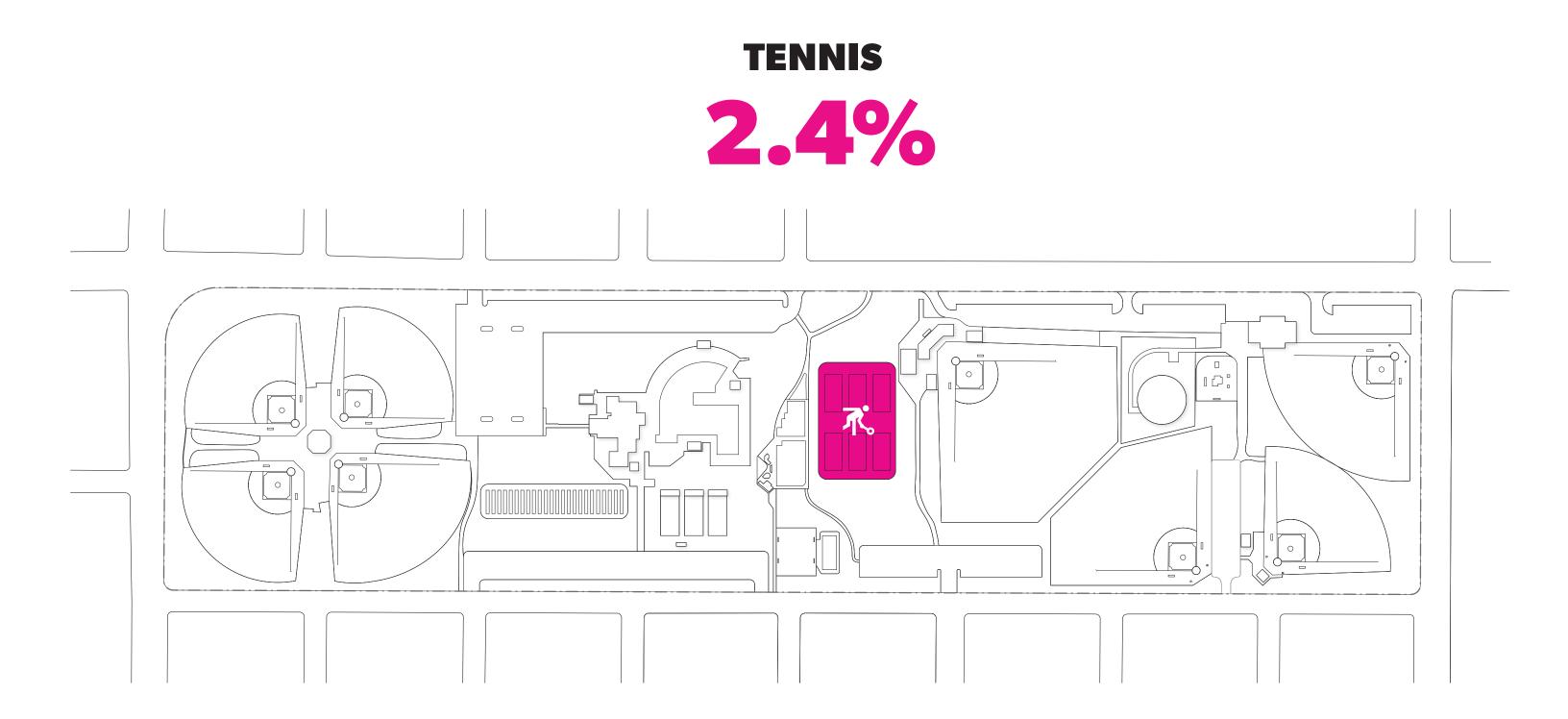


#### **MSR**Design **MJMA DF/** RSPDREAMBOX 2019.11.18

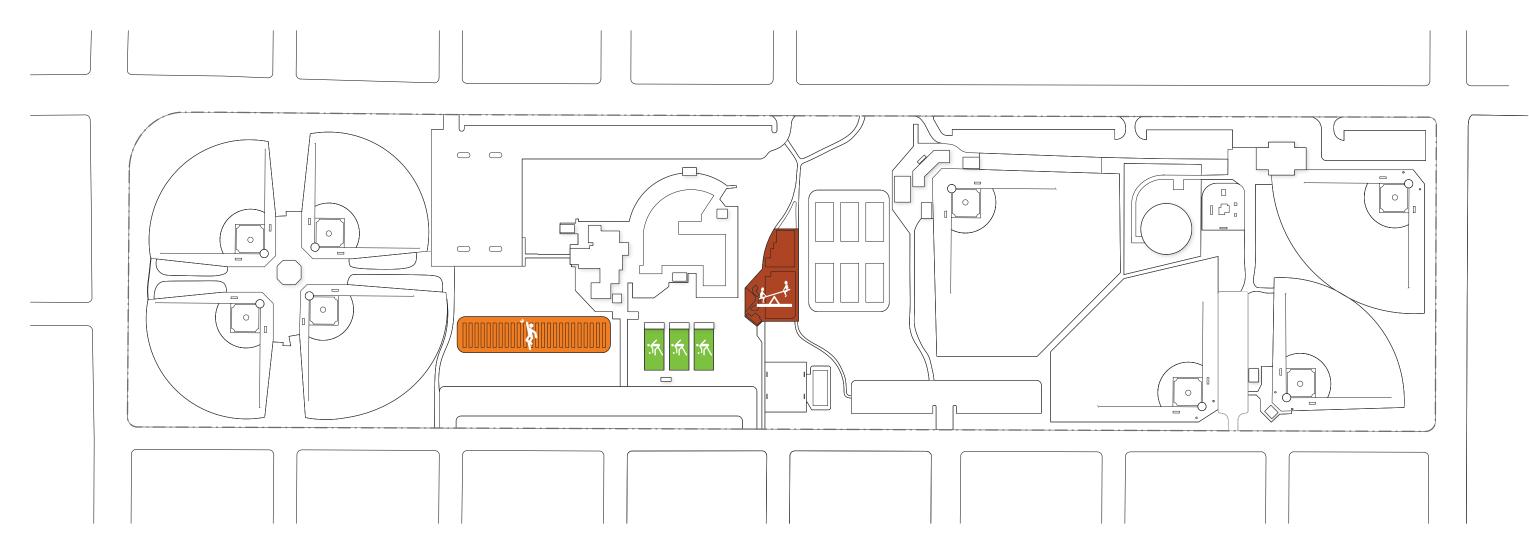




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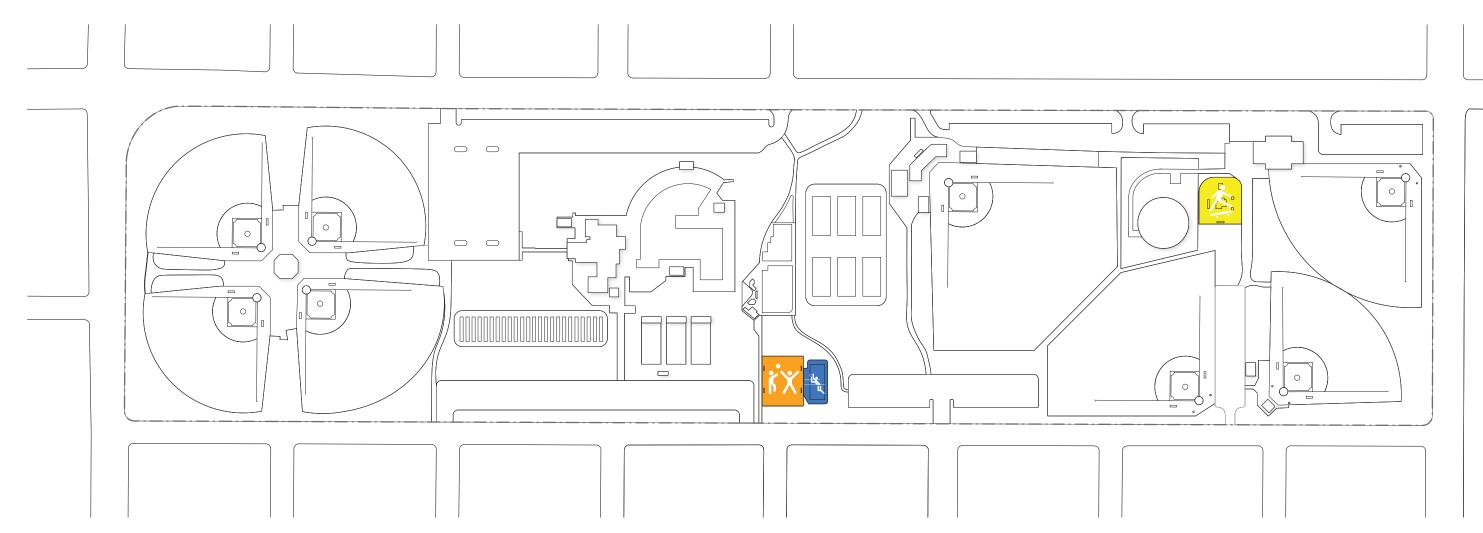


## HORSESHOES / PLAYGROUND / BOCCE BALL 2.8%

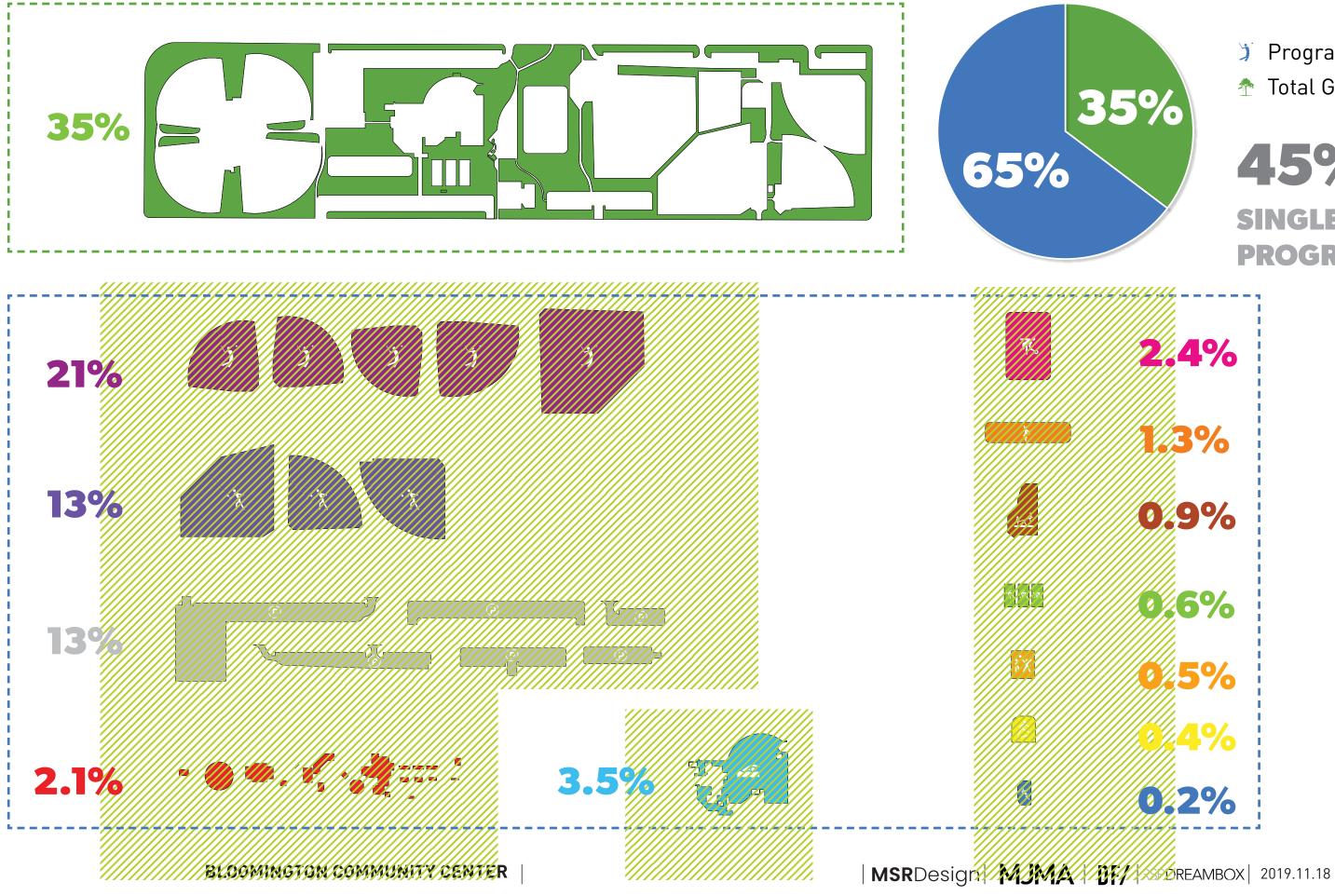




## **BASKETBALL / VOLLEYBALL / SKATE PARK** 1.1%



#### LANDUSE BREAKDOWN

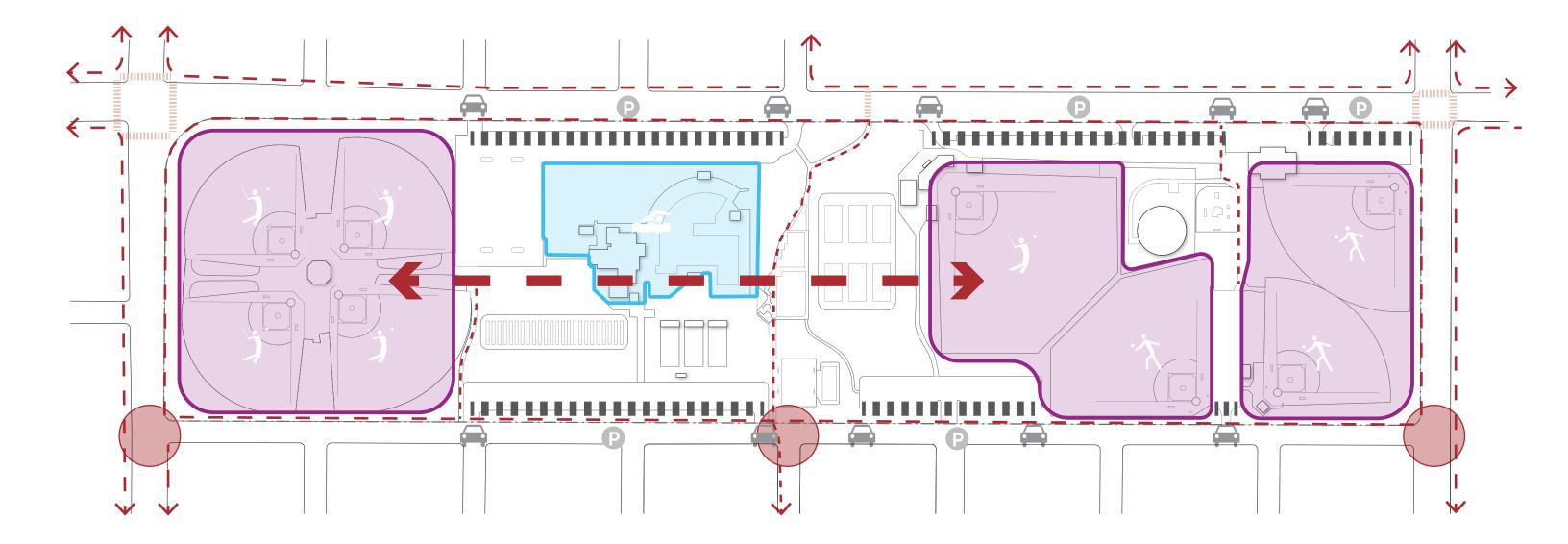


Programmed Space 🌴 Total Green Space



#### SITE CHALLENGES





#### MISSING - Crosswalks

#### CURRENT OUTDOOR PROGRAM

Program Type	Duration	J	F	М	А	М	J	J	Α	S	0	N	D
Outdoor Program													
AQUATICS	3 Mo.	0	0	0	0	0	$\bigcirc$	•	$\bigcirc$		$\bigcirc$	$\bigcirc$	0
BOCCE BALL	5 Mo.	0	0	0	0	$\bigcirc$	0						
BASEBALL	7 Mo.	0	0	0	$\bigcirc$	•	$\bigcirc$	•	$\bigcirc$	•	•	$\bigcirc$	0
BASKETBALL	7 Mo.	0	0	0								$\bigcirc$	0
HORSE SHOES	7 Mo.	0	0	0								0	0
PLAYGROUND	7 Mo.	0	0	0								$\bigcirc$	0
SKATE PARK	7 Mo.	0	0	0	$\bigcirc$	0							
SOFTBALL	6 Mo.	0	0	0	0							$\bigcirc$	0
TENNIS	5 Mo.	0	0	0	0	ightarrow	$\bigcirc$	ightarrow	ightarrow		0	0	0
VOLLEYBALL	5 Mo.	$\bigcirc$	$\bigcirc$	$\bigcirc$	0						0	0	0

#### FUTURE OUTDOOR PROGRAM

Program Type	Duration	J	F	Μ	Α	М	J	J	Α	S
Outdoor Program										
AQUATICS	5 Mo.	0	0	0	0		$\bigcirc$		•	
BOCCE BALL	7 Mo.	0	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
BASEBALL	7 Mo.	0	0	0			$\bigcirc$		$\bigcirc$	
BASKETBALL	7 Mo.	0	0	0						
HORSE SHOES	7 Mo.	0	0	0						ightarrow
PLAYGROUND	7 Mo.	0	0	0			ightarrow		ightarrow	$\bigcirc$
SKATE PARK	7 Mo.	0	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
SOFTBALL	7 Mo.	0	0	0						
TENNIS	6 Mo.	0	0	0	0	ightarrow	ightarrow	ightarrow	ightarrow	$\bigcirc$
VOLLEYBALL	6 Mo.	0	0	0						
Requested Outdoor Progra	am	0	0	0	0	0	0	0	0	0
SPLASH PAD	4 Mo.	0	$\bigcirc$	$\bigcirc$	0	$\bigcirc$				
SKATING RINK	5 Mo.	ightarrow	$\bigcirc$	$\bigcirc$	0	0	0	0	0	$\bigcirc$
SLEDDING HILLS	5 Mo.	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	0	0	$\bigcirc$	0	0
OUTDOOR THEATER	7 Mo.	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$		$\bigcirc$	$\bigcirc$	$\bigcirc$
WALKING TRAILS	8 Mo.	0	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	0
PICKLE BALL	4 Mo.	0	0	0	0	0		$\bigcirc$	$\bigcirc$	0
EVENT SPACE	12 Mo.	$\bigcirc$	$\bigcirc$	$\bigcirc$						
INCLUSIVE PLAYGROUND	7 Mo.	0	0	$\bigcirc$					$\bigcirc$	0

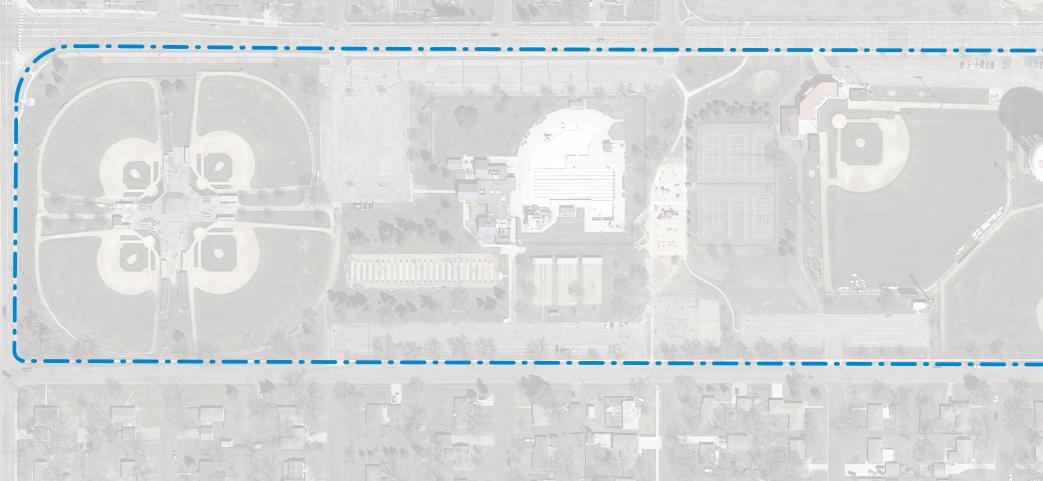
0	N	D
0	0	$\bigcirc$
$\bigcirc$	0	$\bigcirc$
$\bigcirc$	0	$\bigcirc$
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	0	0
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$\bigcirc$	0	$\bigcirc$
$\bigcirc$	0	$\bigcirc$
0	0	0
	$\bigcirc$	$\bigcirc$
$\bigcirc$	0	$\bigcirc$

#### **CURRENT INDOOR PROGRAM**

Program Type	Duration	J	F	М	Α	М	J	J	Α	S	0	N	D
Indoor Program													
AQUATIC CHANGING ROOMS	3 Mo.	0	0	0	0	0			$\bigcirc$	$\bigcirc$	0	0	$\bigcirc$
CONCESSIONS SALES	6 Mo.	0	$\bigcirc$	0	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$		$\bigcirc$	$\bigcirc$

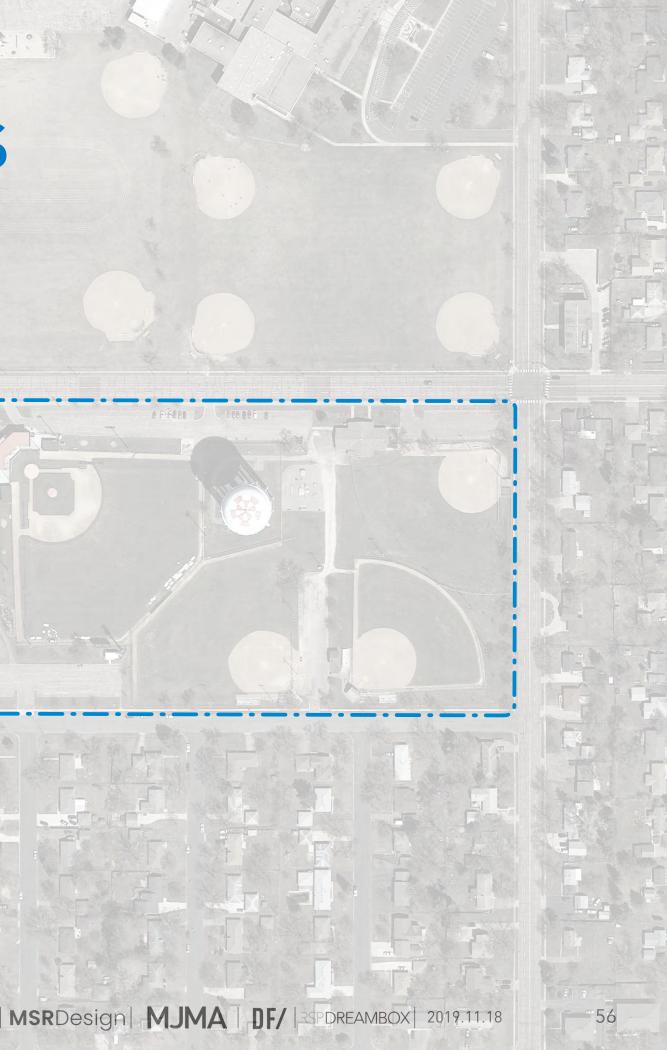
#### **FUTURE INDOOR PROGRAM**

Program Type	Duration	J	F	М	Α	М	J	J	Α	S	0	N	D
Indoor Program													
SHARED CHANGING ROOMS	5 12 Mo.	$\bigcirc$	•	•	•	•				•	•	•	•
CONCESSIONS SALES	6 Mo.	$\bigcirc$	0	$\bigcirc$	0								
Requested Indoor Program		0	0	0	0	0	0	0	0	0	0	$\bigcirc$	0
MULTIPURPOSE ROOMS	12 Mo.	$\bigcirc$											
INDOOR PLAYGROUND	12 Mo.	$\bigcirc$											
FITNESS	12 Mo.	$\bigcirc$	•	$\bigcirc$					•	$\bigcirc$			•
FOOD AND BEVERAGE	12 Mo.	$\bigcirc$					$\bigcirc$						
EDUCATIONAL CLASSES	12 Mo.												
EVENT SPACES	12 Mo.	$\bigcirc$	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	$\bigcirc$
SOCIAL SPACES	12 Mo.	$\bigcirc$											
AQUATICS	12 Mo.	$\bigcirc$						•			•	•	•
GYMNASIUM	12 Mo.	$\bigcirc$	•		•			•			•	•	•
RUNNING TRACK	12 Mo.	$\bigcirc$	•	$\bigcirc$	•	$\bigcirc$	•						



**BLOOMINGTON COMMUNITY CENTER** 

1941:19



#### SITE AND BUILDING PRINCIPLES



### A Better Park Supported by a Community Center

- **GREEN SPACE** Maximize open green park space
- CONNECTIONS Maximize connectivity within the park and to the neighborhood
- SAFE Create safe access to the park for pedestrians
- SCALE Maintain neighborhood scale
- FREE Maintain free park amenities on site
- YEAR ROUND Increase year-round park use with new outdoor amenities

#### **Connect People** 2

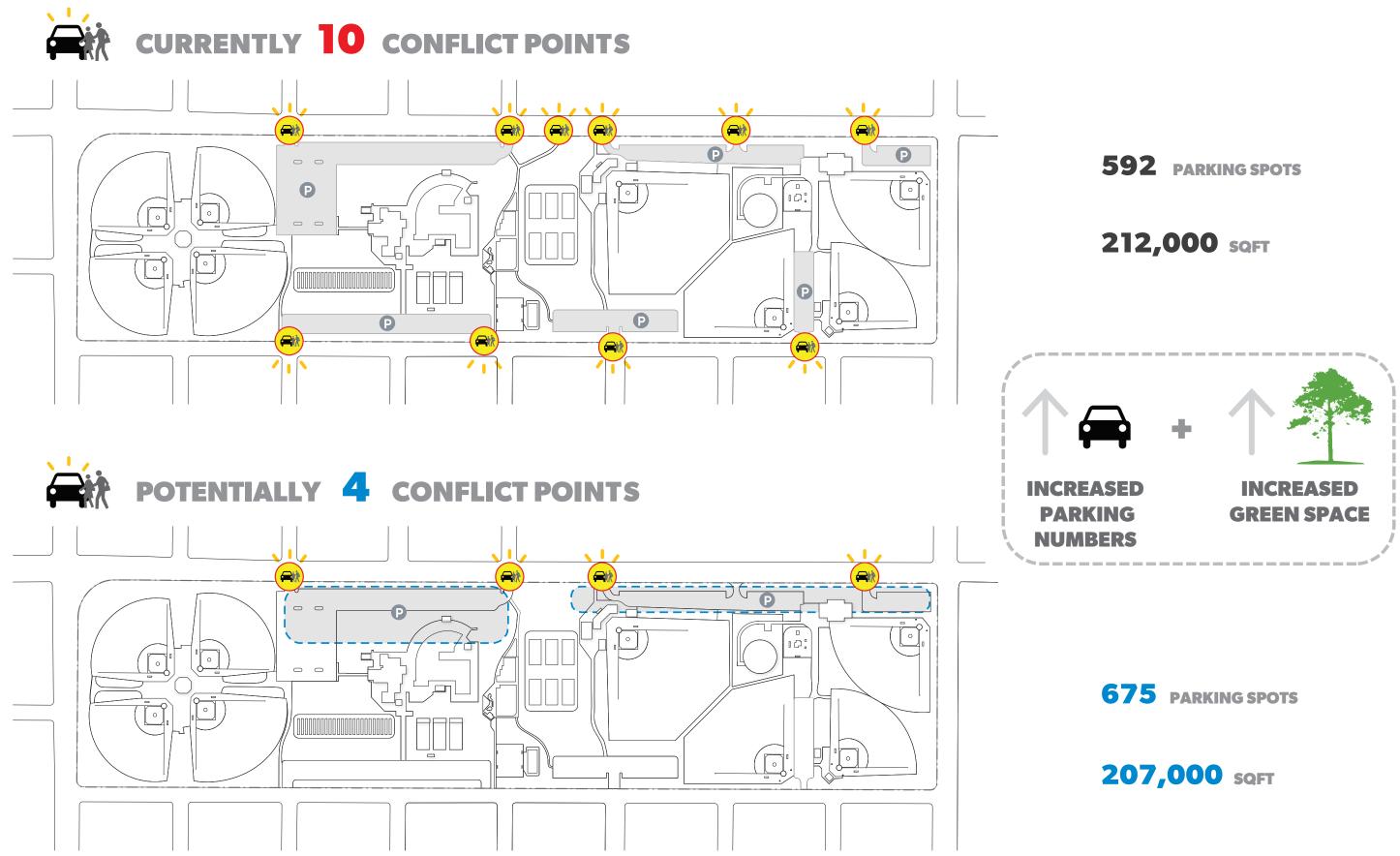
- SOCIAL HUB Create a dynamic social hub scape
- INCLUSIVE Create an inclusive safe and welcoming environment
- **BLOOMINGTON** Provide versatile & multi-functional spaces that respond to Bloomington residents



#### Create a sustainable, resilient and adaptable facility

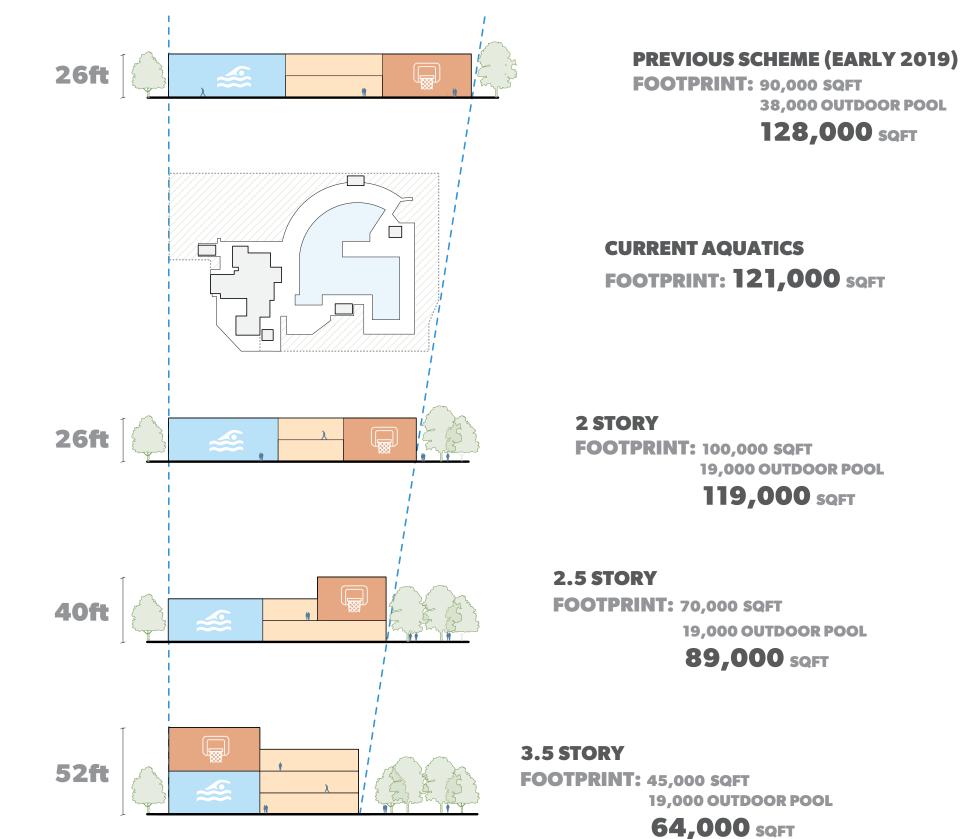
- **SUSTAINABLE** Create a sustainable facility
- **PASSIVE** Prioritize passive design principles to minimize energy
- FLEXIBLE Create a facility with flexible & adaptable multi-functional spaces
- WELLNESS Cultivate creativity, health & well-being

#### **PARKING COMPARISON**



#### **BUILDING PROPORTION STUDY**

ATTENTION: These are analytical studies; not final designs



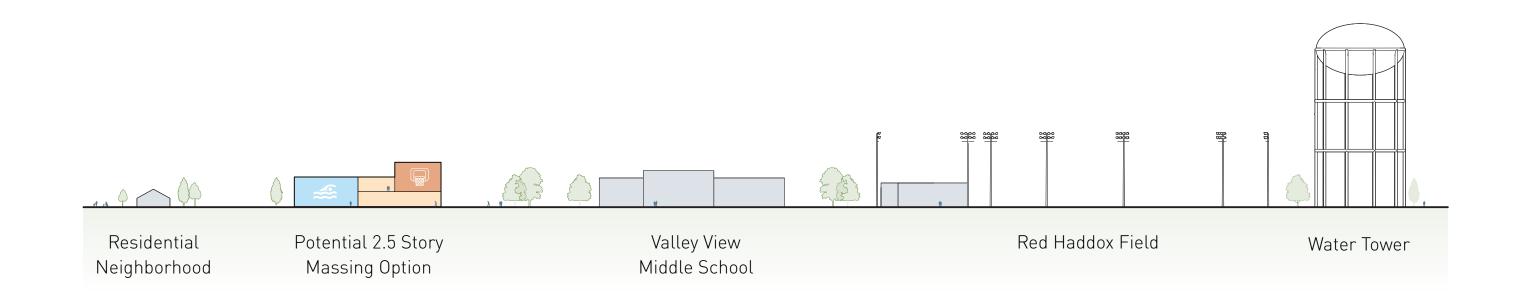
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#### 128,000 SQFT

38,000 OUTDOOR POOL

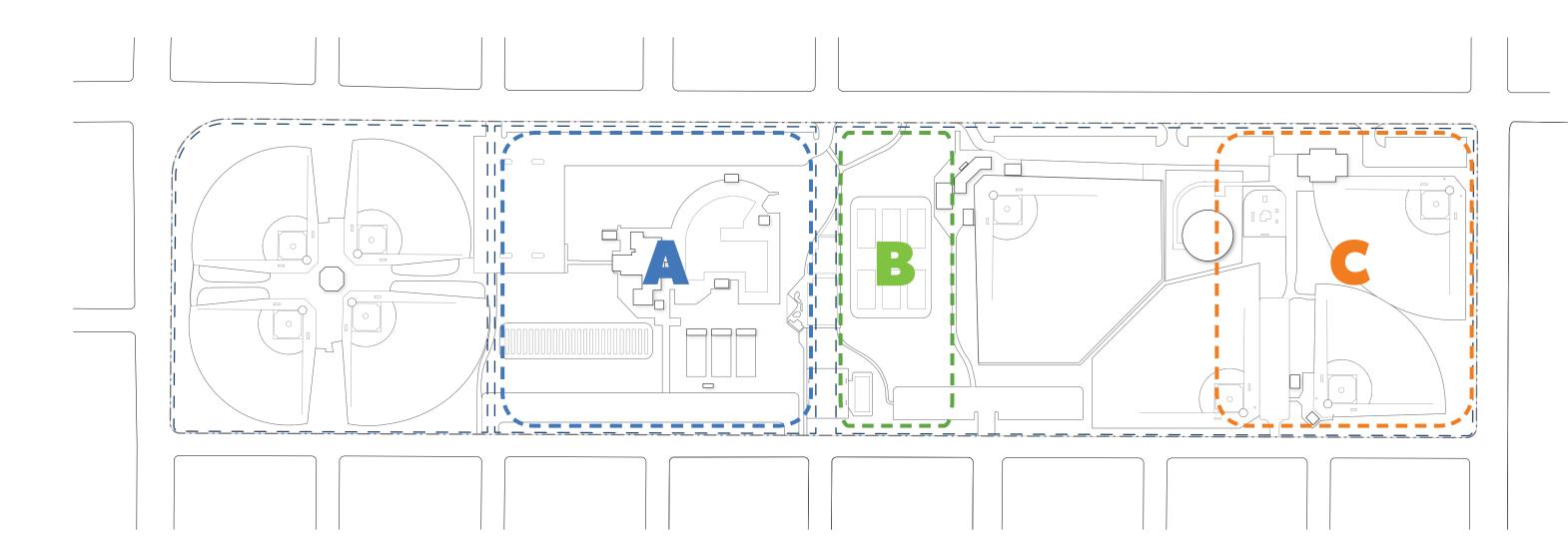
#### **ELEVATIONAL COMPARISON**

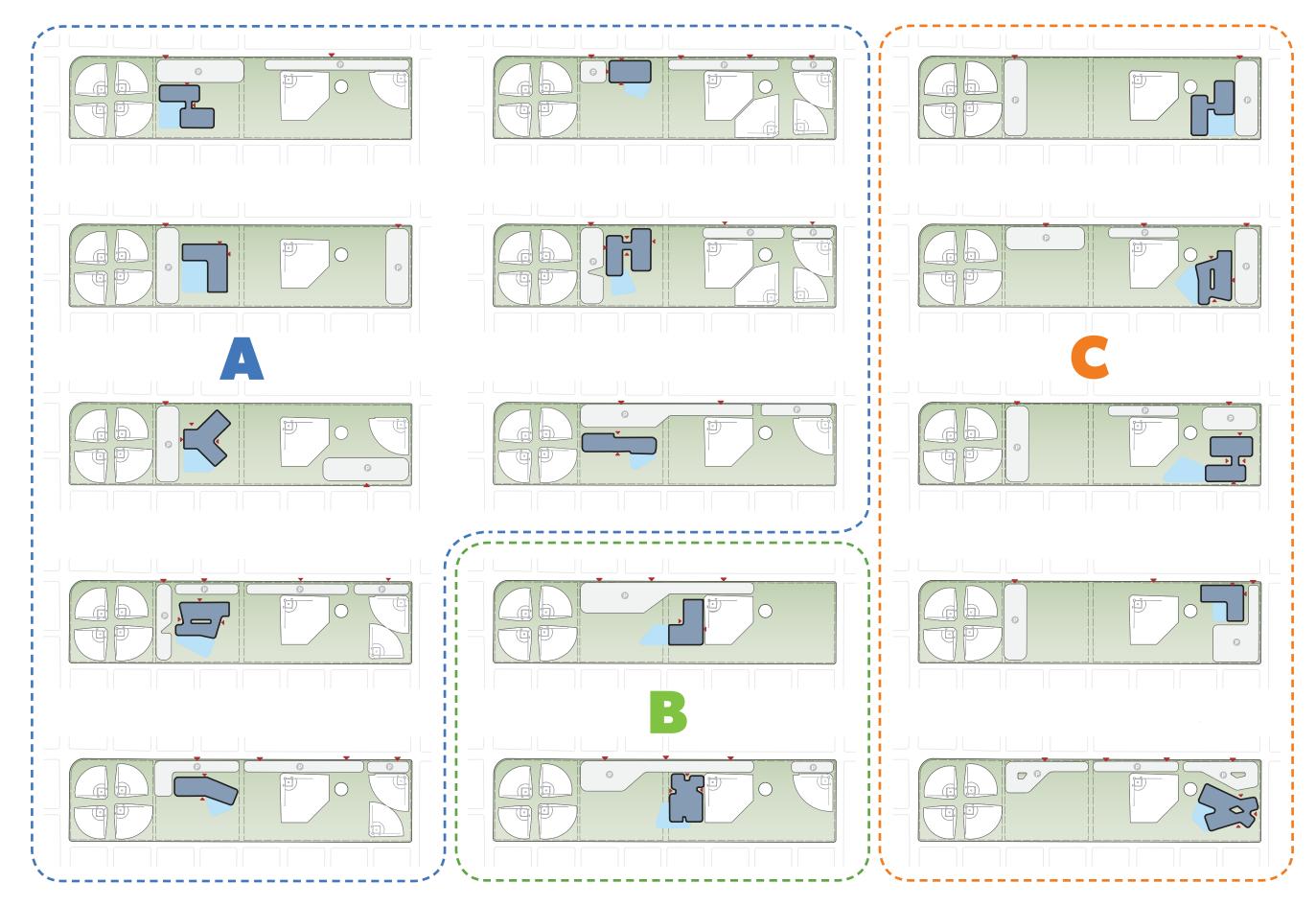


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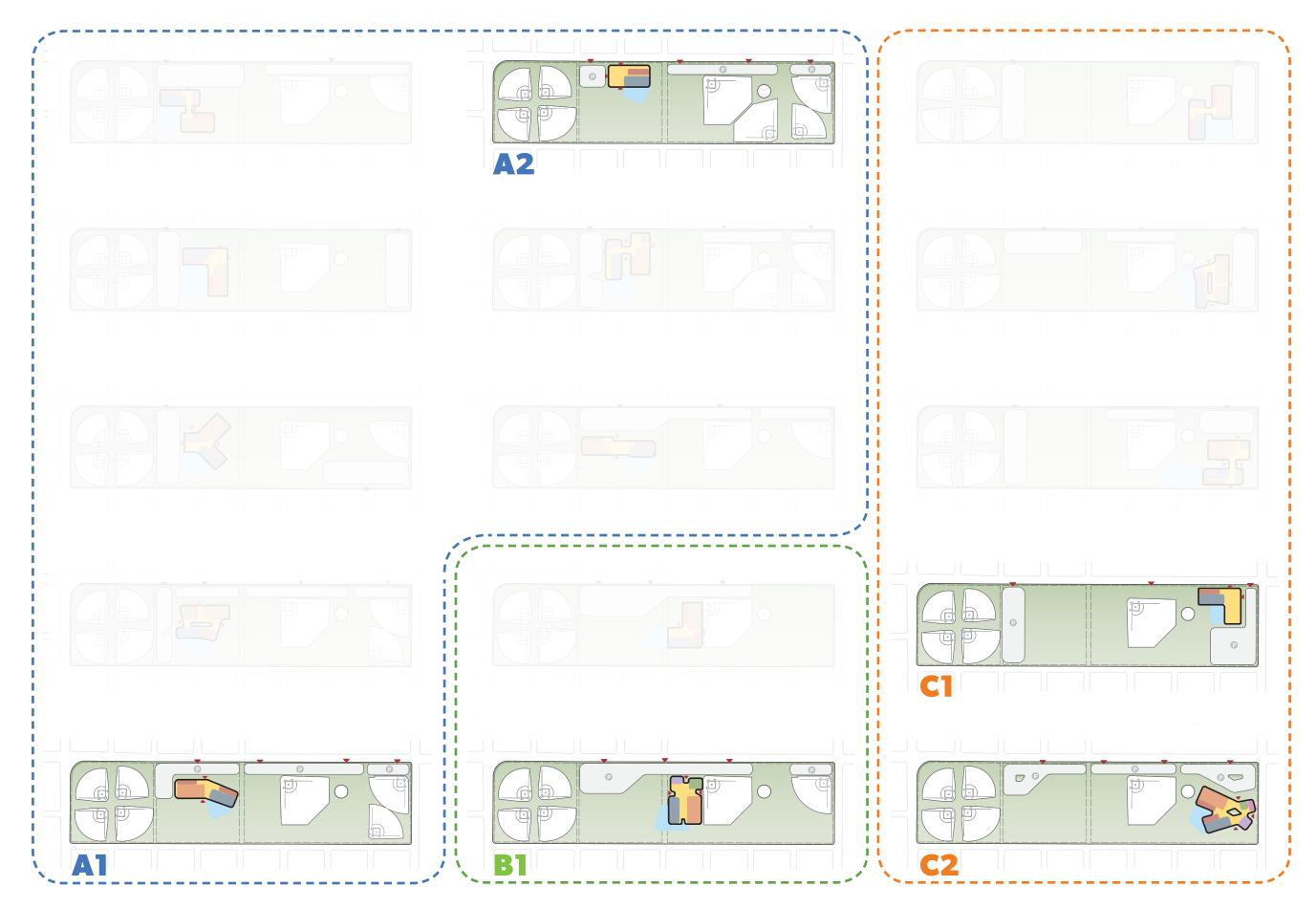
60

#### SITE DEVELOPMENT AREAS



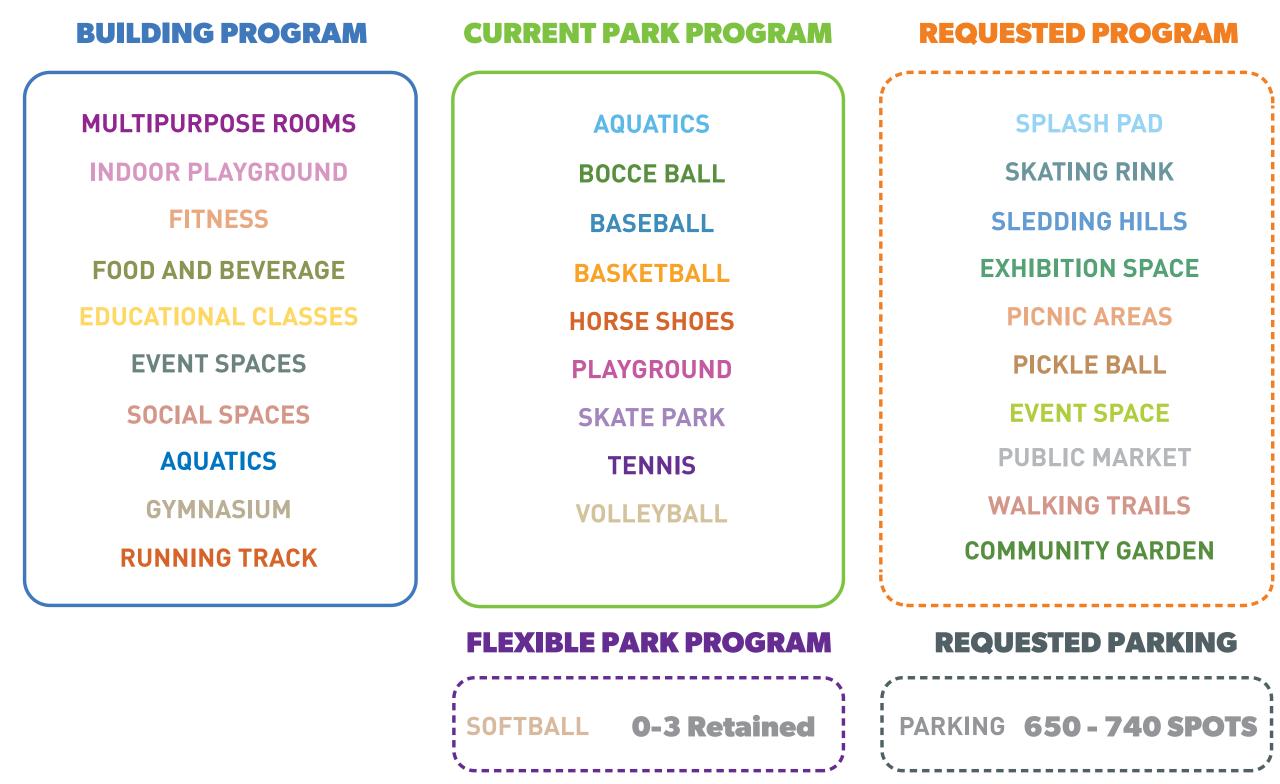


BLOOMINGTON COMMUNITY CENTER



BLOOMINGTON COMMUNITY CENTER

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#### **A1 - CENTRAL SCHEME**

**A2 - COMPACT SCHEME** 

#### **B1 - CONSOLIDATED SCHEME**

**C2 - EAST SCHEME** 

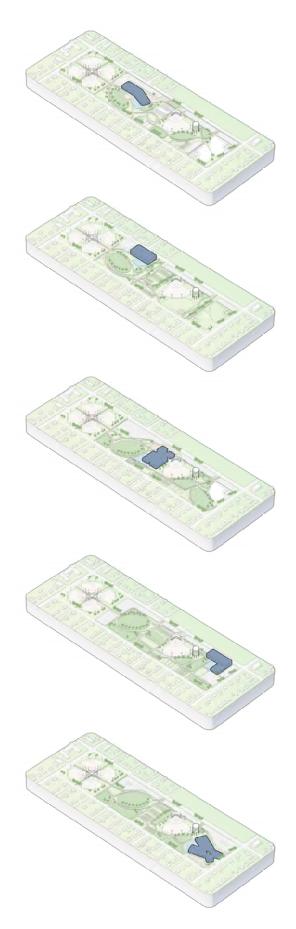
**C1- CORNER SCHEME** 

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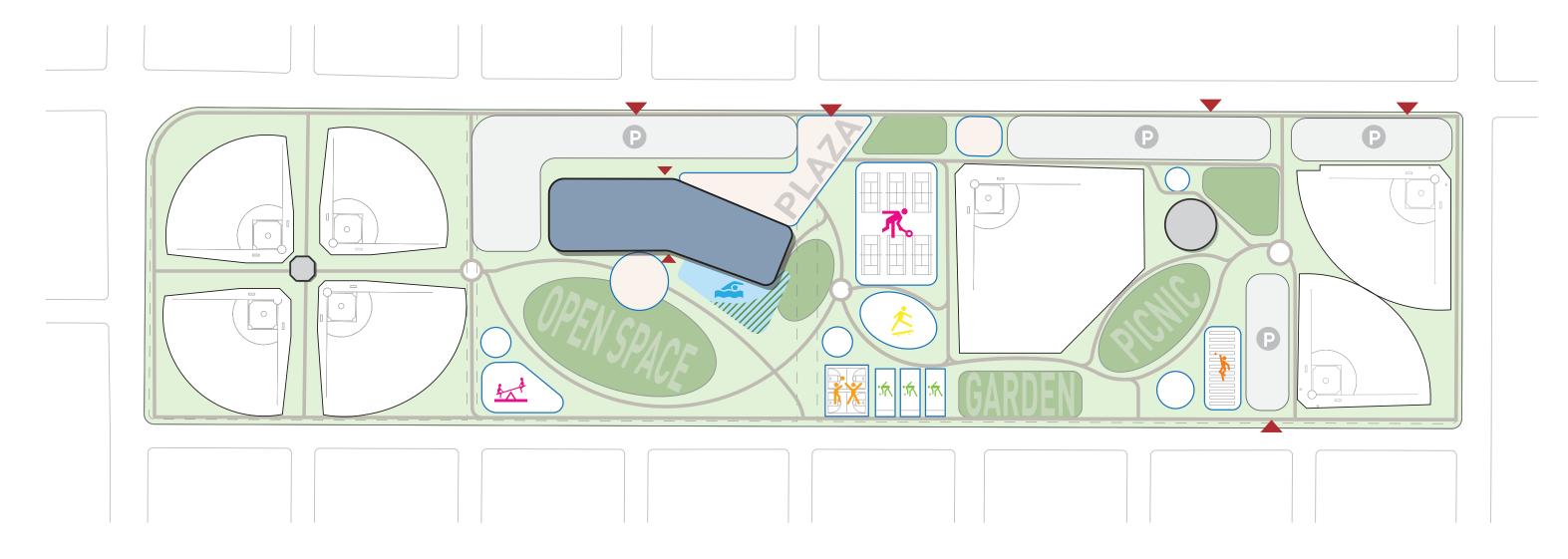






#### **FEATURES**

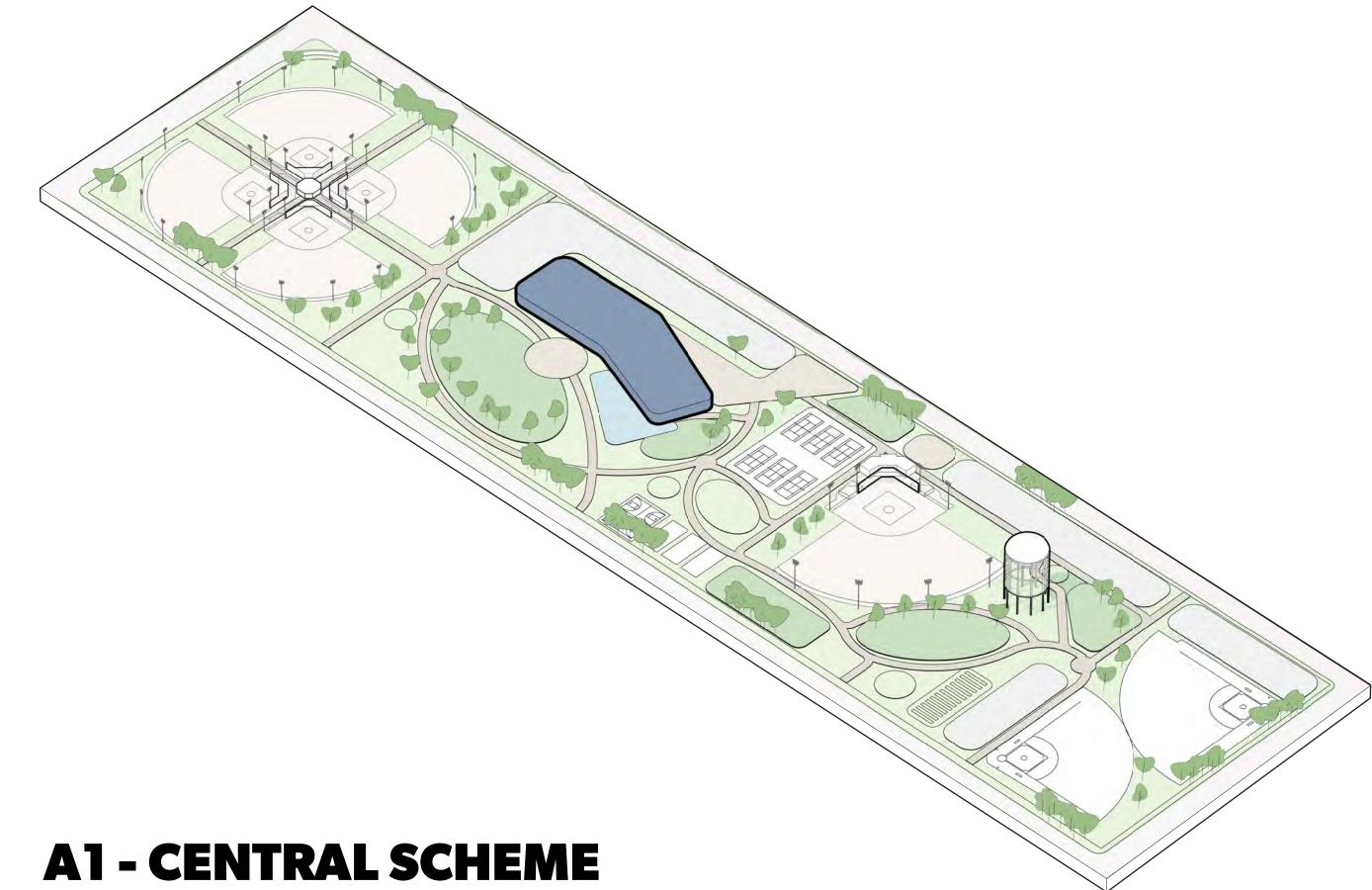
- **CENTRAL BUILDING** Centrally located community center creates synergy at the core of the park
- **CENTRAL PARK** Large centrally located open park space
- **PROXIMITY** Proximity of Community Center to the park amenities
- **CONNECT FIELDS** Strong connection to Hrbek fields
- 90<sup>TH</sup> PLAZA Plaza at 90<sup>th</sup> street for the Community Center



### **A1 - CENTRAL SCHEME**

**BLOOMINGTON COMMUNITY CENTER** 

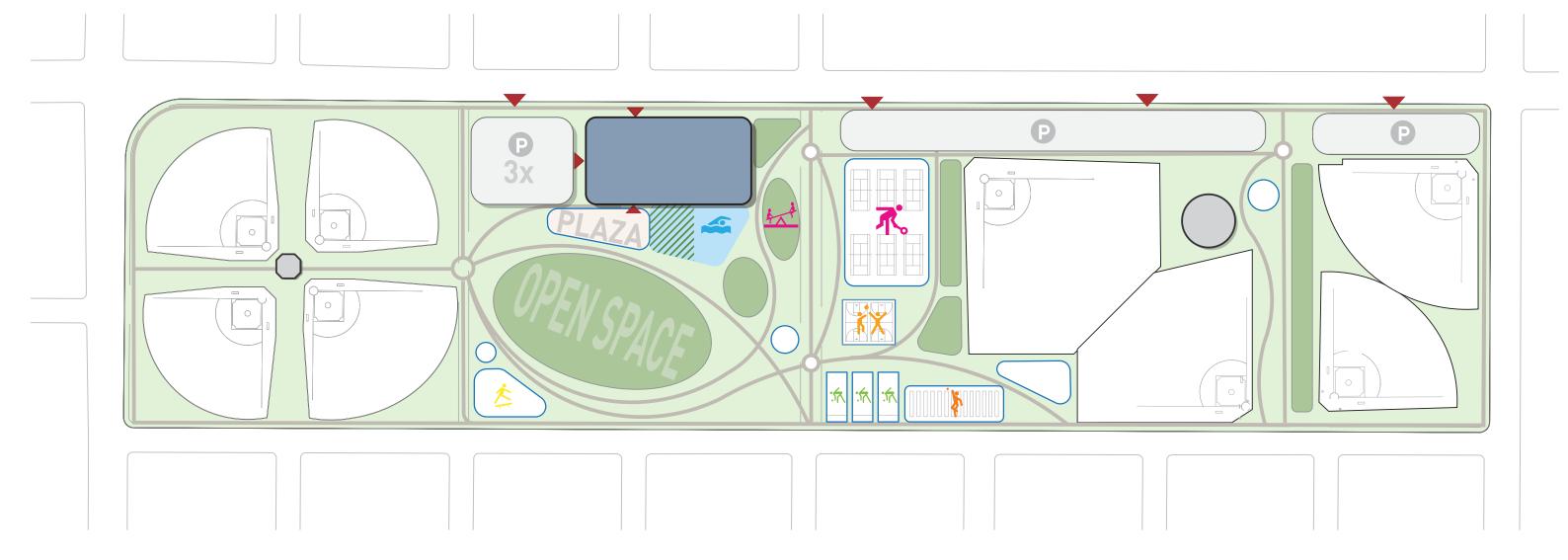
#### MSRDesign MJMA | DF/ RSPDREAMBOX 2019.11.18



BLOOMINGTON COMMUNITY CENTER

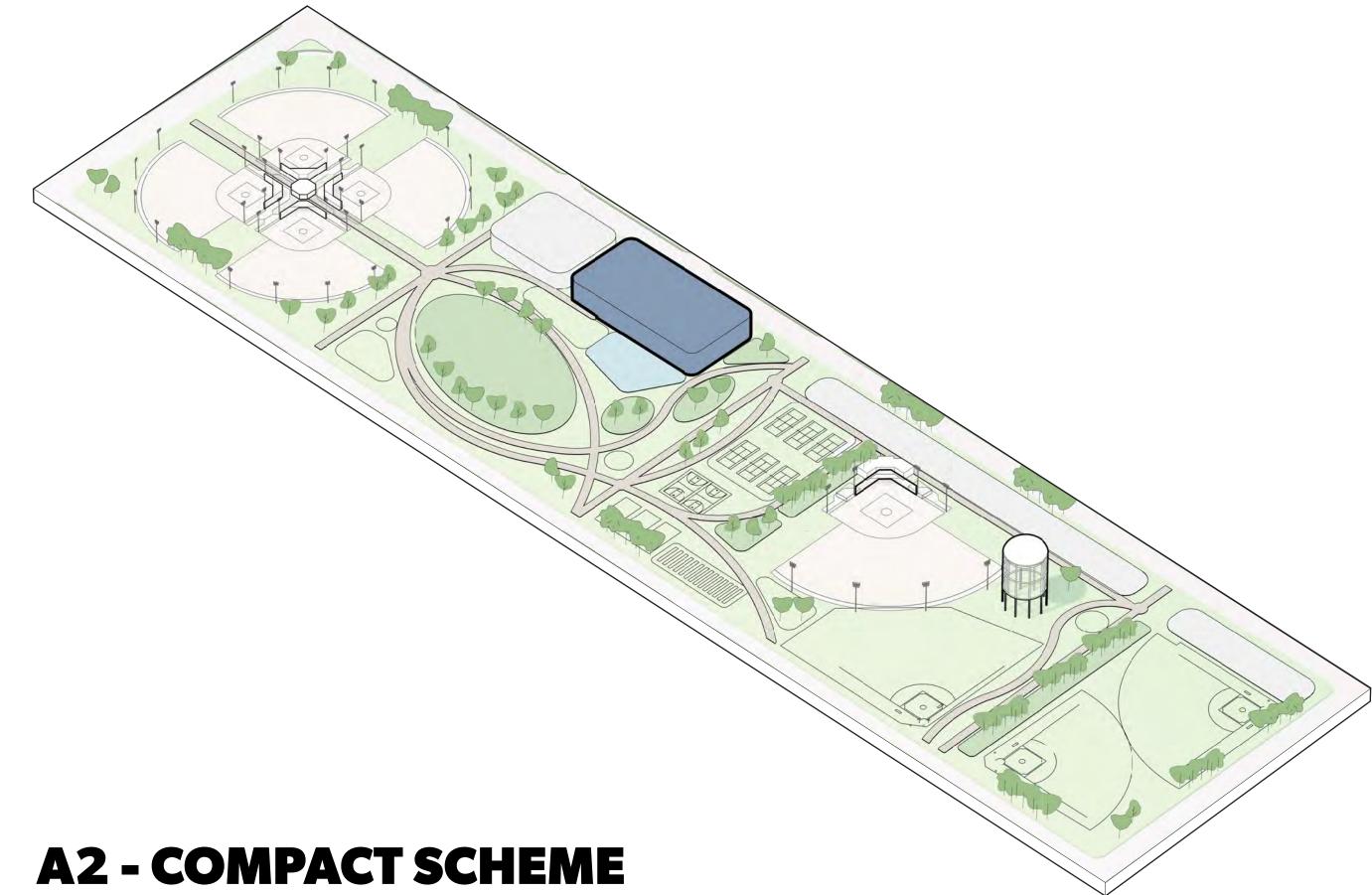
## **FEATURES**

- STRUCTURED PARKING Introduced in order to reclaim green space
- **CENTRAL BUILDING** Centrally located community center creates synergy at the core of the park
- **CENTRAL PARK** Large centrally located open park space
- **CENTRAL PROMENADE** Central promenade connects 90<sup>th</sup> street to 91<sup>st</sup> street



# **A2 - COMPACT SCHEME**

### **MSR**Design **MJMA DF/** RSPDREAMBOX 2019.11.18

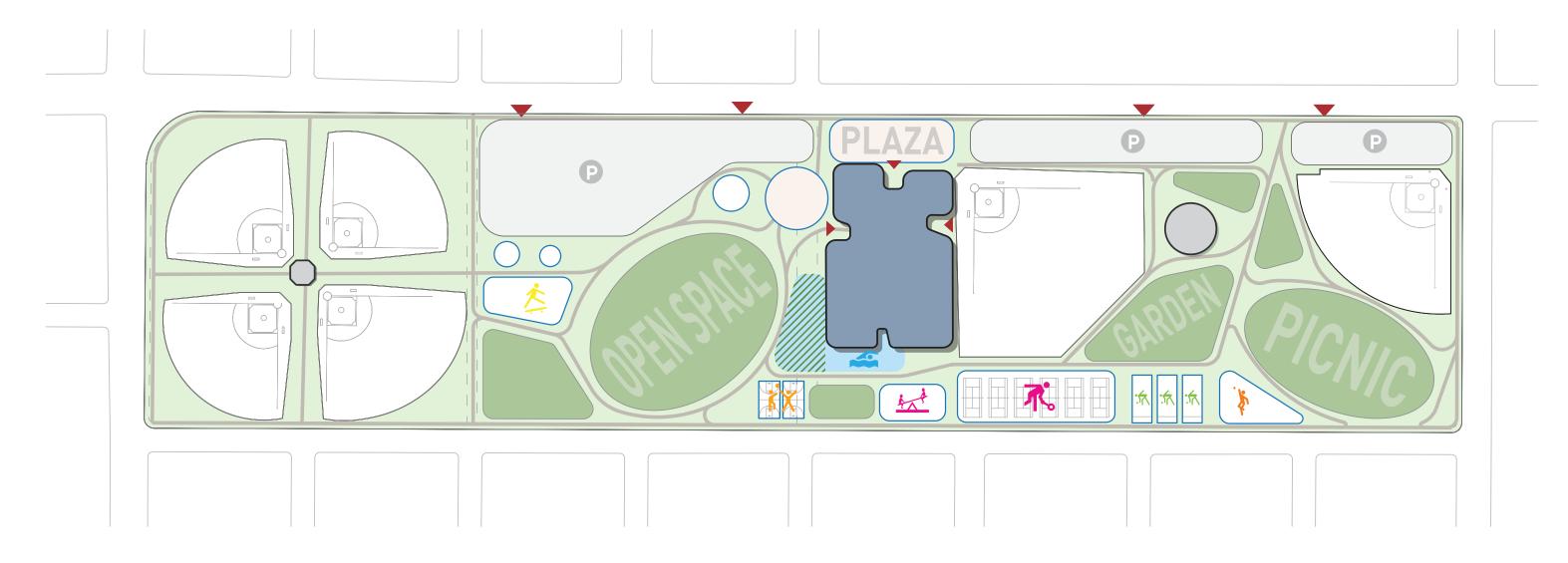


BLOOMINGTON COMMUNITY CENTER

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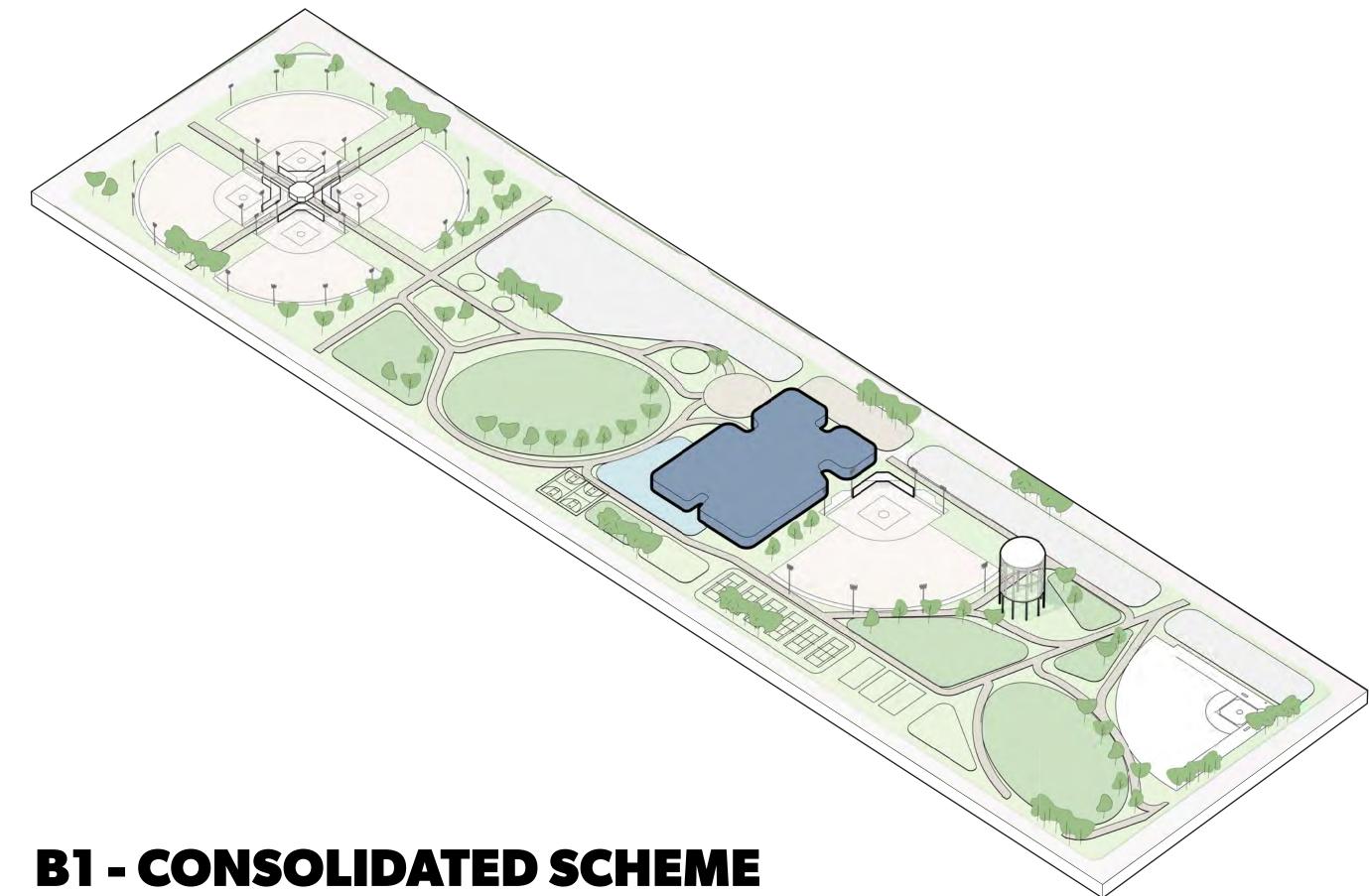
## **FEATURES**

- CONSOLIDATES Scheme aligned with Red Haddox to consolidate open space
- **CENTRAL BUILDING** Centrally located community center creates synergy at the core of the park
- **CENTRAL PARK** Large centrally located open park space
- 90<sup>TH</sup> PLAZA Plaza at 90<sup>th</sup> street for the Community Center



# **B1 - CONSOLIDATED SCHEME**

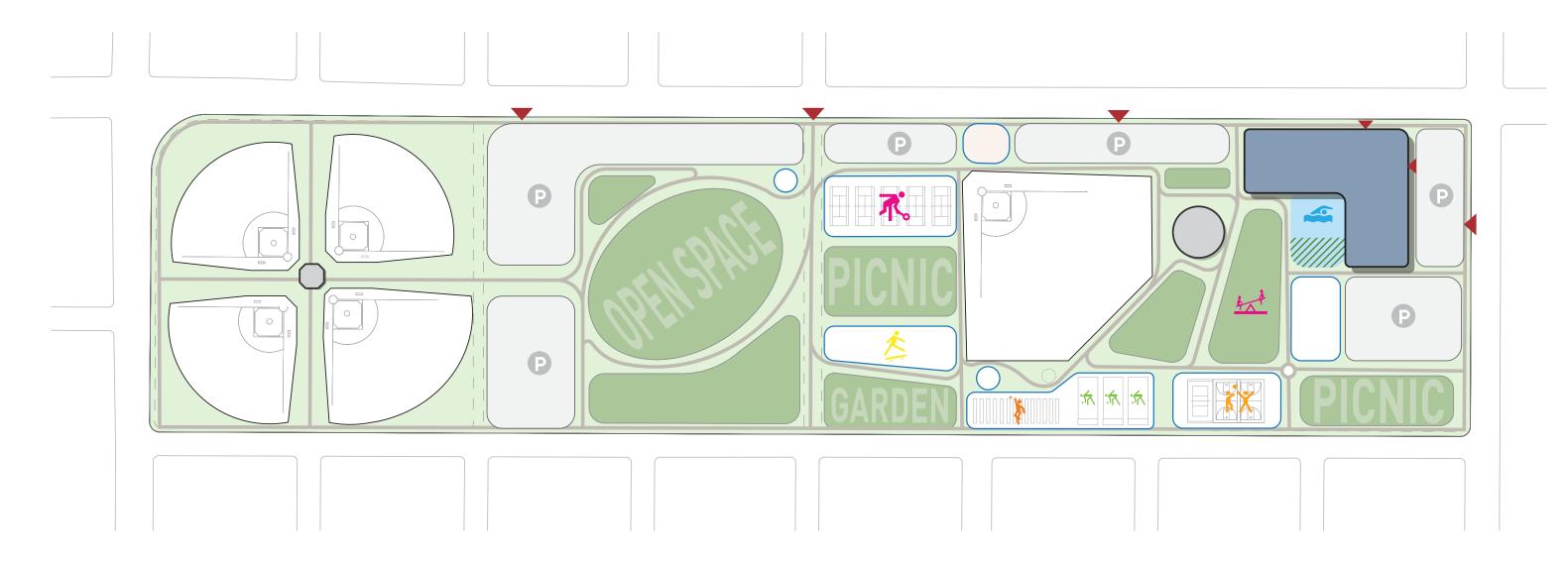
### **MSR**Design **MJMA DF/** RSPDREAMBOX 2019.11.18



BLOOMINGTON COMMUNITY CENTER

## **FEATURES**

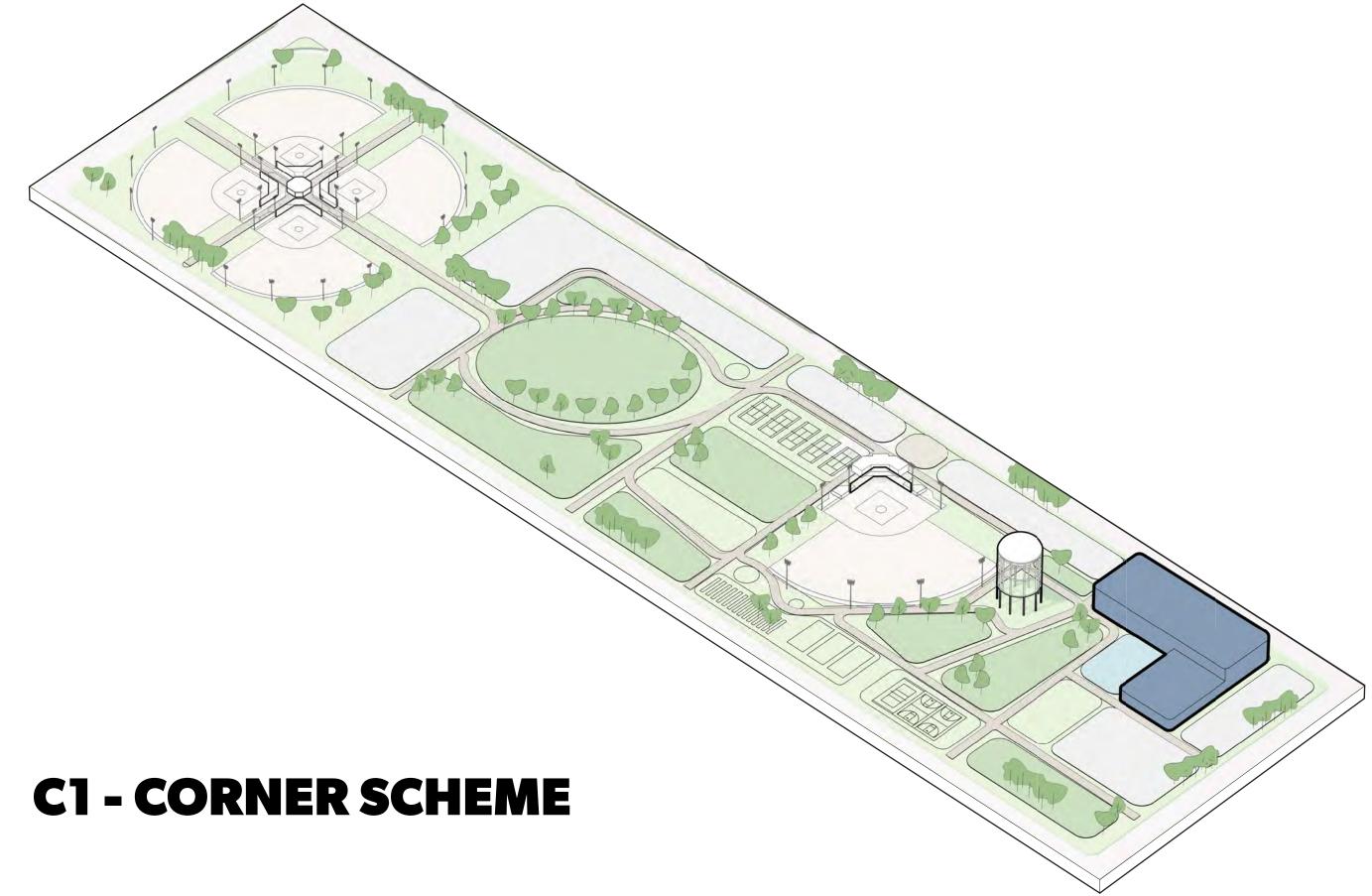
- **PRESENCE** Corner Community Center provides strong identity
- **CENTRAL PARK** Large centrally located open park space
- **CENTRAL PROMENADE** Central promenade connects 90<sup>th</sup> street to 91<sup>st</sup> street



# **C1 - CORNER SCHEME**

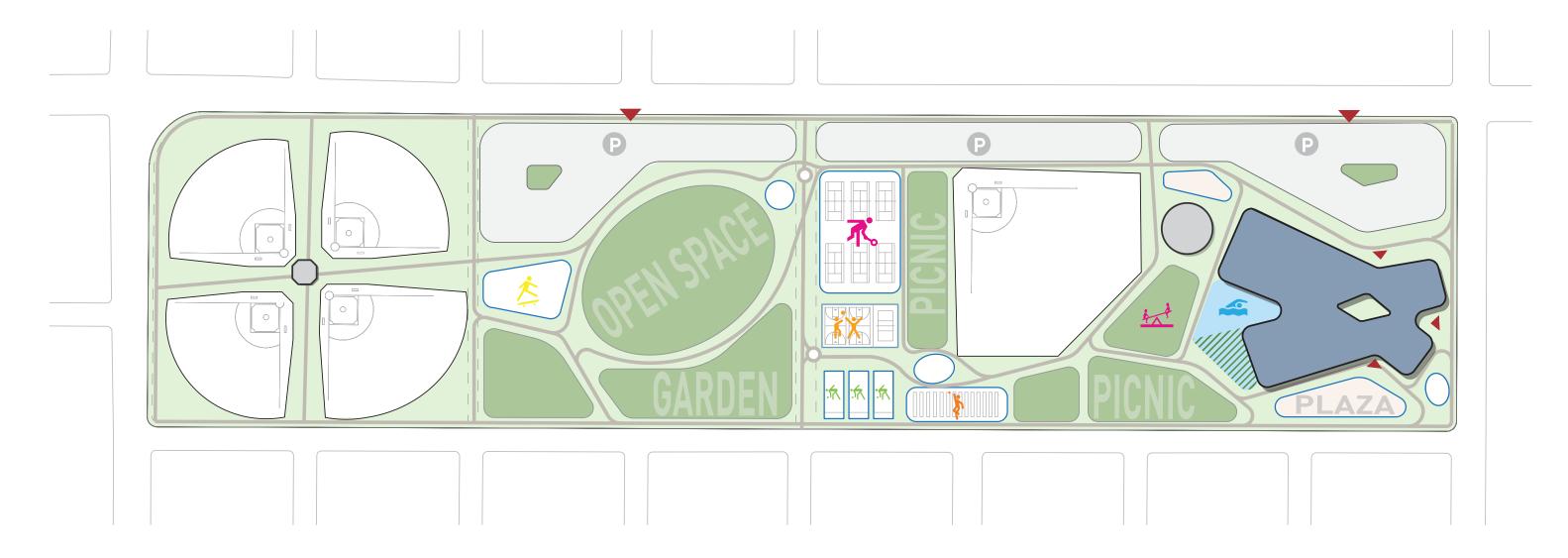
**BLOOMINGTON COMMUNITY CENTER** 

### MSRDesign MJMA | DF/ RSPDREAMBOX 2019.11.18



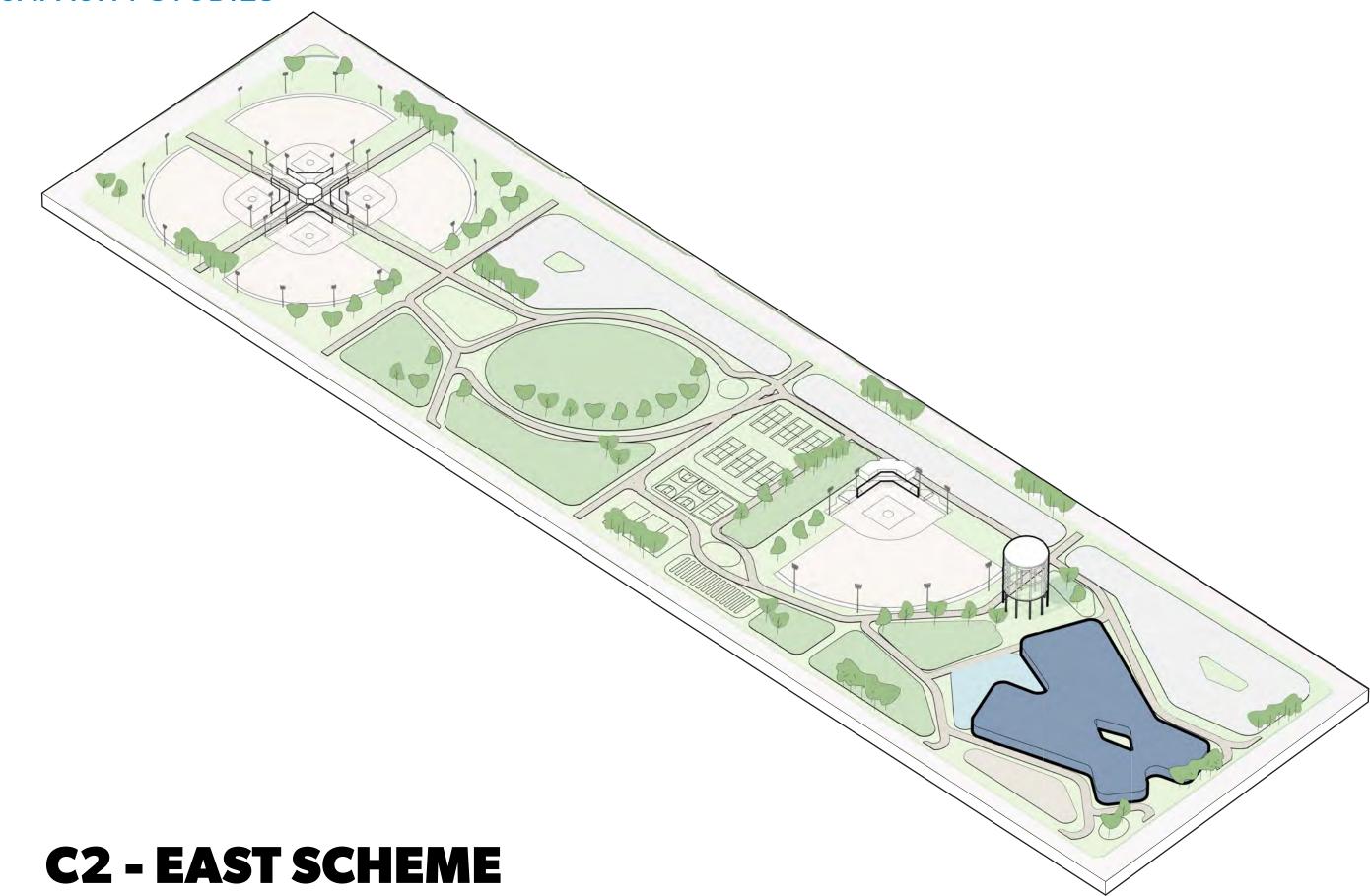
## **FEATURES**

- BUILDING ENGAGES Central building location engages park features better
- **CENTRAL PARK** Large centrally located open park space
- **CENTRAL PROMENADE** Central promenade connects 90<sup>th</sup> street to 91<sup>st</sup> street



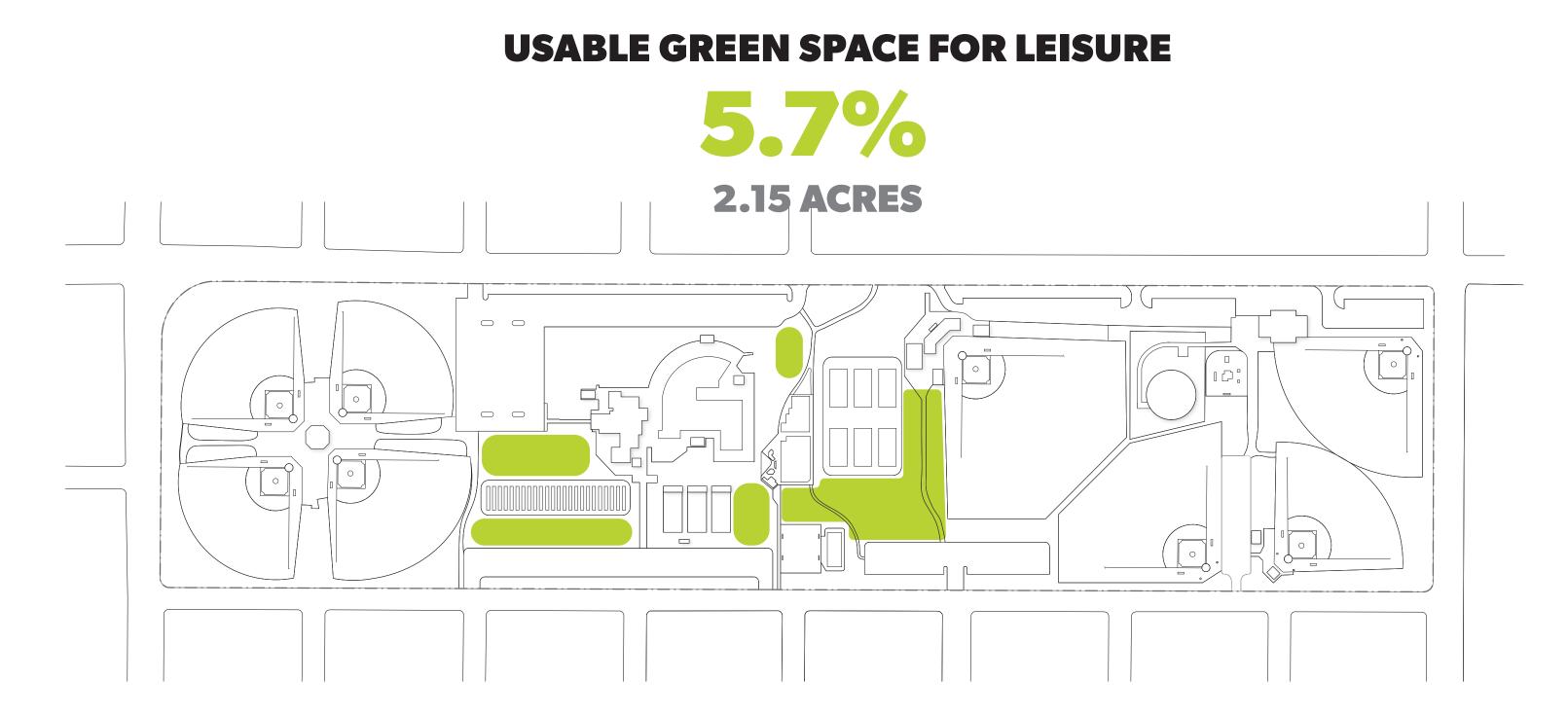
# **C2 - EAST SCHEME**

### MSRDesign MJMA | DF/ RSPDREAMBOX 2019.11.18



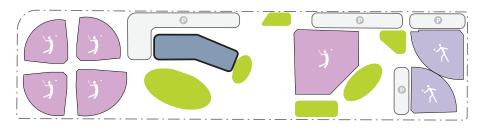
BLOOMINGTON COMMUNITY CENTER

### **GREEN SPACES**



ATTENTION: These are preliminary park capacity studies; not final designs

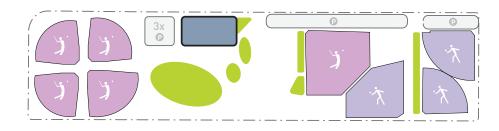
### **INCREASE IN USABLE GREEN SPACE FOR LEISURE**



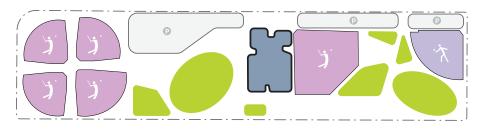


## **A2 - COMPACT SCHEME**

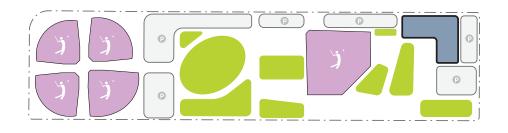
**A1 - CENTRAL SCHEME** 



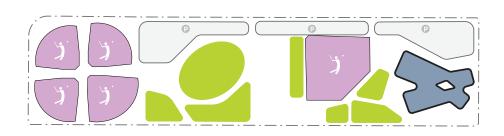
## **B1 - CONSOLIDATED SCHEME**



## **C1- CORNER SCHEME**







**BLOOMINGTON COMMUNITY CENTER** 















## Valley View Park Civic and Community Center Development

**Parking and Traffic Study Results** 

FSS

### Purpose

- 1) To evaluate existing parking demand
- 2) Estimate parking demand for the Proposed Project
- 3) Provide parking lot capacity recommendations

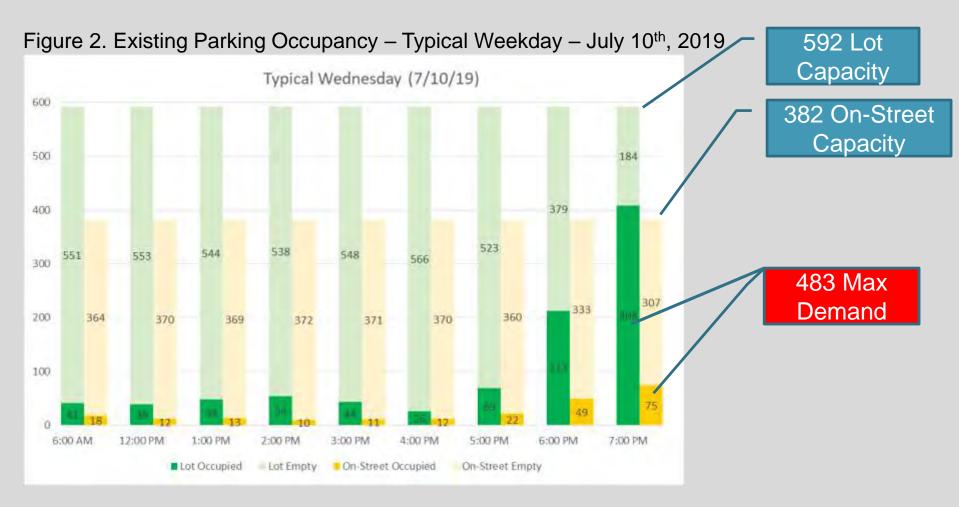
### Figure 1. Existing Park Facilities and Parking locations

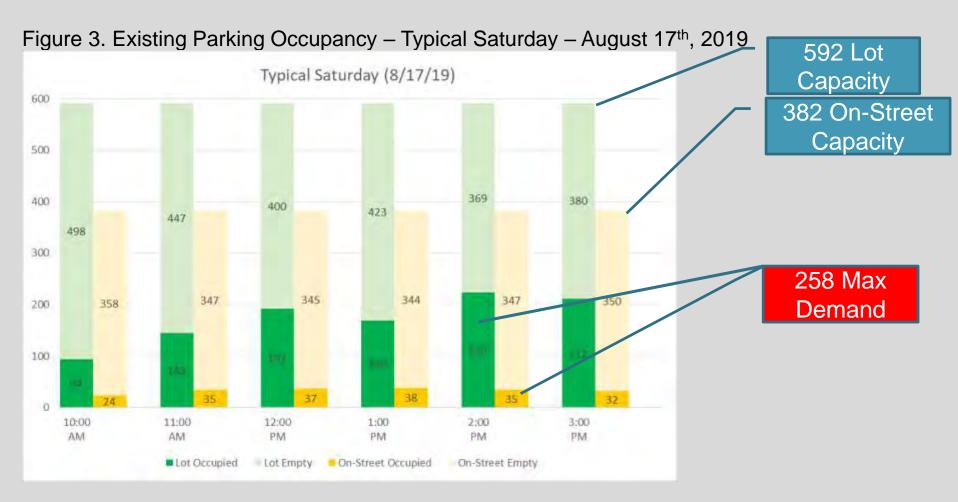


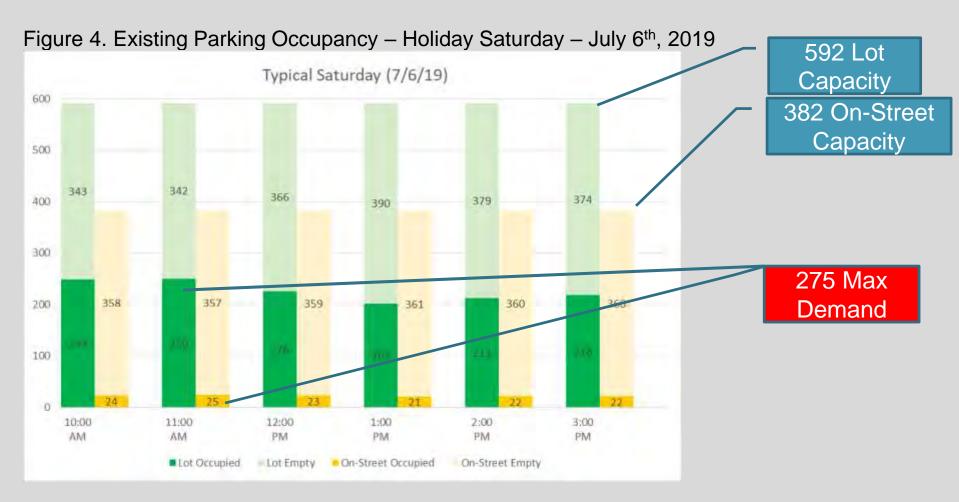
• Evaluate existing parking demand

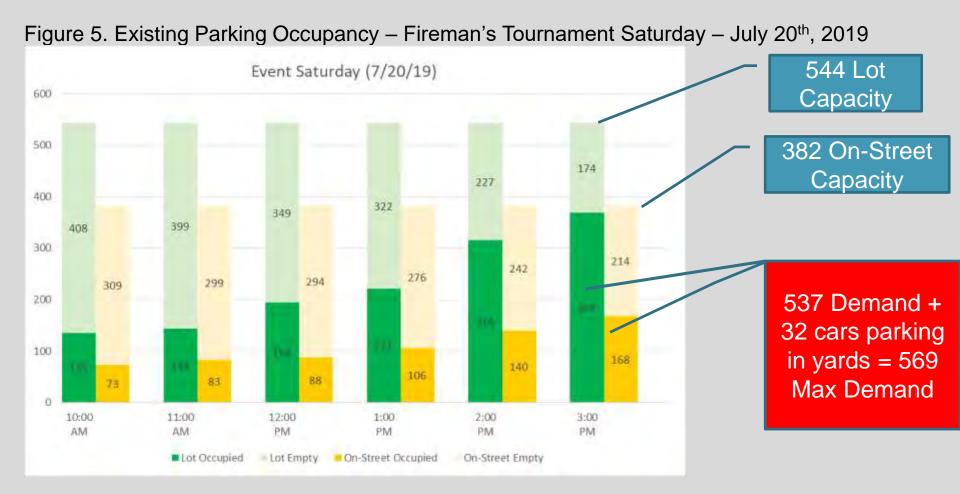
### Table 1. Parking Data Collection Summary

Scenario	Date/Time	Weather	Notes
1. Typical Weekday	Wednesday, July 10 <sup>th</sup> • 6:00 AM	Cloudy, 70 Degrees, Minor sprinkling at noon	- Activities included swimming in the afternoon and softball/baseball games in the evening.
(Regular League Usage)	• 12:00 PM to 8:00 PM	but clear after.	- Most on-street parkers appeared to be destined to a baseball or softball game.
2. Typical Saturday	Saturday, August 17 <sup>th</sup> 10:00 AM to 4:00 PM	Sunny, 80 Degrees.	- Activities included swimming and games at Red Haddox Baseball Field.
(Regular Usage)			-Most parkers on 91 <sup>st</sup> St and in Lots C and E seemed destined to Red Haddox. Parkers on other side streets seemed to be mostly residential. Lots A and B were mostly used by swimmers.
3. Holiday Saturday	<ul> <li>Saturday, July 6<sup>th</sup></li> <li>10:00 AM to 4:00 PM</li> </ul>	Mostly Sunny or Partially Cloudy, 73-83 Degrees.	- A swim meet was held in the Aquatic Center during the entire count period.
(Regular Usage, No Tournaments)			- Lots A and B were most heavily used, with Lot A being filled to capacity during peak activity. The baseball/softball fields were not used and Lots C, D, and F remained empty most of the day. On-street parking seemed to be mostly residential.
4. Event Saturday	<ul> <li>Saturday, July 20<sup>th</sup></li> <li>10:00 AM to 4:00 PM</li> </ul>	Rain from 10AM-1PM. Sunny and 75 Degrees at	<ul> <li>The softball tournament was postponed until 2PM due to rain.</li> <li>Lot D was not open for parking, it was being used for</li> </ul>
(Fireman's Softball		2PM.	tents/concessions.
Tournament)			- There was a spike in on-street parking once the games started, especially at 5 <sup>th</sup> Ave and 91 <sup>st</sup> St (residents on the corner lots parked ~32 cars parked in their yards).









- Evaluate existing parking demand (continued)
- Existing Parking Demand Summary
  - $_{\odot}\,$  The total existing parking lot (A-F) capacity is **592 spaces**.
  - On a typical weekday peak during baseball and softball games (7 PM) a maximum of 408 vehicles were parked in the surface lots and 75 vehicles were parked on-street, for a total parking demand of 483 spaces.

• Estimate Parking Demand for the Proposed Project

Figure 6. Parking Demand Analysis Zones



• Estimate Parking Demand for the Proposed Project (continued)

#### Table 2. Proposed Project Peak Parking Demand

		Size	Wee	kday	Saturday	
Land Use	Source for Parking Rate	(SF or Employee s)	Average Rate <sup>3</sup>	Peak Parking Demand	Average Rate <sup>2</sup>	Peak Parking Demand
Community & Civic Center	ITE <sup>1</sup> -Recreational Community Center (495)	140,000	2.07	290	1.90	266
Parks & Recreation Offices	ITE <sup>1</sup> - General Office (710)	20	0.84	17	NA	NA
Public Health Office and Clinic	Bloomington Public Health Office and Clinic Data <sup>2</sup>	13,878	3.68	52	NA	NA
Gross Total	156,948		359		266	
Multimodal Reduction <sup>4</sup>			-31		-27	
Net Total			328		239	

<sup>1</sup>Institute of Transportation Engineers, Parking Generation Manual, 4th Edition.

<sup>2</sup> Based on survey of the existing Bloomington Health Office and Clinic.

<sup>3</sup> Rate per 1,000 SF of GFA or per employee.

<sup>4</sup> 10% reduction applied to Community & Civic Center and Parks & Recreation Office Land Uses.

• Estimate Parking Demand for the Proposed Project (continued)

Table 9. Time of Day Farking Estimates for the Froposed Froject									
	Community & Civic Center <sup>1</sup>		Parks & Recreation Offices <sup>1</sup>	Public Health Offices & Clinic <sup>2</sup>	Total				
Hour Beginning	Weekday	Saturday	Weekday	Weekday	Weekday	Saturday			
7:00 a.m.	151	120	2		<b>15</b> 3	120			
8:00 a.m.	188	180	7	16	211	180			
9:00 a.m.	248	239	14	21	283	239			
10:00 a.m.	246	213	15	27	288	213			
11:00 a.m.	248	192	15	30	293	192			
12:00 p.m.	217	163	13	36	266	163			
1:00 p.m.	170	144	13	25	208	144			
2:00 p.m.	146	144	14	34	194	144			
3:00 p.m.	167	127	14	49	230	127			
4:00 p.m.	196	124	13	52	261	124			
5:00 p.m.	220	117	9	42	271	1 <mark>1</mark> 7			
6:00 p.m.	261	120	3		264	120			
7:00 p.m.	258	120	2		260	120			
Maximum	261	239	15	52	293 239				

### Table 3. Time of Day Parking Estimates for the Proposed Project

<sup>1</sup> Includes 10% multimodal reduction. Time of day distributions from Institute of Transportation

Engineers, Parking Generation Manual, 4th Edition, Land Use Codes 495 and 710.

<sup>2</sup> Time of day distribution based on survey of existing Bloomington Health Office and Clinic.

• Estimate Parking Demand for the Proposed Project (continued)

Figure 7. Parking Recommendations Per Zone



End of the Parking Study Questions/Comments?

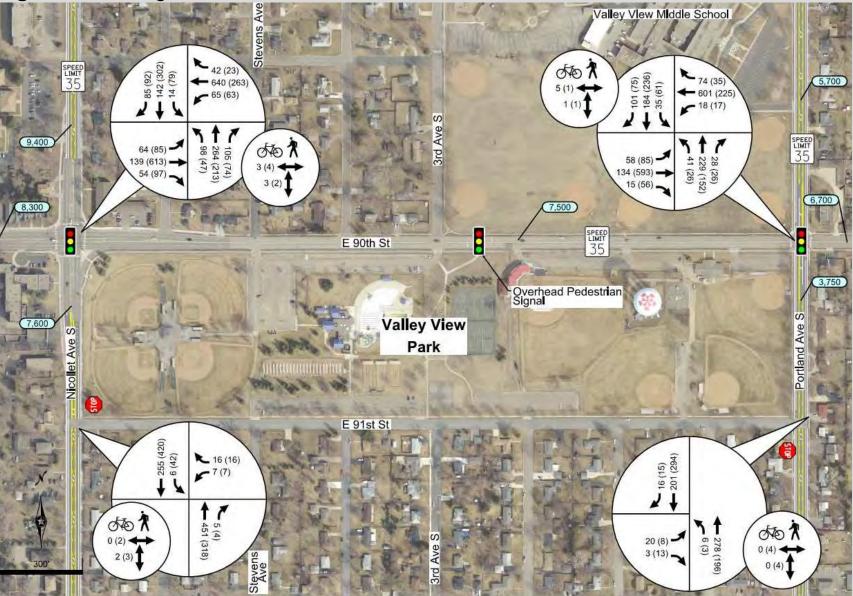
### Purpose

- 1) Evaluate existing traffic conditions around the site
- 2) Estimate new traffic generated by the Proposed Project
- 3) Evaluate future traffic conditions around the site with Proposed Project

Figure 1. Study Area

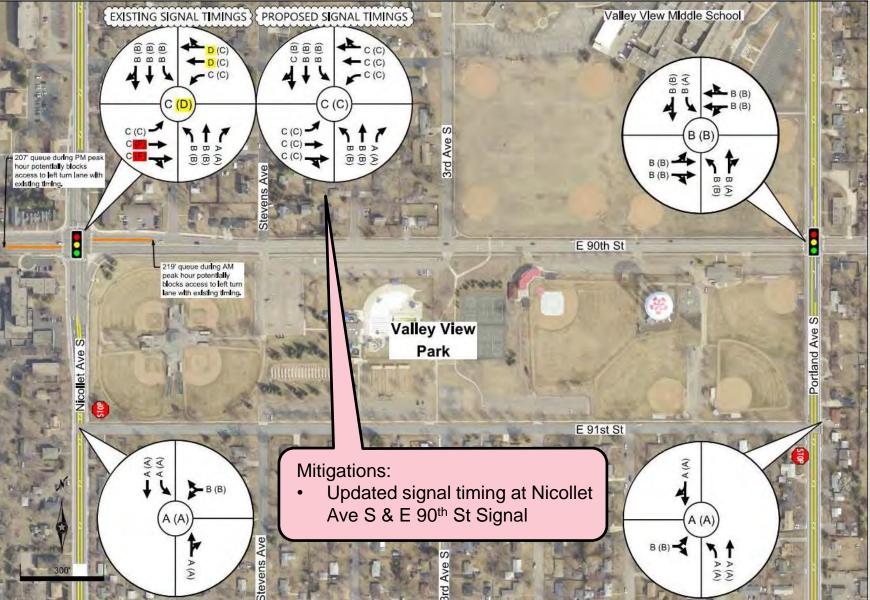


- Existing Traffic Conditions
- Figure 2. Existing Traffic Volumes



• Existing Traffic Conditions (continued)

Figure 3. Existing Traffic Operations



• Site Generated Traffic

#### Table 1. Trip Generation Summary

		Size	Da	aily	AM - Adjacent Street				PM - Adjacent Street			
	ITE	(SF or				Trips	Trips	Total		Trips	Trips	Total
Land Use	Code	Employees	Rate	Trips	Rate	In	Out	Trips	Rate	In	Out	Trips
<b>Recreation Center</b>	495	140,000	28.82	4,035	1.76	162	84	246	2.31	152	171	323
General Office	710	20	3.28	66	0.37	6	1	7	0.40	2	6	8
Gross Total			4,101		168	85	253		154	177	331	
10% Reduction				-404		-15	-8	-23		-15	-17	-32
Net Total			3,697		153	77	230		139	160	299	

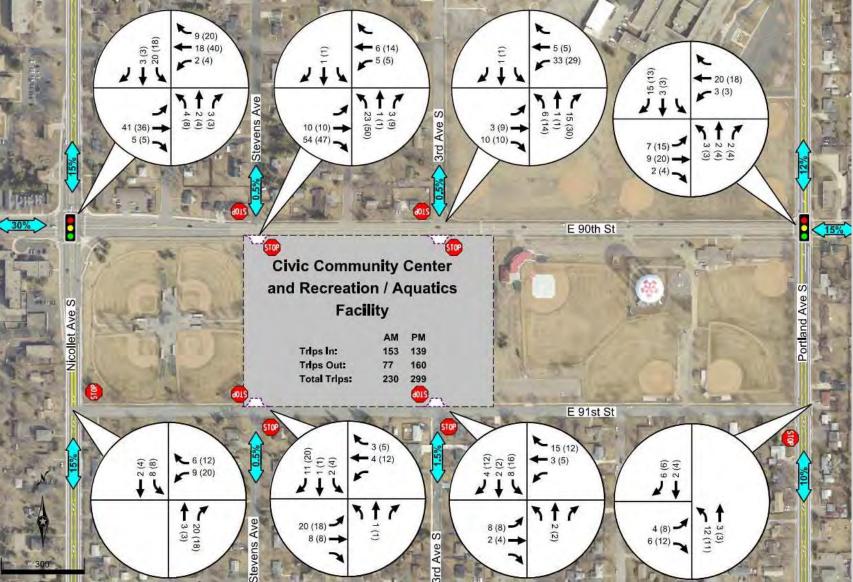
\*Based on ITE's Trip Generation Manual, 10th Ed

\*10% reduction applied to the recreation center trips to account for non-motorized travel and transit use.

Trip Context: 1 single family home = 10 trips/day 150,000 SF Big Box Store = 7,000 trips/day

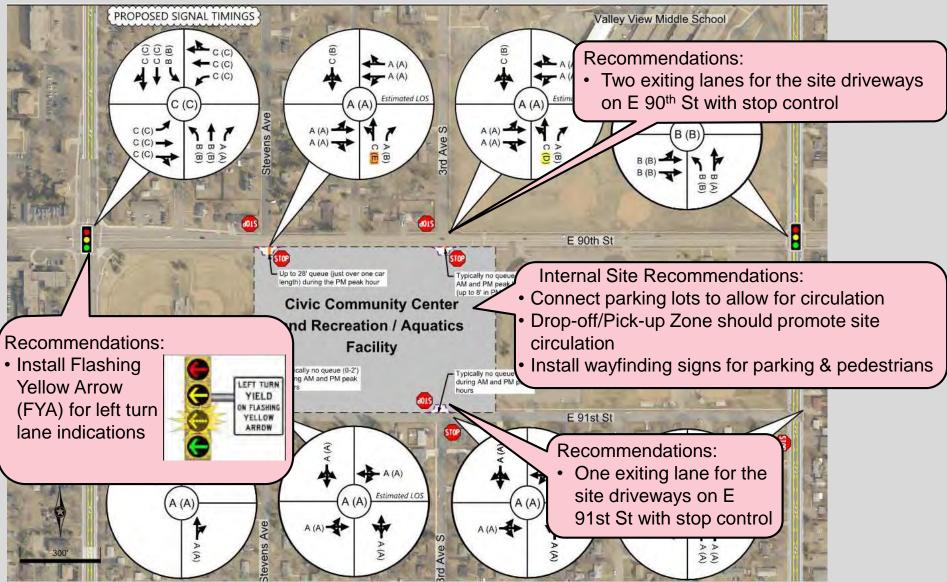
• Site Generated Traffic

Figure 4. Site Generated Trips and Distribution



Site Generated Traffic

### Figure 5. Build Traffic Operations



Thank you, the End

Questions/Comments?

# **New Community Center Engagement Collateral**

### PROJECT WEB PAGE

#### BLOOMINGTON MN.gov

BLOOMINGTON MINNESOTA

CITY OF

Q A TO Z INDEX CALENDAR MEETINGS NEWS CONTACT

#### **New Community Center Options**

#### **Online Survey**

The online survey is now closed. We are grateful to everyone who provided feedback via the questionnaire over the past few weeks. If you would still like to provide us with input, please feel free to do so via the Online Feedback Form and/or dedicated email and phone options.

#### **Community Input and Engagement** Opportunities

- · Community Input Session at Civic Plaza -11/14/19 @ 6:30 p.m.
- Will include results of resident engagement initiative and preliminary park plans and possible building locations
- City Council Meeting at Civic Plaza 11/18/19 @
  7 p.m.
- SUBMIT

"Enter your email:

**Contact Information** 

952 563 8896

E-Subscribe

**Community Center Project** 

Get email updates about the community center project.

@BloomingtonMN.gov=

Send Feedback We want to hear from you! Use our feedback form to tell us what you want in a new community center.



munity Center task force

#### Overview

On this page Overview

Send feedback

• <u>EAQ</u>

In 2015, a resident task force recommended the City Council evaluate options for construction of a new community center to better serve the needs of all Bloomington residents. Several locations were considered, including the residents. Several locations were considered, including the existing Credukde Community Center site and Bioomington Click Plaza. The Cly Council evaluated all options and, in April 2019, directed City stafft or develop a plan for a new facility at the Valley View complex on 90th Street between Portland and Nicollet Avenues South—the current site of Bioomington Family Aquatics Center.



#### **Valley View Site**

The land at Valley View Park is the preferred location because it is large enough to accommodate the community center being envisioned and it is already city owned. Building a new community center there would allow the City to maximize the other recreation facilities within the park to maintake and other technication that and a strain the pair. And to address the aging pool facility, which is scheduled for a multimillion dollar replacement in 2026. The new community center would have a possible indoor-outdoor aquatic space that could be used year-round.



#### **Facility Amenities and Community Input**

The community center is in the beginning stages of a multistep process that includes planning, design, contract

#### **FLYERS**

#### We want to hear from you!



This new amenity is in the beginning stages We'd like to hear from you.

#### Ways to engage

Visit our project page online or scan the OR code below to explore opportunities to engage and provide input.

BLOOMINGTON BLM.MN/COMMUNITYCENTER

#### **EXPLORING NEW COMMUNITY CENTER OPTIONS**

-



welcome! bienvenidos! oo dhowow

The City of Bioomington is planning a new community and park to tertion serve you and we invole you to partic in this idea generating phase of work. We want to unde the places, programs and activities you and your comm would enjoy.

HOW YOU CAN HELP: Please for us know your thoughts today, toake us a commen mark your taxette activity, talk with city staf and/or design team members today, and/or fill out a survey online at: Mm.mm/CCIPypl

#### PROJECT FACTS

- PROJECT FACTS: Wa are at the first phase of our work: gathering-information and isteas from you. The design has not been created: The design decisions will be impacted by your input. The gradient site for the centries is validly your parts The community center will initiate program and increation opportunities to serve our whole stormmunity center will initiate the stormmunity center will initiate program.



## Join Us for a Community Input Session







cut an IsoomNecton More community center information is available online at bim.mn/communitycenter. Pares ave Ricerator Submit comments via email communitycenter@bbcomingtormm.gov or phone 952-563-8896.





### **New Community Center Engagement Collateral**

#### **POSTCARDS & COMMENT CARDS**





### **New Community Center Engagement Collateral**







WE WANT YOUR FEEDBACK Drop in to voice your questions, concerns and ideas about the proposed new community center.

More information is available online at blm.mn/communitycenter

Thursday, October 3, 2019 9—11 a.m.

Submit comments via email to communitycenter@bloomingtonmn.gov or call us at 952-563-8896







# **New Community Center Engagement Collateral**





# We want to hear from you!

#### Imagine the possibilities of a new community center

Plans are underway for a new community center designed to better serve all of Bloomington. The preferred site for a new facility is Valley View Park at 90th Street between Nicollet and Portland avenues.

#### We're listening

This new amenity is in the beginning stages. We'd like to hear from you. The City of Bloomington is gathering input online of the and in person at community input sessions over the next few weeks.

### $\overline{\mathcal{O}}$ Ways to engage

For additional engagement and input opportunities, and to sign up for email updates about the project, visit us online at blm.mn/communitycenter.

Scan the QR code to go directly to our site on your mobile device.

You can also connect via email at **communitycenter**@ bloomingtonmn.gov or leave a message on our dedicated phone line 952-563-8896



**BLM.MN/COMMUNITYCENTER** 

Attend a community input session

or interact with City staff:

Creekside Community Center, 9801 Penn Avenue South

**October 8, 5–7 p.m.** Valley View Park, 9000 Portland Avenue South

October 12, 9–11 a.m.

Bloomington Civic Plaza 1800 W. Old Shakopee Road

Bloomington Civic Plaza 1800 W. Old Shakopee Road

November 18, 7 p.m.

City Council Meeting, Civic Plaza 1800 West Old Shakopee Road

October 22, 9:15-10:45 a.m. Pond Family Center 9600 3rd Avenue South November 14, 6:30–8:30 p.m.

October 3, 9–11 a.m.



insformation are in the beginning stages of a multistep process includes community engagement planning, design, contract arding, funding, and ultimately construction. It is estimated that includes co that it could take up to four years from the time it is approved before the community center is completed and begins operation A design team has been selected, including Architects, Landsc A design team has been selected, including Architects, Lundica, Architects & cravital pacennaking specification. They will engage the community, the CBI Council, ensistents, staff and other stateholders to develop the design of the proposed locifity. A startly of opportunities for residents and stakholders will be previded to give locidack on the project with open houses, focus groups and more in the coming months, Pussible houses, focus amendies being explored may include:

BLOOMINGTON

- · indoor & outdoor agu
- a gymnasium; a walking track; fitness with studio: flexible multi-purp
- a drop off child care indoor playground
- feed service
- and, a host of or

It will be a place for the community to gather and to socialize. It will be a place that cultivates creativity, health and well-being, inclusivity, and accessibility for all ages and will improve the guality of life for the community.

Tell us what's important to you.





# **New Community Center Engagement Collateral**

# SIGNS











# New Community Center Outreach and Communication Initiatives

ACTIVITY	AUDIENCE	DELIVERABLES/TOOLS	DATE	PURPOSE	ENGAGEMENT METRICS
Postal Mail	Valley View Residents	Letter	April 2019	Informational	574 households
Postal Mail	Valley View Residents	Postcard	September 2019	Event Notice	954 households
Social Media	Facebook	<b>Post</b> – Letter from City Manager	April 12, 2019	Informational	5866 People Reached ** 1,072 Engagements 78 Reactions, Comments, Shares 994 Total Post Clicks
Social Media	Facebook	Live Town Hall - Slide on proposed Community Center, Q&A	April 2019	Informational	33 viewers
Social Media	Facebook	Post - Recorded Town Hall	April 2019	Informational	4,655 People Reached ** 746 Engagements 113 Reactions, Comments, Shares 633 Total Post Clicks Video Viewed Total of 3,858 Minutes
Social Media	Facebook	<b>Post</b> - Stay informed about plans for a new community center	August 8, 2019	Awareness	6,492 People Reached ** 2,381 Engagements 577 Reactions, Comments, Shares 1,804 Total Post Clicks
Social Media	Facebook	<b>Post</b> – Video from Parks and Rec Director	August 27, 2019	Awareness	9247 People Reached ** 2995 Engagements 393 Reactions, Comments, Shares 2,602 Total Post Clicks Video Viewed Total of 5,665 Minutes
Social Media	Facebook	<b>Post</b> – Take the online survey	October 4, 2019	Input	7,367 People Reached ** 971 Engagements 188 Reactions, Comments, Shares 783 Total Post Clicks
Social Media	Facebook	<b>Post</b> – Community Input Session at Bloomington Civic Plaza	October 11, 2019	Awareness	1,825 People Reached**294 Engagements23 Likes, Comments, Shares271 Total Post Clicks
Social Media	Facebook	<b>Post</b> – There's still time to take the survey	October 22, 2019	Input	2,079 People Reached ** 101 Engagements 6 Likes, Comments, Shares 95 Total Post Clicks
Social Media	Facebook	Event – Creekside Input Session	October 3, 2019	Awareness & Input	420 People Reached**164 Event Page Views23 People Responded

						**
Social Media	Facebook	Event – Valley View Park Input Session	October 8, 2019	Awareness & Input	854 People Reached 68 Event Page Views 25 People Responded	* *
Social Media	Facebook	<b>Event</b> – Civic Plaza/Farmers Market Input Session	October 12, 2019	Awareness & Input	1,900 People Reached 499 Event Page Views 29 People Responded	**
Social Media	Facebook	Event - Pond Family Center Input Session	October 22, 2019	Awareness & Input	1,600 People Reached 463 Event Page Views 28 People Responded	**
Social Media	Facebook	Event – Civic Plaza Input Session	November 14, 2019	Awareness & Input	111 People Reached 149 Event Page Views 7 People Responded	**
Social Media	Nextdoor.com	<b>Post</b> - Community Center Update from City Manager	April 12, 2019	Awareness	19,123 Registered Residents 6,127 impressions 33 Comments, 20 Reactions	**
Social Media	Nextdoor.com	<b>Post</b> - Community Center Questions, P&R Director's Video	August 27, 2019	Awareness	19,123 Residents Registered 4,426 impressions 5 Replies, 9 Reactions	**
Social Media	Nextdoor.com	Post – Community Center Online Survey	October 4, 2019	Awareness & Input	19,123 Residents Registered 5,831 Impressions 81 Comments, 4 Reactions	**
Social Media	Nextdoor.com	Post – More Community Input Sessions Scheduled	October 8, 2019	Awareness & Input	19,123 Residents Registered 3,777 Impressions 15 Comments, 1 Reaction	**
Email	Community Center Update from City Manager	E-subscribe GovDelivery	April 12, 2019	Informational	484 Recipients 273 Opens 15 Link Clicks	**
Email	A New Community Center for All of Bloomington	E-subscribe GovDelivery	August 8, 2019	Awareness	562 Recipients 377 Opens 12 Link Clicks	**
Email	Video Addresses Community Center Questions	E-subscribe GovDelivery	August 27, 2019	Awareness	1,919 Recipients 1,201 Opens 269 Link Clicks	**
Email	We Want Your Feedback on New Community Center	E-subscribe GovDelivery	September 30, 2019	Awareness & Input	3,047 Recipients 1,858 Opens 71 Link Clicks	**
Email	Online Survey: New Community Center	E-subscribe GovDelivery	October 4, 2019	Input	3,532 Recipients 2,012 Opens 403 Link Clicks	**
Email	More Community Input Sessions Scheduled	E-subscribe GovDelivery	October 8, 2019	Awareness & Input	3,530 Recipients 1,606 Opens 61 Link Clicks	**
Email	City of Bloomington staff who are city residents	Outlook Internal email	October 11, 2019	Awareness & Input	197 residents	
Email	Peach Jar – School District Parents	Flyer "We want to hear from you"	October 8, 2019	Awareness & Input	8,782 Emails Sent 3,700 Emails Opened (42.1%) 66 Link Clicks	**
Email	Community Center Update: Survey Closing Soon-	E-subscribe GovDelivery	October 22, 2019	Awareness & Input	3,541 Recipients 1,581 Opens 250 Link Clicks	**

Media – Print	Front Page: "Exploring new Community Center options"	Briefing Article	September 2019	Awareness	38000 households 5000 businesses
Media – Print	Page 3: "How Valley View Became Preferred Site"	Briefing Article	October 2019	Awareness	38000 households 5000 businesses
Media – Print	Architects and public engagement/outreach	Briefing Article	November 2019	Awareness	38000 households 5000 businesses
Media - TV	Cable TV Replay	Town Hall Recording	April 2019	Informational	n/a
Input Gathering	Resident opinions, Webpage	Dedicated email inbox communitycenter@bloomingtonmn.gov	July 2019	Input	44 emails received
Input Gathering	Resident opinion, Webpage	Online feedback form	August 23, 2019	Input	209 submissions
Input Gathering	Resident opinions	Dedicated phone message line	July 2019	Input	19 voicemail messages received
Input Gathering	Amenities and Sentiments on Community Center	Online Survey	October 4-25, 2019	Input	2074 responses
Input Gathering	Flyer "We want to hear from you"	Posted on bulletin boards in City	Early October	Awareness & Input	18 businesses' customers/guests
Event	Town Hall Live @ Civic Plaza	Slide on proposed Community Center, Q&A	April 2019	Informational	106 attendees
Event	National Night Out @ Various	Flyer included in block captain bags	August 6, 2019	Informational	300 flyers distributed
Event	Lyn Villa Apartments	Information sharing, comment cards	August 27, 2019	Input/ Engagement	30 participants
Event	Creekside Community Center users	Information sharing, comment cards, display boards, survey link	October 3, 2019	Input/ Engagement	150 attendees *
Event	Valley View neighborhood & park users @ Valley View Picnic Shelter	Information sharing, comment cards, display boards, survey link	October 8, 2019	Input/ Engagement	200 attendees * 68 comment cards completed
Event	Jefferson football game @ Bloomington Stadium	Survey link postcards	October 11, 2019	Input	150 postcards distributed *
Event	Farmers Market Visitors @ Civic Plaza	Information sharing, comment cards, display boards, survey link	October 12, 2019	Input/ Engagement	200 attendees * 6 comment cards completed
Event	Fire Station #1 Open House	Survey link postcards, flyers, comment cards	October 12, 2019	Input/ Engagement	20 postcards distributed 0 comment cards completed
Event	Fire Station #2 Open House	Survey link postcards, flyers, comment cards	October 12, 2019	Input/ Engagement	24 postcards distributed 7 comment cards completed
Event	Fire Station #3 Open House	Survey link postcards, flyers, comment cards	October 12, 2019	Input/ Engagement	16 postcards distributed 0 comment cards completed
Event	Fire Station #4 Open House	Survey link postcards, flyers, comment cards	October 12, 2019	Input/ Engagement	50 postcards distributed 44 comment cards completed
Event	Fire Station #5 Open House	Survey link postcards, flyers, comment cards	October 12, 2019	Input/ Engagement	
Event	Fire Station #6 Open House	Survey link postcards, flyers, comment cards	October 12, 2019	Input/ Engagement	6 postcards distributed 0 comment cards completed
Event	Catalpa Village Residents	Facilitated Discussion, survey postcards, comment cards	October 16, 2019	Input/ Engagement	26 residents attended 8 participated in facilitated discussion 2 comment cards completed
Event	Kennedy football game @ Bloomington Stadium	Survey link postcards	October 16, 2019	Input	40 postcards distributed *
Event	Fare for All Event @ Creekside	Postcards, Posters	October 16, 2019	Input/ Engagement	128 Attended Event 24 postcards distributed 3 comment cards completed
Event	Farmers Market Visitors @ Civic Plaza	Postcards, flyers, posters	October 19, 2019	Input/ Engagement	200 attendees *

Event	Garfield Commons	Postcards, Posters	October 21, 2019	Input/ Engagement	35 participants 11 participated in roundtable
Event	Pond Family Center	Information sharing, comment cards, display boards, survey link postcards (3 languages)	October 22, 2019	Input/ Engagement	40 participants * 2 comment cards completed
Event	AFEAP @ ActionCare Clinic	Postcards and Focused Conversations	October 22, 2019	Input/ Engagement	90 participants *
Event	Citywide Halloween Party @ BIG	Postcards	October 31, 2019	Input/ Engagement	50 postcards distributed *
Event	Community Input Session @ Civic Plaza	Information sharing, results of engagement initiative, preliminary architectural sketches	November 14, 2019	Awareness	TBD
Event	City Council Meeting @ Civic Plaza	Public Comment	November 18, 2019	Input	TBD
Web	Public	Project Page www.blm.mn/communitycenter	Launched July 2019	Informational/ Input	5,778 Total Page Views 3,212 Unique Page Views 1min. 42sec. Average Time on Page 27 <sup>th</sup> Most Visited Page on Website***
Web	Public	Calendar Event–Oct 3 @Creekside	Posted late Sept.	Awareness/ Input	230 Total Page Views 118 Unique Page Views 35sec. Average Time on Page 443 <sup>rd</sup> Most Visited Page on Website***
Web	Public	Calendar Event–Oct 8 @Valley View	Posted late Sept.	Awareness/ Input	307 Total Page Views 167 Unique Page Views 43sec. Average Time on Page 358 <sup>th</sup> Most Visited Page on Website***
Web	Public	Calendar Event-Oct 12 @Civic Plaza	Posted mid-Oct.	Awareness/ Input	<ul> <li>173 Total Page Views</li> <li>88 Unique Page Views</li> <li>31sec. Average Time on Page</li> <li>537<sup>th</sup> Most Visited Page on Website***</li> </ul>
Web	Public	Calendar Event-Oct 22 @Pond Center	Posted early Oct.	Awareness/ Input	<ul> <li>330 Total Page Views</li> <li>178 Unique Page Views</li> <li>24sec. Average Time on Page</li> <li>341<sup>st</sup> Most Visited Page on Website***</li> </ul>
Web	Public	Calendar Event-Nov 14 @Civic Plaza	Posted mid-Oct.	Awareness/ Input	269 Total Page Views 136 Unique Page Views 44sec. Average Time on Page 398 <sup>th</sup> Most Visited Page on Website <sup>***</sup>

\*Estimated

\*\*Through Nov. 1, 2019 \*\*\*July 1 – Nov 1, 2019



Date:	Thursday, October 24, 2019						
Project:	City of Bloomington – Traffic & Parking Study for Community and Recreation Center						
To:	Brian Hansen, City of Bloomington Kirk Roberts, City of Bloomington	Mike Ramirez, City of Bloomington John Bradford, City of Bloomington					
From:	Katie Schmidt, PE	Natalie Sager, PE					
Subject:	Parking Study Report – DRAFT						

## 1.0 Introduction

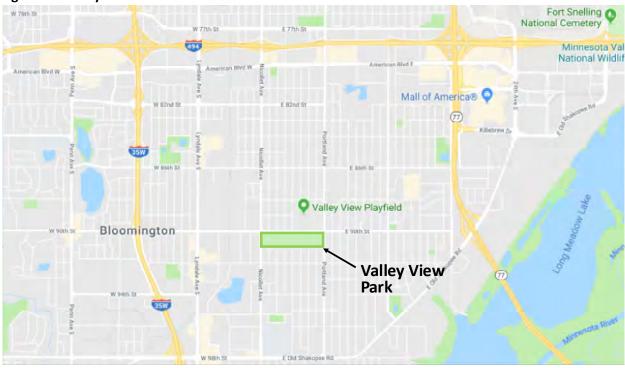
HDR has conducted a parking study for the proposed Community and Civic Center development (termed "Proposed Project" in this study). The City is intending to redevelop a portion of Valley View Park for the Proposed Project. The purpose of this parking study is to evaluate parking demand for the facility. This study includes an assessment of existing parking characteristics on and around Valley View Park, a parking demand analysis for the Proposed Project and existing land uses, and parking demand estimates for different areas of the park.

#### 1.1 Project Description

The following sections describe the site location and the existing and proposed land uses for Valley View Park.

#### 1.1.1 Site Location

Valley View Park is located south of W. 90<sup>th</sup> Street and north of W. 91<sup>st</sup> Street, between Nicollet Avenue and Portland Avenue. **Figure 1** depicts the park's location.



#### Figure 1 – Valley View Park Location

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### 1.1.2 Existing Land Uses

Valley View Park has a variety of existing facilities, including: baseball fields, softball fields, an aquatics center, horseshoe pits, bocce ball courts, basketball courts, a playground, tennis courts, and a field house. The park regularly hosts softball and baseball league games and tournaments, as well as some soccer, lacrosse, and football tournaments throughout the spring and summer.

There are six surface parking lots that serve Valley View Park. Additionally, on-street parking on E 91<sup>st</sup> Street (north side only between Nicollet Ave S and Portland Ave S) and on 1<sup>st</sup> Ave S, Stevens Ave, 2<sup>nd</sup> Ave S, 3<sup>rd</sup> Ave S, Clinton Ave S, 4<sup>th</sup> Ave S, and 5<sup>th</sup> Ave S (between E 91<sup>st</sup> Street and E 92<sup>nd</sup> Street) are used for parking during busy league nights and events.

**Figure 2** illustrates the locations of the six surface parking lots, nearby on-street parking locations, and existing park facilities. The capacity of the parking locations is also noted in **Figure 2**. The number of lot surface spaces (a total of 592 spaces) is from data provided by the City that was modified based on findings of the field visits<sup>1</sup>. On-street parking (380 spaces) was measured considering no parking zones, driveways, and a standard 20-foot parking length per vehicle. When combined there is a total of 974 parking spaces on and around Valley View Park.

#### 1.1.3 Proposed Land Uses

Valley View Park is planned for partial redevelopment to construct a Civic Community Center and Recreation and Aquatics Facility. The redevelopment will include the removal of the existing outdoor pool and aquatic facility and several court and field facilities. **Figure 3** illustrates the proposed park facilities. Note that facilities that are planned for removal are greyed out on the right-hand side of the graphic.

The proposed new facility will occupy approximately 156,000 to 160,000 square feet (SF). The breakdown shown in **Table 1** is currently planned for the new site. It is noted that this is a preliminary site plan and subject to revisions as the site is further designed.

	Use	Area (SF)
1	Gymnasium & Indoor Playground	30,800
2	Pool & Aquatics	25,000 – 30,000
3	Exercise Facility	12,420
4	Child Care Facility	1,850
5	Parks & Recreation Office	3,070 (20 Employees)
6	Public Health Office & Clinic	13,878
7	Common Areas	14,560
8	Non-assignable	Approximately 54,000
Tota		156,000 – 160,000

#### Table 1 – Proposed Site Breakdown

<sup>&</sup>lt;sup>1</sup> During field visits, it was observed that lack of visible pavement markings is causing lots to be filled without being filled to capacity. For example, Lot C was full at 3:00 PM during the Fireman's Softball Tournament on July 20<sup>th</sup>, however, only 66 cars were parked but the maximum potential is 75. During the swim meet on July 6<sup>th</sup>, Lot A was full (minus one space) at 10:00 AM, however only 228 cars were parked but the maximum potential is 241. Because of this observation, capacity of all parking lots is assumed to be 95% of the maximum potential capacity. Prior the field visit, it was thought that Lot E has a capacity of 81, yet 86 vehicles were counted on July 10<sup>th</sup>, so the capacity is assumed to be 86 instead of 81. Similarly, 4<sup>th</sup> Ave S was found to have a capacity of 45 vehicles based on July 10<sup>th</sup> count data, whereas the initial assumption was a capacity of 43 vehicles.



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#### Figure 2 – Existing Park Facilities and Parking (Surface Lots and On-Street)

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#### Figure 3 – Proposed Park Facilities



# 2.0 Existing Parking Conditions

## 2.1 Data Collection

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HDR Staff met with City of Bloomington Traffic Engineering and Parks and Recreation Staff to discuss the daily and event operation and use of the Valley View Playfields and Park area. Based on discussions, the following 4 representative days of activity were documented with existing parking data collection:

- 1. Typical Weekday with softball league activities in the evening
  - o 12:00 PM to 8:00 PM
- 2. Typical Saturday with no event
  - $\circ$   $\phantom{-}$  10:00 AM to 4:00 PM
- 3. Holiday Saturday
  - o 10:00 AM to 4:00 PM
- 4. Event Saturday
  - o 10:00 AM to 4:00 PM

In addition, to give an idea of surface lot and on-street parking use during non-park use hours, City of Bloomington Staff collected parking data during the following time frame:

- Typical Weekday Early Morning
  - o 6:00 AM

City of Bloomington Parks and Recreation Staff provided the 2019 tournament and league use for the Valley View Fields and recommended days for data collection. Wednesday, July 10<sup>th</sup> was selected as a typical weekday; data was collected at 6:00 AM to document parking during non-park use hours and from 12:00 PM to 8:00 PM to document regular softball league activities. Saturday, August 17<sup>th</sup> was selected as a typical Saturday; on this date, there was only one softball tournament and it was held only at Red Haddox Field. Data was collected on Saturday, July 6<sup>th</sup> (the weekend after the Fourth of July) to observe parking use on a holiday weekend with no softball tournaments. The Fireman's Softball Tournament, an annual event that is typically well attended, was selected for the event Saturday data collection and took place on Saturday, July 20th. During the collection periods, data collectors provided hourly documentation of the number of vehicles parked in each surface lot and on-street parking location. No videos, pictures or unique vehicle identification were taken to ensure confidentiality. HDR prepared data collection maps and forms to ensure the consistency of data.

#### 2.1.1 Parking Data Overview

**Table 2** notes the selected data collection days and timeframes, and also summarizes weather and keynotes/observations from the field visits.



Scenario	Date/Time	Weather	Notes
<b>1. Typical</b> <b>Weekday</b> (Regular League Usage)	Wednesday, July 10 <sup>th</sup> 6:00 AM 12:00 PM to 8:00 PM	Cloudy, 70 Degrees, Minor sprinkling at noon but clear after.	<ul> <li>Activities included swimming in the afternoon and softball/baseball games in the evening.</li> <li>Most on-street parkers appeared to be destined to a baseball or softball game.</li> </ul>
2. Typical Saturday (Regular Usage)	Saturday, August 17 <sup>th</sup> 10:00 AM to 4:00 PM	Sunny, 80 Degrees.	<ul> <li>Activities included swimming and games at Red Haddox Baseball Field.</li> <li>Most parkers on 91<sup>st</sup> St and in Lots C and E seemed destined to Red Haddox. Parkers on other side streets seemed to be mostly residential. Lots A and B were mostly used by swimmers.</li> </ul>
<b>3. Holiday Saturday</b> (Regular Usage, No Tournaments)	Saturday, July 6 <sup>th</sup> • 10:00 AM to 4:00 PM	Mostly Sunny or Partially Cloudy, 73- 83 Degrees.	<ul> <li>A swim meet was held in the Aquatic Center during the entire count period.</li> <li>Lots A and B were most heavily used, with Lot A being filled to capacity during peak activity. The baseball/softball fields were not used and Lots C, D, and F remained empty most of the day. On-street parking seemed to be mostly residential.</li> </ul>
<b>4. Event</b> <b>Saturday</b> (Fireman's Softball Tournament)	Saturday, July 20 <sup>th</sup> • 10:00 AM to 4:00 PM	Rain from 10AM-1PM. Sunny and 75 Degrees at 2PM.	<ul> <li>The softball tournament was postponed until 2PM due to rain.</li> <li>Lot D was not open for parking, it was being used for tents/concessions.</li> <li>There was a spike in on-street parking once the games started, especially at 5<sup>th</sup> Ave and 91<sup>st</sup> St (residents on the corner lots parked ~32 cars parked in their yards for \$10/car).</li> </ul>

#### Table 2 – Parking Data Collection Summary

## 2.1 Existing Parking Data

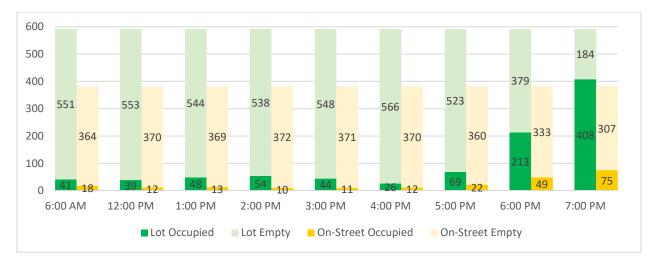
The following sections contain notes and figures that further summarize existing parking data for each collection timeframe, including figures showing parking occupancy versus capacity by hour for surface lots (combined) versus on-street parking facilities (combined). **Table 3** summarizes the maximum occupancies observed at each parking facility by collection date and the peak hour is noted. Data summary sheets providing detailed hour parking occupancy for each parking facility (Lots A-F and on-street locations) are provided in **Appendix A**.

			Parking Facility													
			Lot A	Lot B	Lot C	Lot D	Lot E	Lot F	E 91 <sup>st</sup> St	1st Ave S	Stevens Ave	2nd Ave	3rd Ave	Clinton Ave S	4th Ave S	5th Ave S
	~	an a star								-	_		-			
	C	apacity	229	118	71	49	86	39	115	39	43	38	40	42	45	20
		Typical	189	60	42	32	75	15	36	15	3	5	2	1	6	11
λ		Weekday	(83%)	(51%)	(59%)	(65%)	(87%)	(38%)	(31%)	(38%)	(7%)	(13%)	(5%)	(2%)	(13%)	(55%)
Occupancy		(July 10th)		7 PM		6 PM		7	PM		12 PM	7 PM	5 PM		7 PM	
ccu		Typical	100	29	58	1	54	0	16	8	1	6	3	1	4	2
		Saturday	(44%)	(25%)	(82%)	(2%)	(63%)	(0%)	(14%)	(21%)	(2%)	(16%)	(8%)	(2%)	(9%)	(10%)
Š	Full)	(August 17 <sup>th</sup> )	2 P	М	12 PM	-	3 PM	-	12-2PM	10-12PM	1-2PM	1 PM	Al	l Day	10-1PM	2-3PM
ose	% F	Holiday	228	47	0	1	9	0	4	6	2	7	5	2	5	1
O	Ŭ	Saturday	(100%)	(40%)	(0%)	(2%)	(10%)	(0%)	(3%)	(15%)	(5%)	(18%)	(13%)	(5%)	(11%)	(5%)
Jun		(July 6th)	10 AM	3 PM	-	1 PM	11 AM	-	10	АМ	1-3PM	3 PM	11 AM	11-12PM	12 PM	2-3PM
Maximum Observed		Event	126	56	66	0	86	38	46	5	7	5	7	35	45	20
Σ		Saturday	(55%)	(47%)	(93%)	(0%)	(100%)	(97%)	(40%)	(13%)	(16%)	(13%)	(18%)	(83%)	(100%)	(100%)
		(July 20th)		3PM		4	3 PM	1PM	3 PM	12-2PM	3 PM	12-2PM		3 PM		1-3PM

#### Table 3 – Maximum Observed Occupancy by Parking Facility for Each Collection Day

#### 2.1.1 Typical Weekday (July 10, 2019)

- As can be seen in **Figure 4**, a maximum of 483 vehicles were counted (at 7:00 PM). At this time, 75 vehicles were parked on-street and there were 184 spaces open in the parking lots.
- As can be seen in **Table 3** and also **Appendix A**, none of the parking facilities were filled to capacity during the collection period. Lots A and E were most heavily used (up to 83-87% full). On-street parking was generally low, with most activity occurring on 5<sup>th</sup> Ave S.
- These patterns are attributable to the evening baseball and softball games where players and spectators generally parked near their fields. Since the on-street parking on E 91<sup>st</sup> St and 5<sup>th</sup> Ave S is closer than some of the surface lots there areas were preferred regardless of available surface lot capacity.



#### Figure 4 – Lot and On-Street Parking Occupancy vs Capacity by Hour (Typical Weekday, 7/10/19)

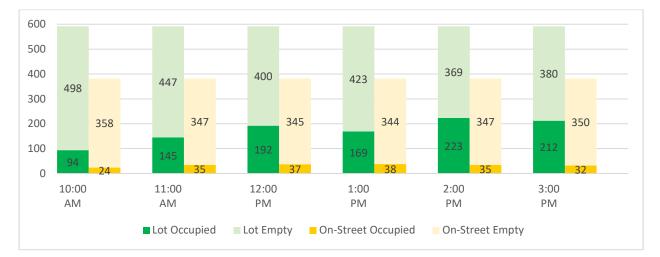
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## 2.1.2 Typical Saturday (August 17, 2019)

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- As can be seen in **Figure 5**, a maximum of 258 vehicles were counted (at 2:00 PM). At this time, 35 vehicles were parked on-street and there were 369 spaces open in the parking lots.
- As can be seen in **Table 3** and also **Appendix A**, none of the parking facilities were filled to capacity during the collection period. Lot C was most heavily used (up to 82% full). Lot E was the second highest used (up to 63% full).

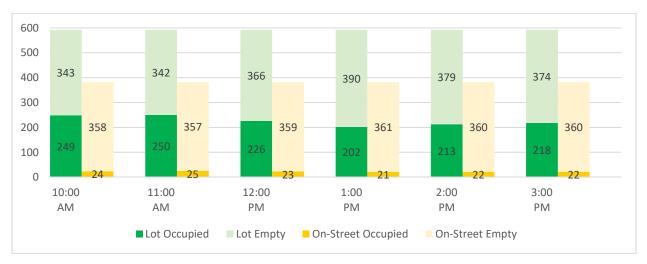
Figure 5 – Lot and On-Street Parking Occupancy vs Capacity by Hour (Typical Saturday, 8/17/19)



#### 2.1.3 Holiday Saturday (July 6, 2019)

- As can be seen in **Figure 6**, a maximum of 275 vehicles were counted (at 11:00 AM). At this time, 25 vehicles were parked on-street and there were 342 spaces open in the parking lots.
- As can be seen in Table 3 and also Appendix A, Lot A was completely full around 10:00 AM, due to a swim meet in the Aquatics Center, however, none of the other lots were filled to capacity. Lot B was the second highest used (up to 40% full).

Figure 6 – Lot and On-Street Parking Occupancy vs Capacity by Hour (Holiday Saturday, 7/6/19)



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## 2.1.4 Event Saturday (July 20, 2019)

- As can be seen in **Figure 7**, a maximum of 537 vehicles were counted (at 3:00 PM); this was the highest count date of all collection periods. At this time, 168 vehicles were parked on-street and there were 174 spaces open in the parking lots. In addition, 32 vehicles were parked on yards, resulting in a total peak parking demand of 569 spaces.
- As can be seen in Table 3 and also Appendix A, Lot E, 4<sup>th</sup> Ave S, and 5<sup>th</sup> Ave S were filled to capacity and Lots C and F were close to being filled to capacity; this was largely due to the Fireman's Softball Tournament.

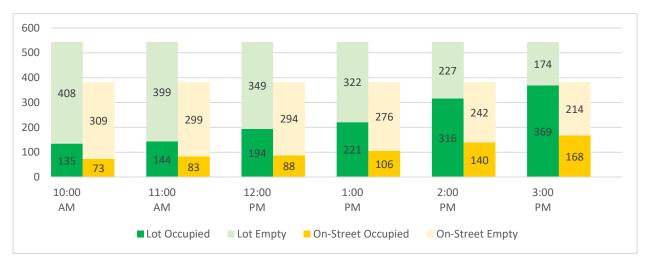


Figure 7 – Lot and On-Street Parking Occupancy vs Capacity by Hour (Event Saturday, 7/20/19)<sup>2</sup>

## 2.2 Existing Parking Trends

The following highlights important trends observed in the existing parking analysis:

- The total existing parking lot (A-F) capacity is 592 spaces. On a typical weekday peak during baseball and softball games (7 PM) a maximum of 408 vehicles were parked in the surface lots and 75 vehicles were parked on-street, for a total parking demand of 483 spaces. The existing lot capacity can accommodate the total parking demand on summer weekday peak.
- During the Fireman's Softball Tournament the peak parking demand was 569 spaces (369 in lots, 168 on-street, and 32 in yards). The total lot capacity during the event was 543 spaces (as Lot D was closed and being used for tents and concessions). If all of the lot spaces were full, then 26 vehicles would need to park on-street.

## 3 Parking Demand Analysis

Parking demand for Valley View Park was assessed for three analysis zones, which are listed below and shown in **Figure 8**. A parking supply recommendation is provided for each of these three zones to assist with the development plans for the site.

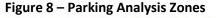
- Zone 1: Hrbek Youth Baseball Fields (Existing)
- Zone 2: Civic Community Center and Recreation/Aquatics Facility (Proposed Project)

<sup>&</sup>lt;sup>2</sup> Lot capacity adjusted to account for closure of Lot D that day. 32 vehicles were parked in yards during the Fireman's Softball Tournament around 3:00 PM; these vehicles are not shown in this figure.



- Zone 3: Red Haddox Baseball Field and Softball Fields (Existing)
  - Note: Red Haddox Baseball Field is estimated to account for 25% of Zone 3 parking demand.

Parking demand for existing land uses in Zones 1 and 3 were based off of data collected and described in Section 2.0. Parking demand for the Proposed Project was estimated using two sources, the Institute of **Transportation Engineer's (ITE) Parking Generation Manual**<sup>3</sup>, the industry accepted source for estimating the parking demand for proposed developments, and an existing parking survey of Bloomington's Health Office and Clinic (described in Section 3.2). It is noted that Bloomington's City Code (21.301.06) provides parking recommendations for some land uses, but not the recreation and civic land uses for the proposed site.





## 3.1 Zone 1: Hrbek Youth Baseball Fields Parking Demand

During the typical weekday count period (from Wednesday, July 10<sup>th</sup> data), it was observed that Lots A and B were mostly used for the Aquatics Center and Hrbek Youth Baseball Fields, with swimming occurring mostly in the afternoon and softball/baseball occurring in the evening. To determine how many parked vehicles in Lots A and B were destined to the Aquatics Center (which is proposed for removal) versus the Hrbek Fields (which is proposed to remain), a time of day distribution for the Aquatics Center was assumed based off of ITE Parking Generation Manual, Land Use Code 482 (Water Slide Park), which is anticipated to have similar parking trends as the Aquatics Center. For this land use, peak parking demand is anticipated to occur around 2:00PM on a typical weekday and is estimated to be approximately 31 vehicles (based on the total number of vehicles parked in Lots A and B on July 10<sup>th</sup>).

Hrbek Fields are anticipated to account for most on-street parking west of 3<sup>rd</sup> Ave, as well as most parking in Surface Lots A and B (after deducting Aquatics Center parkers). **Table 4** presents parking

<sup>&</sup>lt;sup>3</sup> Institute of Transportation Engineer's, Parking Generation Manual, 5<sup>th</sup> Edition, January 2019.

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demand estimates for Hrbek Youth Baseball Fields by time of day. Overall, Hrbek Youth Baseball Fields are estimated to have a peak parking demand of 281 vehicles, with peak demand occurring around 7:00 PM on a typical weekday.

Hour Beginning	Weekday	Saturday
10:00 a.m.		18
11:00 a.m.		28
12:00 p.m.	13	36
1:00 p.m.	22	28
2:00 p.m.	22	41
3:00 p.m.	14	16
4:00 p.m.	7	
5:00 p.m.	40	
6:00 p.m.	<b>1</b> 30	
7:00 p.m.	281	
Maximum	281	41

#### Table 4 – Time of Day Parking Demand Estimates for Hrbek Youth Baseball Fields (Zone 1)<sup>4</sup>

### 3.2 Zone 2: Proposed Project Parking Demand

Based on the review of the Proposed Project land uses (see site breakdown provided in **Table 1**), **Table 5** summarizes the estimated peak parking demand for the proposed site. ITE's Recreational Community Center Land Use (Code 495), which was used to estimate Community and Civic Center parking, includes child care, aquatics, exercise and sports facilities, and cafes and is most comparable to the proposed site. To document the proposed Public Health Office and Clinic parking data, existing hourly parking data at the current office and clinic location (at 1900 W Old Shakopee Road) was collected on Wednesday, August 28 and is summarized in **Appendix B**.

Due the location of the site near transit, and sidewalk connectivity to the adjacent residential land uses, a 10% multimodal reduction to the proposed project parking demand was applied to the Community Center and Office land uses. This assumes that some people would arrive via walking, biking, transit, or would carpool instead of driving and parking. It is assumed the existing Public Health Office and Clinic data includes a multimodal reduction.

Note that the demand presented in **Table 5** is the peak demand for the land use. To account for parking peaks occurring at different times of day, a time of day (TOD) parking distribution was evaluated. For example, on a typical weekday, parking for the community center is anticipated to peak at 6:00 PM, but the offices are anticipated to peak around 10:00 AM. Using TOD distributions from ITE's Parking Generation Manual and existing data for the Public Health Office and Clinic, the Proposed Project parking demand shown in **Table 6** is estimated by hour for the proposed site. In summary, a peak parking demand of 293 vehicles is estimated to occur at 11:00 AM on a weekday.

<sup>&</sup>lt;sup>4</sup> Estimates are based off data collected on July 10, 2019 (Typical Weekday) and August 17, 2017 (Typical Saturday).



#### Table 5 - Proposed Project Peak Parking Demands by Land Use

		Size	Wee	kday	Saturday		
Land Use	Source for Parking Rate	(SF or Employee s)	Average Rate <sup>3</sup>	Peak Parking Demand	Average Rate <sup>2</sup>	Peak Parking Demand	
Community & Civic Center	ITE <sup>1</sup> -Recreational Community Center (495)	140,000	2.07	290	1.90	266	
Parks & Recreation Offices	ITE <sup>1</sup> -General Office (710)	20	0.84	17	NA	NA	
Public Health Office and Clinic	Bloomington Public Health Office and Clinic Data <sup>2</sup>	13,878	3.68	52	NA	NA	
Gross Total	156,948		359		266		
Multimodal Reduction <sup>4</sup>			-31		-27		
Net Total				328		239	

<sup>1</sup>Institute of Transportation Engineers, Parking Generation Manual, 4th Edition.

<sup>2</sup> Based on survey of the existing Bloomington Health Office and Clinic.

<sup>3</sup> Rate per 1,000 SF of GFA or per employee.

<sup>4</sup> 10% reduction applied to Community & Civic Center and Parks & Recreation Office Land Uses.

#### Table 6 – Time of Day Parking Demand Estimates for Proposed Project (Zone 2)

	Community & Civ Center <sup>1</sup>		Parks & Recreation Offices <sup>1</sup>	Public Health Offices & Clinic <sup>2</sup>	То	tal
Hour Beginning	Weekday	Saturday	Weekday	Weekday	Weekday	Saturday
7:00 a.m.	151	120	2		<b>15</b> 3	120
8:00 a.m.	188	180	7	16	211	180
9:00 a.m.	248	239	14	21	283	239
10:00 a.m.	246	213	15	27	288	213
11:00 a.m.	248	192	15	30	293	192
12:00 p.m.	217	163	13	36	266	163
1:00 p.m.	170	144	13	25	208	144
2:00 p.m.	146	144	14	34	194	144
3:00 p.m.	167	127	14	49	230	127
4:00 p.m.	196	124	13	52	261	124
5:00 p.m.	220	117	9	42	271	<u>1</u> 17
6:00 p.m.	261	120	3		264	120
7:00 p.m.	258	120	2		260	120
Maximum	261	239	15	52	293	239

<sup>1</sup> Includes 10% multimodal reduction. Time of day distributions from Institute of Transportation Engineers, Parking Generation Manual, 4th Edition, Land Use Codes 495 and 710.

<sup>2</sup> Time of day distribution based on survey of existing Bloomington Health Office and Clinic.

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## 3.3 Zone 3: Red Haddox Baseball Field and Softball Fields Parking Demand

Land uses within Zone 3 and on the east side of the park (Red Haddox, Softball Fields, Field House, and Tennis Courts) are assumed to use Surface Lots C-F, and on-street parking east of 3<sup>rd</sup> Ave. **Table 7** presents parking demand estimates for the existing land uses within Zone 3. Overall, Zone 3 is anticipated to have a peak parking demand of 195 vehicles around 7:00 PM on a typical weekday. Red Haddox Field is estimated to account for approximately 25% of the parking demand in the east side of the park (a peak parking demand of approximately 50 vehicles at 7:00 PM).

Т	Table 7 – Time of Day Parking Demand Estimates	s for Red Haddox Baseball Field and Softball Fields	;
(	(Zone 3)⁵		

Hour Beginning	Weekday	Saturday
10:00 a.m.		89
11:00 a.m.		111
12:00 p.m.	13	125
1:00 p.m.	11	92
2:00 p.m.	11	111
3:00 p.m.	12	114
4:00 p.m.	7	
5:00 p.m.	31	
6:00 p.m.	118	
7:00 p.m.	195	
Maximum	195	125

<sup>1</sup> Red Haddox Field is estimated to account for approximately 25% of the parking demand for the east side existing land uses.

## 4 Parking Demand Estimates

Zones 1 and 3 have peak parking demands that occur at 7:00 PM on a summer weekdays due to baseball/softball games. Zone 2, with the Proposed Project, has a peak parking demand that occurs at 11:00 AM on a typical weekday. The following details the parking demand Estimates:

- Zone 1 (Hrbek Youth Baseball Fields): 281 Spaces at 7:00 PM on a summer weekday
- Zone 2 (Proposed Project):
  - **260 Spaces** at 7:00 PM on a typical weekday
  - o **300 Spaces** at 11:00 AM on a typical weekday
- Zone 3 (Eastern Land Uses): 295 spaces total at 7:00 PM on a summer weekday
  - o Red Haddox Baseball Field: 50 Spaces at 7:00 PM on a summer weekday
  - o Softball Fields: 145 Spaces at 7:00 PM on a summer weekday

In summary, the recommended number of parking spaces for each analysis zone are shown in Figure 9.

<sup>&</sup>lt;sup>5</sup> Estimates are based off data collected on July 10, 2019 (Typical Weekday) and August 17, 2017 (Typical Saturday).

#### Figure 9 – Parking Recommendations



## 5 Event Parking Analysis - TBD

After the site uses and opportunities to host events at the park are more defined, an event parking analysis will be conducted to document parking overflow potential into the surrounding neighborhood.

Appendix A – Existing Parking Data Summaries



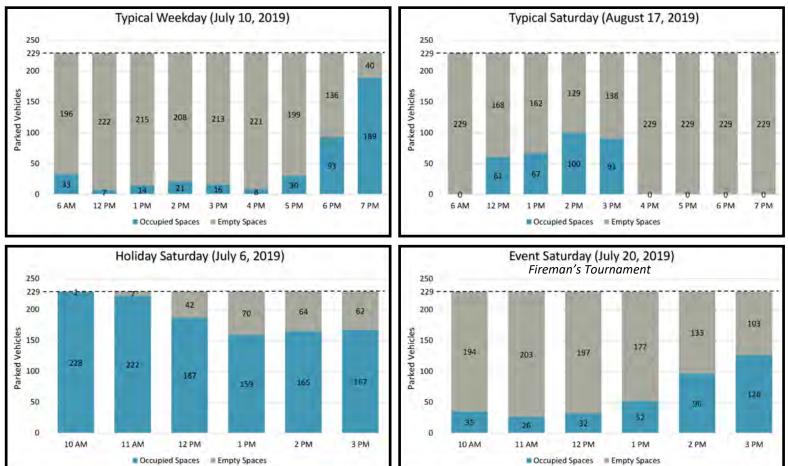
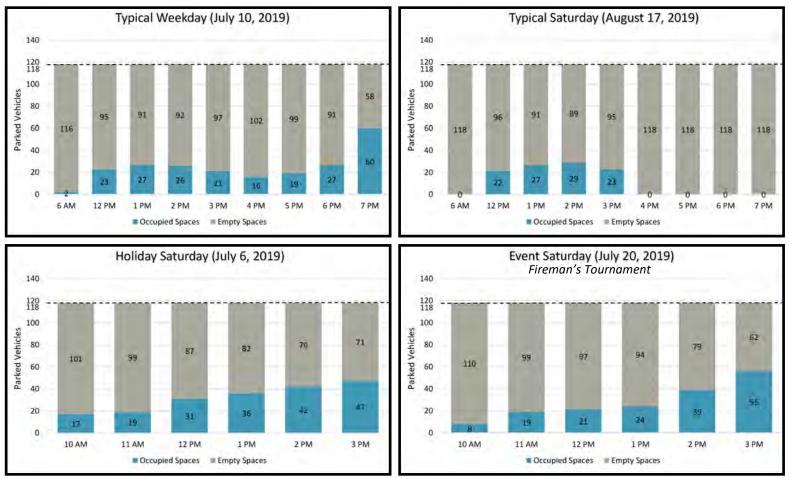


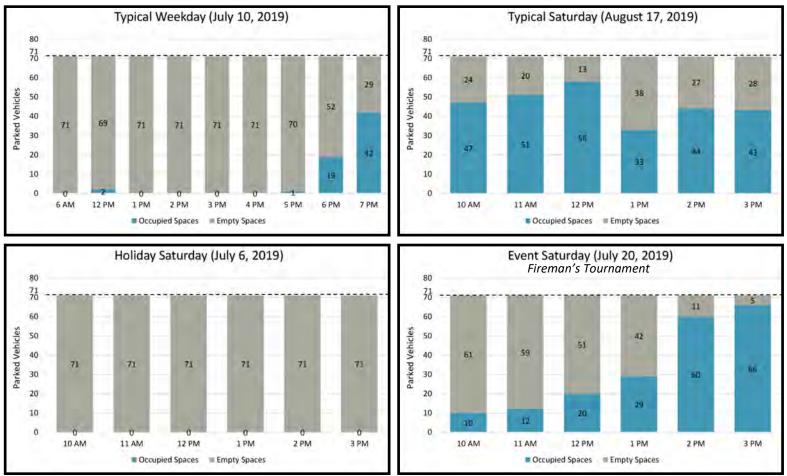
Figure A-1: Lot A—Summary of Existing Parking Data





#### Figure A-2: Lot B—Summary of Existing Parking Data

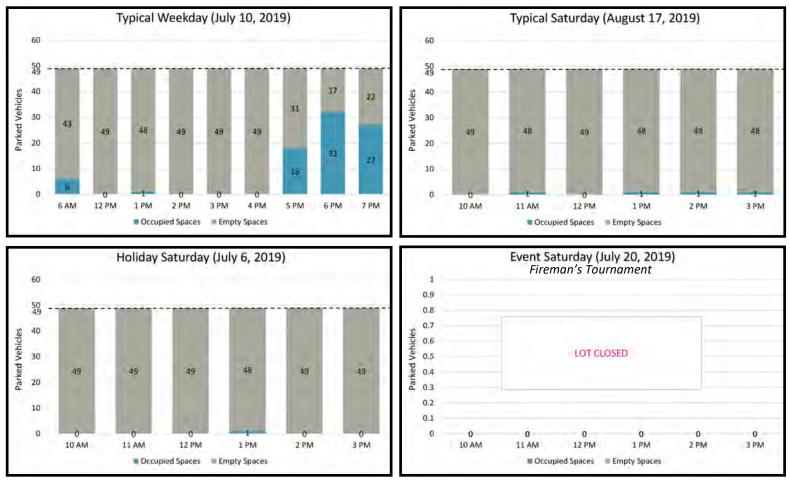




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Figure A-3: Lot C—Summary of Existing Parking Data

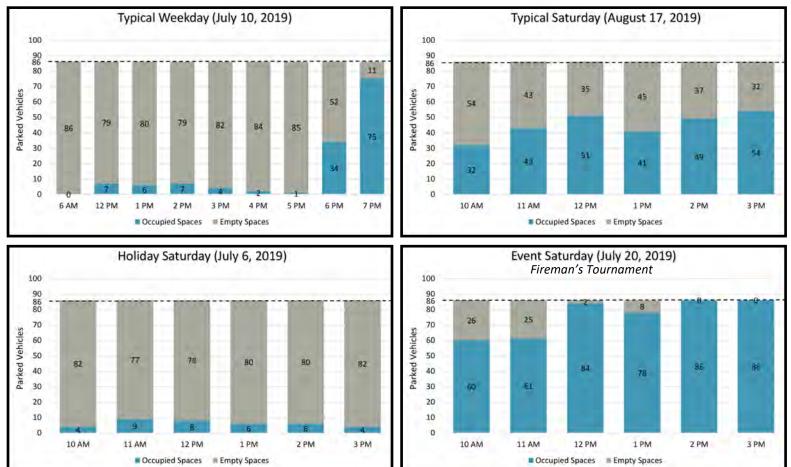




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## Figure A-4: Lot D—Summary of Existing Parking Data

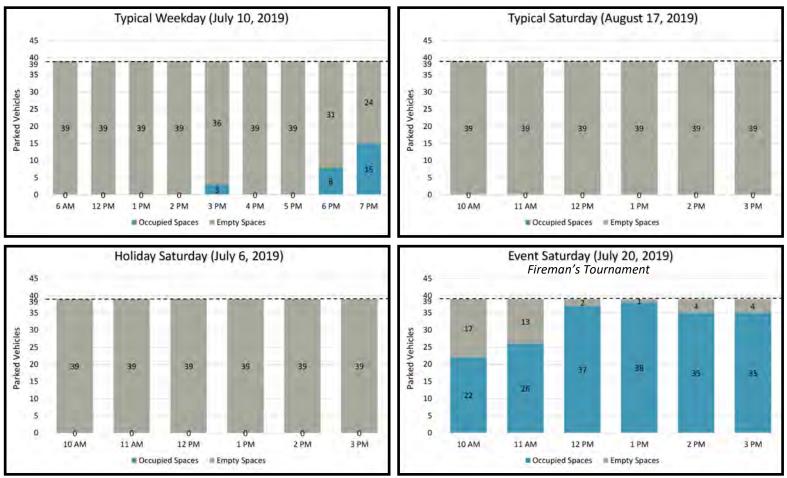




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#### Figure A-5: Lot E—Summary of Existing Parking Data

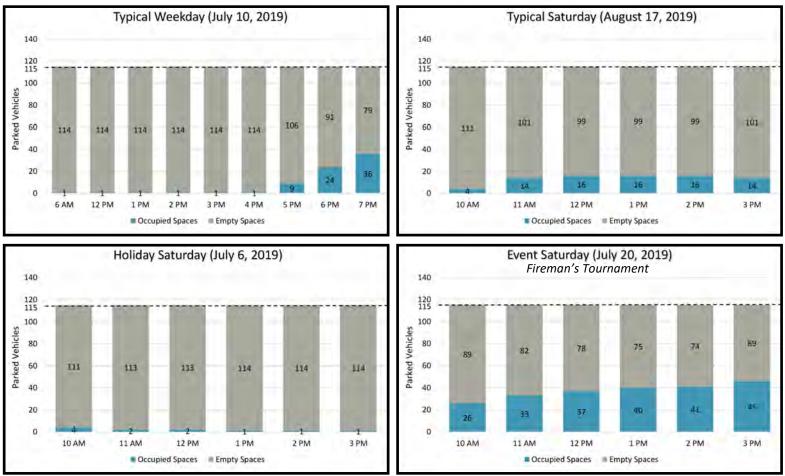




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Figure A-6: Lot F—Summary of Existing Parking Data

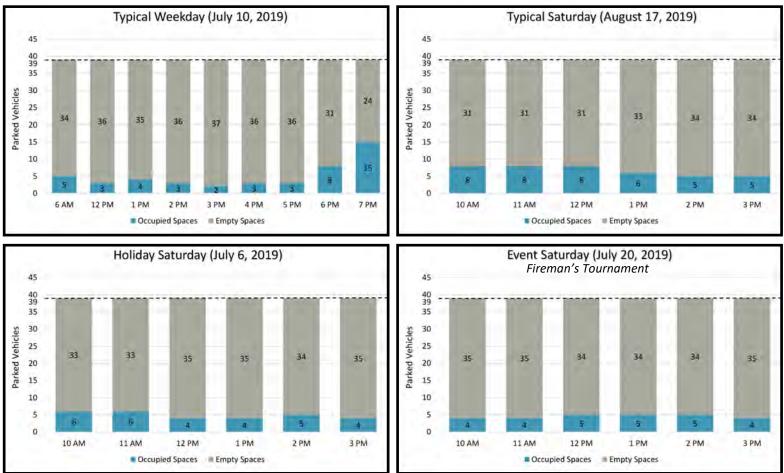




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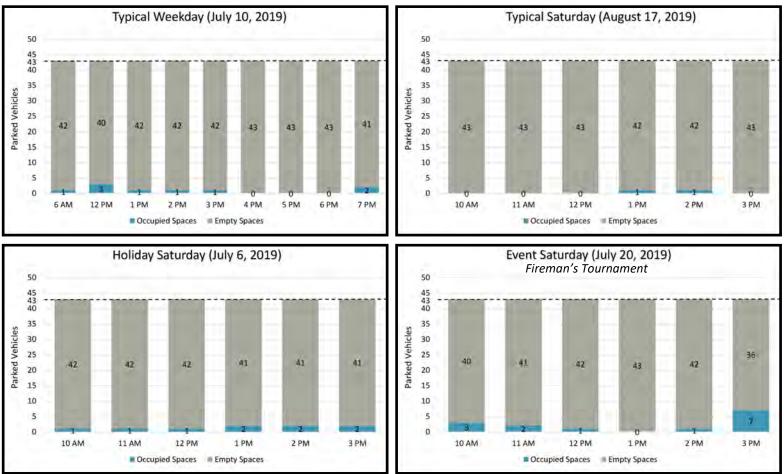
### Figure A-7: E 91st St—Summary of Existing Parking Data





### Figure A-8: 1st Ave S—Summary of Existing Parking Data

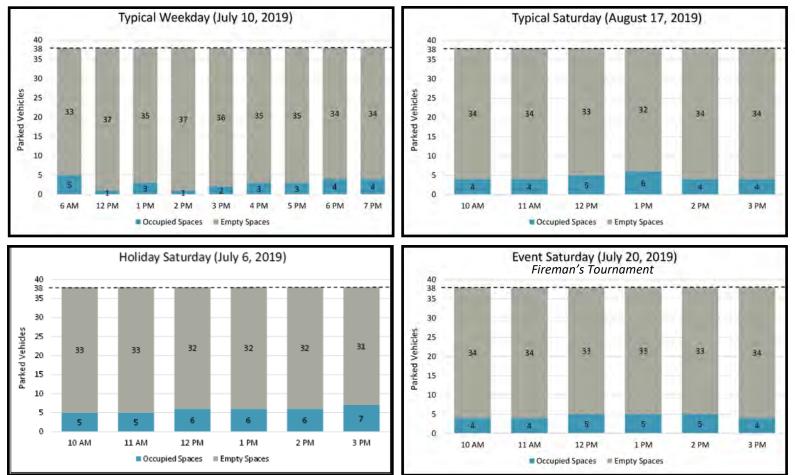




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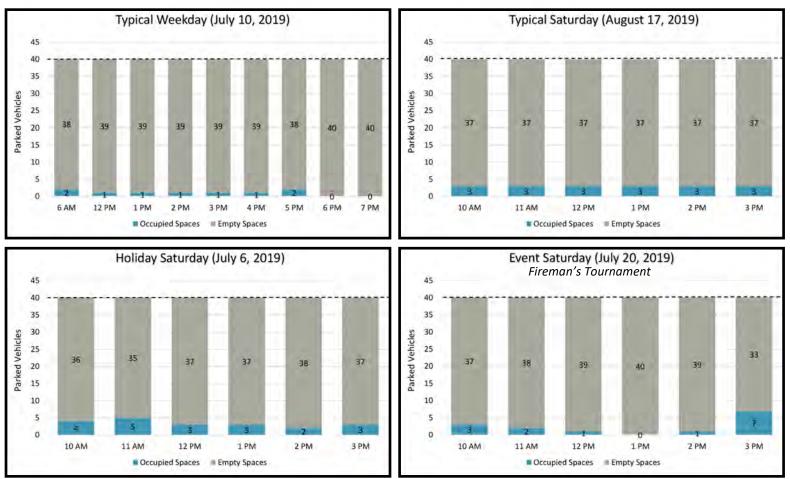
### Figure A-9: Stevens Ave—Summary of Existing Parking Data





#### Figure A-10: 2nd Ave S—Summary of Existing Parking Data





### Figure A-11: 3rd Ave S—Summary of Existing Parking Data



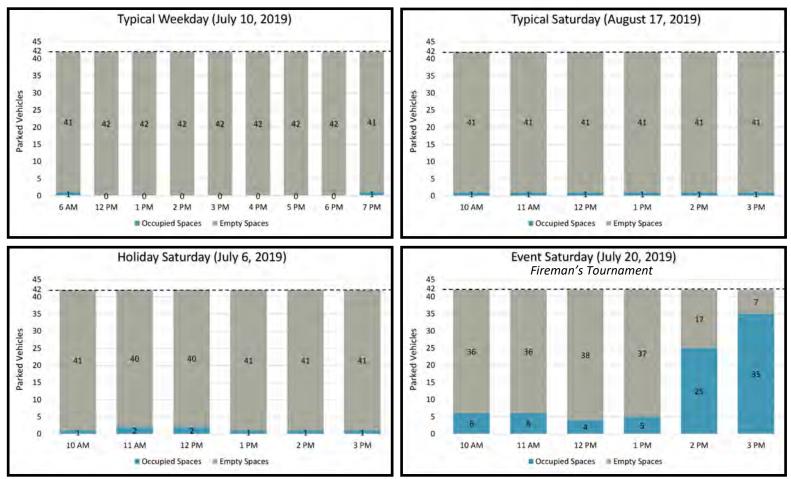
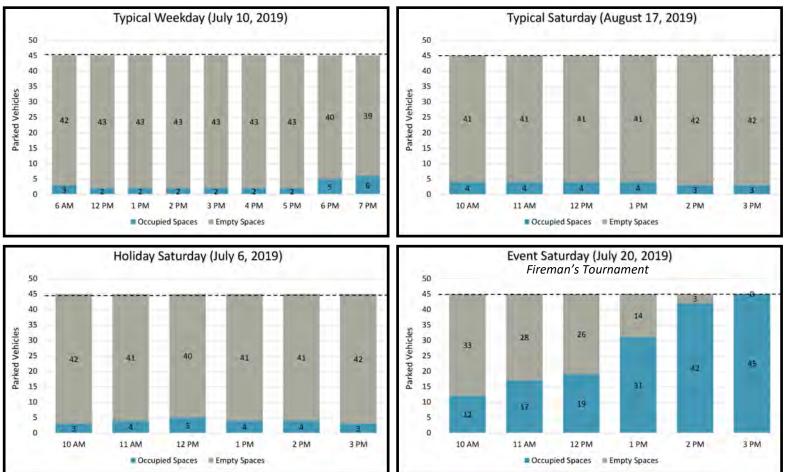


Figure A-12: Clinton Ave S—Summary of Existing Parking Data

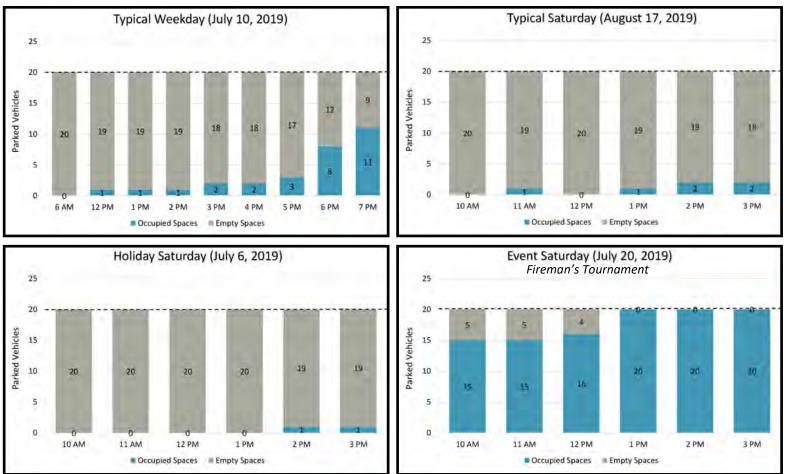




FC

Figure A-13: 4th Ave S—Summary of Existing Parking Data





#### Figure A-14: 5th Ave S—Summary of Existing Parking Data

Appendix B – Bloomington Public Health Clinic Parking Data



		Time													
Location	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM					
North Sec on ( <i>Mostly Visitors)</i>	3	5	9	10	11	3	8	19	17	14					
West Sec on (Mostly Employees)	8	9	9	10	13	14	15	14	18	14					
Total	11	14	18	20	24	17	23	33	35	28					
Percent of Peak Parking Demand	31%	40%	51%	57%	69%	49%	66%	94%	100%	80%					

## **Bloomington Public Health Office and Clinic**

Size (SF)	9500
Peak Parking Demand	35
Rate per 1,000 SF of GFA	3.68





Date:	Friday, November 08, 2019	
Project:	City of Bloomington – Traffic & Parking S	tudy for Community and Recreation Center
To:	Brian Hansen, City of Bloomington Kirk Roberts, City of Bloomington	Mike Ramirez, City of Bloomington John Bradford, City of Bloomington
From:	Katie Schmidt, PE	Natalie Sager, PE
Subject:	Traffic Impact Study – Preliminary Repor	t

# 1.0 Executive Summary

HDR has conducted a Traffic Impact Study (TIS) for the proposed Community and Civic Center development (termed "Proposed Project" in this study). The City is considering redeveloping a portion of Valley View Park for the Proposed Project. The purpose of this traffic study is to evaluate existing traffic conditions around the facility, as well as future traffic conditions with site-generated traffic from the Proposed Project. With the current site plan, the proposed development is estimated to generate approximately 3,697 new trips per day (total of entering and exiting), with 230 trips during the AM peak hour and 299 trips during the PM peak hour. It is noted that the Proposed Project land uses and sizes could slightly change as development plans for the site move forward.

For existing conditions, the TIS showed minor peak hour congestion with respect to queuing and higher delays at the signalized intersection of Nicollet Ave S and E 90<sup>th</sup> Street in the westbound direction during the AM peak hour, and in the eastbound direction during the PM peak hour. Review of the current signal timing indicates that updates at this intersection could significantly improve these operations and the City and County are currently investigating this update. Timing recommendations are included in this study.

With the addition of site-generated traffic from the proposed project minor delay is anticipated for left turning traffic exiting the Proposed Project site via E 90<sup>th</sup> Street during peak hours, as it may be difficult to find gaps to turn left due to relatively high east-west traffic volumes.

Recommendations in the study area are as follows:

- For existing conditions it is recommended that signal timing at Nicollet Ave S and E 90<sup>th</sup> Street be updated, while maintaining coordination with adjacent signals along Nicollet Ave S. Analysis of the AM and PM peak hour volumes and timing indicates that more green time can be given to the eastbound and westbound movements on E 90<sup>th</sup> Street and some can be taken away from the northbound and southbound movements while maintaining a 90 second cycle length and acceptable operations. The exact amount of green time should be field verified over a couple of days of observation. This greatly improves the unacceptable operations noted above. The City and County are currently aware of the operations and are investigating this update.
- Due to existing, and the anticipated potential increase in, pedestrian activity from the Proposed Project, it is recommended that flashing yellow arrow (FYA) indications be installed in place of the existing 5-section signal heads for all the left turn movements at the Nicollet Ave S and E 90<sup>th</sup> St signalized intersection. This type of a conversion is becoming more common in Hennepin County and the City at similar signalized intersections and provides more flexibility in



operations, increased compliance, and is a safety improvement for pedestrians as a red arrow can be displayed for the conflicting left turn movement when the crosswalk pushbuttons are activated.

- A minimum of two site driveways are recommended on 90<sup>th</sup> Street and should line up with the cross-streets (Stevens Ave and 3<sup>rd</sup> Ave S). At both accesses, there should be two stop-controlled exiting lanes (one shared left turn/through lane and one right turn lane) and one entry lane. It is noted that adjacent cross-streets (Stevens Ave and 3<sup>rd</sup> Ave S) are also stop controlled.
- A minimum of two site driveways on 91<sup>st</sup> Street are recommended and they should line up with the cross-streets (Stevens Ave and 3<sup>rd</sup> Ave S). There should be one stop-controlled exiting lane (one shared left turn/through/right turn lane) and one entry lane. It is noted that adjacent cross-streets (Stevens Ave and 3<sup>rd</sup> Ave S) are also stop controlled.
- The current site plan shows the northwest and southwest parking lots being connected, which will provide opportunity for parkers to circulate. It is recommended that the other parking lots be connected to allow for internal circulation during high parking demand times.
- As the site plan develops, it is recommended that the drop-off and pick-up zone be designed to encourage site circulation.
- Within the parking lots and pedestrian paths, it is recommended that wayfinding signs be included to guide vehicles to parking areas and pedestrians to the facilities.

In addition to a TIS, a parking study was also completed for the site. Additional background and parking information on the project can be found in the Draft Parking Study Report.

# 2.0 Introduction

A portion of Valley View Park in the City of Bloomington, Minnesota, is being proposed for redevelopment to incorporate a proposed Community and Civic Center. Due to a change in site-generated traffic that is anticipated from the re-development, and to address neighborhood concerns, a traffic operations analysis was completed for four study area intersections near the site, as well as at the proposed site access points to parking areas. The following sections document steps to complete the analysis.

## 2.1 Project Description

The following sections describe the study area and the existing and proposed land uses for Valley View Park.

## 2.1.1 Study Area

Valley View Park is located south of E 90<sup>th</sup> Street and north of E 91<sup>st</sup> Street, between Nicollet Avenue and Portland Avenue. **Figure 1** depicts the park's location.

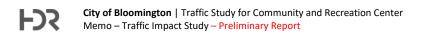
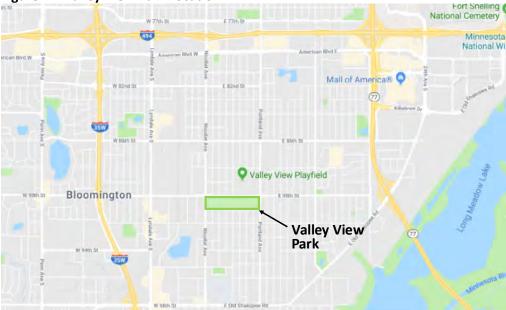


Figure 1 – Valley View Park Location



The study area includes the two County-operated signalized intersections of Nicollet Ave (County Road 52) and Portland Ave (County Road 35) at E 90<sup>th</sup> Street, the two side-street stop-controlled intersections of Nicollet Ave and Portland Ave at E 91<sup>st</sup> Street, as well as four proposed access points to the site at Stevens Ave and 3<sup>rd</sup> Ave S. The proposed site plan shows a third access on E 90<sup>th</sup> Street and E 91<sup>st</sup> Street, but these were not considered in the traffic analysis to provide a conservative analysis of two access points on each roadway. Impacts outside of the study area are anticipated to be minimal due to dispersion of traffic. **Figure 2** depicts the study area.

Figure 2 – Study Area



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<sup>701</sup> Xenia Avenue South, Suite 600, Minneapolis, MN 55416-3636 (763) 591-5400



The following bullets further describe the study intersections and the intersecting roadways:

#### Roadways

- Nicollet Ave S (County Road 52) and Portland Ave S (County Road 35) are north-south arterial roads that were recently reconfigured to have three vehicle lanes (two through lanes and a shared center left turn lane) and two bike lanes (northbound and southbound), and no on-street parking. Nicollet Avenue transitions to a four-lane configuration with protected-permissive left turn lanes at the intersection with E 90<sup>th</sup> Street, and then transitions back to a three-lane configuration north and south of the intersection. The speed limit on these county-maintained roadways is 35 miles per hour (mph).
- **E 90<sup>th</sup> Street** is an east-west arterial road that has four lanes, with two through lanes per direction of travel, and no on-street parking. The speed limit on this city-maintained roadway is 35 mph.
- **E 91**<sup>st</sup> **Street** is an east west, un-marked local street, with two through lanes and on-street parking allowed on the north side only. This street terminates at Nicollet Ave S to the west, and at Portland Ave S to the east. The statutory speed limit on this city-maintained roadway is 30 mph.

#### Intersections

- Nicollet Ave S and E 90<sup>th</sup> Street is a four-legged signalized intersection that has two through lanes and one left turn lane on all approaches. The left turn movements all operate on protected-permissive phasing. None of the approaches have separated right-turn lanes, except for a channelized northbound right turn at Nicollet Ave S and E 90<sup>th</sup> Street. All approaches have marked pedestrian crossings with countdown timers. The signal timing is coordinated by Hennepin County with other signals on Nicollet Ave.
- **Portland Ave S and E 90<sup>th</sup> Street** is a four-legged signalized intersection that only has left turn lanes on Portland, and these operate on permissive-only phasing. None of the approaches have right turn lanes. All approaches have marked pedestrian crossings with countdown timers and there are bike lanes on both sides of Portland Ave S. The signal timing is coordinated by Hennepin County with other signals on Portland Ave.
- Nicollet Ave S and E 91<sup>st</sup> Street is a three-legged side-street stop-controlled intersection, with stop control on E 91<sup>st</sup> Street. None of the approaches have right turn lanes, but there is a separated lane for southbound left turns. There are no pavement markings on E 91<sup>st</sup> Street, and no marked crosswalks on any of the approaches. There are bike lanes on both sides of Nicollet Ave S.
- Portland Ave S and E 91<sup>st</sup> Street is a three-legged side-street stop-controlled intersection, with stop control on E 91<sup>st</sup> Street. None of the approaches have right turn lanes, but there is a separated turn lane for northbound left turns. There are no pavement markings on E 91<sup>st</sup> Street, and no marked crosswalks on any of the approaches. There are bike lanes on both sides of Portland Ave S.

#### Other Notes

- There is a pedestrian-activated overhead traffic signal to allow pedestrians to cross mid-block on E 90<sup>th</sup> Street just east of 3<sup>rd</sup> Ave S.
- All four study intersections have bus stops on one or more corners.

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## 2.1.2 Land Uses

## Existing Land Uses

Valley View Park has a variety of existing facilities, including: baseball fields, softball fields, an aquatics center, horseshoe pits, bocce ball courts, basketball courts, a playground, tennis courts, and a field house. The park regularly hosts softball and baseball league games and tournaments, as well as some soccer, lacrosse, and football tournaments throughout the spring and summer.

#### Proposed Land Uses

Valley View Park is being considered for partial redevelopment to construct a Civic Community Center and Recreation and Aquatics Facility. The redevelopment would include the removal of the existing outdoor pool and aquatic facility and several court and field facilities.

The proposed new facility would occupy approximately 156,000 to 160,000 square feet (SF). The breakdown shown in **Table 1** is currently planned for the new site. It is noted that this is a preliminary site plan and subject to revisions as the site is further designed.



#### Table 1 – Proposed Site Breakdown

	Use	Area (SF)
1	Gymnasium & Indoor Playground	30,800
2	Pool & Aquatics	25,000 – 30,000
3	Exercise Facility	12,420
4	Child Care Facility	1,850
5	Parks & Recreation Office	3,070 (20 Employees)
7	Common Areas	14,560
8	Non-assignable	Approximately ~68,000
Tota	l	156,000 – 160,000

# 3.0 Existing Traffic Conditions

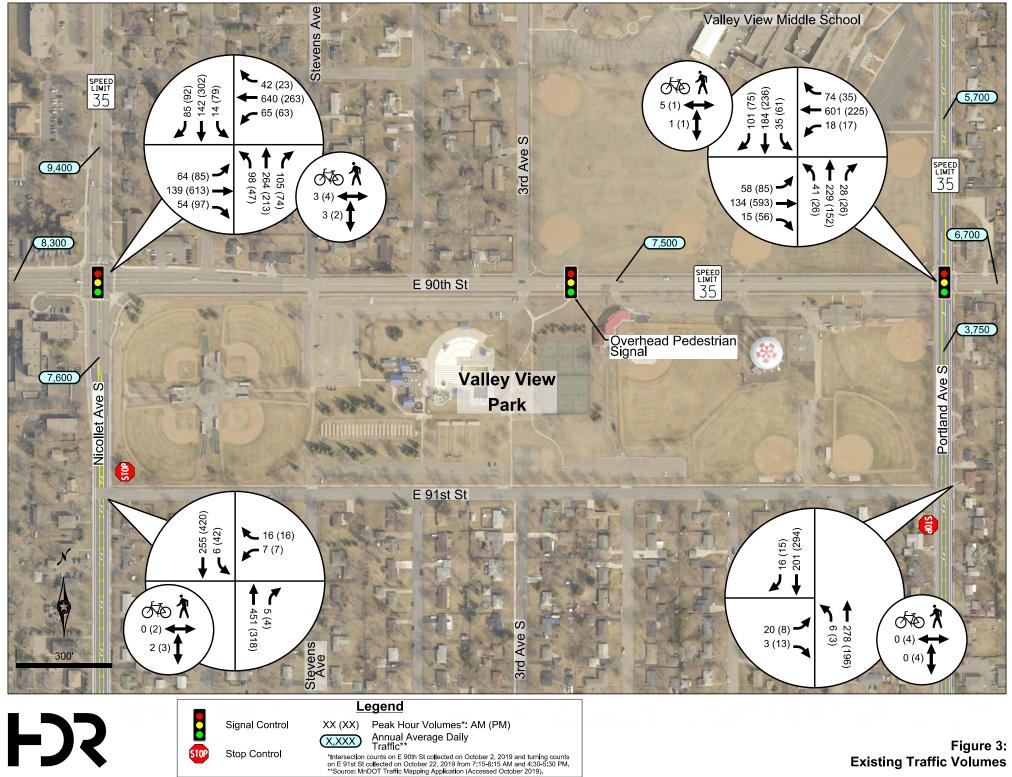
## 3.1 Turning Movement Counts

13-hour Turning Movement Counts (TMCs) were collected at the intersections of E 90<sup>th</sup> Street at Nicollet Ave S and at Portland Ave S on Wednesday, October 2, 2019. Passenger cars, large trucks/buses, pedestrians, and bicycles were documented in the counts. For the AM timeframe, it was observed that the highest volume occurred in the 7:15 to 8:15 AM hour, therefore this was determined as the AM peak hour. Similarly, the PM peak hour was determined to be 4:30 to 5:30 pm. From the count data, truck percentages and peak hour factors were determined for input into the analysis software.

On Tuesday, October 22, 2019, turning movement counts (just left and right turns), as well as pedestrian and bicycle counts, were manually collected at the intersections of E 90<sup>th</sup> Street at Nicollet Ave S and at Portland Ave S during the AM and PM peak hours. Using the left and right turning movement counts at these intersections, in addition to the counts collected at the intersections to the north on October 2, 2019, northbound and southbound through volumes were computed. Peak hour factors and mainline truck percentages were assumed based off of the values determined at the E 90<sup>th</sup> Street intersections.

It is noted that these October 2019 turning movement counts were collected when the existing outdoor aquatics facility at the park was closed, when no softball or baseball games were being played, and when general use of the park was low. Conversely, peak hour traffic volumes on roadways are generally higher in fall months with decent weather, school in session, and more predictable work and activity schedules. The accuracy of the collected October count data is satisfactory for the planning purposes of this study.

**Figure 3** shows the AM and PM peak hour turning movement counts for the four study intersections, and also shows average annual daily traffic (AADT) volumes on Nicollet Ave S, Portland Ave S, and E 90<sup>th</sup> Street. Raw TMC data can be found in **Appendix A**.



**Existing Traffic Volumes** 



# 3.2 Existing Signal Timing

Signal timing data for the two signalized intersections on E 90<sup>th</sup> Street at Nicollet Ave S and at Portland Ave S were provided by Hennepin County and inputted into the traffic model. The existing left turn phasing is protected-permissive for all approaches at Nicollet Ave S, and is permissive for all approaches at Portland Ave S. Both intersections are coordinated with adjacent signals along the north-south corridors.

# 4.0 Forecast Traffic Volumes

## 4.1 Site Trips

Estimates of vehicle trips generated by the Proposed Project during weekday AM and PM peak hours of adjacent street traffic were determined using the following source:

• Data and methodologies contained in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual*, 10<sup>th</sup> Edition

ITE's **Trip Generation Manual** is an industry accepted source that provides trip estimates for a large variety of land uses and is based on field surveys of sites throughout the county. While considering the land uses defined in the **Trip Generation Manual**, the Proposed Project was broken down into the following two land use categories to estimate site-generated traffic for the peak hour of adjacent street traffic:

<u>Recreation Center</u>: ITE's Recreation Center land use (Code 495) was chosen to be comparable the Community Center uses (defined in **Table 1**).

• Field study sites for ITE's Recreation Center land use (Code 495) trip data include recreation centers with gymnasiums, indoor play areas, aquatic areas, exercise facilities and classes, locker rooms, meeting rooms, and cafe/snack bars.

<u>General Office</u>: ITE's General Office land use (Code 710) was chosen to be comparable to the Parks & Recreation Office use.

The proposed development is estimated to generate approximately 3,697 trips per day (total of entering and exiting), with 230 trips during the AM peak hour and 299 trips during the PM peak hour. It is noted that the trips associated with the recreation center include a 10% reduction to account for those arriving via non-motorized travel or via transit or shuttle (to/from senior complexes). Due to lack of available estimate data and to be conservative, no pass-by trip (trips attracted to the site from existing traffic of adjacent roadways) reductions were applied to these estimates. **Table 2** summarizes the proposed site trip generation estimates.

		Size	Da	aily	AM	- Adja	cent St	reet	PM - Adjacent Street				
	ITE	(SF or				Trips	Trips	Total		Trips	Trips	Total	
Land Use	Code	Employees	Rate	Trips	Rate	In	Out	Trips	Rate	In	Out	Trips	
<b>Recreation Center</b>	495	140,000	28.82	4,035	1.76	162	84	246	2.31	152	171	323	
General Office	710	20	3.28	66	0.37	6	1	7	0.40	2	6	8	
Gros			4,101		168	85	253		154	177	331		
10% Re		-404		-15	-8	-23		-15	-17	-32			
Net		3,697		153	77	230		139	160	299			

#### Table 2 – Trip Generation Summary

\*Based on ITE's Trip Generation Manual, 10th Ed

\*10% reduction applied to the recreation center trips to account for non-motorized travel and transit use.

## 4.2 Trip Distribution and Assignment

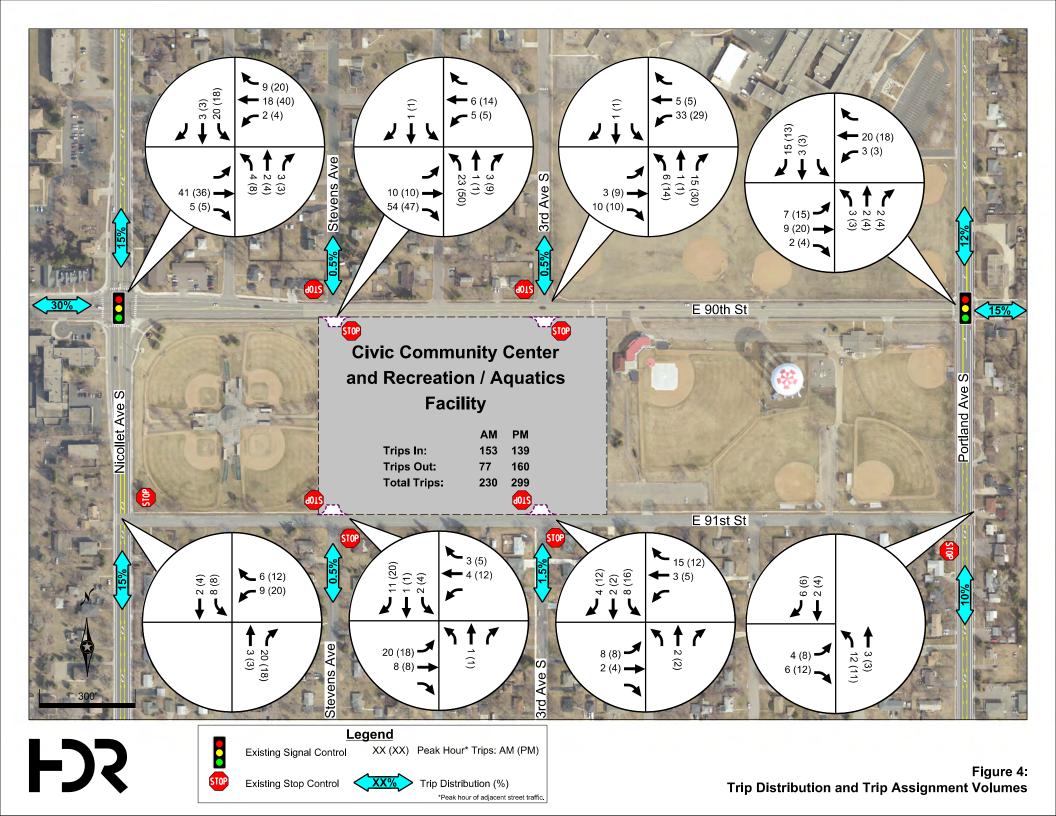
Site generated trips were distributed based on existing turn percentages, existing AADTs, the location of residential areas in the City, and conversations with City staff. The total network trips (i.e., new site trips) are anticipated to be destination-based mainly to and from residential areas, and are distributed as follows:

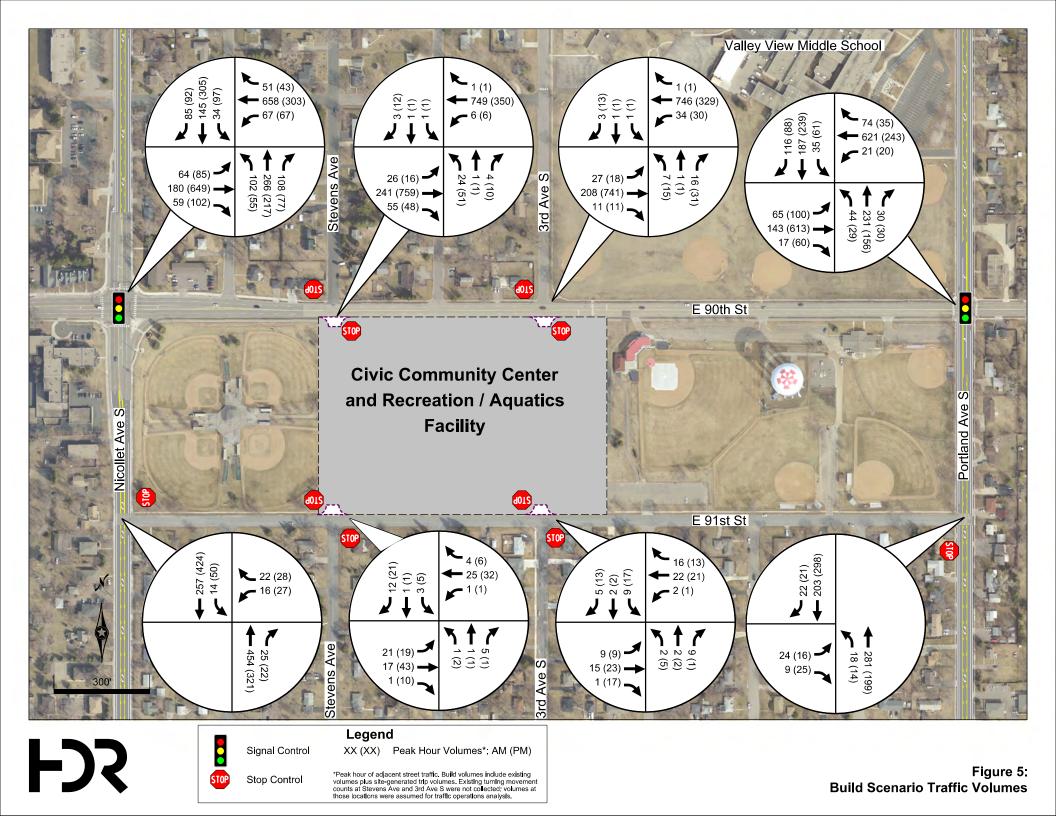
- 30% to/from the west via E 90<sup>th</sup> Street
- 15% to/from the east via E 90<sup>th</sup> St
- 15% to/from the north via Nicollet Ave S
- 15% to/from the south via Nicollet Ave S
- 12% to/from the north via Portland Ave S
- 10% to/from the south via Portland Ave S
- 3% to/from surrounding neighborhoods

**Figure 4** shows the trip distribution percentages and trip assignment volumes for new site-generated traffic that is expected to travel through the study area intersections and access locations during the AM and PM peak hours of adjacent street traffic.

## 4.3 Build Traffic Volumes

The existing traffic volumes were combined with the trip assignment volumes to form the build traffic volumes. **Figure 5** shows the build traffic volumes at the study intersections and access points. Note that existing turning movement counts at the access points are based off of assumed values because turning movement counts were not collected at those locations.





# 5.0 Operations Analysis

The following sections outline the operations analysis methodologies and results.

## 5.1 Methodology

An operations analysis for the AM and PM peak hours with and without site-generated traffic was conducted for existing year conditions. Synchro 9 was used to complete traffic operations analysis. Approach, intersection, and individual movement Level of Service (LOS), delays, 50<sup>th</sup> percentile queues, and 90<sup>th</sup> percentile queues were reported using methodology integrated from the Highway Capacity Manual (HCM) 2010.

The LOS provides an index for locations that generally operate well (LOS A or B), acceptable (LOS C or D) or poor (LOS E or F). The delay thresholds and traffic flow characteristics for LOS at intersections are presented in **Table 3**.

			Delay (sec)				
	Level of Service	Description	Signalized	Unsignalized/ Roundabout			
A	(105)	Primarily free-flow operation.	0-10	0-10			
В	00 01	- Reasonably unimpeded operation. -	>10-20	>10-15			
с	100 100 100 000	Stable operation. The ability to maneuver is more restricted than LOS B.	>20-35	>15-25			
D	00 00 00 00 00	Less stable operation. Small increases in flow may cause large increases in delay and reduced speeds.	>35-55	>25-35			
E		Unstable operation. Low speeds and considerable delay.	>55-80	>35-50			
F		Congested operation. High delay and extensive queuing.	>80	>50			

## Table 3. Level of Service Delay Thresholds and Characteristics

Source: HCM, 2010 Edition, Transportation Research Board. Exhibit 18-4 and 19-1 for Signalized and Unsignalized Intersections.

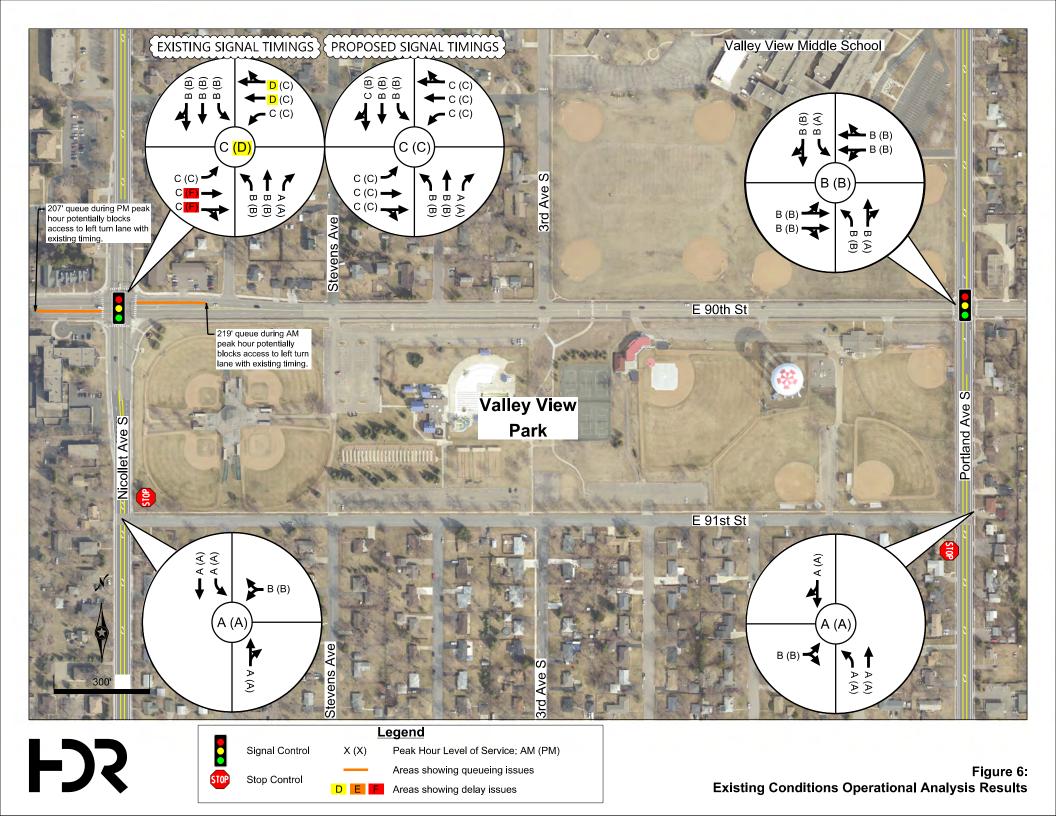
Queuing of traffic has the potential to create added delay and safety impacts when queues extend from one intersection to another. 50th percentile queues, or the length of queue with a 50% chance of occurring during the peak hour, is included in the analysis results. In addition, 95<sup>th</sup> percentile queues are also reported, but these queue lengths only have a 5% chance of occurring in the peak hour.

# 5.2 Existing Operational Analysis Results

**Figure 6** denotes the operational analysis results for the AM and PM peak hours for existing conditions (without the proposed site). Results are further detailed in **Table B-1** of **Appendix B**. Overall, analysis shows acceptable traffic conditions at all study intersections in terms of queuing (queues not exceeding available storage) and delay (LOS C or better) during both the AM and PM peak hours, with the following exceptions:

- Nicollet Ave S and E 90<sup>th</sup> Street
  - AM Peak Hour: Delay resulting in LOS D occurs in the westbound approach. Queuing in the westbound through lane periodically blocks access to the westbound left turn lane. This type of congestion is typical for the peak hour directionality on the E 90<sup>th</sup> Street corridor.
  - *PM Peak Hour*: Delay resulting in LOS E occurs in the eastbound approach. Eastbound through and right turning traffic experience approximately 83 seconds of delay, resulting in LOS F for those movements. Queuing in the eastbound through lane periodically blocks access to the eastbound left turn lane, and infrequently blocks access to and from 1<sup>st</sup> Ave S. Overall intersection level of service is D.

The existing signal timing for this intersection was investigated. The current signal cycle length for both the AM and PM peak hours is 90 seconds, and there is slightly more green time given to the northbound and southbound approaches than the eastbound and westbound approaches. Analysis of the volumes indicates that more green time can be given the eastbound and westbound movements on E 90<sup>th</sup> Street and some can be taken away from the northbound and southbound movements, while maintaining a 90 second cycle length. The exact amount of green time should be field verified over a couple of days of observation. This greatly improves the unacceptable operations noted above. The existing westbound LOS D in the AM peak hour could improve to LOS C. In the PM peak hour the existing eastbound LOS F could improve to LOS C and the overall intersection LOS D could improve to LOS C. **Figure 6** also notes the operational results at the Nicollet Ave S and E 90<sup>th</sup> Street signalized intersection with the updated timings, as well as **Table B-2** of **Appendix B.** It is noted that the City and County are currently aware of the operations and are investigating this update.





# 5.3 Build Operational Analysis Results

The Build scenario for this project includes existing conditions (with updated timings at the Nicollet Ave S and E 90<sup>th</sup> Street signalized intersection) plus proposed access points and site-generated traffic.

The following details that results of the build scenario analysis:

**Figure 7** denotes the operational results for the AM and PM peak hours for the build conditions with the proposed site (existing traffic volumes, existing geometrics, update signal timings at E 90<sup>th</sup> St/Nicollet and with site-generated traffic added). Note that results shown for the proposed access points are estimates based off of assumed volumes. Results are further detailed in **Table B-2** of **Appendix B**.

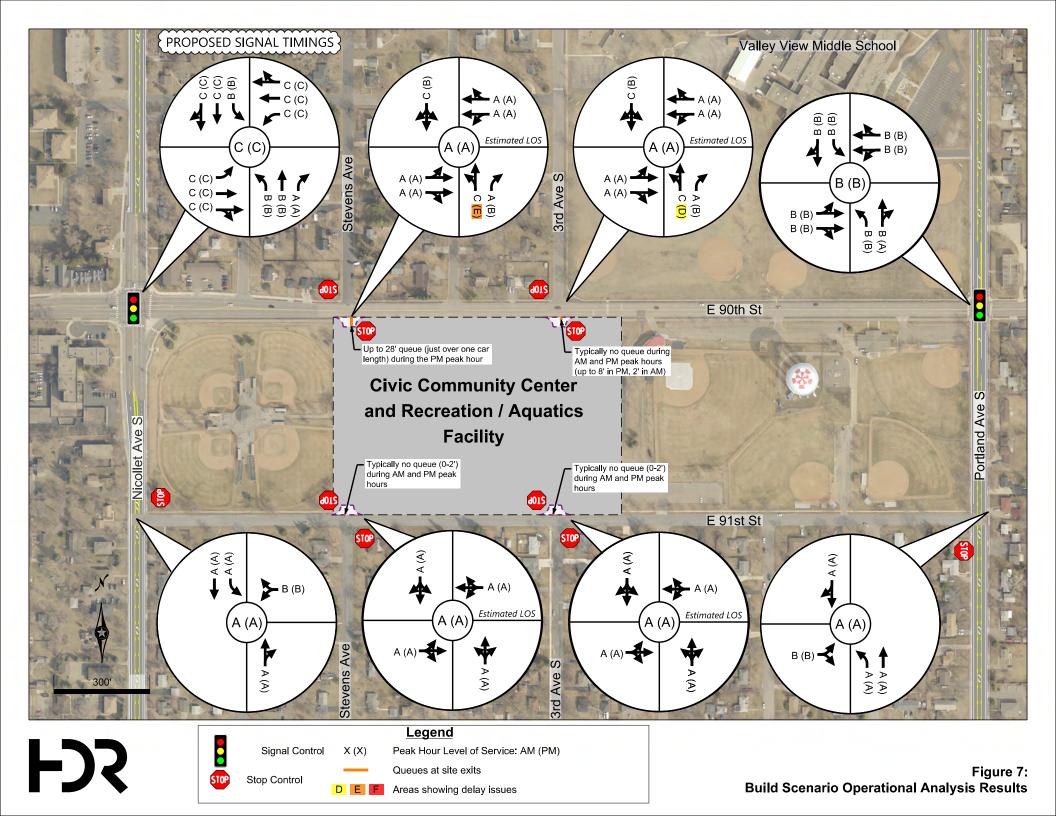
Overall, analysis shows acceptable traffic conditions at all study intersections in terms of queuing (queues not exceeding available storage) and delay (LOS C or better) during both the AM and PM peak hours, with the following exceptions:

## • E 90<sup>th</sup> Street and Stevens Ave Access

PM Peak Hour: Assumed volumes at this proposed access point result in an estimated LOS D in the northbound approach (traffic exiting the proposed site). Northbound through and left-turning traffic experience approximately 38 seconds of delay, resulting in LOS D for this movement. The associated northbound left/through lane queue of 28 feet (~1 car length) in the PM peak hour is acceptable as it does not back up into the site. This is likely a result of delay caused by high traffic volumes on E 90<sup>th</sup> Street. For analysis, it was conservatively assumed that about a third of vehicles exiting the site would do so via northbound lefts at this access point due to trip distributions shown in Figure 4. In reality, drivers may choose to use the other exit points to minimize delay, which would improve LOS at this location.

## • E 90<sup>th</sup> Street and 3rd Ave S Access

*PM Peak Hour*: Assumed volumes at this proposed access point result in an estimated LOS D for northbound through and left-turning traffic. This is likely a result of delay caused by high traffic volumes on E 90<sup>th</sup> Street. Overall, the delay for the northbound approach is estimated to be LOS C. The associated northbound left/through lane queue of 8 feet (<1 car length) in the PM peak hour is acceptable as it does not back up into the site.</li>





# 6.0 Recommendations

Based on the findings of this TIS, recommendations are made for the following locations:

- Nicollet Ave S and E 90<sup>th</sup> Street:
  - For existing conditions, it is recommended that signal timing at Nicollet Ave S and E 90th Street be updated, while maintaining coordination with adjacent signals along Nicollet Ave S. Analysis of the AM and PM peak hour volumes and timing indicates that more green time can be given the eastbound and westbound movements on E 90th Street and some can be taken away from the northbound and southbound movements while maintaining a 90 second cycle length and acceptable operations. The exact amount of green time should be field verified over a couple of days of observation. This greatly improves the unacceptable operations noted above. The City and County are currently aware of the operations and are investigating this update.
  - Due to existing and the anticipated potential increase in pedestrian activity from the Proposed Project, it is recommended that flashing yellow arrow (FYA) indications be installed in place of the existing 5-section signal heads for all the left turn movements at the Nicollet Ave S and E 90<sup>th</sup> St signalized intersection. This type of a conversion is becoming more common in Hennepin County and the City at similar signalized intersections and provides more flexibility in operations, increased compliance, and is a safety improvement for pedestrians as a red arrow can be displayed for the conflicting left turn movement when the crosswalk pushbuttons are activated.

## • E 90<sup>th</sup> Street Access Driveways:

A minimum of two site driveways are recommended on E 90<sup>th</sup> Street and should line up with the cross-streets (Stevens Ave and 3<sup>rd</sup> Ave S). At both accesses, there should be two stop-controlled exiting lanes (one shared left turn/through lane and one right turn lane) and one entry lane. It is noted that adjacent cross-streets (Stevens Ave and 3<sup>rd</sup> Ave S) are also stop controlled.

## • E 91<sup>st</sup> Street Access Driveways:

A minimum of two site driveways are recommended on 91<sup>st</sup> Street and should line up with the cross-streets (Stevens Ave and 3<sup>rd</sup> Ave S). There should be one stop-controlled exiting lane (one shared left turn/through/right turn lane) and one entry lane. It is noted that adjacent cross-streets (Stevens Ave and 3<sup>rd</sup> Ave S) are also stop controlled.

## • Site Parking Lots and Pedestrian Paths:

- The current site plan shows the northwest and southwest parking lots being connected, which will provide opportunity for parkers to circulate. It is recommended that the other parking lots be connected to allow for internal circulation during high parking demand times.
- As the site plan develops, it is recommended that the drop-off and pick-up zone be designed to encourage site circulation.
- Within the parking lots and pedestrian paths it is recommended that wayfinding signs be included to guide vehicles to parking areas and pedestrians to the facilities.

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Appendix A – Turning Movement Count Data

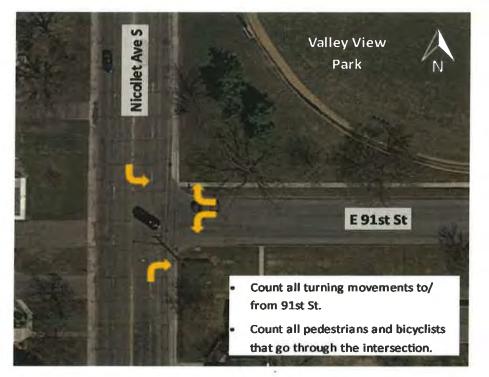
	Nicollet & 90th St																			
							(Wed	Ines	day,	Octo	ber 2	2 <b>, 20</b> 3	19)							
		So	uthbou	ind				estbou					rthbou	ind			Ea	astbou	nd	
Time	U	Left	Thru	Right	Ped / Bike	U	Left Turns	Thru	Right Turns	Ped / Bike	U	Left	Thru	Right	Ped / Bike	U	Left Turns	Thru	Right Turns	Ped / Bike
6:00	Turns 0	Turns 1	15	Turns 14	0	Turns 0	3	39	4	0	Turns 0	Turns 7	18	Turns 2	0	Turns 0	3	8	2	0
6:15	0	0	10	12	0	0	5	39	4	0	0	7	31	1	0	0	6	10	3	1
6:30	0	2	22	16	0	0	6	74	9	0	0	25	28	4	0	0	3	11	3	0
6:45	0	2	27	17	0	0	7	81	7	0	0	21	41	5	0	0	3	19	3	0
7:00	0	2	30 30	15 21	0	0	10 7	106 113	5 10	3 0	0	12 22	33 57	6 11	0	0	10 14	22 25	6 13	0
7:15 7:30	0	4	51	15	0	0	21	177	14	1	0	22	77	36	0	0	14	36	24	0
7:45	0	5	35	29	1	0	19	191	11	1	0	39	90	43	0	0	18	45	9	1
8:00	0	3	26	20	1	0	18	159	7	0	0	13	40	15	0	0	15	33	8	0
8:15	0	4	33	13	0	0	17	123	11	0	0	12	36	16	1	0	12	38	4	0
8:30	0	2	28	18	0	0	14	152	14	0	0	15	42	12	0	0	10	39	5	0
8:45	0	0	32 25	21 21	0	0	18 13	117 101	10 9	0	0	24 15	42 37	13 14	1	0	18 13	50 31	8 7	0
9:00 9:15	0	о 4	25 33	18	0	0	13	83	9 7	0	0	15	37	8	0	0	13	31	14	0
9:30	0	5	36	17	0	0	5	51	10	0	0	9	37	9	0	0	11	40	8	0
9:45	0	5	38	17	1	0	14	39	15	1	0	13	46	10	0	0	14	36	9	1
10:00	0	5	33	17	0	0	3	32	3	0	0	7	40	10	0	0	18	28	11	0
10:15	0	4	36	16	1	0	9	39	5	1	0	13	46	7	0	0	12	28	8	0
10:30	0	5 6	39	17 21	0	0	7	29	5 3	0	0	6 4	36 31	8 5	0	0	2 12	27 32	9 8	1
10:45 11:00	0	9	32 34	14	1	0	9	40 36	3 5	0	0	4	28	5 10	0	0	12	32 29	8 9	0
11:15	0	7	44	10	0	0	14	41	3	0	0	9	33	6	0	0	11	40	7	0
11:30	0	7	44	16	0	0	7	44	5	1	0	7	34	7	0	0	13	30	11	0
11:45	0	7	42	16	0	0	6	44	7	0	0	12	40	10	0	0	16	52	15	3
12:00	0	11	48	24	0	0	9	23	5	0	0	5	36	17	0	0	22	43	12	0
12:15	0	7	49	13	0	0	12	27	10	0	0	20	50	20	0	0	11	45	18	0
12:30 12:45	0	9 7	60 35	23 26	0	0	7	42 38	4	0	0	20 14	42 42	12 9	0	0	15 11	45 54	19 10	1
13:00	0	12	37	16	0	0	11	40	5	0	0	9	41	7	0	0	15	46	9	0
13:15	0	5	52	19	1	0	9	40	4	0	0	6	37	15	0	0	9	40	11	0
13:30	0	10	50	24	0	0	10	46	10	0	0	5	36	10	0	0	20	52	7	0
13:45	0	12	59	18	0	0	8	47	6	0	0	16	38	11	0	0	12	44	18	0
14:00	0	6	44	22	1	0	13	44	5	1	0	10	38	12	1	0	11	55	15	0
14:15 14:30	0	10 10	50 62	16 21	0	0	12 8	39 48	3 11	0	0	13 18	62 54	23 33	0	0	20 21	64 79	20 8	0
14:50	0	9	53	18	0	0	19	40	11	0	0	4	49	19	0	0	21	63	9	0
15:00	0	9	61	20	1	0	12	44	10	0	0	11	42	17	2	0	17	77	13	1
15:15	0	11	59	29	0	0	9	75	7	0	0	11	48	14	1	0	16	60	15	0
15:30	0	12	70	22	0	0	22	59	5	0	0	16	37	13	3	1	44	99	14	0
15:45	0	14	70	19	3	0	14	62	3	0	0	20	65	14	0	0	30	105	27	0
16:00	0	12	74	15	1	0	16	55	5 10	0	0	8 10	51	25	0	0	26	129	21	0
16:15 16:30	0	13 22	76 80	11 20	0	0	11 16	55 53	10	0	0	10	49 58	17 19	1 0	0	29 23	141 148	20 25	0
16:45	0	20	77	20	0	0	22	73	5	0	0	16	53	23	0	0	23	140	23	1
17:00	0	22	67	16	0	0	13	75	3	2	0	5	46	19	2	0	24	162	26	0
17:15	0	15	78	30	0	0	12	62	8	0	0	11	56	13	0	0	17	153	25	1
17:30	0	16	84	27	0	0	12	53	8	0	0	10	63	20	0	0	17	134	20	0
17:45	0	7	87	23	0	0	12	76	8	0	0	18	47	13	1	0	20	115	20	1
18:00	0	10	51	13	0	0	19	56	10 7	0	0	10	43	12	1	0	13	81	9	3
18:15 18:30	0	9 11	53 33	13 10	0	0	13 9	44 52	6	0	0	12 8	41 35	22 13	0	0	12 13	89 65	21 16	0
18:30	0	8	51	10	0	0	8	34	10	0	0	8	40	5	2	0	9	48	13	0
10:45	U	U	JI	19	0	U	0	J4	10	U	U	0	ΨU	5	2	0	9	40	10	U

Portland Ave & 90th St																				
							(Wed	Ines	day,	Octo	ber 2	2 <b>, 20</b> 2	19)							
		So	uthbou	und	-		W	estbou				No	rthbou	ind			Eá	astbour	nd	
Time	U	Left	Thru	Right	Ped /	U	Left	Thru	Right	-	U	Left	Thru	Right	Ped /	U	Left	Thru	Right	Ped /
				Turns		Turns	Turns	-	Turns		Turns	Turns	-	Turns	Bike		Turns		Turns	Bike
6:00	0	0	6	2	1	0	3	36	7	0	0	0	12	4	0	0	3	8	0	0
6:15 6:30	0	1 3	6 9	4	0	0	1	38 73	8 11	0	0	5 5	21 31	4	0	0	2	8 16	0	0
6:45	0	2	15	9	0	0	2	80	24	1	0	7	39	2	0	0	4	15	1	0
7:00	0	6	18	8	0	0	3	97	23	2	0	8	45	3	0	0	7	20	3	1
7:15	0	3	34	8	0	0	4	115	18	1	0	11	58	4	1	0	12	19	4	0
7:30	0	14	74	39	0	0	7	157	20	1	0	13	80	7	0	0	19	33	1	1
7:45	0	16	47	40	0	0	5	163	22	0	0	11	59	9	0	0	19	50	6	0
8:00	0	2	29	14	0	0	2	166	14	1	0	6	32	8	0	0	8	32	4	1
8:15	0	2	32	13	0	0	6	132	17	0	0	8	32	3	1	0	11	33	2	0
8:30	0	8	26	12	0	0	6	143	14	0	0	6	35	9	0	0	8	39	2	0
8:45	0	6	16	8	0	0	4	123	14	1	0	6	37	5	0	0	17	32	5	0
9:00	0	8	26	16	0	0	7	88	10	0	0	11	29	3	0	0	10 4	36	3	0
9:15	0	5 0	19 24	11 10	0	0	0	77 48	6 6	0	0	6 5	28 33	3	0	0	4 11	25 42	5 4	0
9:30 9:45	0	3	24 17	10	0	0	о З	48	6 7	0	0	э 4	33	4	0	0	13	42 35	4	0
10:00	0	4	29	11	0	0	1	28	8	1	0	2	27	2	0	0	14	25	2	0
10:00	0	6	13	6	0	0	1	28	6	0	0	5	16	1	0	0	9	20	3	0
10:30	0	5	25	8	1	0	1	33	7	0	0	2	21	3	0	0	8	27	2	0
10:45	0	9	23	9	0	0	2	36	8	0	0	3	20	3	0	0	9	24	4	0
11:00	0	4	23	13	0	0	1	29	6	0	0	4	23	2	0	0	6	27	7	0
11:15	0	6	21	10	0	0	3	40	8	1	0	3	34	4	0	0	9	34	9	0
11:30	0	6	25	9	0	0	2	37	7	0	0	3	21	4	0	0	6	26	3	1
11:45	0	7	34	12	0	0	1	37	11	0	0	5	16	4	0	0	15	43	8	0
12:00	0	2	21	5	0	0	2	21	3	0	0	4	26	6	0	0	5	47	8	0
12:15	0	9	27	9	0	0	4	26 41	11	0	0	6	25 25	2	0	0	14	42	3	0
12:30 12:45	0	9 7	19 34	9 5	0	0	0	27	9 11	0	0	3 5	25 21	5 6	0	0	13 11	45 44	5 8	1
12:45	0	4	34	12	0	0	5	36	5	0	0	6	26	3	0	0	12	52	4	0
13:15	0	7	15	6	0	0	2	27	2	0	0	10	27	1	0	0	13	37	6	0
13:30	0	6	34	11	0	0	1	40	6	1	0	4	25	3	0	0	8	50	5	0
13:45	0	9	33	13	0	0	2	38	6	0	0	2	24	2	0	0	8	46	9	0
14:00	0	6	34	10	0	0	3	41	9	0	0	8	26	3	0	0	11	44	14	0
14:15	0	2	43	8	0	0	4	35	4	0	0	2	45	6	0	0	21	55	9	0
14:30	0	8	35	19	0	0	1	40	9	0	0	8	51	6	0	0	17	74	8	0
14:45	0	20	68	39	1	0	3	54	8	0	0	3	30	6	4	0	11	82	5	4
15:00	0	10	44	12	0	0	5	51	3	0	0	3	29	6	0	0	17	65	8	1
15:15	0	21	48	19	0	0	4	52	6	0	0	7	28	5	0	0	9	66	7	0
15:30 15:45	0	17 17	40 51	19 12	1	0	7	53 52	13 7	0	0	7 5	43 37	1 9	0	0	8 12	102 110	9 16	1 0
15:45	0	17	42	12	0	0	0 10	52 44	5	0	0	2	41	8	0	0	12	123	17	0
16:15	0	17	49	17	1	0	1	46	6	0	0	6	43	4	0	0	18	131	19	0
16:30	0	16	53	20	1	0	5	45	6	1	0	6	36	1	0	0	22	135	17	0
16:45	0	16	59	19	0	0	2	64	12	0	0	7	41	9	0	0	24	148	10	0
17:00	0	13	66	23	0	0	4	61	8	0	0	9	31	5	0	0	19	169	11	0
17:15	0	16	58	13	0	0	6	55	9	0	0	4	44	11	0	0	20	141	18	0
17:30	0	16	66	17	0	0	5	44	4	0	0	7	28	2	1	0	20	109	11	0
17:45	0	11	55	31	0	0	3	55	13	0	0	8	53	4	0	0	12	113	15	0
18:00	0	10	48	22	0	0	1	47	4	0	0	5	29	1	0	0	18	73	15	0
18:15	0	16	44	17	0	0	2	42	2	0	0	4	35	9	0	0	12	92	8	0
18:30	0	9	31	10	0	0	1	50	10	0	0	4	25	9	0	0	7	55	8	0
18:45	0	7	29	8	0	0	5	36	8	0	0	10	29	4	0	0	19	55	7	0

City of Bloomington – Traffic & Parking Study for Community and Recreation Center - Data Collection FormTraffic Data Collection Sheet - Nicollet Ave S & E 91st St1 of 1Date/Time: October 22, 2019 AM (7:15-8:15 AM and 4:30-5:30 PM)

Data Collector(s): Jacob Nichols

			Time	e Period					
	Movement	7:15 AM to 8:15	5 AM	4:30 PM to 5:30 PM					
	NB Right Turn	****	= 5	4111- 11	-4				
	SB Left Turn	7841-1	= 6	1414- 1144-	HHH- =42				
	WB Left Turn	<del>1141</del> []	= 1	11 +++	= 7				
	WB Right Turn	7446774446774441	= 16	1114 7814 1111 1	= 16				
Peds	North Crossing								
	South Crossing			1					
	East Crossing	1		11					
Bikes	NB Thru								
	NB Right Turn			1					
	SB Thru	1		1					
	SB Left Turn								
	WB Left Turn								
	WB Right Turn								



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1 of 1

City of Bloomington – Traffic & Parking Study for Community and Recreation Center - Data Collection Form

Traffic Data Collection Sheet - Portland Ave S & E 91st St Date/Time: October 22, 2019 AM (7:15-8:15 AM and 4:30-5:30 PM) Data Collector(s): Sarah Irmen (HDR)

			Time	Period	
	Movement	7:15 AM to 8:15 AM	1	4:30 PM to 5:30	) PM
	SB Right Turn	MAR THRE THEI I	16	HU HU HI	15
	NB Left Turn	1111	6		3
	EB Left Turn	MI THE HELT	20	111-111	B
	EB Right Turn		3	HAL THE III	13
Peds	North Crossing	$\bigcirc$			
	South Crossing	Õ			3
	West Crossing	O			4
Bikes	SB Thru	$\bigcirc$		8 0	
	SB Right Turn	$\bigcirc$		B	
	NB Thru	Ô		O	
	NB Left Turn	$\bigcirc$		0	
	EB Left Turn	$\bigcirc$		0	
	EB Right Turn	Ŏ		Õ	



701 Xenia Avenue South, Suite 600, Minneapolis, MN 55416-3636 (763) 591-5400 Appendix B – Traffic Operations Results

					A	M			PM							
			Movem	nent	Approa	ach	Back of C	ueue (ft)	Movem	ent	Approa	ach	Back of C	ueue (ft)		
Intersection	Approach	Movement	Delay (s)	LOS	Delay (s)	LOS	50th %ile	95th %ile	Delay (s)	LOS	Delay (s)	LOS	50th %ile	95th %ile		
E 90th St &	EB	Left	25.5	С	26.6	С	25	47	26.3	С	76.9	Е	31	62		
Nicollet Ave	-	Thru	26.9	С			37	61	82.6	F			207	#323		
S (Signalized)	-	Thru/Right	27.1	С			0	0	83.1	F			0	0		
	WB	Left	22.5	С	43.3	D	25	48	28.9	С	31.5	С	25	50		
		Thru	45.4	D			219	271	32.1	С	]		78	117		
	•	Thru/Right	45.1	D			0	0	32.1	С	1		0	0		
	NB	Left	13.5	В	15.3	В	47	61	11.5	В	13.8	В	15	34		
		Thru	15.9	В			87	109	14.3	В	T		53	89		
		Thru/Right	0	А			0	0	0	А	Ĩ		0	0		
	SB	Left	15.3	В	18.2	В	5	15	11.2	В	14.5	В	24	48		
		Thru	18.2	В			36	66	15.2	В	I		77	118		
		Thru/Right	18.4	В			0	0	15.3	В	Ī		0	0		
	Overall				29.7	С					43.8	D				
E 90th St &	EB	Thru/Left	16.3	В	13.7	В	31	37	16.1	В	16.8	В	95	142		
Portland Ave		Thru/Right	11.8	В			0	0	17.6	В	1		0	0		
S (Signalized)	WB	Thru/Left	13.8	В	14.1	В	90	127	12.6	В	12.7	В	27	47		
		Thru/Right	14.5	В			0	0	12.7	В			0	0		
	NB	Left	16.1	В	12.1	В	9	24	11.3	В	9	Α	5	17		
		Thru/Right	11.4	В			61	96	8.6	А			34	67		
	SB	Left	13.2	В	13.9	В	9	19	9.9	Α	10.2	В	12	32		
		Thru/Right	14	В			76	89	10.2	В			59	118		
	Overall				13.6	В					13.5	В				
E 91st St &	WB	Left/Right	13.7	В	13.7	В	-	4	11.5	В	11.5	В	-	2		
Nicollet Ave	NB	Thru/Right	-	А	0	А	-	-	-	А	0	А	-	-		
S (SSSC)	SB	Left	9	А	0.2	А	-	0	8.1	Α	0.7	Α	-	2		
		Thru	-	А			-	-	-	Α	[		-	-		
	Overall				0.4	Α					0.7	Α				
E 91st St &	EB	Left/Right	14.2	В	14.2	В	-	4	11.2	В	11.2	В	-	2		
Portland Ave	NB	Left	8	А	0.2	А	-	0	7.9	А	0.1	Α	-	0		
S (SSSC)		Thru	-	А			-	-	-	А			-	-		
	SB	Thru/Right	-	А	0	А	-	-	-	А	0	А	-	-		
	Overall				0.6	Α					0.5	Α				
Notos:																

#### Table B-1 – Existing Conditions Operational Analysis Results

Notes:

\*HCM 2010 results are shown.

# Table B-2 – Existing Conditions Operational Analysis Results (with Split Times Optimized at E 90<sup>th</sup> St & Nicollet Ave S)

					А	М					Р	М		
			Movem	nent	Approa	ach	Back of C	ueue (ft)	Movem	ent	Approa	ach	Back of C	ueue (ft)
Intersection	Approach	Movement	Delay (s)	LOS	Delay (s)	LOS	50th %ile	95th %ile	Delay (s)	LOS	Delay (s)	LOS	50th %ile	95th %ile
E 90th St &	EB	Left	23.6	С	24.8	С	24	39	21.7	С	32.4	С	30	49
Nicollet Ave	-	Thru	25.1	С			36	52	33.6	С			197	234
S (Signalized)		Thru/Right	25.2	С			0	0	33.7	С			0	0
	WB	Left	20.9	С	33.2	С	24	39	23.7	С	26.1	С	24	39
	_	Thru	34.5	С			213	234	26.6	С			74	95
		Thru/Right	34.4	С			0	0	26.7	С			0	0
	NB	Left	14.8	В	16.7	В	48	72	14.8	В	17.5	В	16	42
	-	Thru	17.4	В			92	127	18	В			58	111
	-	Thru/Right	0	Α			0	0	0	Α			0	0
	SB	Left	16.7	В	19.8	В	5	18	14.5	В	18.5	В	25	60
	-	Thru	19.9	В			37	71	19.3	В	I		83	145
		Thru/Right	20.1	С			0	0	19.4	В			0	0
	Overall				25.7	С					25.7	С		

Notes:

\*HCM 2010 results are shown. Traffic signal split times were optimized at E 90th St & Nicollet Ave S.



InteractionInteractio															
InteractionJornalJornalPartial <th></th> <th></th> <th></th> <th>Movem</th> <th></th> <th colspan="3"></th> <th colspan="2">Movement</th> <th colspan="2"></th> <th colspan="2">Back of Queue (ft)</th>				Movem					Movement				Back of Queue (ft)		
Formation Formaly (signamic) (signamic) (signamic) (signamic)indification (signamic) (signamic)indice (signamic) (signamic) <t< th=""><th>Intersection</th><th>Approach</th><th>Movement</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>	Intersection	Approach	Movement												
Nicolite No \$ (\$ignalize) $TravAI3CCTravSISSSIS$															
Signarized (Signarized)manupat (Mathef Mathef	Nicollet Ave		Thru									-			
Image <th< th=""><td>S (Signalized)</td><td></td><td>Thru/Right</td><td></td><td></td><td></td><td></td><td>0</td><td></td><td></td><td>С</td><td></td><td></td><td></td><td></td></th<>	S (Signalized)		Thru/Right					0			С				
Image <th< th=""><td></td><td>WB</td><td>Left</td><td>20.3</td><td>С</td><td>33.1</td><td>С</td><td>24</td><td>40</td><td>23</td><td>С</td><td>25.7</td><td>С</td><td>25</td><td>41</td></th<>		WB	Left	20.3	С	33.1	С	24	40	23	С	25.7	С	25	41
Naeff162813.389517415.88818.5819819810113Torr/Repr10.610.600<			Thru	34.3	С			221	244	26.2	С			88	112
Image <th< th=""><td></td><td></td><td>Thru/Right</td><td>34.2</td><td>С</td><td></td><td></td><td>0</td><td>0</td><td>26.2</td><td>С</td><td></td><td></td><td>0</td><td>0</td></th<>			Thru/Right	34.2	С			0	0	26.2	С			0	0
		NB	Left	16.2	В	18.5	В	51	74	15.8	В	18.5	В	19	48
Setiff i				19.3	В			120	132	19.2	В			61	113
image <th< th=""><td></td><td></td><td>Thru/Right</td><td>0</td><td>Α</td><td></td><td></td><td>0</td><td>0</td><td>0</td><td>Α</td><td></td><td></td><td>0</td><td>0</td></th<>			Thru/Right	0	Α			0	0	0	Α			0	0
		SB		16.8		20.5	С	13		15.5		19.7	В		
OverallOverallC			-												
Forth st &         EB         Thru/left         16.8         B         13.7         B         33         40         16.3         B         16.9         B         100         154           S(signalized)         WB         Thru/left         13.4         B         13.7         B         93         132         12.1         B         12.2         B         12.2<			Thru/Right	21.2	С			0	0	20.8	С			0	0
Portland Ave \$\$ (signalized)         Trun/Eight         11.5         B         Part of the sector of the secto		Overall				26.1	С				-	25.9	С		
S (Signalized)         WB         Thu/light         11.4         18         13.7         P	E 90th St &	EB	Thru/Left	16.8	В	13.7	В	33	40	16.3	В	16.9	В	100	154
Image         Image <t< th=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>															
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Overall         Overall         Image: bold of the section of the sec		SB				15.7	В					11.2	В		
E91st 8: Nicollet Ave S(SSC)         WB         lef(Might)         14.6         B         14.6         B         -         6         12.9         B         12.9         B         -         8           Nicollet Ave S(SSC)         NB         Thru/Right         -         A         0.5         A         -         -         A         0.9         A         -         2           SB         Left         9.2         A         0.5         A         -         -         A         0.9         A         -         2           Form/Tur         -         A         0.5         A         -         2         8.2         A         0.9         A         -         -         -         A         -         0         A         -         0         A         -         0         A         -         0         A         -         0         A         -         0         A         -         0         A         -         0         A         -         0         0         A         -         0         A         -         0         A         -         0         A         -         0         A         A			Thru/Right	16	В			83	95	11.3	В			64	124
		Overall				14.1	В					13.8	В		
$ \begin{split} \textbf{S} (SSSC) \hline SB & $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$	E 91st St &	WB	Left/Right	14.6	В	14.6	В	-	6	12.9	В	12.9	В	-	8
Image         Image <t< th=""><td>Nicollet Ave</td><td></td><td>Thru/Right</td><td>-</td><td>Α</td><td></td><td>Α</td><td>-</td><td>-</td><td>-</td><td>Α</td><td></td><td>Α</td><td>-</td><td>-</td></t<>	Nicollet Ave		Thru/Right	-	Α		Α	-	-	-	Α		Α	-	-
	S (SSSC)	SB		9.2	Α	0.5	Α	-	2	8.2	Α	0.9	Α	-	2
E91st St & Portland Ave S (SSSC)         EB $teft$ 8.1         A.4         B         1.4.4			Thru	-	Α			-	-	-	Α			-	-
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	E 91st St &	EB	Left/Right	14.4	В	14.4	В	-	6	11.7	В	11.7	В	-	4
$ \begin{array}{ c c c c c c c } \hline SB & Thru/Right & - & A & 0 & A & - & - & - & A & 0 & A & - & - \\ \hline \hline Overall & & & & & & & & & & & & & & & & & & $	Portland Ave	NB	Left	8.1	Α	0.5	А	-	2	8	Α	0.5	Α	-	0
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	S (SSSC)			-				-	-	-				-	-
E 90th St & Stevens Ave Access (SSSC)         EB         Thru/Left         9.9         A         1         A         -         2         8.2         A         0.3         A         -         0           Access (SSSC)         WB         Thru/Left         8         A         0.1         A         -         0.1         A         0.3         A         -         0           MB         Thru/Left         8         A         0.1         A         -         0.0         9.7         A         0.3         A         -         0           NB         Thru/Left         2.2.1         C         2.03         C         -         8         38.4         E         3.4         D         -         2.2           SB         U/T/R         18.6         C         18.6         C         -         2         11.8         B         11.8         B         -         2         2         3.6         -         2         2         3.6         -         2         2         3.6         -         2         2         3.6         -         2         3.6         -         2         3.6         -         2         3.6         -		SB	Thru/Right	-	Α	0	Α	-	-	-	Α	0	Α	-	-
Stevens Ave Access (SSSC) $Thru/Right         0.2         A         I        <$		Overall				0.9	Α				-	1	Α		
Access (SSS)       WB       Thu/Left       8       A       0.1       A       -       0       9.7       A       0.3       A       -       0         Ma       Thu/Left       22.1       C       20.3       C       -       8       38.4       E       34       D       -       28         SB       /T/lk       18.6       C       18.6       C       -       2       11.8       B       11.8       B       11.8       B       -       28         Overall       Overall       0.2       A       1.3       A       -       2       8.1       A       0.3       A       -       2         Access (SSSC)       WB       Thru/Left       9.9       A       1.3       A       -       2       8.1       A       0.3       A       -       2         Access (SSSC)       WB       Thru/Left       7.8       A       0.5       A       -       2       9.6       A       1       A       -       -       -       0.1       A       -       -       -       -       -       -       -       -       -       -       -       -       -	E 90th St &	EB		9.9	Α	1	А	-	2	8.2	Α	0.3	А	-	0
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E90th St & 3rd Ave S         EB         Thru/Left         9.9         A         1.3         A          2         8.1         A         0.3         A          0           Arcess (SSSC)         WB         Thru/Left         7.8         A         0.5         A          2         9.6         A         1         A          2           Macess (SSSC)         WB         Thru/Left         7.8         A         0.5         A          2         9.6         A         1         A          2           MB         Thru/Left         0.2         A         0.5         A          2         9.6         A         1         A          2           NB         Thru/Left         22.2         C         13.5         B          2         31.1         D         18.1         C          4           SB         U/T/R         19.4         C         19.4         C          2         11.7         B         11.7         B          2           Overall         U/T/R         7.3         A         0.2			L/ I/R	18.6	С			-	2	11.8	В			-	2
Thru/Right       0.2       A       -       -       0.1       A       -														-	
Access (SSSC)       WB       Thru/Left       7.8       A       0.5       A       -       2       9.6       A       1       A       -       2         Mccess (SSSC)       Thru/Left       22.2       C       13.5       B       -       2       31.1       D       18.1       C       -       8         NB       Thru/Left       22.2       C       13.5       B       -       2       31.1       D       18.1       C       -       4         SB       U/T/R       19.4       C       19.4       C       -       2       11.7       B       11.7       B       -       2         Overall       U       T/7/R       7.3       A       3.9       A       -       0       7.3       A       1.9       A       -       0         Stevens Ave       WB       U/T/R       7.3       A       3.9       A       -       0       7.3       A       9.0       A       -       0         Stevens Ave       WB       U/T/R       8.7       A       8.7       A       -       0       7.3       A       0.2       A       -       0      <		EB				1.3	А	-				0.3	Α	-	
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Right         9.1         A         -         2         11.4         B         -         4           SB $U/T/R$ 19.4         C         19.4         C         -         2         11.7         B         11.7         B         -         4           SB $U/T/R$ 19.4         C         19.4         C         -         2         11.7         B         11.7         B         -         2           Overall           -         A         3.9         A         -         0         7.3         A         1.9         A         -         0           Stevens Ave         WB $U/T/R$ 7.3         A         0.2         A         -         0         7.3         A         0.2         A         -         0         7.3         A         0.2         A         -         0           Access (SSSC)         NB $U/T/R$ 8.7         A         8.7         A         -         2         8.8         A         8.8         A         -         2           SB $U/T/R$ 8.7         A         8.7         A <t< th=""><td></td><td>ND</td><td></td><td></td><td></td><td>12.5</td><td>-</td><td></td><td></td><td></td><td></td><td>10.4</td><td></td><td></td><td></td></t<>		ND				12.5	-					10.4			
SB         U/T/R         19.4         C         19.4         C         19.4         C         -         2         11.7         B         11.7         B         11.7         B         1.7         B         1.0         C         1.0         1.7         B		NB				13.5	В					18.1	С		
Overall         Image: A		C D				10.4	<u>_</u>					11 7	P		
E91st St & EB       L/T/R       7.3       A       3.9       A       -       0       7.3       A       1.9       A       -       0         Stevens Ave Stevens Ave Access (SSSC)       WB       L/T/R       7.3       A       0.2       A       -       00       7.3       A       0.2       A       -       0         Access (SSSC)       NB       L/T/R       8.7       A       8.7       A       -       00       9.4       A       9.4       A       -       0         SB       L/T/R       8.7       A       8.7       A       -       2       8.8       A       9.4       A       -       0         Overall			L/ 1/ K	19.4	L			-	2	11.7	В			-	2
Stevens Ave Access (SSSC)         WB         L/T/R         7.3         A         0.2         A         -         0         7.3         A         0.2         A         -         0           Access (SSSC)         NB         L/T/R         8.7         A         8.7         A         8.7         A         -         0         9.4         A         9.4         A         -         0           SB         L/T/R         8.7         A         8.7         A         8.7         A         -         0         9.4         A         9.4         A         -         0           SB         L/T/R         8.7         A         8.7         A         8.7         A         -         2         8.8         A         9.4         A         -         0           Overall         Image: Control of the state			1 1 10										-	1	-
Access (SSSC)       NB $l/T/R$ 8.7       A       8.7       A       -       0       9.4       A       9.4       A       -       0         SB $l/T/R$ 8.7       A       8.7       A       8.7       A       -       0       9.4       A       9.4       A       9.4       A       -       0         SB $l/T/R$ 8.7       A       8.7       A       -       2       8.8       A       8.8       A       -       2         Overall $\bullet$															
SB     L/T/R     8.7     A     8.7     A     -     2     8.8     A     8.8     A     -     2       Overall     3.9     A     -     2     8.8     A     8.8     A     -     2       E 91st St & 3rd Ave S     EB     L/T/R     7.3     A     2.6     A     -     0     7.3     A     1.3     A     -     0       Access (SSSC)     WB     L/T/R     7.3     A     0.2     A     -     0     7.3     A     0.2     A     -     0       Access (SSSC)     NB     L/T/R     8.7     A     8.7     A     -     0     9.2     A     9.2     A     -     0       SB     L/T/R     9     A     9     A     -     2     9     A     9.2     A     -     0       SB     L/T/R     9     A     9     A     -     2     9     A     9     A     -     2       Overall     3.5     A     -     3.5     A     -     3.5     A     -															
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Access (SSSC)														
E 91st St & T/T/R       EB       L/T/R       7.3       A       2.6       A       -       00       7.3       A       1.3       A       -       0         3rd Ave S       WB       L/T/R       7.3       A       0.2       A       -       0       7.3       A       1.3       A       -       0         Access (SSSC)       NB       L/T/R       8.7       A       8.7       A       -       0       9.2       A       9.2       A       -       0         SB       L/T/R       9       A       9       A       -       2       9       A       9       A       -       2         Overall       3.5       A       -       10			L/ I/K	8.7	А			-	2	8.8	А			-	
MB         L/T/R         7.3         A         0.2         A         -         0         7.3         A         0.2         A         -         0           Access (SSSC)         NB         L/T/R         8.7         A         8.7         A         -         0         9.2         A         9.2         A         -         0           SB         L/T/R         9         A         9         A         -         2         9         A         9         2         2           Overall         3.5         A         -         2         9         A         9         2         2         3         4         -         2         2         3         4         -         2         2         3         4         -         2         2         3         4         -         2         3         4         -         2         3         4         -         2         3         4         -         2         3         4         -         2         3         4         -         2         3         4         -         2         3         4         -         2         3         5													-		
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SB         L/T/R         9         A         9         A         -         2         9         A         9         A         -         2           Overall         3.5         A         -         2         9         A         9         A         -         2														-	
Overall 3.5 A 3.5 A	Access (SSSC)							-						-	
			L/ I/R	9	A			-	2	9	А			-	2
		Overall				3.5	Α					3.5	Α		

## Table B-2 – Build Conditions Operational Analysis Results

Notes:

\*HCM 2010 results are shown. Traffic signal split times were optimized at E 90th St & Nicollet Ave S.

\*Results shown for site access points are estimated based off of assumed volumes.

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