PLANNING COMMISSION MEETING

ENGINEERING



CROZET PARK AQUATICS & FITNESS CENTER



PRODUCED IN ASSOCIATION WITH



AGENDA

INSPIRATION AND INPUT

- COMPREHENSIVE PLAN OF ALBEMARLE COUNTY
- CROZET MASTER PLAN

PART I: ENVIRONMENTALLY CONSCIOUS INTERVENTIONS

- PRESERVING GREENSPACE
- PRESERVING BUCOLIC AREAS
- PRESERVING AND HIGHLIGHTING VIEWSHEDS
- BEING MINDFUL OF PEDESTRIAN AND VEHICULAR TRAFFIC

PART III: IMPACT OF THE BUILDING STRUCTURE

- RELATIONSHIP TO THE EXISTING ADJACENT NEIGHBORHOODS
- SIZE AND SCALE OF THE PROJECT

PART III: RESPONSE TO TRAFFIC CONSIDERATIONS

- LOCATION OF CONSTRUCTION ENTRANCE
- LOCATION OF REAR ENTRANCE
- RELATIONSHIP TO SURROUNDING COMMUNITY



MEETING AGENDA

SLIDE INFORMATION:

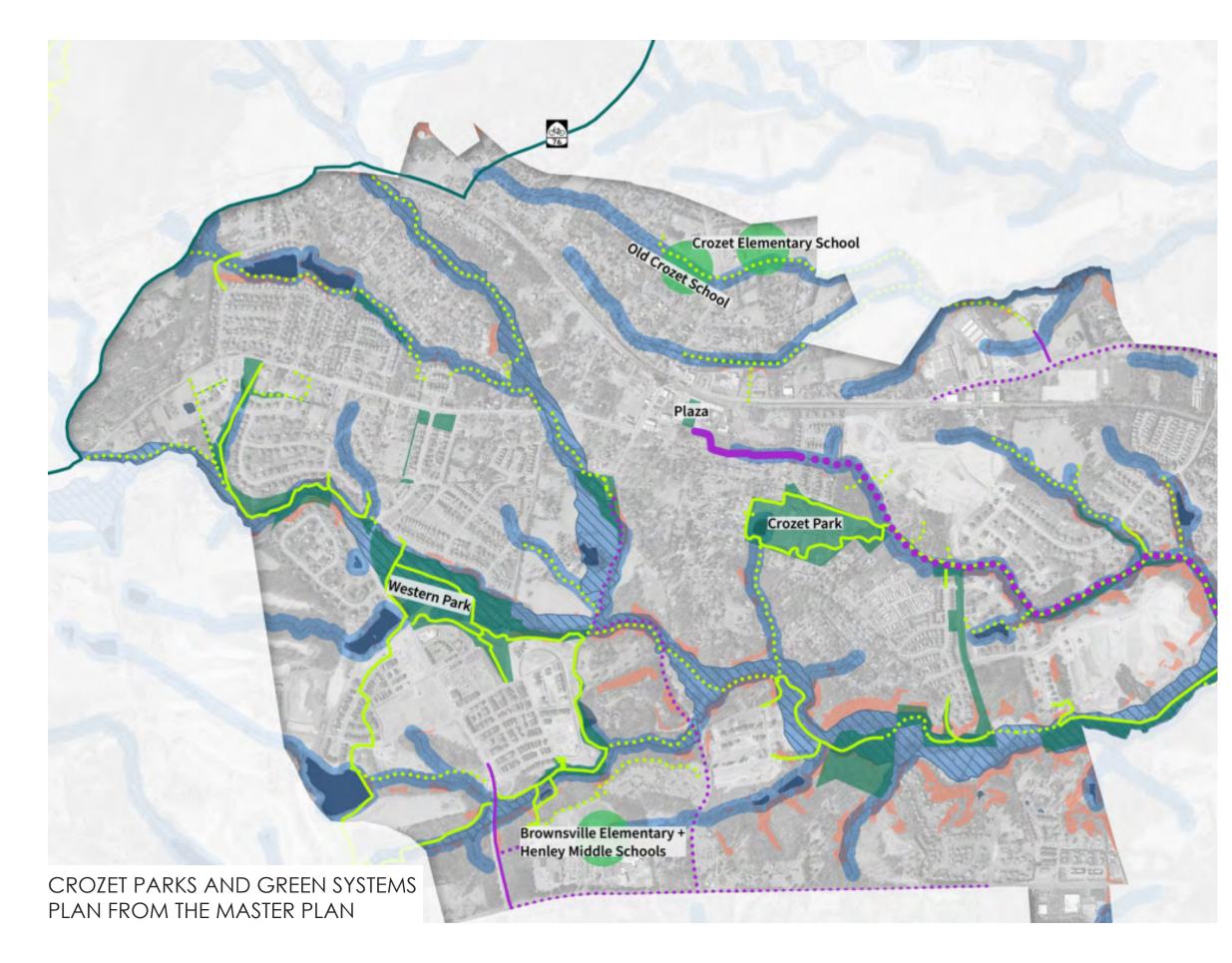
1. REFINEMENTS

- Review changes made since the March 23rd public hearing.

 While refining the design, we kept in mind the quote from Commissioner Chair Mr. Bivins

 "I would encourage you to sit with staff and see if there is a way forward, as we are hopeful this can be an added set of features to Crozet Park."





CROZET MASTER PLAN

SLIDE INFORMATION:

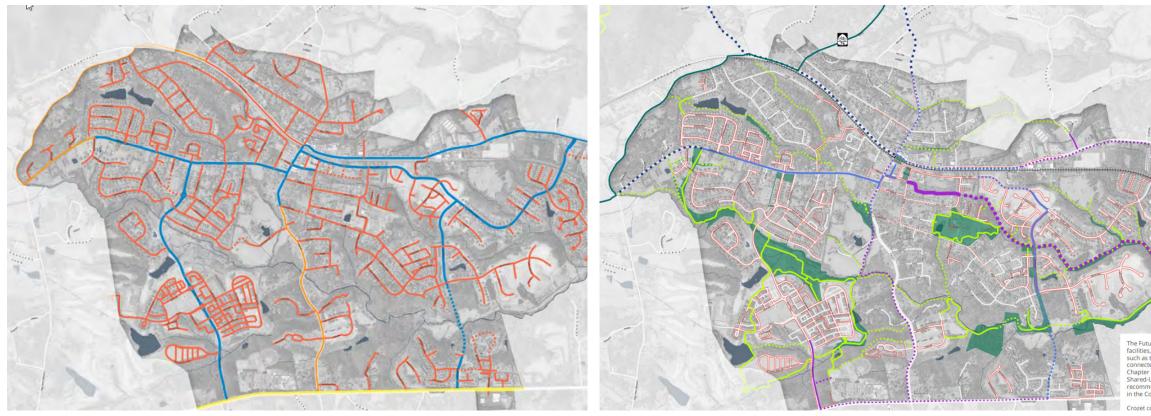
1. HOW THE PROJECT BENEFITS THE COMMUNITY

- The goal of the Park Board and DD is to provide a largely community-funded infrastructure project in the form of enhanced park facilities.

- This includes an indoor pool, and indoor walking track, and new community gathering spaces.

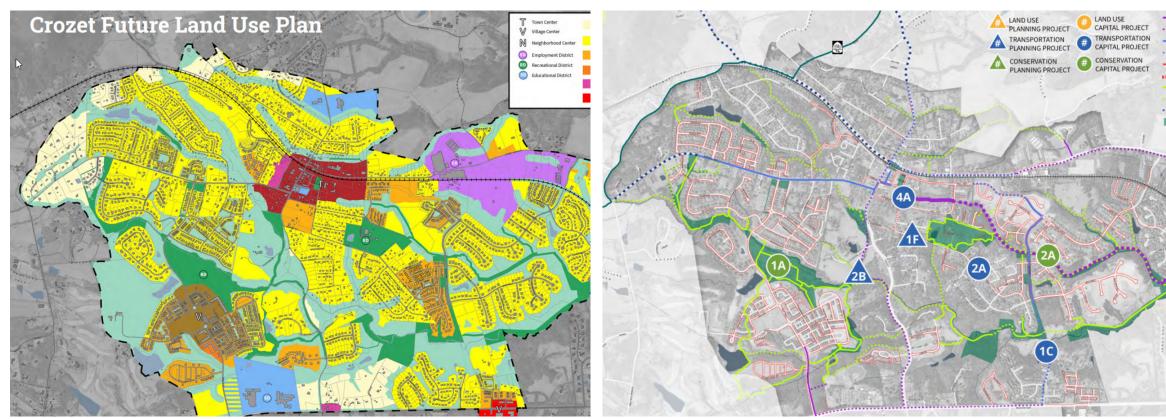
- In order to design the best possible project, DD elicits input from a variety of sources. This includes the Albemarle County Comprehensive Plans, Crozet Master Plans, Albemarle County Parks and Recreation needs assessments, and Crozet Park's own community and membership surveys.





FUTURE STREET NETWORK

FUTURE BICYCLE AND PEDESTRIAN NETWORK



LAND USE

CROZET PARK

AQUATICS AND FITNESS CENTER

LOCATION OF CATALYST PROJECTS

CROZET MASTER PLAN



SLIDE INFORMATION:

1. CROZET: A GROWING COMMUNITY - Crozet Park has been a focus as a facility to expand to serve this growing community.

- The 2021 Crozet Master Plan mentions Crozet Park about 50 times in its narrative.

- This speaks to the importance of the park as a service provider to the Crozet Downtown

2. THE IMPACT OF CROZET PARK - The existing Crozet Park is consistent with the allowable uses in the greenspace of the Crozet Master Plan.

- The expansion of the Crozet Park is consistent with the community life goal of the Crozet Master Plan. The improvements will help continue to provide an adequate facility in the Crozet community for fairs, festivals, recreation and events.



Bicycle a uch as si ils. Both bicycle a commer e Paths t dations servation

PART I: ENVIRONMENTALLY CONSCIOUS INTERVENTIONS

OPEN, PASTORAL, BUCHOLIC PLANNED, PROGRAMMED, SPECIFIC USES

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BUCOLIC AND PROGRAMMED AREAS OF CROZET PARK

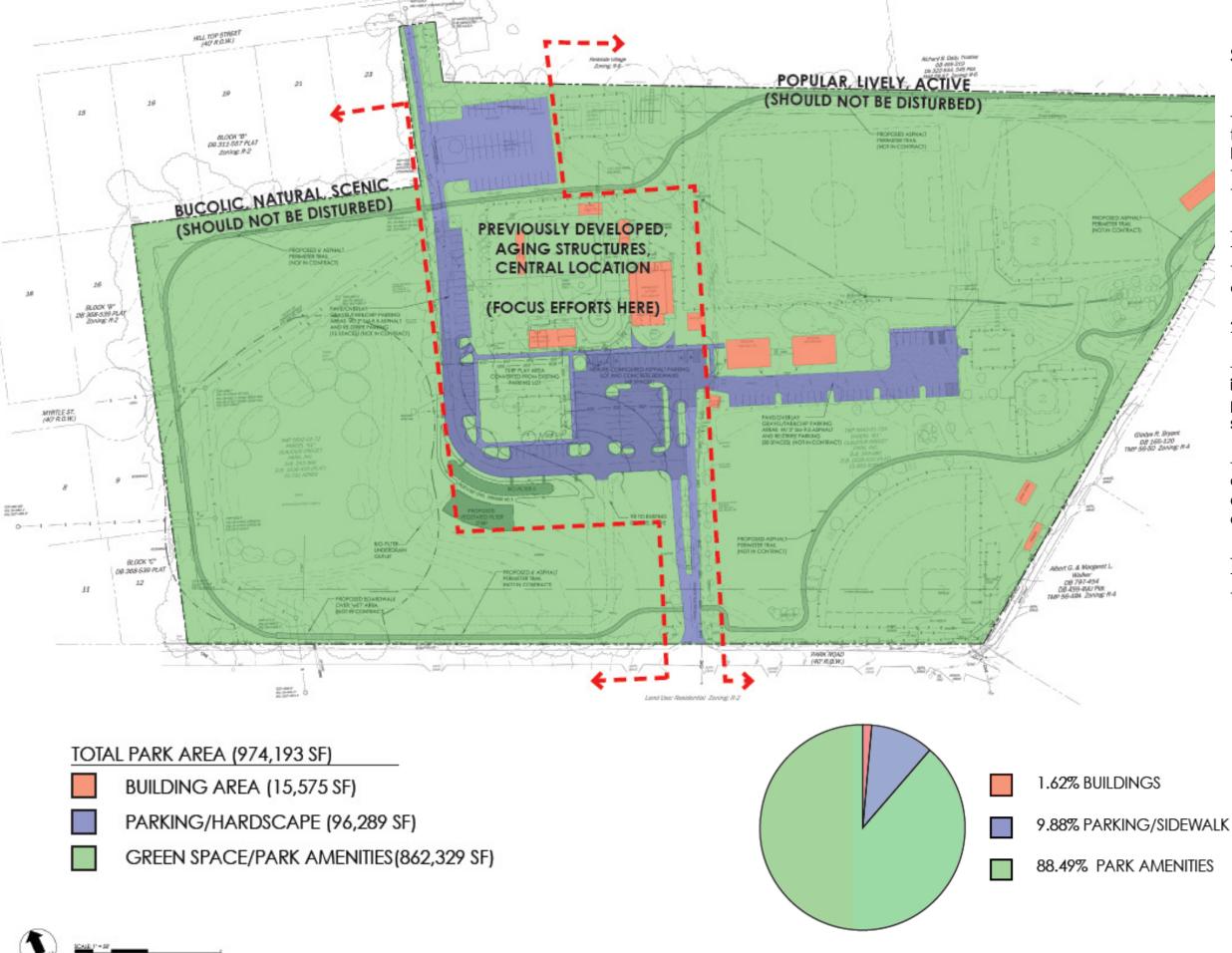
SLIDE INFORMATION:

1. RETAINING THE PARK

- The notion that we are "paving over the park" is false.

- This diagram outlines the requirements of preserving greenspace, preserving bucolic areas of the park, and being mindful of pedestrian and vehicular traffic, both throughout the park and externally to the adjacent streets.





SITE BREAKDOWN AND AREA OF DEVELOPMENT

CROZET PARK AQUATICS AND FITNESS CENTER

SLIDE INFORMATION:

1. STUDYING THE EXISTING SITE - The existing pool and existing fitness center fall centrally in the park, with soccer and baseball fields, pavilions, and park areas that are used heavily throughout the year on the east.

- To the west of the existing development, there is a more bucolic, pastoral park setting that features rolling hills, a man-made pond, and walking trails.

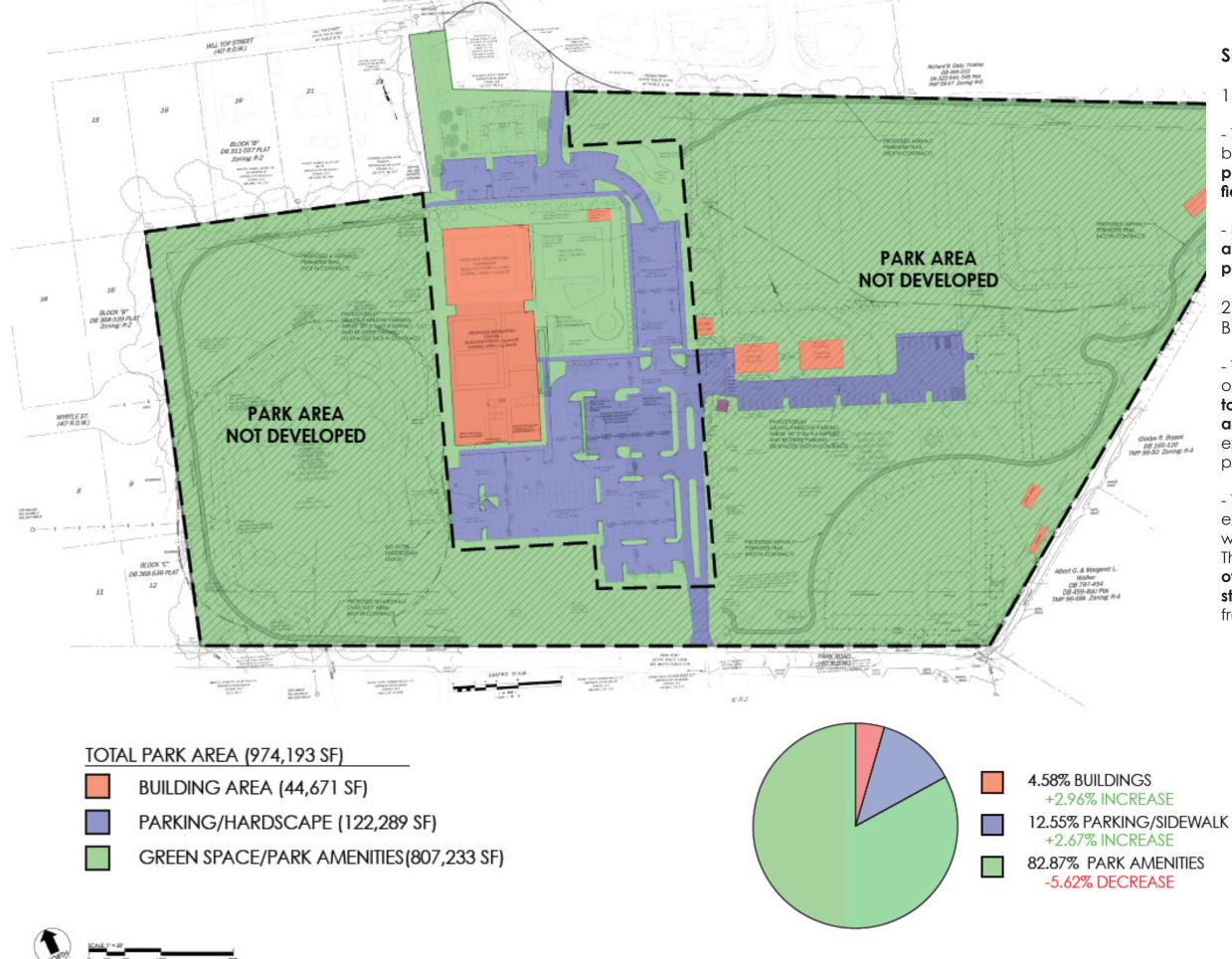
2. RESPONDING TO EXISTING CONDITIONS

- Given these existing conditions, it was imperative that the design preserve and protect these popular park facilities on both sides of the existing facility.

- The project utilizes existing paved areas and existing building areas for the new development in this central area in lieu of developing on any new greenspace.

- In this diagram, 10% of the park is devoted to parking, and 1.62% of the park is devoted to buildings and associated park structures.





SITE BREAKDOWN AND AREA OF DEVELOPMENT

SLIDE INFORMATION:

1. AREAS OF THE PROPOSED PARK

- The proposed land area usage of 4.58% building, 12.55% parking, and 83% of the park remaining as greenspace, trails, ball fields, and park amenities.

- Large areas of land to the west, south, and east have all remained undisturbed, protected, and preserved in the project.

2. LOCATION OF THE PROPOSED BUILDING

- The proposed building has been placed on what is currently a paved parking area to reduce the impact on existing greenfield areas, and the majority of the parking expansion happens to the south of the proposed facility.

- This paved parking expansion occurs on an existing overflow parking that is used nightly when baseball and swim teams are present. This overflow parking area is comprised of compacted soil and gravel, and grass struggles to grow in this location due to frequent vehicular parking.





LANDSCAPE AND ENVIRONMENTAL CONSIDERATIONS

1. ENHANCED LANDSCAPING AND TREE PLANTINGS

- LOCATED AROUND THE POND AND ENTRANCE ROADWAYS

2. AGGRESSIVE STORMWATER RETENTION

- ECOLOGICALLY SENSITIVE BIOSWALES

3. ENVIRONMENTALLY CONSCIOUS BUILDING FACILITY

- NEW THOUGHTFULLY DESIGNED AND ENVIRONMENTALLY CONSCIOUS FACILITY REPLACES OUTDATED AND ILL-PERFORMING EXISTING FACILITIES

LANDSCAPE CONSIDERATIONS

CROZET PARK AQUATICS AND FITNESS CENTER











AQUATICS AND FITNESS CENTER

VEGETATION, BOTH PROPOSED AND TO REMAIN

SLIDE INFORMATION:

1. NUMBER OF TREES

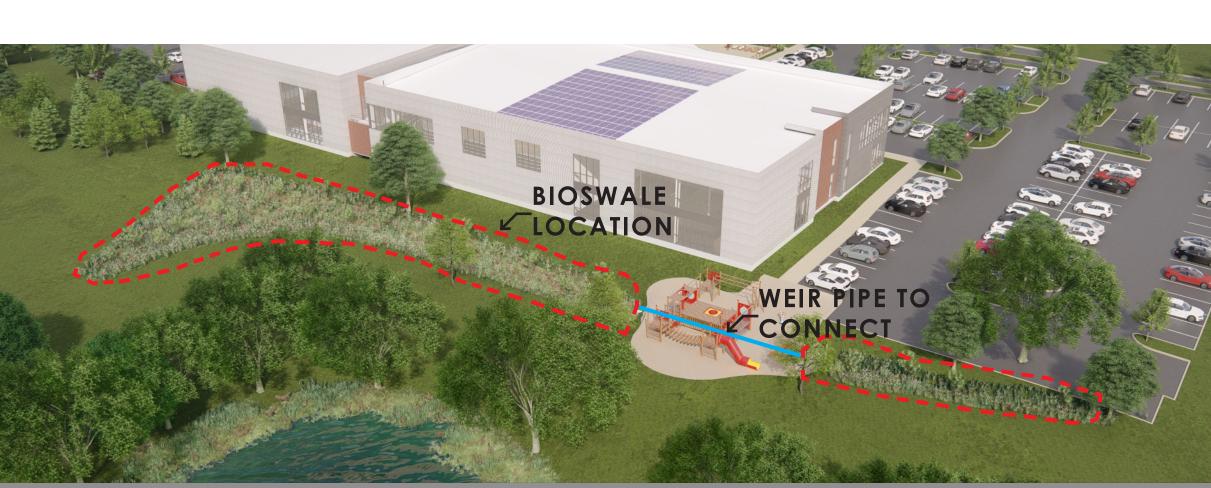
- The number of new trees that will be offered to replace any trees required to be removed during construction **vastly outweighs the number of trees to be removed**.

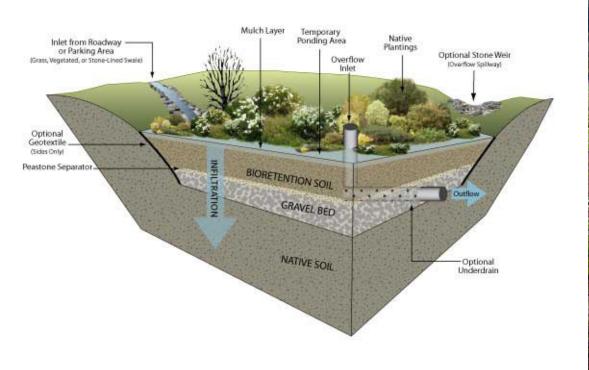
- Nearly 200 new trees will be planted compared to the 44 trees to be removed.

- Additionally, new shrubs, grasses, and native flowering plants will be instituted along sidewalks, the edge of the pool, and the proposed bioswales.



STORMWATER RUNOFF MITIGATION -BIOSWALES







SLIDE INFORMATION:

1. STORMWATER MITIGATION STRATEGIES

- Previously, the commissioner's comments revolved around impervious paving and exploring stormwater mitigation measures.

- The strategy for stormwater retention and treatment is through **the construction of three large, engineered bioswales.**



STEP 1: RAIN FALLS ONTO HARD SURFACES

CROZET PARK AQUATICS AND FITNESS CENTER STORMWATER RUNOFF MITIGATION -BIOSWALES

SLIDE INFORMATION:

WEIR PIPE TO

CONNECT

1. WHAT ARE BIOSWALES

- Bioswales are depressions or trenches, acting as mini-ponds that receive rainwater runoff from surface parking lots and building roof drains.

- These bioswales have vegetation and organic matter, much like mulch or peat, to slow water infiltration and filer out pollutants.



STEP 2: RAINWATER RUNOFF SHEETS FROM HARD SURFACES TO BIOSWALE FOR FILTRATION

CROZET PARK AQUATICS AND FITNESS CENTER STORMWATER RUNOFF MITIGATION -BIOSWALES

SLIDE INFORMATION:

1. WHERE DOES RAINWATER GO

- The rainwater from surface runoff and building drains are collected within these bioswales on both sides of the site.

- The water is absorbed into the ground at a natural rate, after proper filtration.



STEP 3: BIOSWALE DRAINS TO POND FOR ADDITIONAL FILTRATION AND STORMWATER RETENTION

CROZET PARK AQUATICS AND FITNESS CENTER STORMWATER RUNOFF MITIGATION -BIOSWALES

SLIDE INFORMATION:

1. BEYOND THE BIOSWALES

- Beyond the bioswales, there is an existing man-made pond that is not part of the stormwater management plan.

- However, it receives groundwater from uphill naturally and serves to **continue to** remove any foreign sediment or pollutants before slowly discharging into the natural waterways.



STEP 4: POND DRAINS TO LICKINGHOLE CREEK A HALF MILE SOUTH OF THE PARK

CROZET PARK AQUATICS AND FITNESS CENTER STORMWATER RUNOFF MITIGATION -BIOSWALES

SLIDE INFORMATION:

1. BEYOND THE POND

- Though the pond is a redundant system in the stormwater management plan, this strategy of stringent retention and filtration is arguably a better approach to runoff than impervious pavers because it allows for more significant filtration by allowing native plants and organic materials to filter.



imestown Ct

NEW CURB AND GUTTER SYSTEM GUIDES WATER TO THESE STORMWATER SYSTEMS

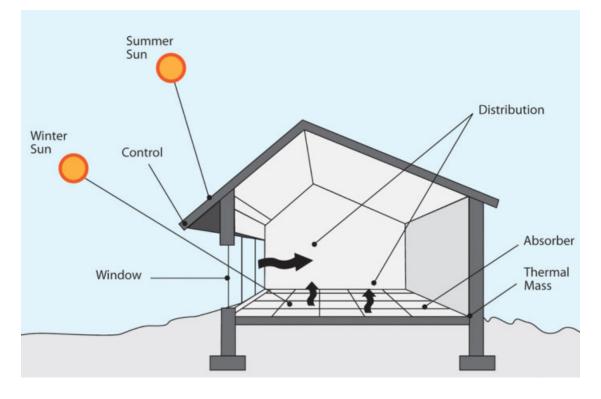
CROZET PARK AQUATICS AND FITNESS CENTER STORMWATER RUNOFF MITIGATION -BIOSWALES

SLIDE INFORMATION:

1. PARKING LOT CURBS AND GUTTERS

- The new curb and gutter system of the existing parking lot guides water to these bio-filters, water that would not have been retained or filtered and instead would have been part of surface runoff that contributed to soil erosion and is rich with parking lot containments.





PASSIVE HEATING AND COOLING STRATEGIES

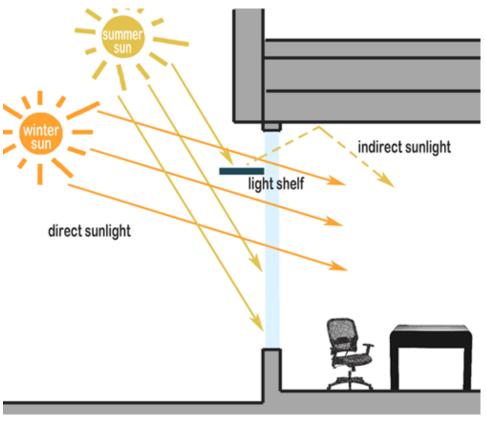




CROZET PARK

AQUATICS AND FITNESS CENTER

INSULATED METAL PANELS



DAYLIGHTING DIAGRAM

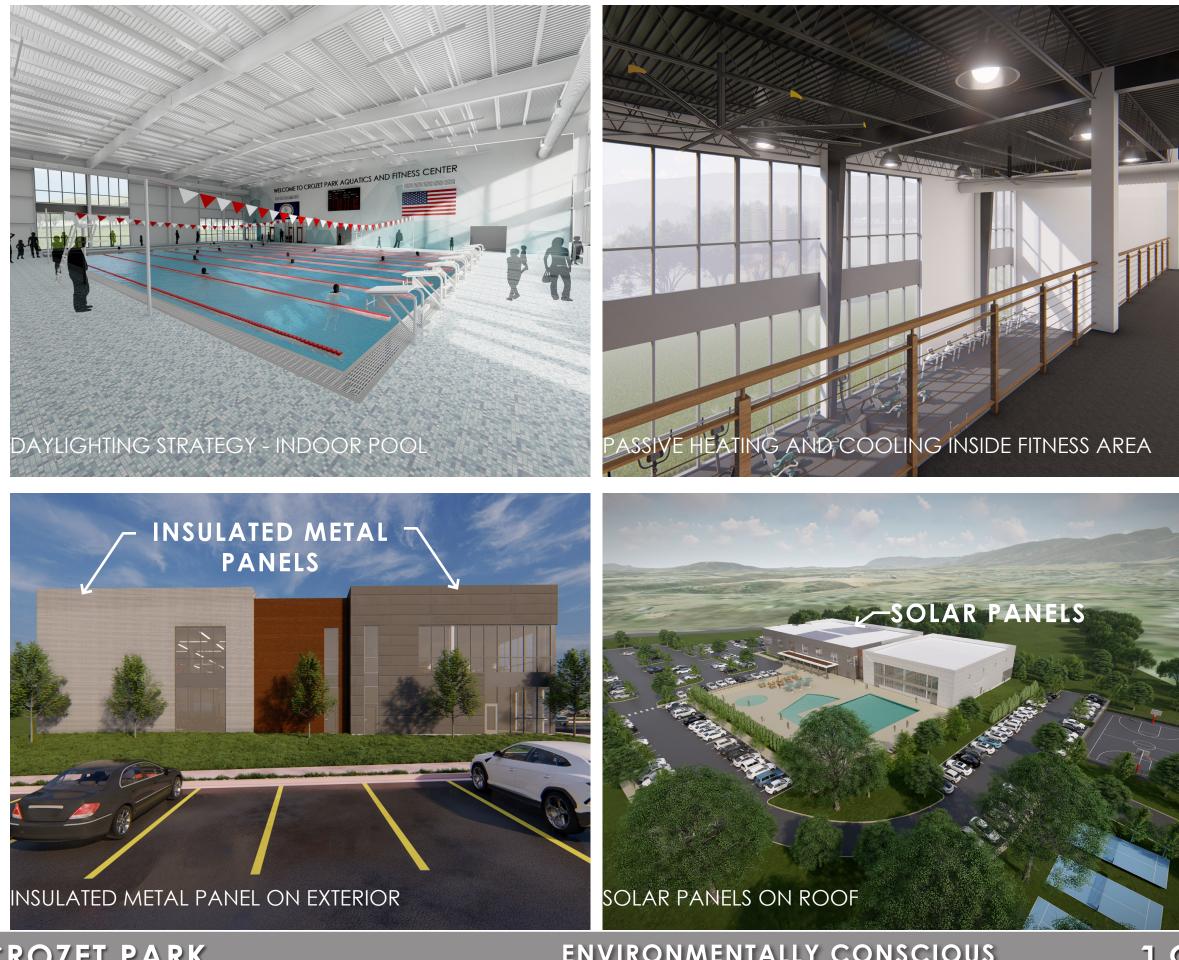
ENVIRONMENTALLY CONSCIOUS DESIGN STRATEGIES

SLIDE INFORMATION:

1. ENVIRONMENTALLY-CONSCIOUS DESIGN

- The project is not seeking LEED approval, but LEED strategies are being employed by the DD staff to ensure that this facility will be environmentally conscientious.





ENVIRONMENTALLY CONSCIOUS DESIGN STRATEGIES

SLIDE INFORMATION:

1. ENVIRONMENTALLY-CONSCIOUS DESIGN

- The strategies incorporated into the project that promote environmentally-conscious design include passive heating and cooling, daylighting to reduce electrical lighting requirements, enhanced continuous insulation on the walls and roof, efficient plumbing, electrical, and mechanical systems, and solar panels on the roof.





EXISTING VS. PROPOSED ENVIRONEMTAL IMPACT

CROZET PARK AQUATICS AND FITNESS CENTER

SLIDE INFORMATION:

1. EXISTING BUILDING

-The existing structure was built by volunteers in the 1950's.

- The walls are CMUs, commonly known as cinder block, with **minimal wall insulation**, has insufficient roof insulation, and all systems are aging and inefficient.





EXISTING VS. PROPOSED ENVIRONEMTAL IMPACT



SLIDE INFORMATION:

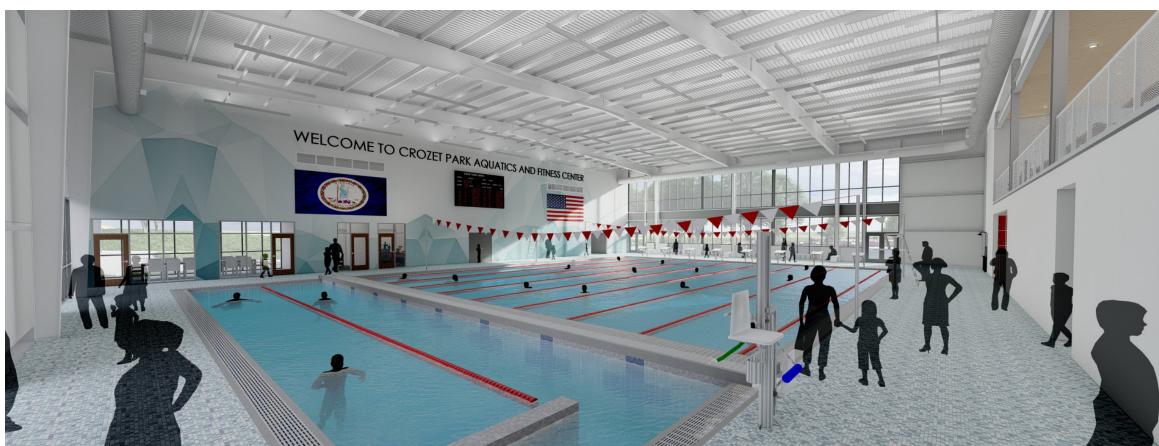
1. WINTER CONDITIONS

- Every winter, a temporary dome is installed to cover the pool. This provides swimming facilities for the Crozet Gators, the Western Albemarle High School swim team, and the Shenandoah Marlins.

- To heat this dome and the pool, huge propane furnaces run 24 hours a day for 8 months per year.

- This burns over 135 gallons of fuel per day, leading to a total of 33,000 - 50,000 gallons of propane fuel per winter swim season.

EXISTING VS. PROPOSED ENVIRONEMTAL IMPACT





EXISTING VS. PROPOSED ENVIRONMENTAL IMPACT

EXISTING

- EXISTING STRUCTURE IS BUILT WITH CMU (CONCRETE MASONRY UNIT) WITH MINIMAL WALL INSULATION, INSUFFICIENT ROOF INSULATION, AND AGING, INEFFICIENT MECHANICAL, ELECTRICAL, AND PLUMBING FACILITIES

- THE EXISTING DOME THAT IS TEMPORARILY INSTALLED TO COVER THE POOL IS EXTREMELY INEFFICIENT - IT BURNS ABOUT 33,000 GALLONS OF PROPANE EACH YEAR DURING THE WINTER SWIM SEASON

PROPOSED

- OFFERS A MUCH MORE ENVIRONMENTALLY CONSIDERATE APPROACH TO PROVIDING THE MUCH NEEDED INDOOR SWIMMING AREA

- ACHIEVES THIS THROUGH PASSIVE HEATING AND COOLING TECHNIQUES, DAYLIGHTING STRATEGIES, SOLAR PANEL PLACEMENT, AND THE USE OF BETTER INSULATED MATERIALS





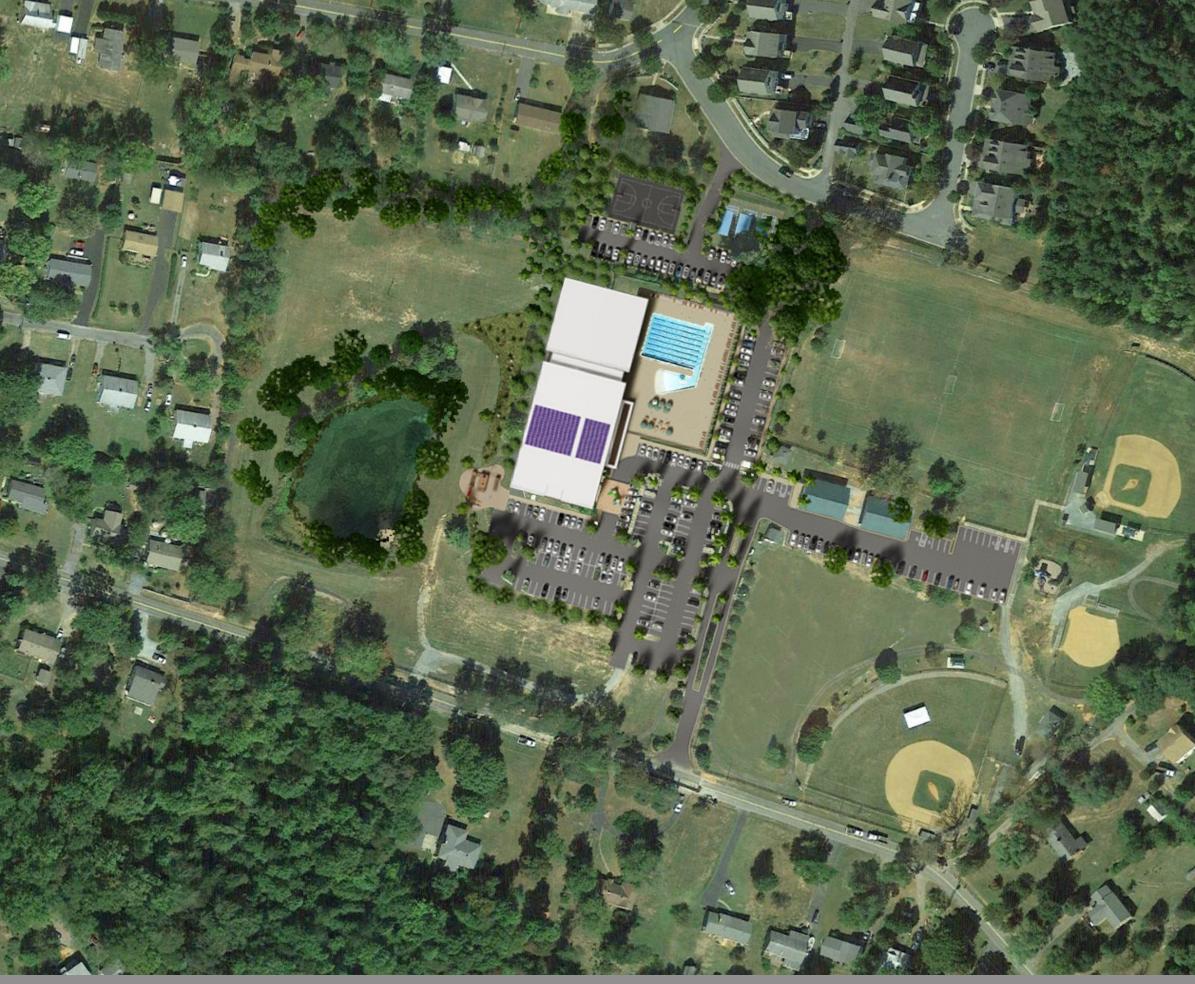
EXISTING CONDITIONS



SLIDE INFORMATION:

1. EXISTING CONDITIONS

- The environmental considerations have been taken seriously.



PROPOSED CONDITIONS CONDITIONS



SLIDE INFORMATION:

1. SCALE OF THE PROJECT

- The total addition is 46,800 SF of fitness, recreation, community gathering, and indoor swimming facilities **while only decreasing the park greenspace by 5.6%.**

PART II: IMPACT OF BUILDING STRUCTURE



VIEWS OF CROZET PARK



SLIDE INFORMATION:

1. PRESERVING VIEWS

- A major component of the design of the project was the need to preserve the views that make Crozet Park a beautiful place to



VIEWS OF PROPOSED BUILDING IN CROZET PARK



SLIDE INFORMATION:

1. BUILDING HEIGHT

- In order to preserve these views, the floor to floor heights are relatively small, and the parapet wall is 4 feet high to allow for rooftop mechanical unit screening.

- The top of the exterior wall falls to 34' above grade, which corresponds to the height of the winter swimming dome, as well as relating to the average height of a two story house.

- The height of the existing dome is 30' tall when installed.



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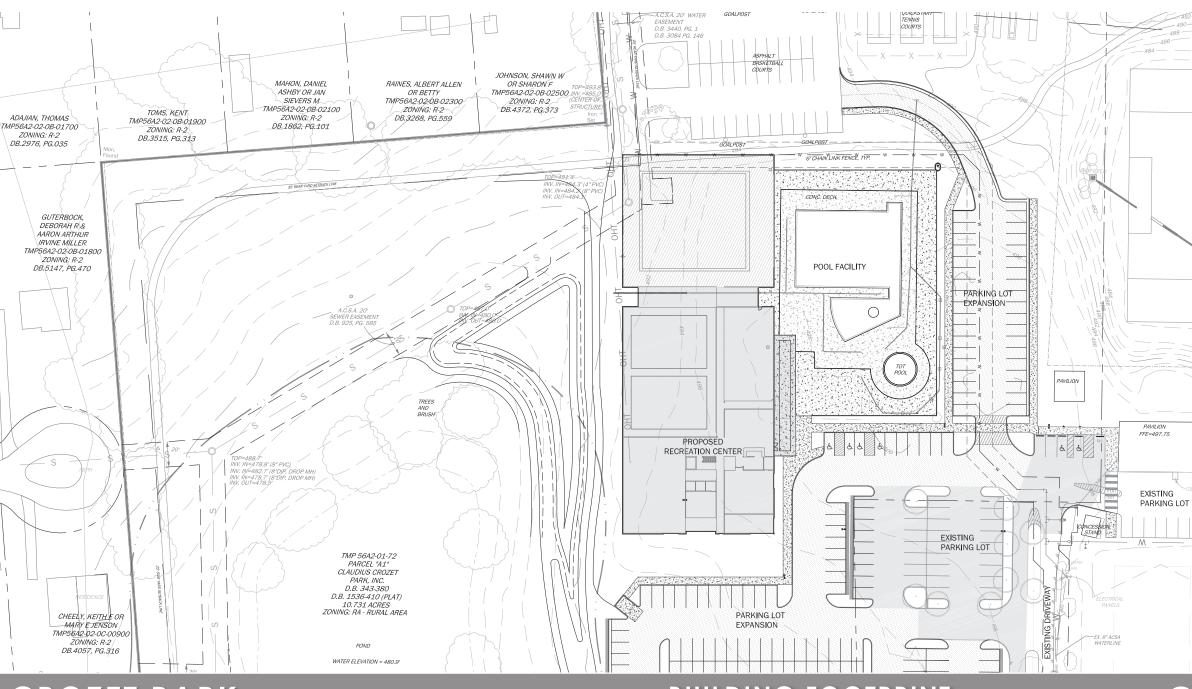


CROZET LIBRARY

PROPOSE PARK CENTER

MUDHOUSE

2-STORY HOUSE



CROZET PARK AQUATICS AND FITNESS CENTER

BUILDING FOOTPRINT



SLIDE INFORMATION:

1. PRESERVING VIEWSHEDS

- The importance of preserving viewsheds was a driving factor of the massing of the building. This includes the importance for visitors and users to see the ball fields, festival grounds, walking trails, and basketball courts while maintaining views of the mountains.

- Additionally, the height of the building is similar in scale with that of other Crozet projects, like the library and downtown structures.





PROPOSED





CROZET PARK AQUATICS AND FITNESS CENTER

SLIDE INFORMATION:

1. PRESERVING VIEWSHEDS

- The importance of preserving viewsheds was a driving factor of the massing of the building. This includes the importance for visitors and users to see the ball fields, festival grounds, walking trails, and basketball courts while maintaining views of the mountains.



VIEW OF SHORT FACADE FROM ADJACENT NEIGHBORHOOD

VIEWS OF LONG FACADE BEGININ DRIVE AISLE

VIEW OF SHORT FACADE FROM PARK ROAD

CROZET PARK AQUATICS AND FITNESS CENTER VISIBLE FACADES FROM ADJACENT NEIGHBORHOODS

SLIDE INFORMATION:

1. FACADE PLACEMENT

- The placement of the **short elevation to the adjacent neighborhoods** in lieu of rotating the building 90 degrees allows for minimal views from surrounding areas.

- The only time this facade is experienced is along the entrance drive from park road.





VISIBLE FACADES FROM ADJACENT NEIGHBORHOODS

SLIDE INFORMATION:

1. FACADE PLACEMENT

- The placement of the **short elevation to the adjacent neighborhoods** in lieu of rotating the building 90 degrees allows for minimal views from surrounding areas.

- From Parkside Village and Indigo Road, the building is set back significantly from the road and will be heavily screened by proposed landscaping.







BUILDING LOCATION



SLIDE INFORMATION:

1. BUILDING PLACEMENT

- Shifting the building south 25 feet away from Parkside Village and the adjacent residential lot to the project's north addresses several of the commission's comments.



CROZET PARK

AQUATICS AND FITNESS CENTER

BUILDING LOCATION



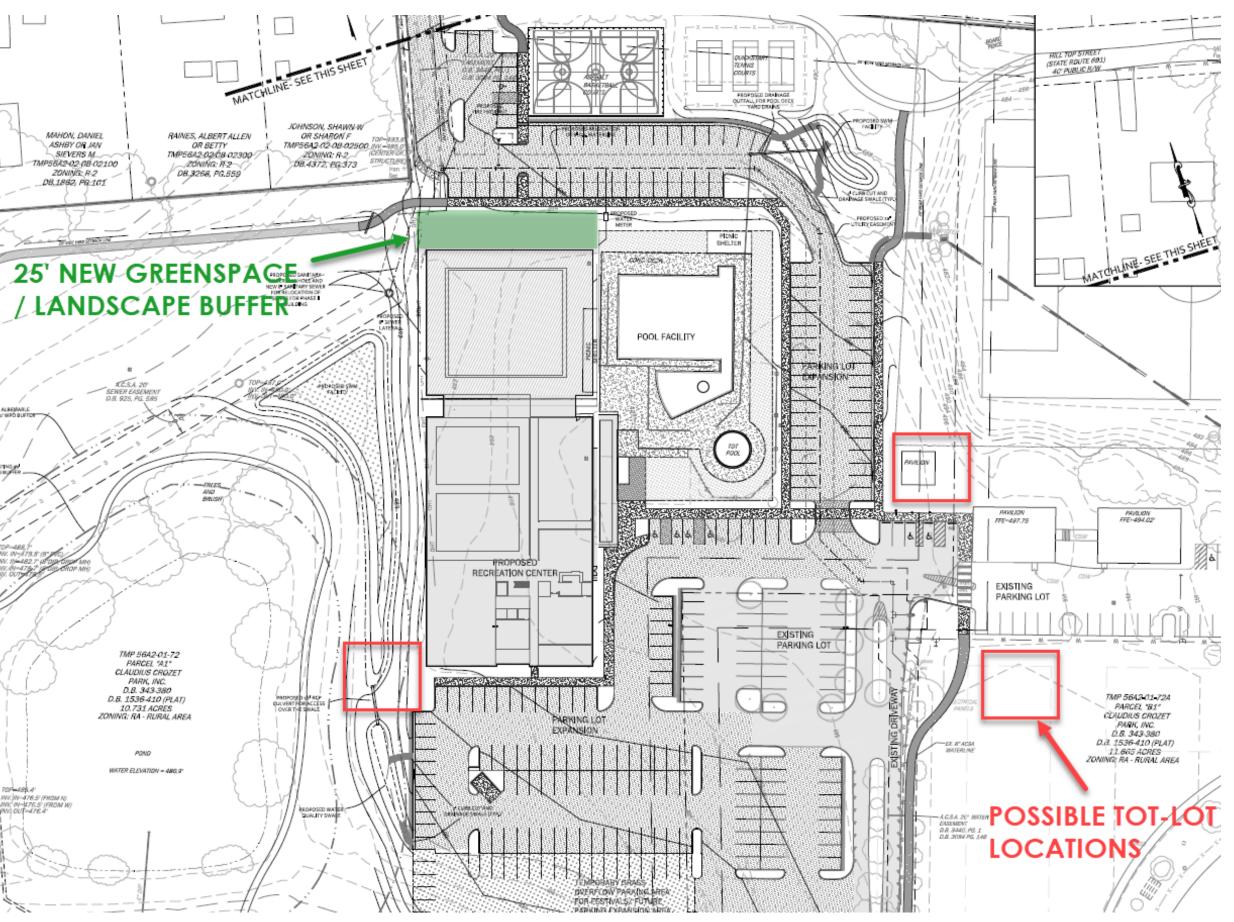
SLIDE INFORMATION:

1. PREVIOUS SUBMISSION

- This shows the location of the building in the previous submission versus where the building has been shifted forward into what was previously a playground.







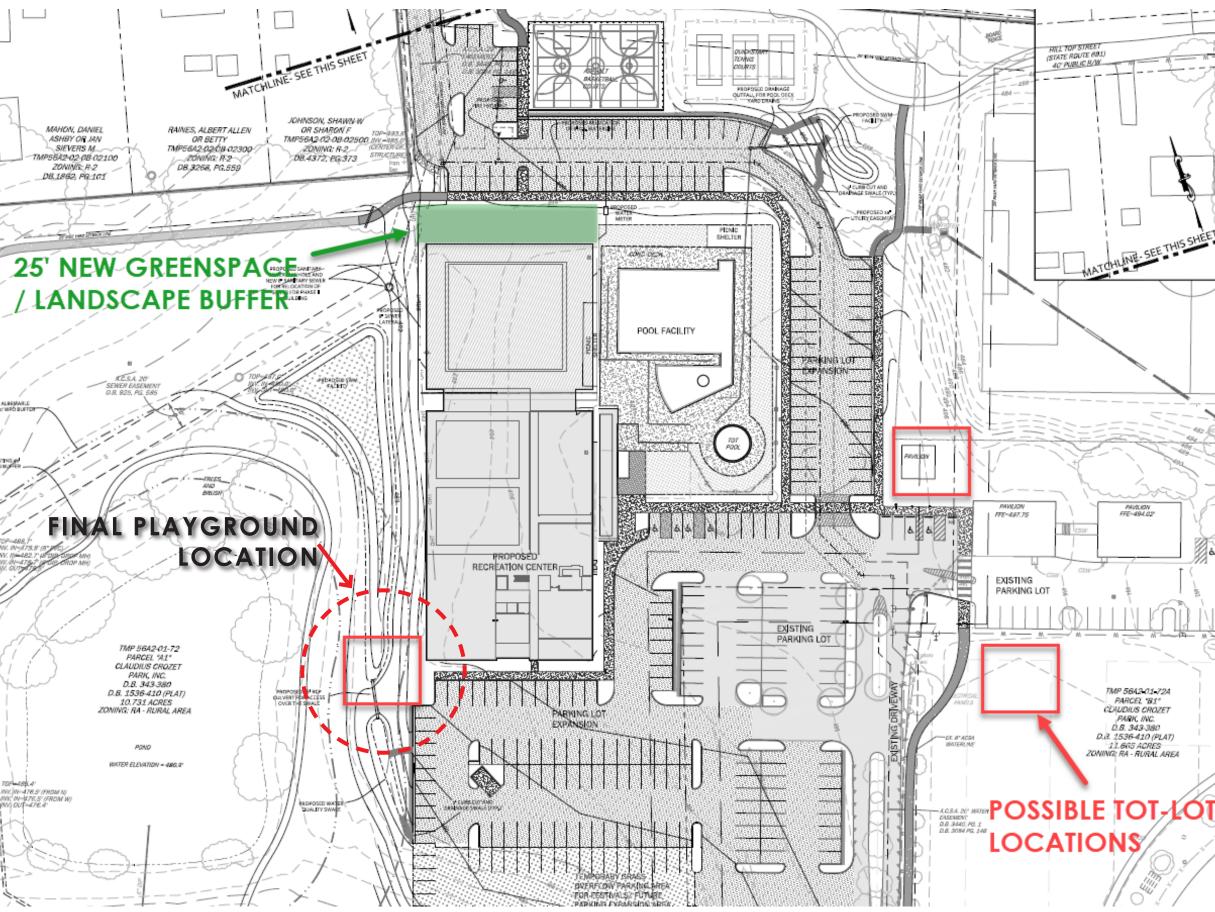
BUILDING LOCATION



SLIDE INFORMATION:

1. LANDSCAPE BUFFER

- The building has moved into the center of the park, **allowing for dense landscape** screening on the northern facade. This limits visibility for the Parkside Village neighborhood.



PLAYGROUND LOCATION





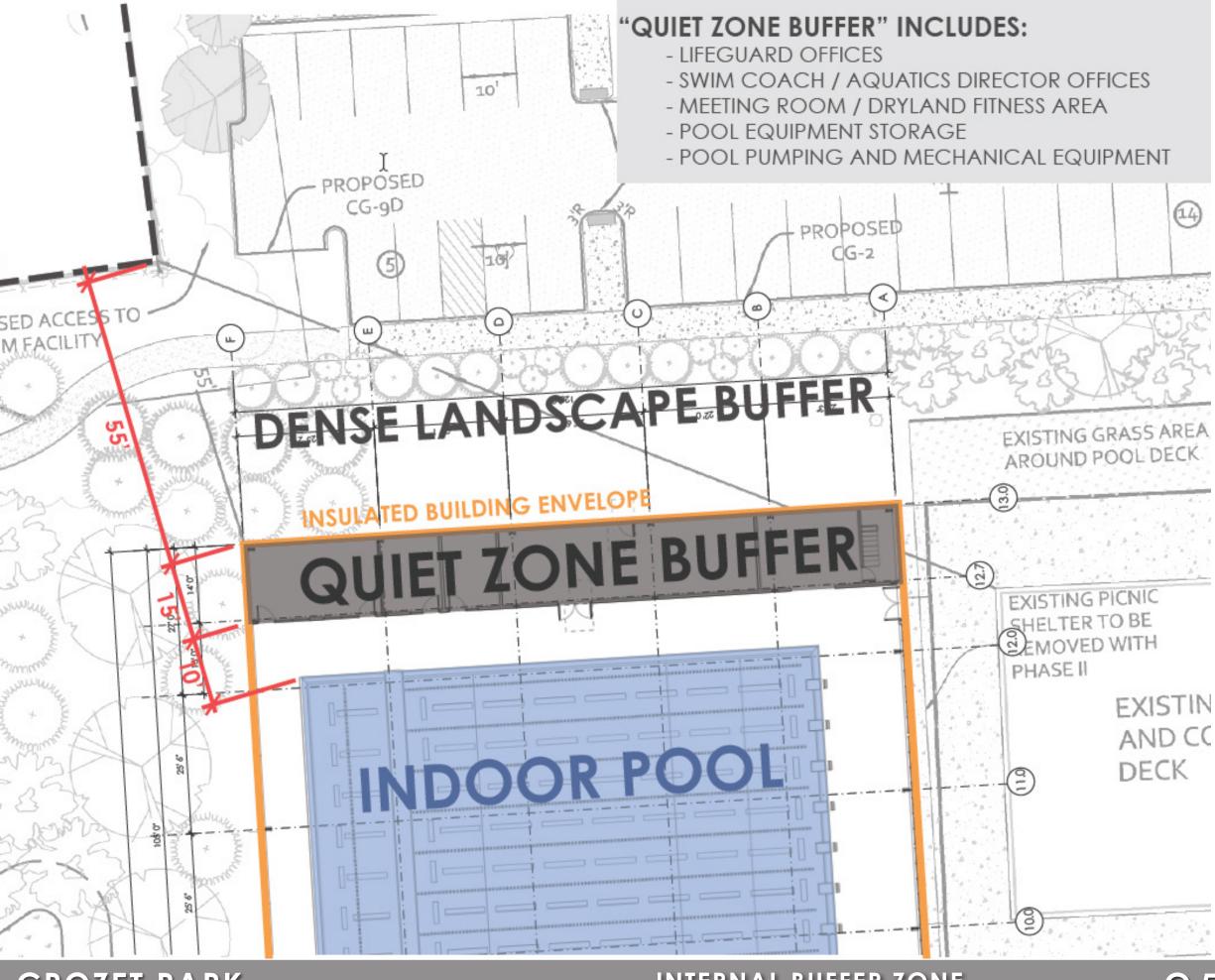
SLIDE INFORMATION:

1. PLAYGROUND LOCATION

- The playground has shifted west, and is to be located between the bioswales.

- It will incorporate educational signage about rainwater gardens, native pollinator habitats, and ecological education opportunities.

34 DESIGN CLAUDIUS CROZET PARK



INTERNAL BUFFER ZONE



SLIDE INFORMATION:

1. SOUND MITIGATION STRATEGIES

- There is a 15 foot bank of offices, storage areas, and coaches rooms between the edge of the pool and exterior edge of the building.

- The exterior building material is a 3 inch insulated metal panel that has foam insulation expanded into extruded metal panels. This provides significant insulation and soundproofing between the interior and exterior.

PART III: RESPONSE TO TRAFFIC CONSIDERATIONS

4. All slopes and alsturbed areas are to be fertilized, seeded and mulched. 5. The maximum allowable slope is 2:1 (horizonti/vertical). Where reasonably obtainable, lesser slopes of 3:1 or better are to be achieved. 6. Paved, rip-rap or stabilization mat lined ditch may be required when in the opinion of the County Engineer, or designee, it is deemed necessary in order to stabilize a drainage channel. 7. All traffic control signs shall conform with the Virginia Manual for Uniform Traffic Control Devices. 8. Unless otherwise noted all concrete pipe shall be reinforced concrete pipe -Class III. 9. All exaction for underground pipe installation must comply with OSHA Standards for the Construction Industry (29 CFR Part 1926). All slopes and disturbed areas are to be fertilized, seeded and mulched. S 66°27'37" E 626 QUICKST TENNIS COURTS JOHNSON, SHAWN W OR SHARON F MAHON, DANIEL ASHBY OR JAN RAINES, ALBERT ALLEN TMP56A2-02-0B-02 OR BETTY SIEVERS M TMP56A2-02-0 AN THOMA 2-02-0B-01700 DB.1862, PG.101 NING R-2 DB.3515. PG.31. 976, PG.035 CONC. DECK PORTION OF THE EXISTING SAN, SWR TO GUTERE DEBORA BE RELOCATED PICNIC SHELTER AARON ARTHU TO BE REMOVED WITH PHASE II PREVIOUS MP56A2-02 ZONINO DB.5147, EXIST EXISTING POOL TO REMAIN ≥ ANITARY SEV LINES TO BE CONSTRUCTION REMOVED (TYPICAL EXISTING MANAGED SLOPES TO REMAIN ENTRANCE 0 R EXISTING 50' WPO BUFFER TOT POOL EXISTING COMMUNITY X CENTER TO BE EXISTING CURRI FFE=497.7. PAVEMENT, SIDEWALK EXISTING AND DUMPSTER TO BE REMOVED WITHIN T BATHHOUSE TO BE DEMOLISHED <u>S 70°08'20" E 195.</u> EXISTING WET POND TO REMAIN \bigotimes – EXISTING BLDG TO BE REMOVED DONE C TAN TMP 56A2-01-72 PARCEL "A1" CLAUDIUS CROZET EXISTING EXISTING SEPTIC TANK TO BE REMOVED - PLAYGROUND/TOT LOT TO BE REMOVED PARK, INC. D.B. 343-380 D.B. 1536-410 (PLAT) 10.731 ACRES ZONING: RA - RURAL AREA EXISTING TREES — EXISTING ENTRANCE ROAD AND PAVEMENT CHEELY, KEITH FOR MARY E JENSON TO REMAIN TMP5642-02-0C-0090 ZONING: R-2 EXISTING CURBING, PAVEMENT, AND SIDEWALK TO BE REMOVED WITHIN DB.4057, PG.316 ZONI EXISTING BIOFILTERS CONSTRUCTED WITH THIS AREA EXISTING WPO2015-00089 TO BE REMOVED WITH THE UNDERDRAIN SYSTEM TO BE 0 PROPOSED EXPANSION REMOVED EXISTING 100' WPO BUFFER WHITE, REBECCA O KARL POMEROY EXISTING PARK TMP56A2-02-0C-01. ENTRANCE ROAD ZONING: R-2 DB.3879, PG.2 EXISTING PRESERVED SLOPES TO REMAIN EXISTING SECONDARY ACCESS TO PARK 983P MARTIN, ROBERT L III OR PAULA K

CROZET PARK AQUATICS AND FITNESS CENTER

RELOCATION OF CONSTRUCTION ENTRANCE

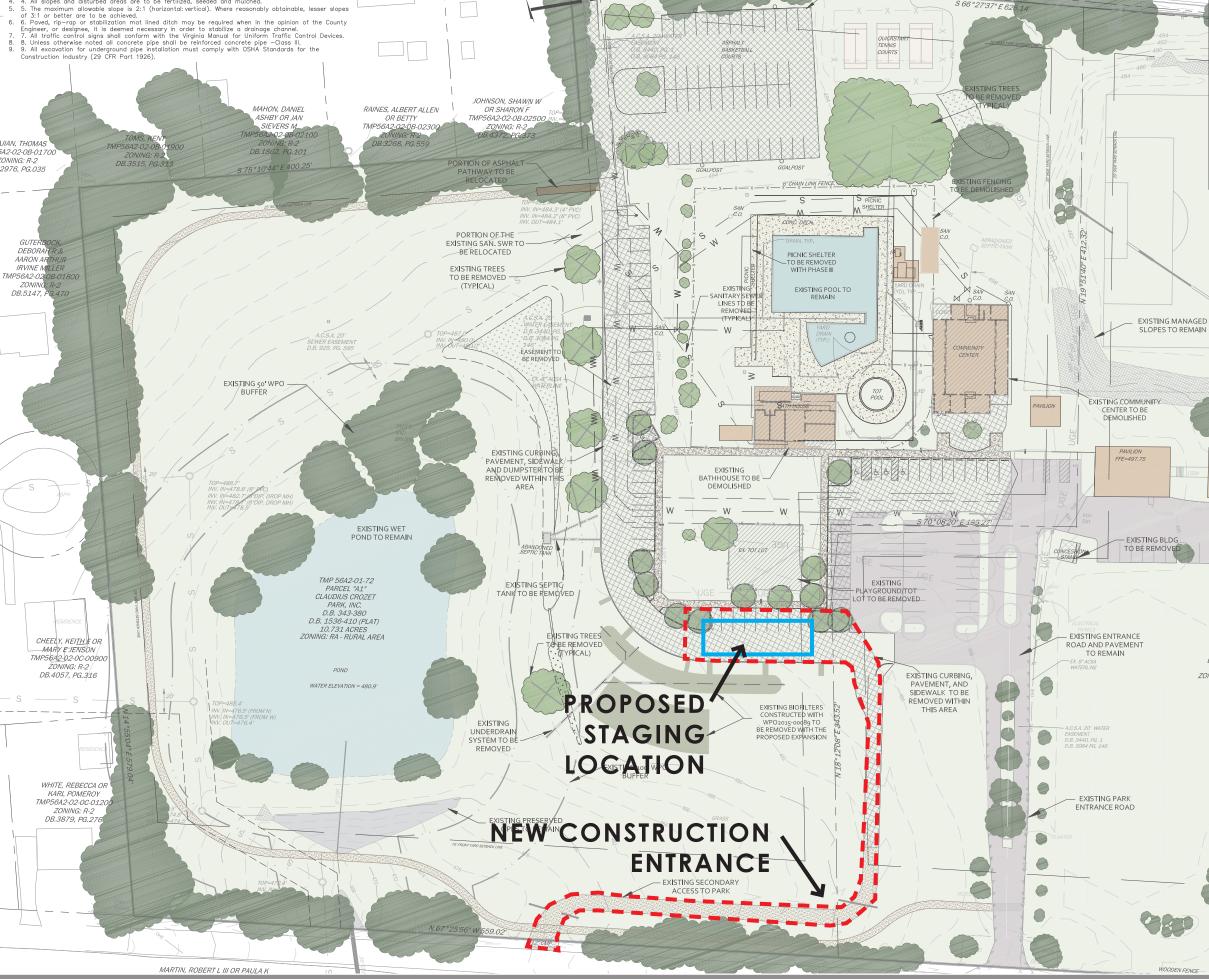


D.

SLIDE INFORMATION:

1. TRAFFIC CONSIDERATIONS

- The construction traffic will be utilizing the secondary park entrance off of Park Road as the main point of entry.



RELOCATION OF CONSTRUCTION ENTRANCE

CROZET PARK AQUATICS AND FITNESS CENTER

SLIDE INFORMATION:

D.

1. TRAFFIC CONSIDERATIONS

- The secondary entrance, which is currently an existing emergency access road for the community park, allows for traffic conflict with park users to be avoided while still eliminating traffic through the Parkside Village neighborhood.





NEW REAR ENTRANCE



ZONIN

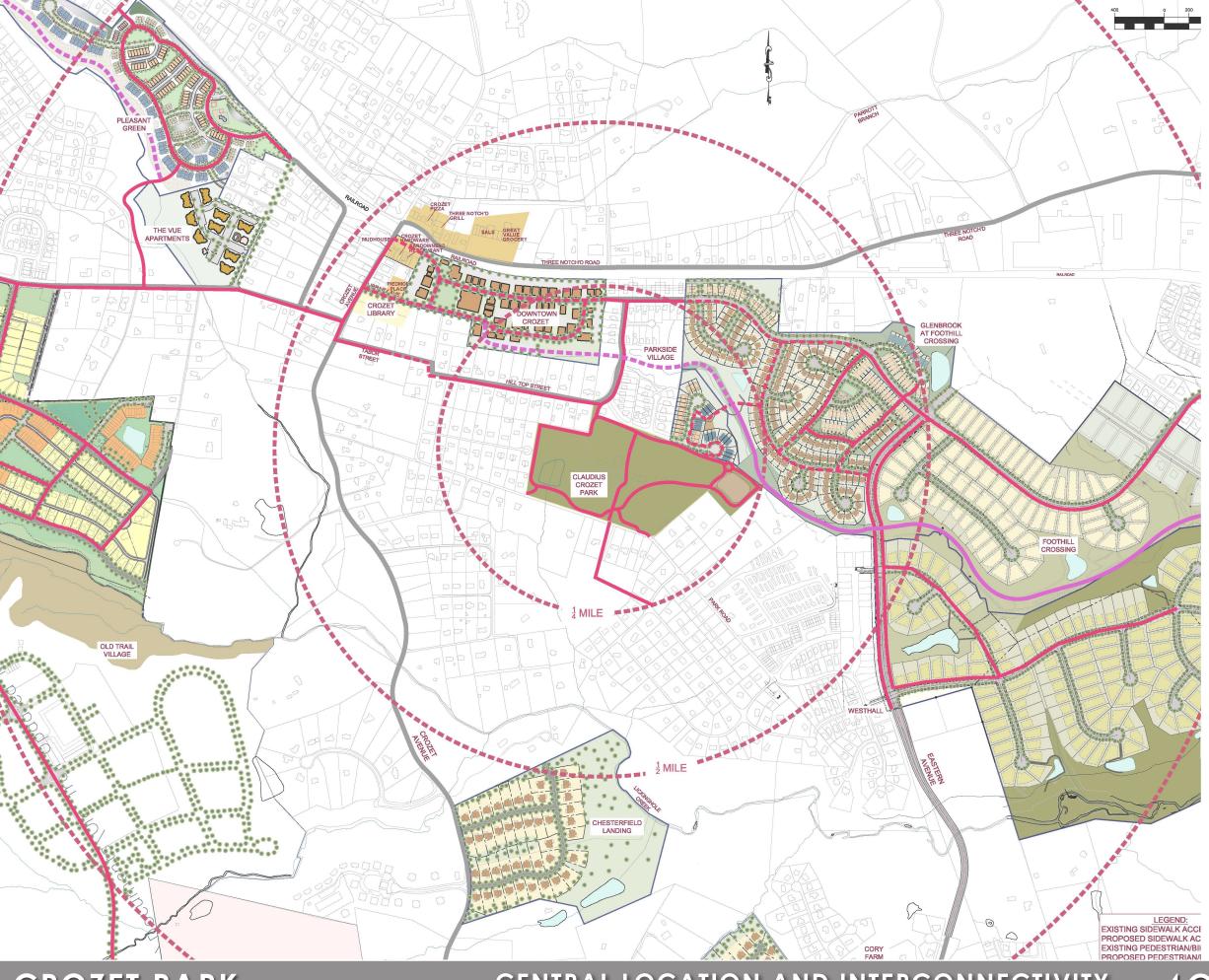
SLIDE INFORMATION:

1. REAR ENTRANCE

- Per the question prompted by Commission Chair Mr. Belvins, the rear entrance from Hill Top Street to Indigo Alley has been revised.

- The DD team has been working alongside Joel Denunzio, who is a member of the Park Board as well as a traffic engineer for VDOT.

- This entrance has been heavily screened with landscaping.



CENTRAL LOCATION AND INTERCONNECTIVITY

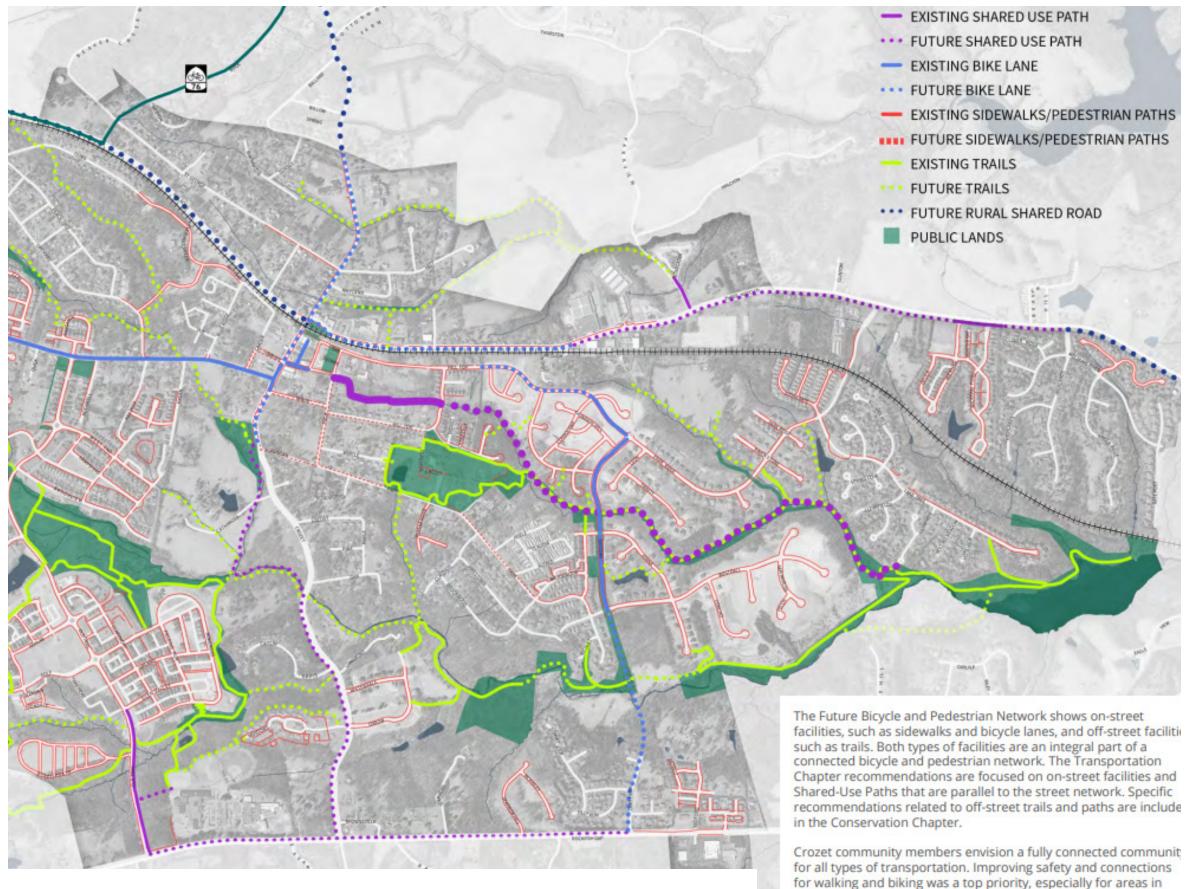


SLIDE INFORMATION:

1. INTERCONNECTIVITY OF CROZET PARK

- Crozet Park is a central location within the Crozet community with a vast amount of interconnectivity with its adjacent context.

- "Claudius Crozet Park is the cornerstone of the Crozet Master Plan's park and greenway system. If you drop a pin in the center of a map of the Crozet Growth Area, it lands on Crozet Park. It has unbeatable pedestrian and bike connectivity. The Crozet Trails Crew has designed its entire trailway system, in coordination with county planners, to have Crozet Park as its nexus. When the Albemarle comprehensive plan designated specific growth areas for development, that also applied to the development of the community spaces within them." -Allie Pesch, Chair of the Crozet Advisory Committee, to the Crozet Gazette



CROZET FUTURE PEDESTRIAN NETWORK

CROZET PARK

AQUATICS AND FITNESS CENTER

FUTURE PEDESTRIAN NETWORK

especially around Centers and Districts.



SLIDE INFORMATION:

1. GREENSPACE CONNECTIONS

- The park, as shown on the Crozet Master Plan, is designed along **a greenspace** corridor. This provides alternative connections to the community park.

Crozet where driving is currently the only feasible option. Filling in gaps between existing sidewalks, trails, and paths is also importan



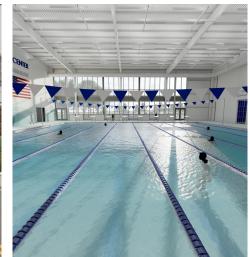
























SLIDE INFORMATION:

1. CLOSING STATEMENTS

- Crozet Park is a non-profit organization who is here to serve the Crozet Community by putting in place much needed facilities for indoor swimming, health and wellness, community gathering, after-school childcare and day camp programs, facilities for senior citizen health and gathering on hot summer days, a location for physical therapy, youth outreach programs, and many other programs.

- Already on site is a recreation and exercise facility, an indoor pool (when the bubble is installed), and community gathering facilities. This **modification of an existing special use permit is to provide better facilities than exist currently, not radically alter the use of the park.**

- As Crozet continues to grow as has been designated by this Commission, it needs **new** facilities to serve this growing population. This project helps to provide these much needed facilities.



SLIDE INFORMATION:

1. CLOSING STATEMENTS

- This project is a valuable resource for Albemarle County.

- There have been significant resources devoted to this effort, both in personal time and efforts and financial burden that the park has taken on in an effort to provide Crozet and Western Albemarle County with **a much needed community and recreation** facility.

- The Design Develop team and Crozet Park Board urge that the modifications of the existing special use permit be approved in order to provide the much needed facilities for the Crozet community.