TRAVEL POSTERS FOR THE CITY OF FREDERICK
CREDITS

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EXECUTIVE SUMMARY

INTRODUCTION:

Frederick, Maryland is a unique and beautiful city, rich in history and steeped in historic architecture. Situated at the foothills of the Catoctin Mountains, the City is a robust employment center. Its location within forty miles of Baltimore and Washington D.C., allows Frederick residents to commute to jobs in these cities and their outer suburbs.

Founded in 1745, Frederick possesses a rich texture of historic residential, commercial and civic architecture. The city is principally defined by Market Street, the main commercial spine of the city, and by Carroll Creek. Carroll Creek crosses Market Street at a low point, passes through Baker Park and residential neighborhoods on the City’s west side, and terminates in the light industrial areas on the east.

In the 1970’s, Carroll Creek flooded twice, devastating the commercial enterprises in the downtown and causing great hardship to the regional economy. In an effort to reduce the risk to downtown Frederick and restore economic vitality to the historic commercial district, the City built Carroll Creek Park. This project provides flood control and protects the downtown while offering new public outdoor space and civic amenities. Today, more than $150 million in private investments are underway or planned in new construction, infill development or historic renovation in the park area.

The first phase of the park improvements total nearly $11 million in construction. New elements to the park include brick pedestrian paths, water features, shade trees and plantings, pedestrian bridges, and a 350-seat amphitheater for outdoor performances. The Carroll Creek project has been a tremendous success for the City as a rebirth of the downtown is underway.
PALS and Frederick

Master of Architecture graduate students at the University of Maryland School of Architecture, Planning and Preservation spent the fall of 2014 developing analysis and proposing designs for neighborhoods along Carroll Creek, with the hypothesis that the success of the Carroll Creek project downtown could be extended to other areas of the City.

The urban design work was developed under the direction of Professor Matthew Bell, FAIA, in conjunction with The City of Frederick and the Partnership for Action Learning in Sustainability (PALS) program. The object of the effort was to define the issues in each of the six selected neighborhoods, to speculate on their possible relationship to the historic center of Frederick and to propose solutions that would show how each neighborhood could be enhanced with improved connections to the downtown, Carroll Creek and Baker Park.

Studies and proposals for each neighborhood offer ideas about how to unite the disconnected parts of each neighborhood into a cohesive and attractive community for people to live and work. Students began by looking at the historic fabric of Frederick as well as appropriate precedents for each community, using best practices around the country and the world. The team looked at each neighborhood to understand its particular urban form, specifically how the neighborhood relates to the overall pattern of the city and how it is used today. The aim of each design team was to analyze how to make each neighborhood a more vibrant living and working place for the residents, students, business owners, and visitors.

The following is a brief summary of the team’s urban design work, which explored the history of Frederick, analyzed the influence of Carroll Creek, identified present aspects that make the City thrive, categorized issues which need to be addressed, and generated urban design proposals to improve the City.
Events in the history of the United States have helped to shape Frederick. In 1861, Frederick became Maryland’s capital, as legislature was moved from Annapolis to vote on secession. Union and Confederate armies marched back and forth through Frederick multiple times while skirmishes ensued in the surrounding areas, including the Monocacy, Antietam and Gettysburg battlefields. No major Civil War battle occurred in Frederick, and as a result, it was spared the burning and looting that other towns suffered. Instead, the City was turned into a hospital town for wounded soldiers. The north/south route to Gettysburg, Route 15, became a major regional connection, later establishing a primary edge condition for the City in the decades after World War II.

The establishment of the Pennsylvania Railroad in 1872 brought an industrial boom to Frederick. By the turn of the century, Frederick’s industrial capacity had grown, led by canning, tanning and knitting industries. Frederick’s proximity to Baltimore and its port via the railroad greatly revolutionized the industry’s production and efficiency; many of those industries remain in the City today.
The creation of the Pennsylvania Railroad in 1872 drove the boom of industry. By the turn of the century Frederick industry, centered on the canning, tanning and knitting, had grown immensely. The ability to deliver these products to the market in Baltimore via the railroad, greatly revolutionized the industry’s production and efficiency.
EXECUTIVE SUMMARY

CARROLL CREEK AND THE DOWNTOWN FLOODS

Flooding in 1972 and 1976 caused by the overflow of Carroll Creek brought destruction to the downtown commercial area. Drastic flood prevention methods in the form of large conduits built below grade have, since their construction, eliminated the flooding and made the canal system a main focal point. Carroll Creek also flows through Baker Park, a beautiful city park that likewise serves as a flood control feature, holding the overflow of water from the creek during storm conditions.

Carroll Creek crosses Market Street in the downtown and, with the construction of the Carroll Creek flood control project, has served as a centerpiece for new development. Today, Carroll Creek serves as a great amenity to downtown Frederick; neighborhoods adjacent to it continue to be highly coveted and among the most desirable places in the City.
EXECUTIVE SUMMARY

ISSUES AND OPPORTUNITIES

During the course of the study, three significant overall issues were identified. First, how could the city continue to benefit from the ongoing development of Carroll Creek? Second, how could neighborhoods on the east and west sides of town create physical linkages to Carroll Creek and retain the best aspects of their unique identity? Third, how could new development initiatives help to advance sustainability in the City and provide models for how the City and region should grow?

WEST FREDERICK

The West side of Frederick consists of residential neighborhoods that are extensions of the downtown and are adjacent to Baker Park. Closer into the historic core, much of the urban fabric is similar to older sections of the City. It is clear that most of the development either occurred between the wars or in the decades after WWII. In particular, the neighborhoods closer to Route 15 along Jefferson and Patrick Streets contain automobile-oriented, large retail shopping centers, distinguished by large surface parking lots, generous set-backs and the lack of a cogent pedestrian environment. Specific observations and analyses include:

• Baker Park serves as a spine within the residential districts of the City, but the connectivity and access to it from other areas could be improved. How can improved access to Baker Park encourage more people to visit that area of Frederick?

• Poor transitions and connections between West Patrick and Jefferson Streets on the West side to the downtown along Carroll Creek, hinder walkability. Enhancing these connections could encourage residents of the West side to walk to the downtown and benefit from emerging amenities.

• Two fundamentally different housing (detached single-family houses and row houses) and street typologies exist in this area, some relating to the 19th century and earlier periods of growth, others more recent. How can a coherent sense of place be established with similar housing and improved street design?

• West Patrick, West South and All Saints Streets continue the morphology of the downtown district but are in need of aesthetic, structural and accessibility improvements. Reimagining the street section to be more walkable and beautiful can help create a more lively and desirable place.

• Large areas of surface parking lots on West Patrick, Jefferson and West South Streets offer opportunities to create a “center” for the West Side of The City of Frederick. How can those properties be organized and related to both the regional streets they serve while connecting to Baker Park and adjacent neighborhoods?

EAST FREDERICK

The East side of Frederick developed as part of the industrial growth of the City in the late nineteenth and early twentieth centuries. The buildings on this side tend to be early-to-recent light industrial buildings or complexes, close to the historic core, with residential areas and the county fairgrounds further to the east. Recent planning for this part of town has involved the transformation of East Street into a more pedestrian-friendly street, the redevelopment of the Brick Works, a former industrial site to the south, and the building of a new commuter rail station to serve the MARC system. Specific issues include:

• The ill-defined edge along East Street within the industrial zone results in little-to-no pedestrian connectivity. East Street is key to making connections from the East Side to the historic downtown.

• Many of the intersections between major cross streets are extremely wide, making the node very pedestrian unfriendly. Transforming these intersections into “moments of discovery” can attract people to them as destinations, rather than passersby just walking through them.

• Examining how Frederick can utilize Carroll Creek to serve dual purposes as both a water source and a uniting feature for the entire City.

• How can the Fairgrounds and the sites adjacent to them be designed so that the activities there are better connected to Frederick’s historic core?

• What parts of the existing street grid should be extended and how can potential streets and blocks created by those extensions become coherent neighborhoods?
DESIGN PROPOSALS

CREATING NEIGHBORHOOD CONNECTIONS

The studio divided the City into six distinct neighborhoods based on existing districts, site analysis and character of the areas. Initial themes included walkability, sustainability, connectivity, density and community building. Each neighborhood would have its own sense of place, purpose and goals, offering different amenities that create new destinations.

The neighborhoods include:

WEST SIDE

1) Jefferson Circle: Jefferson Circle serves as a gateway along East Jefferson Street into the city, offering greater housing density and choice to create a smaller scale neighborhood with short walkable distances to various amenities and new retail opportunities. Of importance is proximity to McCurdy Field and the sports and youth activities it offers.

2) Baker Heights: Another gateway into West Frederick, this time along East Patrick Street, Baker Heights offers walkable streets and public amenities, while incorporating sustainable strategies to make a more environmentally conscious neighborhood.

DOWNTOWN

3) Creek View: Located in the center of Frederick just east of Market Street and Baker Park, the proposal engages “place making” between East and West Frederick, creating an inviting area for residents to enjoy Carroll Creek and a once forgotten part of the City. New development that faces Carroll Creek and brings activity downtown is proposed for the large sites in and around the Frederick County buildings and Mullinix Park.

EAST SIDE

4) South Creek: Located in the historic industrial areas south of Carroll Creek and east of East Street, the South Creek strategy proposes a thoughtful urban design plan integrating with the existing industrial fabric and transit infrastructure. The plan aims to capitalize on the area’s historic light industrial and manufacturing uses. The plan introduces new residential development and novel locations for urban farms, some situated on upper levels.

5) Frederick Fields: This strategy transforms what is currently an industrial zone into a pedestrian-friendly, walkable residential district, introducing a multi-purpose recreational facility which acts as an anchor amenity and adds more public space adjacent to Carroll Creek.

6) Fairview Park: Focused on the large tracts of land north and west of the Frederick Fairgrounds, the strategy takes an existing attraction within the City of Frederick—the Fairgrounds—and uses it as the basis for a new development. The plan proposes new mixed-use and residential development north of the Fairgrounds with an inviting retail center along East Patrick Street as a gateway development.

The primary focus of the plan is to enhance the connections between the existing amenities of Frederick and its diverse neighborhoods to achieve a cohesive and unified city. Urban design can be used to meet the needs of Frederick’s residents, and business owners as it continues to attract tourists as well. In the process of doing so, urban design can also weave together a tapestry of places and neighborhoods to create an even better and livelier historic, modern community.
EXISTING CONDITIONS: Plan showing neighborhoods adjacent to Baker Park and Carroll Creek. Large surface parking lots characterize the West side (A, B) while on the East side are light industrial areas (E, F).
Existing Green Space

Proposed Green Space - Park System

Existing Figure Ground - Removed Buildings in Black

Proposed Figure Ground - Intervention in Black
The proposed scheme creates new neighborhoods within Frederick, each with its own sense of place. These neighborhoods are connected via a system of well-defined corridors and public spaces that tie into the existing city fabric and build on established places, such as Baker Park and Carroll Creek Park. The overall scheme considers several themes including walkability, sustainability, connectivity, density and community building.

1. JEFFERSON CIRCLE
2. BAKER HEIGHTS
3. CREEK VIEW
4. SOUTH CREEK
5. FREDERICK FIELDS
6. FAIRVIEW PARK
EXISTING CONDITIONS

1. South Jefferson Street is a main point of access into downtown Frederick from the west.

2. The popular McCurdy Field is located along South Jefferson Street. Due to the disjointed small-scale commercial buildings that line South Jefferson Street, residents are denied walkable access to McCurdy field and retail amenities such as a grocery store.

3. Public open spaces, such as South End Park are poorly defined.

JEFFERSON CIRCLE PROPOSAL

1. The Jefferson Circle proposal introduces a more distinct gateway into the historic downtown.

2. High density residential development of mixed typologies will foster the growth of a more vibrant community.

3. By redefining the Jefferson Street corridor, there will be an increase in walkability and ease of access to amenities such as a new supermarket, McCurdy Park and South End Park. Increased tree cover, permeability and the use of bioswales will add to the sustainability of this now pedestrian-friendly neighborhood.
SUSTAINABILITY STRATEGIES

Permeable surfaces: 42,300 SF of permeable pavers in surface parking lots reduce storm water runoff.

Bioswales: Over 1,600 SF of Bioswales and storm water catchments allow 13,160 SF of treatment area. Plants help treat runoff through the process of phytoremediation.

Walkability: More walkable streets and a small retail node will reduce the use of cars. All proposed residential units are within a five minute walking distance from Jefferson Street and the parks.

Higher Density: The new housing includes 57 single-family units, 9 live-work units and 262 multi-family units.

Vertical Garden: 208 newly planted trees that each absorb 48 lbs of carbon per year will result in 9,984 lbs of carbon reduction each year.
EXISTING CONDITIONS

1. The Route 144 entrance into West Frederick features the scattered development of commercial uses in the form of strip malls and small shops. The main corridor into the downtown lacks a continuous street edge and its proportions favor the vehicle over the pedestrian.

2. This area lacks public amenities that are within a reasonable distance from the surrounding neighborhoods.

3. Little green space is available for public use.

BAKER HEIGHTS PROPOSAL

1. Patrick Circle and Monument Corner anchor the main axis from the west into downtown Frederick. This well-defined, pedestrian-friendly corridor serves as a threshold into the city.

2. The Baker Heights Proposal offers two schemes, one retail-based and one residential-based, that each offer new commercial development to serve this mixed-use neighborhood.

3. This scheme employs sustainability strategies such as the use of vegetative roofs, tree trenches and bio-retention areas as well as an increase in impermeable surfaces to reduce storm water runoff.
Sustainable Strategies: Section through Baker Heights Residences (above) & neighborhood sustainability plan (below)

Reduction Impervious Surfaces 91%
Reduction in Runoff 67%
Vegetative Roof 25%
Bio retention Areas 13%
Tree Trenches 10%
Trees Planted 6%

LEED Neighborhood Development

20 Smart Location | Linkage (27 pts possible)
32 Neighborhood Pattern (64 pts possible)
14 Green Infrastructure | Buildings (50 pts possible)
60 LEED Gold Certified

Gateway to the Central Lawn

Patrick Street (above) & Baker Heights Park (below)
EXISTING CONDITIONS

1. Mullinix Park is an underutilized public space in Frederick that has become a center for crime. This results in part from a lack of defined edges and buildings facing onto the park.

2. Connections between Baker Park and Carroll Creek in the downtown are weak.

3. Open sites near Carroll Creek are occupied by municipal parking for police.

CREEK VIEW PROPOSAL

1. Reconfigure Mullinix Park to make it a more inviting area. Boost activity by adding a basketball court, playground equipment, and more green space.

2. Define the edges along Mullinix Park with residential front facades facing onto the park. This will put more eyes on the area and help to reduce crime, making the park a more family friendly space.

3. Continue the walking paths and green space from the Carroll Creek Park to the new Baker Park entrance.

4. Enhance the connection from downtown to Baker Park via Church Street.
Natural Edge leading to Baker Park

Natural Edge and Urban Blocks
CREEK VIEW

Land Use Plan

View along Church St. to Baker Park

Section A-A through Mullinix Park Neighborhood

Aerial View: Mullinix Park and Neighborhood
Typical building floor plans of proposed infill

View through to Baker Park

Sustainability Features: Creek View
EAST FREDERICK
EXISTING CONDITIONS

1. Poor urban edges and lacked walkable area make this area very unfriendly for pedestrians.

2. The existing industrial fabric is under-utilized.

3. The area is not well connected to adjacent neighborhoods.

SOUTH CREEK PROPOSAL

1. Introduce new streets and creek crossings to connect to Patrick Street to the north.

2. Enhance transit infrastructure with new adjacent development.

3. Enhance the industrial heritage of the area with new program related to existing businesses.

4. Promote sustainability with urban agriculture and green roofs.

South Creek enhances the existing industrial fabric and transit infrastructure south of Carroll Creek, and aims to capitalize on the areas vibrant existing character. This approach utilizes square footage of industrial roofs to become elevated urban farms and create a large community greenhouse. South Creek improves the streets with walkable greenways and streets. The South Creek viewing tower is an emblem of the neighborhood, and is reached by the new pedestrian bridge spanning Carroll Creek.
Aerial View of Sustainability Features at South Creek

- Storm Water
- Adaptive Re-Use
- Tree Planting

"It can take 10 to 20 years for a new building that is 30% more efficient than an average performing existing building to overcome the negative climate change impacts related to the construction process."

Recycled Water for Irrigation

128,600 SF of Building Reuse

375 New Trees x 48 LBS = 18 TONS
EXISTING CONDITIONS:

1. The East side of Frederick contains a large industrial zone comprised of automobile repair shops, the Goodwill building and some retail buildings along East Patrick Street. The area lacks connectivity with adjacent neighborhoods.

2. A super-block wedged into the existing grid created by downtown Frederick, lacks amenities that would draw visitors to the area.

3. The area is adjacent to the 100-year floodplain, and could help define that area.

FREDERICK FIELDS PROPOSAL:

1. The design creates a destination on the east side of town. The industrial area is re-imagined as a residential district featuring a mix of housing types.

2. This plan establishes anchors, such as a new recreational facility and grocery store, bringing more activity to this district and a more walkable residential community.

3. The area in the floodplain is converted into a large public park that absorbs the floodwaters and creates a green-space on the East side.
Places Diagram

Flow of storm water to site (above) & Diagrams showing derivation of parks and streets based on the flood plain (right)
SUSTAINABILITY STRATEGIES

Residential Units: More than 370 Residential Units are added in an effort to attract more residents to this side of town.

Retail: 71,000 sq ft of retail serves the new residents, including a 30,000 sq ft grocery store.

Parks & Recreation: A 130,000 sq ft recreation facility combines with 11.3 acres of parks and 8,000 sq ft of public growing gardens to attract visitors and residents of East Frederick.

Bioswales & Green Roofs: Over 20,000 sq ft of Bioswales and 167,000 sq ft of Green Roofs treat storm water runoff through phytoremediation.

Impervious Surfaces: The new park system and green roofs reduce the area of impervious surfaces by 780,000 sq ft and the amount of storm water runoff by 84%.
EXISTING CONDITIONS:

1. The Frederick Fairgrounds are one of the biggest attractions in downtown Frederick, drawing over 1 million visitors each year. Despite this, the areas surrounding the fairgrounds remain underutilized.

2. Across Highland Street, to the east is a large brownfield area that can be redeveloped.

3. None of the neighborhoods in this area have any connection to Carroll Creek.

FAIRVIEW PARK PROPOSAL:

1. Fairview Park proposes high-density residential development adjacent to the existing Frederick Fairgrounds. This residential community will be built in phases and feature a mix of housing types.

2. In addition to housing, Fairview Park will offer a new retail main street within walking distance for residents, as well as a wetland park.
FAIRVIEW PARK

Proposed view of Patrick Street at the Fairgrounds

Section A-A
The new retail main street

Section B-B

Proposed East Carroll Creek Park
CONCLUSIONS

At the conclusion of the semester, we offer the following possibilities for Frederick:

• The existing city fabric of streets and blocks in downtown Frederick can help connect the neighborhoods with the historic district. Using this fabric as a foundation, new uses can be introduced to make the neighborhoods address the needs of the community.

• The creation of distinct neighborhoods allows for the establishment of a stronger sense of place and provides opportunities to enhance destinations within the City of Frederick. By organizing the city into districts and neighborhoods, access to recreational, civic, commercial and institutional activities is improved, regardless of where people live.

• The neighborhoods on the east and west sides should be connected to the downtown by well-defined, multi-modal corridors. These corridors should be safe for pedestrians, bikes and vehicles and feature a mix of uses. Further regional connections can be established by enhancing existing amenities, such as a Baker Park and the Carroll Creek Park.

• The pedestrian’s access to amenities should be met through pedestrian and bike-friendly streets. At the human scale, creating streets with wider sidewalks, parallel parking and street trees helps to protect the pedestrian from automobile traffic. Sustainable design starts with walkable districts and helps to lessen the dependence on the automobile.

• Sustainable strategies can be used at a macro scale through efficient storm-water management systems, green roofs and green streets. At a micro scale, sustainability can be enhanced by employing rain gardens, permeable paving and bioswales to mitigate storm water. Planting trees can reduce CO2 emissions and photo-voltaic panels installed on new and existing structures can lessen the carbon footprint of a district or neighborhood.

By examining and understanding the diversity and variety of Frederick and recognizing its amenities, we have been able to identify opportunities for future new development and revitalization. These six proposals seek to provide new ways to envision the existing neighborhoods of Frederick and speculate about its bright future.