

The Livable Frederick Planning and Design Office
Division of Planning and Permitting
Frederick County, Maryland

FCPC RECOMMENDED PLAN

NOVEMBER 2023

THE SOUTH FREDERICK CORRIDORS PLAN



**Land Acknowledgment &
Enslaved People Acknowledgment**

TBD

THE SOUTH FREDERICK CORRIDORS PLAN

A SMALL AREA PLAN ELEMENT OF THE LIVABLE FREDERICK COMPREHENSIVE PLAN

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MAPS

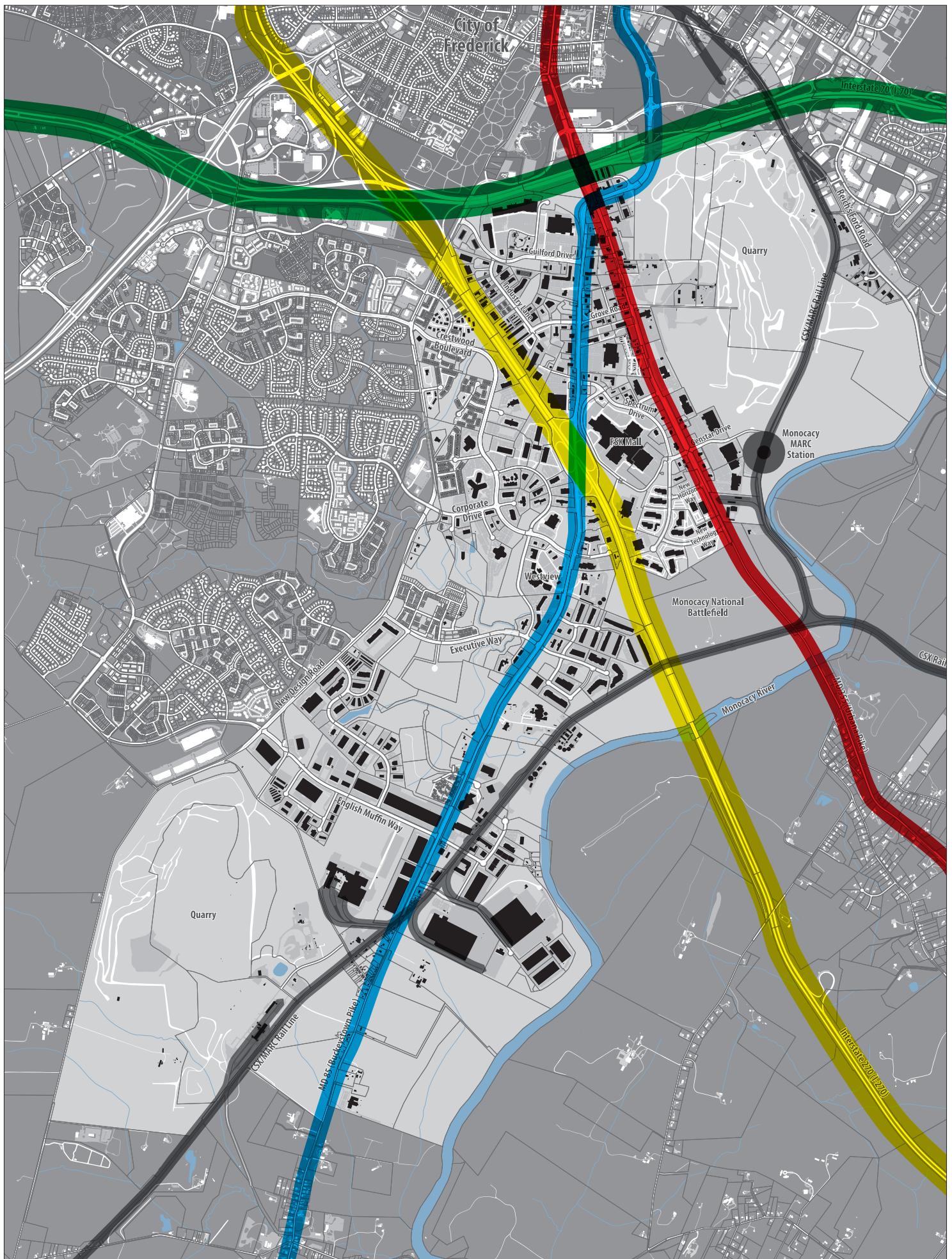
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MAP 01: EXISTING CONDITIONS

- I 270
- I 70
- MD 355
- MD 85
- Rail Line

INTRODUCTION

In Frederick County, residents and visitors enjoy a prosperous mix of authentic places, beautiful landscapes, and rich opportunities, made so through the prudent stewardship and capable enterprise demonstrated by this community throughout its history. The forces of social, economic, and political change have been met with **choices** that have consistently led to improvement and abundance in Frederick County. These choices have resulted in a community that can be described with one word - livable. However, this prosperity is not inevitable. The challenge Frederick County faces today is to ensure that this livability continues into a future where the only constant is the persistence of change.

This tradition of choosing the right path among many, the path that leads to our brightest future, continues with Livable Frederick. The planning initiatives emerging from Livable Frederick connect vision with potential, with a focus on places poised to become **the next expression of our livable history**. One such place is the subject of this plan: the South Frederick Corridors.

The South Frederick Corridors Plan brings vivid focus to a place that has become an epicenter of commerce and industry in the County over the last several decades. The economic performance of this area has been exceptional, providing services and jobs that have matched the circumstances of demand and consumer preference. The South Frederick Corridors Plan seeks to further economic prosperity through the creation of vibrant communities for business owners and their employees, residents, and visitors.

Emphasis in this plan is on a “value calculation,” which focuses on the worth of places to people. The element of choice is often at the center of this calculation, as employers seek out locational advantages for business, residents seek out affordable, walkable, and diverse housing options, and the public sector seeks out the most efficient and cost-effective methods of providing services and facilities. More specifically, the elements of this calculation include:

Workforce Attraction: Workforces are increasingly mobile, with entrepreneurs, talented professionals, innovative creators, and skilled managers choosing to seek out high quality and affordable places to live, work, and play. Private sector investment in a specific place must provide value for both employers and those employed.

Regional Competitiveness: Places within a region compete with each other for consumers, residents, employers, and workers. Unique and memorable places can be more attractive and can influence the choice of where to shop, work, and play, creating a competitive advantage that effectively extends regional trade areas.

Environmental Responsibility: There is a noted preference among many households today to live in places that are more energy efficient and less impactful on natural resources.

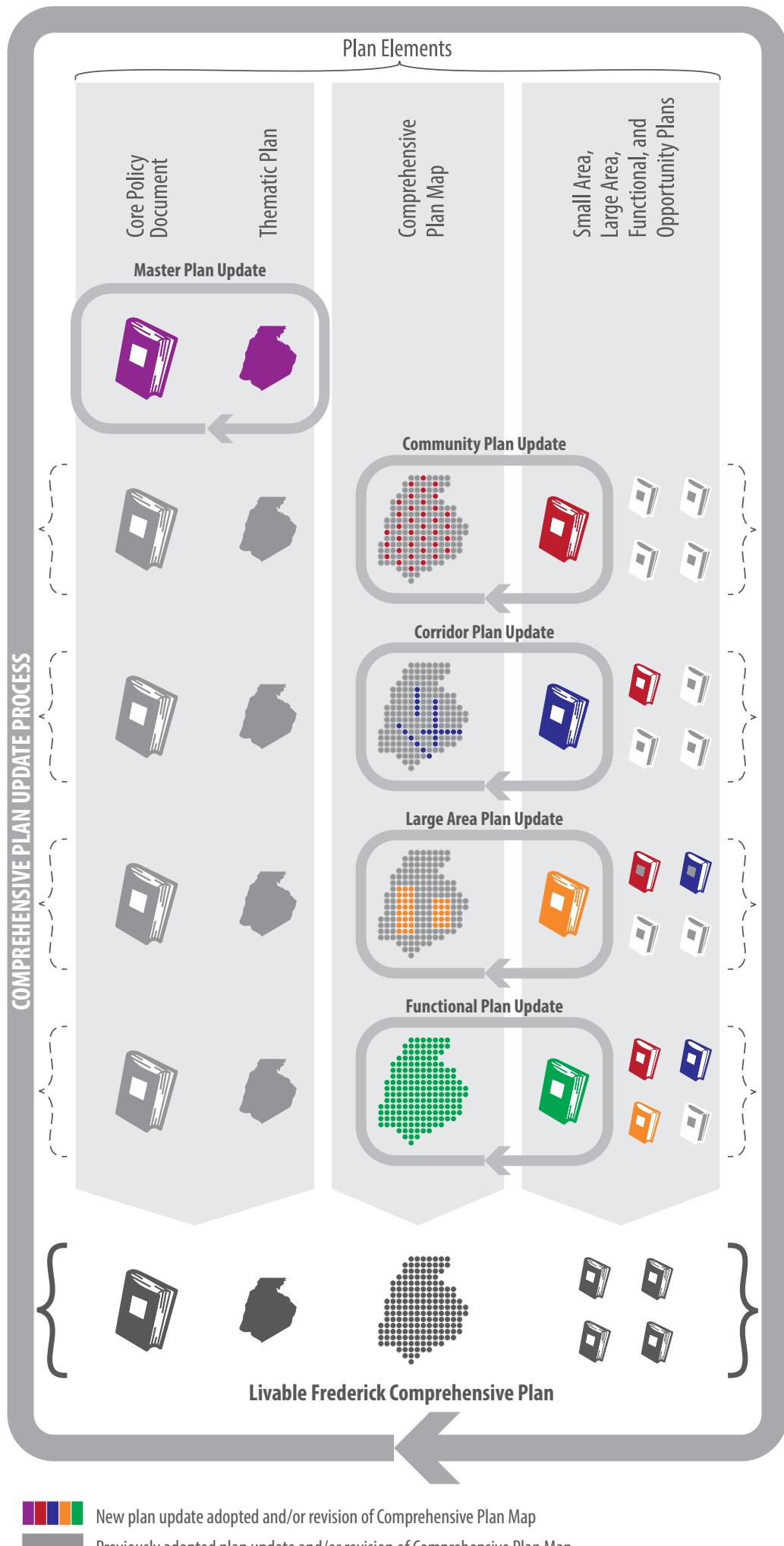
Cultural and Recreational Assets: The exponents of the value calculation for place are richness and abundance. Places that offer deep and meaningful cultural experiences and histories, as well as cultivated and diverse ways to enjoy life have a competitive advantage when it comes to businesses, families, and residents investing in their community.

All of these elements are deeply connected to the physical character of place, a fact that has been demonstrated by improvement in the understanding of place-based economic prosperity. If a place is physically improved using strategies that address these imperatives, it has been demonstrated that an upward spiral of rising employment and growing incomes can catalyze additional investments in the quality of a place.¹ Ultimately, a livable place creates its own success, using its increasing attractiveness to businesses and residents as a magnet for improvement, refinement, and further prosperity.

The recipe for place quality has been known for centuries. It involves activity, accessibility, sociability, and comfort – factors that can be difficult to achieve with the planning and zoning tools that currently exist in Frederick County. Indeed, this plan provides a framework of approaches and interventions to transform the place quality of the South Frederick Corridors over the next several decades, thereby activating an upward spiral of improvement and ensuring that a Livable Frederick County will remain so for generations to come.

¹ Michigan State University. Land Policy Institute, et al. *Chasing the Past: Or Investing in Our Future: Placemaking for Prosperity in the New Economy, Summary Report*. Land Policy Institute at Michigan State University, 2009.

Figure 1: Livable Frederick Comprehensive Plan Update Process



Note: The illustrations of the Comprehensive Plan Map shown are stylized depictions of the county for illustration of the general scope and distribution of potential future plans. They are not intended to define specific areas for future planning.

PLANNING FRAMEWORK

The South Frederick Corridors Plan (SFCP) is a long-range planning document that exists within the context of a broader planning initiative known as Livable Frederick. With the adoption of the Livable Frederick Master Plan (LFMP) in September 2019, Frederick County created a new framework for making strategic decisions about the County's future. The Livable Frederick Comprehensive Plan serves as an umbrella under which a multitude of plans, policies, studies, and regulations are continuously emerging and evolving. The South Frederick Corridors Plan is one such document.

The Livable Frederick Comprehensive Plan is composed of:

The Livable Frederick Master Plan: A vision-based strategic plan for the County's long term future well-being. The LFMP features a Vision, a Development Framework featuring a Thematic Plan, and an Action Framework detailing goals and initiatives addressing the four fundamental themes of Community, Health, Economy, and Environment.

The Comprehensive Plan Map: A map, or map series, that identifies broad categories of land uses and other related long-range planning features. Generally, this map is revised and updated with the adoption of new plans under the Livable Frederick framework.

Community and Corridor Plans: These plans are the beating heart of the Livable Frederick concept, and will constitute the primary means of implementing the vision presented in the Livable Frederick Master Plan. Plans are prepared for community growth areas, key economic or transportation corridors, lands surrounding the County's incorporated municipalities, and other geographic places in need of detailed study. These plans are focused on creating great places to live and work in Frederick County. The SFCP is one of these plans.

Large Area Plans: These planning documents are prepared to address larger geographic areas that include multiple communities or neighborhoods, significant natural landscapes or features, or broad land areas under the influence of forces or conditions warranting dedicated planning attention by the County.

Functional Plans: A functional plan addresses issues related to planning for the systems or networks that are generally not tied to a specific geography within the County. Two such documents identified in the Livable Frederick Master Plan are the Green Infrastructure Plan and the Agricultural Infrastructure Plan, each serving to establish a coordinated planning approach to topics involving an array of places, activities, and forces.

Opportunity Plans: These planning documents are deployed to address time-sensitive challenges faced by the County. The Livable Frederick framework acknowledges the need to remain nimble in the face of challenges and opportunities. This type of focused planning allows the County to work within the Livable Frederick framework, while addressing issues that may not arise in the normal course of long-range planning. Such documents may address specific Economic Opportunities, Environmental Opportunities, or Mobility Opportunities.

As each of these plans is developed and adopted by elected officials, the new documents will constitute amendments to the Livable Frederick Comprehensive Plan.

With the adoption of the South Frederick Corridors Plan, the Livable Frederick Comprehensive Plan now reflects the County's long-range vision for the South Frederick Corridors and anticipates actions, both public and private, to achieve that vision. The future is often unpredictable, yet planning to face the challenges of the future remains our best option as a community. To that end, a shared community vision of our desired future for the South Frederick area will guide our planning, refine our public policies, and bring resources to bear on the challenges and opportunities that lie ahead.

State of Maryland Planning Visions

The 2009 Maryland Planning Visions law created 12 Visions which reflect the State of Maryland's ongoing aspiration to develop and implement sound growth and development policy. The visions address: quality of life and sustainability; public participation; growth areas; community design; infrastructure; transportation; housing; economic development; environmental protection; resource conservation; stewardship; and implementation approaches. These visions, listed below, are a central and underlying part of the LFMP, which endeavors to implement them through a variety of policies and regulations. A brief description of the manner in which the South Frederick Corridors Plan supports the implementation of the Twelve Visions is provided below:

1) Quality of Life and Sustainability: A high quality of life is achieved through universal stewardship of the land, water, and air resulting in sustainable communities and protection of the environment.

The South Frederick Corridors Plan results in sustainable communities and the protection of the environment through the stewardship of land, water, and air by concentrating development in areas where existing infrastructure can be

more fully utilized, thereby limiting the spread of development into rural and natural resource areas. Additionally, the form of development proposed in the plan enables lifestyles that can reduce energy consumptive forms of transportation such as driving by enabling more energy efficient forms of transportation such as walking, biking and mass transit.

2) Public Participation: Citizens are active partners in the planning and implementation of community initiatives and are sensitive to their responsibilities in achieving community goals.

The South Frederick Corridors Plan was developed through an inclusionary and participatory process. Prior to official development of the planning document, an advisory panel composed of community members, referred to as the Scoping Group, was convened and met numerous times to identify the important trends issues that the plan should address. Additionally, a multi-day community design charette was conducted that involved the Scoping Group as well as many other members of the community. This design charette formed the basis of the conceptual plan presented in this document.

3) Growth Areas: Growth is concentrated in existing population and business centers, growth areas adjacent to these centers, or strategically selected new centers.

The South Frederick Corridors Plan encompasses portions of two existing community growth areas previously identified in County Comprehensive Plans. These are, as identified on the County Comprehensive Plan Map, the Frederick Southeast Community Growth Area and the Ballenger Creek Community Growth Area.

4) Community Design: Compact, mixed-use, walkable design consistent with existing community character and located near available or planned transit options is encouraged to ensure efficient use of land and transportation resources and preservation and enhancement of natural systems, open spaces, recreational areas, and historical, cultural, and archeological resources.

The community design strategy described in the Plan is crafted to support multimodal accessibility, which is a strategy that makes walking, biking, ride hailing, and mass transit feasible and functional transportation options by providing supportive land use mixes, densities, and development formats.

5) Infrastructure: Growth areas have the water resources and infrastructure to accommodate population and business expansion in an orderly, efficient, and environmentally sustainable manner;

The South Frederick Corridors Plan targets growth and development in an area of the County where water resources exist and have been focused.

6) Transportation: A well-maintained, multimodal transportation system facilitates the safe, convenient, affordable, and efficient movement of people, goods, and services within and between population and business centers;

Multimodal accessibility is a central concept in the plan, with typical sections of streets and roads provided that are designed with facilities for walking, biking, transit, on street parking, as well as travel by automobile.

7) Housing: A range of housing densities, types, and sizes provides residential options for citizens of all ages and incomes;

The South Frederick Corridors Plan focuses on the provision of a diversity of high density housing formats and makes reference to contemporary development models such as the Missing Middle housing idea.

8) Economic Development: Economic development and natural resource-based businesses that promote employment opportunities for all income levels within the capacity of the State's natural resources, public services, and public facilities are encouraged;

9) Environmental Protection: Land and water resources, including the Chesapeake and coastal bays, are carefully managed to restore and maintain healthy air and water, natural systems, and living resources;

10) Resource Conservation: Waterways, forests, agricultural areas, open space, natural systems, and scenic areas are conserved;

The Plan identifies conservation areas in the form of a Green Infrastructure Network and open space form designations.

11) Stewardship: Government, business entities, and residents are responsible for the creation of sustainable communities by collaborating to balance efficient growth with resource protection; and

A central function of the Plan is to balance growth and resource protection through the articulation of the outcomes needed from various members of the community as a whole to support this balance.

12) Implementation: Strategies, policies, programs, and funding for growth and development, resource conservation, infrastructure, and transportation are integrated across the local, regional, state, and interstate levels to achieve these Visions.

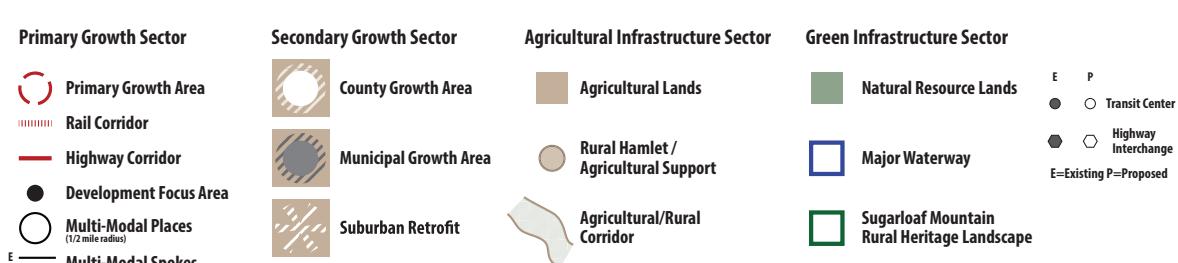
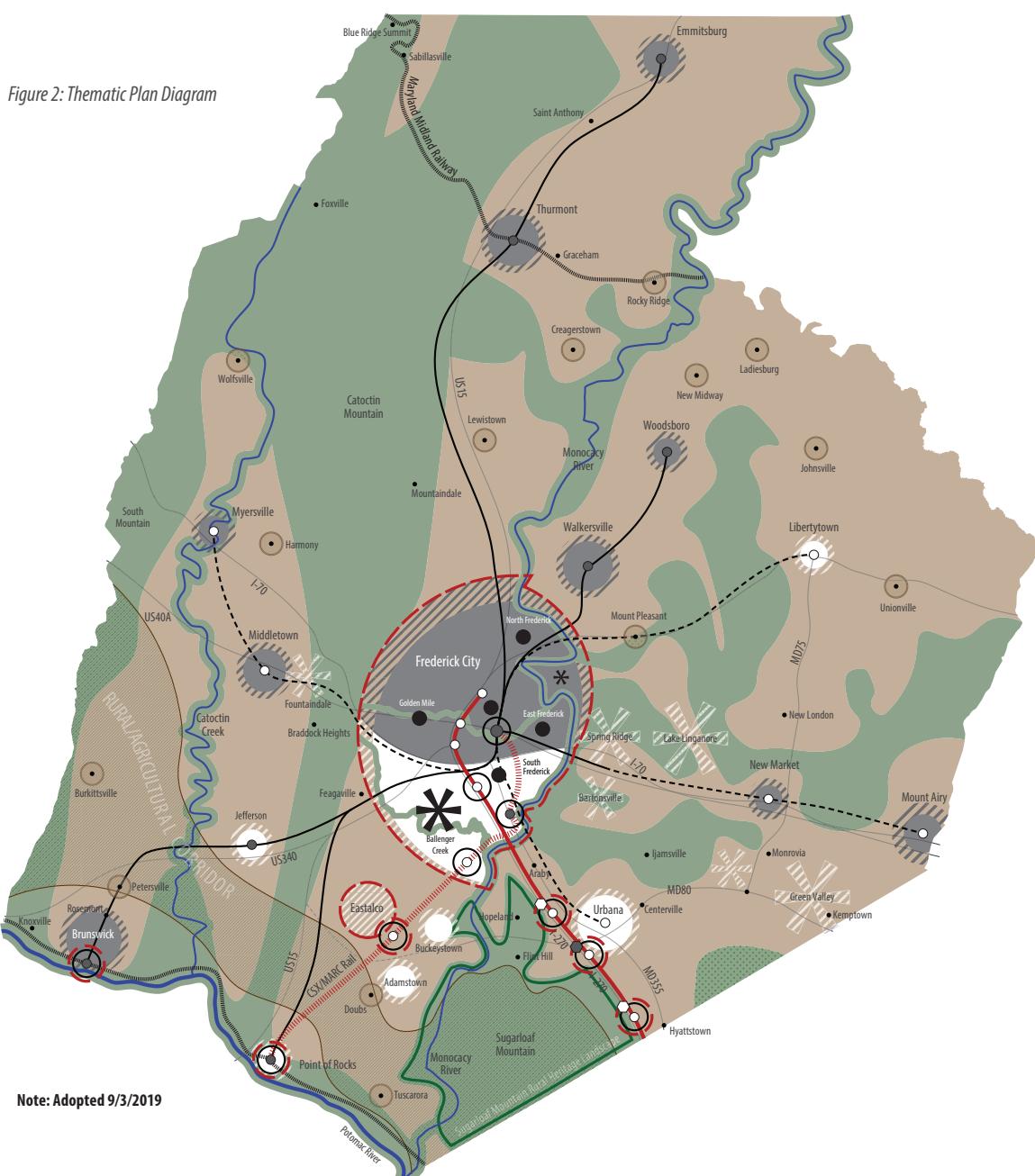
A robust analysis and strategy for implementation, addressing partnerships with local, state, and federal jurisdictions, partners in the development community, property owners, land tenants, and community members is provided in the Plan.

THE THEMATIC PLAN

The Thematic Plan is a combination of diagrams and text that describe a general strategy for organizing growth and development in Frederick County over the next several decades. It is located within the Development Framework section of the Livable Frederick Master Plan, and includes a conceptual drawing intended to communicate the basic outline of this general strategy. This drawing is called the Thematic Plan Diagram and is included on the following page.

The Thematic Plan describes four Planning Sectors. They are the Primary Growth, Secondary Growth, Agricultural Infrastructure, and Green Infrastructure Sectors. The Growth Sectors identify locations where new development is targeted, with the difference between Primary and Secondary being categorical rather than hierarchical. In other words, despite the terminology, neither Growth Sector is emphasized. Rather, the distinction between them reflects a difference of development style, with the emphasis of the Primary Growth Sector being multi-modal accessibility and the emphasis of the Secondary Growth Sector being compact development, but with neither at the exclusion of the other.

The South Frederick Corridors planning area lies within the Primary Growth Sector of the Thematic Plan Diagram. It is identified as a "Primary Growth Area" and contains symbols for one "Development Focus Area" and two "Multi-Modal Places." The totality of the SFC Plan implicitly articulates a meaning for these designations and symbols that is specific to this planning area.





APPROACH AND PURPOSE

Among the many factors that drive the South Frederick Corridors Plan are goals related to reinforcing and creating economic strengths and assets, supporting existing business and industries, and fostering innovation and opportunity. These goals appear in the Our Economy section of the LFMP. In terms of physical planning, the LFMP lays out the related demands that must be satisfied in future years. These involve:

- Enhancing livability, community well-being, and economic activity through **mixed use settlement patterns** that make services, jobs, and amenities more accessible to a wider range of people;
- Providing economic growth opportunities and satisfying demand by creating the types of **walkable, accessible, and interesting mixed use places** that are increasingly sought after by workers and employers;
- Stimulating economic development by creating mixed use places that provide **unique experiences** and that serve as points of attraction from across the region for both consumption and production;
- Making our economy more equitable through the creation of **focused communities** that result in the development of a wider spectrum of affordable housing options;
- Building our economy on a foundation of **multi-functional infrastructure** that can lower household transportation costs and create lifestyle improvements (such as reducing the time spent sitting in traffic or enabling health promoting activities such as walking and biking for transport) by developing mixed use places that **reduce the dependence on automobiles** through **multi-modal transportation** and that provide **interconnected road networks** that afford, rather than inhibit, the distribution of trips across multiple routes;
- Supporting optimal returns on infrastructure investments and the long term financial solvency of the County through development strategies that promote the **maximum use of existing systems**;
- Building resilience in our economy by adopting **sustainable development patterns** that promote the conservation of natural resources and rural land, the efficient use of energy, and the reduction of driving; and,
- Supporting the demands of a future workforce for mixed use places that promote **positive social outcomes** including neighborhoods that are designed to enable spontaneous and positive interactions with neighbors, foster community, and reduce social isolation.

These demands speak to larger issues brought forward during the creation of the LFMP – issues that are perhaps even more present today as we learn from the experience of COVID-19. Namely, that *economic* health is a vital part of our overall *community* health. Our relationships with our jobs, our neighbors, and the businesses that offer employment opportunities and provide products and services that we use in our daily lives can be made better through a redevelopment strategy for the South Frederick Corridors that embraces connections between physical design, economic opportunity, and healthy people and communities.

PHYSICAL DESIGN

The demands described above beg the question of supply, which in this case is fundamentally connected to the physical design of a place. Indeed, the physical design of place is intertwined with the potential to realize the economic, social, and lifestyle goals of a community and promote different types of physical environments that will allow opportunities such as access to jobs, services, and amenities. Therefore, achieving the outcomes stated above can be enabled – and must be supported – by the physical configuration of a place.

The LFMP concludes that an important aspect of achieving these economic, health, environmental, and community outcomes is the development of a larger share of places in Frederick County that are more centralized, more walkable, and more functionally diverse. This entails a design approach that:

- Reduces the distance between origins and destinations;
- Increases the options for moving between origins and destinations; and,
- Establishes spatially focused land use patterns that provide a diversity of housing options and a mix of compatible land uses that are accessible by walking, biking, mass transit, micro-transit, ride hailing, and driving.

The future economic significance of the South Frederick Corridors depends in part on its ability to embody this kind of physical design through a gradual redevelopment *metamorphosis*. The existing suburban, automobile-oriented pattern of development in the South Frederick Corridors supported this economic center over the last several decades, but as evidenced in the LFMP, this pattern is no longer adequate to meet the demands of the coming decades. Ensuring the continued economic status of the South Frederick Corridors requires a re-imagining of the area that embodies all of the spontaneous and mutually-reinforcing aspects of any vital urban neighborhood. This

strategic effort must include some areas in Frederick County composed of 1) higher concentrations of population, 2) complementary land uses that are spatially and proximately combined to enhance access between origins and destinations, and 3) a transportation infrastructure that is physically designed to afford usage through multiple modes – cars, transit, walking, and biking – and as “public” or common space.

However, realizing these kinds of physical places in actuality typically requires a refined level of infrastructure planning and investment, more so than the nascent and disconnected systems typically employed for suburban development. In terms of feasibility, this implies the possibility of prohibitive costs for services. In this case however, the South Frederick Corridors area represents something approaching a windfall for Frederick County due to its existing, and fundamentally sound, infrastructure.

The benefits of this existing infrastructure in the South Frederick Corridors have accrued over the last several decades through Federal, State, and County level investment. This concentration of infrastructure has impelled the economic growth of the South Frederick Corridors over the last fifty years, creating and enhancing a variety of location based endowments such as regional access and proximity to Frederick City. In the next fifty years, this existing infrastructure will underpin and leverage continued economic prosperity by providing a foundation upon which enhanced infrastructure can be built in a fiscally responsible manner.

GRADUAL, INCREMENTAL, AND COORDINATED

This central purpose of the South Frederick Corridors Plan, namely **the area’s transformation into a vital and livable urban district**, requires redevelopment. This is an approach to planning and land development that has not previously been undertaken comprehensively in Frederick County. Since the 1950’s, development in Frederick County (outside of its twelve municipalities) has occurred almost entirely in the form of the conversion of rural or agricultural land to suburban land, colloquially known as ‘greenfield development’. There has been little, if any, redevelopment of land that had already undergone that conversion.

This may not seem unusual given that redevelopment is often employed to counteract a process of economic disinvestment in land, and so far this has not yet been a significant issue within the jurisdiction of Frederick County. However, in order to fully realize the vision articulated in the LFMP, redevelopment must play a central role in managing the County’s economic and residential growth in the coming decades. As the LFMP describes, County efforts should not solely emphasize the development of rural land around the periphery of existing developed land. Rather a share of future growth should be directed to previously developed areas where the County can leverage its existing infrastructure in order to mitigate a significant portion of any resulting additional service demands.

Redevelopment, as a growth strategy, is arguably less wasteful of critical land resources, precious political capital, and scarce public and private funding. Stewardship of our existing investments in public infrastructure, demands of us the discipline to *re-use*, instead of *re-build*.

Historically, redevelopment strategies vary in the degree of demolition of existing buildings and infrastructure, ranging from the adaptive reuse of existing buildings, to the widespread clearance and reconstruction of large areas. Individual redevelopment projects in the South Frederick Corridors may fall anywhere in this range, but as a whole, redevelopment will be *gradual, incremental, and coordinated*.

Redevelopment will be *gradual* in that there is no extrinsic deadline for total plan build out. The timing of redevelopment will largely derive from the dictates of market demand and larger economic trends. Therefore, while some redevelopment projects may proceed quickly, others may not.

Additionally, the intensity of redevelopment will occur *incrementally* and in waves. Often, this is a result of a positive feedback effect where pioneer projects imply favorable investment opportunities that trigger additional development, establishing baseline conditions that are matched or surpassed by subsequent waves of project build out.

Finally, gradual and incremental redevelopment will avoid ad hoc and reactionary design decision-making by the *coordinating framework* created by this plan. Without a coordinating framework, incremental development becomes additive development, where the sum is effectively a mere heap of buildings rather than a livable place. As circumstances inevitably change over time, the overarching pattern and specific formats of development will be directed by the design and policy visions described in this document.

Redevelopment in the South Frederick Corridors presents one of the best options for ensuring that Frederick County is prepared for the demands of the future. Planning initiatives such as the South Frederick Corridors Plan will ensure that the Livable Frederick Comprehensive Plan continues to evolve, remains relevant, and responds flexibly to circumstance, all while maintaining its keen focus on a central vision for the future of Frederick County.

POLICY VISION



OUR COMMUNITY

It is the year 2050. The South Frederick Corridors is a regional economic and community center. It is truly urban, in the best sense of the word – lively and vibrant in some places, quiet and private in others, well-served by neighborhood amenities, and offering convenient mobility even without a car. It is both an origin and a destination, balancing the needs of its resident population with the demands of visitors, businesses, and workers. It contains many beautiful places that are composed of fine exterior spaces defined and enclosed by handsome architecture and accentuated by meaningful public art. The County can boast of many great places to live, work, or play, and the South Frederick Corridors provides all of this in a single place.

Life is more livable for more people in Frederick County as a direct result of the reimagining of the South Frederick Corridors. This significant redevelopment effort has helped to address the mismatch between the kind of housing available in the past, and the housing demands that have emerged in the last quarter century. The market pressure for a variety of housing types and physical environments that support walkability, local retail, and public transportation has been acknowledged and facilitated by County citizens, employers, and elected officials. A wider range of housing options offering affordability and universal access have prevailed in the South Frederick Corridors, thus creating diverse and cohesive neighborhoods and bolstering the societal bottom line. Exemplary schools, parks, and public services in the planning area have contributed to a strong sense of place identity and an even stronger sense of community pride.



OUR HEALTH

Community health is supported in ways that incorporate bodily, psychological, and economic well-being into the fundamental strategy of redevelopment. This is achieved through the physical design of places, access to a range of employment opportunities, goods and services that meet both needs and wants, and affordable places to live. Principles of healthy place-making¹ have been integrated into all aspects of the development process.

The clear and abundant evidence on the positive health outcomes of equitable, accessible, walkable, and “pro-social” place design² has been championed and implemented in the South Frederick Corridors. Buildings, streets, parks, and neighborhoods are designed to support good physical and mental health, reduce health inequalities, and improve people’s well-being. Occupants of the South Frederick Corridors have integrated physical activity into their daily lives through an environment that not only supports the pedestrian, but also makes walking a viable and even preferred mode of transportation. Origins and destinations are within reach for a walker, and streets are safe, welcoming, and pleasant. Interactions with neighbors and other members of the community are common, and the psychological and social support this can create reaps benefits across generations of Frederick County residents. Air, water, and ground actively promote, rather than hinder, good health. Landscaping and tree canopy are not only valued for their aesthetic effects, but for their biological health and well-being effects. The South Frederick Corridors is a model pro-health environment.

¹ *Ten Principles for Building Healthy Places*, Urban Land Institute Building Healthy Places Initiative, <http://uli.org/wp-content/uploads/ULI-Documents/10-Principles-for-Building-Healthy-Places.pdf>

² *Healthy Places: Improving Health Outcomes Through Placemaking*, Project for Public Spaces, https://assets-global.website-files.com/5810e16fbe876cec6bcbd86e/5a626855e27c0000017efc24_Healthy-Places-PPS.pdf



OUR ECONOMY

Growth in the South Frederick Corridors has met the dictates of the triple bottom line¹: *economic, environmental, and societal*. With a competitive advantage centered on the quality, attractiveness, and vitality of its physical environment, the South Frederick Corridors has amplified and diversified the economic development of Frederick County. Careful planning coupled with bold leadership and private land development foresight has created a walkable, safe, and exciting place that people care about and want to experience, and where businesses, workers, and entrepreneurs want to locate, invest, and grow. This place-based attractiveness has resulted in a diversified economic base, where businesses benefit from scale efficiencies that make it easier to share knowledge, tap into a large pool of skilled workers, and benefit from a wide range of support services. This is no factory town, where one business or industry dominates. This is a true urban center, where an array of industries, services, and communities offers the resilience and mutually reinforcing elements that build and sustain communities to withstand the cyclical tides of economic activity and remain vital and relevant for generations to come.

The proximity of the South Frederick Corridors to Frederick City produces dividends for both places. Rather than a zero-sum struggle for finite rewards, each place offers complementary but different qualities that mutually reinforce the role and status of the other. The distinct character and history of Downtown Frederick City cannot be replicated or replaced, and development in the South Frederick Corridors has no such pretense. Just as other important places have had waves of development that have created layers of distinct but complementary neighborhoods – think Boston’s Beacon Hill neighborhood relative to the later development of the Back Bay – so it is the case here. The future of the South Frederick Corridors will serve to expand the scope of places in the County that are cherished as “historic,” where a vibrant and vital Downtown Frederick City becomes the sage matriarch to a youthful descendant.

OUR ENVIRONMENT



In today’s world, where climate change has stressed our natural and artificial systems to levels previously unknown, the environmental bottom line has been central to the success of the South Frederick Corridors. This place represents a great achievement in energy conservation, water quality restoration, waste reduction, and the replenishment of the resources provided in our natural environment. The integrated planning of critical natural systems and our man-made environments has demonstrated that sustainable approaches to managing water, energy, and waste at the landscape, builtscape, and infrastructural levels offer both environmental and economic benefits.

Under the guiding principles of the Livable Frederick Master Plan, the South Frederick Corridors has played a key role in maximizing the use of some County assets, while keeping other essential resources from being lost. The abundance of infrastructure that endowed the area with its latent development capacity has been deployed to its full potential in order to absorb the growth and development that would have otherwise resulted in a notable deterioration of the County’s rural and natural resources. Frederick County owes the continued presence of many of its farms, woodlands, wetlands, and meadows to the prudent planning wisely deployed in the South Frederick Corridors.

Climate resilience and energy independence is enhanced by making better use of existing impervious surfaces, utilizing existing infrastructure, and establishing codes and standards that reduce requirements for paved vehicular parking areas. Site design standards, as well as local incentives, that facilitate the development of Electric Vehicle (EV) infrastructure are deployed to encourage the transition away from Internal Combustion Engine (ICE) powered vehicles in favor of more efficient, less-polluting, and quieter EVs. Improved personal and shared environments, powered by the energy of human interaction rather than by fossil fuels, are a direct result of Frederick County’s systematic approach toward achieving sustainable residential neighborhoods and employment centers.

¹ “In economics, the triple bottom line (TBL) maintains that companies should commit to focusing as much on social and environmental concerns as they do on profits. TBL theory posits that instead of one bottom line, there should be three: profit, people, and the planet. A TBL seeks to gauge a corporation’s level of commitment to corporate social responsibility and its impact on the environment over time. In 1994, John Elkington—the famed British management consultant and sustainability guru—coined the phrase “triple bottom line” as his way of measuring performance in corporate America. The idea was that a company can be managed in a way that not only makes money but which also improves people’s lives and the well-being of the planet.” Investopedia, <https://www.investopedia.com/terms/t/triple-bottom-line.asp>

DESIGN VISION

For reasons described previously, a significant share of our residential growth in Frederick County will be absorbed by redevelopment in the South Frederick Corridors. However, pondering the South Frederick Corridors as it exists today may cause skepticism about the viability of living there. Physical spaces, composed of wide roads and long distances between buildings that are often surrounded by cars, make it difficult to imagine overlaying these spaces with our typical domestic behaviors. As the area now exists, it is difficult to imagine doing things like taking a walk through the neighborhood, riding a bike to a shop or to school, relaxing on the back patio, or playing catch in the park. The separation of the area into functional zoning districts with narrowly defined types of uses, where the duration of occupancy is typically only as long as it takes to finish shopping or working, adds to this difficulty. Ultimately it is quite challenging to imagine this area as a place where someone might reside, or even spend a considerable amount of time (unless they are being paid to do so). Currently, the Corridors are where people go to accomplish a task, leaving when that task is complete. Its current status is as a place that supports our livelihoods and some of our leisure, not a place that offers the sanctuary and refuge that we often seek in our home environments.

Therefore, reinventing the South Frederick Corridors as a place that is not only a commercial and industrial hub, but that is also residentially hospitable and attractive, requires looking to physical place types that are, in the best sense, **urban**. Of the myriad forms that have been used to reconcile the competing needs people demand of their physical environment, *urban places* have demonstrated the best solutions when aspirations center on both efficiency and vitality, or both comfort and opportunity.

The South Frederick Corridors will embody the best of urban places, offering ‘compression without oppression’ where activities and places are close together but do not feel crowded or overloaded. Shorter distances between origins and destinations will gain us the freedom of mobility choice, including new options to walk comfortably, bike safely, or ride convenient and efficient modes of transit. The gentle squeeze of density will be offset by the welcome release of safe pedestrian-friendly streets and ample local parks and plazas. Access to shops, businesses, services, and neighbors will be at your fingertips, but will also be easily kept at arm’s length if solace and serenity is preferred. Achieving this is the challenge presented by the prospect of introducing a resident population to the South Frederick Corridors. It is the design goal of the South Frederick Corridors Plan to shepherd a transition of the area into a vibrant, safe, productive, and healthy place for consumers, for producers, *and* for residents.

DESIGN CONCEPT

The general concept for the South Frederick Corridors emerged from a series of facilitated meetings (charrettes) where interested parties directly explored various design and development visions. These occurred over four sessions during the first two weeks of April 2021, and included facilitated discussions and hands-on design and layout exercises. An emphasis on the physicality of the built environment was maintained through the definition of various **place types** that encapsulated alternative, future redevelopment visions revolving around land use, density, and infrastructure.

The “place types” planning strategy employed circular modules of geographic area organized by different land use profiles, such as “employment center,” or “town center.” By virtue of their circular shape, there was a decided emphasis on thinking in terms of locational centers. In other words, as circles, these modules were centered on single points, resulting in the conceptual effect that central places were being identified and distributed in the planning area. This is in contrast to the more common practice of defining land use through the identification of boundaries and edges, effectively diverting attention away from central places, and more toward defining the extent of a uniform region of land use.

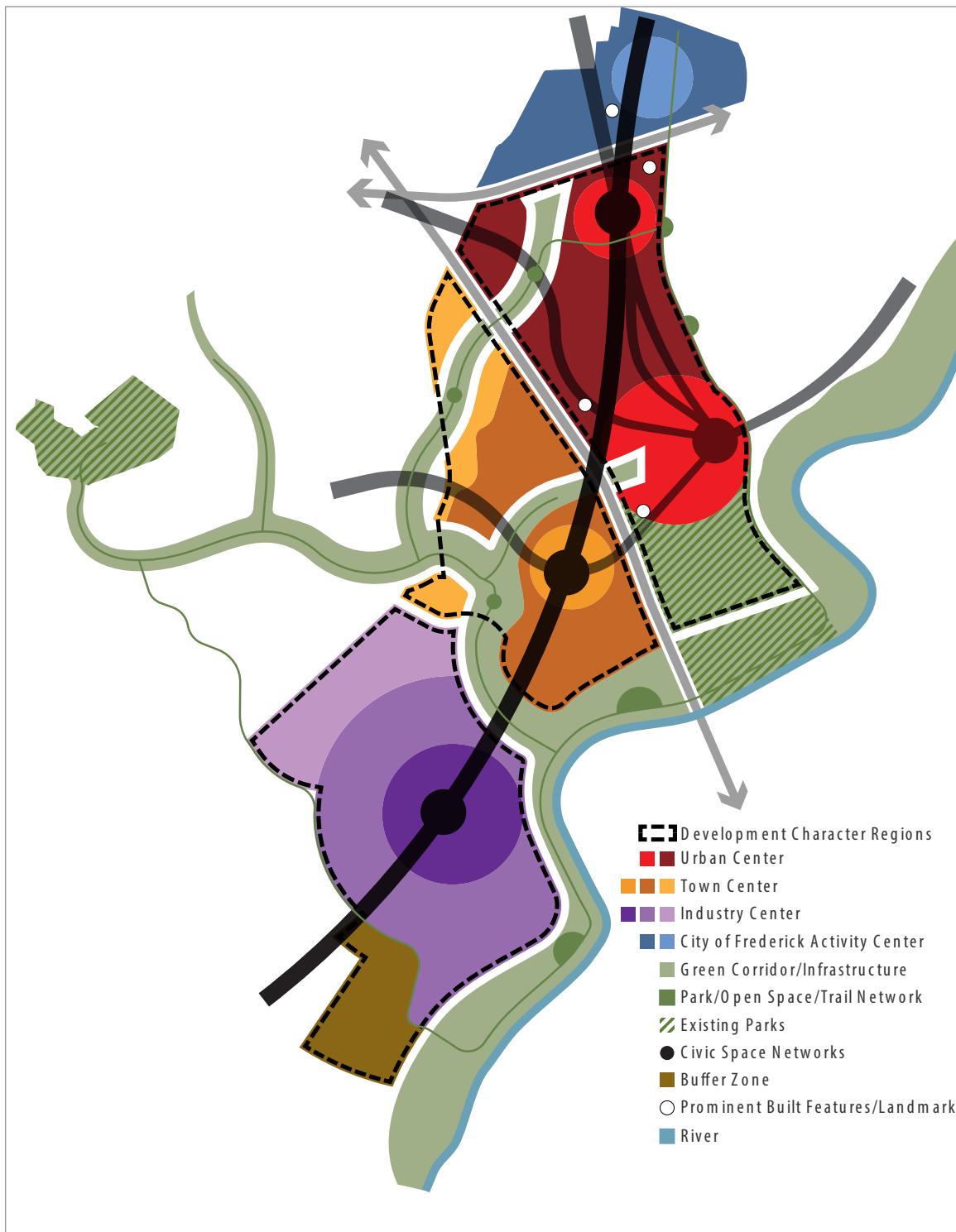
There is, arguably, a stark difference between a design approach that focuses on centers and one that focuses on edges. Namely, the former emphasizes physical place because the conceptualization of a central area within a field of land use is easily connected with the image of a discrete physical setting. The latter, on the other hand, emphasizes abstractions of use and activity because a uniform boundary of land use is more difficult to connect with discrete images of actual physical places.

This fruitful and enlightening exercise resulted in several distinct concepts for the redevelopment of the corridors. Those concepts with the strongest support from participants were combined into a core design, establishing the basis for the vision diagrams shown here. Three diagrams are shown, each illustrating the design vision in different ways.

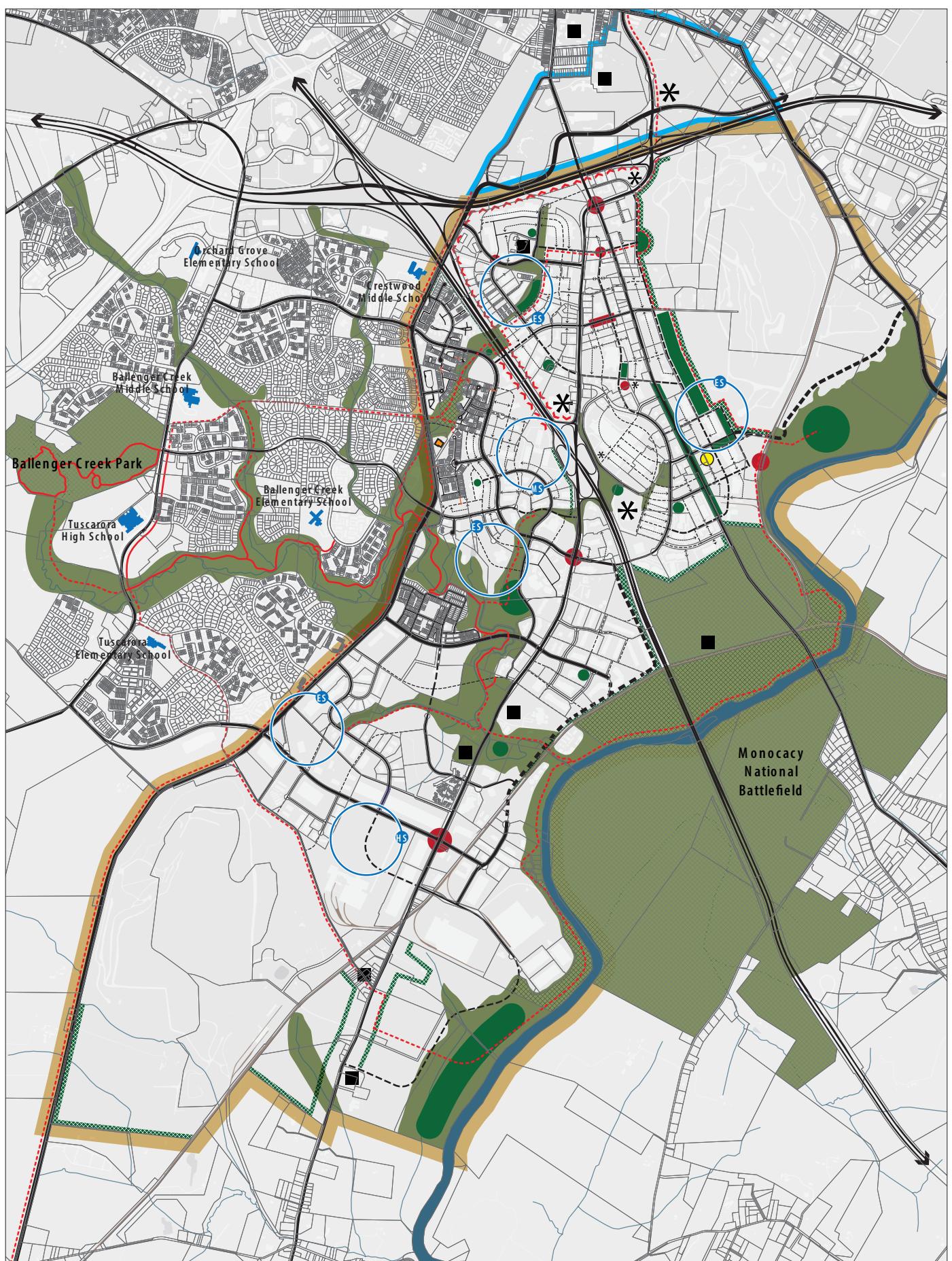
Figure 3 is a simplified vision diagram showing **three regions of development character**, a red area to the northeast of I-270, an orange area to the southwest of I-270, and a purple area south of Ballenger Creek, each outlined in black dashed lines. For speculative and informational planning purposes, a fourth region within the municipal boundary of the City of Frederick is also identified. This area does not fall within the jurisdiction of Frederick County, and the purpose of including it in this plan is discussed in more detail in section 1.2.

The guiding principles articulated by this diagram involve defining a **distinct character for each area**, and identifying **networks composed of streets and open spaces** that tie the area together. The red area is generally more urban in character, the orange area less so, with the purple area evoking combined industrial/residential character. Two distinct networks of exterior, publicly accessible, physical places are also identified, one shown in black providing a unified spine connecting the entire planning area, and the other shown in dark grey enhancing the centrality of the MARC station by weaving the red area together and providing key connections from the orange area. A green infrastructure network is identified along major stream corridors containing a multi-use trail network, as well as optimal locations for parks and restored natural features.

Figure 3: Design Vision Concept Diagram



These core elements carry over to the detailed concept plan, Map 02, which articulates other guiding principles involving the **identification of landmark buildings**, and providing an **interconnected grid pattern of streets** located to minimize impact to existing buildings. Each of the elements in the detailed vision plan is explained in depth in the following sections of this plan.



MAP 02: DETAILED CONCEPT PLAN

Existing/Proposed Street or Road	Existing Park	Proposed Plaza
Proposed Alley/Access Drive	Proposed Park	Proposed Landmark Building
Existing Multi-Use Trail	Proposed Screening	High Visibility Edge
Proposed Multi-Use Trail	Proposed Green Infrastructure	River
Existing Rail	City of Frederick Activity Center	Proposed Library (in vicinity)
Existing Historic Site	Existing Fire Station	Proposed School Site (in vicinity)
		HS-High School, MS-Middle School, ES-Elementary School

Finally, figure 4 provides a diagram of the primary physical elements of the plan composed of prominent built features, accessible park/plaza spaces, and the streets that connect them, helping to create a cohesive framework or “place structure.” This framework possesses a clarity in its configuration such that it can be easily visualized in the mind’s eye of occupants. There are five pieces to this framework, and they are as follows:

Tall Crescent: In magenta, along I-270 and I-70, is a crescent shaped region where buildings are tall and highly visible, creating a notable visual presence from outside of the planning area, and buffering the interior of the planning area from the noise of the adjoining interstates.

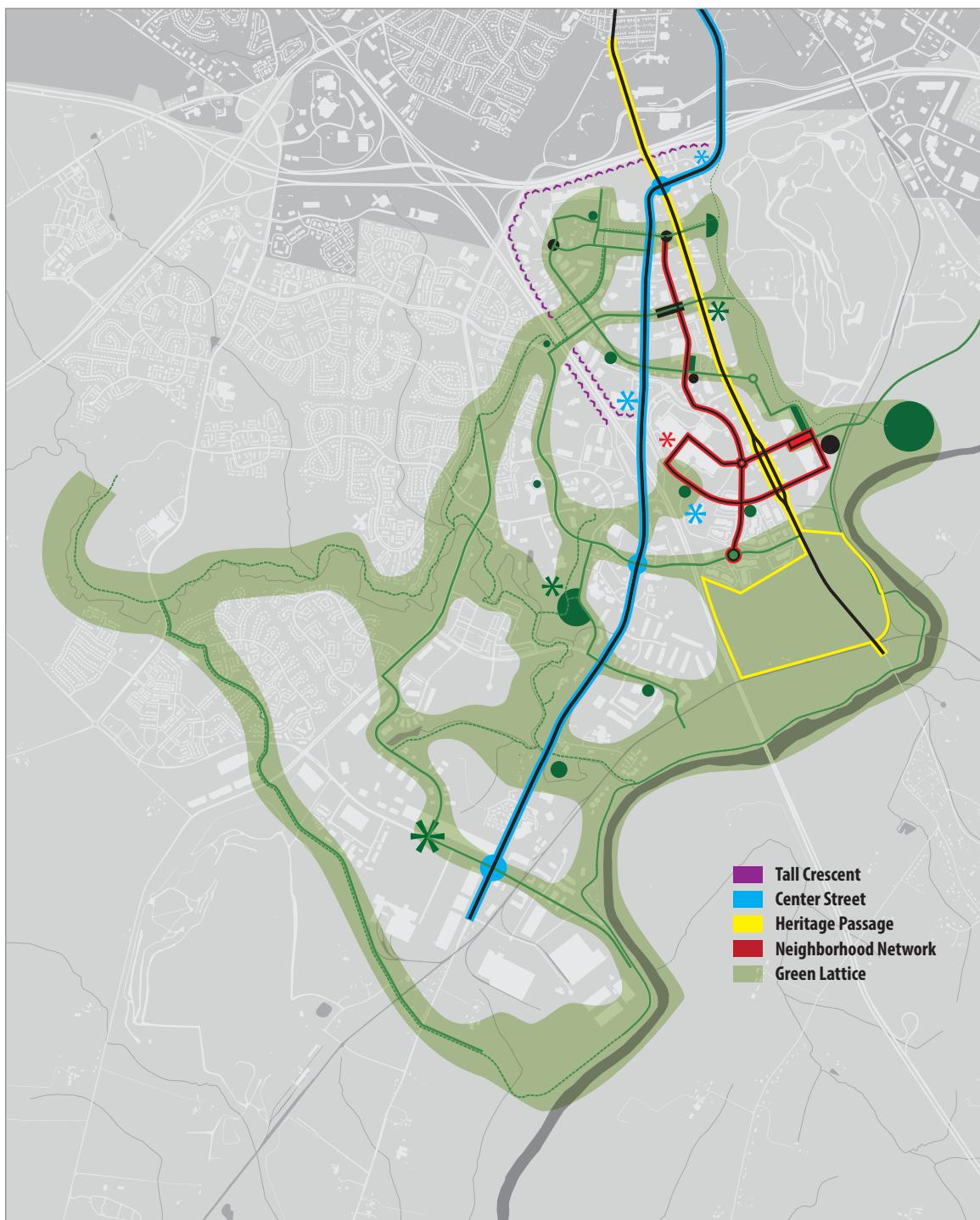
Center Street: In blue, is the length of MD85 through the planning area, and defined as the “main street” or business corridor. Commerce and activity are focused here. Plazas are provided at major street crossings.

Heritage Passage: In yellow, the length of MD355 is defined as a “historic corridor” that connects significant historic landmarks and open spaces through the County and the City of Frederick.

Neighborhood Network: In red, a cruciform network of roads provides more localized connectivity, opening up land and enhancing mobility. The orientation of roads provides a decided emphasis on access to the existing MARC rail station, making it a more central feature within the planning area. Parks and plazas are located throughout this network.

Green Lattice: In green, a web of stream valleys and multi-purpose pathways create an interconnected network of parks and institutions, while also providing an additional layer of mobility in the planning area.

Figure 4: Primary Design Elements



SCALES OF PLACE

Design, planning, and implementation recommendations for the South Frederick Corridors are diagrammatically illustrated in the preceding vision plans. In the subsequent sections of this plan, design elements are organized into different scales based on the extent of influence that they will have on the geography of the planning area. For example, a transportation network establishes a framework for activities and the buildings that house them. However, some elements of that network serve to connect points regionally, some establish significant connections for the entire planning area, while others interconnect smaller places within the planning area. Similarly, some land uses may attract people from the broader region, while others are geared toward local residents and workers.

Therefore, planning and designing the complex and differentiated built landscape of the South Frederick Corridors is best enabled by dividing the geography into various levels. In other words, the most suitable approach to understand and plan for this large and complex place is to consider it at various nested scales, from the scale of the entire planning area to the scale of smaller, discrete locales within the planning area. As such, design and development strategies described within this plan are organized into four levels, as shown in figure 5. They are:

Level 1-Planning Area: Extending to the entire planning area and referred to as the South Frederick Corridors, or SFC.

Level 2-Sectors: Divides the Planning Area into two sectors, with Interstate 270 serving as the dividing line between the South Frederick Triangle on the east side of I-270 and Ballenger Creek East on the west.

Level 3-Districts: Divides each sector into three districts, composed of Evergreen Point, the Crestwood Corridor, and Lime Kiln.

Level 4-Subdistricts: Divides each district into nine subdistricts composed of Guilford Park, Grove Square, Monocacy Square, Arundel Park, Central Crescent, Westview, West Bend, Industry Square, and Buckeystown Buffer.

While larger boundaries always encompass subordinate boundaries, subordinate boundaries do not always cumulatively combine to constitute the entire area covered by larger boundaries. For example, two existing quarries are included in the Level 1 and Level 2 boundaries but are excluded from the Level 3 and Level 4 boundaries. This does not indicate a lack of concern or absence of issues at the smaller scales for those areas. Rather, this reflects a strategic objective to focus on places where redevelopment of land into mixed use neighborhoods is most promising and feasible. Planning issues related to the quarries can still be addressed, but primarily as they may relate to the broader scales of Level 1 and Level 2.

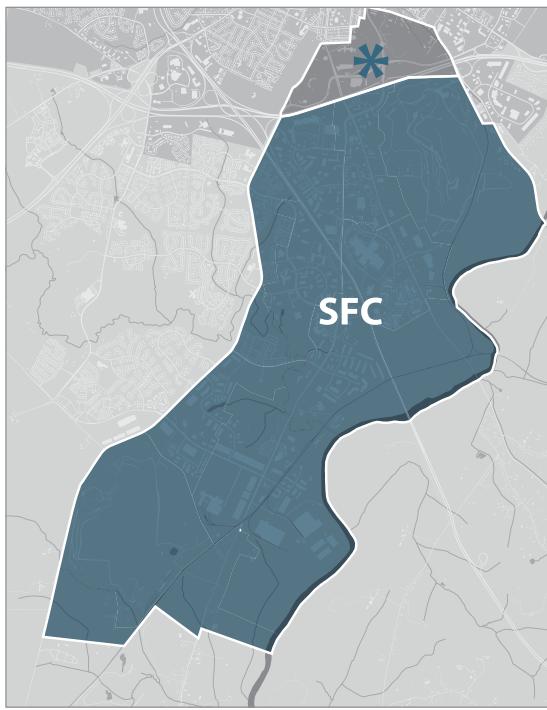
In general, this organizational approach stands in contrast to the conventional approach of organizing plans into separate topical chapters, such as “transportation” or “land use.” The priority, in that approach, is placed on the parts rather than on physical places as integrated systems. A nested approach, as is employed in this plan, maintains focus on *place* as a system.

In Frederick County, the planning strategy employed in the South Frederick Corridors Plan fills a significant gap between the broad and regional focus of comprehensive planning as it's been practiced, and the site and parcel based focus of development review. Given the challenge of planning for expansive geographies, a tendency of comprehensive planning has been to employ the tools of cartography to communicate design recommendations for land use and transportation. This decidedly large scale, two-dimensional, and generalized approach is not well suited to address place-based design at smaller scales related to user-experience, local network connectivity, and three-dimensional factors. While these kinds of design issues emerge in the site plan and subdivision process, they are often, by necessity, constrained by the boundaries of a specific application or parcel of land.

By planning for features of the built landscape that operate at various scales, from the entire planning area, to sectors within the planning area, to districts and subdistricts within sectors, we more fully address the intricate and interconnected fabric that forms the physical setting of our daily lives. Doing so increases the likelihood that valuable physical places will emerge that possess a coherent framework while remaining diverse, vital, and beneficial.

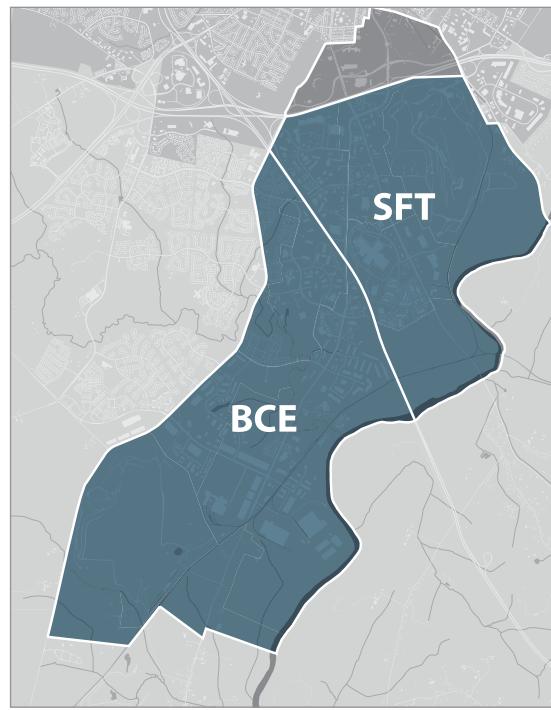
From a land use perspective, these levels do not directly equate to land use designations on the Comprehensive Plan Map. Rather, they provide a framework for thematically differentiating the function and character of portions of the planning area.

Figure 5: Planning Levels



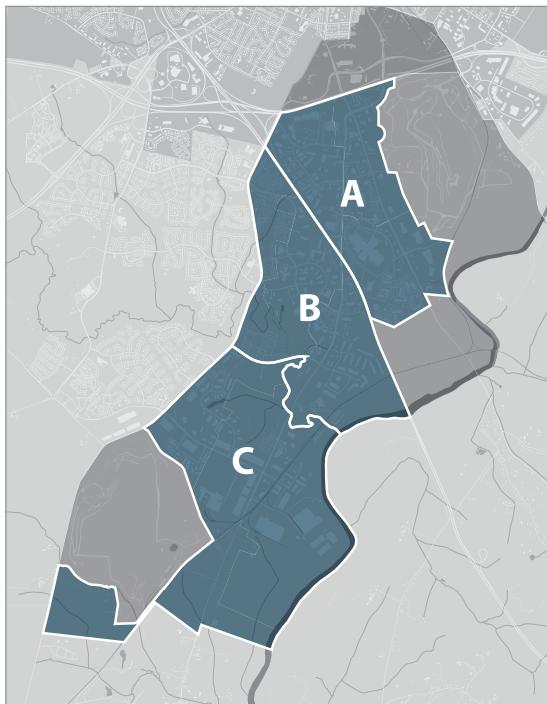
Level 1: Planning Area

SFC - South Frederick Corridors
* - Brickworks Environs within the City of Frederick



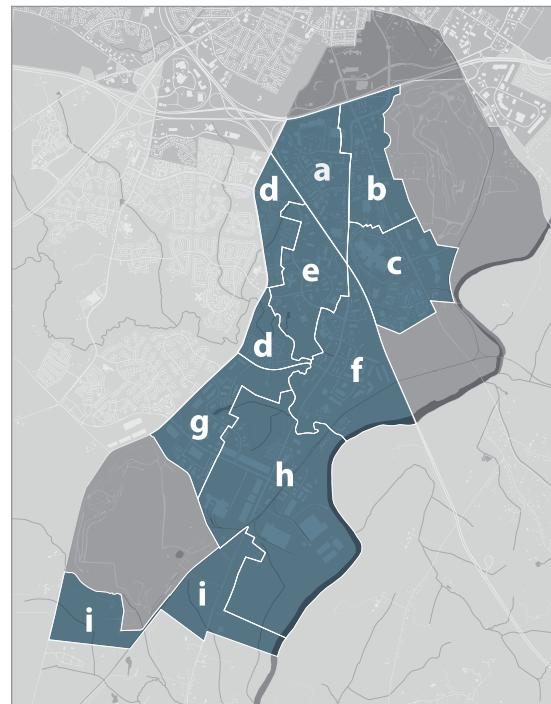
Level 2: Sectors

SFT - South Frederick Triangle
BCE - Ballenger Creek East



Level: 3 Districts

A - Evergreen Point
B - Crestwood Corridor
C - Lime Kiln



Level 4: Subdistricts

a. Guilford Park d. Arundel Park g. West Bend
b. Grove Square e. Central Crescent h. Industry Square
c. Monocacy Square f. Westview i. Buckeystown Buffer

1. PLANNING AREA

1.1. PLANNING AREA INTERIOR

The planning elements described below relate to the scale of the entire planning area, as limited by the boundary identified. Recommendations for use and activities focus on the transition to spatially-focused and more diverse types of land use. Recommendations for infrastructure and amenities focus on supporting the functional demands resulting from this land use transition. Recommendations for sustainability and resiliency emphasize aspects of the built environment that support long term energy efficiency and integration between built and natural systems.

1.1.1. Use and Activities

Three topics related to use and activities are addressed below. The first concerns the spatial focus and diversification of land use by supporting a nuanced mixed use regulatory environment. The second discusses issues related to the introduction of residential uses into the area. The third provides recommendations for creating a differentiated character of physical place based on supporting a spectrum of functional demands.

1.1.1.1. Mixed Use

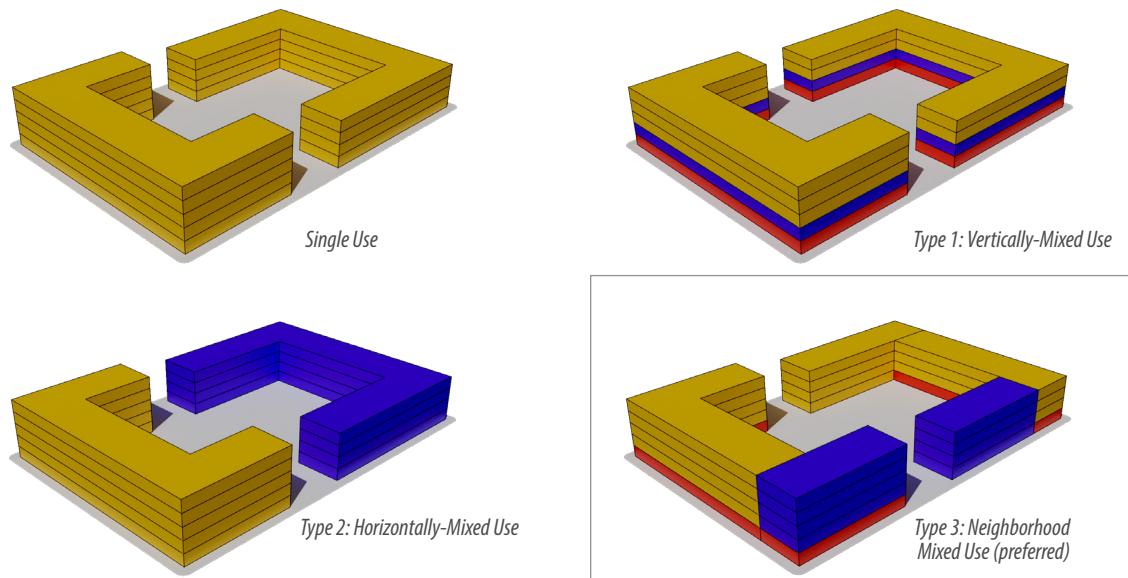
A general strategy is employed of shifting emphasis from the geographic separation of different use categories to the spatial combination and intersection of uses.

Our Community/Infrastructure Design/Settlement Patterns

The aspirations for the redevelopment of the South Frederick Corridors cannot be fully realized through use of the conventional land use categories (and their correlated zoning districts) that have existed in Frederick County. The practice of separating uses into categories based on function does not enable the mixture of land uses that are functionally dissimilar, but nevertheless compatible. Yet this mixture is the very thing that enables the proximity and mutually beneficial relationships that characterize urban places and that have traditionally been a feature of human settlements. Therefore, the overall land use strategy for the South Frederick Corridors focuses on the extensive implementation of mixed use.

In general, mixed land use enables a complementary mix of residential, commercial, and industrial uses within a single place. This can take a variety of forms, but three types are often described, as shown in figure 6. The first is *vertical mixed-use*, which combines different use categories in the same building, often with non-residential uses on lower floors and residential uses on upper floors. The second is horizontal mixed-use, which combines different use categories within a particular area or district, but avoids the combination of different uses within a single building. This type is similar to traditional Euclidean zoning, but is generally more “fine-grained.” The third type is neighborhood *mixed use*, which is a combination of the first two and where walkable places containing mixed-use buildings as well as distinct single-use buildings are in proximity. This third type is best suited to creating the types of places in the South Frederick Corridors that support the Livable Frederick vision. However, this requires a new approach to regulating mixed use places in Frederick County.

Figure 6: Mixed Use Types



Frederick County's current regulations include four principle vehicles for the development of mixed use projects: the Mixed Use Development (MXD) floating zone, the Planned Unit Development (PUD) floating zone, the MX Euclidean zone, and, for small-scale projects in our towns and villages, the Village Center Euclidean zone¹. The MXD and PUD floating zones are optional methods of development and are available if a property has certain designations on the Comprehensive Plan Map.² While these floating zones do not specifically prohibit the vertical integration of uses, they have been employed almost exclusively on large parcels of land as a means of attaining a greater variety of use and flexibility of layout through the utilization of the horizontal mixed use form. In fact, the regulatory measures associated with these floating zones, such as "dwellings per acre"³ and "percentages of land area"⁴ are, by design, implicit extensions of a Euclidean paradigm⁵. In other words, the application of these rudimentary mixed use zones delivers the same kind of functional segregation that results from Euclidean zones, but generally in smaller segments.

Unlike the MXD and PUD floating zones, which are accessed only by request and therefore are limited in scope to specific sites, MX is a Euclidean zone that can be applied area-wide across multiple properties. The MX zone allows a mix of commercial and residential uses and requires that development "comply with adopted County Community or Corridor Plans for the area where the development is proposed,"⁶ which could result in places that correspond to the "neighborhood mixed use" type. However, there are a number of limitations that make this an undesirable option for implementing mixed use. These are related to contradictory requirements, involved processing, use mix variability, density limitations, and open space provision.

Contradictory requirements may emerge if community and corridor plans propose development forms that are different than those expressed or implied in the Zoning Ordinance. For example, for most uses the MX zone requires a 20' front yard setback and a 60' height limit, but a community/corridor plan may be devised that justifies different dimensions. It is currently unclear how a contradiction like this would be resolved. Additionally, the MX zone contains supplemental textual design regulations. However, these are sometimes vague and not supported by illustrative content that could help resolve textual ambiguity.

Ultimately, many of these issues would likely need to be resolved through a process of negotiated compliance. This can be lengthy and require applicants to seek outside consultation, effectively making development more expensive and less accessible to resource limited applicants. Additionally, this kind of process is less supportive of the beneficial place character that results from the coordination of the physical setting between individual parcels. This is because many important externally-focused, place-design decisions are deferred to the internally-focused and site-specific development review process.

Regarding use mix, in this plan multiple mixed use configurations are identified based on location and functional emphasis. Some places are designed to be more permissive of commercial uses, others of industrial uses. However, the MX zone allows a single configuration of combined residential and commercial uses. Therefore the kind of place-based targeting expressed in this plan is not possible using only the MX zone in its current configuration.

Similarly, the MX zone does not provide the residential density needed to support the recommendations of this plan. With a minimum required lot area of 2,700 square feet per dwelling unit, the effective density of the MX zone for multi-family dwellings is approximately 16 dwellings per acre. While this level of intensity may be rare in most parts of the County, it will be nearly impossible to achieve the vision articulated in the Livable Frederick Master Plan without the construction of, and an allowance for, urban residential densities in appropriate locations. This arbitrary limitation of development yield does not correlate to the preservation of environmental quality, which is in fact more dependent upon the design of buildings and their surroundings than on density.

Finally, this plan identifies a variety of centrally-located parks and plazas intended for general community use by the surrounding neighborhood, to be dictated by the development of a regulating plan associated with form-based codes. This represents a strategy for the provision of open space that is coordinated among, and external to, individual sites. However, open space requirements in the MX zone, triggered by proposals with multiple principle structures on a single lot, requires a minimum amount of open space to be provided *on the proposed site*, which may or may not be centrally located and available to the surrounding neighborhood. Therefore, the South Frederick Corridors

¹ The Village Center (VC) zone is a fourth type of zoning that enables mixed use, but its application is limited to existing crossroads communities in Frederick County. Its regulatory content is similar in construction to the MX zone.

² Mixed Use Development, Office Research Industrial, or Limited Industrial in the case of the MXD zone, and Low, Medium, or High Density Residential in the case of the PUD zone.

³ Dwellings per acre (residential density) is used as a regulatory measure related to the benevolent goal of ensuring that places are not congested and overcrowded. While design plays a far more dominant role in creating a physical environment that is supportive of human habitation, residential density has come to serve as a primary factor in the deliberation of development. Arguably, a reason for this may be tied to the expediency and perception of authority associated with a definitive numerical measure. Also, density-related fears of congestion, crime, and class erosion can create a political bias that is easily represented by the abstraction of a simple numerical label. Nevertheless, it has been demonstrated that dense environments can be exceptionally livable, while sparse environments can be inhospitable, which casts light on the dubious value of giving undue attention to residential density measures.

⁴ The MXD floating zone regulates the mixture of uses by establishing thresholds based on a percentage of total land area of the lot. Generally, the effect of this regulatory approach is the separation of the site into areas of distinct categories of use, very much in a Euclidean fashion, but while enabling greater flexibility than could otherwise be achieved with traditional Euclidean zoning.

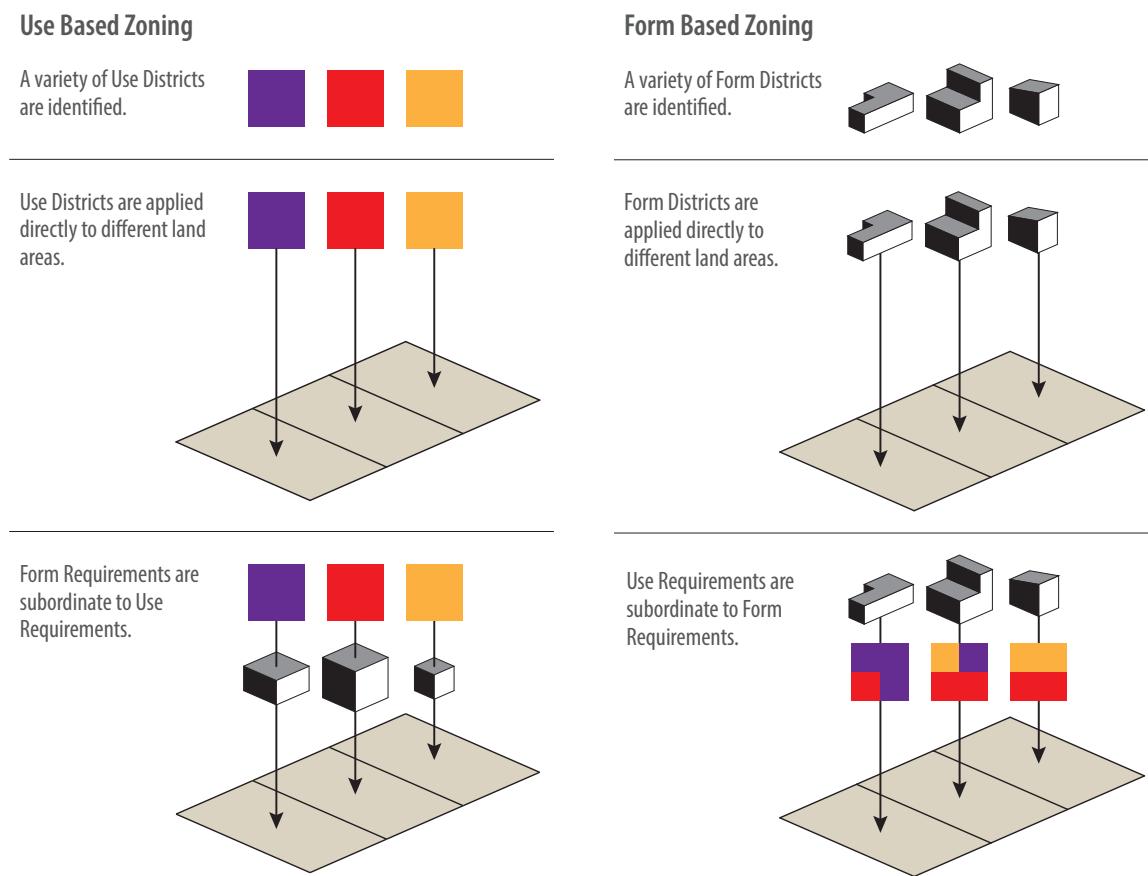
⁵ Euclidean zoning is rooted in the natural instinct to separate mutually adverse activities. It is implemented through the separation of land into areas where activities are limited based on narrowly conceived functional and categorical attributes, nominally correlated to commercial, industrial, and residential activities. Criticism of Euclidean zoning centers on the notion that the approach has been extended beyond the point of usefulness, resulting in the metaphorical dissection of the organism of human habitation into analytically expedient but effectively inert constituent parts.

⁶ §1-19-7.520. MIXED USE. (C) of the Frederick County Code

Plan requires a rethinking of how open space is provided where the development of centrally located park facilities is funded through a means of mitigating the impact of individual developments without putting disproportionate burden on any single project. One possibility is to amortize up front public investment in park land and facilities with funds generated through exactions or other “fair-share” means of generating public revenue. For example, an escrow based system similar to the existing method of roads mitigation in the Adequate Public Facilities Ordinance (APFO) could be explored for parks, in lieu of on-site open space requirements, that could fund payback of purchase and development costs.

In general, a form-based, rather than use-based, system of zoning will be required to implement this plan. While use-based zoning has been and will continue to be effective in many locations of the County, it does not provide the kind of focus on built form that is needed to create a coordinated and cohesive built landscape in the South Frederick Corridors. Figure 7 compares use based and form based approaches to zoning.

Figure 7: Use Based Versus Form Based Zoning



1.1.1.2. Introducing Residential Uses

A substantial resident population is provided by distributing a minimum of 10,000 dwellings within the planning area, with the greatest emphasis in the northern portion of the SFC boundary.

Our Community/Infrastructure Design/Settlement Patterns

One of the most important features of the South Frederick Corridors Plan in terms of use and activity is the introduction of significant residential activity to the area. The efficiency, vitality, and opportunity that is often associated with mixed use places is typically buttressed by a significant resident population. However, there are no generally accepted standards establishing a correlation between successful places and the relative share of different types of uses. In some cases there are objective and measurable factors that inform the separation of uses, which are usually tied to biologically-based thresholds of health and comfort. Also, there are logical deductions that can be made about the practical or social compatibility of different land uses. Ultimately, the ability to definitively determine in advance the ideal and quantifiable mix of uses resulting in the economic and operational synergy that characterizes great places remains elusive.

However, consideration of the overall quantity of residential activity to be introduced to the planning area at this scale is useful in at least three respects:

- first, relative to countywide residential growth forecasts and the determination of how much of the county’s future growth should be absorbed in the South Frederick Corridors over the next few decades;
- second, relative to providing a resident population in the planning area sufficient in number to increase the probability that a vibrant, self-sufficient, urban environment will emerge;
- and, third, relative to the ability to evaluate the capacity of existing and planned infrastructure.

As described in the Briefing Book associated with this plan, there is a projected demand for 15,000 households through the year 2050 in places that have characteristics of focused development (namely multi-modal accessibility), largely due to a forecasted increase in the demand for this lifestyle in Frederick County. The planning area, with its emphasis on redevelopment in a focused format, is an ideal place to absorb many of these projected households. As such, a planning target of a minimum of 10,000 dwellings is employed in this plan. The feasibility of the absorption of 10,000 dwellings in the planning area is reinforced by the long term implementation horizon inherent in this plan's strategy of gradual and incremental redevelopment over the course of a generation.

There is no established method for determining if a minimum of 10,000 dwellings is sufficient to support a balanced and vibrant neighborhood setting. However, some sense of whether the proposed range is within the bounds of reason can be ascertained through comparison. For example, if the proposed density in the South Frederick Corridors is within range of the existing population density of various example neighborhoods in other areas of Frederick County, then some indication of the feasibility of this proposed density can be surmised.

The table and graphic in figure 8 depict an analysis of a hypothetical allocation of dwellings in the planning area. Three boundaries in the planning area are identified for this analysis, labeled as "a," "b," and "c." Different portions of the total proposed quantity of 10,000 residential dwellings is allocated to these areas. Using the average 2020 U.S. Census household size of the City of Frederick (approximately 2.5 people per dwelling) as a generalized factor, the population yield for each area is calculated. A resulting density measured as "people per square mile" for each area, "a," "b," and "c," is shown in the table.

The resulting hypothetical population densities for the planning area are then compared to three different existing places in Frederick County, as shown in the aerial images below. As this shows, the proposed population densities resulting from allocating a minimum of 10,000 dwellings in the planning area are similar to other existing locations in Frederick County. Notably, in all of these areas, the single family detached dwelling is scarce.

This speaks to the need to limit the kind of housing that can occur in the planning area to multi-family types, especially in relation to the objective of mixing residential and non-residential uses. Intuitively, the absorption in the planning area of both a critical mass of dwellings and a locally and regionally functional amount of non-residential uses requires spatially focused and efficient building types. Therefore, only multi-family housing is recommended by this plan.

A focus on multi-family housing can have the additional and essential benefit of improving housing affordability in the County. Multi-family housing is an essential aspect of an affordability toolkit that, in combination with regulations, incentives, and the efforts of institutional partners can generate and diversify housing options at lower price points than is widely available. However, multi-family housing options in Frederick County are primarily limited to some form of garden apartment, which is on the higher end of the spectrum in terms of density, or some form of townhouse or "two over two" building, which are on the lower end of the density spectrum. There is a significant lack of affordable options for anything in between. However, in the not-so-recent past, many different places have provided ranges of affordability through the existence of multi-family building types in an array of shapes and sizes.

Figure 8: Density Analysis and Comparison

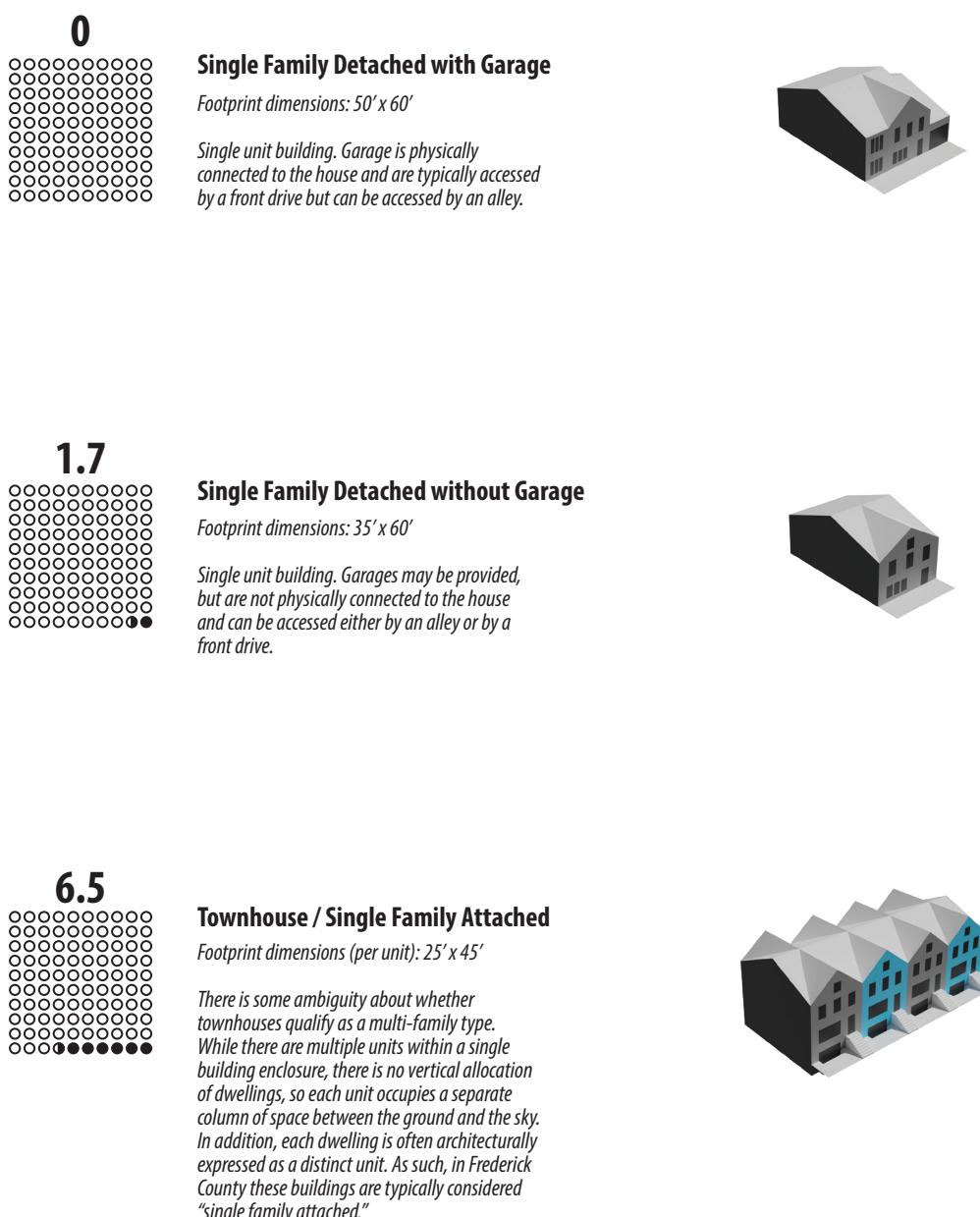


In recent years, renewed attention has been given to these lost building types and the affordability they engendered, collectively referred to as the “missing middle.” This term and associated concept, coined by Dan Parolek, references “a range of house-scale buildings with multiple units - compatible in scale and form with detached single-family homes - located in a walkable neighborhood.” Importantly, these housing types can provide far better land use efficiency and affordability than neighborhoods composed solely of single family detached dwellings, but do so in buildings that match the general scale and physical pattern of those neighborhoods. Some of these missing middle building types are illustrated here.

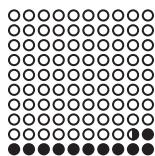
Missing middle housing types present great potential as a means of diversifying the building stock of existing single family neighborhoods, outside of the planning area, to enable greater affordability and efficiency of land use in a relatively non-intrusive format. They also present significant potential in some locations of the South Frederick Corridors to enable more focused growth and expand the spectrum of affordable housing options in the County. In addition, multi-family building types that lie beyond the outer bounds of the missing middle set, such as low rise and mid-rise housing blocks shown here, can provide an essential critical mass, an even greater degree of growth focus, and essential affordability for other targeted areas of the South Frederick Corridors.

In the examples shown here, a simple metric was developed to evaluate the relative cost and efficiency of each type. This cost and efficiency calculation is admittedly simplistic, but does effectively consider the assumption that costs of infrastructure construction and maintenance, rural and natural land depletion, and life cycle energy usage are greater when more land is required to house less people. This metric is a normalized index based on the ratio of building footprint area to the number of dwellings provided ranging from 0 to 100, with 0 being the single family detached dwelling with garage, and 100 being the mid-rise tower block.

Figure 9: Housing Types



11.3



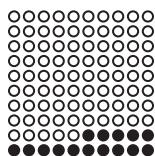
Two Over Two

Footprint dimensions (per stack of two units): 28' x 55'

Two-over-two types are buildings that stack two dwellings, one on top of the other, where each dwelling is two (or sometimes three) stories. Two-over-two types are organized side by side as in a townhouse, but with each section composed of two stacked dwellings. Each stack has a dedicated entry point, suggesting the appearance of a townhouse. In Frederick County, this building type is usually considered multi-family.



15.2

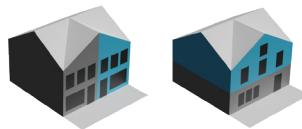


Duplex, Stacked and Side by Side

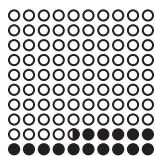
Footprint dimensions: 36' x 34'

Two units per building.

Duplex types are often designed to appear from the outside as a single family house. Units can be horizontally or vertically separated.



15.6



Quadplex

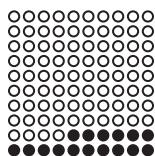
Footprint dimensions: 40' x 60

Four units per building.

Quadplex types can be designed to appear from the outside as a single family house.



16.1



Courtyard Building, Two Stories

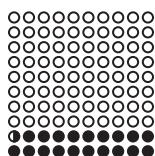
Footprint dimensions: 50' x 70'

Six units per building.

Building surrounds an off-street private entrance courtyard shared by residents in place of rear yards.



19.5

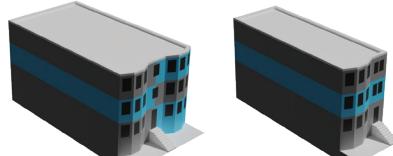


Triple Decker, Double and Single

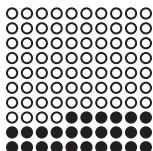
Footprint dimensions: double 40' x 75' single 25' x 70'

Six (double) or 3 (single) units per building.

Generally similar to townhouse bulk with single entrance serving all units.



26.2

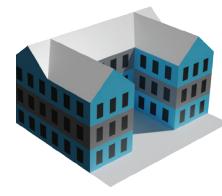


Courtyard Building, Three Stories

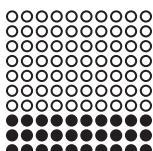
Footprint dimensions: 50' x 70'

Nine units per building.

Building surrounds an off-street private entrance courtyard shared by residents in place of rear yards.



30.1

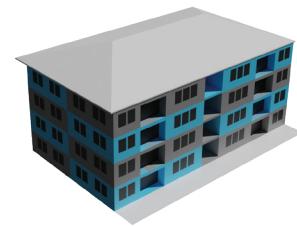


Low Rise Block, Garden Apartment

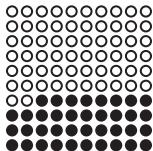
Footprint dimensions: 100' x 55'

Sixteen units per building.

Low rise housing block surrounded by significant lawn or garden space.



48.1

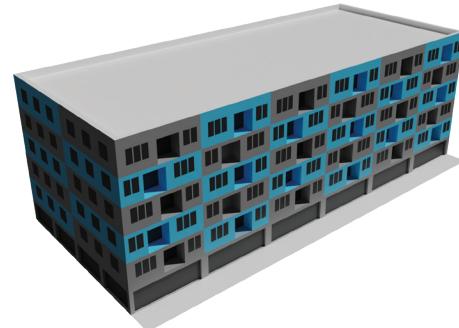


Low Rise Block, Five Over One (or One Plus Five or Podium Building)

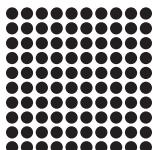
Footprint dimensions: 180' x 75'

Sixty units per building.

One form of low rise block is the "Five Over One. This is wood frame construction (Type V) for residential dwellings over one story of concrete construction (Type I) for commercial uses. Employed as a means of reducing construction costs in a building type that would normally be constructed entirely of the more expensive Type I concrete option.



100.0

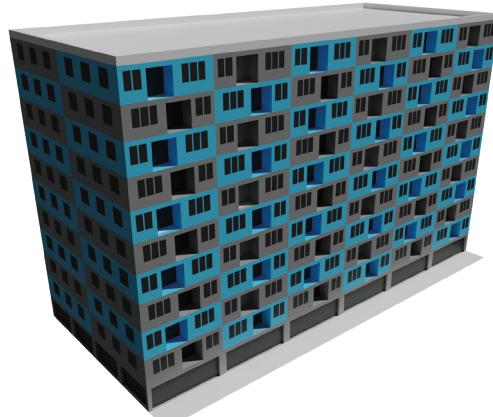


Mid Rise Block

Footprint dimensions: 180' x 75'

120 units per building.

Commercial, employment, or parking on the ground floor with residential above. Steel or concrete construction required.



DWELLING ALLOCATION SUMMARY

The following table (figure 10) summarizes the conceptual targeted allocation of 10,000 dwellings throughout the planning area. This information has been provided in subsequent sections, but in fragments based on the pertinent section being discussed. It is combined here into one table. As the regulatory implementation of this method of allocating dwellings is determined, it will include a process for reviewing and modifying the distribution and quantities of dwellings. In this way, responsiveness to housing market dynamics and emergent local development timelines can be addressed without sacrificing the ability to make predicable assessments of future facility and infrastructure needs.

The allocation of dwelling units serves this plan in at least two ways. First, as a method of defining different use mixes for different areas, and second, as a way to create a “neighborhood” type mixed use environment. In addition, the general objectives behind the conventional practice of establishing a density ratio tied to use designation can be better served by this allocation approach.

As described in the discussion of the design concept above, three mixed-use but thematically different geographic areas are proposed: an area that is generally more urban in character, another area that is less so, and a third area evoking more of a modern industrial character. Each of these thematic mixed use areas suggest that different quantities of development, specifically residential development, are appropriate. Therefore the ability to allocate dwellings at the district scale allows for differentiation among the different areas.

Second, the attainment of a neighborhood mixed use outcome (see section 1.1.1.1. Mixed Use) is not well served by conventional land use planning methodology where dwelling unit allocation is a function of an allowable density ratio tied to specific use designations. In neighborhood mixed use, properties containing a mix of uses can be adjacent to properties that contain a single use, and the dynamics of development demand the flexibility to propose different combinations of use and yield. Conventional land use categories either focus on single uses or mixed uses, one or the other. By refraining from a heavy handed dictation of the specific use of properties while providing a reservoir of potential dwellings for each subdistrict, property owner flexibility can be maximized, neighborhood vitality and variation can be supported, and capacity planning for the impacts of growth can be projected.

Figure 10: Dwelling Allocation Summary Chart

Planning Area		South Frederick Corridors					
planning area boundary sq mi		6.306					
planning area boundary acres		4,036					
du's ¹ allocated in planning area		10,000					
Sectors		South Frederick Triangle					
sector boundary sq mi		3,033					
sector boundary acres		1,941					
sector share of planning area		60%					
du's allocated in sector		6,000					
Districts		Ballenger Creek East					
district boundary sq mi		4,942					
district boundary acres		3,163					
du's allocated in district		4,000					
share of sector du's in district		80%					
share of planning area du's in district		20%					
share of sector du's in subdistrict		0%					
share of planning area du's in subdistrict		0%					
Subdistricts		Evergreen Point					
subdistrict boundary sq mi		1,364					
subdistrict boundary acres		873					
subdistrict lot acres ²		1,068					
du's allocated in subdistrict		0					
share of district du's in subdistrict		6,000					
share of sector du's in subdistrict		0%					
share of planning area du's in subdistrict		0%					
subdistrict people per square mile ³		60%					
Subdistricts		Arundel Park					
subdistrict boundary sq mi		0.413					
subdistrict boundary acres		0.445					
subdistrict lot acres ²		0.505					
du's allocated in subdistrict		265					
share of district du's in subdistrict		234					
share of sector du's in subdistrict		323					
share of planning area du's in subdistrict		196					
subdistrict people per square mile ³		272					
Subdistricts		Central Crescent					
subdistrict boundary sq mi		1,440					
subdistrict boundary acres		0.354					
subdistrict lot acres ²		45%					
du's allocated in subdistrict		442					
share of district du's in subdistrict		36%					
share of sector du's in subdistrict		44%					
share of planning area du's in subdistrict		177					
subdistrict people per square mile ³		357					
Subdistricts		Westview					
subdistrict boundary sq mi		1,760					
subdistrict boundary acres		0.664					
subdistrict lot acres ²		226					
du's allocated in subdistrict		916					
share of district du's in subdistrict		808					
share of sector du's in subdistrict		14%					
share of planning area du's in subdistrict		18%					
subdistrict people per square mile ³		5,962					
Subdistricts		Industry Square					
subdistrict boundary sq mi		400					
subdistrict boundary acres		0.353					
subdistrict lot acres ²		1,431					
du's allocated in subdistrict		400					
share of district du's in subdistrict		4%					
share of sector du's in subdistrict		10%					
share of planning area du's in subdistrict		4%					
subdistrict people per square mile ³		2,547					
Subdistricts		West Bend					
subdistrict boundary sq mi		629					
subdistrict boundary acres		0.472					
subdistrict lot acres ²		Buckeystown Buffer					
du's allocated in subdistrict							
share of district du's in subdistrict							
share of sector du's in subdistrict							
share of planning area du's in subdistrict							
subdistrict people per square mile ³							

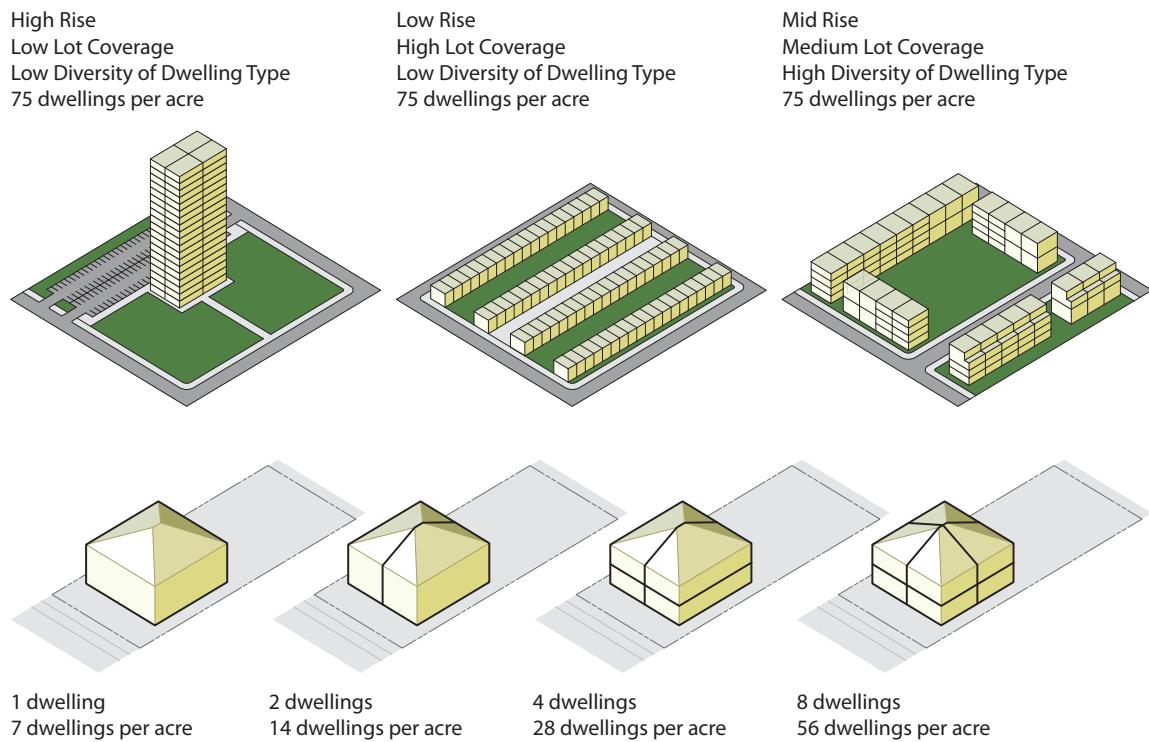
1) du = dwelling unit

3) people per dwelling = 2.25 based on US Census average for multi-family dwellings in Frederick County

2) estimated without right of way

4) "Other" indicates portions of districts where dwellings are not allocated

Figure 11: Density Form Relationship



Additionally, two objectives behind establishing a residential density ratio are to manage and plan for the load on facilities and infrastructure, and to preserve environmental character and quality. First, managing and planning for infrastructure capacity is equally served by either a ratio or allocation model. Second, contrary to conventional practice, the connection between density ratios and the preservation of environmental quality is indeterminate and tenuous at best. Built form is a much greater determinant of environmental quality, but the relationship between built form and density ratio is highly variable. For example, figure 11 also shows three different configurations of buildings that each have identical density measures. Also shown is an identical building shape that results in four different densities, depending on the configuration of the interior. Clearly, density ratios do little to determine the resulting physical shape of places. Therefore, instead of relying on an abstract ratio, the quality of the built environment is described in detail in this plan through a form-based planning approach, regardless of use or density.

1.1.1.3. Activity Focus Areas

Activity focus areas are identified that indicate places where use mix and population density are emphasized.

Ⓐ *Our Community/Infrastructure Design/Settlement Patterns*

Ⓑ *Our Economy/Strengths and Assets/Quality of Life*

The identification of activity focus areas is as much about creating places of increased activity and productivity as it is about creating places that are peaceful, nurturing, and restorative. If an environment is solely designed to fulfill the dictates of action and enterprise, then it is not well-suited to satisfy the broad demands of more domestic habitation patterns. This need for a variation between active places and peaceful places is satisfied by differentiating space within the geography of the planning area based on access and visibility. Active places are identified along the most accessible and visible portions of the planning area, namely along Maryland 85, in the area around Monocacy Station, and along the Interstates. Less active places may be less accessible and are effectively cushioned by the surrounding built landscape. In other words, denser and taller buildings provide a barrier between areas of activity in front of them and less active areas behind them.

1.1.1.4. Karst Topography and Sinkholes

The planning area lies within the Frederick Valley, which is a region of low-lying and relatively flat topography running north/south through the County bordered on the west by Catoctin Mountain and on the east by upland rolling topography. Geologically, a belt of limestone conglomerate runs from the confluence of the Monocacy and Potomac Rivers northward through the City of Frederick and the Town of Walkersville, and on to the Town of Woodsboro. The Frederick Valley is underlain by limestone formations, which is quarried at several locations in the Frederick Valley. Two of these locations are within the planning area.

Limestone is a rock formation that is easily dissolved by water, therefore a limestone geological substrate can result in karst topography - a kind of landscape where sinkholes are common. Most existing development in Frederick County sits on karst topography, and as growth and development continues in the Frederick Valley, sinkholes pose serious hazards and technical challenges.

Sinkholes may be triggered by human activity. Excessive pumping of groundwater for mining activities or water supply can create subsurface voids that eventually collapse. Urban development and the accompanying stormwater runoff can destroy a tenuous balance between surface and subsurface drainage systems, causing collapses that would

not normally have occurred. Monitoring and maintaining an inventory of recognizable karst features is important, but the occurrence of sinkholes is unpredictable.

The presence of karst topography in the planning area presents a serious, fundamental, and even existential question: Is it wise to focus growth and development in this location? On the one hand, this very plan outlines many of the reasons that focusing growth in the planning area can make sense. However, these reasons must be weighed against serious risks. Recent sinkholes have occurred to the north of the planning area, ostensibly in conjunction with the construction of new major roads and housing in the City of Frederick. It's possible that these were triggered by the disturbance of natural water flow patterns created by the development of undeveloped land. However, the effects of dewatering related to the mining operation of the northern quarry on the development of these sinkholes is likely a more fundamental cause.

The following conclusion is from a report prepared by the Maryland Department of the Environment in 2022 regarding the dewatering and land development around the Frederick Quarry. It should be noted that the form of land development referred to in this excerpt is the conversion of rural land to urban land, not the redevelopment of existing urban land.

"Changes caused by pumping of groundwater from the quarry and changes in drainage patterns by land development and road construction or a combination of both factors likely caused the formation of sinkholes in the study area. Newton (1981, 1987) identified 4000 sinkholes recorded in Alabama between 1900 and 1980, most of which occurred after 1950, and only 50 were related to natural events. This indicates that nearly all the sinkholes formed between the quarry and Carroll Creek likely are anthropogenic."¹

It is a reliable conclusion that the sinkhole problem in the South Frederick Corridors stops getting worse and starts to improve over time when the quarrying and the associated dewatering of the ground water comes to an end. In the interim, there are means to temper the risks posed by sinkholes by using various foundation construction techniques. However, for the deepest quarry in the State of Maryland and perhaps the only quarry directly adjacent to an existing, heavily populated urban center, the cessation of dewatering is the best means of reducing the serious risks posed by sinkholes in the Planning Area.

1.1.2. Infrastructure and Amenity

The central strategy that influences the provision and distribution of infrastructure and facilities in the planning area is multimodal accessibility. This is a core idea behind the Livable Frederick Master Plan, and the South Frederick Corridors is a primary location where this will be implemented. Multimodal accessibility has two dimensions. The first is the establishment of a diversity of methods for getting around, in addition to the car. This places more emphasis on walking, biking and mass transit. The second dimension involves the establishment of uses that are dense enough and close enough to make walking, biking and mass transit feasible. The notion of mixed use and density is described above, and the need for interconnected transportation networks is described below. Importantly, community buildings, such as schools and libraries are intended to be easily accessible on foot and are therefore centrally located.

A number of proposed transit stations are identified on the Comprehensive Plan Map shown later in this document. The locations are hypothetical, but are generally located central to major junctures of roads and development. However, a more detailed assessment of transit service should be conducted that considers, among other things, travel time factors and routing. More broadly, street design must support the provision of transit. First in consideration of transit stop design factors, and second in consideration of street design, especially related to walkability design and human comfort.

Interconnectivity

While the South Frederick Corridors are endowed with a substantial foundation of existing infrastructure, not all infrastructure needs will be met by these existing systems. This is especially true relative to the existing road network, which is highly connected regionally, but poorly connected locally. Access to the planning area is provided from origins across Maryland, Virginia, Pennsylvania, and West Virginia by way of two interstate highways and two state roads navigated primarily by cars. Within the planning area, a coherent local road network, one that could serve pedestrians, cyclists, transit riders, as well as cars, is effectively absent.

However, any proposed local road network must take a form that maximizes connectivity – a practice which has not been prevalent in the County during the last several decades. Local road networks in the County have been built according to a "tree" or "branching" format where many small roads feed into just a few large roads.

This branching format is very effective when there are multiple origins and very few destinations, such as in sewer conveyance systems where waste that originates in many different locations must be transported to one central treatment facility (or vice versa for water conveyance), as illustrated in figure 12a. However, it is very ineffective when conveyance is between many origins and many different destinations, as is the case with communities of people.

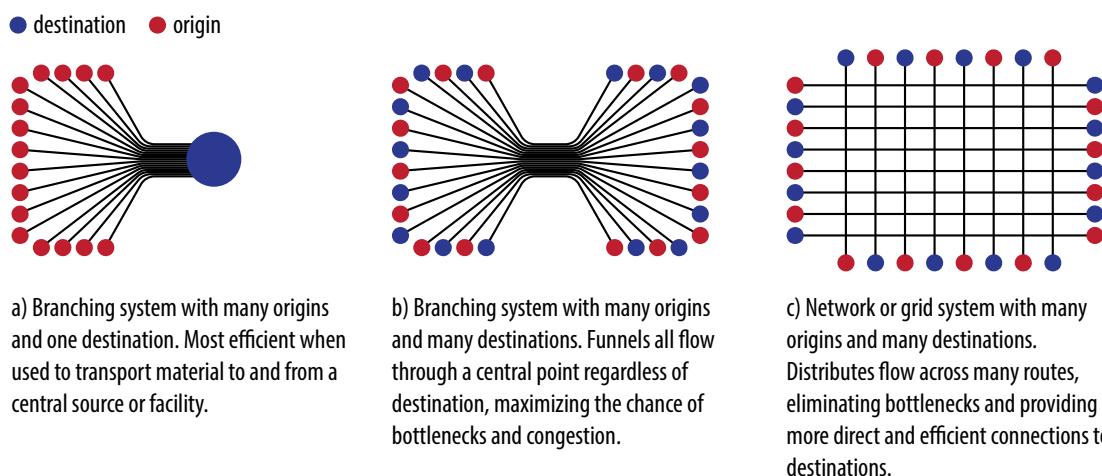
Instead of providing efficient access, when applied to road networks, a branching format tends to create congestion by funneling local roads onto a few major roads and thereby maximizing the chance for bottleneck conditions, as illustrated in figure 12b. Bottlenecks are addressed by road widening, which has the undesirable effect of creating

¹ *Evaluation of Potential Hydrological Impacts and Development of Sinkholes Caused by Dewatering of the Frederick and Medford Quarries, Western Piedmont Province, Maryland*, Patrick A. Hammond, Maryland Department of the Environment, Water and Science Administration, Water Supply Program, 2022

immense roadways to serve local land uses thereby eliminating the chance of functionally occupying a place with anything other than a car. In these situations, economic output of land is limited primarily to lots with frontage on these broad, arterial roadways, minimizing the quantity of land and reducing the types of occupancy that have viable potential for economic output.

The best format for the purpose of providing access to uses and activities in a community of people is an interconnected network of roads, as illustrated in figure 12c. An interconnected network of roads can distribute trips across the system, minimizing the occurrence of bottlenecks and providing more direct connectivity to destinations reached along opposing vectors of travel.

Figure 12: Infrastructure Networks



This kind of “deep” road connectivity is a form of functional redundancy. The term “redundancy” may imply waste in some contexts, but in relation to road networks serving places with focused development, it is a highly desirable and essential characteristic of a well-functioning transportation system. The ability for one road to functionally substitute for another is the essence of improved trip distribution, better overall circulation, and more direct connectivity to varied destinations. In the South Frederick Corridors, eliminating the imbalance between regional and local road connectivity in this manner improves efficiency, accessibility, health, safety, and intrinsic value. The following benefits have been found to result from higher road connectivity¹:

Efficiency and Accessibility: Each 1% increase in overall road network connectivity equals the same travel time benefit of one lane mile of roadway and improves access to destinations by twice as much. For example, a neighborhood street network whose connectivity improves by 25% results in a 50% increase in the accessibility of destinations in a neighborhood.

Public Health: High intersection density is a direct predictor of the use of active transportation modes. In one study, residential neighborhoods with high street connectivity reported 70 minutes more physical activity within a week than other, less connected neighborhoods. Another study found that a set of street improvements to improve connectivity by 30% in three communities would lead to a doubling of physical activity and a quadrupling of long-term health care cost savings.

Emergency Response: Connectivity improves emergency service response. In one case, adding 300 feet of roadway between two subdivisions in Charlotte, North Carolina increased the service area of a local fire station by 17%.

Land Value: Connected, walkable neighborhoods have commanded price premiums of 40% to 100% compared to nearby less connected neighborhoods.

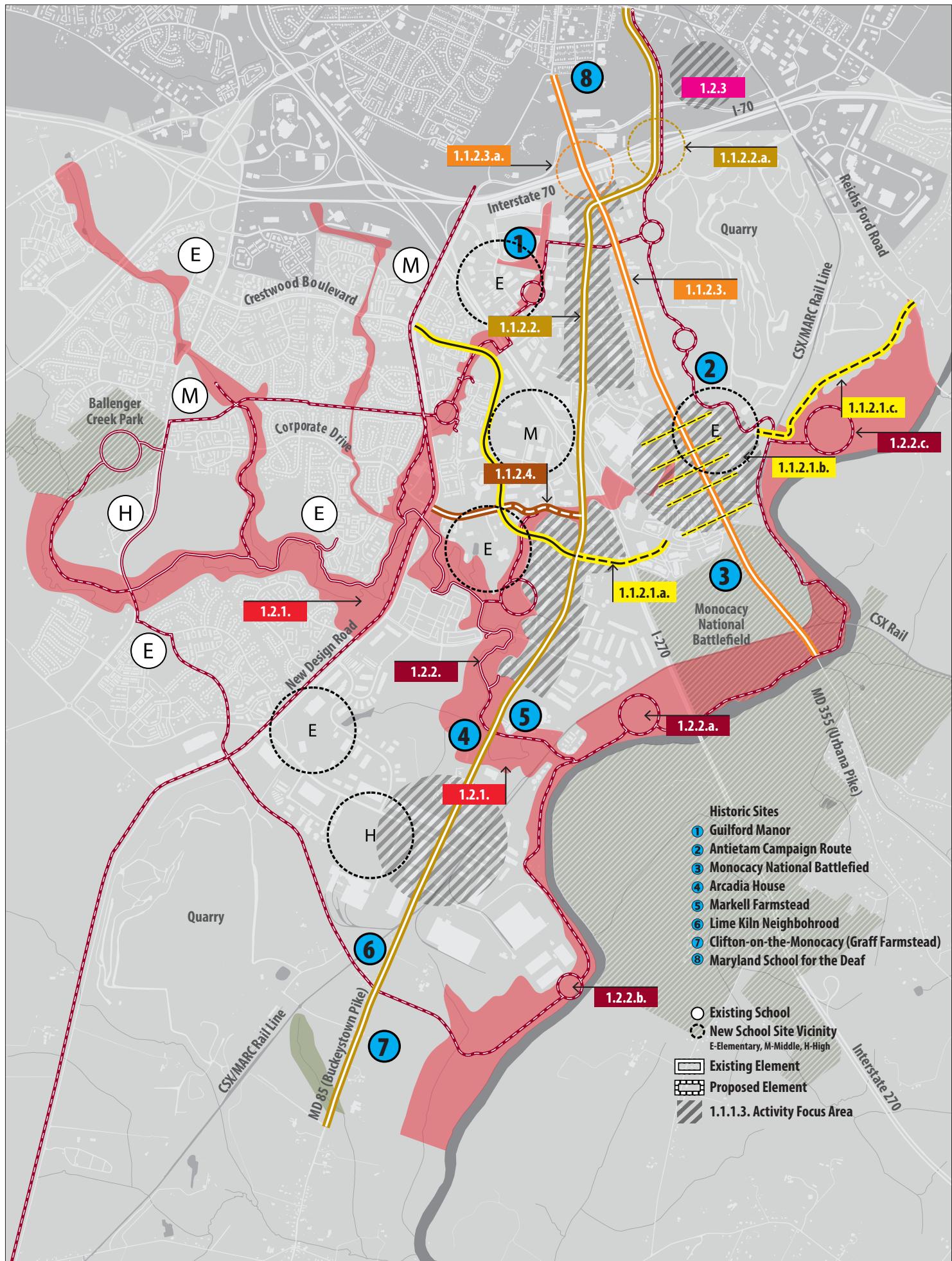
Traffic Safety: The highest risk of fatal or severe crashes occurs in areas with low intersection density.

Public Safety: Many studies have undermined the popular notion that road networks that provide isolation are safer and have found that the risk of crime is often less in a well-connected road network.²

As the basic nature of the South Frederick Corridors evolves from a set of functional suburban zones to various flavors of mixed use districts in a focused format, the need for an expanded and more interconnected transportation network, as well as for proximate schools, parks, plazas, and walkable streets, becomes more pronounced. Described below are recommendations for new or enhanced infrastructure and amenities that function at the scale of the entire planning area.

1 Utah Street Connectivity Case Study research; Ewing, R., and R. Cervero. *Travel and the Built Environment: A Meta-Analysis*. In *Journal of the American Planning Association*, Vol. 76, Issue 3, June 2010; Lehigh Valley Planning Commission. *Street Connectivity Guidance Document*, 2011; Marshall, W. E. and N. W. Garrick. *Street Network Types and Road Safety: A Study of 24 California Cities*. In *Urban Design International*, August, 2009, as referenced from the Utah Street Connectivity Guide: <https://wfcrc.org/Studies/UtahStreetConnectivityGuide-FINALAndAppendix.pdf>

2 Hillier, Bill. (2004). *Can streets be made safe?* *Urban Design International*, 9, pp. 31-45. ISSN 13575317. 9. 10.1057/palgrave.udi.9000079. Paper addresses the controversy about the relationship between crime and spatial design. Two divergent views: one advocates open and permeable environments and one is based on the model of defensible space which advocates closed and impermeable environments. Paper finds no correlation between crime and density, only a poor correlation between affluence and crime, but a very strong correlation between layout type and all kinds of crime, with traditional street patterns the best and the most “modern” hierarchical layouts the worst.



MAP 03: LEVEL 1 - PLANNING AREA

Planning Area Interior

- 1.1.2.1. Southern Crossing
- 1.1.2.2. MD85 Central Corridor
- 1.1.2.3. MD355 Heritage Passage
- 1.1.2.4. Corporate Drive Extension

Planning Area and Vicinity

- 1.2.1. Green Infrastructure Network
- 1.2.2. Park Circuit
- 1.2.3. Brickworks Environs

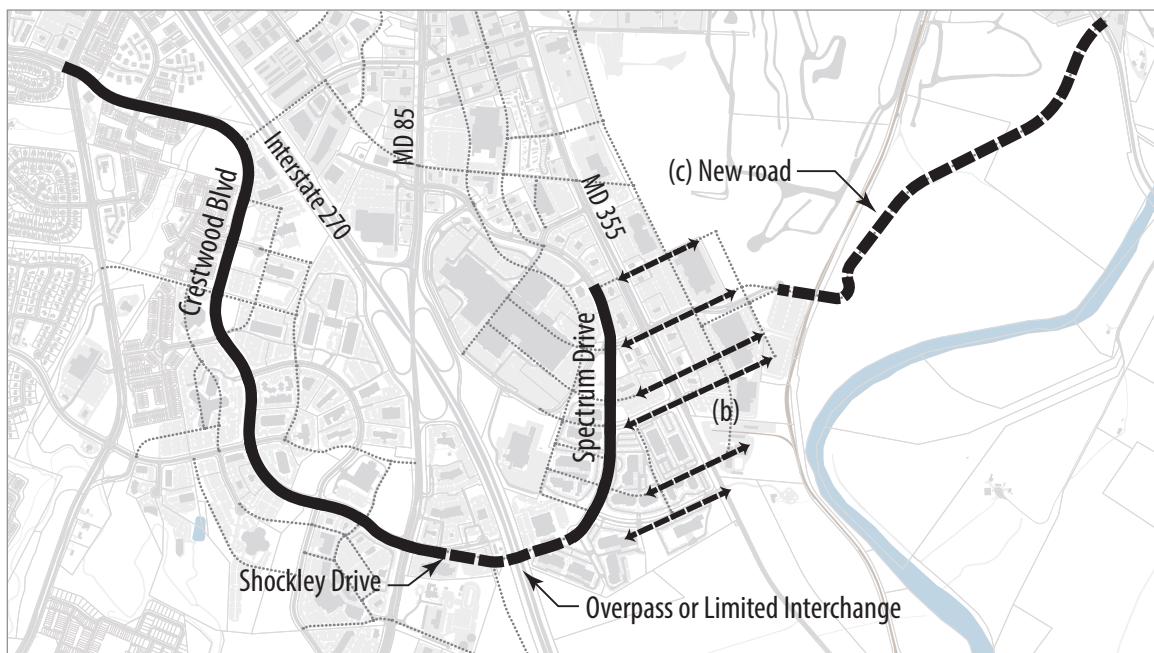
City of Frederick
Brickworks Vicinity

South Frederick
Corridors (SFC)

1.1.2.1. Southern Crossing

Crestwood Boulevard is continued through Shockley Drive (a) and an overpass or limited interchange of I-270 is provided that connects Crestwood/Shockley to Spectrum Drive. Access ramps are provided but limited serving only trips from the overpass to southbound I-270 and to the overpass from I-270 northbound. Traffic is dispersed through an interconnected local grid street system (b), providing multiple connection options across MD 355 to the Monocacy Station area. Dispersed grid connections from the west converge to the north of the Monocacy Station and connect to a new road alignment (c) crossing of the CSX rail line and continuing east parallel to the Monocacy River until intersection with Reichs Ford Road.

Figure 13: Southern Crossing



Our Economy/Strengths and Assets/Infrastructure

The prosperity of many commercial uses is maximized when they are easy to access. However, there is currently no direct connection from residential development to the east of Reichs Ford Road into the planning area. Rather, access to the planning area from the east occurs along Interstate 70, which aligns with the periphery of the planning area and that remains a thoroughfare experiencing a significant amount of commuter-based congestion. Similarly, there is no direct connection from the significant amount of office, retail, industrial, and residential uses on the west side of Interstate 270. Access from the west is generally directed through the existing interchange of Maryland 85 and Interstate 270, which is a meandering, indirect path and one that, even with current improvements, will likely remain congested. Therefore, the Southern Crossing will provide significant regional access to businesses and destinations within the South Frederick Corridors, enhancing the ability for customers to access goods and services, and for workers to access jobs.

The dispersal of traffic flow into a grid of connections between the Crestwood/ Shockley thoroughfare and the proposed connection to Reichs Ford Road will distribute drive-by/walk-by exposure of property more thoroughly in the area. Taking a single, high volume road connection and spreading that traffic flow into several lower volume streets will enhance the functioning of the area as a destination rather than as a cut-through, which would be the outcome with a single, high-volume road. Effectively, distribution of traffic flow will result in a larger share of property possessing the opportunity for business-oriented exposure and multi-modal access.

Our Community/Infrastructure Design/Settlement Patterns

There is a circular relationship between focused development and transit service: ridership is higher when transit serves focused development, and focused development is more feasible when transit is available and efficient. The Southern Crossing, especially the overpass of I-270, is a key factor for improving the operations of transit, thereby supporting focused development. This is due to the fact that efficient transit service in the planning area is currently obstructed by a limited ability to cross Interstate 270, with a circuitous and congested route through the MD 85/I-270 interchange serving as the only point of passage. An overpass of I-270, as a part of the Southern Crossing, will open up service between the area around the Monocacy Station and points to the east and west of the planning area. This will leverage ridership, support focused development, and help to centralize the Monocacy Station within the South Frederick Triangle.

In its current state, the presence of the Monocacy Station is not widely recognized. It is located far from MD 355, the nearest major roadway corridor, and is nearly hidden behind large retail uses. The "off the beaten path" location of this important transit center diminishes its functional and perceptual importance to the County. Making the Monocacy Station a centralized feature in the area leverages its usage functionally by improving access, and perceptually by communicating and celebrating its presence.

1.1.2.2. MD85 Central Corridor

There is no significant realignment of the existing MD 85 corridor, but the intensity of development is increased and the mix of activities is diversified. The functional attributes of the thoroughfare are expanded to provide space that is tailored to walking, biking, and transit. Tall, multi-story buildings, some of the tallest in the planning area (and perhaps, in the County), are oriented toward MD85 and transition from building faces directly to a “sidewalk zone” with no intervening topographic gap or off-street parking areas. On-street parking is available and off-street parking is provided behind/beneath/within buildings and out of public view. Bicycle and pedestrian travel is emphasized at the I-70 overpass (a), in coordination with the City of Frederick.

While the focus within the Central Corridor will be to maximize the commercial, retail, and employment opportunities critical to supporting the SFC, residential activity along this corridor is expected, supported, and encouraged.

Our Community/Infrastructure Design/ Settlement Patterns

Our Economy/Strengths and Assets/ Infrastructure

Maryland Route 85 is the “Main Street” of the South Frederick Corridors. It runs through the entire planning area, connecting significant industrial and commercial activities in the County, and continuing through to East Street in the City of Frederick. While MD 85 serves lower traffic volumes than the heftier infrastructure of the neighboring Interstates 270 and 70, and doesn’t provide the same level of regional access as the Interstates, this State highway nevertheless serves the widest range of uses and is the most integrated into the local network, being the corridor with the highest number of interconnections with other roads in the planning area. In addition, it is the only road in the planning area that connects with both I-270 and I-70. No other road is more accessible and, therefore, no other road is better suited to serve as the economic and activity focus of the South Frederick Corridors.

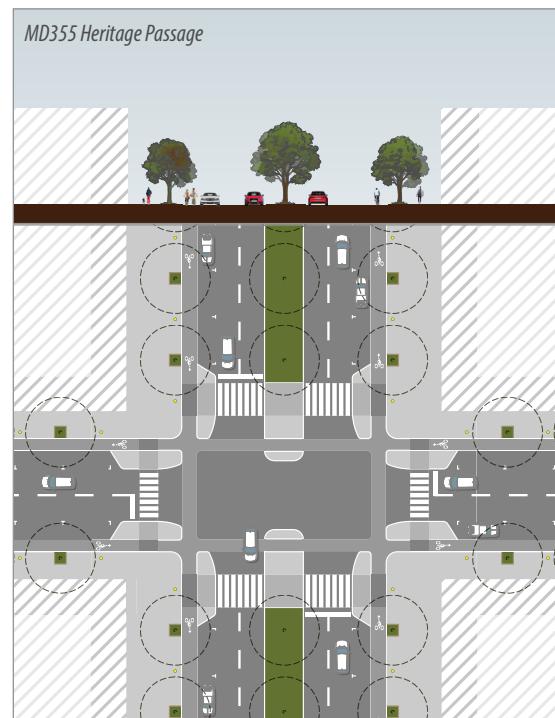
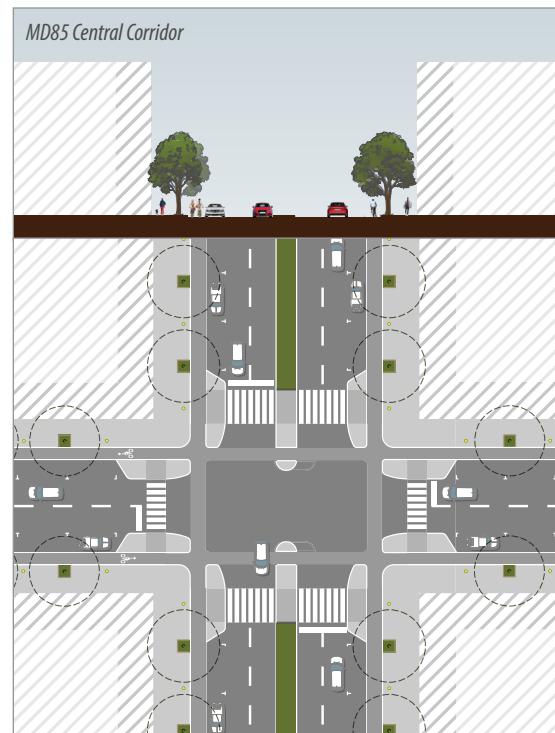
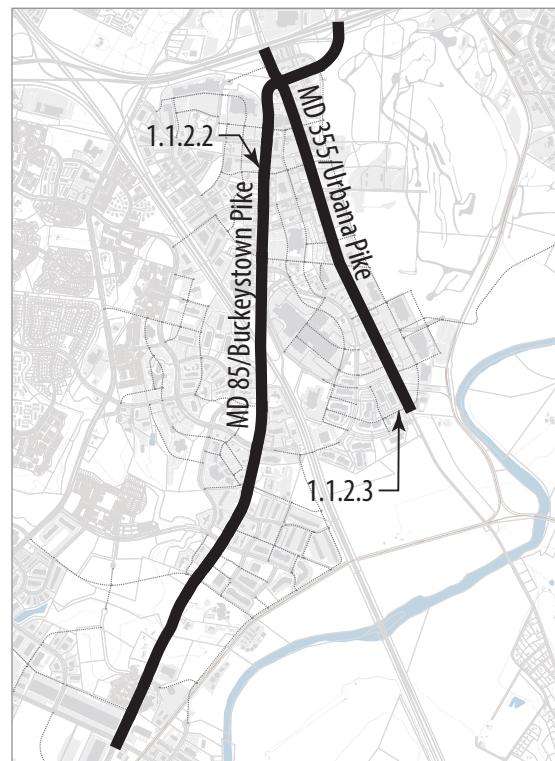
1.1.2.3. MD355 Heritage Passage

Maryland Route 355 is a tree-lined boulevard with a wide, tree-planted median, on-street parking, hidden off-street parking, and continuous building frontage that transitions directly into a sidewalk zone serving walking and functional open space needs. Bicycle and pedestrian travel is emphasized at the I-270 overpass (a), in coordination with the City of Frederick.

Our Community/Tradition/Distinctive Identity

When Frederick Town was established in 1745, there was no nearby route running south of the City that forded the Monocacy River. Therefore, a new road was created that crossed the river above its junction with Ballenger Creek. This river crossing was referred to as Middle Ford. According to March 1748 Frederick County Court proceedings, reference was made to “keep a ferry over the middle ford on the Monocacy” indicating the road was in use by 1748. With the establishment of

Figure 14: MD85 Central Corridor and MD355 Heritage Passage



the port at Georgetown in 1751 (Washington, D.C. would not be established for another 40 years) the road expanded further south in order to gain access to the markets of Georgetown as well as Alexandria, Virginia. The road was known at that time as the Georgetown Road.

By the nineteenth century, the Georgetown Road was so well traveled that a turnpike company was chartered by the State in 1805 to improve the road. However, this act was never carried out and was not revisited until the November 1812 Maryland General Assembly. Work on the turnpike did not begin straightaway as evidenced by an advertisement in the May 24, 1828 Frederick-Town Herald that called for bridge builders and turnpike makers for the construction of a bridge over the Monocacy River and “making between three and four miles of turnpike on the road leading from Frederick to Georgetown.” During the building of the bridge, the road was slightly realigned east from the old ferry site to build the new bridge. The Georgetown Turnpike remained largely unchanged in the study area after that with the exception of construction of new bridges over the river.

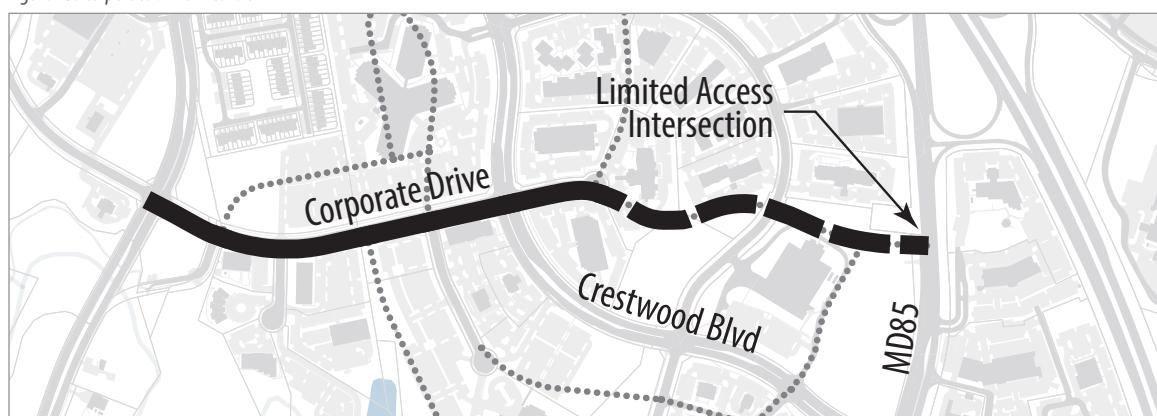
The Georgetown Turnpike was a significant road to the County, for both economic and military purposes. Prior to the development of the C&O Canal in the first half of the 19th Century, it offered the only direct opportunity for farmers to get their goods to the seaport of Georgetown. It also served as a direct route to the nation’s capital, enhancing tourism along the route. The Georgetown Road was utilized as a route during the Revolutionary War for General Braddock and his troops and by Confederate Lieutenant General Jubal Early in his attempt to seize the nation’s capital during the Civil War. In 1926 the turnpike was designated as US 240 and then redesignated as Maryland Route 355 after a new alignment of US 240 was constructed alongside the old road. US 240 became I-70S in the 1960’s before eventually being designated as I-270. Today, Maryland 355 continues to serve as an alternative route into Montgomery County and Washington, D.C.

In addition to its historical development as a road, Maryland 355 also connects a number of historic resources, passing through important areas such as the Monocacy National Battlefield and Downtown Frederick, as well as by several landmark locations including Guilford Manor, the Maryland School for the Deaf, Mount Olivet Cemetery, Kemp Hall, and Rose Hill Manor. These resources, with their various aesthetic mandates to maintain their historic character, demand enhanced visual recognition. Therefore, Maryland 355 is proposed to be redeveloped into a leafy boulevard to provide the special presence that suits the rich historic background of this thoroughfare.

1.1.2.4. Corporate Drive Extension

Corporate Drive is extended along Corporate Court to continue eastward, intersecting with Westview Drive and continuing east to connect to MD 85 approximately 900 feet north of the intersection of Crestwood Boulevard and MD 85. The meeting of extended Corporate Drive and MD 85 takes the form of a “right-in right-out” intersection.

Figure 15: Corporate Drive Extension



Our Community/Infrastructure Design/Settlement Patterns

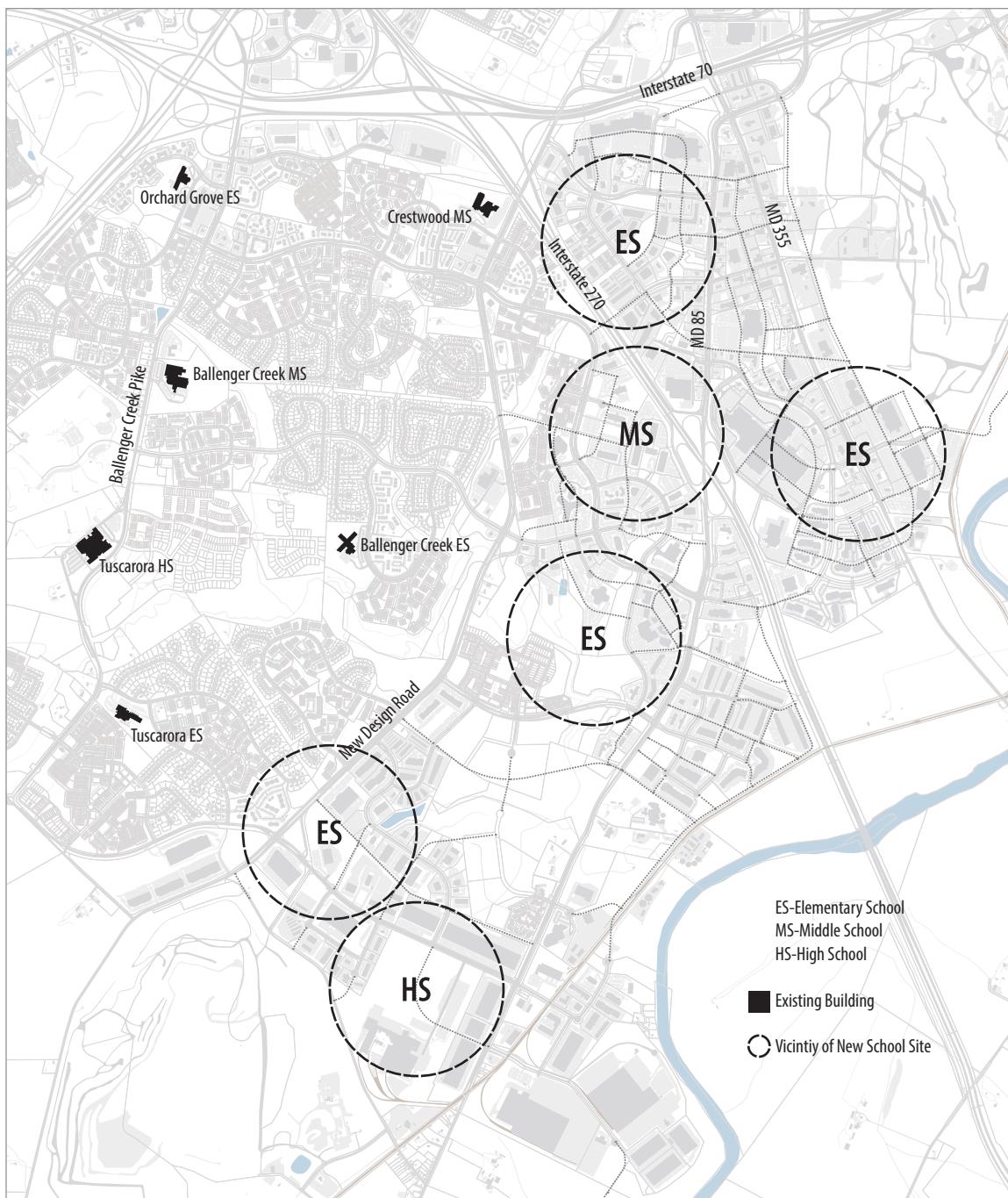
Our Economy/Strengths and Assets/Infrastructure

Corporate Drive is a significant east-west connection in the Ballenger Creek area. It provides an access corridor for the Ballenger Creek Park to the west, and feeds into Crestwood Boulevard to the east. This contributes to a confluence of flow along Crestwood Boulevard as it heads east toward Maryland 85, thereby contributing to a significant amount of congestion at the intersection of Maryland 85 and Crestwood Boulevard, and requiring pedestrian averse roadway widths. The extension of Corporate Drive can provide functional redundancy and the associated mitigation of congestion by providing an additional route between Maryland 85 and Interstate 270 to points west, including to regional destinations such as Ballenger Creek Park. Even if this intersection only allowed movement to and from southbound MD 85, the negative impact on volume-based pressure at the Crestwood Boulevard intersection to the south could help create improved multi-modal conditions at that intersection.

1.1.2.5. School Sites

Three new elementary schools, one new middle school, and one new high school are provided along the trail circuit and in locations within the planning area in support of residential development. Two elementary schools are on the east side of I-270 in the South Frederick Triangle sector, one is on the west side of I-270 in the Ballenger Creek East sector, and a third is near New Design Road in the Lime Kiln sector. A new middle school is located in the Central Crescent subdistrict, and a new high school site is located along English Muffin Way in the southern part of the Lime Kiln sector.

Figure 16: Proposed School Locations (approximate)



Our Economy/Education, Jobs, and Workforce Development/Access to Education

Economic growth and education are empirically linked.¹ Places with a workforce that possesses high literacy and critical thinking skills demonstrate better economic growth outcomes. However, it is cognitive skills that matter, not simply educational attainment.² It is logical to conclude that having high quality school buildings that aren't overcrowded can better support the development of those cognitive skills.

The development and nurturing of strong cognitive skills within our school-age population is best achieved within facilities that are well-suited to this mission. Schools that are pushed beyond their physical limits do not support the vision articulated in the Livable Frederick Master Plan. Neighborhood schools, often perceived as the centers of their communities, provide benefits that extend beyond the classroom, offering both neighborhood sanctuary, and a central location for the provision of key community services and the exercise of individual democratic responsibilities. "Our schools belong to all of us and are used by the entire community." - FCPS Educational Facilities Master Plan (June 2021).

¹ Bulut, Umit & Bulut, Ahsen. (2018). Education-growth nexus in middle-income countries: an empirical examination for schooling rates. *International Journal of Social Sciences and Education Research*

² Education and Economic Growth, Eric A. Hanushek, Ludger Woessmann, 2010, *Economics of Education* (Amsterdam: Elsevier, 2010), pp. 60-67

Frederick County has established standards for the provision of quality schools tied to the development of new dwellings. Average rates that correlate different types of dwellings with the number of students that those dwellings will generate are regularly determined (countywide pupil yield rates contained in the Educational Facilities Master Plan prepared by the Frederick County Public School system). While average pupil yield rates are determined for multi-family housing for each school district at each school level (elementary, middle, and high), it is anticipated that the multi-family housing in the South Frederick Corridors may result in higher pupil yield rates than are reflected in existing averages.

This is due to a number of factors. First, an average rate measured within an entire school district creates a central value for a range of data points, some of which may individually have values that are far from center. However, those individual values could better reflect the causal circumstances that would affect pupil yield in the South Frederick Corridors, things like the demographic and economic profile of homebuyers, the portion of school age children in the population, the number of bedrooms per multi-family unit, the amount paid in rent or mortgage, the size and age of buildings, and the proximity and perceived desirability of certain schools. Second, the aspiration of creating a more people-oriented, amenity rich environment that offers a diversity of multi-family housing options, strongly suggests broad appeal to a variety of demographic groups, including not only young, single people and older people, but also families.

Therefore, in order to provide a more conservative basis for analyzing pupil yield than would the use of a district-wide average, an average pupil yield for multi-family dwellings was developed using several reference projects¹ in the County. All of these projects offer similar housing options in desirable school districts, and generally have higher than average pupil yield rates per project. The pupil yield rates developed from these projects are used in the analysis of the number of students that will result from the addition of 10,000 dwellings, shown in figure 17. This analysis assumes new dwellings will consist of multi-family housing types, and that student generation rates will not change along with an evolving residential market.

Figure 17: School Capacity Analysis

	Elementary School				Middle School			High School			
	Ballenger Creek	Tuscarora	Oakdale	Carroll Manor	Ballenger Creek	Oakdale	Crestwood	Tuscarora	Oakdale	Frederick	Urbana
<i>Capacity of Existing Schools</i>											
<i>State Rated Capacity</i>	614	580	624	595	859	1,075	850	1,749	1,535	1,601	1,831
<i>2021 Projected Enrollment</i>	615	707	898	550	788	961	667	1,714	1,460	1,660	1,918
<i>Percent Capacity</i>	100%	122%	144%	92%	92%	89%	78%	98%	95%	104%	105%
<i>Existing Surplus/Deficit</i>	-1	-127	-274	45	71	114	183	35	75	-59	-87
	<i>-357</i>				<i>368</i>			<i>-36</i>			
<i>Students Generated from Plan</i>											
<i>Pupil Yield Rate</i>	0.25				0.13			0.13			
<i>Additional Dwellings Planned</i>	10,000										
<i>Additional Students from Plan</i>	2,500				1,300			1,300			
<i>Additional Capacity Needed</i>	2,857				632			1,336			

Future school capacity needs are met through a variety of methods, including additions to existing buildings, redistricting, modifying standards, and construction of new buildings. Therefore the determination of the need for a new school building is not always straightforward, especially in a setting such as the South Frederick Corridors where a number of existing school districts intersect. One important measure of need is geographic proximity between school buildings and dwellings, with general rules of thumb for each school level that inform the extent of this proximity. Therefore, based on a general understanding of proximity targets in combination with the notion that determining and accommodating school facility needs is a layered process of assessment, five new school sites are identified within the planning area for three elementary schools, one middle school, and one high school.

In the South Frederick Corridors, where most land has already been developed, the identification of sites for new schools will require creative solutions. Under historically predominant models of development involving the conversion of rural land to suburban land, school sites are identified that will satisfy important land area requirements for school facilities that correspond to the development patterns of their settings. In the South Frederick Corridors, redevelopment will result in a conversion from suburban land to urban land. Therefore, school sites must be identified

¹ *Urban Green, Jefferson Place, Westview South, Tallyn Ridge, Linganore Town Center, Ballenger Run*

that correspond to settings where development is focused. This implies smaller sites, taller buildings, and alternative facility usage schemes, while at the same time maintaining facility equivalence with schools on larger sites.

1.1.2.6. Water and Sewer

The New Design Water Treatment facility currently operates under a Water Appropriation and Use Permit for the Potomac River supply that allows the withdrawal of 26 million gallons per day (MGD) and has a current treatment capacity of 25MGD. The projected demand under current land use plans through 2040 for this facility is under 12 MGD. Assuming a water demand rate of 250 gallons per day per household, 10,000 dwellings in the planning area will generate an additional demand of 2.5 MGD. If this is added to the 2040 demand estimate, then a new estimate of 14.5 MGD results. This is below the permitted withdrawal and the existing treatment capacity for water supply.

The County's Ballenger-McKinney wastewater facility is currently permitted and designed for treatment of 15 MGD, with estimated demand reaching 12 MGD by 2040 based on current plans. Assuming a treatment demand rate of 250 gallons per day per household, 10,000 dwellings in the planning area will generate an additional demand of 2.5 MGD. If this is added to the 2040 demand estimate, then a new estimate of 14.5 MGD results. This is below the existing capacity for sewage treatment.

The projected growth through 2040 contained in the Master Water and Sewerage Plan likely accounts for a sizable portion of the growth considered in this plan. This is because the 10,000 dwelling target was derived from a countywide forecast. Therefore, this rudimentary analysis is conservative. By potentially "double counting" some portion of growth, there is additional assurance that capacity will remain adequate to absorb the plan target.

1.1.3. Sustainability and Resiliency

"Green building" design and retrofit is widely practiced in the planning area, using the latest standards and metrics. Water-efficient household appliances and fixtures yield significant water savings. Careful selection of construction materials conserve natural resources and improve indoor air quality. Site-scale and building-scale green infrastructure reduces development's impacts on water quality. Incentives are provided to provide roof mounted solar panels for electrical and thermal generation.

Environmental sustainability and resiliency are not simply collateral benefits of the strategic redevelopment of the South Frederick Corridors. They are fundamental aspects of this plan that result from the kind of community design and development proposed herein. It has been demonstrated that the community design patterns supported by this plan inherently result in net positive effects on the long term health and vitality of the natural environment. Evidence shows that focused, mixed, and user-friendly development reduces environmental and human health impacts.¹ For example, redevelopment of existing suburban or urban land can help protect rural land and its natural resources, like wetlands, streams, and critical habitat. Also, a focused development pattern results in less electricity use and driving per resident, reducing energy consumption, carbon emissions, and pollution. This alone is a major step toward achieving environmentally responsible development and the creation of places that will continue to thrive a century from now. In addition to this, the redevelopment of the South Frederick Corridors must also employ green site and building design as well as pro-conservation policy incentives.

 [Our Environment / Land / Built Environment](#)

 [Our Environment / Climate and Energy / Climate Resiliency](#)

 [Our Economy / Innovation and Opportunity / Innovation](#)

1.2. PLANNING AREA AND VICINITY

The sphere of influence of a particular aspect of the physical environment is often variable and difficult to demarcate. For example, while the apparent beginning and end of a particular geographic area might seem easy to define, in most cases a shift in perspective will reveal that it will be intertwined with other features that either extend beyond or lie within the original area of consideration, yet are essential components in the operations and character of that area. In the South Frederick Corridors, there are many of these, from the state and federal roads, to a rail corridor, to watersheds and natural features. However, not all of these have resulted in recommendations for their portions that lie outside of the planning area. In general, features outside of the planning area warrant specific recommendations if their consideration is necessary for creating their utility within the boundary. For example, consideration of MD 85 beyond the planning area will not significantly impact the utility of MD 85 within the planning area. However, creating a system of trails within the planning area derive the lion's share of their benefit and utility only if they are components of a larger system of looping trails that extend into the Ballenger Creek community. This is similarly the case for the proposed green infrastructure network. Therefore, it is useful to think of the planning area as a device for focusing attention, rather than limiting practice.

A special case in this regard is the land to the north of Interstate 70. This area is not within the South Frederick Corridors planning area or within the jurisdiction of Frederick County. It is a portion of the City of Frederick and is within its municipal boundary. Therefore the South Frederick Corridors Plan, as an instrument of Frederick County government, has no direct jurisdiction over planning within this municipal area. Ultimately, its future development is mostly influenced by land use regulations and capital projects as defined by the City of Frederick.

¹ *Our Built and Natural Environments: A Technical Review of the Interactions Between Land Use, Transportation, and Environmental Quality (2nd Edition)*, United States Environmental Protection Agency, June 2013.

However, the South Frederick Corridors and this “speculative planning area” share an assortment of existing conditions that demand mutual consideration. Not only does the proximity between both areas imply that plans should contemplate land use and infrastructure factors based on adjacency, but also the position of the municipal area between the South Frederick Corridors and Downtown Frederick City implies that plans should contemplate land use and infrastructure factors based on transition. Additionally, large portions of both the municipal area and the South Frederick Corridors are well-suited for redevelopment, which implies that regulatory and incentive based approaches to supporting redevelopment can be explored based on their mutual benefit.

Therefore, based on community interest tied to these shared conditions, there is agreement between the City of Frederick and Frederick County for this plan to speculate on planning possibilities in this municipal area. The proposals within this municipal area are not effectively adopted by the City of Frederick as a consequence of the County’s adoption of the South Frederick Corridors Plan. Nor do they express any effort on the part of Frederick County to undermine the sovereignty of Frederick City. Rather, proposals within the municipal area are speculative and informational only, and are offered herein for consideration.

1.2.1. Green Infrastructure

Stream valleys (especially the Monocacy River riparian environment) and 100-Year FEMA floodplain within the planning area and beyond are components of a green infrastructure network where water management, reforestation, and natural resource conservation is focused, and recreational amenities are located.

Green infrastructure elements extend outside of this network, throughout the planning area. Tree plantings composed of native and locally-adaptive species are provided along all roads, parking areas, access drives, and public places, achieving a minimum canopy cover of 35%. Overhead electrical and telecommunications wires are buried (or otherwise adapted) to avoid conflict with streets trees and other vegetation. Water conservation and rainwater capture features harvest rainwater for retention, irrigation, or grey water use. Environmental Site Design (ESD) is employed in all new development, redevelopment, and retrofit, including green roofs, stormwater planters, and biofiltration/bioretention facilities, and pervious paving, implemented on-site and within road right-of-ways. Buildings are supplied by clean energy sources and energy consumption in buildings is reduced through passive solar heating, daylighting, ventilation, and insulation.

Our Environment/Land/Natural Resources and Green Infrastructure

The overall landscape in the South Frederick Corridors is a unique and diverse continuum from natural, undisturbed land to highly developed land with little to no vegetation. While the demand for growth and development in the Corridors will persist, so too will the demands for air and water quality, energy conservation, and healthy natural habitats. Therefore, sustainability in this area is conceptualized holistically, inclusive not only of replenishing and restoring natural systems, but also of creating built systems that align with and support natural systems. The boundary of the green infrastructure network described above not only indicates a set of practices to be applied within the boundary, but also indicates a different set of practices to be applied outside of the boundary.

Generally, natural and environmental assets are focused within the green infrastructure network boundary, and include major features such as the Monocacy River corridor, the Ballenger Creek floodplain system, and the Monocacy National Battlefield. The entire planning area drains to the Monocacy River, a state-designated Scenic River, and eventually to the Potomac River. The vast majority of the planning area is located in the lower Ballenger Creek Watershed¹, but the southern 1/3 lies in the Monocacy Direct Southwest Watershed.

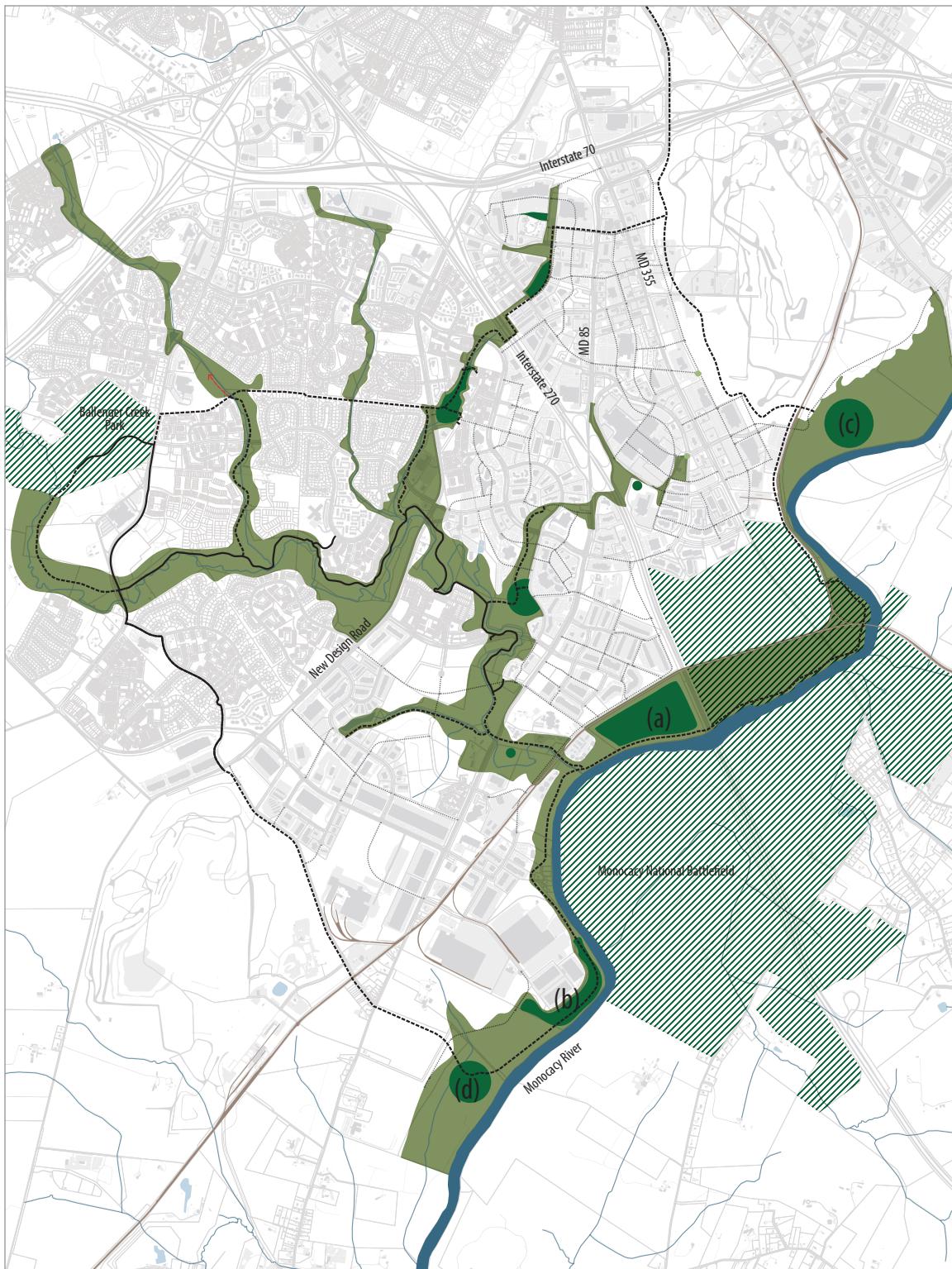
This defined natural landscape helps provide the basic environmental functions needed to sustain life. For example, through biological and chemical processes, natural landscapes (soils, forests, meadows, fields) clean air, filter water, produce food, provide wildlife habitat, attenuate flooding, and moderate the climate through the storage of carbon. Natural landscapes and the ecosystem services they provide are often lost or severely diminished when land is developed.

Outside of the green infrastructure network boundary, the South Frederick Corridors is a concentration of development that has been created incrementally over time, and is now an environment dominated by automobiles, rooftops, and significant amounts of pavement. This type of development, with its relative absence of vegetation, degrades water quality due to the large volumes of polluted water that run off the hard surfaces, contributes to air pollution from motoring and idling cars, and creates urban heat islands². Overall, impervious surfaces – roads, rooftops, and parking lots where water does not soak into the ground after rainfall – cover approximately 42% of the suburbanized portions of the planning area, as calculated without the land area occupied by the two quarries and the Monocacy National Battlefield. The higher the impervious cover, the more stressors there are on a watershed, including increased pollutant and sediment loading to a stream, stream bank erosion, high water temperatures, and decreased stream bank stability. Portions of the planning area contain development that occurred at a time before stormwater management regulations were in place. Other areas contain varying levels of treatment for stormwater quantity and quality.

¹ A watershed boundary corresponds to natural topography and the location and flow of the stream network.

² <https://www.epa.gov/heat-islands/heat-island-impacts#:~:text=Heat%20islands%20contribute%20to%20higher,an%20non%2Dfatal%20heat%20stroke>

Figure 18: Green Infrastructure and Park Circuit



Therefore, outside of the green infrastructure network boundary, transforming portions of the built landscape from grey to green will cool air and surface temperatures, sequester carbon, improve water quality, reduce heat island effects, and minimize exposure to ultraviolet radiation, as will green building design and environmental site design. In general, a focused, walkable, and energy-efficient built landscape will accommodate new residents and businesses while reducing county-wide land consumption, vehicle miles traveled, and our collective carbon footprint.

1.2.2. Park and Trail Circuit

An integrated and looping network of multi-use trails is provided that is centered on the existing Ballenger Creek Trail and that weaves through the entire planning area and beyond, forming a grand circuit that connects historic sites, parks, and schools. The trail circuit integrates and extends the New Design Road Side Path. The trail network also connects two County-owned properties with shoreline on the Monocacy River, respectively referred to as Monocacy River Park (a) and Dudrow Park (b). These two properties provide riverfront access and focal points for forestation and natural resource conservation. Other riverfront parks are provided, with one near Pinecliff Park (c), and an extension of Dudrow Park (d).

As the South Frederick Corridors incrementally redevelops in a more focused fashion, new development must continue to mitigate its impact relative to preventing crowding and providing natural amenities by supporting the provision of open space. Customary development impact mitigation tied to open space requires on-site provision. However, given the access and location determinants of the park and plaza facilities identified in this plan, open space mitigation must not be determined by the incidental location of a specific future redevelopment project. Therefore, within the

South Frederick Corridors planning area, on-site provision of open space must be replaced by a model that requires fair share contributions to the development of centralized facilities. Additionally, the County must take a greater role in securing and developing these park and plaza sites.

Our Health/Healthy Habitat/Healthy Places

While multi-use trails have often been employed as a means of supporting walking and biking as a form of leisure and recreation, these facilities can also be employed as an important means of transportation. Therefore the looping network proposed not only interconnects a variety of proposed park spaces, but also links developed areas and schools. An improved ability to walk to schools or commercial and institutional uses can take vehicle trips off the road and play a role in diminishing traffic congestion. This effect is of special importance in more intensively developed environments such as those proposed in the SFC. This approach capitalizes on the proven health benefits connected to the integration of transportation and physical activity.

Our Health/Healthy Habitat/Environmental Greening

Access to parks and recreational facilities has been shown to have a positive relationship to the overall health of a community.¹ Even the simple exposure to natural vegetation in one's daily environment has measurable positive health benefits. Therefore it is important to not only provide large regional parks that serve formal active recreational activities, but also to provide smaller local neighborhood parks.

Neighborhood parks provide space for informal active and passive recreation, and can serve as social hubs for communities. To maximize their impact, these more intimate park spaces must occur in proximity to homes and workplaces, be easily accessible by walking and biking, and serve all ages.

Our Community/Preservation/The Importance of Place

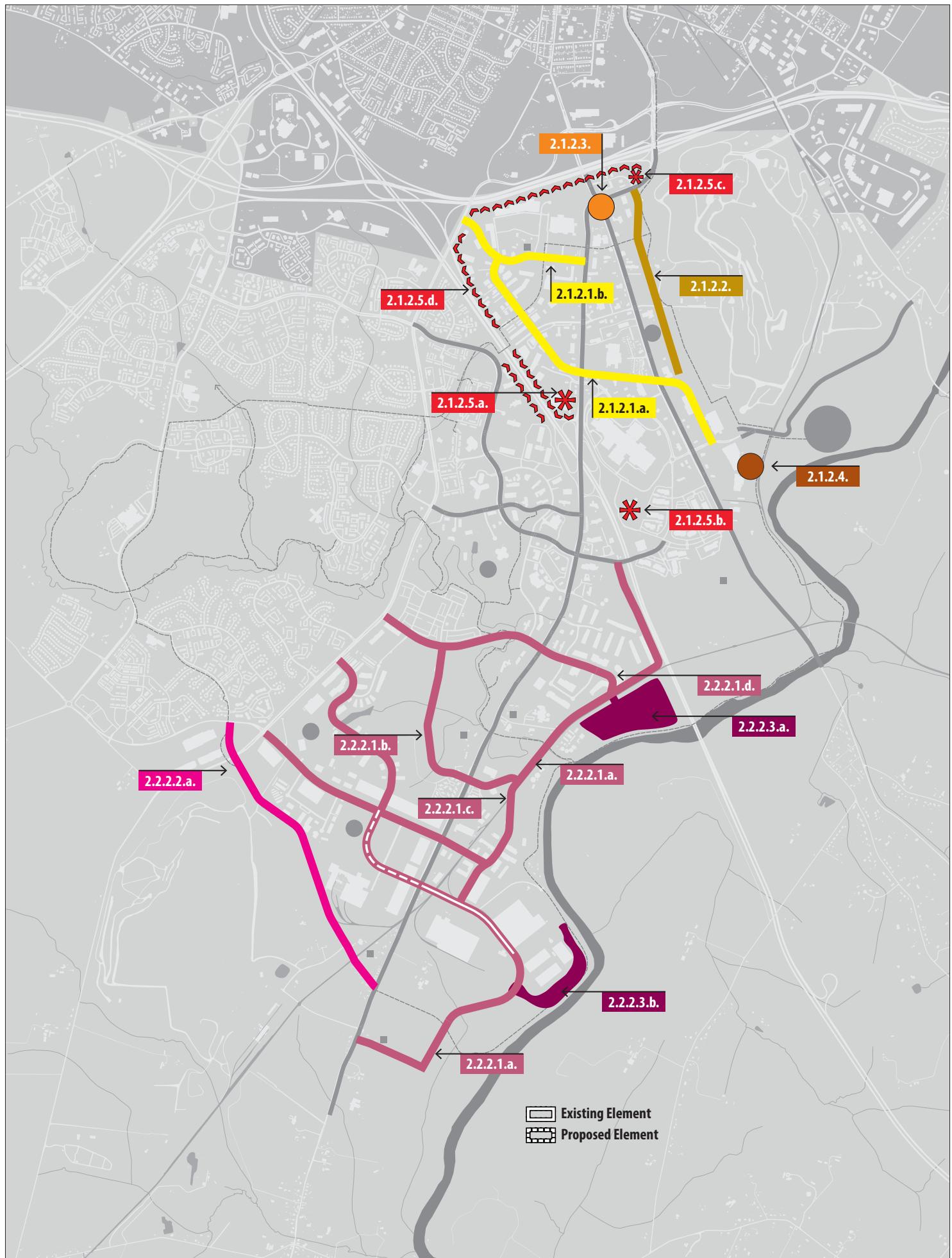
Several historically significant locations neighbor the multi-use trail circuit. Guilford (1) is a manor home and historic farm complex listed on the National Register of Historic Places. The portion of the trail circuit that parallels Maryland 355 north of the Monocacy Battlefield (2) is identified as the path of the Civil War Antietam Campaign of 1862, as followed by General Robert E. Lee and Confederate forces. The trail circuit also continues through the Monocacy National Battlefield (3) itself. To the south, along Maryland 85 at Ballenger Creek are the Arcadia house (4), on the west side of Maryland 85, and the Markell Farmstead (5), on the east side, both of which are listed on the National Register of Historic Places. Further south, at Maryland 85 and Lime Kiln Road is the Lime Kiln Survey District (6). These properties are reflective of the heritage of Frederick County and help bring unique aspects of our history into better focus.

1.2.3. Frederick City: Brickworks Activity Node

An activity focus area is identified on the east side of MD 85. Specific functional characteristics of this area will transition from heavy industrial to include a combination of urban format mixed uses and “large lot” users exploiting the significant exposure from and access to Interstate 70.

The redevelopment of the Brickworks site in the City of Frederick has long been seen as an opportunity to support the City's economic development by attracting exciting and economically productive uses, supporting housing development, and connecting the area to downtown. The SFCP supports these objectives by identifying a road layout that, while differing to some degree from the road configuration identified in the City's comprehensive plan, focuses on extending the historic, surrounding street pattern into the site.

¹ For more information on this important body of research, see *Vitamin N* by Richard Louv. Also, see the Landscape and Human Health Laboratory at the University of Illinois at Urbana-Champaign, Frances E. Kuo, Director



MAP 04: LEVEL 2 - SECTORS

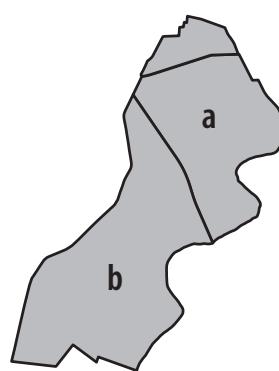
a. South Frederick Triangle

- 2.1.2.1. Industry Lane Extension
- 2.1.2.2. Parallel Road
- 2.1.2.3. Evergreen Point Plaza

- 2.1.2.4. Monocacy Square
- 2.1.2.5. Landmark Features

b. Ballenger Creek East

- 2.2.2.1. Industrial Bypass
- 2.2.2.2. Lime Kiln Road
- 2.2.2.3. Riverfront Parks



2. SECTORS

2.1. SOUTH FREDERICK TRIANGLE

The South Frederick Triangle Sector includes commercial and industrial uses along MD 85 and MD 355, the Martin Marietta quarry in the east, the Monocacy National Battlefield in the south, and the Monocacy River with its associated riparian resources forming the southeastern edge. Interstate 270 forms the western border and Interstate 70 forms the northern border. The sector contains a total land area of 3.033 square miles or 1,941 acres. Prior to the adoption of this plan, the land use designations in the sector include Mixed Use Development, General Commercial, General Industrial, Limited Industrial, Office/Research/Industrial, Public Parkland/Open Space, Agricultural/Rural, Natural Resource, and Mineral Mining. Zoning includes General Commercial, Limited Industrial, General Industrial, Mineral Mining, Mixed Use Development, Resource Conservation, and Agricultural.

2.1.1. Use and Activities

The South Frederick Triangle includes the quarry along Reichs Ford Road in the east, the Monocacy National Battlefield at Maryland 355 in the south, and commercial and industrial land along Maryland 85, Maryland 355, and adjoining roads. A land use transition to more focused density, design, and amenities will have greater emphasis in the South Frederick Triangle than in Ballenger Creek East because of the significant amount of existing infrastructure and the confined geography created by Interstates 70 and 270, the Monocacy Battlefield, and the quarry. No future land use transitions will occur in the Monocacy National Battlefield. However, facility improvements related to pedestrian and bicycle access, or reinforcing the historical significance of the land, may occur as determined by the National Park Service. Land use transition prospects for the quarry property are less clear. However, in all likelihood any transition from a quarry to some future use will occur in the far future. A target of 6,000 dwellings is identified in the remaining commercial and industrial land.

2.1.2. Infrastructure and Amenity

Two new road features, two public space features, and several landmark features are described below. These infrastructure and amenity recommendations serve to improve the transportation network, provide places for gathering and leisure, and create identifiable aspects that help to visualize places and orient in space.

2.1.2.1. Industry Lane Extension

(a) Industry Lane continues along a projected alignment past the existing water tower and then turns to the east to intersect with MD 85. It then proceeds across MD 85 along the property boundary of the existing Lowe's site, continuing through to intersect with MD 355. It then continues to the east and to the south, feeding into the vicinity of the Monocacy Station. Guilford Drive (b), the existing road at the northern terminus of Industry Lane, works in conjunction with Industry Lane to effectively extend the range of connectivity to the east and west.

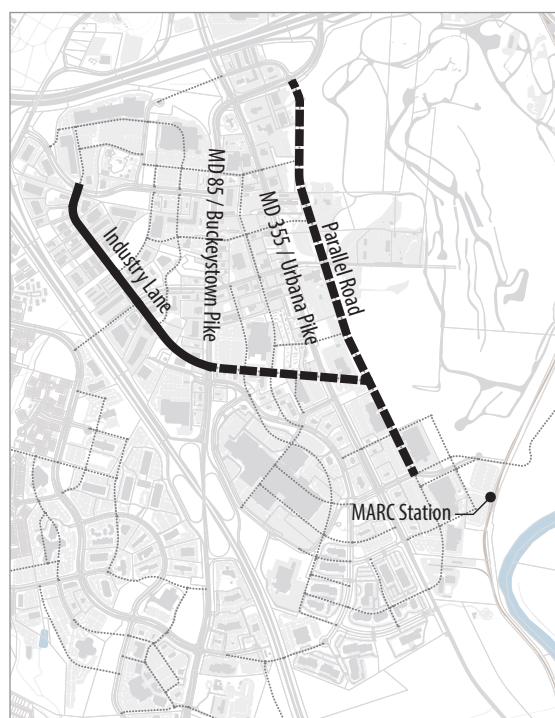
Our Community/Infrastructure Design/ Settlement Patterns

Our Economy/Strengths and Assets/ Infrastructure

The extension of Industry Lane plays a major role in improving circulation across the South Frederick Triangle in that it embodies a major “desire line” of connectivity. Desire lines refer to the emergence of informal pedestrian pathways, most often as a result of a tendency to shorten travel distance by deviating course away from planned transportation pathways through unallocated yet unobstructed space. This phenomenon is generally exclusive to pedestrian travel, largely due to the ease with which a variety of ground surface types and spaces can be navigated by walking.

However, it is clearly far less feasible for desire lines to emerge where vehicles are concerned. The obstacles are many. However, the geometric layout of a road network can be highly suggestive of a desire line, as is the case with Industry Lane where the extension of the

Figure 19: Industry Lane Extension and Parallel Road



existing road alignment to MD 85 would provide a myriad of network and access improvements. For example, while the sector has a number of thoroughfares that run in the north/south direction, it has few that connect land from east to west. Currently, vehicles entering the site from the MD 85/I-270 interchange must travel a circuitous route by travelling southbound along Spectrum Drive in order to cross the southern portion of the sector and to access the Monocacy Station area. The direct connection across the sector offered by the extension of Industry Lane serves to further integrate the Monocacy Station area into the transportation network, making the station a more dominant and central feature of the sector while also resulting in a more efficient circulation pattern.

2.1.2.2. Parallel Road

(2) An existing stub road entrance that intersects with MD 85 in the northern portion of the South Frederick Triangle extends southward, parallel to MD 355, to intersect with the extension of Industry Lane just to the north of the Monocacy Station area.

 *Our Community/Infrastructure Design/Settlement Patterns*

 *Our Economy/Strengths and Assets/Infrastructure*

While this road does not fulfill the dictates of a major desire line, it does provide functional redundancy to the transportation network. In the abstract, the notion of “redundancy” may imply waste. However in urban road networks, redundancy is a desirable and essential characteristic of a well-functioning transportation system. The ability for one road to functionally substitute for another allows for trip distribution, not only enabling better overall circulation flow with respect to bottlenecking or congestion points, but also providing more direct connectivity to destinations reached along opposing vectors of travel.

2.1.2.3. Evergreen Point Plaza

The crossing of MD 85 and MD 355 is distinguished by taller buildings that setback from the street edge to allow for a spacious, pedestrian plaza that encircles the intersection.

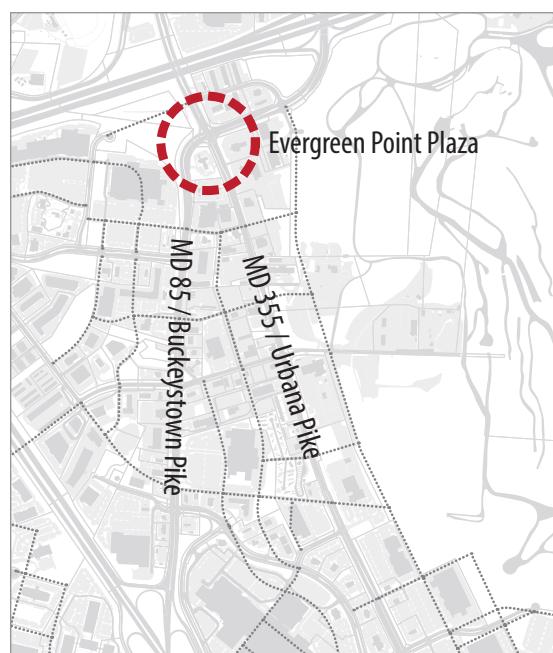
Figure 20: Evergreen Point Plaza



 *Our Community/Infrastructure Design/ Settlement Patterns*

The intersection of MD 85 and MD 355 has historically been referred to as Evergreen Point. A line of evergreen trees was formerly planted there, ostensibly to provide screening for the Locust Level estate house that fronted these two well-traveled roads. The evergreen trees soon became the dominant characteristic at this intersection, which met at an oblique angle forming a point. Thus the name “Evergreen Point” emerged and became a common reference – a landmark – for this location just to the south of Frederick City. The physical presence of that landmark has long since disappeared, but the name has remained, albeit with diminishing prevalence and significance.

As development has occurred, any physical expression of this history has been erased. Therefore, as a means of physically marking this location for its unique,



place-based history, as well as for its importance as the intersection of the most central formative infrastructure of the corridors (MD 85 and MD 355), building height is emphasized but is setback from the intersection to allow for an open plaza. The associated illustration suggests the planting of evergreen trees in a prominent format as a reference to the historic origins of the location.

2.1.2.4. Monocacy Square

A pedestrian oriented plaza is located in front of the Monocacy Station, “activated” by surrounding multi-story buildings with plaza adjacent uses characterized by street level commercial and ample residential dwellings on upper levels.

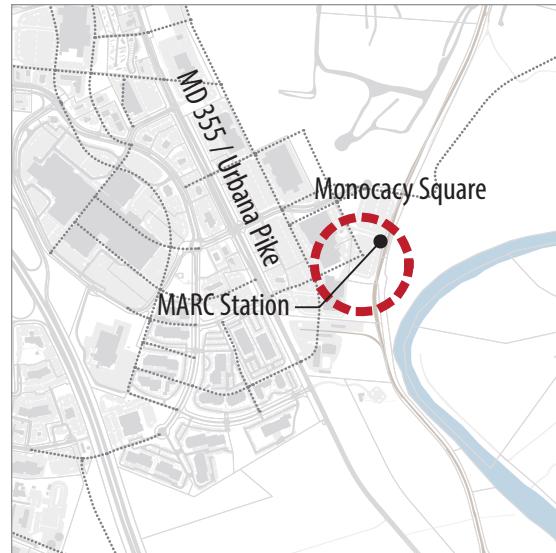
Figure 21: Monocacy Square



Our Community/Infrastructure Design/ Settlement Patterns

The design and configuration of the plaza will create a center of attention in the vicinity. First by being highly visible from the surroundings by virtue of being positioned as an axial terminus of proximate streets; second, by containing uses that provide reasons to make the plaza a destination; and, third by serving as a primary access point for the Monocacy Station.

Surrounding the Monocacy Square with residential and commercial uses that are focused toward a central pedestrian plaza space will result in a lively setting composed of local residents, shoppers, and workers. Locating art projects within the plaza space will create points of interest and avenues for cultural expression.



2.1.2.5. Landmark Features

Landmark buildings are located at major entry points to the planning area. Namely, at the northeast (a) and southeast (b) corners of the I-270/MD 85 interchange, and at the southwest (c) corner of the I-70/MD 85 interchange.

The land along the east side of I-270, a portion of the west side of I-270, and the south side of I-70 (d) is highly visible from their respective adjacent interstates and therefore contain buildings that form a semi-continuous and coordinated frontage.

Our Health/Healthy Habitat/Environmental Comfort

Our Community/Infrastructure Design/Appearance and Usability

Prominent features of the built landscape play at least two important roles, first as aspects of the formation of place identity and second as elements that support the usability of places. The first aspect is tied to the fact that everyday experiences of places contribute to the development of knowledge and attitudes about those places. The knowledge and attitudes we form about place influence our perception of whether we belong somewhere, whether places are meaningful to us, and whether we feel personal attachments to places. This interaction between the physical environment and personal identity is referred to as place identity.¹ An individual's place identity emerges from complex interactions between people and environments. While an understanding of the dynamics by which the physical character of a place can influence this formation is still emerging, it is clear that the physical or spatial

¹ Peng Jianchao, Strijker Dirk, Wu Qun; *Place Identity: How Far Have We Come in Exploring Its Meanings?*; *Frontiers in Psychology* Vol. 11; 2020; <https://www.frontiersin.org/article/10.3389/fpsyg.2020.00294>; “In order to synthesize the extensively studied place identities and their meanings, this paper reviews how researchers have conceived and deconstructed place identity...”

Figure 22: Tall Crescent Along Interstate 270



Illustration - view from Interstate 270



Existing view from Interstate 270

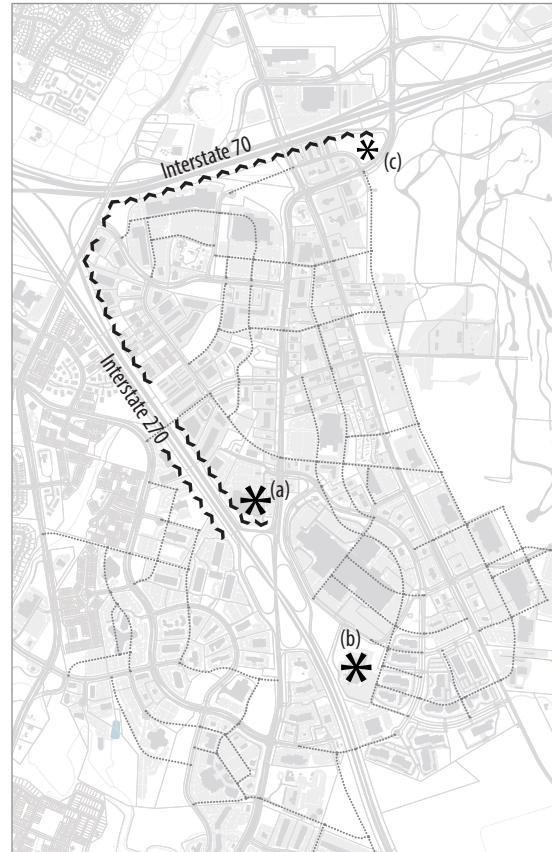
features of a setting play a role. This is most strongly expressed in the form of prominent or conspicuous buildings that are distinguishing features of the built landscape.

In its current state, the built landscape of the South Frederick Corridors is characterized by a general lack of spatial definition, which hypothetically results in attitudes of disinterest (or other forms of disaffection) toward the physical environment. Physical distinction in places may help negate this disaffection. As such, landmark buildings and distinct features are identified in the South Frederick Corridors Plan in order to facilitate this potential psychological mechanism.

The second aspect largely concerns the role that physical design plays in making places usable by helping (or hindering) perceptual orientation in space. In this regard, the usability of physical places is related to the ability to infer a present location relative to other locations, the ability to determine routes to destinations, and the ease with which physical places can be conceptualized in the mind's eye as a cohesive mental map. Prominent features, such as the landmarks and high visibility edges identified in the South Frederick Corridors Plan, are all key factors in supporting this kind of usability.

2.2. BALLINGER CREEK EAST

The Ballinger Creek East Sector includes residential and office uses in the northern portion, and industrial uses, with some residential, in the southern portion, and the Monocacy River with its associated riparian resources forming the eastern edge. Interstate 270 forms the northeastern border and New Design Road forms the western border. A different quarry and mining processing uses are in the south of the planning area. Further south, outside of the planning area, is the community of Buckeystown. The sector contains a total land area of 4.942 square miles or 3,163 acres. Prior to the adoption of this plan, the land use designations in the sector include General Commercial, General Industrial, Limited Industrial, Office/Research/Industrial, Medium Density Residential, High Density Residential, Public



Park/Open Space, and Office/Research/Industrial. Zoning includes Mixed Use Development, Limited Industrial, General Industrial, Mineral Mining, Planned Unit Development, General Commercial, Agricultural, R-1 Low Density Residential, R-12 High Density Residential, Resource Conservation, and Institutional.

2.2.1. Use and Activities

Ballenger Creek East currently includes the quarry in the southwestern corner of Lime Kiln Road and MD 85, a major industrial hub between Lime Kiln Road and Executive Way, the Ballenger Creek Trail and open space system, a smaller industrial area to the east of MD 355, commercial uses along MD 85 with office uses to the northwest of this along Crestwood Boulevard, and two areas of residential adjoining New Design Road. This residential area is not identified for transition to other forms of development. Also, the Ballenger Creek East sector contains river shoreline along the Monocacy River at the eastern edge.

Land use transition to more focused density, design, and amenities is emphasized in the northern portion of the Ballenger Creek East sector. A mixed use activity focus area is identified along the MD 85 urban corridor, extending from the I-270/MD 85 interchange to Marcie's Choice Lane. Less intensive mixed use occurs in the industrial area to the east and in the office area to the west, where the majority of new residential use is focused. Mixed use to the south of Executive Way focuses less on the introduction of residential uses and more on a compatible mixture of industrial and commercial uses. One exception is the area to the south of Executive Way that fronts New Design Road, where some residential uses are provided. A target of 4,000 dwellings is identified in Ballenger Creek East.

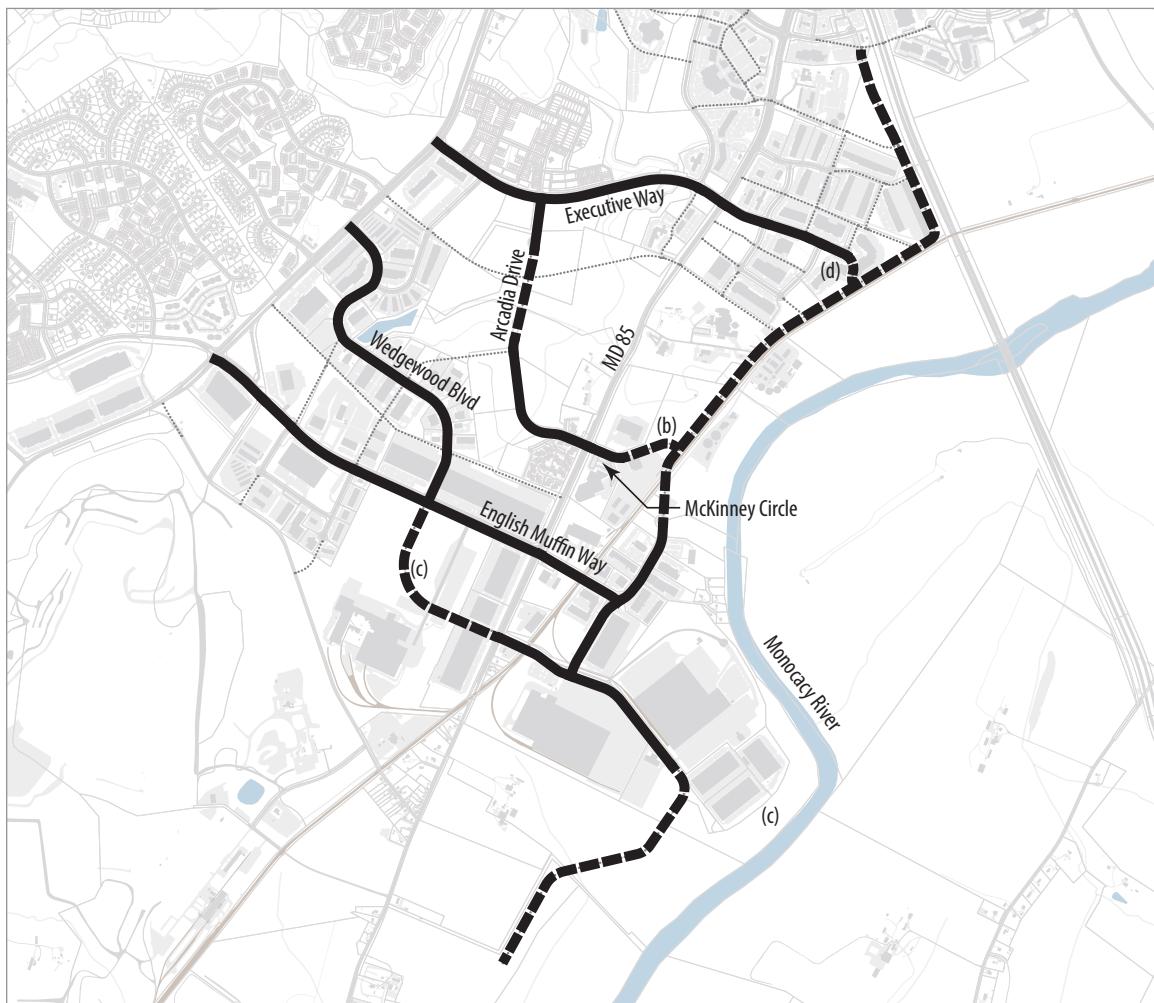
2.2.2. Infrastructure and Amenity

Infrastructure and amenity improvements recommended in the Ballenger Creek East Sector involve making the best use of existing resources and providing new features that improve the overall functioning of the present and future development of the sector. Described below are two new road features and two proposed park facilities. One road recommendation includes a major project to provide an industrial bypass of MD 85. The other is a road extension to provide additional access from the west. Two proposed areas emphasizing natural and recreational use are identified along the Monocacy River on County-owned land.

2.2.2.1. Industrial Bypass

(a) A new major road network is provided in the Ballenger Creek East sector between MD 85 and the Monocacy River. It extends the entire length of the sector, connecting to MD 85 south of Lime Kiln Road, weaving through industrial land as it heads north, and reconnecting with MD 85 just south of the MD 85/I-270 interchange.
Connectivity to the bypass is enhanced by a network of secondary roads that feed into it. First, Arcadia Drive is extended to the north to connect with Executive Way and to the east past MD 355 through McKinney Circle to connect to the bypass (b). Wedgewood Boulevard is extended east, intersecting the bypass and connecting to Dudrow Park (c). Similarly, the eastern end of Executive Way is connected to the Bypass (d).

Figure 23: Industrial Bypass



Our Economy/Strengths and Assets/Infrastructure

Transportation in Ballenger Creek East is, to some degree, impaired by an incompatible mixture of day-to-day car travel and heavy industrial trucking, especially along MD 85 as it continues north to I-270. Industrial traffic is currently concentrated along MD 85 in order to access regional destinations via the MD 85/I-270 interchange. As portions of the area redevelop into more pedestrian oriented places, and as MD 85 becomes more mixed use, walkable, and focused, this incompatibility will intensify. Therefore, identifying an alternative route for industrial traffic flow will reduce congestion and the adverse effects of industrial traffic on environmental quality for pedestrians, cyclists, and drivers along the "Central Corridor" streetscape intended for MD 85. The separation of industrial and non-industrial traffic provided by this by-pass road will deliver economic development advantages that emerge from more efficient and compatible operations, both for industrial and mixed use. The incompatibilities between residential neighborhoods and the loud and dirty factories of the past that originally motivated their separation through zoning are less relevant as a result of an evolution in limited industrial activities. The dynamics of contemporary limited industrial uses support the viability of allowing residential and commercial uses in these districts, with projects such as this Industrial Bypass serving to ensure compatible operations.

2.2.2.2. Lime Kiln Road Extension

Lime Kiln Road is extended to the north to intersect with Elmer Derr Road and Tennison Drive (a).

Our Community/Infrastructure Design/ Settlement Patterns

The Lime Kiln Road extension creates functional redundancy in the transportation system for the southern portion of Ballenger Creek East. Additionally, access is strengthened between residential development to the west of the planning area, the activity focus area along MD 85, and other destinations along the Monocacy River.

2.2.2.3. Riverfront Parks

Two riverfront parks are provided along the Monocacy River that are currently owned by Frederick County. The larger of the two parcels (a) is located adjacent to I-270 and the Monocacy National Battlefield. The other parcel (b) is located to the south of this at a bend in the Monocacy River. Access to the large lot (a) is provided by extension of Executive Way, and access to the smaller lot (b) is enhanced by the Lime Kiln Road extension. Both parcels contain portions of the proposed trail circuit and offer riverfront and trail head access while emphasizing the preservation of existing natural resources.

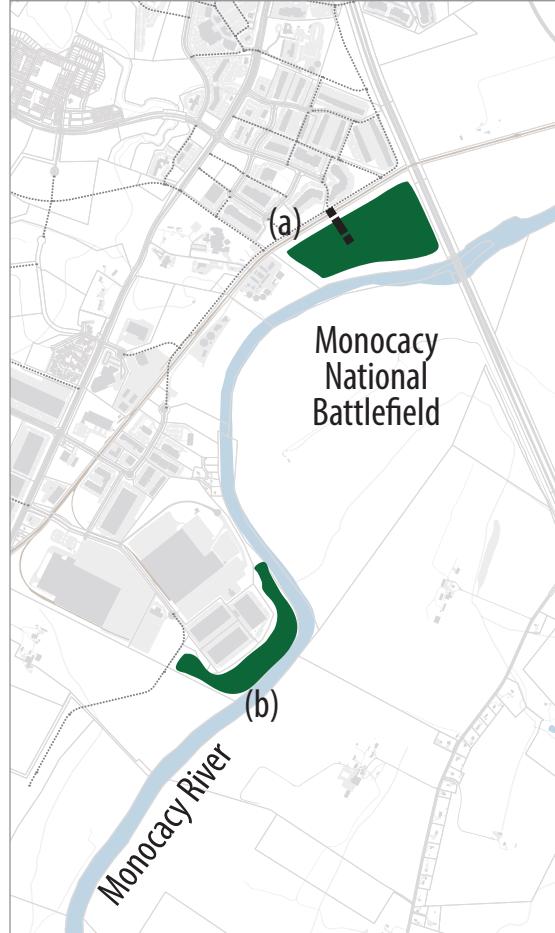
Our Health/Healthy Habitat/Active Places

The development of these riverfront parks provides an opportunity to enhance the use of Frederick County owned land as public amenities that are supportive of community health. Their development provides access to the Monocacy River and for the construction of a portion of the proposed trail circuit.

Figure 24: Lime Kiln Road Extension



Figure 25: Riverfront Parks



3. DISTRICTS

3.1. EVERGREEN POINT

The Evergreen Point District contains commercial, industrial, and office uses, and stretches from the northern edge of the Monocacy Battlefield to Interstate 70, on the east side of Interstate 270 and on the west side of the quarry. There is a small amount of riparian frontage along the Monocacy River at the southeastern corner of the district behind the existing Monocacy Station. The district contains a total land area of 1.364 square miles or 873 acres. Prior to the adoption of this plan, the land use designations in the sector include General Commercial, General Industrial, Limited Industrial, Office/Research/Industrial, Medium Density Residential, High Density Residential, Public Park/Open Space, and Office/Research/Industrial. Zoning includes Mixed Use Development, General Commercial, Limited Industrial, General Industrial, Agricultural, R-1 Low Density Residential, R-12 High Density Residential, Resource Conservation, and Institutional.

3.1.1. Use and Activities

The diversity of land uses is increased and a target of 6,000 dwellings is identified in this district. There are several locations in the Evergreen Point District where large parcel size implies that parcel assembly is a less formidable obstacle to redevelopment. These areas include, but are not limited to, the MARC owned property adjacent to the Monocacy Station, the Riverside Plaza, the Francis Scott Key Mall, the Lowes site, and the Frederick Crossing Shopping Center surrounding Guilford Manor. In addition to their parcel configuration, a high percentage of their land is used for parking lots, which presumably presents fewer obstacles to redevelopment than would land occupied by buildings.

These properties are good candidates for projects that can stimulate additional development in the surrounding area, functioning as catalysts, impelling and guiding subsequent development.¹ In this respect, development can have an urban design purpose that transcends site specific and internal challenges of function, investment, and amenity.

3.1.2. Infrastructure and Amenity

Infrastructure and amenity improvements recommended in the Evergreen Point District involve making the best use of existing resources and providing new features that improve the overall functioning of the present and future development of the district. Described below are several new road features and proposed locations for landscaped screening features to buffer adjoining land uses. One road recommendation involves enhancing access and development opportunity in the area between MD 355 and MD 85. Others focus on providing improved access to serve additional development.

3.1.2.1. Distributed Network

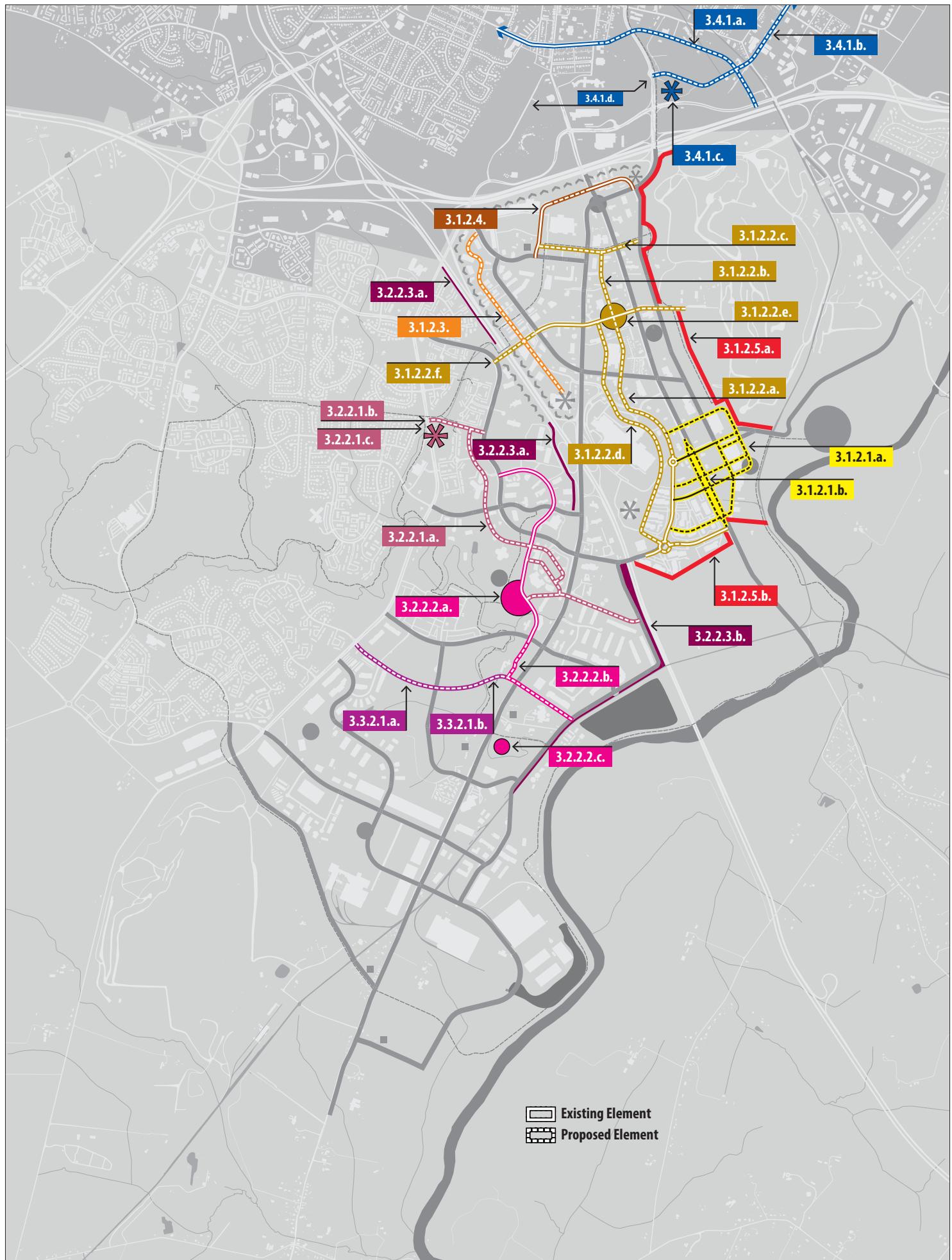
Crossings of MD 355 (a) are increased from one existing crossing at Holiday/Genstar Drive to five total crossings via three new road alignments and one road extension. Beginning from the northernmost crossing, the first new connection is achieved by upgrading and extending an existing access drive serving Riverside Plaza (a1). South of this, the existing crossing of MD355 formed by the existing alignments of Holiday and Genstar Drives is preserved and integrated into the new road network via a rectangular “roundabout.” (a2) Further south, a new crossing of MD355 is provided that connects Spectrum Drive to the east along a property line between the Sleep Inn hotel and a parking lot (a3). However travel is limited to the east of MD355 to pedestrians and bicycles only. Next, a new crossing of MD355 is provided by extending New Horizon Way to the east (a4). Finally, a new road crossing of MD355 is provided between and parallel to New Horizon Way and Technology Way extending through a parking lot and straddling a lot line to the east, extending into the Riverside Plaza parking lot on the east side of MD 355, turning north and connecting to Genstar Drive (a5). These new connections form a looping grid at a spacing of intersections that makes it pedestrian usable and transit serviceable.

(b) The central north/south alignment of MD 355 is accentuated by a distinctively wide and landscaped median, where northbound and southbound traffic along MD 355 are divided. The safety of crossing of MD 355 for pedestrians, bicycles, and vehicles is thereby increased due to shorter crossing spans and one way flow of oncoming traffic.

Our Community/Infrastructure Design/Settlement Patterns

The dispersal of traffic flow into a grid of connections between the Crestwood/Shockley thoroughfare and the proposed connection to Reichs Ford Road will distribute drive-by/walk-by exposure of property more thoroughly in the area. Taking a single, high volume road connection and spreading that traffic flow into several lower volume streets will enhance the functioning of the area as a destination rather than as a cut-through, which will be the

¹ Attoe, Wayne, and Donn Logan. *American Urban Architecture: Catalysts in the Design of Cities*. University of California Press, 1992.



a. Evergreen Point

- 3.1.2.1. Distributed Network
- 3.1.2.2. Spectrum/Grove Extensions
- 3.1.2.3. Service Corridor
- 3.1.2.4. Frederick Crossing Extension
- 3.1.2.5. Screening

b. Crestwood Corridor

- 3.2.2.1. Crestwood Connector
- 3.2.2.2. Westview Connector/Park
- 3.2.2.3. Screening

c. Lime Kiln

- 3.3.2.1. Executive Way Parallel Road

d. Brickworks Environs

- 3.4.1. Brickworks Crossing

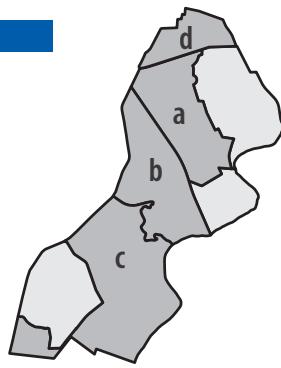
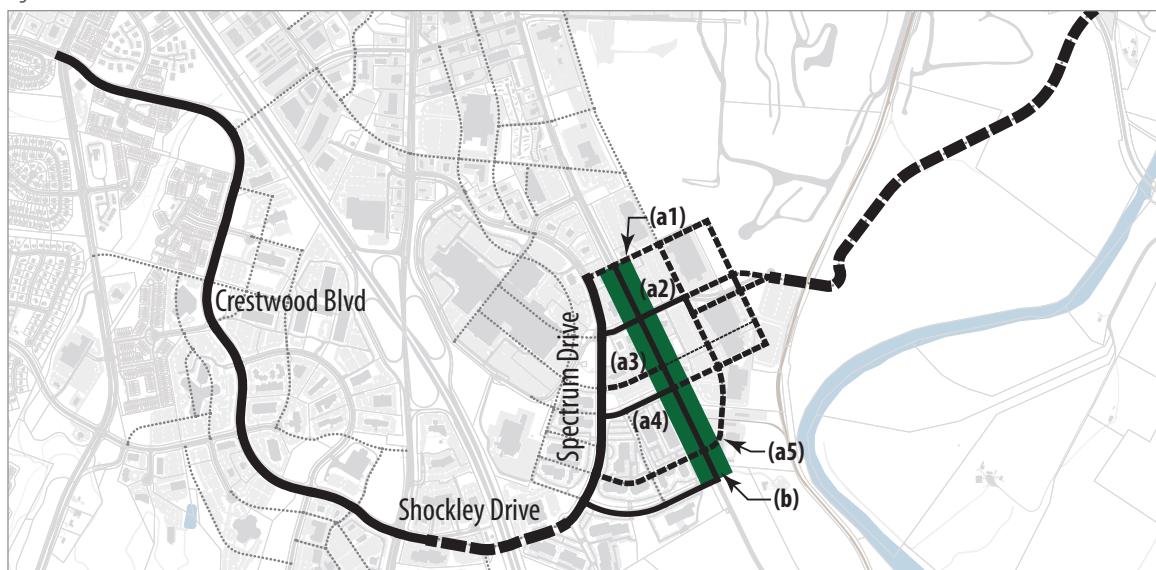


Figure 26: Distributed Network



outcome of a single, high-volume road. Effectively, distribution of traffic flow will result in a larger share of property with road frontage and therefore the opportunity for walkability and business-oriented exposure.

The necessity of providing a dispersed traffic flow through this area is reinforced by the likelihood of exacerbating existing congestion at the intersection of MD 355 and Holiday/Genstar Drive if additional interconnectivity is not provided. While the alignment of Holiday/Genstar Drive appears to be well-suited to providing necessary cross-connectivity, funneling of traffic solely along this route will be an invitation for dysfunctional blockage, while rejecting the opportunity for business exposure and multi-modal access that a distributed network will provide.

3.1.2.2. Spectrum, Grove Extensions, Grove Square

(a) The alignment of the northernmost portion of Spectrum Drive is modified to intersect with Industry Lane (extended) to the north and continue through several lots to intersect Grove Road at Grove Lane, extending Grove Lane to the north (b) to a new east/west crossing of the Evergreen Point District (c). A street that parallels the Spectrum/Grove alignment is provided (d) to distribute traffic volume, increase frontage exposure to property, and expand the opportunity for walkable street frontage. An active plaza space (e) is identified at the intersection of Grove Lane and Grove Road. In the long term, an underpass of I-270 provides access to Crestwood Boulevard to the west (f).

Our Community/Infrastructure Design/ Settlement Patterns

Some places in the Evergreen Point District will embody the action and tension found in many downtown areas. These places will focus on multi-modal transportation

Figure 27: Spectrum, Grove Extensions

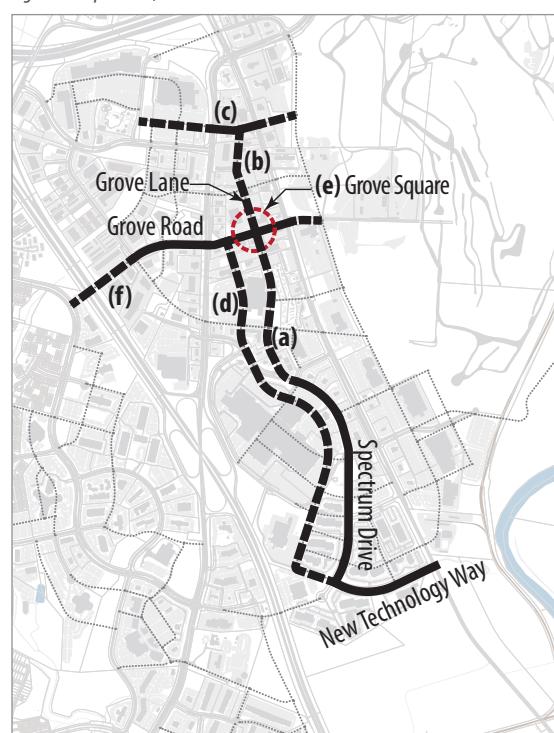


Figure 28: Grove Square



flow and will include the proposed high volume corridors of MD 85 and the residential/commercial boulevard along MD 355. However, a variety of places are needed. Therefore the Spectrum Drive and Grove Lane Extensions will embody a complementary provision of streets that emphasize casual occupancy and pedestrian flow. This flavor of place type will extend into Grove Square, providing a central point of focus and activity for the Evergreen Point District.

3.1.2.3. Service Corridor

A service alley is identified that parallels Industry Lane extended and terminates prior to intersecting with MD 85, providing industrial and service access to development between I-270 and Industry Lane.

 **Our Community/Infrastructure Operations/Safety**

 **Our Community/Infrastructure Operations/Optimization**

Provision of this Service Corridor will mitigate an incompatible mixture of day-to-day car travel and service-oriented traffic and reduce congestion and the adverse effects of service traffic on environmental quality for pedestrians and cyclists along Industry Lane. The separation of service and non-service traffic provided by this road will deliver economic development advantages that emerge from more efficient and compatible land use operations.

3.1.2.4. Frederick Crossing Extension

A new road is identified that connects Frederick Crossing Lane with MD 355, with Francis Scott Key Drive opposite this connection, providing potential bicycle and pedestrian access.

 **Our Community/Infrastructure Operations/Safety**

 **Our Community/Infrastructure Operations/Optimization**

See the discussion of road interconnectivity and functional redundancy in section 1.1.2.

3.1.2.5. Screening

Vegetative Screening is provided along the quarry (a) to create a buffer between the quarry operations and development along the Parallel Road (2.1.2.2.). Screening is also provided at the northern edge of the Monocacy National Battlefield (b) to help support the historic character and philosophical objectives related to representation of historic places embraced by the National Park Service.

 **Our Community/Infrastructure Design/Appearance**

 **Our Community/Infrastructure Design/Usability/Context Sensitive Strategies**

Screening is often used as a solution to the problem of enhancing privacy. Whether it's a biological need or a social value, privacy is essential in supporting autonomy and, by extension, our individuality. It is the right of individuals to decide what information about themselves should be communicated to others and under what conditions. It is a complex concept related to solitude, intimacy, anonymity, and identity, involving a wide range of situations and contexts.

¹ Characteristics of the built environment play an important role within this myriad of complexities, with screening functioning as one important element supporting the need to be free from observation by outsiders.

The built environment in Frederick County often fails to support this need. It is common to see lines of houses

Figure 29: Service Corridor and Frederick Crossing Lane

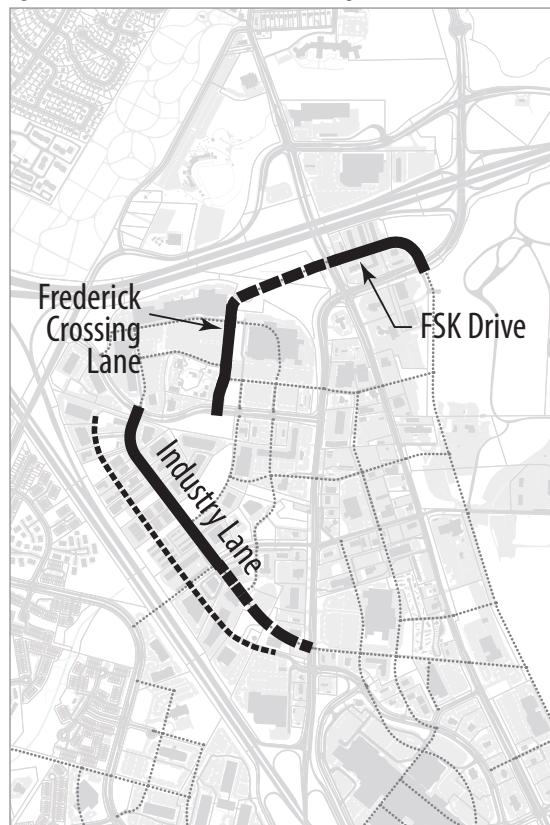
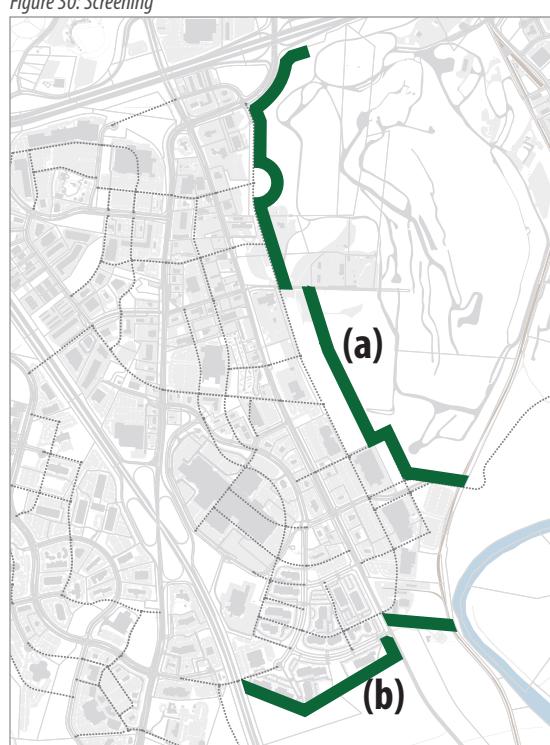


Figure 30: Screening



¹ "Privacy as a Behavioral Concept," Leon A. Pastalan, Social Science magazine, April 1970

with backyards facing busy public roads, offering passersby a view into the private lives of occupants. It is a situation akin to wearing underwear on the outside of clothing, putting on full public display what should be private. In some cases, ample screening helps mitigate this problem, but this is a solution best applied to situations where access between land uses and public roads is infeasible, such as the mixed use and residential uses that will front I-270.

Our Community/Preservation/Protecting Resources

Screening is often an important factor in supporting an aesthetic or cultural mandate, as is often the case when preservation of historic resources is concerned. The U.S. Department of the Interior National Park Service Technical Preservation Services has produced preservation recommendations for historic properties, described in a document titled "Standards for the Treatment of Historic Properties." These recommendations address not only structures but also the historic relationship between structures and their setting. One such recommendation is stated as follows: "Identifying, retaining, and preserving building and landscape features that are important in defining the overall historic features in the setting. Such features can include circulation systems, such as roads and streets; furnishings and fixtures, such as light posts or benches; vegetation, gardens and yards; adjacent open space, such as fields, parks, commons, or woodlands; and important views or visual relationships." Given that the land area directly to the north of the Monocacy National Battlefield is identified for highly focused development, screening is an important aspect of supporting the Interior Department recommendations. While screening clearly does not replicate the setting as it existed during the occurrence of the historically important events, it can reduce the perception of historically uncontemporaneous features from the Battlefield, which is believed to support a more immersive narrative and better approximate an historic time and place.

3.2. CRESTWOOD CORRIDOR

The Crestwood Corridor District contains residential, commercial, industrial, and office uses, and is located within a triangle of land formed by I-270, New Design Road, and roughly, Ballenger Creek. There is a small amount of riparian frontage along the Monocacy River at the southeastern corner of the district behind existing industrial uses. There is also a significant amount of riparian land along Ballenger Creek. The district contains a total land area of 1.396 square miles or 894 acres. Prior to the adoption of this plan, the land use designations in the sector include General Commercial, Limited Industrial, Office/Research/Industrial, Medium Density Residential, High Density Residential, Institutional, Public Park/Open Space, and Natural Resources. Zoning includes Mixed Use Development, General Commercial, Limited Industrial, R-8 Medium Density Residential, R-12 High Density Residential, Resource Conservation, Planned Unit Development, and Agricultural.

3.2.1. Use and Activities

The diversity of land uses is increased, and of the 4,000 dwellings indicated above for the Ballenger Creek East sector, a target of 3,200 dwellings is identified in the Crestwood Corridor district. A high percentage of the land within the Crestwood Corridor is used for parking lots, which presumably presents fewer obstacles to redevelopment than would land occupied by buildings. These properties are good candidates for projects that can stimulate additional development in the surrounding area, where developments function as catalysts, impelling and guiding subsequent development. In this respect, development can have an urban design purpose that transcends internal challenges related to function, investment, and amenity.

Specifically, the existing office development to the west of MD 85 and I-270 will undergo a transition to a mixed used format that introduces residential development, providing a transitional zone between the dedicated residential land to the west and a commercial mixed use emphasis along MD 85. Similarly, the low slung warehouse development to the east of MD 85 presents opportunity for the introduction of residential uses, given the generally quieter setting. Both of these areas currently suffer from partial day occupancy, where most activity occurs during the workday and very little in the evening and on weekends. Introduction of residential development will create full day usage of the infrastructure and amenities already provided in the area while diminishing adverse usage conditions by virtue of time separated occupancy.

3.2.2. Infrastructure and Amenity

Infrastructure and amenity improvements recommended in the Crestwood Corridor District involve making the best use of existing resources and providing new features that improve the overall functioning of the present and future development of the district. Described below are several new road features and proposed locations for landscaped screening features to buffer adjoining land uses. Road recommendations involve enhancing access and development opportunity in the district.

3.2.2.1. Crestwood Connector

(a) A road is provided that parallels Crestwood Boulevard and extends into the Westview Promenade. The northern terminus of this road intersects a new crossing (b) that provides direct access between the Westview Fire Station (c) and land on the east of Crestwood Boulevard.

Our Community/Infrastructure Design/ Settlement Patterns

See the discussion of road interconnectivity and functional redundancy in section 1.1.2.

3.2.2.2. Westview Connector and Community Park

(a) A community park serving existing commercial and new residential development to the north and east is provided along Westview Drive at Ballenger Creek. The park provides access to the Ballenger Creek Trail and larger trail circuit. The continuation of Westview Drive to the south and to the east across MD 85 provides direct connectivity to Monocacy River Park, enhancing park connectivity (b). A new neighborhood park is provided along Ballenger Creek to the east of MD85 (c).

Our Community/Infrastructure Design/ Settlement Patterns

See the discussion of road interconnectivity and functional redundancy in section 1.1.2.

Our Health/Healthy Choices/Active Lifestyles

While the Ballenger Creek Trail and associated open space, as well as the proposed trail circuit, provide access to recreational amenities, increasing access to park facilities will further enhance the ability of residents to exercise and live healthier lifestyles. While the Ballenger Creek Park is nearby, it is not within a reasonable pedestrian accessible radius of new residential development within the Crestwood Corridor. A new park facility, with scale appropriate programming, will provide better access to recreational amenities for the future resident population.

3.2.2.3. Screening

Vegetative Screening is provided along I-270 (a) to create a buffer between the residential and mixed use development and the heavily travelled interstate highway. Screening is also provided at the western edge of the Monocacy National Battlefield (b) to help support the historic character and philosophical objectives related to representation of historic places embraced by the National Park Service.

Our Community/Infrastructure Design/ Appearance

Our Community/Infrastructure Design/ Usability/Context Sensitive Strategies

Our Community/Preservation/Protecting Resources

See the discussion of screening at section 3.2.1.5.

Figure 31: Crestwood Connector

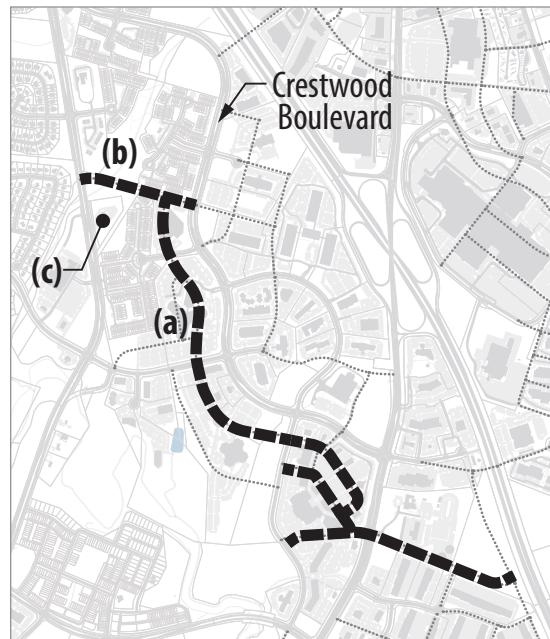


Figure 32: Westview Connector and Community Park

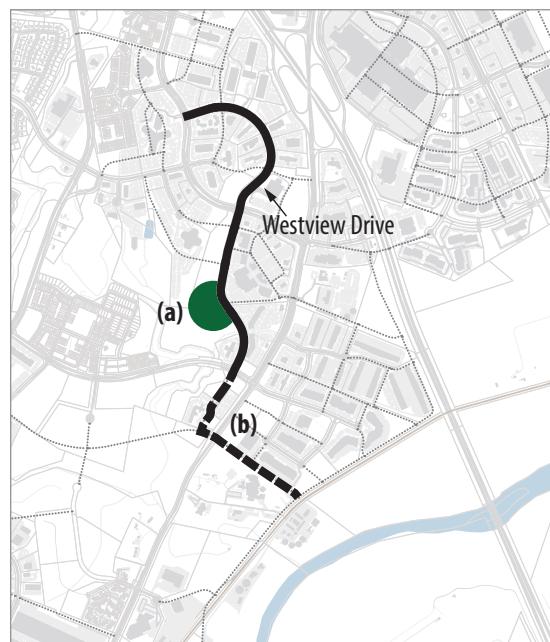
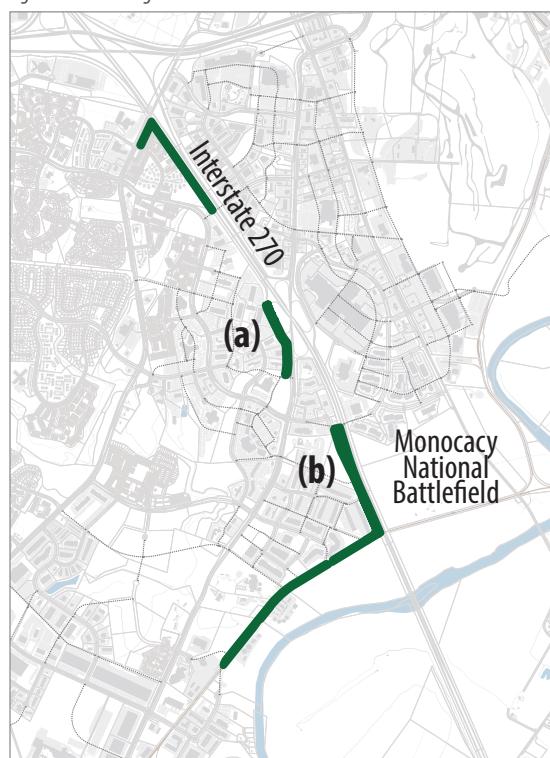


Figure 33: Screening



3.3. LIME KILN

The Lime Kiln District contains industrial, and some residential use. It is bordered on the north by the Ballenger Creek (with the exception of the Westview South residential subdivision), on the west by New Design Road, and on the east by the Monocacy River, containing a significant amount of riparian frontage. There is also a significant amount of riparian land along Ballenger Creek. To the south, the district transitions to a rural form of development. The district contains a total land area of 2.256 square miles or 1,444 acres. Prior to the adoption of this plan, the land use designations in the district include Limited Industrial, Office/Research/Industrial, Medium Density Residential, Rural Residential, General Commercial, Institutional, Public Park/Open Space, and Natural Resources. Zoning includes Mixed Use Development, General Commercial, Limited Industrial, General Industrial, Mineral Mining, Resource Conservation, Planned Unit Development, R-1 Low Density Residential, Institutional, and Agricultural/Rural.

3.3.1. Use and Activities

The majority of land in the Lime Kiln District is used for industrial purposes, with several exceptions. One is Arcadia, a historic property listed on the National Register of Historic Places. Another is Countryside, a small residential subdivision just to the south of Arcadia. The presence of a single residential subdivision in this predominantly industrial district is incongruous relative to conventional Euclidean zoning practices. However, as this district transitions to a more varied mixture of uses, this incongruity decreases. While residential development is not emphasized in this district, it is also not excluded. In fact, a share of this district's residential allocation is targeted along the western edge of the district to provide a transitional area, rather than a hard edge, between more homogenous residential use to the west and industrial to the east. In addition, a greater mix of commercial and industrial is provided in the entirety of the Lime Kiln District. Of the 4,000 dwellings indicated for the Ballenger Creek East sector, 800 are allocated in the Lime Kiln district.

Combining industrial and residential uses in the same neighborhood may require a more diverse consideration of regulatory options. Performance standards provide methods of regulating the design and location of development based on factors that relate directly to the site and the specific effects of the development on its neighborhood. It is a system of reviewing development based on impact rather than compliance. This can encompass quantifiable factors, such as noise, as well as qualitative factors.

3.3.2. Infrastructure and Amenity

Infrastructure and amenity improvements recommended in the Lime Kiln District involve making the best use of existing resources and providing new features that improve the overall functioning of the present and future development of the district. The road recommendations described below involve enhancing access and development opportunity in the district.

3.3.2.1. Executive Way Parallel Road

(a) A road is provided that parallels Executive Way extending to the Industrial Bypass, increasing the interconnection of New Design Road and Maryland 85 and improving flow to the Bypass. A connection across Ballenger Creek to Westview Drive (b) provides improved access between the Crestwood Corridor and Lime Kiln districts.

Our Community/Infrastructure Design/Settlement Patterns

See the discussion of road interconnectivity and functional redundancy in section 1.1.2.

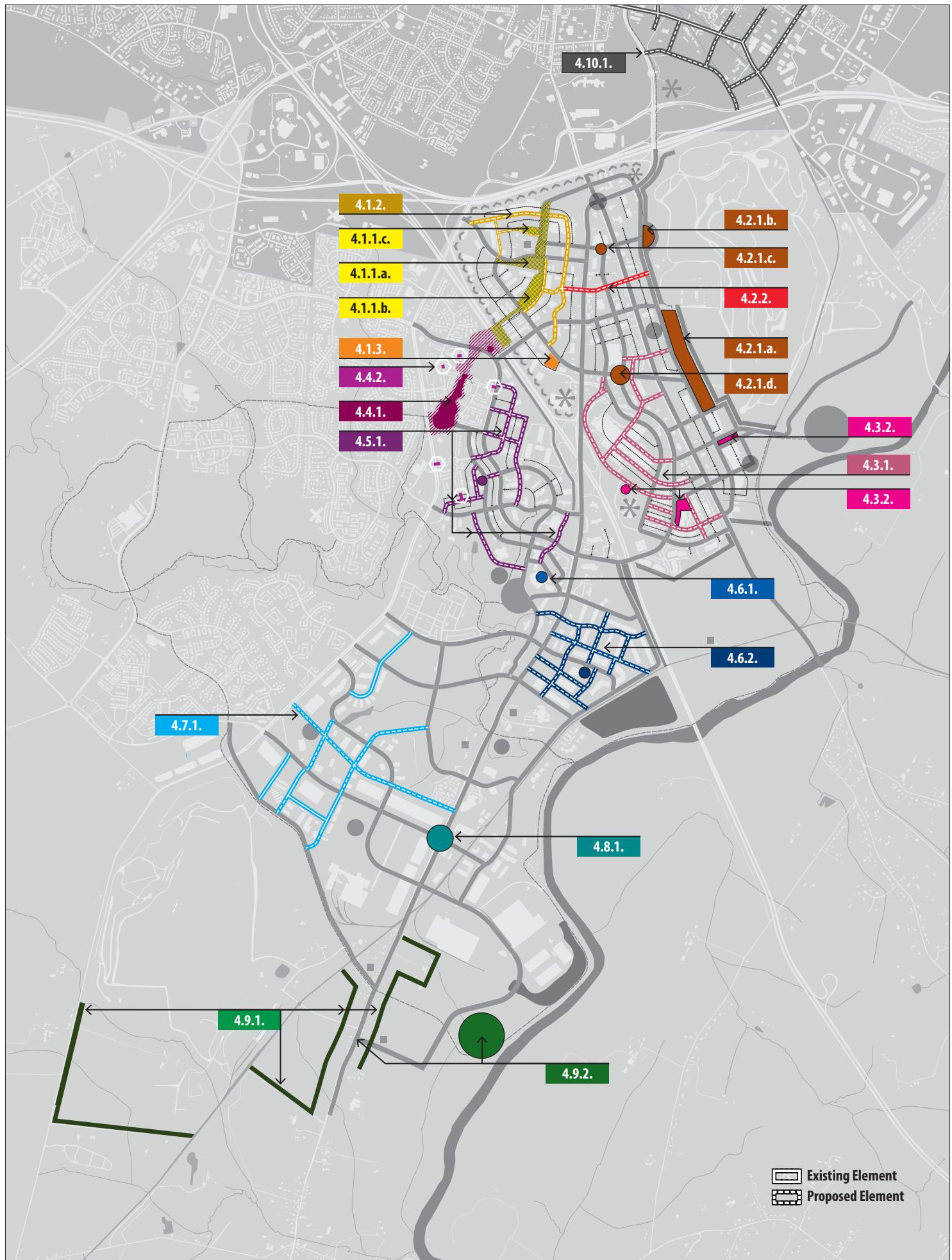
3.4. BRICKWORKS ENVIRONS

3.4.1. Brickworks Crossing

A new crossing extends from the existing roundabout at South East Street, continuing east parallel to Monocacy Boulevard to intersect with another new connection (a). A new connection heads north to Monroe Avenue/Hughes Ford Road to the airport vicinity (b). A new major regional landmark building is located in the northeast quadrant of Monocacy Boulevard and South East Street (c). A desire line of connectivity, with no or heavily mitigated vehicular presence, is identified that can provide pedestrian, bicycle, and public transit access (d).

Our Community/Infrastructure Design/Settlement Patterns

See the discussion of road interconnectivity and functional redundancy in section 1.1.2.



MAP 06: LEVEL 4 - SUBDISTRICTS

a. Guilford Park

4.1.1. Green Spine: Guilford

4.1.2. Guilford Connectors

4.1.3. Water Tower Park

b. Grove Square

4.2.1. Parks and Plazas

4.2.2. Park Connector

c. Monocacy Square

4.3.1. FSK Block Pattern

4.3.2. Parks and Plazas

d. Arundel Park

4.4.1. Green Spine: Arundel

4.4.2. Cross Parcel Connections

e. Central Crescent

4.5.1. Road Network & Park

f. Westview

4.6.1. Westview Promenade

4.6.2. Road Network & Park

g. West Bend

4.7.1. Road Network

h. Industry Square

4.8.1. Plaza and Connectivity

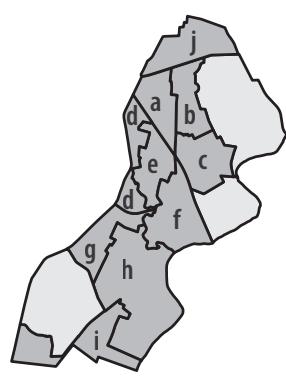
i. Buckeyestown Buffer

4.9.1. Screening & Setback

4.9.2. Connectivity & Parkland

j. Brickworks Environs

4.10.1. Road Network



4. SUBDISTRICTS

Throughout all of the subdistricts described herein, transportation connections are shown where there are opportunities to provide functional redundancy to the transportation system by increasing the integration and interconnectivity of the road network. These connections are identified at gaps between buildings, along parcels boundaries, or along existing drives or access lanes where a new road alignment strongly suggests connectivity opportunities or lies along desire lines of interconnectivity. These links are essential aspects of an integrated and interconnected transportation network, inherently improving circulation by distributing load and increasing the availability of direct routes between varied origins and destinations.

Similarly, drive aisles or alleys are shown throughout the subdistricts in locations where vehicular access to lots is limited along other roads. These drive aisles/alleys provide cross-parcel coordination for the kind of site access that is conventionally provided in development, but often in the form of parking lot drive aisles that do not interconnect with adjoining parcels.

Finally, throughout all subdistricts, parks or plazas are provided such that their distribution and frequency enables easy access through proximity. In the Evergreen Point District, a proximity target of $\frac{1}{4}$ mile from any point is used, while in Ballenger Creek East a proximity target of $\frac{1}{2}$ mile is used.

4.1. GUILFORD PARK

The Guilford Park subdistrict will absorb a target of 1,800 dwellings. As arguably the most exposed location in the planning area, being bordered on all three sides by major thoroughfares, a significant challenge involves supporting residential use by providing places that offer a kind refuge from this exposure. As such, development along the exposed edges of I-270, I-70, and MD 85 (see 2.1.2.5.d.) is commercially oriented and physically taller and tighter, simultaneously capitalizing on the high-visibility of these locations while also providing a buffer for land that is more internal to the subdistrict. This internal land thereby becomes an enclave, more suitable for a mixture of uses that includes residential.

4.1.1. Green Spine: Guilford

A “green spine” (a) is provided within this internal portion of the subdistrict that includes the existing Guilford Manor site and redeveloped stormwater facilities. Along these existing stormwater facilities, an integrated landscape of vegetation, pathways, and open fields is provided in a manner that combines stormwater management requirements for the district with park amenities. A centerpiece of this spine is the Guilford Park (b), with an additional park located along Frederick Crossing (c).

 *Our Health/Healthy Choices/Active Lifestyles*

 *Our Economy/Strengths and Assets/Infrastructure*

Increasing access to park facilities enhances the ability of residents to exercise and live healthier lifestyles. While the Ballenger Creek Park is nearby, it is not within a reasonable pedestrian-accessible radius of new residential development within Guilford Park. New park facilities and open space, with scale appropriate programming, will provide better access to recreational amenities for the future resident population.

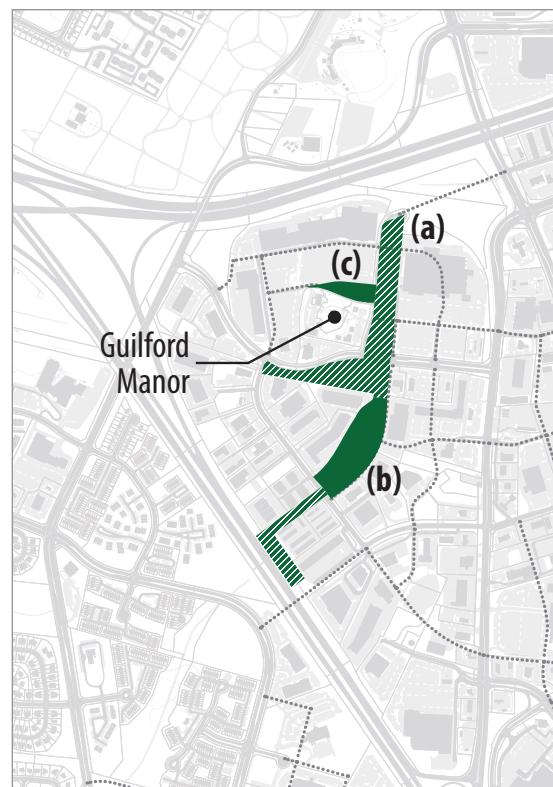


Figure 34: Guilford Green Spine

4.1.2. Guilford Connectors

A set of roads at the scale of the subdistrict and smaller are provided. Congestion on MD 85 is reduced through the provision of a parallel road that turns to the west into the Frederick Crossing shopping center. Other roads are provided to enhance access.

Our Community/Infrastructure Design/Settlement Patterns

See the discussion of road interconnectivity and functional redundancy in section 1.1.2.

4.1.3. Water Tower Park

At the topographic high point of the subdistrict where broad views of the surrounding county can be attained, a park is provided that combines the existing water tower with passive recreation use.

Our Health/Healthy Choices/Active Lifestyles

Our Health/Healthy Habitat/Environmental Greening

Our Economy/Strengths and Assets/Infrastructure

Increasing access to park facilities enhances the ability of residents to exercise and live healthier lifestyles. While the Ballenger Creek Park is nearby, it is not within a reasonable pedestrian accessible radius of new residential development within Guilford Park. New park facilities and open space, with scale appropriate programming, will provide better access to recreational amenities for the future resident population. This location boasts excellent views of the surrounding county and public access to this location will serve as an important attraction.

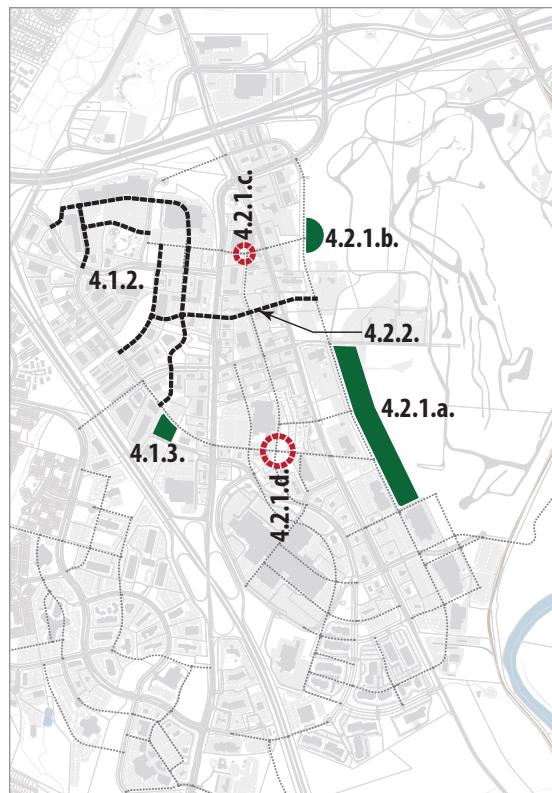


Figure 35: Guilford Connectors, Parks, and Plazas

4.2. GROVE SQUARE

The Grove Square subdistrict will absorb a target of 1,500 dwellings. In a manner similar to the buffering strategy described in the Guilford Park subdistrict, residential uses are located along Grove Lane and the extended Spectrum Drive, as well as along the new Parallel Road fronting the existing quarry. Implementation of residential uses along the quarry are considered longer term due to current operations.

4.2.1. Parks and Plazas

Two parks are provided within the screening along the quarry. The first is adjacent to the proposed elementary school and provides facilities to be shared between the local community and the school (a). The second is a small neighborhood park at the terminus of the new east/west local road and where the multi-use path splits off to the west (b). A plaza is provided at the intersection of Grove Lane and the new east/west local road (c). A more significant public space is provided at the southern terminus of Grove Lane (d) where it intersects with extended Industry Lane. An existing stormwater detention basin is integrated into a plaza and public space feature at this location.

Our Health/Healthy Choices/Active Lifestyles

Our Economy/Strengths and Assets/Infrastructure

Increasing access to park facilities enhances the ability of residents to exercise and live healthier lifestyles. While the Ballenger Creek Park is nearby, it is not within a reasonable pedestrian accessible radius of new residential development within Grove Square. New park facilities and open space, with scale appropriate programming, will provide better access to recreational amenities for the future resident population.

4.2.2. Park Connector

A new connection between MD 85 and MD 355 is provided that creates enhanced accessibility to the Guilford Park across the planning area.

Our Community/Infrastructure Design/Settlement Patterns

See the discussion of road interconnectivity and functional redundancy in section 1.1.2.

4.3. MONOCACY SQUARE

The Monocacy Square subdistrict will absorb a target of 2,700 dwellings. The locational attributes of the subdistrict support a higher volume of dwellings because of proximity to the Monocacy Station, supporting the mutual benefits of increased ridership and improved access for residents. Additionally, natural, undeveloped land to the east at the Monocacy River and preserved open space to the south at the Monocacy National Battlefield result in minimal exposure to residentially adverse conditions. The existing Francis Scott Key Mall (FSK) site is a focus of potential mixed use redevelopment, with additional emphasis and intensity near the existing train station.

4.3.1. FSK Block Pattern

The pattern of blocks on the FSK site is oriented toward the Monocacy Station, leveraging use and ridership of transit by virtue of providing a resident population and a layout of streets that facilitates access.

Our Community/Infrastructure Design/ Settlement Patterns

Aside from the fundamental rationale related to road interconnectivity and functional redundancy, as discussed in section 1.1.2, studies have shown that there is a positive relationship between the quality and coherence of the built environment and transit ridership.¹ In other words, if streets are more walkable and provide more direct connections to transit, then there is a measurable increase in transit ridership relative to streets that are less walkable and less direct.

4.3.2. Parks and Plazas

Three park or plaza spaces are evenly distributed throughout the subdistrict.

Our Health/Healthy Choices/Active Lifestyles

Our Economy/Strengths and Assets/ Infrastructure

Increasing access to park facilities enhances the ability of residents to exercise and live healthier lifestyles. While the Ballenger Creek Park is nearby, it is not within a reasonable pedestrian accessible radius of new residential development within Monocacy Square. New park facilities and open space, with scale appropriate programming, will provide better access to recreational amenities for the future resident population.

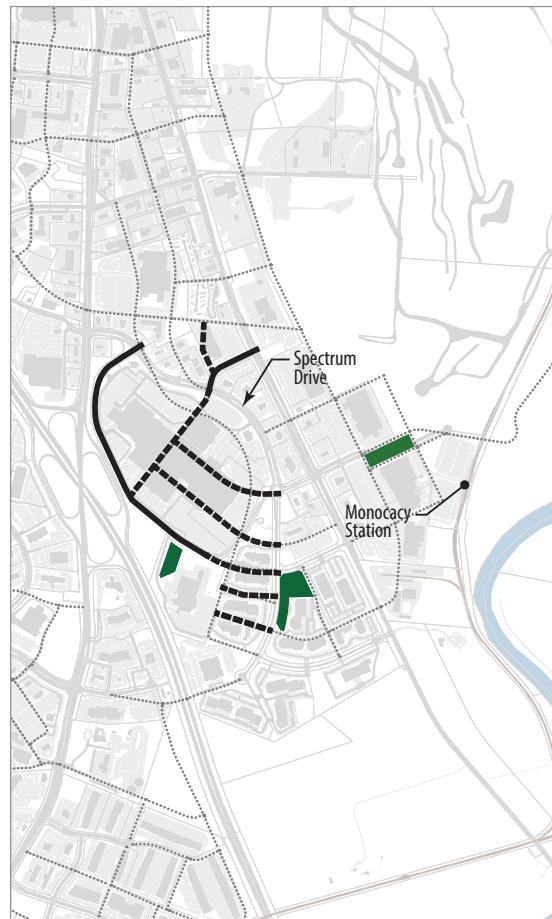


Figure 36: FSK Block Pattern, Parks, and Plazas

4.4. ARUNDEL PARK

The Arundel Park subdistrict includes the Foxcroft, Stonebridge, and West Park subdivisions, as well as the Westview South subdivision south of Ballenger Creek. No additional dwellings are targeted for this subdistrict.

4.4.1. Green Spine: Arundel

The existing open space within the Stonebridge subdivision along the Arundel Branch provides amenity for existing residents and will become a distinct place along the larger trail circuit described previously. The border of this residential area with I-270 is supplied with ample screening.

Our Health/Healthy Choices/Active Lifestyles

Our Economy/Strengths and Assets/Infrastructure

Increasing access to park facilities enhances the ability of residents to exercise and live healthier lifestyles. While the Ballenger Creek Park is nearby, it is not within a reasonable pedestrian accessible radius of new residential development within the Arundel Park subdistrict. New park facilities and open space, with scale appropriate programming, will provide better access to recreational amenities for the future resident population.

¹ "Pedestrian Environments and Transit Ridership," Sherry Ryan, Ph.D., San Diego State University, Lawrence F. Frank, Ph.D., AICP, ASLA, University of British Columbia, *Journal of Public Transportation*, Vol. 12, No. 1, 2009

4.4.2. Cross Parcel Connections

Existing development improves the functional accessibility of the internal transportation network by providing a number of interconnections, typically serving pedestrian and bicycle movement, with potential vehicle access as well. These are provided where roads align and abut but do not interconnect, and generally continue to prevent automobile passage.

Our Community/Infrastructure Design/Settlement Patterns

See the discussion of road interconnectivity and functional redundancy in section 1.1.2.

4.5. CENTRAL CRESCENT

The Central Crescent subdistrict will absorb a target of 1,440 dwellings. Existing office development to the west of MD 85 and I-270 converts to a mixed used format that introduces residential development, providing a transitional zone between the dedicated residential land to the west and a commercial mixed use emphasis along MD 85. Infrastructure use and efficiency is maximized by decreasing partial day occupancy, and creating full day usage of the area. The border of this area with I-270 is supplied with ample screening.

4.5.1. Road Network and Neighborhood Park

An integrated and interconnected road network is provided, supporting a walkable, mixed use setting and the overall functioning of the area. A centrally located neighborhood park is provided.

As redevelopment occurs and more focused land use emerges, the functionality and effectiveness of circulation networks depends on the integration of local connections with district connections. Many problems, described previously herein, result when local streets are poorly integrated into a larger network. Waiting for site development to identify desirable connections is ineffective. Rather, identifying a local grid prior to site development is an essential step in ensuring this integration occurs.

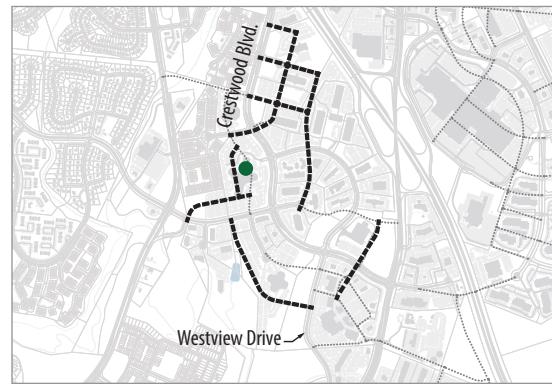


Figure 37: Central Crescent Local Roads

4.6. WESTVIEW

The Westview subdistrict will absorb a target of 1,760 dwellings. This is concentrated in the vicinity of the low slung warehouse development to the east of MD 85, given the generally quieter setting. Residential use will also be integrated into the MD 85 commercial spine. Infrastructure use and efficiency is maximized by decreasing partial day occupancy and creating full day usage of the area. The border of this area with I-270 is supplied with ample screening.

4.6.1. Westview Promenade

The existing Westview Promenade continues to serve as a plaza, surrounded by a mix of residential, retail, and office uses.

Our Economy/Strengths and Assets/Infrastructure

Attractive places are key pieces of ensuring that employers and residents support long term investment in communities, either through locating businesses or through purchasing homes.

4.6.2. Road Network and Neighborhood Park

An interconnected network of roads is created in the industrial land to the east of MD 85. A neighborhood park is provided.

Our Community/Infrastructure Design/Settlement Patterns

See the discussion of road interconnectivity and functional redundancy in section 1.1.2. as well as the need to provide pre-site development local network allocations as discussed in 4.4.2.

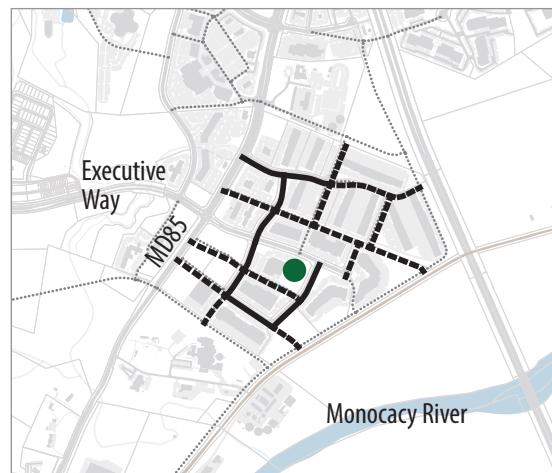


Figure 38: Westview Local Roads

4.7. WEST BEND

The West Bend subdistrict will absorb a target of 400 dwellings. While use mixture in this subdistrict emphasizes combined commerce and industry, West Bend provides residential as a transition between land uses to the west and east.

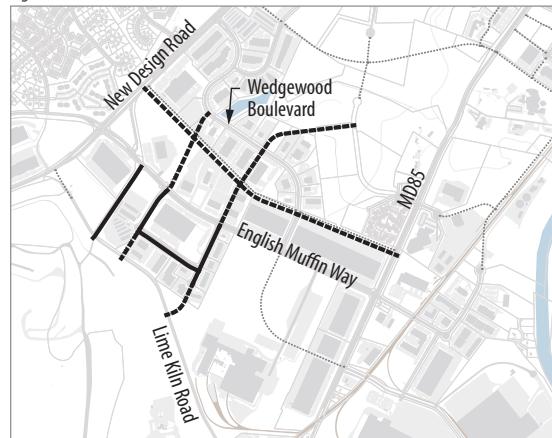
4.7.1. Road Network

A variety of new road connections are provided: one that parallels Executive Way and two that build out an interconnected grid network.

Ⓐ Our Community/Infrastructure Design/ Settlement Patterns

See the discussion of road interconnectivity and functional redundancy in section 1.1.2. as well as the need to provide pre-site development local network allocations as discussed in 4.4.2.

Figure 39: West Bend Local Roads



4.8. INDUSTRY SQUARE

The Industry Square subdistrict will absorb a target of 400 dwellings. While residential development is not emphasized in this district, it is also not excluded. A greater mix of commercial and industrial is provided in the entirety of the Lime Kiln District.

4.8.1. Plaza and Connectivity

The intersection of English Muffin Way and MD 85 contains a plaza feature (a) to provide a central focal point for the area. Commercial and residential uses are emphasized at this location. New road connections are provided to improve connectivity.

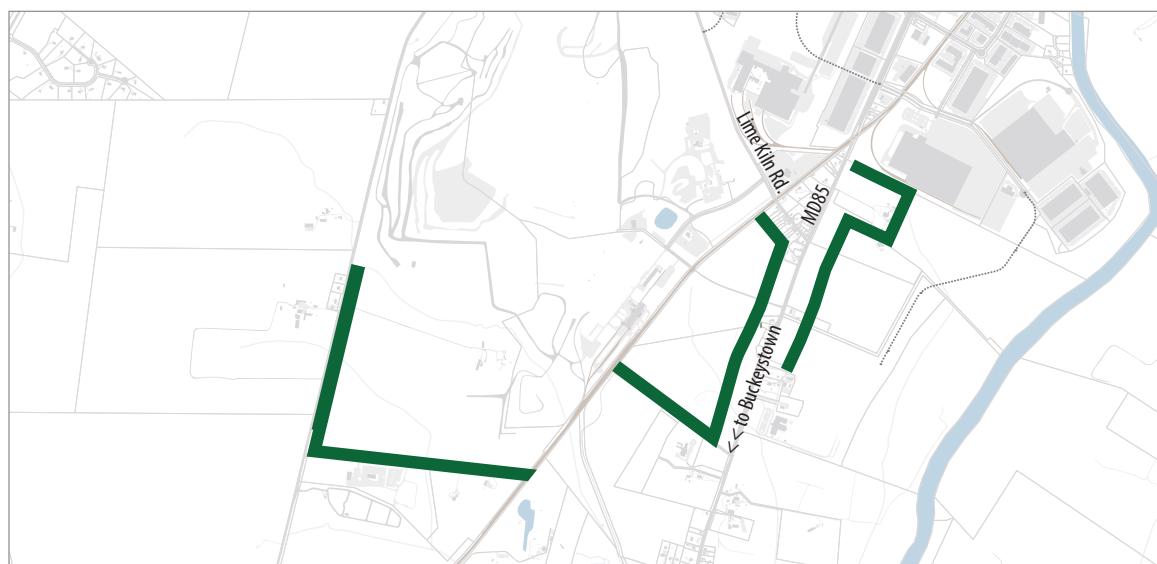
4.9. BUCKEYSTOWN BUFFER

The Buckeystown Buffer subdistrict maintains a rural and pastoral setting in order to preserve the experience and character of entering the historic village of Buckeystown to the south. No new dwellings are targeted for this subdistrict, other than what can be supported by the Agricultural zoning district. The existing “flavor” of land uses in this area continues.

4.9.1. Screening and Setback

Mixed and industrial uses to the east and west of MD 85 are visually obstructed from view by ample natural screening that is set back from MD 85 to buffer the adjacent mining and industrial uses and thereby help support the rural character in the area north of Buckeystown.

Figure 40: Screening and Intersections



Ⓐ Our Community/Infrastructure Design/Appearance

Ⓐ Our Community/Infrastructure Design/Usability/Context Sensitive Strategies

● Our Community/Preservation/Protecting Resources

Buckeystown is a place that has cultural value to the County because of its history and unique character. While the architecture and layout of the town is a big part of this, its rural context is also important. Therefore, the purpose of the Buckeystown Buffer subdistrict is to maintain the rural context leading into Buckeystown from the north.

An ample buffer composed of both a setback and screening is essential because preserving rural character requires a sense of openness as well as a view of natural features. If the goal was solely to obstruct the view of industrial uses, then screening would suffice and the edges of the MD85 could be densely planted with trees. However, creating a rural character requires the sense of openness that a setback may provide.

The proposed buffer will help balance the goals of preserving the rural character of MD85 leading into Buckeystown while also expanding industrial land to the south. This buffer is composed of a 300' setback followed by a 100' deep strip of screening to visually obstruct the sight of industrial uses to the east and west of MD85. The east side of the northern portion of MD85 contains a larger setback in order to include a historic manor house and property within the buffer.

4.9.2. Connectivity and Parkland

Roads that intersect with MD 85 are minimized. Dudrow Park is extended along the Monocacy River.

 *Our Community/Infrastructure Design/Usability/Context Sensitive Strategies*

 *Our Community/Preservation/Protecting Resources*

New road connections to MD85 within this subdistrict are minimal. While a primary objective in this plan is to build out a fully integrated, interconnected, and functional road system, this strategy is less applicable within this specific subdistrict, as justified by the combined influence of several factors.

First, proposing new road intersections onto MD85 would work against the preservation of the rural character of the buffer. Rather, the traffic load of any new industrial development should be directed away from MD85. This would effectively reinforce the ability of MD85 to continue to be developed in a more rural form, making direct access to frontage uses more feasible.

Second, as one of the only locations in the planning area where rural land could undergo conversion to urban land, there is not a pre-existing yet incomplete road network where implied connectivity could be realized, as is the case in the remainder of the planning area. Under normal circumstances, this would not suggest a lighter emphasis on interconnectivity. However, less interconnectivity may be logical when considered in combination with the need to accommodate large format buildings and with the third factor described in the following paragraph.

Third, this specific location is an access island. It is contained by the Monocacy River on the east, the rural buffer on the west, and Buckeystown to the south. Therefore, an interconnected road network in this portion of the plan would result in an isolated pod of interconnectivity without serving the larger functional goal of creating a network of roads within the broader context, while also potentially inhibiting the ability to develop the land if zoned Limited Industrial in the future.

Given the expectation that the industrially designated area may develop in the near term, there's an opportunity to work with development partners to include the significant amount of floodplain on the east side of the proposed industrial area into a larger nature park amenity, effectively expanding a potential nature park on the County-owned Dudrow property. This would leverage the County's interest in the construction of the proposed access road by creating a more direct connection between existing residential development to the northwest and this proposed extended nature park area.

4.10. BRICKWORKS ENVIRONS

4.10.1. Road Network

A variety of new road connections are provided in a format that integrates the new road network with the pattern established by the existing road network. As such, new roads are oriented to run parallel to South Street, with cross roads aligned with existing city streets, thereby building out the existing implied grid network.

 *Our Community/Infrastructure Design/Settlement Patterns*

See the discussion of road interconnectivity and functional redundancy in section 1.1.2.

COMPREHENSIVE PLAN MAP

FORM DESIGNATIONS

The following maps illustrate revisions to the Comprehensive Plan Map for the extent of the South Frederick Corridors Planning Area. Comprehensive plans in Frederick County have identified different kinds of *use designations* on land that influence the application of future regulatory zoning districts. For example, a Low Density Residential use designation corresponds to R-1 or R-3 residential zoning. Similarly, this plan identifies form designations for land that will influence the application of zoning regulations. While use designations do not exclude aspects of physical form, and form designations do not exclude aspects of use, the difference between them is one of emphasis. Stated simply, use designations focus on use while form designations focus on form. Both, however, are designations employed on the Comprehensive Plan Map. However, land will only be designated one or the other, either use or form, not both. The following is a description of form designations applied in this plan. A description of use designations can be found in the Comprehensive Plan Map section of the Livable Frederick Master Plan.

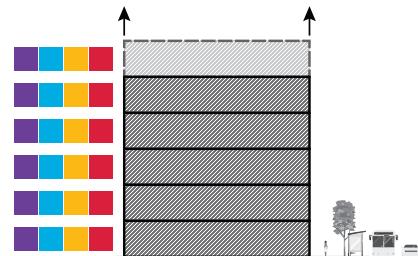
Urban Skyline - US

The Urban Skyline designation is applied in locations where visibility and exposure to surroundings provides advantageous conditions for groups of taller buildings to form iconic, place-identifying features in the larger geographic area.

General Character: at street level, buildings in this designation may or may not be pedestrian oriented, depending on their immediate surroundings.

Building Placement: buildings oriented to most visible portions of the surroundings and wider context.

Typical Building Height: 5+ stories.



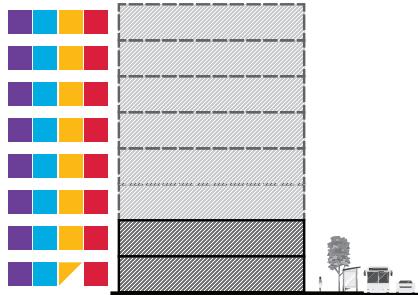
Urban Corridor/Center - UC/C

The Urban Corridor/Center mixed-use designation is intended to preserve and encourage pedestrian-oriented development along major transportation corridors and centers. It consists of higher density mixed-use buildings that accommodate retail, offices, and a wide variety of multi-family housing types, often with buildings that combine two or more of these uses. It has wide sidewalks, regular and consistent street planting, and buildings set close to the sidewalks.

General Character: shops mixed with multi-family housing, offices, and civic buildings; predominantly attached buildings; no ground floor residential at street frontage; regular street trees and landscaping; substantial pedestrian activity.

Building Placement: creates walkable streetscape; shallow setbacks or none; buildings oriented to street defining a street wall.

Typical Building Height: 2 to 8 stories



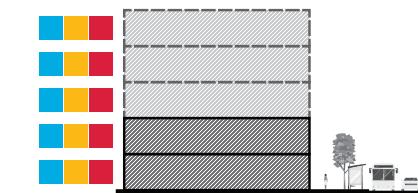
Cultural Corridor - CC

The Cultural Corridor mixed-use designation is intended to preserve and encourage pedestrian-oriented development along major transportation corridors and centers. It consists of higher density mixed-use buildings that accommodate retail, offices, and a wide variety of multi-family housing types, often with buildings that combine two or more of these uses. It has wide sidewalks, regular and consistent street planting, and buildings set close to the sidewalks.

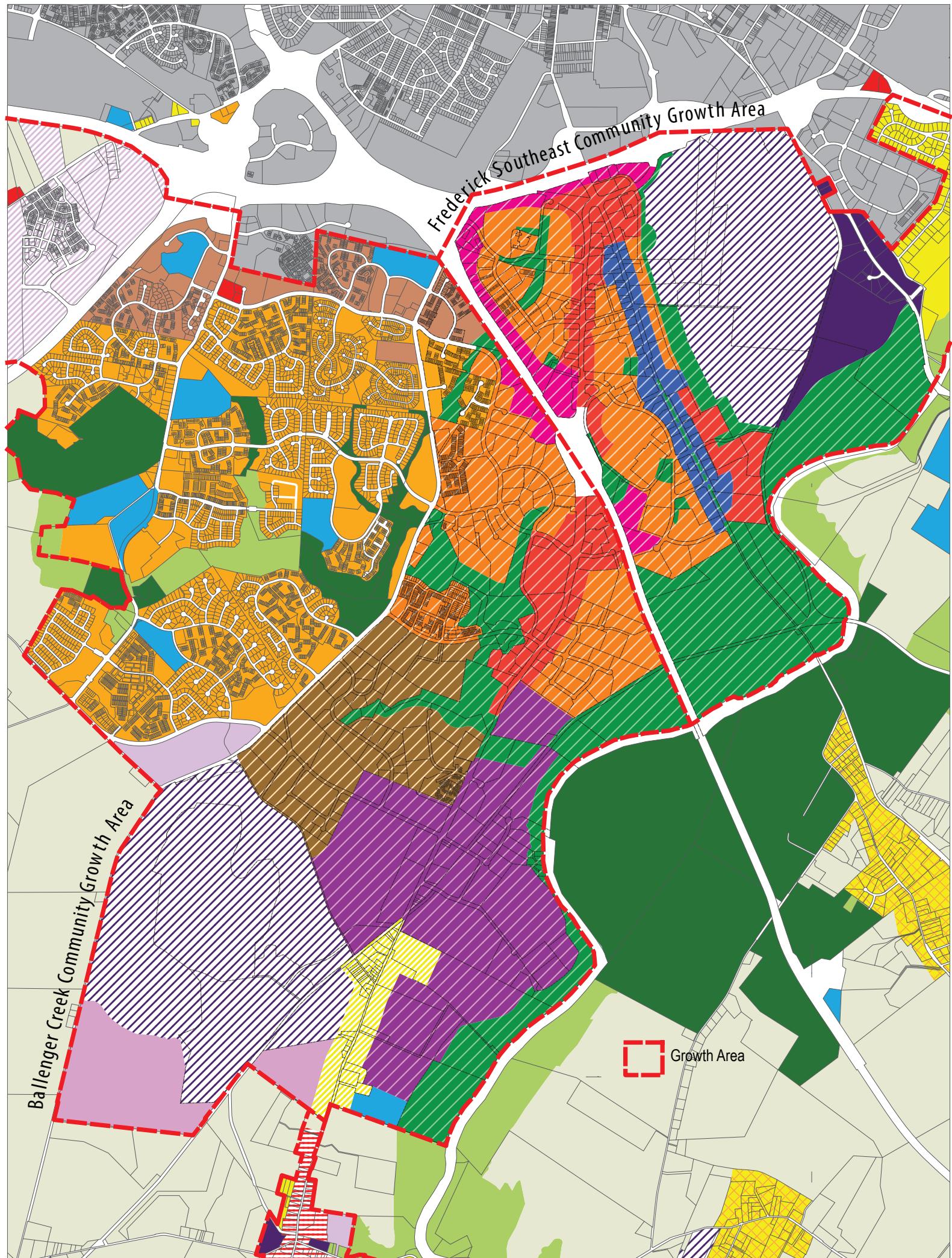
General Character: shops mixed with multi-family housing, offices, and civic buildings; predominantly attached buildings; regular street trees and landscaping; substantial pedestrian activity.

Building Placement: creates walkable streetscape; more generous setbacks; buildings oriented to street defining a street wall.

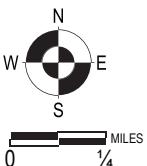
Typical Building Height: 2 to 5 stories



Industrial
Institutional
Residential
Commercial



MAP 07: PROPOSED COMPREHENSIVE PLAN MAP-FORM AND USE DESIGNATIONS



Form Designations

- Urban Skyline
- Urban Corridor/Center
- Cultural Corridor
- Urban Neighborhood
- Industrial Center
- Industrial Neighborhood
- Open Space
- Natural Screening

Use Designations

- Agricultural / Rural
- Natural Resource
- Public Parkland / Open Space
- Rural Community
- Rural Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential

- Village Center
- General Commercial
- Limited Industrial
- Office / Research / Industrial
- General Industrial
- Mixed Use
- Mineral Mining
- Institutional

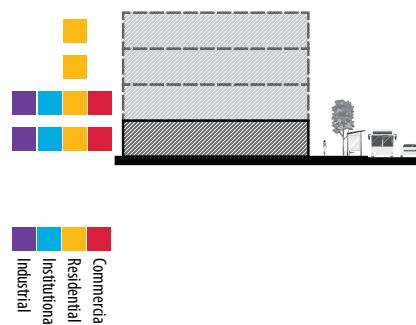
Urban Neighborhood - UN

The Urban Neighborhood designation is intended to result in neighborhoods that contain a wide range of residential and commercial building types. Setbacks and landscaping are moderately variable with buildings oriented toward the street. Streets with curbs and sidewalks define medium sized blocks.

General Character: a wide range of multi-family housing types with integrated and compatible commercial activity; single-family detached not permitted; balance between landscape and buildings; presence of pedestrians, transit, and cyclists.

Building Placement: creates walkable streetscape; shallow to medium front and side yard setbacks.

Typical Building Height: 1 to 4 stories



Industrial Center - IC

There is a stigma that industrial uses are dirty, noisy, and not compatible with residential or some commercial uses. While this was the case in the past, modern industry (especially light industrial) can be compatible. This, in addition to material innovations and clean emissions technologies, have made it possible to combine uses that were previously incompatible. Also, there is a growing acceptance and willingness, especially from the younger population, to live alongside uses that make places functional and active¹. Therefore, the Industrial Center designation is applied in locations where industry and community can combine to form places that provide competitive advantages.

Industrial Neighborhood - IN

The Industrial Neighborhood designation is applied to locations where there is a greater emphasis on residential uses than in the Industrial Center designation.

Open Space and Screening

Open space is land that contains few buildings or other built structures and is accessible to the public. It can include parks, community gardens, schoolyards, playgrounds, and plazas. Open space provides recreational areas for residents and helps to enhance the beauty and environmental quality of neighborhoods.

As the South Frederick Corridors redevelops in a more focused fashion, open space park and plaza facilities are an absolute necessity in order to meet the needs of future inhabitants. The spectrum of environments needed to maintain health, happiness, and welfare demand a balance between focused built places and open space. Therefore, a variety of parks and plazas are identified throughout the planning area whose locations have been selected to optimize access to and from their surroundings, and by extension their utility.

Plazas are paved open spaces delimited by the frontage of surrounding buildings that serve the purpose of passage, gathering, and lingering. They support pedestrians and provide features that enhance the comfort and safety of users. Neighborhood parks can be up to 10 acres, but are generally smaller. Special Parks most often serve particular or focused uses based on their specific geography rather than providing the conventional accompaniment of turf fields, courts, and tracks found in regional County parks.

As important as open space is its opposite, "closed" space. While this is less commonly referenced, it is essentially related to privacy and the ability to inhibit access, be it physical or visual. This need is most often met through buildings, but other features of the built landscape also play a role. One of these is screening, which most often takes the form of linear barriers of dense vegetation. Screening is proposed throughout the plan to provide enhanced privacy and separation between contrasting activities.

GROWTH BOUNDARIES

The South Frederick Corridors planning area covers portions of two different growth boundaries identified on the Comprehensive Plan Map. These are the Ballenger Creek Community Growth Area and the Frederick Southeast Community Growth Area. There are no changes to the Frederick Southeast Community Growth Area. The Ballenger Creek Community Growth Area is extended further to the south along MD85 to include Institutional designated land and newly designated Limited Industrial land to the south of the existing quarry. The following map illustrates the existing and proposed growth boundary.

COMMUNITY FACILITIES

As described previously in this plan, five new schools are identified to support the residential development planned in the planning area. These include three new elementary schools, one new middle school, and one new high school. In the South Frederick Corridors, where most land has already been developed, the identification of sites for new schools will require creative solutions. Under historically predominant models of development involving the conversion of rural land to suburban land, school sites are identified that will satisfy important land area requirements for school facilities that correspond to the development patterns of their settings. In the South Frederick Corridors, redevelopment will result in a conversion from suburban land to urban land. Therefore, school sites must be identified

¹ <https://aecom.com/without-limits/article/why-mixing-residential-and-light-industrial-is-good-for-our-cities/>
<https://stip.gatech.edu/wp-content/uploads/2012/10/STIP-Dan-Cotter.pdf>

Figure 41: Existing Designations and Growth Areas

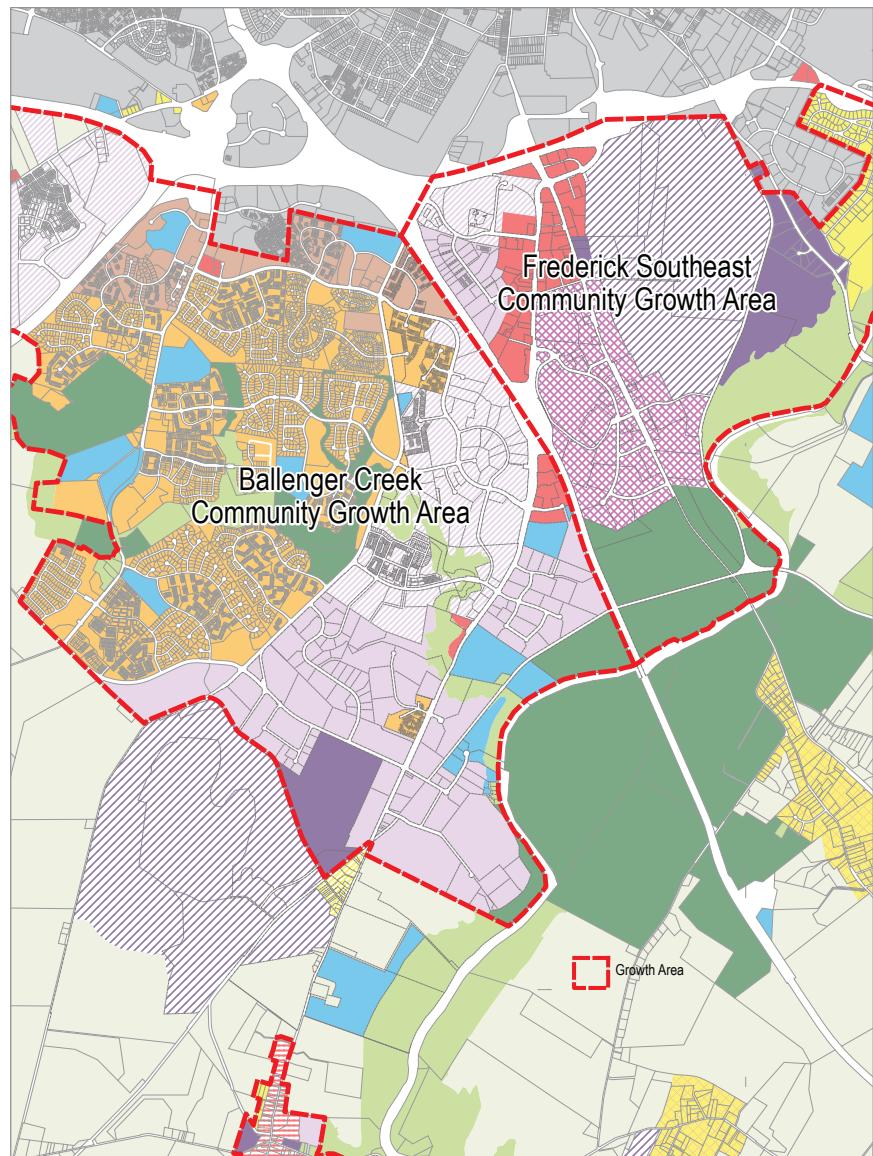
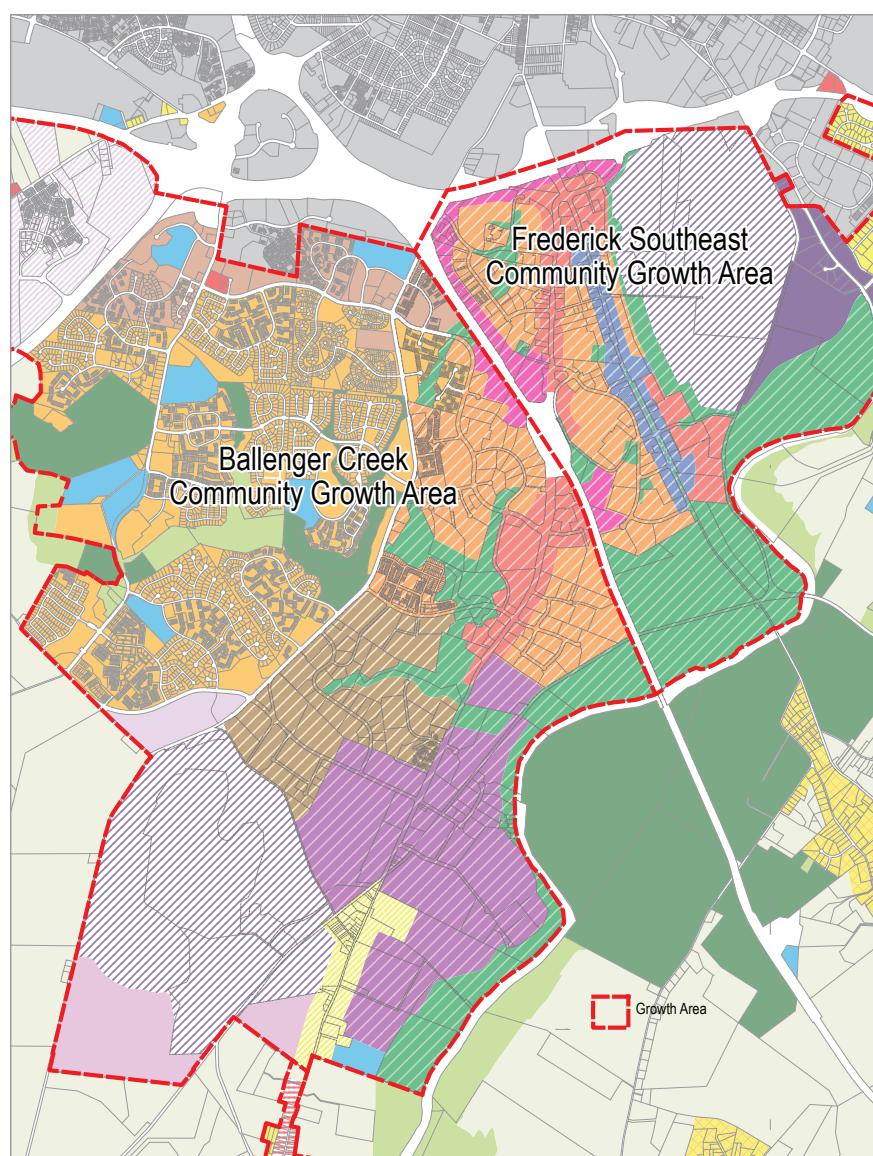
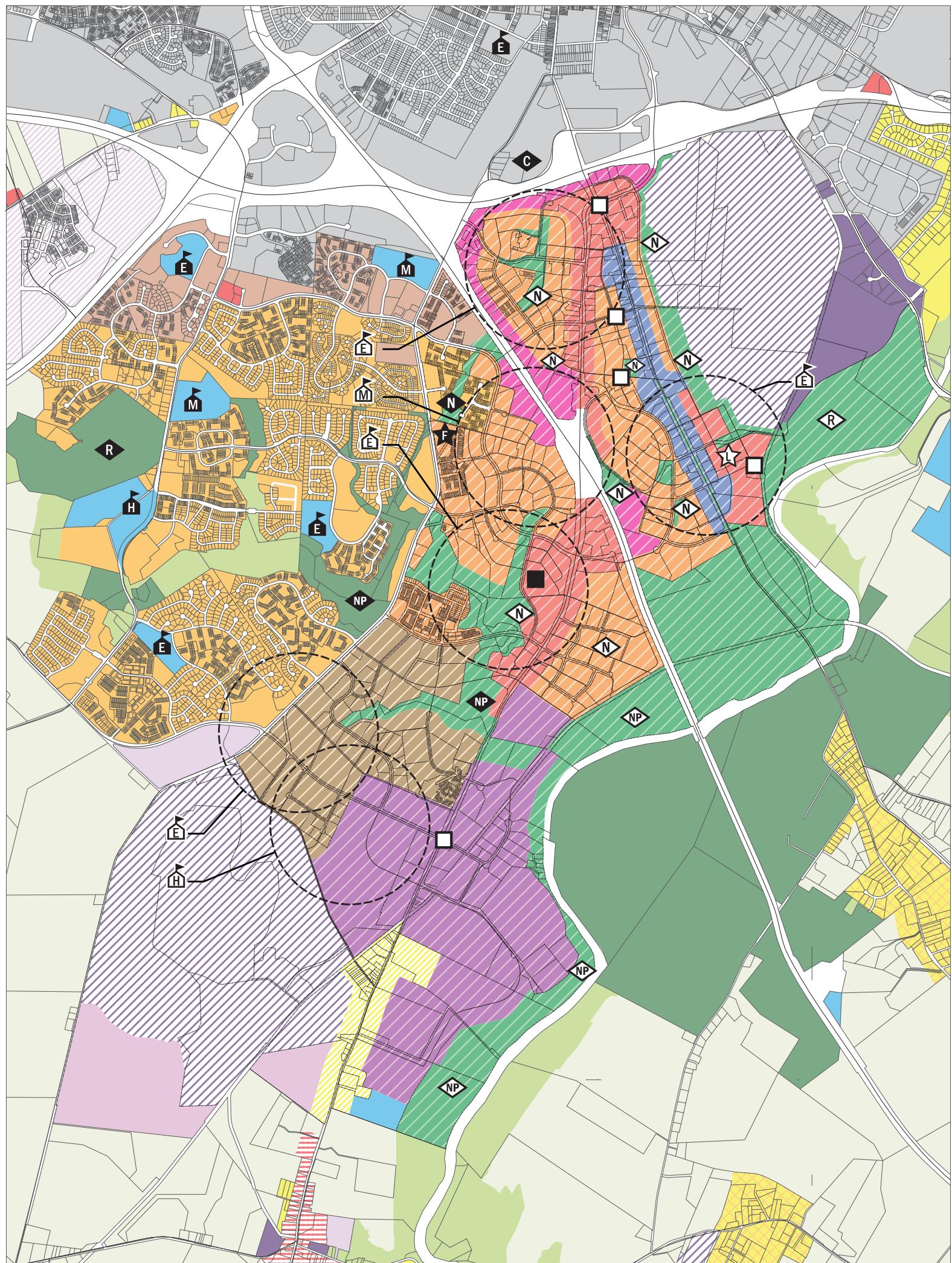
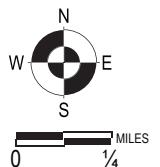


Figure 42: Proposed Community Growth Areas





MAP 08: PROPOSED COMPREHENSIVE PLAN MAP-COMMUNITY FACILITIES



E	P	Transit Stop/Center
E		Elementary School
M		Middle School
H		High School
N		Neighborhood Park
R		Regional Park
NP		Nature Park
S		Special Park
E	P	Fire Station
F	P	Library
P		Plaza
Planning Area		
General Location of Facility		
E=Existing		
P=Proposed		

that correspond to settings where development is focused. This implies smaller sites, taller buildings, and alternative facility usage schemes, while at the same time maintaining facility equivalence with schools on larger sites.

Many new park facilities are identified, including eight new neighborhood parks, two new nature parks, and one new regional park. Neighborhood parks serve their immediate surroundings and are most accessible by walking or biking. They may include playground equipment and space for active recreational purposes, or passive use areas. Nature parks are protected natural areas designed to maintain a natural ecological state with usage limited to eco-sensitive activities such as hiking, water body access, and any actions, interventions, and projects supportive of the purpose of conservation. Regional parks are large areas, most often accessed by car or bus, that provide recreational facilities for organized sports and that serve the broader surroundings.

LAND USE DESIGNATIONS

Land use designations applied in the planning area include Mineral Mining, General Industrial, Agricultural/Rural, Parkland, and Natural Resource. For a description of these designations, refer to the Livable Frederick Master Plan. The land use designations are removed from all areas identified in this plan that contain form designations. The existing land use designation on one property to the south of the existing quarry in the southern portion of the planning area has changed from Agricultural/Rural to Limited Industrial.

WATER AND SEWER DESIGNATIONS

The extension of the Ballenger Creek Community Growth Area to the south along MD85 covers land with existing classifications of NPS, No Planned Service, for both water and sewer service, with the exception of the St. John's property, which is designated W-1/S-1. There are existing denied access lines for water and sewer service in this area as well. Inclusion of this land into the Growth Area will require a subsequent update to the property classifications mapped in the Water and Sewerage Plan.

STREET AND ROAD DESIGNATIONS

Historically, the name of a road indicated its type. For example, if a road was named Winchester Lane, then the fact that it was called a "lane" explained that it was a long, narrow road in the country. If a road was named "Winchester Avenue," then as an avenue, that road conventionally was in a city or town and ran perpendicular to roads that were called "streets."

Generally, the term "road" was used to refer to anything that connected two points, while streets (and avenues) were walkable roads that were built up on both sides by front-facing buildings. In fact, most terms, such as "way," "lane," "boulevard," "place," and "terrace," denoted the function and role of different kinds of roads.

However, in the development of contemporary suburban subdivisions, references to these road types have lost their meaning. Today these monikers are seemingly applied randomly, regardless of role or function. For example, in the past a court was classified as a type of "place," which was a road that had no throughway, but that had an open space at the end, especially in the form of a circle. Roads that qualify as "courts" are commonplace in contemporary suburban subdivisions, but are not always labelled as such. Today, labels for the "court" road type run the gamut: "lane," "way," "road," "circle," "drive." All of these commonly refer to a single type of road, a "court." With these kinds of modern usages, the historic syntax that provided a functional understanding of road typology has been missing over the last few decades.

However, a different kind of road typology has been an important part of planning in Frederick County. The Frederick County Comprehensive Plan Map (Map) and associated text describes a highway functional classification system that is devised to identify the role that a road plays in serving the flow of trips through a highway network, focusing on the goal of moving traffic. This is an important practice in that certain types of classification can make roads eligible for federal funding. The Map currently indicates four classes of road along a spectrum ranging from roads that emphasize mobility to roads that emphasize access. They are Freeways/Expressways, Major Arterials, Minor Arterials, and Collectors. Roads below the Collector level are referred to as "Local."

This classification scheme is designed to support the systematic development of an interstate highway network, not to create urban, livable places in cities and towns. According to this scheme, there are two dimensions to the function of a road, mobility and access, where roads are seen to provide *either* mobility *or* access to land, on a graduated scale. An underlying assumption of this approach in practice has been that safety and efficiency are best supported if only one of those functions is dominant.¹ In either case, all roads, even down to the local class, are almost solely designed according to geometric principles derived from the motion of automobiles, an approach that serves vehicular mobility. When this system is applied to localities on roads that need to function multi-dimensionally relative to broad and complex demands², the outcome has been physical environments that are arguably destructive to the function, diversity, and character of place that was historically well suited when a typology of "streets," "avenues," and "ways" was the norm.

Therefore, in addition to the highway functional classification system already in place, and as a way of regaining some of the functional nuance inherent to historical road naming conventions, especially for urban contexts, an additional

¹ https://nacto.org/wp-content/uploads/2015/04/urban_roadway_classification_before_the_design_begins_forbes.pdf
<https://www.vtpi.org/access.pdf>

² *Walking, sitting, congregating, biking, waiting, eating, meeting, reading, parking, selling, advertising, gardening, driving...*

overlay of road types is applied in the South Frederick Corridors Plan. This typology defines three overarching types – streets, roads, and drives/alleys – and several sub-types within these.

Streets

While streets are sometimes misconstrued as simple thoroughfares to provide dedicated ground for the passage of vehicles, they are in fact far more than that. Streets are better understood as places, often described as “outdoor rooms,” that serve many functions. They not only provide space for many modes of travel, but also for leisure, commerce, companionship, and industry. Streets are multi-taskers that play a major role in supporting economic activity, community formation, public health, and environmental sustainability.

Streets are defined spaces with enclosure created by a variety of horizontal and vertical built surfaces. Within a street space, continuous elements such as travel lanes and pedestrian walks, are combined with intermittent elements such as parking, transit stops, and landscaping, enabling configurations that are adaptive, responsive to context, and flexible.

This road type, as employed in the South Frederick Corridors, has front-facing buildings on both sides in most cases. Building heights may vary based on location in the planning area, but are sufficient to create spatial definition and enclosure in all cases. Activity and use not only occurs in the central portion of the street where vehicular travel lanes are located, but contrary to car-focused practices, also occurs along street edges. Therefore vehicular onsite access is restricted.

Roads

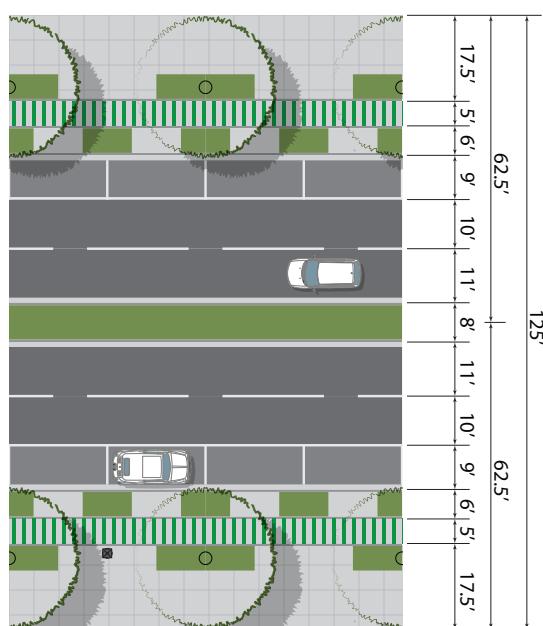
Roads primarily function as dedicated land for the passage of vehicles and correspond to the same practices and standards that are employed by Frederick County outside of the planning area. A very geographically targeted and localized form of road focusing on site service and access are drives or alleys. These are continuous, on-site, inter-parcel connected travel lanes, which can be similar to parking lot drive aisles, but take the form of or function in the same way as traditional alleys. They provide site access for activities, service, and parking. They may be public or private but must form uninterrupted paths of travel that extend beyond individual properties in correspondence with the road network illustrated in this plan.

STREET DESIGNATIONS

S1-Commercial Boulevard

Commercial Boulevards are urban in character and are focus points for a mixture of activities. They provide low speed, pedestrian-friendly access across and within sectors and districts, with on-street parking, bike lanes, and transit serviceable design. Regularly spaced trees along each side of the street and pedestrian scaled street lighting are provided. On-site vehicular access is limited from these roads.

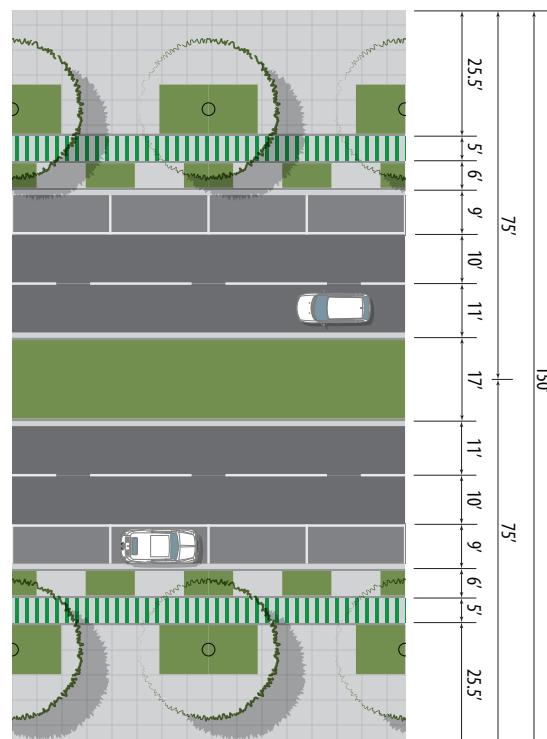
Figure 43: S1-Commercial Boulevard

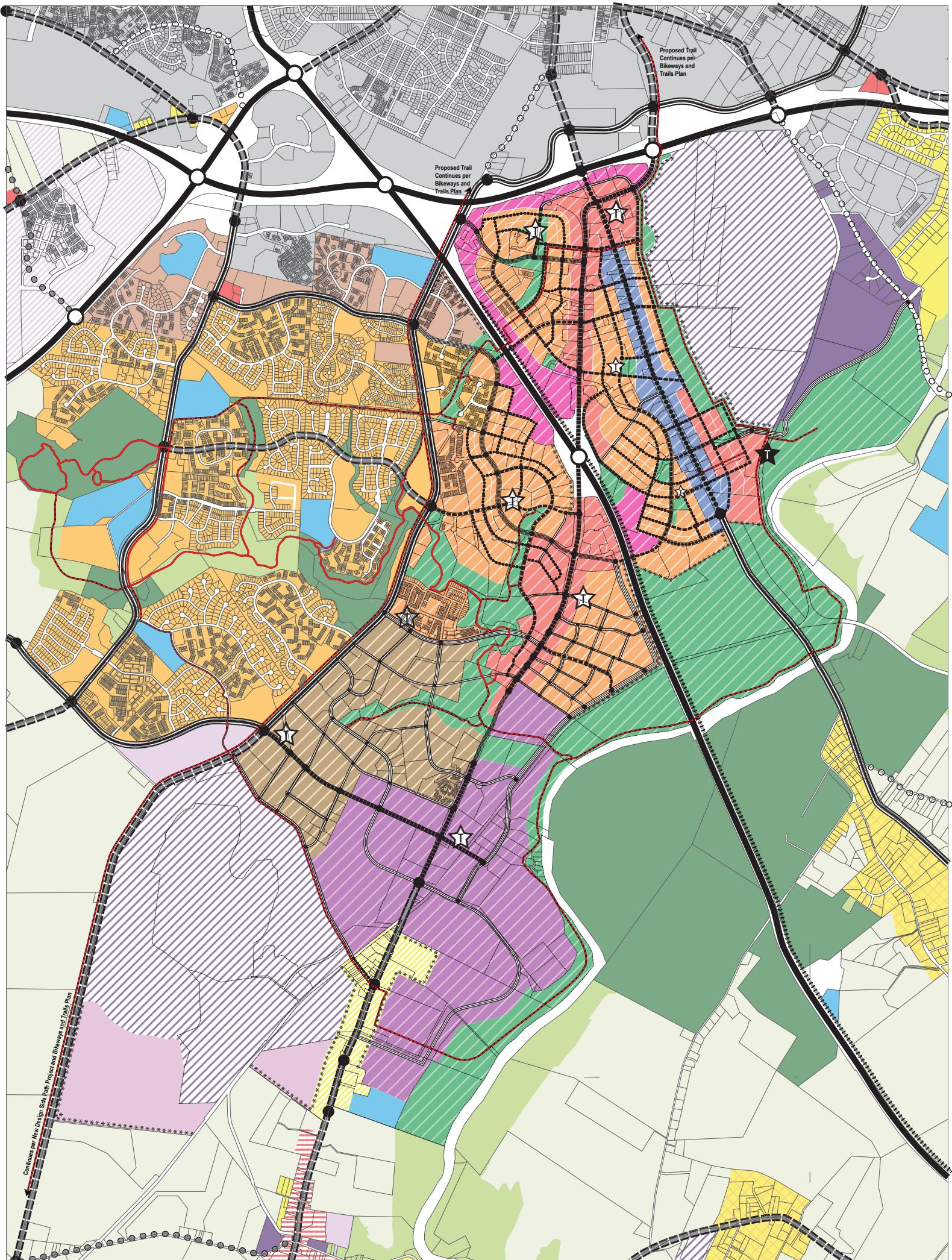


S2-Monumental Boulevard

Boulevards are urban in character and often possess monumental characteristics and features, such as connecting prominent buildings, parks, or plazas and providing coordinated and ceremonious landscaping. They provide low speed, pedestrian-friendly access across and within sectors and districts, with on-street parking, bike lanes, and transit serviceable design. Regularly spaced pedestrian scaled street lighting and trees along each side of the street and in the median are provided. On-site vehicular access is limited from these roads.

Figure 44: S2-Monumental Boulevard



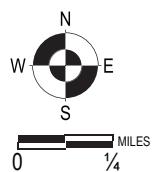


MAP 09: PROPOSED COMPREHENSIVE PLAN MAP-STREET AND ROAD DESIGNATIONS

E	P	E=Existing P=Proposed
		Transit Stop/Center
		Interchange
		Freeway/Expressway
		Major Arterial
		Minor Arterial
		Collector
		Trail Circuit

• S1-Commercial Boulevard
 • S2-Monumental Boulevard
 • S3-Urban Parkway
 • S4-Connector Street
 • S5-Neighborhood Street
 • R1-Sector Road
 • R2-District Road
 • R3-Subdistrict Road
 • D1-Drive/Alley/Site Acces

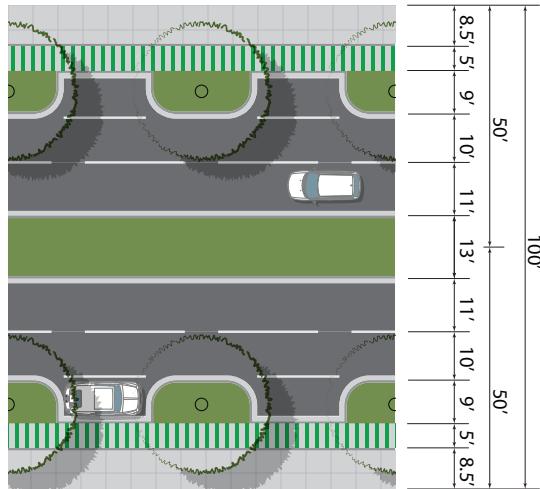
Planning Area



S3-Urban Parkway

Urban Parkways are characterized by primary emphasis on natural landscaping with secondary emphasis on building frontage. Despite a more natural character, they emphasize urban context service objectives such as providing low speed, pedestrian-friendly access across and within sectors and districts, with on-street parking, bike lanes, and transit serviceable design. Naturalistic configurations of trees along each side of the street and pedestrian scaled street lighting are provided. On-site vehicular access is limited from these roads.

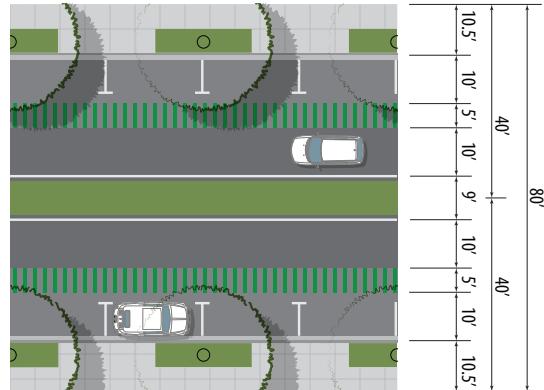
Figure 45: S3-Urban Parkway



S4-Connector Street

Connector Streets function at the scale of the district and subdistrict and, along with Neighborhood Streets, constitute the majority of links within the transportation network, but serve higher traffic volumes than Neighborhood Streets. They provide low speed, pedestrian-friendly access within sectors and districts, with on-street parking, bike lanes, and transit serviceable design. Regularly spaced trees along each side of the street and pedestrian scaled street lighting are provided. On-site vehicular access is limited from these roads.

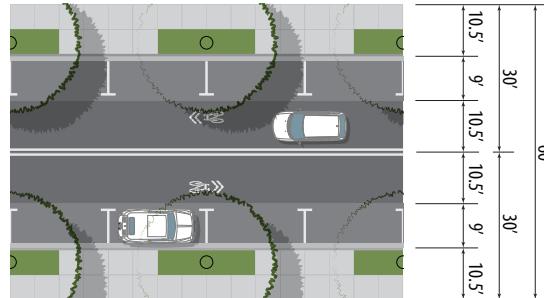
Figure 46: S4-Connector Street



S5-Neighborhood Street

Neighborhood Streets most often function at the scale of the subdistrict and, along with Connector Streets, constitute the majority of links within the transportation network, but serve lower traffic volumes than Connector Streets. They provide low speed, pedestrian-friendly access focused within subdistricts, with on-street parking. Regularly spaced trees along each side of the street and pedestrian scaled street lighting are provided. On-site vehicular access is limited from these roads.

Figure 47: S4-Neighborhood Street

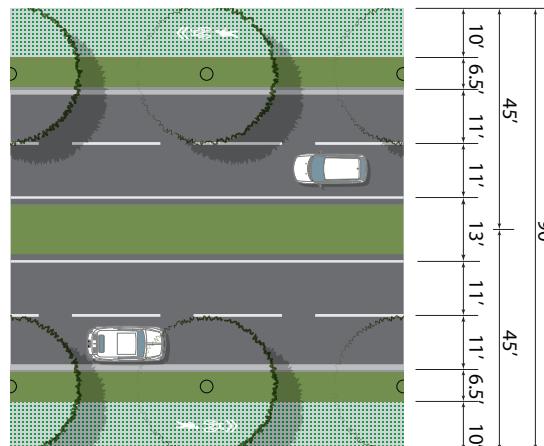


ROAD DESIGNATIONS

R1-Sector Road

Sector Roads are mobility oriented connections that serve the entire planning area or sector within the planning area. They emphasize throughput of traffic and may or may not have urban characteristics. Regularly spaced trees along each side of the street and lighting are provided. On-site vehicular access is acceptable from these roads.

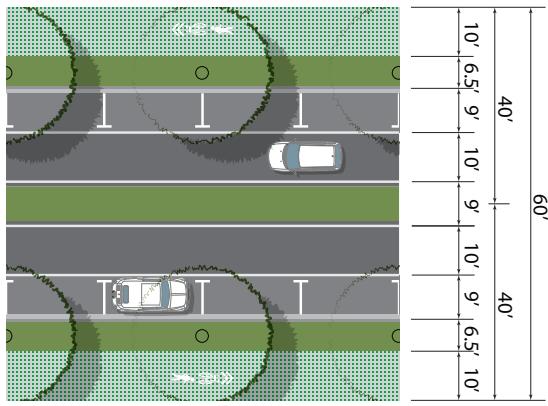
Figure 48: R1-Sector Road



R2-District Road

District Roads are mobility oriented connections that serve a district. They emphasize throughput of traffic and may or may not have urban characteristics. Regularly spaced trees along each side of the street and lighting are provided. On-site vehicular access is not prohibited from these roads.

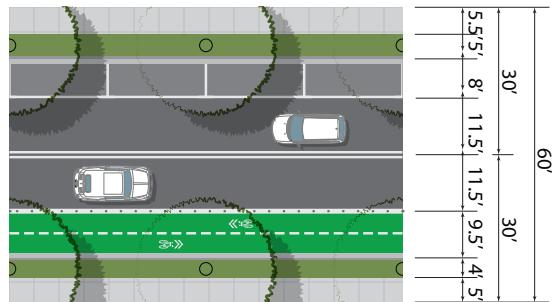
Figure 49: R2-District Road



R3-Subdistrict Road

Subdistrict Roads are mobility oriented connections that serve lower volumes than District Roads. They emphasize throughput of traffic and may or may not have urban characteristics. Regularly spaced trees along each side of the street and lighting are provided. On-site vehicular access is acceptable from these roads.

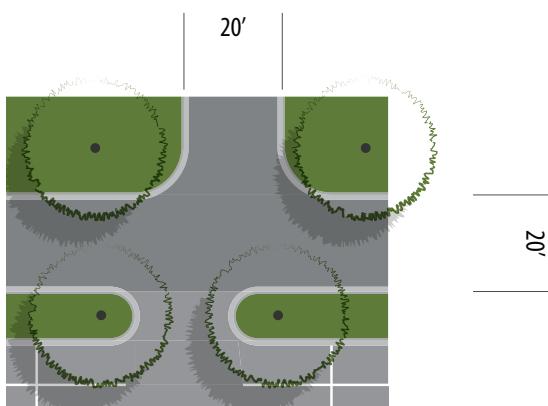
Figure 50: R3-Subdistrict Road



D1-Drive/Alley

Drives/Alleys serve coordinated, on-site vehicular access across adjoining parcels where vehicular access is prohibited or discouraged along other adjoining roads.

Figure 51: D1-Drive/Alley



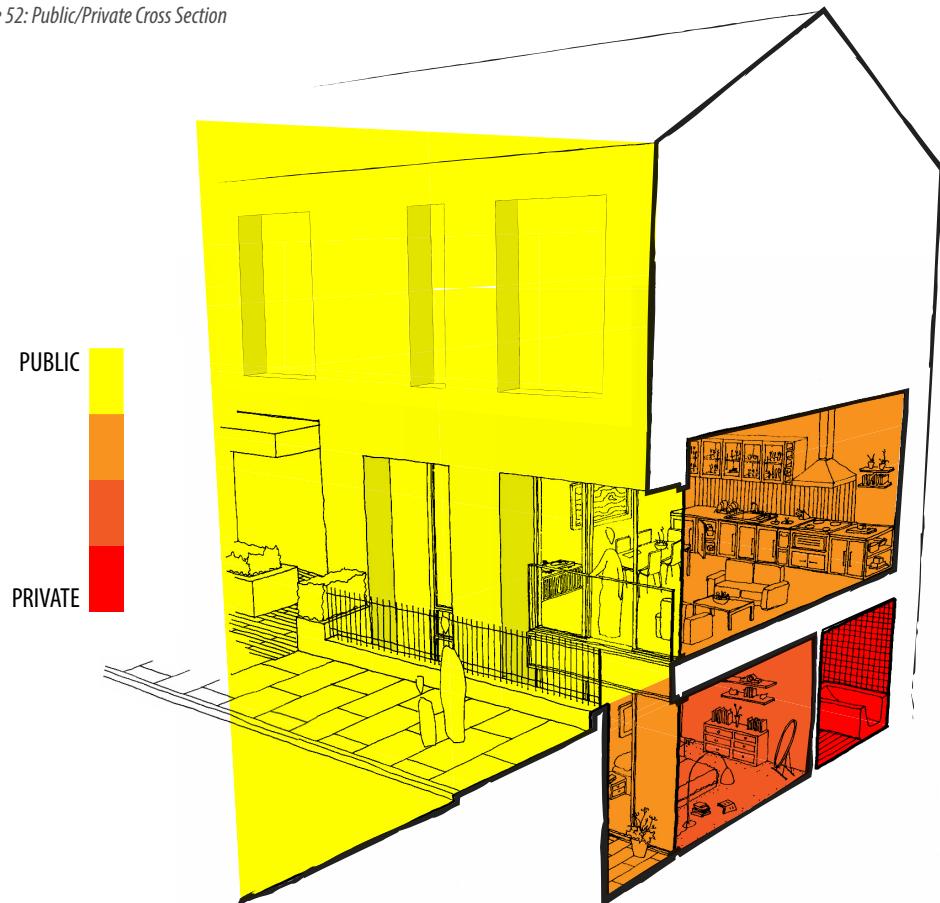
GENERAL FORM CHARACTERISTICS

PUBLIC AND PRIVATE SPACE

Building frontage refers to the portions of a building that face a transportation route that is designated as a street in the Road Designations section of this plan. The frontage of a building contains a main entry or primary access point. Frontage is the portion of a building that is the most visible to the most people from its surrounding proximity, and therefore demands the most attention to aesthetic design. In order to provide a well-defined, pedestrian oriented, "public"¹ space, no on-site parking is located between a building's frontage and any thoroughfare identified in this plan as a street.

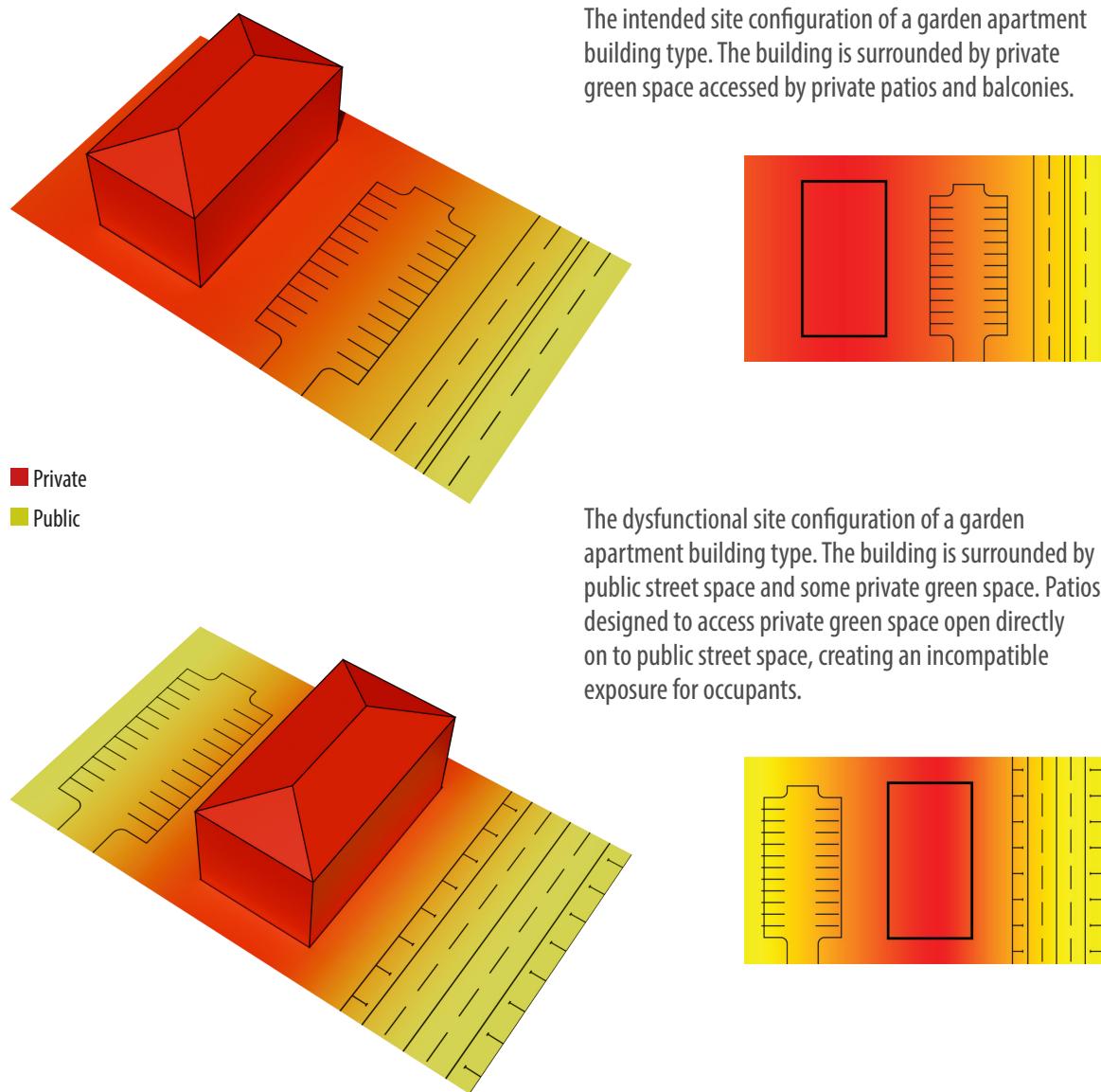
Additionally, the building frontage defines the interface between the public streetscape outside of the building and the private inner workings within the building. Demands for privacy or publicity may vary, and therefore the associated treatment of the frontage in terms of openings and transparency between the inside and outside of the building may also vary. However, all buildings must be designed to acknowledge a functional and appropriate transition from public to private between the street and the interior spaces of the building. This can mean buildings designed with full transparency at street level, as would likely be the case for a shop. It can mean residential uses within buildings that are designed with more nuanced exposure to the public space of the street, such as preventing views into dwellings with an elevation change between the first floor of a residential building and the sidewalk outside of a building, or upper level apartments that have open balconies or have configurations where less private interior spaces are located adjacent to or overlooking public streets. In many cases, this interface between the street and the interior of the building figuratively extends the street into the building and the building into the street, thus creating conditions where building inhabitants can benefit from a richer experience of their environment and where safety is enhanced by maximizing the potential for inhabitants to surveil public spaces. Each use within a building has different demands for privacy or publicity, and this must be taken into account as buildings are designed for the South Frederick Corridors.

Figure 52: Public/Private Cross Section



¹ The terms "public" and "private" in this section do not necessarily refer to ownership. Rather, they generally refer to various levels of physical access and visual exposure. In this sense, a street may be actually located on privately owned land, but due to open physical access and high visibility characteristics, it can be considered "public" from the standpoint of the experience of people in the environment.

Figure 53: Suburban Garden Apartments in Urban Context



Two existing garden apartment buildings in Frederick County that are aligned with and adjacent to public streets. The prototypical design emerged in relation to the assumed presence of a generous green space surrounding the building. When the design is used in a context that demands a different response to public and private circumstances, dysfunctional incompatibilities result. As shown here, the privacy ostensibly intended to be offered by the patios is undermined by their direct exposure to public streets.

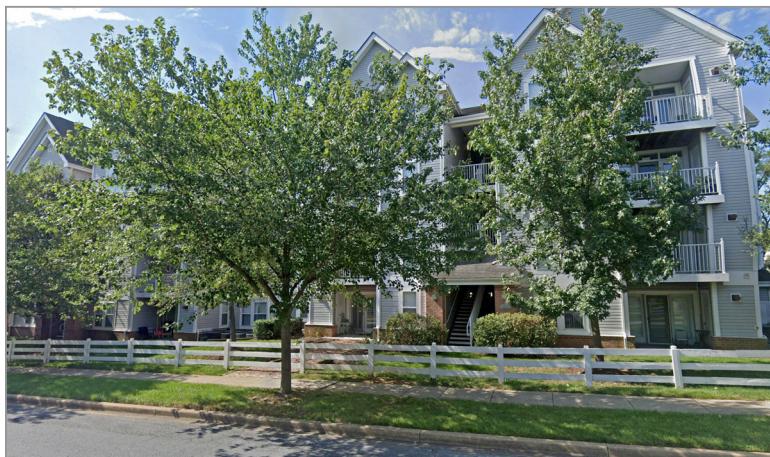
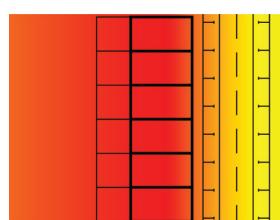
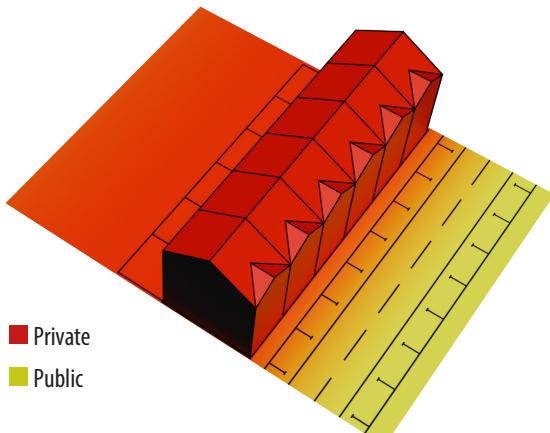
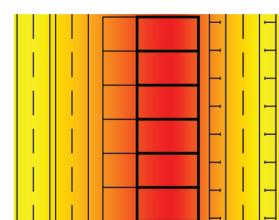
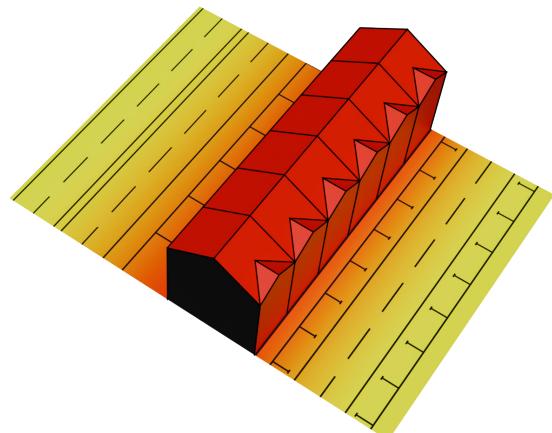


Figure 54: Suburban Townhouses in Urban Context

The intended site configuration of a townhouse. The building is situated between public space in the front and private space in the back.



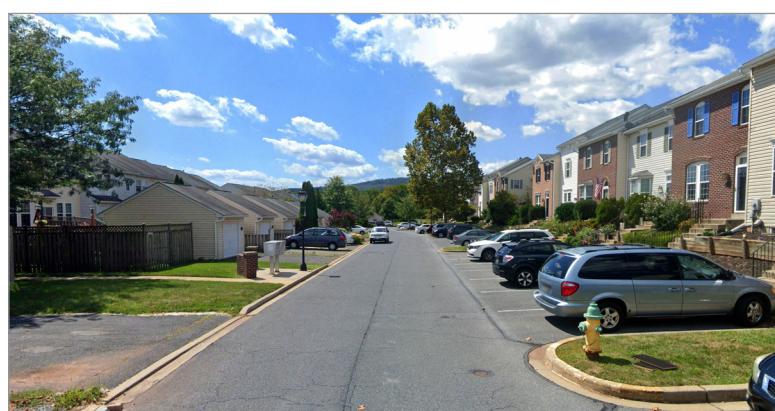
The dysfunctional site configuration of a townhouse. The building is sandwiched between public space in the front and public space in the back.



Three existing townhouse developments in Frederick County where private backyards are directly exposed to public streets. This configuration degrades the character and function of both private yards - by exposing them to public spaces and thereby undermining privacy - as well as public spaces/streets - by defining the outer boundary of a public street space with utilitarian barriers that are intended to sever the activity relationship and spatial continuity between buildings and streets. In the best case, the street edge becomes an inert and disregarded fringe zone. In the worst case, ugly and uncoordinated barriers invade on the senses and the experience of walking or driving along these streets gives the strong impression of intruding into the back yards of inhabitants.



In the bottom image, the fronts of one set of townhouses face the backs of another. In this case, the townhouses with their backs to the street were configured to create a frontage on a public park (on the left outside the image). However, just one street over, this nuanced understanding of the effects of the built environment was abandoned, resulting in a confused amalgam of an alleyway and a street.



This means that many of the common building designs and site layouts used in suburban settings will not be functional in the context of the South Frederick Corridors. The suburban solution to the public/private interface between exterior spaces and buildings is to provide spacious buffers in the form of wide landscaped surroundings. Therefore, there is often no need to consider the manner in which the perimeter and interior spaces of the building are exposed to anything other than private landscaping. However, in a more spatially focused non-suburban setting, this need is paramount, and buildings in this setting that are designed in a suburban format will function poorly.

Some suburban building types are not inherently designed to address a transition from public to private space. For example, the garden apartment building type often contains ground floor dwellings with private patios that open up to a surrounding park-like setting. These patios, in an appropriate setting, function in the same way that the yard in the back of a single family house is intended to function, as private exterior spaces. In this sense, the majority of the exterior perimeter of the garden apartment building type is, by design, the “back.” Building a garden apartment in a more focused setting, where the essential park-like surroundings are not provided, results in an intrusion on an occupant’s privacy. This is illustrated in the following images.

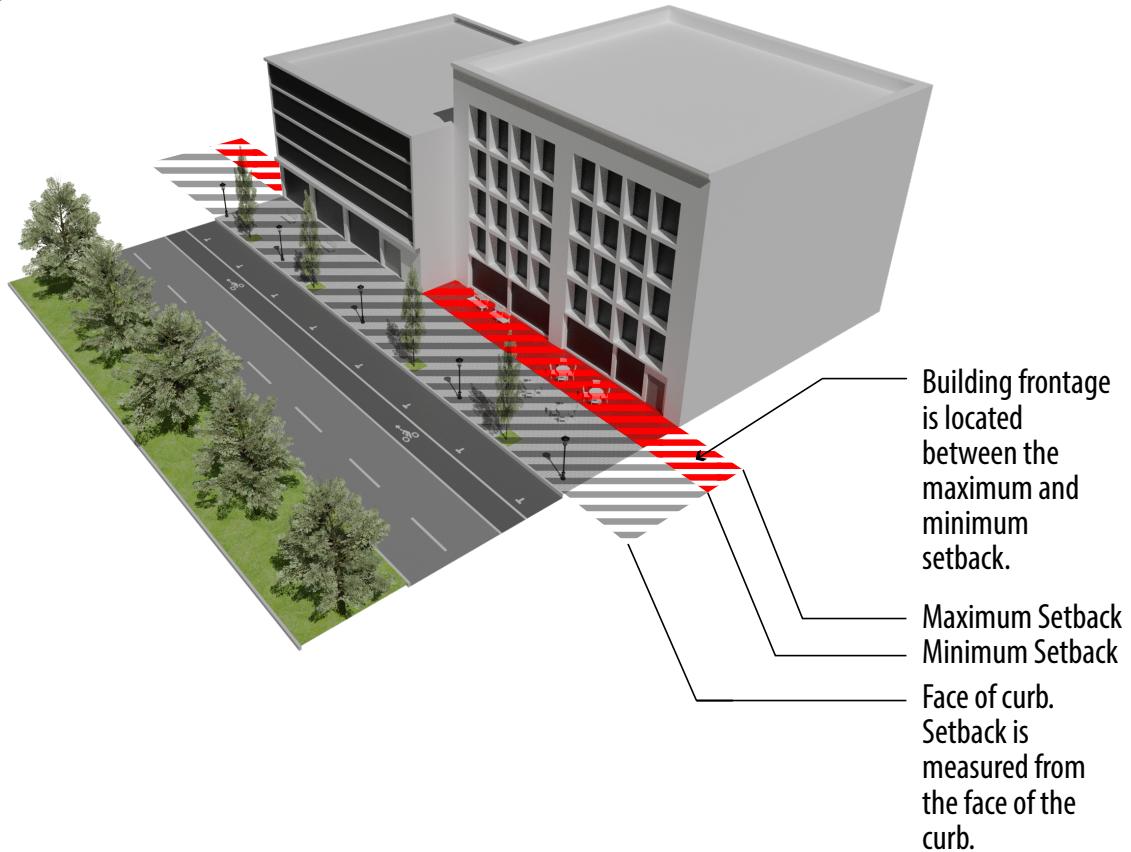
The townhouse is a residential building type that has been effective for centuries at providing solutions to the problem of public and private space in more focused, non-suburban settings. However, a suburban situational awareness has perhaps contributed to their occasional misuse. Townhouses are designed to enable a logical and functional transition between the public space of streets and more private interiors of buildings and backyards. However, in the suburban manner, it is common practice to align the backsides of townhouses with roads and mitigate the resulting conflict of public and private space relationships by providing an ample buffer composed of distance and landscaping. When this suburban layout is applied to a more focused, non-suburban setting, but without the ample buffers, dysfunction results, as shown in the images below.

BUILDING RESTRICTION LINES

Building restriction lines identify locations on a site where a building can or cannot be located. As used in most conventional zoning practice, they are measured from a property line and prevent a building from being situated a certain distance from that line. In other cases, they act as “build to” lines that dictate the required location of a building frontage relative to a facing street. Both types are proposed in this Plan and are described in the following table for each form designation by road designation. The following measurements and diagrams are for illustrative purposes only and do not equate to specific regulatory requirements. Building restriction lines identified in the following table are measured from the outside edge of the adjoining curb of the street(s) the building faces. For street designations, building frontage must be located within the space defined by the minimum and maximum dimensions described below (build to lines). The intervening space becomes a public sidewalk and is provided with street trees, street furniture, and lighting. Sidewalk space is designed to be an integral part of the facing building, with appropriate frontage design, depending on context. For road designations, the setback indicates a line within which a building cannot be located.

Road Designation		Form Designation						
		Commercial Boulevard	S1	Urban Skyline	Urban Corridor/Core	Cultural Corridor	Urban Neighborhood	Industrial Center
				US	UC/C	CC	UN	IC
Streets	Commercial Boulevard	Monumental Boulevard	S2	min	15'	15'		20'
				max	20'	20'		25'
	Monumental Boulevard	Urban Parkway	S3	min		20'	20'	
				max		25'	25'	
	Urban Parkway			min		15'		20'
Access Road	Connector Street	Neighborhood Street	S4	min		18'	18'	18'
				max		30'	30'	30'
	Neighborhood Street	Sector Road	R1	min		15'	15'	18'
				max		20'	20'	30'
	Sector Road					25'	25'	25'
Access Road	District Road		R2	20'	20'		20'	20'
	Subdistrict Road		R3		15'	15'	15'	15'

Figure 55: Setbacks/“Build-To” Lines



MASSING

A “massing envelope” refers to a boundary or outer limit on a site beyond which buildings cannot extend. This equates to building height and street setback (or “build to”) dimensions. An envelope extends to the edge of the sidewalk horizontally, and to a maximum height vertically based on the underlying form designation of the block. The tallest areas are at a maximum along the interstates, and slightly lower along MD 85 and the land surrounding Monocacy Station. The area along MD355 is lower than this, with the lowest buildings in the remaining land. The accompanying illustrations depict hypothetical massing envelope configurations. **They are not intended to depict the resulting physical form of new construction**, but rather to represent possible and preferred building configurations that can occur within the overarching dimensional framework, as described by the form designations discussed above. Also, the vertical dimension of the buildings in the illustrations is exaggerated to more clearly illustrate differences within the planning area as defined by the form designation massing envelope. *The ultimate form of the built environment will emerge in some fashion within these envelopes.* Height related setbacks can be considered more carefully and in more detail through the development of form-based regulations.

Figure 56: Massing Diagrams

View looking southwest





View looking southeast



View looking northwest

STRATEGIES FOR IMPLEMENTATION

A FRAMEWORK OF FOURS

There is no single best way to comprehend the redevelopment of a physical place in today's world and implementation of the SFCP is no exception. The gradual, incremental, and coordinated remaking of the Planning Area will require the County to view its own efforts, as well as the efforts of others, from multiple vantage points. The approach embraced in the design of this plan utilizes the concept of scale to determine how best to approach each significant challenge or opportunity in the planning area. To this approach, we add a series of frameworks that will allow the community to view these same challenges and opportunities from various points of view, utilizing new perspectives to increase the likelihood of success in any given effort or initiative. We call this organizing principle, A Framework of Fours, and deploy each framework as needed to understand and assess all aspects of plan implementation.

In addition to being useful in ranking and prioritizing specific initiatives or projects in the SFC, A Framework of Fours can be useful to those involved in policy making, capital planning for public infrastructure, and development review. While the framework may offer some utility beyond this plan, the following discussion is limited to implementation of the SFCP.

The Framework of Fours is utilized later in this document in support of a tabular listing and prioritization tool for implementation initiatives called the *SFC Place-Making Guide*.

FOUR SCALES

Level 1- Planning Area

At this level, implementation is addressed with big ideas, broadly applied to complete the "big picture" of redevelopment and growth in the SFC. Issues surrounding infrastructure, development impacts, environmental systems, growth allocation, and the LFMP Vision are considered primarily for their connections and relevance beyond the SFC Planning Area including those of regional or statewide importance.

Key Words: Broad, Conceptual, Inclusive

Primary Tool: Policies

Level 2- Sectors

At this level, implementation is addressed with specific goals and strategies, as applied to each Sector identified in the SFCP. Consideration of the built environment is mostly limited to general themes and the roles each sector might play within the SFC Planning Area. Impacts and benefits affecting areas beyond the Planning Area are considered secondarily to those within the SFC.

Key Words: Strategic, Thematic, Roles

Primary Tool: Strategies

Level 3-Districts

At this level, implementation begins to look at frameworks, functional systems, and complementary elements impacting and impacted by the built landscape. Specialization of each district brings definition and heightened awareness of how these land areas assume character and identity. Timelines for development and redevelopment necessarily begin to diverge in response to market forces, fiscal resources available, and property owner initiative.

Key Words: Focused, Differentiating, Proximity

Primary Tool: Guidelines

Level 4- Subdistricts

At this level, implementation becomes entirely reliant on neighborhood dynamics, site availability, and external forces at work in neighboring subdistricts. Regulations are most impactful at Level 4 and must be clear and comprehensible. Development timelines begin to mirror those of the development review process and are primarily driven by site-level decision making of property owners working individually or collectively.

Key Words: Tactical, Specific, Exclusive

Primary Tool: Rules



FOUR THEMES OF LIVABLE FREDERICK

The thematic approach utilized in the LFMP's Action Framework provides a lens through which we can view any implementation activity in the SFC. Each initiative, expenditure, or regulation should be judged by how it advances these four themes. These judgements can be used as factors in the weighing of policy options or spending choices prior to their actual deployment, or can be used as a means to measure progress toward achieving goals set forth in the SFCP.

A simple example would be a proposal to construct a portion of a multi-use trail connecting and serving three subdistricts:

Community: The multi-use pathway joins three underdeveloped areas and provides a neighborhood backbone for transportation, recreation, and community identity.

Health: Development of this segment of the multi-use pathway creates healthy and safe alternatives for movement within and among the subdistricts including walking, jogging, cycling, and skateboarding.

Economy: The multi-use trail provides a second building front to first-floor commercial uses in the multi-story mixed use structures being planned for the neighborhood.

Environment: Integration of some existing and some new naturalized features along the multi-use trail provide urban wildlife habitat and, in some instances, do "double duty" as stormwater treatment facilities.



FOUR CHARACTERISTICS OF DEVELOPMENT

This categorization is most appropriately applied when considering the regulatory environment in which development and redevelopment takes place. These categories can be applied to describe the specific ways in which policies, guidance documents, fees, and regulations impact the implementation efforts in the SFC.

1-Activities

While conventional land use regulations in Frederick County have been more heavily weighted to control the particular activities or uses taking place within a structure or site, the model being pursued in this plan will be weighted more heavily to consider the function and form that our redeveloped, urbanized environment will take on in the following decades. The concept of "Activities" allows us to discuss the potential benefits and consequences of a project or application without having to rely on the term "Uses." Activities, as understood in this document and others that will follow throughout the implementation process, are to be considered more broadly than the previous notion of Uses. Differentiation of activities within revised codes shall respect this idea and not seek to recreate a recitation of every land use known to exist; rather, broad categories that define and describe the fundamental characteristics of an activity as well as its functional impacts on a neighborhood are to be conceived and codified in the regulatory updates inspired by this plan.

2-Form & Space

Functional, efficient, attractive, navigable, and inspiring places are experienced by people in three-dimensional space. In fact, successful neighborhoods absolutely have to be understood – and created – within a legal framework that acknowledges the critical importance of design decisions that impact how physical places are put together. Buildings, landscape elements, plazas, and physical facilities do not spontaneously appear in our neighborhoods. The built form of a place is the result of many decisions – intentional and unintentional – made by building owners, architects, engineers, and planners. These decisions are often made in response to plans and regulations enacted by communities that have not considered or understood the design implications of current rules or policies. If the redevelopment of the SFC is to be successful, consideration must be made for rules and policies that result in the development of places that people want to occupy and that will amplify the efforts of all participants.

3-Functionality

The places we occupy must function well. Buildings, streets and roads, sidewalks, water and wastewater systems, public and private utility services, public safety infrastructure, schools, and parks are examples of elements and systems that we expect to be provided, and maintained, in any livable neighborhood. Without this basic – but substantial – set of functions in place, a neighborhood can languish, or fail completely. Much of the basic functionality of a neighborhood is constructed as a partnership between local government and private sector land developers. However, many of these essential functional systems are ultimately maintained by governing agencies. With a shared interest in the ultimate success of a place like the SFC, it is in the best interest of Frederick County and its development partners to maintain a high degree of functionality across vital systems that have a direct impact upon the attractiveness of the SFC to employers, residents, vendors, and visitors. The County shall consider *Functionality* not as the primary end goal of redevelopment and place-making, but as an assessment and policy tool of equal importance alongside those regulating *Form & Space*, and *Activities*.

4-Allowances & Responsibilities

An implementation strategy that seeks to achieve its desired result solely through the use of regulatory power is doomed to mediocrity or failure. An acknowledgement of shared interests between governing bodies and land

development professionals is absolutely necessary in order to sustain a positive environment for neighborhood redevelopment through times of economic or social hardship. The SFC benefits greatly from key assets that do not need to be newly created. It is therefore critical for existing frameworks governing the provision of public services and facilities to be restructured in a way that honors shared interests. The County's Adequate Public Facilities Ordinance considers the responsibilities of a land development applicant as they seek to move forward with a plan for a specific site or property. The APFO does not, however, establish a precise expectation for County responsibilities in the pursuit of adequate facilities or services. Indeed, the ultimate achievement of "full adequacy" is measured only at its basest level, and in purely quantitative terms. This plan seeks a different result. Adequacy is for *contestants*. Excellence is for *champions*. Achieving excellence in the redevelopment of the SFC may best be accomplished through a clear identification of needs and managing the fulfillment of those needs not simply through regulatory minimums, but through a process that identifies a prioritized set of goals that can be met through a combination of regulatory restrictions, land developer contributions, and bold incentives for those making the extra effort to achieve functional excellence. A more balanced approach to allowances and responsibilities may create an environment where community needs and aspirations can be satisfied earlier than would otherwise be accomplished simply through the use of APFO performance gates.



FOUR PARTNERS OF IMPLEMENTATION

The Livable Frederick Master Plan identifies the urgency for a community-wide adoption of the Vision and Strategies put forward by that document after a thorough, citizen-based planning effort. While legal adoption of the planning document by the County Council in 2019 represented a significant achievement, an equally important step toward realizing the plan's Vision rests in its ability to gain support in the business and institutional communities.

This SFCP implementation device (SFC Place-Making Guide) can serve as a means of articulating the importance of the County's development and service partners as Frederick County seeks to redevelop the existing SFC planning area into a distinctive collection of vibrant neighborhoods.

1-Government (Public)

The governmental responsibilities in the redevelopment of the SFC include: planning and guidance, project and service funding, coordination of effort, marketing, and regulation. Government, in this case, connotes a public effort, managed by elected officials and implemented by County staff and consultants. Without an overall vision for the SFC planning area, the efforts of the private and institutional sectors are substantially diminished.

2-Business/Development Community (Private)

For such a major endeavor like the redevelopment of the SFC planning area, the responsibilities placed upon our business community and land development professionals are immense. Private sector capital, expertise, and will are absolutely critical components in the place-making process. Our individual and collective aspirations are fulfilled only when the forces brought to bear by the private sector are able and willing to bring physical expression to them. The private sector channels the energy of the free market, seeking the opportunities provided by the community through its visions and plans. The end results are the places where we live, work, and play.

3-Non-Profit Organizations (Private)

Frederick County's non-profit organizations, much like the County's businesses, run the gamut from the small, home-based efforts to the large, national groups with names recognizable to most of us. Each organization embodies a mission to bring value to our citizens, neighborhoods, or a particular philosophy of life. Coordination among non-profit organizations is often essential in achieving community goals. In the best of cases, our non-profit, business, and public sectors join forces to amplify the impacts of any one entity. In the worst cases, resources, efforts, and time are squandered as multiple groups labor to resolve problems, with each organization working in its own insular world, either unaware of parallel efforts, or unwilling to join forces. The SFC Plan offers an opportunity to hit the reset button and build collaboratively toward a more livable future.

4-Institutions (Public/Private)

A fourth category is offered as a part of this implementation effort. Our local institutions, while mostly non-profit, are a mix of public and private entities including organizations that our community depends upon such as Frederick Health, the Frederick County Public School system, and our institutions of higher learning (Frederick Community College, Hood College, and Mount Saint Mary's University). Our institutional partners are a crucial element of any successful plan implementation for the South Frederick Corridors and the County will seek the input, wisdom, guidance, and energy of these organizations in fulfilling the promise of Livable Frederick.



FOUR TOOLS OF IMPLEMENTATION

In many instances, the implementation of a land use plan is viewed narrowly as the adoption of appropriate regulatory controls such as zoning, which is certainly a necessary step in successfully transforming a planning concept into an actual place. However, regulations are only one aspect of an implementation effort. Four tools must be applied in most plans in order to achieve significant progress:

1-Public Policy

An adopted master plan is, in itself, a tool of public policy. Elected officials can further the goals identified in a plan by pursuing complementary policies that fertilize and incentivize growth, bolster protective measures when and where they are needed, and align the impacts of public decision-making with the vision of the plan. Policies may include those affecting public spending (capital and programmatic), facility management, service maintenance or enhancements, or topical challenges and opportunities in housing affordability, economic development, and environmental protection.

2-Funding

To a large extent, governments implement policies through short-term and long-term spending decisions. Without an endless supply of resources at its disposal, elected officials must be careful and deliberate in choosing where and when to invest taxpayers' money. The leveraging of outside funding from private development or state/federal sources to achieve community goals can be a key factor in the success of an implementation effort. In implementing a plan such as this one developed for the SFC, elected officials must consider the most efficient, impactful, and politically-equitable means by which local government spending can be used to fuel redevelopment.

3-Regulation

Without focused, well-conceived, and fairly-deployed rules and regulations governing the development of land in the SFC, the entirety of the effort will fail. This is not to say that all of the County's existing regulations governing land use in the SFC are entirely unsuitable to the place-making task at hand, but rather that the ultimate regulatory framework must be one that offers the best possible chance of achieving the vision of a vibrant, mixed use, accessible community over the next 25 years.

4-Partnership

The SFC plan is built upon the idea that a renewed and reborn South Frederick Corridors area would mark an achievement not just of Frederick County's land use planning efforts, but of a myriad of private and institutional players who are seeking to do many things including: improving multi-modal transportation access, creating a broad variety of residential opportunities, bringing more employment opportunities to the County while creating places that bolster retention efforts, reducing commute times and increasing individuals' time with their families and neighbors, and enabling development to occur in a place that allows for long-term sustainability – both environmentally and fiscally. Profitable enterprise, healthy and sustainable growth, and the passionate pursuit of institutional missions can all be achieved through partnership.



FOUR MECHANISMS OF DEVELOPMENT INFLUENCE

While the aspirational goals of the SFC plan can certainly benefit from a consideration of development influences, these mechanisms are perhaps best understood in the context of site or neighborhood development.

1-Contributions

The developer of a site is ultimately responsible for introducing the scope and vision for a proposed project. This often begins with a deep understanding of local conditions, local opportunities, and local challenges. An understanding of these localized needs is often translated into a project proposal that is both feasible for the development investors and beneficial to the neighborhood and community. A first step taken by many private and institutional developers is to incorporate elements into the design of a building, site, or block that maximizes the positive impacts to the community while minimizing the negative impacts. A developer's contribution can be seen as a gesture indicating a willingness to create a project that results in a better place. Examples can include the provision for shared public amenities or facilities beyond those necessarily required by regulation, project components that help others achieve their own goals (housing affordability, job creation, local energy resilience), or other project elements that "pay it forward" by easing the burden on future (or existing) projects.

2-Collaboration

The combined efforts of two entities – each with a stake in the ultimate outcome of redevelopment in the SFC – can often lead to enhanced results for all involved. Opportunities for collaboration have already begun with the adoption of this plan – a shared vision for the South Frederick Corridors. The County will remain open to collaborative efforts that enhance the SFC and bolster efforts to make it a better place to live and work. The County will use its fiscal power to bring about positive change in the SFC and remains open to collaborating with private and institutional partners willing to help the County achieve its goals. The County will use its policy- and law-making powers to ensure that regulations are clear, fair, and up-to-date so those developers seeking to achieve community goals are not asked to expend resources adhering to rules that no longer serve the interests of their investors, their neighbors, or the plan's vision.

3-Guidance

For some of the work planned in the SFC over the next 20-25 years, it will be necessary to provide additional guidance in the form of non-regulatory guidelines. Such guidelines will be developed when necessary to suggest possible solutions while allowing for the flexibility often needed to redevelop a complex site or group of properties.

4-Mandate

Understandable, relevant, and efficient regulations are necessary to achieve a coherent and functional vision for the South Frederick Corridors Planning Area. Frederick County will wield its land use authority in the service of making excellent places for current and future residents, employees, and visitors in the SFC. New or re-tooled regulations will be constructed to best achieve the goals of this plan while remaining respectful of the resources required to bring any given project to fruition. It is understood that good regulations are fair and focused regulations. The County will make every effort to maintain development regulations that are transparent, understandable, and defensible. Codes will be adopted only when there is a clear understanding of what they are enacted to achieve. The County will take extra steps to ensure that any adopted regulations that are significantly different from the types of regulations in use prior to adoption of this plan are accompanied by staff support sufficient to allow both veteran and rookie applicants a reasonable opportunity to participate in the remaking of the SFC.



FOUR SCALES OF INFRASTRUCTURE

Infrastructure development remains at the heart of every project in a designated Community Growth Area. Without adequate or sufficient infrastructural support, much growth and redevelopment can simply not happen. Whether we are talking about school capacity, transit access, or the ability to schedule a time for a local recreational league softball game, it is advantageous to consider the various scales at which any given system must be planned, prepared, and made available to the community.

1-System

Infrastructure at the system level is something we consider all the time and it is best identified by considering some examples. The school system refers to everything needed to educate individuals in our community from bus schedules to classroom seat capacity to curricula. The physical plant, the staff, and the families that support their students are each a critical component of the school system. When we consider a system in the SFC, we are often speaking about a collection of resources, physical components, and operational complexities need to maximize functionality. The transportation system includes roadways, sidewalks, rail and bus transit networks, and the immense resources – both fiscal and human – needed to keep things moving.

2-Network

A network can be considered a coordinated subassembly of a larger machine or system. Thinking about the previous description of a system, a network can be thought of as a building block, or integral component. We might talk about the street network in the SFC in terms of connections between local streets and the state/federal highways that support these local roads. A network, in terms of sanitary sewers or stormwater conveyance, might be considered for some purposes as a means of describing how waste water, or rain water makes its way from an urbanized building site to a treatment plant or stormwater facility. In these cases, the networks are inherently critical to the functioning of a specific property in a way that a roof gutter, or toilet, is not. Networks, as described in this implementation plan are the bridge between a local neighborhood (Proximity), and the grander, often countywide systems that are necessary for communities to thrive.

3-Proximity

Some infrastructure is limited in scope and connection to the properties in its immediate vicinity. Examples include shared driveways, small service roads or sidewalk interconnections, shared stormwater retention, on-street parking for delivery vehicles, and local plazas, parks, and trail segments. Proximity, in this implementation context, refers to those components and impacts that reach beyond a single site, but remain localized within a smaller neighborhood area.

4-Site

On-site infrastructure can be something as modest as a bench or bicycle rack, or as critical as a high-speed data connection. Site-based infrastructure may be limited in its immediate impact to its specific site, but it may always be understood as a necessary component of larger neighborhood elements, localized networks, or broad systems.



FOUR TIERS OF EXPENSE

In gauging the cost impacts of a particular project necessary to support redevelopment of the SFC, the County should consider both the actual cost, as well as the relative cost. The following 4-tier system is intentionally broad to allow for practical comparisons as to the feasibility and overall cost to County taxpayers, private and institutional developers, and those left unserved through lost opportunities for investment.

Systemic - Impact at the Eco-system level; not achievable in the short term. This should be thought of as a category of costs that must demonstrate benefits beyond those simply necessary for the redevelopment of the SFC.

High - Indicates a high cost relative to the immediate objective. These costs may be limited in scope, but nonetheless involve changes to networks and systems with a high degree of previous deferred maintenance or technical obsolescence.

Medium - Indicates an expected level of expenditure for the identified effort. This type of cost is one that generally can be borne by the developers of a large site or neighborhood, but that may be undertaken in partnership with the County or other organization in order to spread the costs across multiple users, multiple projects, or multiple funders.

Low - Indicates low- or no-cost implementation.

Systems, Services, and Facilities

The multitude of systems, services, and facilities necessary to support intensive development or redevelopment is often difficult to envision. When we speak of a system such as public sewer service, we are really talking about a complex network of facilities, conveyance systems, maintenance and upgrade services, and the professional staffing to keep it all operational. It is often more useful to discuss these infrastructural investments using a framework that allows us to consider each portion of the system at the level of detail necessary to change, enhance, or expand it.

Using our Four Scales framework, let's consider the various infrastructures present or needed in the South Frederick Corridors planning area.

PUBLIC WATER AND SEWER SERVICE

Level 1: Planning Area

Adequate water and sewer service is generally available to the entirety of the SFC planning area. In the vast majority of cases, service areas are currently mapped as W-1/S-1 with smaller areas mapped as W-3/S-3. These designations indicate that most parcels are either currently served by water and sewer infrastructure, or stand ready to connect to these public systems in the near future. Treatment capacity for sewage effluent remains high. Water supplies remain generally available as well. No significant limitations in terms of general capacity appear to affect the SFC at this time. A Public Water & Sewer Service Study should be conducted to determine any limitations on redevelopment activity envisioned in this plan, with consideration given to overall system capacity (supply, treatment) and more localized conveyance/storage obstacles that may inhibit desired development in certain districts.

Level 2: Sectors

While both planning sectors exhibit the potential for growth and redevelopment that could substantially increase the demand for water and sewer service, the Ballenger Creek East Sector is perhaps the least predictable. Residential and commercial retail development in the South Frederick Triangle will constantly draw these resources at a predictable rate. In the BCE Sector however, the wildcard of industrial and employment uses makes it difficult to predict future use rates. In terms of conveyance, however, both sectors are currently served by relatively modern infrastructure constructed in the last four decades.

Level 3: Districts

At the District level, it is easier to estimate the potential draw down on overall capacity in the Evergreen Point and Crestwood Corridor Districts since these areas are allocated a significant number of dwellings.

Level 4: Subdistricts

A review of conveyance systems for both water and sewer service identifies a few subdistricts with few connections to a limited number of larger parcels. Intensification of development in these areas may create issues for land owners seeking to redevelop sites quickly.

SCHOOLS

Level 1: Planning Area

Overall school system capacity in Frederick County meets a level of adequacy for students across all grades served by FCPS. At the localized level, the conditions can vary greatly depending on geography. This SFC plan allocates up to 10,000 residential units to this growth area, accounting for a significant portion of the household growth expected over the next 24 years. Using pupil yield rates established in the 2020 Educational Facilities Master Plan (FCPS), a full buildout of 10,000 units would result in a school capacity deficit at each level: elementary, middle, and high schools. A more detailed assessment of school impacts appears in the School Sites section of this plan (Section 1.1.2.5). Without substantial redistricting, new school expansions or new school construction will be required to serve the estimated 2,300 additional students expected to call the SFC home over the course of the next generation.

Level 2: Sectors

While both planning sectors exhibit the potential for residential growth and redevelopment that could require the construction of new school facilities, the South Frederick Triangle sector is the primary location for new town center development.

Level 3: Districts

In general terms, the additional student capacity demand would require the equivalent of 2.2 elementary schools, one-seventh of a middle school, and about 40% of a full high school facility. With neighborhood-based, relatively small-scale, elementary schools at the heart of Frederick County's approach to educational facilities, it is clear that the SFC planning area should seek to identify locations for at least three future elementary schools, one middle school site, and one high school site. High school capacity may be met outside of the SFC, however it may be beneficial to

consider the potential siting of a future high school facility in the SFC planning area since the raw land requirements for such a school could have significant impacts at the Subdistrict level.

Level 4: Subdistricts

Elementary School sites for three new facilities should be identified in multiple subdistricts to allow for land acquisition as soon as is feasible. Surrounding pedestrian or park infrastructure may be necessary to best support an elementary school in an urbanized environment. Identifying and/or acquiring sites in the early years of plan implementation will allow for adequate preparation and may influence the character or timing of surrounding development.

PARKS AND TRAILS

Level 1: Planning Area

A Green Infrastructure approach to planning for future parks, plazas, and trails in the planning area has been adopted in this SFC Plan. An SFC Regional Park Circuit is used as a means of weaving together the entirety of the planning area. Parks, plazas, and a robust trails network are integrated into the overall plan for the area allowing the best opportunity to begin the incremental development of these facilities, beginning with the very first redevelopment project seeking development approvals following adoption of this plan.

Level 2: Sectors

A Master Plan for Parks, Plazas, and Trails (MPPT) in the SFC should be developed in the year following adoption of the SFC Plan. Master plans for specific facilities can be developed as needed under the auspices of the MPPT-SFC. The development of the MPPT-SFC will also allow for County investment in portions of the system so that facilities are made available to those working or residing in early pioneering redevelopment projects in the first few years following adoption of the SFC Plan.

Level 3: Districts

The MPPT should utilize the SFC Districts as fundamental building blocks for envisioning and developing facilities that meet the needs of each District and its component neighborhoods. District-level planning will allow for flexibility as land development/redevelopment projects emerge over time and will result in facilities that are the best possible fit for the character of each area or neighborhood.

Level 4: Subdistricts

Subdistrict planning for parks, plazas, and trails can be a collaborative effort with the County's development partners so that these facilities reach deeply into neighborhoods with impacts at the site and block level.

STREETS AND ROADS

Level 1: Planning Area

Development of the SFC's Streets and Roads network will occur incrementally as development activity generates the need to construct localized streets, roads, and alleys, as well as improvements to the arterial and highway facilities serving the planning area. Major road projects will be planned, developed, and constructed by the County – in certain cases with monetary support from projects generating demand in the SFC. Generally, the more localized network of streets – particularly those serving a single site or large project – will be constructed by land developers as they develop their holdings in the planning area. The streets and roads network illustrated in this plan is intended to be somewhat flexible at the site development scale, but never to the point where a divergence from the illustrated plan compromises the functionality or place-making characteristics of the proposed network.

Level 2: Sectors

While both planning sectors will require significant road infrastructure improvements in order to achieve the vision laid out in this plan, the Ballenger Creek East Sector is slightly larger, includes a more diverse collection of existing uses, and will include employment areas requiring considerations for truck movements in association with industrial uses. Both sectors share access to major interstate and state highway facilities that have implications for surrounding areas and may require planning efforts that study geographies beyond the SFC.

Level 3: Districts

Implementation at the District level will require consideration of existing uses as well as of proposed development. The predominance of employment uses in the Lime Kiln District is likely to continue into future years. The Evergreen Point District will continue to serve as a regional retail hub, even as new residential and other mixed use projects are constructed. The Evergreen Point District is also the area where the County-City movements must be recognized and planned to allow for the best integration of the jurisdictions' standards and expectations regarding all transportation facilities. The Crestwood Corridor is currently home to residential, employment, and retail land uses. Future infill and redevelopment in this district will be imposed on a largely suburban road network.

Level 4: Subdistricts

Specific and regular updates to the localized street network will be required in subdistricts that experience considerable redevelopment. The County should embark upon these updates when existing projects have so altered

the SFC illustrated plan that adjacent or adjoining property owners would be unable to implement their site/project plans without significant cost or effort.

INSTITUTIONAL & CULTURAL PRESENCE

Level 1: Planning Area

One of the crucial neighborhood elements missing in most suburban neighborhoods – and many newly developed ‘lifestyle centers’ and mixed-use neighborhoods - developed since the end of the Second World War, is the presence of integrated non-commercial, institutional or cultural facilities. Development of non-governmental institutional and cultural amenities in the SFC will occur, to a large extent, as the need arises, but the County should continually entertain opportunities for partnerships with non-profit organizations that provide benefits and services to citizens in areas such as the arts, public health, and education. The presence of cultural and institutional amenities will greatly enrich the quality of life in the redeveloped neighborhoods planned for this area and it should be the goal of this SFCP to nurture these activities.

Level 2: Sectors

Both planning sectors offer opportunities for institutional and cultural investments that can serve to catalyze compatible development. Since institutional investment in a physical site or facility requires a significant amount of preparation, it is unlikely that amenities such as performing arts centers, libraries, hospitals, or educational/training facilities will be available in the early years of redevelopment. However, it may be beneficial to the County to invite community and institutional input as to the types of facilities and services that might best serve the SFC, and to take steps to build partnerships with non-governmental organizations to lay the groundwork for such uses in future years.

Level 3: Districts/ Level 4: Subdistricts

The development of specific sites for the purpose of establishing institutional and cultural amenities at the district and subdistrict levels will require a similar approach that likely begins at the parcel level. The County can participate in this process assuming any number of critical roles such as advocate, funding partner, planning partner, or developer of supportive infrastructure. Traditional governmental institutional facilities such as libraries, health department facilities, and recreational centers may require the complete, or nearly complete, funding and development support of Frederick County government. However, it will almost always be the case that local institutional partners may be able to amplify the impacts of such facilities through some level of participation, and the County should encourage this type of partnership for future projects in the SFC and elsewhere in the County.

A PLAN FOR ACTION

Implementation of this document will present new challenges to the County and require deeper and broader coordination among the many players who have a role in creating our built environment. Some actions can begin prior to plan adoption since these will have application in other Community and Corridor plans. Some actions require immediate attention either concurrent with the adoption of the SFCP or soon thereafter. Many implementation efforts will be on-going and require an initial policy shift, code change, or administrative adjustment, after which efforts will continue into the future as part of the day-to-day work of the County and its partners.

Here, briefly, is a summary of initial implementation steps, categorized by topic, needed to begin an orderly and incremental redevelopment of the South Frederick Corridors. Initiatives with the highest priority for implementation are demarcated with a star symbol.

PLAN ADOPTION & OVERSIGHT

PL1 - Adoption of the SFCP including the Residential Growth Allocation Target for Subdistricts, Regulating Plan (Form Designations), the Street & Road Plan (Road Designations), and the Frontage Plan (Building Frontage Designations). This legislative action by the County Council amends the Livable Frederick Comprehensive Plan, including the Comprehensive Plan Map (Land Use Map) and Growth Allocation Target.

★**PL2 - Adoption by the County Council of a South Frederick Corridors Plan Implementation package** to include an amended Ordinance and any transitional code language necessary to integrate form-based code components into the zoning regulations governing development. Mandatory, Parallel, and Floating zone variants may be included in the legislative package. The following Subdistricts will be prioritized for application of new form-based zoning regulation: Monocacy Square, Grove Square, and Westview.

PL3 - Create Community Outreach Programs for Landowners in the SFC Planning Area and land development professionals to communicate changes brought about by the adoption of the SFCP. (Workshops, FAQs, video introductions to key concepts, visits to partner organizations in the private sector).

PL4 - Establish an SFC Working Group to Advise County Officials on issues relevant to the redevelopment of the planning area. This group's membership may grow organically out of the SFC Scoping Group, but should include representation from the business community, affordable housing advocates, transit representatives, and sustainability/resiliency representatives, as well as County staff.

IMPLEMENTATION TOOLS

★**IP1 - Ensure Coordination with Development Review Department** as well as with other agencies whose staff play a role in the review and approval of development projects in Frederick County.

IP2 - Publish an SFCP Monitoring Report two years after initial adoption of the plan, and biennially thereafter, in order to track development activity, public facility impacts, demographic changes, and market trends.

IP3 - Develop Graphical Tool – the SFC Place-Making Guide & Action Table – built around the Framework of Fours to serve as an implementation guidance device (if not completed as part of SFCP). This tabular listing and prioritization tool for implementation initiatives will describe each implementation item and initiative set forth in the SFCP. This guide can become a living document, updated regularly, to address new or continuing implementation challenges as redevelopment of the area proceeds. The SFCP Monitoring Report may serve as the appropriate home to this tracking and prioritization tool.

IP4 - CIP Integration of SFCP/SFC Place-Making Guide In the years following adoption of this plan, the SFC Place-Making Guide will be utilized during the CIP process to consider project funding for capital improvements that encourage and enable the redevelopment of the SFC planning area. Once the SFCP Monitoring Report begins publication (two years following adoption of this plan), both the Monitoring Report and the Place-Making Guide will be used as critical, decision-making resources during consideration of the annual CIP.

IP5 – Recalibrate Impact Fees to align with the goals of the SFCP and the Livable Frederick Master Plan, and to encourage development activity to occur in places where the County can best afford to build and maintain community supportive infrastructure in future decades.

IP6 - Consider the Use of a Community Development Authority or Tax Increment Financing District in areas with a high potential for significant post-redevelopment assessed values and where initial infrastructural improvements may be cost prohibitive to developers.

★ **IP7 - Adopt FRO policies to default to off-site mitigation or fee-in-lieu** to meet forest planting requirements for development activities in the SFC Planning Area.

SCHOOLS

★ **SC1 - Coordination summit with FCPS to determine appropriate allowances for residential development in the SFC Planning Area** that is supportive of the County's long-term growth strategies and educational goals.

★ **SC2 - Allocate the resources necessary to create school capacity for SFC growth.** County leaders should act decisively to construct new schools in the SFC, as well as additions to existing school facilities in surrounding areas, in order to fully support residential development in the South Frederick Corridors. No other strategy is as critically important to the ultimate success of the plan as this one.

SC3 - Establish the South Frederick Corridors Educational Opportunities Zone. Identifying a planning area-wide zone, or a smaller concentrated sub-area, within which to focus the County's resources for school site planning, land acquisition, and facility construction, will allow for a differentiated and nuanced approach to providing adequate facilities in this critical growth area.

SC4 - Consider a Recalibration of Tools Currently Used to Manage School Capacity and Fund Facility Construction. The County and FCPS should act with urgency in identifying methods to quickly increase funding for the construction of school facilities serving the South Frederick Corridors Growth Area.

SC5 – Adopt Policy Tools that Maximize Existing School System Capacity. The County and FCPS should identify and adopt a shared set of policy tools that maximize existing school system capacity, particularly in communities experiencing lower rates of residential growth.

SC6 - Identify and acquire sites for five (5) schools within the SFC planning area. The County should identify and acquire sites for the location of a new high school, middle school, and at least three (3) additional elementary schools. The sites should be positioned to maximize positive neighborhood impacts and be located and improved to allow for the maximum number of students to access the schools on foot. Opportunities for co-location should be pursued where proximity to athletic facilities, parks, or other public facilities can benefit both the school and the community, while maintaining the integrity of the schools' educational mission.

TRANSPORTATION & MOVEMENT

★ **TR1 – Coordinate with Frederick County's TransIT Division to develop an SFC-specific transit strategy**

The SFC is planned as a growth area centered around the concept of multimodal accessibility. Planning and transportation staff will work with the County's TransIT in the creation of a practical transit service plan for the South Frederick Corridors that can best amplify – and catalyze – redevelopment efforts in the planning area. The plan will necessarily coordinate efforts with the Transportation Services Advisory Council (TSAC) as well as with state, federal, and municipal partners, beginning with initiatives TR5 and TR6.

TR2 - Integrate the Proposed SFCP Streets Network Into the County's Transportation Model Planning staff will determine the most appropriate method of integrating the new network of streets, roads, and highways into the County's transportation modeling efforts so the County is in the best position to: assess the impacts of redevelopment on the overall network; consider options for public and private improvements; and adjust the planned network to accommodate the gradual, incremental, and coordinated growth of the planning area in the following decades.

TR3 - Work with the City of Frederick and MDOT/SHA to Develop a Coordinated Set of Standards and Guidelines for Pedestrian and Bicycle Access County planning and transportation staff, and their cohorts in the City of Frederick, will work with Bicycle and Pedestrian Advisory Committees (BPAC) in both jurisdictions to develop a set of standards and guidelines for pedestrian and bicycle infrastructure in the transition areas near the jurisdictional boundaries. While there are certainly other systems that would benefit from a close working relationship with our municipal partner, the pedestrian and bicycle connections are of utmost importance as the County seeks to create a more urbanized environment in the SFC Planning Area.

★ **TR4 - Adopt Street and Road Network Build-Out Incentives** in a series of code amendments and policy changes that encourage private land developers to extend the planned network as illustrated in the SFCP.

TR5 - Coordination summit with SHA/MDOT to discuss ownership transfer, design & engineering strategies, and maintenance agreements for MD 85 and MD 355.

TR6 - Coordination summit with MDOT/MTA to develop a Letter of Understanding (or other mutually agreed to device) to establish a timeline for development of State-owned property in the vicinity of the Monocacy Station.

TR7 - Adopt Significantly Reduced Vehicular Parking Requirements for all areas in the SFC subject to the Regulating Plan in order to discourage sole reliance on automobiles in the planning area, decrease the amount of acreage committed to paved parking lots, and allow for a more urban development pattern. To be implemented in conjunction with the widespread provision of on-street parking and the development of both public and private structured parking where feasible.

TR8 - Create a Wayfinding and Identity Mini-Plan for the SFC that addresses coordinated signage, demarcation of prominent gateways into the area, and other issues of concern to neighborhoods in transition. To avoid duplication

of efforts, the County should reference the existing standards and templates established for the Journey Through Hallowed Ground (JTHG) and other scenic byway and municipal applications.

TR9 – Plan for and develop functional and convenient connections to the New Design Side Path, with particular emphasis on its potential integration with the mobility components of the Green Lattice. The Side Path's alignment along the western edge of the SFC provides an opportunity for the County to serve both recreational and transportation users in the planning area, and County policies should support this flexible functionality.

TR10 – Implement a universal Mobility Fee in lieu of a traditional APFO-Roads mitigation program to better reflect the multimodal nature of planned development in the SFC. The County will focus mitigation resources on projects across the planning area which are best able to implement systems and networks, with a greater emphasis on transit, pedestrian, and bicycle improvements that are supportive of vital, functional, accessible, and healthy neighborhoods.

TR11 – Adopt policies and regulations that build on the applied concepts of Transit Oriented Development (TOD) and take full advantage of both existing and planned transit centers and stations, multimodal connection points, population and employment densities, and a 24-hour human presence best facilitated in a mixed use environment. The Monocacy MARC Station provides a promising starting point - and potential catalyzing project - for TOD implementation, but the County will apply the TOD concept across the transportation network within the SFC at a modest scale as well.

HOMES

★ HM1 - Provide Regulatory Language and Guiding Documentation for Missing Middle Housing Types that clearly and affirmatively define and permit a variety of multi-unit residential building types known as "Missing Middle" and "Upper Missing Middle" housing. Specifically, these would include unit types such as courtyard apartments, multiplex (medium), multiplex (large), and fourplexes. The County should adapt its codes and policies to encourage development of these types of residential units, remove regulatory and policy barriers to their acceptance, and actively promote their role in delivering attainable and affordable housing options for middle-income households.

★ HM2 - Eliminate Perfunctory Regulatory Limits on Residential Density and provide alternative controls based upon performance and functionality.

HM3 - Work with Partner Organizations to Develop a SFC-Oriented Housing Affordability Strategy if such a document is not completed concurrently with the SFCP.

HM4 - Adoption of a Modest-Sized Dwelling Unit (MSDU) Incentive. Incentivizing the development of some smaller-sized homes in the SFC planning area will encourage private sector residential developers to include a small but critical number of modest-sized dwellings in future neighborhood development. One option, utilized in other Maryland jurisdictions, would charge Impact Fees based upon a per square foot rate, rather than by housing type.

PARKS AND RECREATION

★ PR1 - Coordination summit with the Division of Parks and Recreation to develop a list of priority park, plaza, and trail projects for the LPPRP, Park Acquisition Strategy, CIP, and other planning documents used by FCPR. An SFC-specific Parks Plan will be memorialized in a Letter of Agreement that establishes a timetable for park and trail development, resources required (initial and on-going), and any special escrow accounts necessary to facilitate cost-sharing with private sector development partners.

PR2 - Create a Master Plan for the SFC Trail Circuit that allows the County and its development partners to coordinate and fund the network of multi-use trails that will serve to bind the SFC's subdistricts into a functional place for walkers and bicyclists.

PR3 - Identify and Develop Satellite Maintenance Facilities and Staging Sites for Parks. The County should incorporate small satellite facilities and staging sites in key locations throughout the planning area in order to ease the burden of transporting and storing maintenance equipment and supplies that will be used to serve the network of distributed parks, trails, and plazas in the South Frederick Corridors. Other County divisions may benefit from these satellite facilities which may take the form of small storage structures, paved or fenced storage areas, or simply right-of-way access points from or across private property.

ECONOMIC RESILIENCE

★ EC1 - Develop an Economic Development Strategy for the SFC Planning Area The County's Economic Development efforts in the SFC Planning Area should focus on targeted industry sectors that would benefit from, and serve as a catalyst for, the types of urbanized environments imagined in this plan. The development of a Strategies Report, or other appropriate device as determined by the County's Office of Economic Development, should identify both business retention and business attraction strategies that can be employed to give the County the best chance of building on its already robust employment environment.

EC2 - Adoption by the County Council of revised code language for the Lime Kiln District that maintains to a large extent the existing zoning districts, but with the potential for Floating zone application of form-based code regulations. Revised Euclidean zoning could include incentives for those who honor the Street & Road Plan in

their development/redevelopment of industrial uses. Revisions to the Use Table to entertain any new categories or standards will be included in any proposal for this District.

EC3 - Proactively Identify and Resolve Issues Limiting Access to High-Speed Data in the SFC. High-speed internet access has become an integral part of nearly every facet of our lives. The value of this infrastructure as an economic development driver remains high, while its importance to our educational system and its capacity to help us maintain social connections has only grown stronger in recent years. Meanwhile, the need to establish public policies that advance community goals for social and economic justice increasingly center on access to economic and educational infrastructure. And while the creation of a level playing field is only a first step in this process, the County can make significant inroads by aggressively pursuing ubiquitous broadband data access in the SFC Planning Area as a foundation for building a strong workforce, maintaining healthy and connected communities, and fostering opportunities for everyone.

EC4 - Work with Economic Development to Establish a Business Displacement Assistance Program to help small businesses displaced temporarily or permanently by land redevelopment in the SFC.

EC5 - Incentivize low income and workforce housing at transportation access points, such as the Monocacy MARC Station or other multimodal nodes, to reduce the financial impact of transportation costs on housing affordability. Adapt existing models for housing assistance to support this strategy in the SFC while also investing in local transit options that efficiently and conveniently support a mobile workforce.

FACILITIES AND SERVICES

★ **FC1 - Conduct a Public Water & Sewer Service Study for the SFC** that identifies service expansion obstacles, inadequacies of the existing conveyance and treatment systems, and system capacity in order to encourage redevelopment of the planning area. The study will also identify specific projects needed to facilitate mixed use development in this designated Community Growth Area.

FC2 - Deploy Smart Cities Technology in the SFC Planning Area to Enable Better Decision-Making (Policies and Investments) and Enhance Livability. Frederick County should embrace key elements of the Smart City approach to improve operations and the delivery of public services while avoiding technologies that facilitate surveillance, minimize citizen input in the organic development of their neighborhoods, or inadvertently ignore people with accessibility challenges.

FC3 – Determine the Feasibility for a Public Library Branch Facility to serve the residents and employees of the South Frederick Corridors planning area and move forward with site identification and site acquisition when resources permit. While a core residential population may not develop in the initial years of plan implementation, the County should consider that a library can serve as a catalyzing amenity that improves neighborhood quality and triggers non-governmental investment.

FC4 - Develop an Initial Framework for Electric Vehicle Charging in the SFC. The advent of the EV era is upon us. With market-driven demand, supported by public policy incentives, most Americans will be driving or riding in vehicles powered by motors rather than by engines in the next decade. However, our long-range implementation strategy for the SFC remains centered on the concept of incremental redevelopment. In order to avoid a residential and commercial landscape dotted by early pioneering projects devoid of adequate EV charging capacity, the County should establish a clear framework for ensuring that resident drivers in the SFC will not find themselves without access to this vital component of our transportation and energy network. The County may ultimately achieve EV charging ubiquity without the need for additional regulations, but instead utilize local and outside resources to provide incentives for project developers to provide for anticipated EV charging demand.

FC5 - Develop a Coordinated, area-wide plan for Stormwater Management based upon new or updated watershed plans for the lower Ballenger Creek and Monocacy Direct Southwest Watersheds. SWM strategies in the SFC planning area should assume an urbanized built environment, while seeking to provide as many opportunities as possible to restore or mimic naturalized areas that can incorporate, in some part, stormwater quantity and quality solutions. When possible, SWM for quantity management should be collectivized to encourage the types of intense redevelopment envisioned for this planning area without the need for extensive individual, on-site, surface ponds.

★ **FC6 – Institute a System for Creating Shared Community SWM Facilities** and devise a system for collecting site development fees in order to recapture the costs of forward-funded SWM projects.

FC7 – Develop a Concept Plan for Integrating SWM Facilities and Accessible Green Infrastructure in the SFC This Concept Plan may include specific site recommendations for creating areas where residents and others can interact with naturalized facilities and should also present a 'cook book' (ESD Manual) of preferred ESD techniques customized to the specific needs and conditions in the SFC.

SFC PLACE-MAKING GUIDE



ACTIONS

These actions represent both tactical and strategic approaches to redevelopment of the SFC.

Each Action Category provides a unique way to understand the steps needed to implement the ideas presented in the SFC Plan.

PLAN ADOPTION & OVERSIGHT

PL1 - Adoption of the SFCP

★ PL2 - Adoption by the County Council of a South Frederick Corridors Plan Implementation package

PL3 - Create Community Outreach Programs for Landowners

PL4 - Establish an SFC Working Group to Advise County Officials

IMPLEMENTATION TOOLS

★ IP1 - Ensure Coordination with Development Review Department

IP2 - Publish an SFCP Monitoring Report

IP3 - Develop Graphical Tool – the SFC Place-Making Guide & Action Table – built around the Framework of Fours

IP4 - CIP Integration of SFCP/SFC Place-Making Guide

IP5 – Recalibrate Impact Fees

IP6 - Consider the Use of a Community Development Authority or Tax Increment Financing District

★ IP7 - Adopt FRO policies to default to off-site mitigation or fee-in-lieu

SCHOOLS

★ SC1 - Coordination summit with FCPS to determine appropriate allowances for residential development

★ SC2 - Allocate the resources necessary to create school capacity for SFC growth.

SC3 - Establish the South Frederick Corridors Educational Opportunities Zone.

SC4 - Consider a Recalibration of Tools Currently Used to Manage School Capacity and Fund Facility Construction.

SC5 – Adopt Policy Tools that Maximize Existing School System Capacity

SC6 - Identify and acquire sites for five (5) schools within the SFC planning area.

TRANSPORTATION & MOVEMENT

★ TR1 – Coordinate with Frederick County's Transit Division to develop an SFC-specific transit strategy

TR2 - Integrate the Proposed SFCP Streets Network Into the County's Transportation Model

TR3 - Develop a Coordinated Set of Standards and Guidelines for Pedestrian and Bicycle Access

★ TR4 - Adopt Street and Road Network Build-Out Incentives

TR5 - Coordination summit with SHA/MDOT

TR6 - Coordination summit with MDOT/MTA

TR7 - Adopt Significantly Reduced Vehicular Parking Requirements

TR8 - Create a Wayfinding and Identity Mini-Plan for the SFC

TR9 – Plan for and develop functional and convenient connections to the New Design Side Path

TR10 – Implement a universal Mobility Fee in lieu of a traditional APFO-Roads mitigation program

TR11 – Adopt policies and regulations that build on the applied concepts of Transit Oriented Development (TOD)

HOMES

★ HM1 - Provide Regulatory Language and Guiding Documentation for Missing Middle Housing Types

★ HM2 - Eliminate Perfunctory Regulatory Limits on Residential Density

HM3 - Work with Partner Organizations to Develop a SFC-Oriented Housing Affordability Strategy

HM4 - Adoption of a Modest-Sized Dwelling Unit (MSDU) Incentive.

PARKS AND RECREATION

★ PR1 - Coordination summit with the Division of Parks and Recreation

PR2 - Create a Master Plan for the SFC Trail Circuit

PR3 - Identify and Develop Satellite Maintenance Facilities and Staging Sites for Parks.

ECONOMIC RESILIENCE

★ EC1 - Develop an Economic Development Strategy for the SFC Planning Area

EC2 - Adoption by the County Council of revised code language for the Lime Kiln District

EC3 - Proactively Identify and Resolve Issues Limiting Access to High-Speed Data in the SFC.

EC4 - Work with Economic Development to Establish a Business Displacement Assistance Program

EC5 - Incentivize low income and workforce housing at transportation access points

FACILITIES AND SERVICES

★ FC1 - Conduct a Public Water & Sewer Service Study for the SFC

FC2 - Deploy Smart Cities Technology in the SFC Planning Area

FC3 – Determine the Feasibility for a Public Library Branch Facility

FC4 - Develop an Initial Framework for Electric Vehicle Charging in the SFC.

FC5 - Develop a Coordinated, area-wide plan for Stormwater Management

★ FC6 – Institute a System for Creating Shared Community SWM Facilities

FC7 – Develop a Concept Plan for Integrating SWM Facilities and Accessible Green Infrastructure

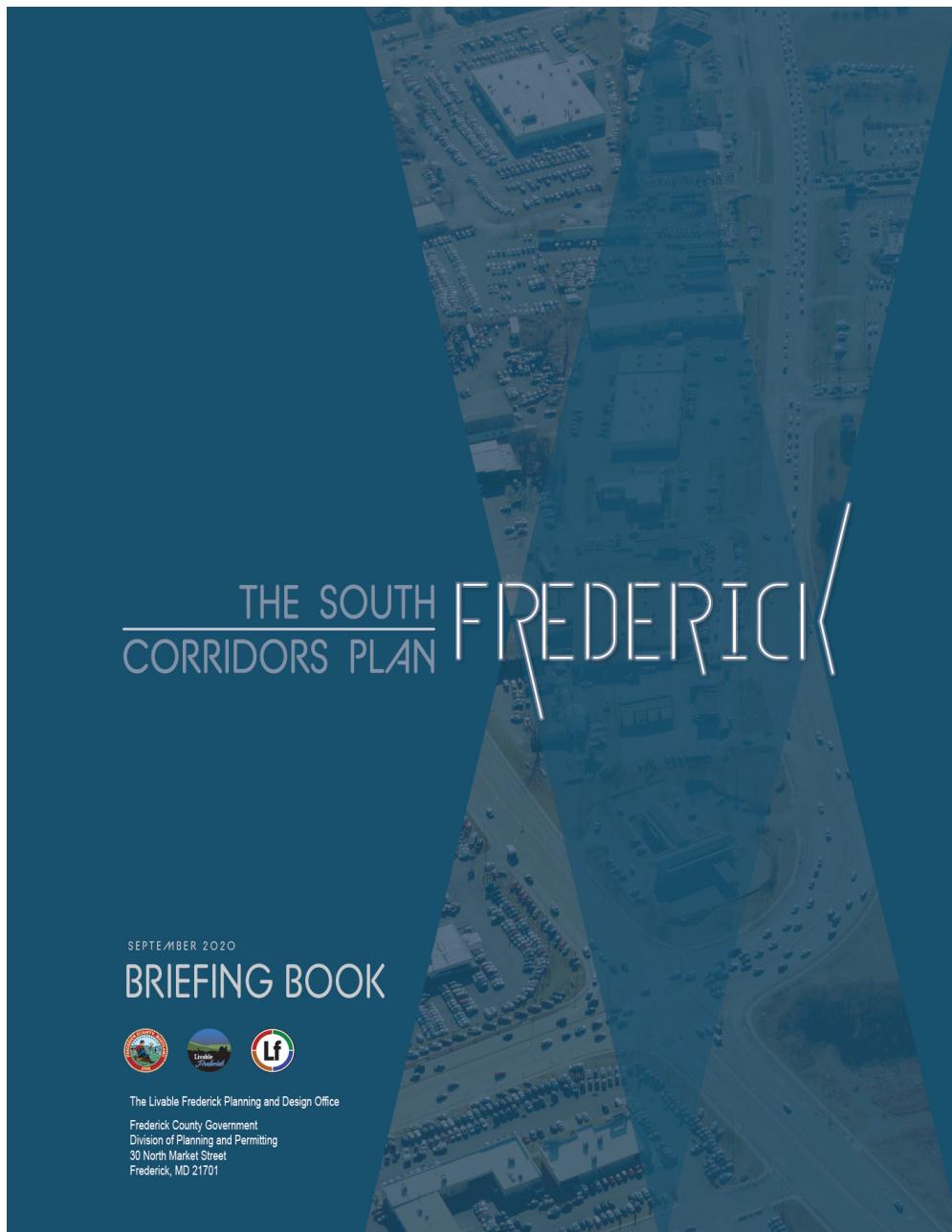
ACTION CATEGORIES



APPENDIX



THE SOUTH FREDERICK CORRIDORS PLAN BRIEFING BOOK



***Available under separate cover.



**The South Frederick Corridors Plan
An Element of the Livable Frederick Comprehensive Plan**

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