HULL STREET CORRIDOR | REVITALIZATION PLAN

Prepared for

CITY OF RICHMOND AND CHESTERFIELD COUNTY, VIRGINIA

Consultants

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EXECUTIVE SUMMARY
English Version

The Hull Street Corridor Revitalization Plan provides a comprehensive, implementation-oriented strategy for creating sound, economically sustainable quality of life enhancements along a 4.7 mile stretch of the Hull Street Road corridor extending through both the City of Richmond and Chesterfield County, Virginia. These improvements include strong and safe multi-modal connections, transportation infrastructure upgrades, visual and physical enhancements, improved housing options, expanded job opportunities and critical recreational and environmental investments --- all needed to transform the Hull Street corridor from simply a highway through communities to a vital, vibrant place where people from both the area and the region want to live, shop, work and be entertained.

THE CORRIDOR TODAY: THE NEED FOR A HULL STREET REVITALIZATION PLAN

A visitor to Hull Street Road today experiences a corridor that is long past its prime in many locations. As with other older corridors throughout the country, one's first impressions of Hull Street are of a outdated strip commercial artery with a predominance of parking lots, many vacant parcels and buildings, a large and unsafe number of curb cuts, and a lot of visual "noise" resulting from a clutter of signs and utility lines. One is also struck by the elements that are completely missing from this roadway which would provide a more "human" scale and feel, such as sidewalks, demarcated pedestrian crossings, lighting, street trees, open spaces and landscaped areas, bus shelters, and bicycle amenities. Therefore, both the visual quality of the corridor, as well as its speed limits and limited number of signaled intersections, encourage drivers to speed through the area and discourage any pedestrian or bicycle uses. Nevertheless, many of those living, working and attending one of the schools along Hull Street have no other option but to travel on foot, even to get to one of the bus stops located on the Richmond portion of the corridor.

In the past decade, the Hull Street corridor has become a home for many new, emerging businesses -- many of them tied to the area's changing demographics. These businesses, combined with the significant commuter population that traverses the area daily and the relatively stable residential population that adjoins the corridor in many locations, all hold the potential for a brighter Hull Street future. With this potential in mind, the City of Richmond, in partnership with Chesterfield County and the Virginia Local Initiatives Support Corporation (LISC), applied for and received a 2010 Community Challenge Planning Grant from the U.S. Department of Housing and Urban Development, as well as a TIGER II Planning Grant from the U.S. Department of Transportation to prepare a corridor revitalization plan for a

Existing conditions on the Hull Street corridor

Hull Street Corridor Study Area

4.7 mile stretch of Hull Street Road/Route 360, extending from Hicks Road/ Walmsley Boulevard in Chesterfield County to the railroad line just west of Southside Plaza in the City of Richmond. Chippenham Parkway serves as both the boundary between the two jurisdictions, and the mid-point for the study area.

ENGAGING A DIVERSE COMMUNITY

The planning process emphasized the value of active and frequent community engagement in order to define a vision for the Hull Street corridor that is responsive to the needs of residents and businesses within and near the study area. Given the demographics of the area's current population, a significant effort was made to meaningfully involve both its English-speaking and Spanish-speaking populations, and to reach out to as many demographic groups as possible.

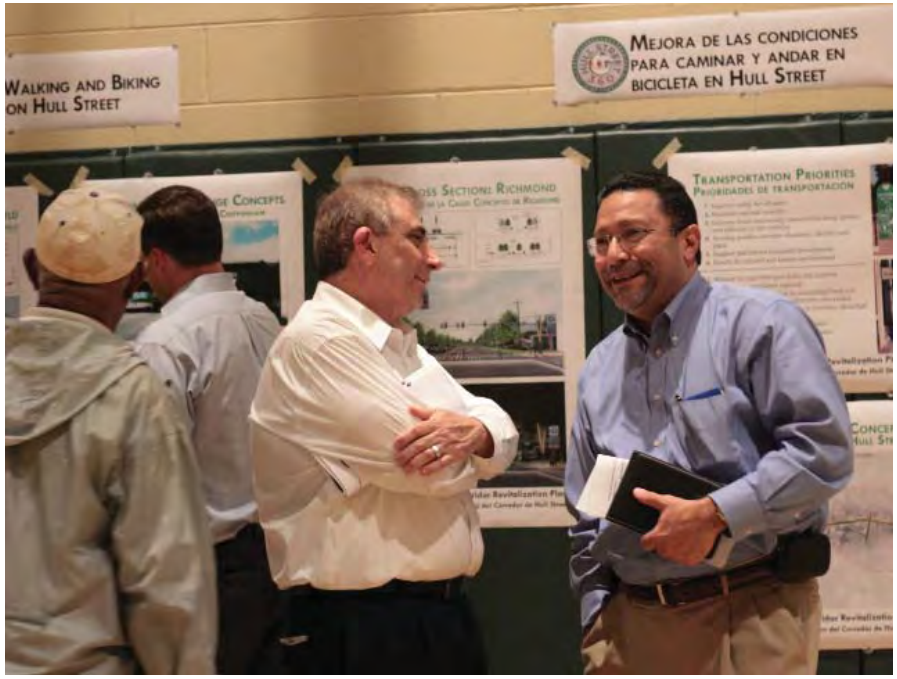
To that end, the community involvement strategy for the project included the following elements:

- A project ***Steering Committee*** made up of business and residential representatives from both the City and the County. This group met on a monthly basis.
- An ***Agency Coordination Group*** comprised of key City and County agency representatives who will play a significant role in plan implementation. This group also met monthly.
- Five bilingual ***public meetings and workshops*** covering the period from August 2011 to January 2013 with an extensive "marketing" program to publicize these events.
- Targeted ***focus group*** sessions in both English and Spanish, as appropriate.
- ***Bilingual project information booths*** at 13 public events.
- ***Key stakeholder interviews and presentations***.
- A ***bilingual website*** which included an on-line survey tool.

THE ECONOMIC OPPORTUNITIES FOR CHANGE

At least initially along Hull Street, one is likely to see a continuation of the pattern of small businesses taking advantage of the corridor's traffic levels and affordable space. New development is currently limited by competition from nearby areas that have better aesthetics and higher income levels to support the businesses. As a result, investment in the corridor should first focus on helping existing businesses and local entrepreneurs succeed and expand, and improving the physical setting of the corridor—its aesthetics and its pedestrian, bicycle and transit accommodations—so that one can begin marketing to outside companies. Until Hull Street's image changes, success in attracting new businesses will be limited.

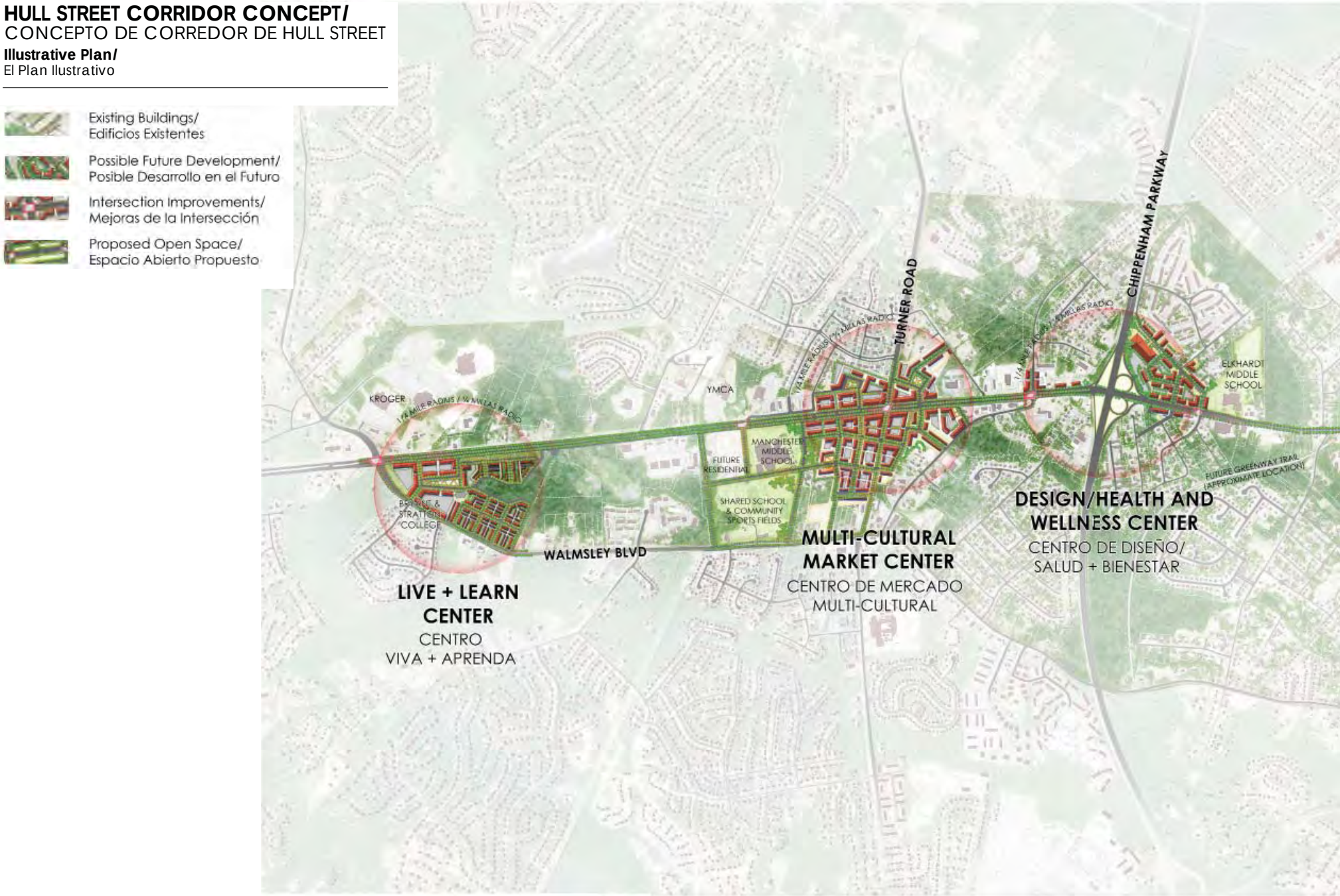
The transformation of the Hull Street "image" begins with identifying areas with the greatest potential for initiating significant change, and with developing a plan for overall corridor-wide improvements. The Hull Street



Photos from the October 23 public workshop

HULL STREET CORRIDOR CONCEPT/
CONCEPTO DE CORREDOR DE HULL STREET

Illustrative Plan/
El Plan Ilustrativo



Hull Street Corridor: Illustrative Plan

study area has 20 sites potentially suitable for both short and longer term development or redevelopment, ranging in size from 0.4 to 34 acres. The sites were defined based on:

- Hull Street access
- Visibility on Hull Street and other thoroughfares
- Vacant or underutilized land
- Parcel size
- Building condition
- Proximity to an existing cluster or anchor business

In most cases these sites are vacant properties, though a few have some modest buildings remaining, primarily in poor condition. The largest properties are greenfields that have never been developed. Most significant is the undeveloped property in the southeast corner of Hull Street and Warwick Road, a major intersection. Other major greenfield properties include land east of Elkhardt Middle School and a major site east of Bryant & Stratton College on the western end of the corridor.

In addition, workforce development and job accessibility should be priorities for initiating revitalization. Strategies to improve residents' economic conditions must focus on enhancing their skills and ability to compete for jobs and on improving their ability to travel to locations with new and existing jobs. Investment in the workforce skills of both the corridor's youth and adults, helping them find and qualify for good jobs, and improving transportation services to get them to jobs will improve the family finances and economic stability of study area residents. However, in order to retain these residents as their incomes rise, and attract new middle-income residents, quality of life and quality of services in the study area must improve.

The market/economic strategy for the corridor's future must include both improved aesthetics and the creation of exciting new mixed-use clusters that will attract prospective customers, residents and businesses. Concentrating retail activity at major intersections will improve the corridor's appearance and ability to compete for customers. Moreover, the clustering of uses allows

Precedent images: Farmers market and park space

shoppers to make one stop and conveniently patronize more than one store, encouraging cross-shopping. Based on the analysis of market opportunities and key available sites for redevelopment and new development, such activities should focus on four key nodes – Hicks Road/Walmsley Boulevard, Turner Road, Chippenham Parkway, and Warwick Road.

THE LAND USE VISION: DEFINING AREAS TO BEGIN THE TRANSFORMATION

Based on the economic and market analyses, and the community engagement process, the vision for Hull Street transforms it from a highway to a destination through the redevelopment of four key activity centers. The guiding principles for this transformation, drawn from Federal sustainability and livability criteria, are:

1. Create "places" not just shopping centers by locating a mix of compatible uses within walking distance of each other.
2. Make the street a comfortable place to walk
3. Provide road networks that offer viable "walk and ride" options
4. Attract an economically diverse range of people to the corridor to support a broad range of new and better uses
5. Protect existing residential communities while creating new housing for a range of income levels
6. Provide easy access to parks and other green spaces

The clustered "activity centers" vision recognizes that there is a limited amount of new development likely to occur on Hull Street under current conditions. Thus, in order to create the types of mixed use, walkable areas envisioned, new development and redevelopment should be directed to designated areas and should conform to pedestrian-oriented urban design patterns.

The four Hull Street activity centers are:

1. ***The Live and Learn Center***: located in Chesterfield County near the intersection of Hull Street Road and Walmsley Boulevard/Hicks Road
2. ***The Multi-Cultural Market Center***: located in Chesterfield County, at the intersection of Hull Street Road and Turner Road
3. ***The Design/Health & Wellness Center***: located in both Chesterfield County and the City of Richmond, at the Chippenham Parkway interchange
4. ***The Town and Family Entertainment Center***: located in the City of Richmond at Warwick Road

The Live and Learn Center

The Live and Learn Center is envisioned as just that—residential and educational land uses, supported by a small amount of retail. This mixed-use and institutional area focuses on a "town square" type of public open space and is designed to increase retail options for an expanded college campus. The parcels to the east are townhouses, some of which front on an existing stream corridor that provides an additional open space opportunity. These townhouses could provide much-needed senior housing for the area, a use that would nicely complement a college campus since continuing education is increasingly popular in senior communities. The residential area could also potentially offer housing for students at the college, particularly since transit service is currently unavailable on this section of Hull Street.

Visualization of the Live and Learn Center

The Multi-Cultural Market Center

The Multi-Cultural Market Center is envisioned as the highest intensity of retail use on the corridor. In this concept, both sides of Hull Street are lined with mixed-use development, emphasizing an increase in retail options on the first floor. A walkable street grid is introduced, providing connections throughout the area, including links to a redeveloped Manchester Middle School and shared school and community recreational fields. A marketplace/farmer's market is a central feature for the area, located in a public open space in the southeast quadrant of the intersection. Public open spaces are also shown in the other three quadrants. Townhouse and multifamily housing are sited behind the redeveloped mixed-use areas, offering a transition as the new development blends into existing single family neighborhoods. The Plan also recommends transformation of the bus parking lot west of the school


Visualization of the Multi-Cultural Market Center

into new residential development. Finally, a small amount of workshop/retail is indicated off Goodes Bridge Road. Since there are currently light industrial uses throughout the study area, the intent of the workshop/retail use is to demonstrate how this land use can remain in place, while contributing to the mixed use, walkable vision for the area by providing retail outlets at the front of the space, with workshop facilities behind.

The Design/Health & Wellness Center

The long-term vision for the Design/Health & Wellness Center emphasizes the potential for emphasizing both health and wellness land uses in this area. As is presented in the overall vision map, the concept focuses on an indoor recreation center in a redeveloped Chippenham Mall Shopping Center. The Richmond area is an increasingly popular destination for sports tourism and this area could build on that trend to support such a facility, particularly in an easily accessible location right off of Chippenham Parkway.

This vision assumes that the Haynes Furniture company may, at some point, move its building to a new location, within or outside the study area. If that is the case, the vision suggests the indoor recreation center as an alternative use for the Haynes structure that would likely require minimal retrofit in order to create a viable and economically attractive use on that site.

Visualization of the Design/Health and Wellness Center

In addition, the vision recommends commercial uses lining both sides of Hull Street, and multifamily housing fronting Elkhart Road, consistent with existing adjacent uses. A public open space is a central feature of this expanded residential area. In addition, professional/medical offices are shown west of the interchange, fronting Hull Street.

Finally, the Design/Health & Wellness concept recommends a design business cluster, centered on the south side of Hull Street. Initially, this design center would grow as a spinoff of both the existing Richmond Decorating Center and the Haynes Furniture business. Both the presence of the current decorating center nearby, and the Plan's market analysis, indicate that there is potential for further growth of this industry along the corridor. Over time, a demonstration garden space could also be created within the design center.

The Town and Family Entertainment Center

The Town and Family Entertainment Center is a gateway to the Hull Street corridor on the Richmond end, and covers the area on either side of the Warwick Road intersection, from Richmond's Food Lion to Woodhaven Drive (the Southwood Apartments entrance road). The Town and Family Entertainment Center envisions two central hubs—one in the Food Lion

Visualization of the Town and Family Entertainment Center

area and the other at the Warwick intersection. Between the Food Lion and Skateland sites, a "town center" is created that focuses on a public green. Commercial buildings frame the green and are located on a grid of streets overlaying the entire area. Ideally family-oriented uses (e.g. family restaurants, bowling alley, etc.) would locate in these buildings, creating a node of family activities around Skateland and the "town green."

Along the local streets east of Skateland is a new residential area with another public park. Some of this residential development could be senior housing/ assisted living, which would offer seniors easy access to services in the "town center" without a car. Multi-family housing is located on both sides of Hull Street, but set back behind a green buffer/recreation space. Townhouses are located behind the multi-family development and offer a transition into the existing single family neighborhoods.

MULTI-MODAL TRANSPORTATION IMPROVEMENT STRATEGIES

Hull Street Road is an arterial and an address. It, like many suburban principal corridors, must serve dual, and somewhat competing, demands to function as a conduit in a regional system and at the same time support the vibrancy and health of the communities along it.

Today the corridor serves the first function – that of a traffic thoroughfare – fairly well, but fails significantly in its second function as the front door to, and backbone of, complete communities in Chesterfield County and the City of Richmond. Through implementation of the corridor land use vision and a complimentary multi-modal transportation strategy, Hull Street can become a vibrant corridor that offers more options in services, housing, commercial offerings and modes of travel, while simultaneously supporting automobile travel needs.

Safety for all travelers is the first priority for transportation planning, but also important are the dual objectives of expanding non-auto travel options and changing the physical image and character of the street. After evaluating options, the alternative that best addresses the safety, mobility and

Precedent image: An urban multi-use trail

revitalization objectives of the effort is a "typical section" that provided separate facilities, where space permits, for all modes – pedestrians, cyclists and vehicles – as well as medians and planting strips that make dramatic changes in the visual impression of the corridor. Specifically, the typical section recommends:

- A continuous pedestrian sidewalk network and crossings;
- A separated cycle track/bicycle way on each side of the corridor, or a combined pedestrian/bicycle facility where right-of-way is constrained;
- A landscaped buffer between the roadway and cycle track that provides sufficient space for comfortable and furnished transit stops and amenities, and a second buffer between the cycle track and sidewalk;
- A landscaped median that accommodates left turn lanes at intersections to reduce rear end and rear-angle crashes, and provides safe pedestrian crossings with a minimum 6' pedestrian refuge;

- No change in the number of travel lanes in each direction in order to maintain vehicular capacity and operation (two lanes in Richmond and three lanes in Chesterfield); and
- A gutter pan that can channelize water into low impact development (LID) features in the planting buffer.

Transportation recommendations for the corridor also reconfigure the Chippenham interchange to safely accommodate pedestrian travel, and include the redesign of three other key intersections at the activity nodes in order to prioritize safe pedestrian and bicycle travel. Transit bus service recommendations include increased frequency in the City of Richmond and a potential future expansion into Chesterfield County.

ENVIRONMENTAL ENHANCEMENT AND GREENING OPPORTUNITIES

Open space within the Hull Street corridor study area consists of forested land, private lawns, the Manchester and Elkhardt Middle School athletic fields, Pocosham Park, and the Reid Community Center grounds. While these areas comprise a relatively large quantity of open space, they offer limited usage based on their current designs, or are isolated from one another and from the main corridor.

The illustrative plan shows the new and enhanced open spaces proposed for the study area. The Hull Street Plan recommends increasing opportunities for public use of open space by:

- integrating both larger parks and smaller green spaces into other proposed land use areas;
- upgrading the facilities in open spaces to better accommodate the community's passive and active recreation needs;
- facilitating community use of existing athletic fields; and
- creating a vegetated pedestrian and bicycle route along the length of Hull Street Road.

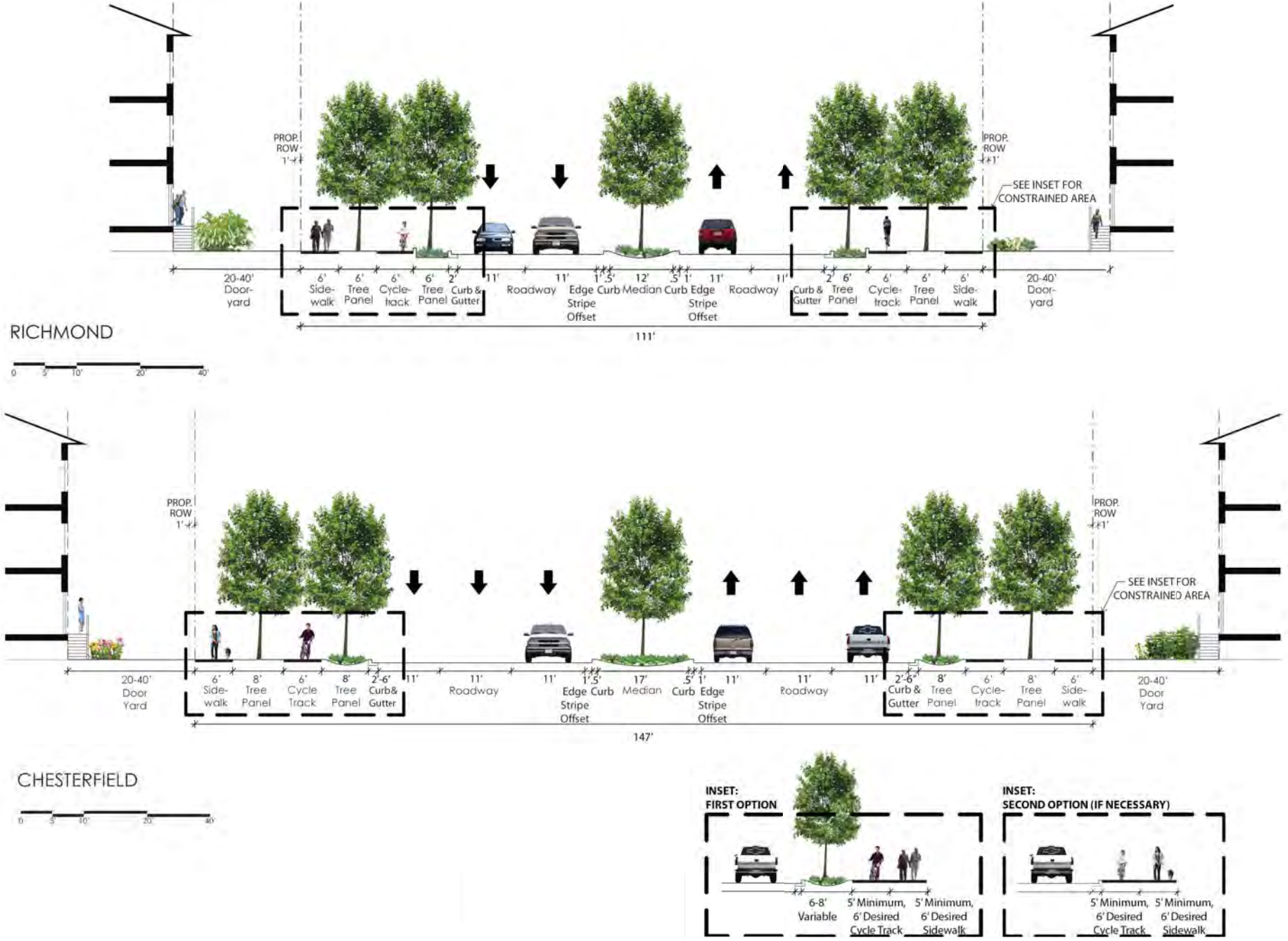
Precedent image: A green streetscape

Existing resource protection areas and surrounding forests along the area's stream corridors are to be preserved.

In addition, a number of low impact development (LID) techniques and sustainable design strategies are recommended as part of revitalization efforts in order to minimize the environmental impact of development and improve existing site conditions. The recommendations fall generally into four categories: storm water management, vegetation selection and maintenance, materials sourcing and furnishings, and protection of existing natural features.

REALIZING HULL STREET REVITALIZATION

The revitalization and implementation strategy is designed to guide the Hull Street transition from vision plan to reality. It will be a long, multi-step process, requiring long-term commitment from numerous stakeholders and interested parties; however each step can demonstrate visible change and improvement to the quality of life for residents, as well as property and business owners. The implementation recommendations are organized into seven key strategies and specific short, mid, and long term actions are proposed for each strategy.



Recommended typical road cross-sections for Hull Street in Richmond and Chesterfield

The **key long term implementation strategies** to achieve the Plan's intent and goals are:

1. Build resident and business coalitions to support the Plan's vision over time and continue to advocate for implementation.
2. Improve the overall appearance of the corridor to increase its viability as a live, work and play environment.
3. Grow existing businesses on the corridor and attract new businesses and jobs.
4. Focus future growth and development in four mixed-use activity centers.
5. Promote safe and convenient pedestrian, bicycle and transit activity in the study area.
6. Expand accessibility to a range of open space types and "green" the corridor.
7. Invest in the people who currently live in the study area, and attract new people to the area.

Priorities for immediate action include:

- Create a new Hull Street Program Manager position to coordinate immediate actions, monitor progress, identify and pursue grant opportunities, and serve as the primary point of contact.
- Pursue federal and local funding to develop engineering plans for roadway design, utility relocation, and to confirm right-of-way needs.
- Put in place the regulatory/zoning framework, including incentives, for implementing the Plan's recommendations.
- Establish a Hull Street Corridor Champions Group made up of property owners, business owners, and key community leaders.
- Establish a corridor-wide marketing coalition to develop a marketing strategy and inform businesses about available assistance and loan programs.
- Complete construction drawings for key activity center locations, beginning with the Warwick Road intersection area.
- Establish a coordinated "On Hull Street" public arts program in coordination with Virginia Commonwealth University.
- Seek Federal USDA and local funding to assist in implementation of the Multi-Cultural Marketplace farmers market.
- Upgrade bus stops to include shelters and benches.
- Initiate dialogue with VDOT to develop a plan for the addition of a sidewalk/bikeway through the Chippenham Parkway interchange on Hull Street.
- Create public/private partnerships for the development of new open space opportunities along the corridor.
- Create and support a new Hull Street Neighborhood Workforce Development Center.

Visualization of a new bus stop on the Hull Street corridor

RESUMEN EJECUTIVO
Versión en español

El Plan de Revitalización del Corredor de Hull Street provee una estrategia integral y orientada a la implementación para crear mejoras sólidas y económicamente sustentables. De esta manera aumentar la calidad de vida a lo largo de las 4.7 millas del tramo de Hull Street Road que componen este corredor que se extiende tanto a través de la Ciudad de Richmond como del Condado de Chesterfield, Virginia.

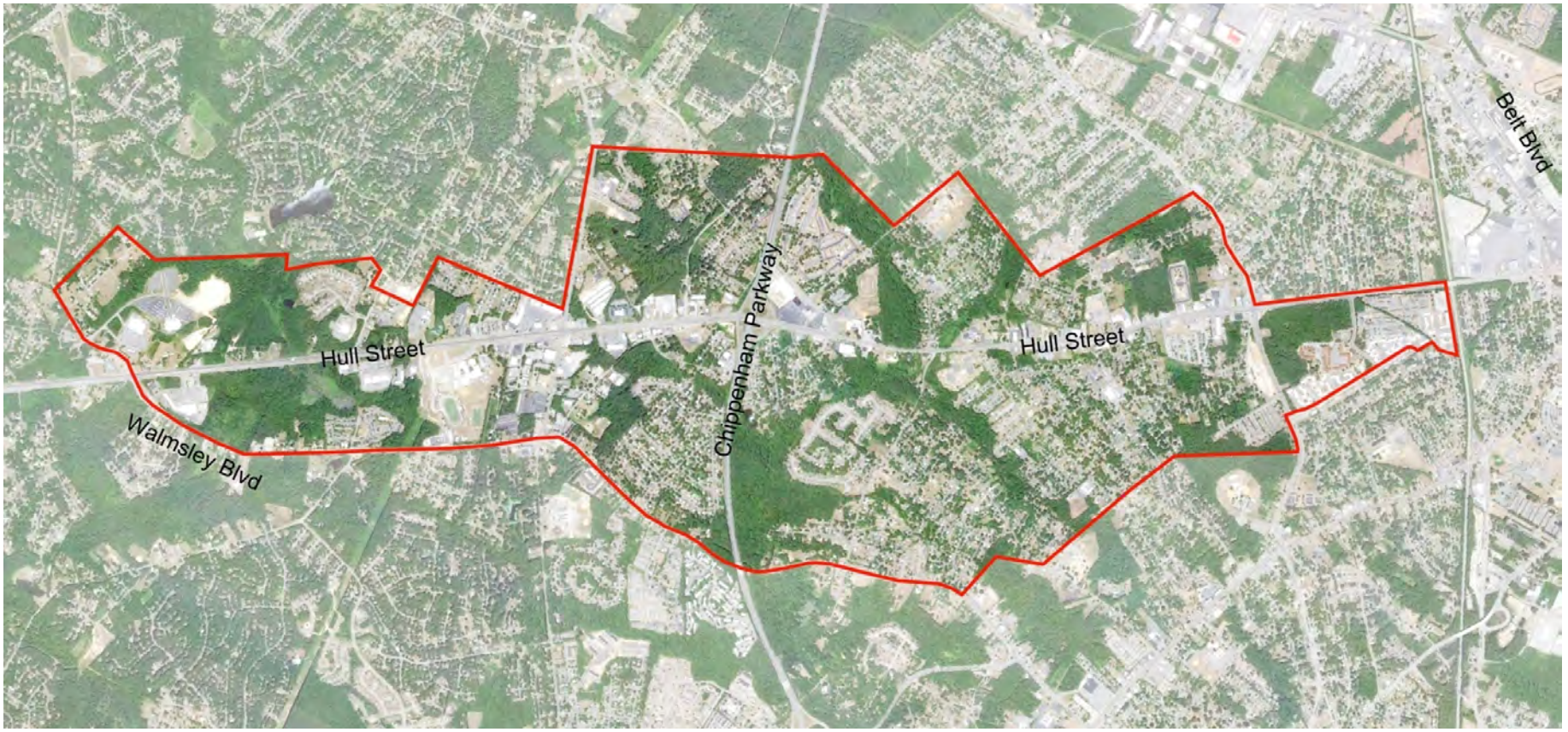
Estas mejoras incluyen fuertes conexiones multimodales, actualizaciones de la infraestructura de transporte, realces visuales físicos, mejores opciones de vivienda, mayores oportunidades de trabajo e inversiones críticas para el ambiente y la recreación—todas necesarias para transformar el Corredor de Hull Street de una simple carretera entre comunidades a un lugar vital y vibrante en donde la gente del área y de la región quieran vivir, comprar, trabajar y entretenerse.

EL CORREDOR HOY: LA NECESIDAD DE UN PLAN DE REVITALIZACIÓN DE HULL STREET

Actualmente, un visitante a la calle de Hull Street experimenta un corredor que dejó atrás sus mejores años hace mucho tiempo en varias de sus secciones. Igual como sucede con otros corredores viejos a lo largo del país, la primera impresión que uno se lleva de Hull Street es la de una arteria con una franja comercial anticuada, con una predominación de estacionamientos, muchos lotes y edificios vacantes, un gran número de cortes inseguros en las aceras y demasiado "ruido visual" resultado de abarrotados letreros y cables de servicios públicos. Uno también es sorprendido con la falta de elementos en esta calle que podrían proporcionar una sensación y una escala más humana; tales como aceras, cruces peatonales demarcados, alumbramiento, árboles en las calles, espacios abiertos y áreas de jardines, paradas de autobuses y facilidades para ciclistas. Por lo tanto, la calidad visual del corredor así como sus límites de velocidad y las limitadas intersecciones con señalamientos, alienta a los conductores a viajar a alta velocidad por el área y desalienta a cualquier peatón o ciclista. Sin embargo, muchos de aquellos quienes viven, trabajan o asisten a la escuela a lo largo de Hull Street no tienen otra opción más que viajar a pie, aún para llegar a una de las paradas de autobuses localizadas en la porción perteneciente a la Ciudad de Richmond.

En la última década, el corredor de Hull Street se ha convertido en el hogar de muchos negocios nuevos y emergentes –muchos de ellos relacionados a los cambios demográficos del área. Estos negocios, combinados con la considerable población que transita el área diariamente y la relativamente estable población residencial que colinda con el corredor en muchas áreas; todos tienen el potencial de un futuro más brillante para la calle de Hull Street.

Condiciones existentes en el corredor de Hull Street



Área de estudio del Corredor de Hull Street

Con este potencial en mente, la Ciudad de Richmond, en asociación con el Condado de Chesterfield y la Corporación de Soporte de Iniciativas Locales de Virginia (LISC por sus siglas en inglés), solicitaron y recibieron un auspicio en el 2010 para un Reto de Planeación Comunitaria del Departamento de Vivienda y Desarrollo Urbano de Estados Unidos, como también un auspicio de Planeación TIGER II del Departamento de Transportación para preparar un plan de revitalización de un tramo de 4.7 millas de la calle Hull Street/ Ruta 360, que se extiende desde Hicks Road/Wamsley Boulevard en el Condado de Chesterfield hasta la línea de las vías de tren al oeste de Southside Plaza en la Ciudad de Richmond.

Chippenham Parkway sirve como frontera entre las dos jurisdicciones y como el punto medio del área de estudio.

COMPROMISO POR UNA COMUNIDAD DIVERSA

El proceso de planeación enfatizó el valor de alcanzar una comunidad activa e interesada para poder definir una visión del corredor de Hull Street que fuera perceptiva a las necesidades de los residentes y negocios dentro y cerca del área de estudio.

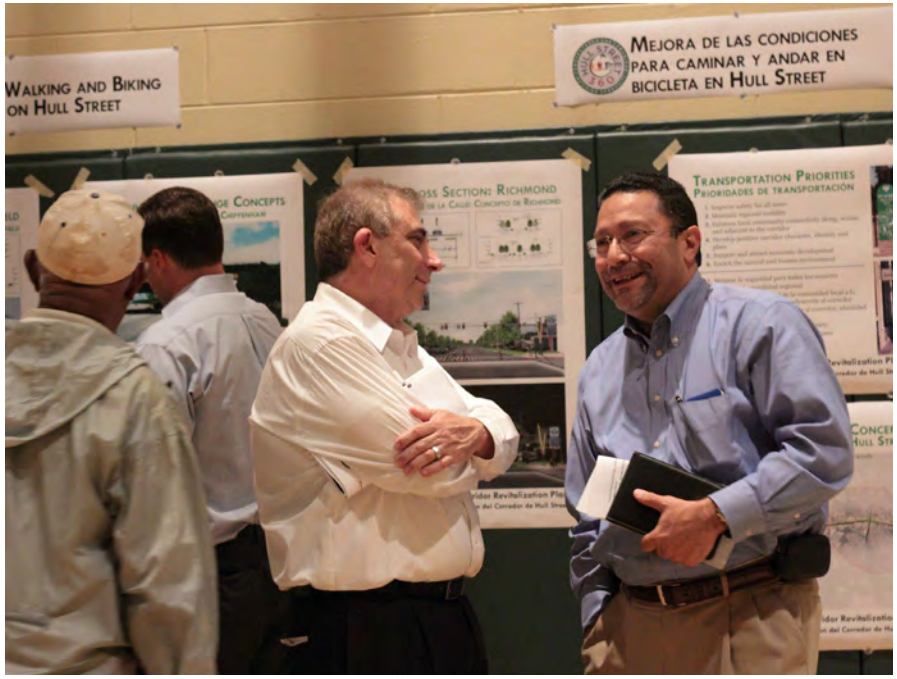
Dado el perfil demográfico de la población actual del área, se hizo un esfuerzo importante para involucrar tanto a la población anglo—parlante como a la hispano—parlante de una manera significativa y para alcanzar a tantos grupos demográficos como fueran posibles.

Con ese fin, la estrategia de involucramiento de la comunidad para el proyecto incluyo los siguientes elementos:

- Se formó un ***Comité Directivo*** del proyecto conformado por representantes de negocios y residentes tanto de la Ciudad de Richmond como del Condado de Chesterfield. Este grupo se reunió de manera mensual.
- Se creó una ***Agencia de un Grupo de Coordinación*** conformada por representantes clave de la ciudad y del condado que jugará un rol importante en la implementación del plan. Este grupo también se reunió mensualmente.
- Se llevaron a cabo ***cinco reuniones públicas y talleres*** bilingües en un periodo entre agosto 2011 y enero 2013 con un programa de publicidad extensivo para dar a conocer estos eventos al público.
- Se hicieron ***grupos de enfoque*** dirigidos en inglés y en español según fue apropiado.
- Hubo ***mesas bilingües de información sobre el proyecto en*** 13 eventos públicos.
- ***Entrevistas y presentaciones a accionistas e interesados clave.***
- Una ***página web bilingüe*** que incluyó un cuestionario como herramienta en línea.

LAS OPORTUNIDADES ECONÓMICAS PARA EL CAMBIO

Al menos en un principio, a lo largo de Hull Street uno puede ver un patrón de pequeños negocios tomando ventaja de los niveles de tráfico del corredor y de los espacios asequibles. Actualmente, nuevos desarrollos son limitados por la competencia de zonas cercanas que tienen mejor estética y niveles de ingresos más altos para apoyar los negocios. Como resultado, la inversión en el corredor debiera primero enfocarse en ayudar a los negocios existentes y a los empresarios locales a triunfar y a expandirse, y mejorando el marco físico del corredor—su estética, sus peatones, y las conveniencias de tránsito y de bicicletas—para que así uno pueda empezar a hacer publicidad a compañías exteriores. Mientras no cambie la imagen de la calle Hull Street será difícil atraer exitosamente nuevos negocios.



Fotos de la reunión pública del 23 de octubre

HULL STREET CORRIDOR CONCEPT/
CONCEPTO DE CORREDOR DE HULL STREET

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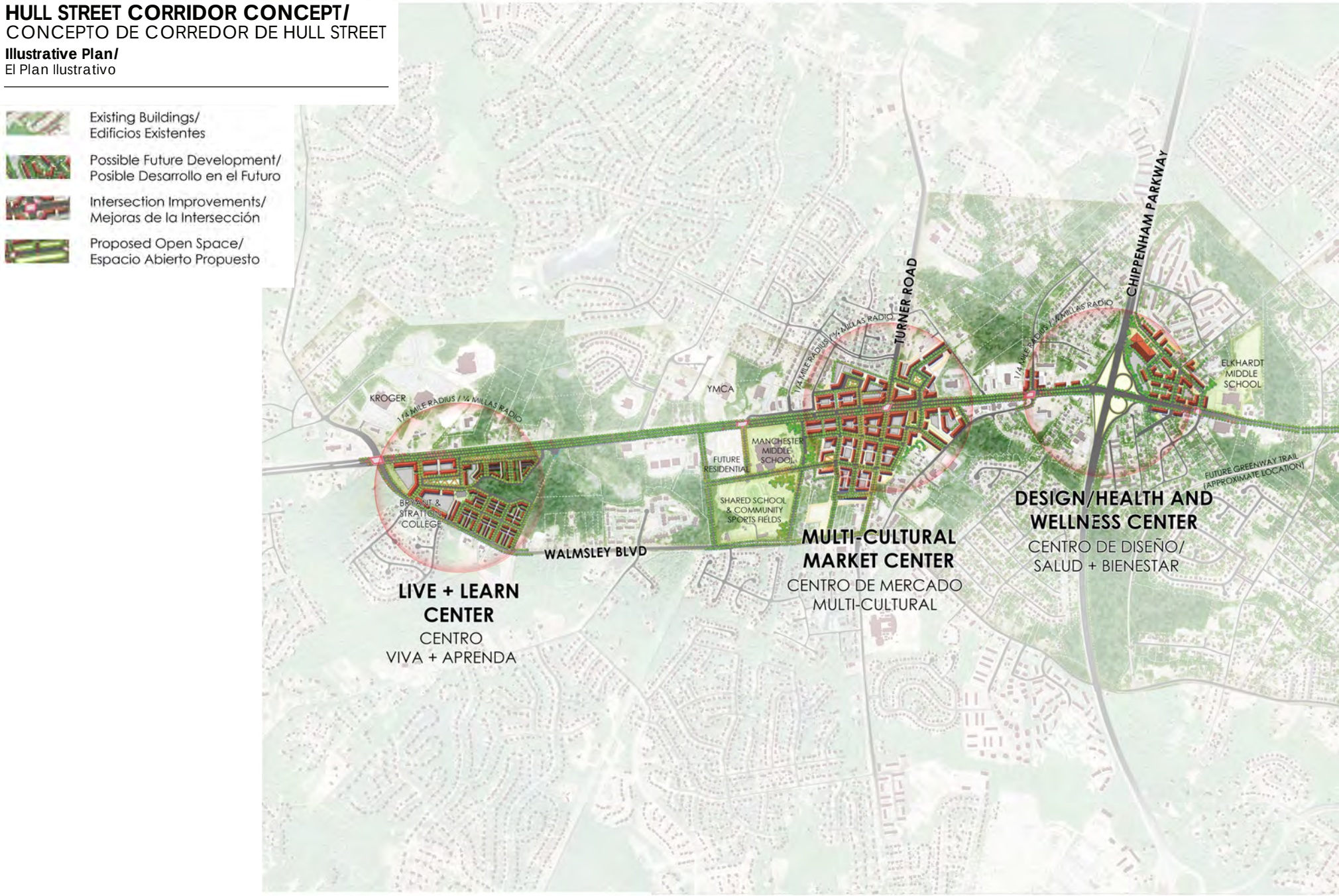


Corredor de Hull Street: Plan Ilustrativo

La transformación de la "imagen" de Hull Street empieza con la identificación de las aéreas con el mayor potencial para iniciar un cambio significativo y con un plan de desarrollo para todas las mejoras a lo largo del corredor. El estudio del área de Hull Street tiene 20 sitios potencialmente adecuados para el desarrollo o la reurbanización tanto a largo como a corto plazos que van de un rango de tamaño de entre 0.4 a 34 acres. Los sitios fueron definidos con base en:

- El acceso a la calle Hull Street
- La visibilidad en la calle Hull Street y otras vías públicas
- Tierras vacantes o subutilizadas
- El tamaño de los lotes
- La condición de los edificios
- La proximidad a un grupo de negocios existentes o a un negocio fijo

En la mayoría de los casos estos lugares son propiedades vacantes, aunque unos cuantos aún tienen algunos edificios modestos, principalmente en malas condiciones. Las propiedades más grandes son terrenos edificables que nunca han sido desarrollados. Lo más representativo es la propiedad sin desarrollar en el sureste de Hull Street y Warwick Rd, una intersección mayor. Otra propiedad con un gran terreno edificable incluye las tierras al este de la Escuela Elkhardt así como el gran terreno ubicado al este del Colegio Bryant & Stratton en la parte final al occidente del corredor.

Así mismo, otras prioridades para iniciar la revitalización del corredor, deberán enfocarse en el desarrollo de la fuerza de trabajo así como en el acceso a empleos. Las estrategias para mejorar las condiciones económicas de los residentes deberán orientarse a incrementar su capacidad para competir por empleos y en mejorar su habilidad para viajar a sitios con nuevos y existentes empleos. Habrá que invertir en las habilidades laborales tanto de los jóvenes como de los adultos del corredor, ayudándolos a encontrar y calificar para mejores empleos; así como mejorar los servicios de transporte que los puedan llevar a los trabajos que mejorarán las finanzas familiares y la estabilidad económica de los residentes del área de estudio. Sin embargo, para poder retener a estos residentes conforme sus ingresos

Imágenes precedentes: Mercado de granjeros/agricultores y espacio del parque

aumenten y atraer nuevos residentes de ingresos medianos, deberán mejorar la calidad de vida y la calidad de los servicios en el área de estudio.

La estrategia de mercado/económica para el futuro del corredor deberá incluir mejoras estéticas y la creación de nuevos conjuntos de negocios emocionantes y de uso mixto que atraigan a posibles clientes, residentes y negocios. La apariencia del corredor mejorará si se concentra la actividad de ventas al pormenor en las intersecciones mayores y será más fácil competir por clientes. Más aún, el agrupamiento de diferentes negocios le permiten a los compradores hacer una sola parada y convenientemente apoyar a más de una tienda, alentando las compras cruzadas. Basado en el análisis de las oportunidades de mercado y la disponibilidad de sitios clave para la reurbanización y desarrollo, dichas actividades deberán apuntar a cuatro conexiones principales—Hicks Road/Walmsley Boulevard, Turner Road, Chippenham Parkway y Warwick Road.

VISIÓN DEL USO DE TIERRA: DEFINIR ÁREAS PARA EMPEZAR LA TRANSFORMACIÓN

Basado en los análisis de mercado y los económicos, en el proceso de compromiso de la comunidad, la visión de Hull Street la transforma de una carretera a un destino a través de la reurbanización de cuatro centros de actividades clave. Los principios que rigen esta transformación, tomados del criterio federal de sustentabilidad y de la capacidad de un lugar de ser habitable, son:

1. Crear “espacios” que no sean solo centros comerciales sino ubicando una mezcla de usos compatibles que estén a una corta distancia el uno del otro
2. Hacer de la calle un lugar cómodo para caminar
3. Proveer redes viales que ofrezcan opciones de “caminar y andar en bicicleta”
4. Atraer un grado de gente de diversidad económica al corredor para apoyar una variedad amplia de nuevos y mejores usos

5. Proteger las comunidades existentes mientras que se crean nuevas viviendas para una variedad de ingresos económicos
6. Proveer el fácil acceso a parques y otras áreas verdes

La visión de agrupamientos de "centros de actividades" reconoce que hay un limitado número de desarrollo que pueda suceder en las condiciones actuales de la calle de Hull Street. Sin embargo, para poder crear los tipos de uso mixto, las áreas peatonales pensadas, el nuevo desarrollo y la reurbanización, deberán ser dirigidos a áreas designadas y deberán ajustarse a patrones de diseño urbano y orientado a peatones.

Los cuatro centros de actividades de Hull Street son:

1. ***El Centro Viva y Aprenda:*** localizado en el Condado de Chesterfield cerca de la intersección con las calles Hull Street y Walmsley Boulevard/Hicks Road
2. ***El Centro de Mercado Multi-Cultural:*** localizado en el Condado de Chesterfield en la intersección de las calles Hull Street y Turner Road
3. ***El Centro de Diseño/Salud y Bienestar:*** localizado tanto en el Condado de Chesterfield como en la ciudad de Richmond, en el enlace con Chippenham Parkway
4. ***El Centro de Ciudad y Entretenimiento Familiar:*** localizado en la Ciudad de Richmond a la altura de Warwick Road

El Centro Viva y Aprenda

El Centro Viva y Aprenda esta ideado como tal—usos residenciales y de educación, apoyados por un pequeño número de negocios. Este uso mixto y el enfoque de un área institucional se orienta en un tipo de "plaza central" en un espacio abierto y público diseñado para aumentar las opciones de ventas al pormenor como consecuencia de un campus de universidad ampliado. Los lotes al este son casas condominio, mismas de las que algunas ya dan hacia el frente de una corriente existente del corredor que proporcionan una oportunidad adicional de espacio abierto.

Estas casas condominio podrían proveer vivienda que mucha falta hacen

Visualización del Centro Viva y Aprenda

para personas de la tercera edad, un uso que se complementaría adecuadamente con un campus universitario dado que la educación continúa está siendo cada vez más popular entres las comunidades de personas de la tercera edad. El área residencial, podría también potencialmente ofrecer vivienda para estudiantes de la universidad, especialmente dado que el servicio de transporte actualmente no está disponible en esta sección de la Hull Street.

El Centro de Mercado Multi-Cultural

El Centro del Mercado Multi-Cultural está ideado como el área de ventas más intenso del corredor. En este concepto, ambos lados de la calle Hull Street están forrados con desarrollo de uso mixto, enfatizando en el aumento de las ventas al pormenor en el primer piso. Se presenta un patrón en forma de cuadrícula para peatones, proporcionando conexiones a través del área incluyendo conexiones a una re-urbanizada Escuela Manchester y a campos recreacionales compartidos con la comunidad.

Un mercado de granjeros/agricultores es la característica central del área, localizado en un espacio abierto y público en el cuadrante al sureste de la intersección. Espacios públicos abiertos también se muestran en los otros

Visualización del Centro del Mercado Multi-ultural

tres cuadrantes. Casas condominio y conjuntos habitacionales multifamiliares están situados detrás de las áreas re-urbanizadas de uso mixto, ofreciendo una transición conforme el nuevo desarrollo se mezcla con los vecindarios existentes de casas unifamiliares. El Plan también recomienda la transformación del estacionamiento de autobuses en el lado oeste de la escuela en un nuevo desarrollo residencial. Finalmente, un pequeño número de talleres/tiendas es indicado para la calle que sale de Goodes Bridge Road. Dado que hay un poco de usos industriales a lo largo del área de estudio, la intención del uso de talleres/tiendas es para demostrar como el uso de esta tierra puede mantenerse mientras que contribuye al uso mixto, y a una visión de un área para caminar al proveer puntos de ventas al frente de los espacios con facilidades de talleres atrás.

El Centro de Diseño/Salud y Bienestar

La visión a largo plazo para el Centro de Diseño/Salud y Bienestar se enfoca en enfatizar tanto el uso de suelo para salud como para bienestar en esta área. Tal como es presentado en el mapa de visión general, el concepto del centro se orienta en un centro de recreación cerrado en el re-urbanizado Chippenham Mall Shopping Center. El área de Richmond es un área cada vez más popular para deportes y turismo y esta área podría contribuir a esa tendencia para

Visualización del Centro de Diseño/Salud y Bienestar

apoyar dicha facilidad, particularmente por su locación tan accesible justo saliendo del Chippenham Parkway.

Esta visión asume que la mueblería Haynes podría, en cierto momento, mover su locación a una nueva zona dentro o fuera del área de estudio. Si este fuera el caso, la visión sugiere al centro de recreación cerrado como un uso alterno de la estructura de Haynes que requeriría de una mínima actualización de diseño para crear un uso viable y económicamente atractivo de ese sitio.

La visión recomienda adicionalmente usos comerciales forrando ambos lados de la calle Hull Street y viviendas multifamiliares al frente de Elkhart Road que son consistentes con los usos adyacentes actuales. Un espacio abierto y público es la característica central de esta área residencial expandida. Adicionalmente, se proponen oficinas profesionales/médicas al oeste de la intersección al frente de Hull Street.

Finalmente, el concepto del centro de Diseño/Salud y Bienestar recomienda el diseño de un grupo de negocios centralizados en la parte sur de la calle Hull Street. Inicialmente, este centro de diseño crecería como una consecuencia del ya existente negocio de Richmond Decorating Center y de la mueblería Haynes Furniture. Tanto la presencia del actual centro de

decoración cercano y el plan de análisis del mercado, indican que hay potencial para que esta industria crezca a lo largo del corredor. Con el tiempo, un jardín de demostración podría crearse en un espacio dentro del centro de diseño.

El Centro de Ciudad y Entretenimiento Familiar

El Centro de Ciudad y Entretenimiento Familiar es una puerta de entrada al corredor de la calle Hull Street en el área de Richmond y cubre el área en ambos lados de la intersección con la calle Warwick, desde el Food Lion de Richmond hasta Woodhaven Drive (la entrada al conjunto de departamentos de Southwood). El Centro de Ciudad y Entretenimiento Familiar concibe dos centros principales—uno en el área de Food Lion y el otro en la intersección de Warwick. Entre el Food Lion y el Skateland un "centro de ciudad" es creado para enfocarse en una zona verde. Edificios comerciales rodean el área verde y están ubicados en forma de cuadrícula, de calles sobreponiéndose sobre toda el área. Idealmente, se utilizarían ciertos usos orientados a la familia en estos edificios (por ejemplo, restaurantes familiares, un boliche, etc.) para crear un nudo familiar de actividades alrededor de Skateland y la "zona verde de la ciudad".

Visualización del Centro de Ciudad y Entretenimiento Familiar

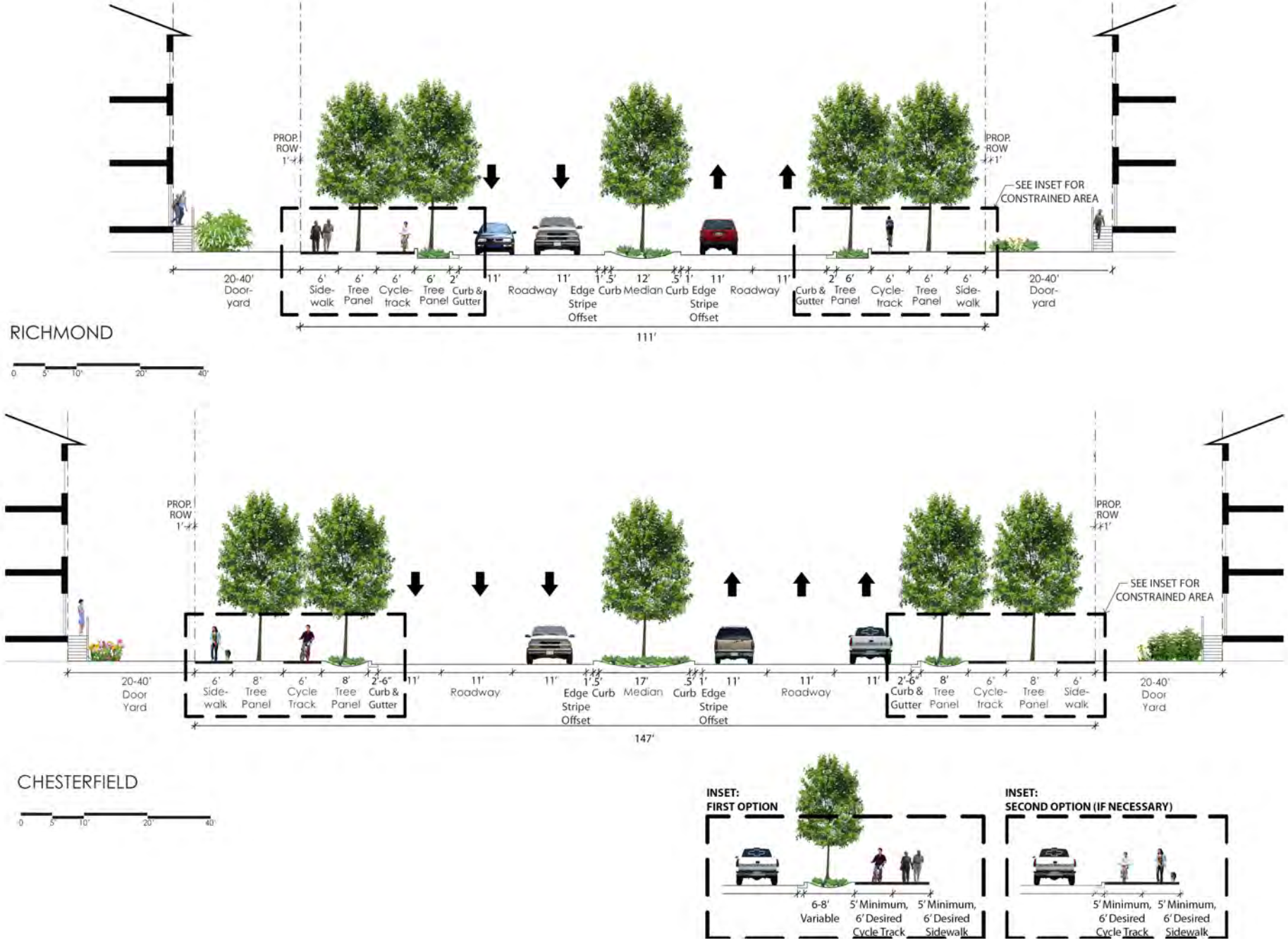
Hay a lo largo de las calles locales al este de Skateland una nueva zona residencial con otro parque. Algunos de estos desarrollos residenciales, podrían ser viviendas para gente de la tercera edad o de asistencia para ancianos, lo que les ofrecería a estas personas un acceso fácil a los servicios del "centro de ciudad" sin necesidad de manejar. Habitaciones multifamiliares se localizan a ambos lados de la calle Hull Street, pero se asientan detrás de un espacio verde de recreación. Casas condominio están localizadas atrás de un desarrollo multifamiliar y ofrecen una transición hacia los vecindarios existentes de casas unifamiliares.

ESTRATEGIAS DE MEJORAS DE TRANSPORTE MULTI-MODALES

La calle Hull Street es una arteria y un domicilio. Como muchos otros corredores suburbanos principales, debe servir una doble demanda y de alguna manera compitiendo para funcionar como un conducto en un sistema regional y al mismo tiempo apoyar la salud y vivacidad de las comunidades a lo largo de este.

Hoy en día, el corredor sirve su primera función—la de una vía pública—relativamente bien, pero falla significativamente en su segunda función como

Imagen precedente: Un sendero urbano multi-usos



Recomendaciones de cortes transversales típicos del camino para Hull Street en Richmond y en Chesterfield

la puerta principal y espina dorsal de comunidades enteras tanto en el Condado de Chesterfield como en la Ciudad de Richmond. Con la implementación de la visión del uso de suelo y una estrategia de transportación multi-modal que lo complemente, la calle de Hull Street se puede convertir en un corredor vibrante que ofrezca más opciones de servicios, de vivienda y comerciales así como modos de caminar mientras que a su vez soporta las necesidades de viajar en automóvil.

La principal prioridad del plan de transportación es la seguridad para todos los viajeros, pero también es importante considerar los objetivos duales de expandir las opciones de viaje sin la necesidad de un automóvil y cambiando la imagen física y el carácter de la calle. Después de haber evaluado opciones, la alternativa que mejor aborda los objetivos de la seguridad, movilidad y revitalización de este esfuerzo es una "típica sección" que ofrecería facilidades separadas donde el espacio lo permita, para todas las maneras—peatones, ciclistas y vehículos—así como camellones y líneas de plantación que hacen cambios dramáticos en la impresión visual del corredor. Específicamente, la sección típica recomienda:

- Una red continua de aceras para peatones y cruces;
- Un camino con una pista separada para bicicletas en cada lado del corredor, o una zona combinada de ciclistas y peatones donde el paso sea obligatorio;
- Unos jardines de separación entre la calle y la pista para bicicletas que provea suficiente espacio para transitar cómodamente y paradas de autobuses amuebladas y con una segunda separación entre la acera peatonal y la pista para bicicletas;
- Un camellón arreglado con jardinería que tenga en cuenta los carriles para dar vuelta a la izquierda en intersecciones para reducir accidentes de autos de frente y atrás y que provea cruces seguros para peatones con un refugio de peatones de mínimo 6 pies; NO habría cambio en el número de carriles en cada dirección para mantener la capacidad y operación vehicular (dos carriles en Richmond y tres en Chesterfield); y
- Un canal de alcantarillado que canalice el agua hacia un LID (por sus siglas en ingles "low impact development") figura en el muelle de plantación.

En las recomendaciones de transportación para el corredor, se incluye la reconfiguración de la intersección de Chippenham para adecuarse al viaje peatonal e incluye el rediseño de otras tres intersecciones principales en los nudos de actividades para darle prioridad al viaje peatonal y ciclista de una manera más segura. Las recomendaciones de servicios de autobús incluyen mayor frecuencia en la ciudad y una posible expansión futura hacia el Condado de Chesterfield.

MEJORAS AMBIENTALES Y OPORTUNIDADES DE ÁREAS VERDES

Los espacios abiertos dentro del área de estudio del corredor de Hull Street consisten de tierras arboladas, jardines privados, los campos atléticos de las Escuelas Manchester y Elkhart, el parque Pocosham y las tierras del Centro Comunitario Reid. Mientras que estas áreas comprenden una relativa cantidad grande de espacios abiertos, ofrecen un uso limitado con sus diseños actuales o están alejados el uno del otro o del corredor principal.

El plan ilustrativo muestra los nuevos y mejorados espacios propuestos para el área de estudio. El Plan de Hull Street recomienda aumentar oportunidades para el uso público de espacios abiertos de las siguientes maneras:

- Integrando ambos parques grandes y pequeños con espacios verdes en otras áreas de usos de tierra propuestos;
- Mejorando las facilidades en espacios abiertos para reconciliar mejor las necesidades activas y pasivas de recreación de la comunidad;
- Facilitando el uso de la comunidad en los campos atléticos existentes; y
- Creando una ruta para peatones y ciclistas con vegetación a lo largo de la calle Hull Street.

Las áreas de protección de recursos y bosques circundantes a lo largo de la corriente del área del corredor deberán preservarse.

Imagen precedente: Una imagen verde de los elementos visuales de la calle

Adicionalmente, un número de técnicas de desarrollo de bajo impacto (LID por sus siglas en inglés) y estrategias de diseños sustentables son recomendadas como parte de los esfuerzos de revitalización para minimizar el impacto ambiental del desarrollo y para mejorar las condiciones existentes del lugar. Las recomendaciones caen generalmente en cuatro categorías: manejo de aguas de lluvias, selección y mantenimiento de la vegetación, fuentes de materiales y mobiliarios, y la protección de las características naturales existentes.

ENTENDIENDO LA REVITALIZACIÓN DE HULL STREET

La estrategia de revitalización e implementación esta diseñada para llevar la transición de Hull Street de un plan de visión a una realidad. Sería un proceso largo de múltiples pasos, que requeriría compromisos a largo plazo de numerosos inversionistas y grupos interesados; sin embargo, cada paso puede demostrar visiblemente cambios y mejoras a la calidad de vida de los residentes, así como para los propietarios y dueños de negocios. Las recomendaciones de la implementación están organizadas en siete estrategias clave y cada una de ellas está presentada con acciones específicas de corto, mediano y largo plazos.

Las estrategias de implementación clave a largo plazo para conseguir la intención y las metas del plan son:

1. Construir coaliciones de residentes y de negocios que apoyen la visión del Plan con el tiempo y que continúen abogando por la implementación.
2. Mejorar la apariencia general del corredor para aumentar su viabilidad como un ambiente para vivir, trabajar y jugar.
3. Acrecentar los negocios existentes en el corredor así como atraer nuevos negocios y empleos.
4. Enfocar el crecimiento futuro y el desarrollo en cuatro centros de actividades de usos mixtos.
5. Promover el tránsito seguro para los peatones, las bicicletas y los vehículos en el área de estudio.
6. Expandir la facilidad de acceso a un rango de espacios abiertos y áreas verdes en el corredor.
7. Invertir en la gente que actualmente vive en el área de estudio y atraer gente nueva al área.

Las prioridades de acción inmediata incluyen:

- Crear una posición de un nuevo gerente del Programa de Hull Street para coordinar las acciones inmediatas, supervisar el progreso, identificar y buscar oportunidades de auspicios y servir como el punto de contacto principal.
- Buscar fondos federales y locales para desarrollar planes de ingeniería para el diseño de la calzada, la relocalización de utilidades y para confirmar las necesidades del derecho de paso.
- Poner en funcionamiento un marco de regulación/zonificación, incluyendo incentivos por la implementación de las recomendaciones del plan.
- Establecer un Grupo de Campeones del Corredor de Hull Street compuesto por dueños de negocios, propietarios y líderes de la comunidad claves.

- Establecer una coalición de mercadotécnica a lo largo del corredor para desarrollar una estrategia de mercado e informar a los negocios de programas de asistencia y de préstamos disponibles.
- Completar los planos de construcción para los sitios de los centros de actividades clave, empezando con el área de la intersección de Warwick Rd.
- Establecer un programa de artes públicas “En Hull Street” en coordinación con la Universidad del Commonwealth de Virginia.
- Buscar fondos federales USDA y locales para asistir en la implementación del Mercado Multi-cultural de granjeros/ agricultores.
- Mejorar las paradas de autobús incluyendo bancas y techos.
- Iniciar el diálogo con VDOT para desarrollar un plan para la incorporación de aceras y caminos para bicicletas a través de la intersección de Chippenham Parkway en Hull Street.
- Crear asociaciones públicas/privadas para el desarrollo de oportunidades de nuevos espacios abiertos a lo largo del corredor.
- Crear y apoyar un nuevo Centro de Desarrollo de Trabajadores del Vecindario de Hull Street.

Visualización de una nueva parada de autobús en el corredor de Hull Street

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Figure 1.1: Hull Street Corridor Study Area

1.0 INTRODUCTION

"… many communities [are] grappling with how to transform commercial arterials. Many such corridors are in a state of visual and economic decline as they languish from age, diminishing business activity, and lack of maintenance. Common complaints include high vacancy rates and poor business performance; unattractive, old and poorly maintained buildings and signs; visual clutter; and an unsafe or uncomfortable pedestrian experience. Despite these problems, the corridors often see high traffic volumes."[1]

Although this statement was written about a California corridor, it perfectly describes the condition of the Hull Street/Route 360 corridor today as it spans between the City of Richmond and Chesterfield County, Virginia. In the latter part of the Twentieth Century, with the burgeoning popularity of the automobile and the push to migrate from the inner city to the suburbs, corridors such as Hull Street experienced an economic heyday. They became places to stop along as one travelled to and from one's home in the western suburbs into the City --- places to shop, to be entertained, to buy flowers, to eat, and to have fun. As vehicle speeds increased along this route, and as other commercial centers presented newer and more economically appealing options, Hull Street became a highway, a pass-through rather than a destination. As its economy started to falter, it began to take on a reputation as a place for both low rent businesses and low rent housing; a place with high crime and unsafe streets; a place that turned its back on the stable, comfortable residential areas located just behind the corridor.

Nevertheless, through recognition of the economic potential within those existing communities and in the commuting population that drives the Hull Street corridor, as well as in response to the significant demographic changes that have occurred in the area over the past decade, the corridor has begun to emerge as a location for small, start-up businesses. These hold the potential seeds for a brighter Hull Street future. With this potential opportunity for change in mind, the City of Richmond, in partnership with Chesterfield County and the Virginia Local Initiatives Support Corporation (LISC), applied for and received a 2010 Community Challenge Planning Grant from the U.S. Department of Housing and Urban Development (HUD) and a TIGER II Planning Grant from the U.S. Department of Transportation (DOT) to prepare a corridor revitalization plan for a 4.7 mile stretch of Hull Street Road/Route 360, extending from Hicks Road in Chesterfield County to the railroad line just west of Southside Plaza in the City of Richmond. Chippenham Parkway serves as the boundary between the two jurisdictions and generally divides the study area in half. Figure 1.1 maps the Hull Street Corridor Plan study area.

1.1 PROJECT INTENT AND PROCESS

The Hull Street Corridor Revitalization Plan is intended to provide a comprehensive, implementation-oriented strategy for creating sound, economically sustainable quality of life enhancements along the Hull Street

1 Calloway, Erik. "Market-based retrofit of suburban strip corridors." New Urban Network, 16 March 2011.

...through recognition of the economic potential within those existing communities and in the commuting population that drives the Hull Street corridor...the corridor has begun to emerge as a location for small, start-up businesses.

Figure 1.2: October 23 public workshop

corridor. These improvements include the provision of strong and safe multi-modal connections, transportation infrastructure upgrades, visual and physical enhancements, improved housing options, job opportunities, and recreational and environmental investments --- all of the provisions needed to transform Hull Street from a roadway to a place. The plan recommends market-driven strategies and incentives for attracting both public and private commercial, mixed-use and residential development to key locations along the corridor, and for enhancing the experience of travelling along Hull Street, whether on foot, or by bus, bike or car.

1.2 PLAN STRUCTURE

The Hull Street Corridor Revitalization Plan, as presented in this report, is comprised of multiple layers of analyses and recommendations, with each element playing a significant role in the development of a comprehensive plan and a focused, phased implementation strategy for creating positive change along the corridor. These layers are summarized below, and describe the overall structure of the Plan report.

Given the long-term nature of implementing significant change along Hull Street, the plan has placed the highest priority on developing a group of public and private constituents who can be counted on to enthusiastically and actively champion phased plan implementation over an extended period of time. Hence, the planning process has focused a major effort on identifying and engaging community leaders and on involving a broad range of diverse citizens in the development of the Plan as it has unfolded over the course of more than a year. In the process of transforming Hull Street into a significant "place", it was critical to understand what that meant to those who currently live, work and drive along the corridor. The details of the outreach process are described in ***Chapter 2, Community and Stakeholder Outreach.***

The technical analyses began with an evaluation of existing conditions in the study area. ***Chapter 3, Existing Conditions: Land Use and Transportation***, describes key findings including current activities on the corridor, traffic volumes and patterns, street connectivity, pedestrian accommodations, water resources and open spaces, and other features.

Chapters 4, 5 and 6 deal with the economic realities that must be considered in any plan for change along Hull Street, including analysis of market conditions, definition of economic development opportunities, and evaluation of housing needs and potentials. Understanding these factors is critical for creating the plan and implementation strategy needed to achieve significant physical enhancements along Hull Street. It is also critical for furthering Fair Housing and Section 3 goals for employment of low and very low income area residents. The economic development chapter, in particular, highlights the importance of investing in current residents through job training, workforce development and employment opportunities.

These technical analyses and input received through community engagement lead to creation of a vision of the future for Hull Street. Through further outreach and plan refinement, consensus built around the concept. The vision begins by defining overall recommendations for enhancing the multi-modal travel experience along Hull Street itself, thereby creating a place that people enjoy walking, biking and riding along, and lingering within. The Plan also envisions reasons for people to come to, and become part of, the Hull Street community through the definition of four "activity centers" situated along the corridor. The vision for these centers builds on strengths

that are already in place, and defines opportunities for encouraging these promising areas to evolve into mixed-use centers of activity. This vision is described in ***Chapter 7, A Vision for Change***. ***Chapter 8, Environmental Enhancements and Greening Opportunities***, describes recommendations and strategies for integrating parks, green infrastructure, and low impact development practices along and adjacent to the corridor.

The details of how Hull Street can evolve into a true multi-modal transportation corridor are described in ***Chapter 9, Multi-Modal Transportation Strategies***. It focused on methods for creating strong pedestrian/bicycle and transit options along Hull Street, and makes specific recommendations about street cross sections and intersection design at the activity centers.

Chapter 10, Roadway, Streetscape and Utility Plans, describes the details of upgrading the full Hull Street cross-section in order to achieve a street that will allow traffic to proceed smoothly and safely while, at the same time, accommodating the goal of achieving a "complete street" network along the entire 4.7 mile length of the corridor. Chapter 10 references the 30% roadway design plans that were developed as part of the Hull Street Plan. Chapter 10 also addresses the need to improve the stormwater infrastructure within a corridor that routinely experiences wash-out and flooding events. In line with this discussion, the chapter describes other utility infrastructure on the corridor and actions necessary to successfully integrate the vision with existing and future utility needs.

Change along Hull Street, and within the Hull Street community, will only occur if the regulatory framework in place allows for, and encourages, it. Obviously, those portions of the corridor within the City of Richmond are governed by a different set of regulations than are those within the boundaries of Chesterfield County. ***Chapter 11, Zoning Analysis and Guidelines***, analyzes the relative strengths and limitations of the zoning ordinances in each jurisdiction to encourage and promote the vision for the corridor described in this Plan. It also recommends changes, where needed, to allow this change to happen.

Finally, ***Chapter 12, Revitalization and Implementation Strategy***, defines the actions, phasing, roles and responsibilities needed to implement the recommendations of the Plan, and to begin creating the types of changes in the short term that can inspire a long-term transformation of Hull Street.

Figure 1.3: Example of an activity center illustrative plan in Chapter 7

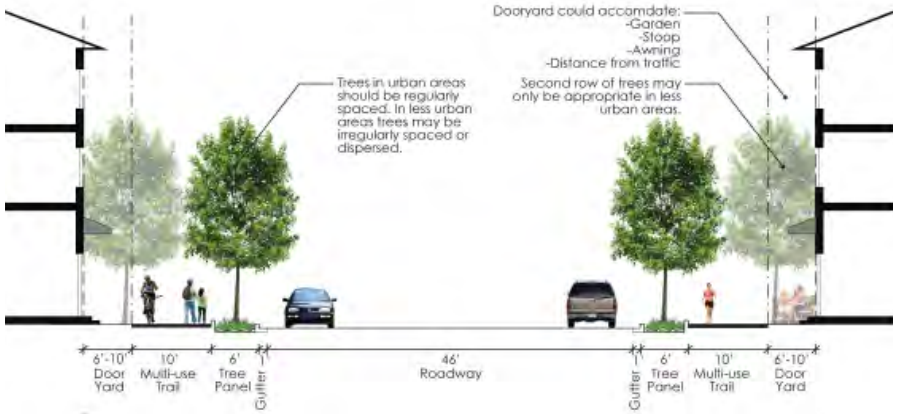


Figure 1.4: Example of street cross section graphic shown in Chapter 9

Figure 2.1: Photographs from the October 23 public workshop

2.0 COMMUNITY ENGAGEMENT AND STAKEHOLDER OUTREACH

Community and stakeholder engagement was an integral part of the Hull Street Corridor Revitalization Planning process. By reaching out to the area's diverse stakeholders over the entire span of the project and through numerous, varied venues, the team was able to understand the range of challenges and opportunities facing the communities, work corroboratively to develop a shared vision, and begin to establish a coalition of support, critical for long-term implementation of the vision. The goals for public engagement were:

a. Identify corridor issues that need to be addressed, and understand these issues from different perspectives (e.g. worst intersections, etc.)

b. Build trust within the community and between the community and the City/County/LISC project leadership and the consultant team

c. Build an interested constituency to champion corridor improvements over the long-term (after the plan is complete)

d. Educate about:
   - How the corridor planning process can meaningfully improve conditions on the corridor
   - How these changes can positively impact people's lives
   - How individuals and/or community leaders can participate and why participation matters
   - What kinds of changes are needed and how these might come about

e. Manage expectations (help stakeholders understand the long process)

f. Identify realistic short term improvements and a clear long term implementation strategy

Community stakeholders within and outside the study area boundaries were engaged to help determine the wants and needs of the community, and the potential to bring these elements to fruition through the development of a corridor revitalization plan. This chapter describes the process and strategies used to achieve these goals.

2.1 ENGAGING DIVERSE STAKEHOLDERS

Stakeholders along this corridor are diverse in interest, ethnicity, economic condition, language, age and other factors. In order to understand the comprehensive needs of the Hull Street communities and develop appropriate and realistic improvement plans, the project team engaged a wide range of people, and used a variety of methods to do so. In order to reflect the range of perspectives and experiences in the study area, it was important to secure representation from the diverse interest and ethnic groups.

Community stakeholders within and outside the study area boundaries were engaged to help determine the wants and needs of the community, and the potential to bring these elements to fruition through the development of a corridor revitalization plan.

2.1.1 Interest Group Diversity

Interest groups can represent the perspectives of specific segments of the population, and can serve as strong project partners, connecting a project with an already established network of stakeholders. Interest group categories explored for the Hull Street project included:

- Residents—owners and renters (e.g. Southside Civic Association, Greater Woodstock HOA)
- Property owners
- Business owners and associations
- Faith-based organizations (e.g. Ramsey, Sacred Heart)
- Community/civic and nonprofit organizations (e.g. YMCA)
- Schools/youth groups (e.g. Elkhart and Manchester Middle Schools)
- Elected and appointed officials
- Media (Radio, TV, Newspapers)
- Area developers

2.1.2 Ethnic and Culture Group Diversity

The Hull Street corridor is ethnically and culturally diverse and it was important to ensure that the various communities living and working within the study area were represented in the outreach process. Therefore, the following ethnic and cultural groups were specifically included in the project's outreach efforts: Latino, African American, Asian, Caucasian, and other ethnicities.

Nearly 30 percent of corridor area residents are Hispanic, however early outreach efforts for this project (prior to consultant involvement) had limited success in engaging the Spanish-speaking segment of the population. In an effort to balance representation, the consultants emphasized outreach to groups that had not yet been heard. This included the Spanish-speaking population on the corridor.

Research about outreach in Latino communities offered valuable guidance in developing a public engagement strategy that would reach all those

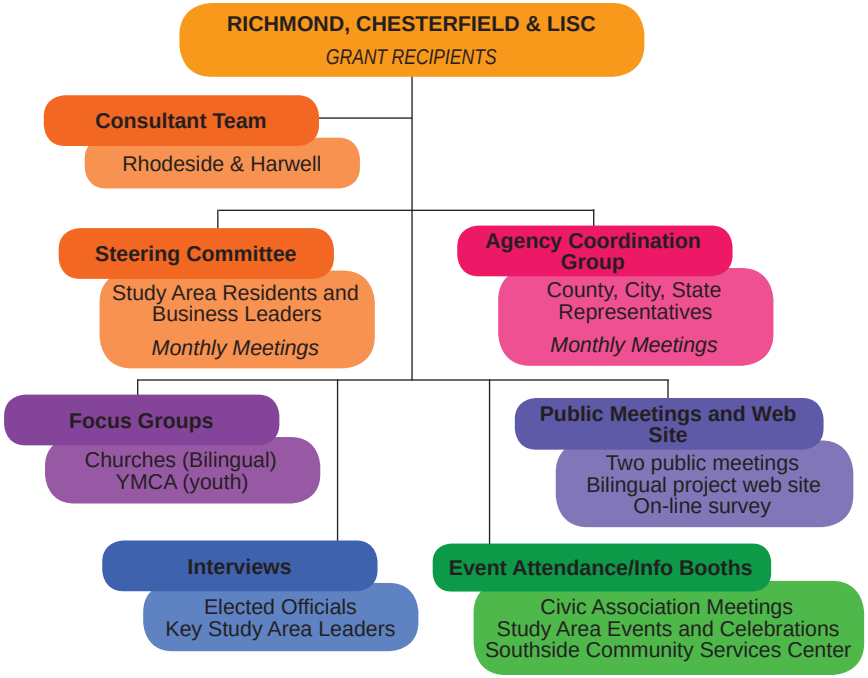


Figure 2.2: Project Structure

represented in the study area. This research came from conversations with Richmond and Chesterfield Multicultural Affairs staff, stakeholders living on Hull Street, and journal articles. Some of the key findings about effective ways to engage Latino groups and individuals included:

- Establishing direct contacts within Latino communities through attending events and neighborhood/school programs, especially family-oriented programs. This is particularly important since this population is unlikely to leave its geographic "comfort zone".
- Partnering with credible community resources.
- Using earned media in Spanish newspapers and on radio shows.
- Ensuring that all outreach and informational materials are bilingual.
- Respecting nationality differences.
- Understanding potential competition between ethnicities and sub-groups in the community.

2.2 OUTREACH STRATEGIES

The City of Richmond, Chesterfield County, and LISC began outreach for the Hull Street Plan beginning in 2011 and conducted a variety of outreach initiatives prior to June 2012, when the consultants joined the team. This early outreach included:

- Establishment of a project Steering Committee representing area residents and business owners
- Monthly Steering Committee meetings
- Public meetings with bilingual fliers
- Presentations at civic association meetings
- Door-to-door business outreach (LISC spoke with every business owner on the corridor)
- Door-to-door residential outreach (LISC, only in English)

Beginning in June 2012, the project team supplemented its outreach strategy to include:

- Steering Committee of area residents and business owners with monthly meetings (continuation of original SC group)
- An Agency Coordination Group (ACG) with monthly meetings
- Information booths at thirteen community events (English and Spanish)
- Twelve key stakeholder interviews
- Seven focus groups (English and Spanish)
- Two fully bilingual public meetings (including simultaneous interpretation services)
- A bilingual project web site (with on-line survey)

Each of the outreach strategies and key outreach findings are described in detail in Appendix A.

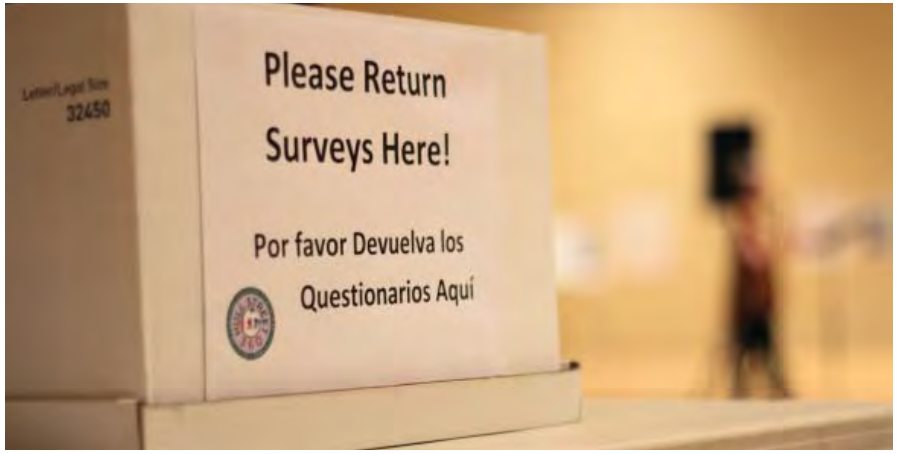


Figure 2.3: Photographs from the October 23 public workshop

Figure 3.1: Existing conditions on the Hull Street corridor

3.0 EXISTING CONDITIONS: LAND USE AND TRANSPORTATION

Hull Street Road is an arterial whose primary purpose for decades has been to efficiently move vehicles from Richmond to Chesterfield County and to and from the Chippenham Parkway. The design of both the street and land uses along it strongly reflect this purpose and priority.

The corridor transitions from a somewhat urban (or "urbanizing") character on the east end within the City of Richmond to a distinctly suburban or even "ex-urban" character at its westernmost end in Chesterfield County. Transportation policies and behaviors both shape and respond to this land use context.

The following chapter summarizes the corridor's current land use and multi-modal transportation conditions, opportunities and constraints. ***Chapters 7 and 9, A Vision for Change*** and ***Multi-Modal Transportation Strategies*** propose a new land use concept for the corridor and complimentary cross sections and intersection configurations for Hull Street in the City and County.

3.1 EXISTING LAND USE CONDITIONS

A visitor to Hull Street Road today experiences a corridor that is long past its prime in many locations. As with other older corridors throughout the country, one's first impressions of Hull Street are of a outdated strip commercial artery with a predominance of parking lots, many vacant parcels and buildings, a large and unsafe number of curb cuts, and a lot of visual "noise" resulting from a clutter of signs and electric power lines. Behind the corridor, to the north and south, are relatively stable residential communities with a mixture of multi-family and single family housing.

Study area land uses are mapped in Figure 3.1. Fronting Hull Street are a range of uses including institutional/civic, light industrial, commercial/retail, multi-family, and vacant/forested. The dominant land uses fronting the corridor are commercial and institutional; however in the study area as a whole, nearly 70 percent of the land use is residential, 7 percent is commercial/industrial, and another 7 percent is institutional. Vacant land constitutes 13 percent of the study area and public open space is 4 percent.

As shown in Figure 3.2, there are three significant streams that cross the corridor and require floodplain and resource protection area (RPA) buffers. In addition to the green corridors along these streams, there are several large forest and open space areas within the study area. These unbuilt areas, however, have limited access and therefore are not sufficient public park amenities for residents. For example, Pocosham Park covers a large area, but has few and limited entrance points for pedestrians. Other green spaces are privately owned or restricted for school related athletics.

Adopted land use plans for the area include the Chesterfield County Route 360 Corridor Plan (1995) and the City of Richmond Master Plan (2000). The Route 360 Plan calls for two community mixed use areas in the study area—one at the Hicks Road/Walmsley Boulevard intersection, and a second just

The 4.7-mile segment of the study area has tracts of undeveloped land and open space mixed with a few shops and housing areas. Although generally lacking sidewalks, multiple goat paths provide clear evidence of pedestrian demand.

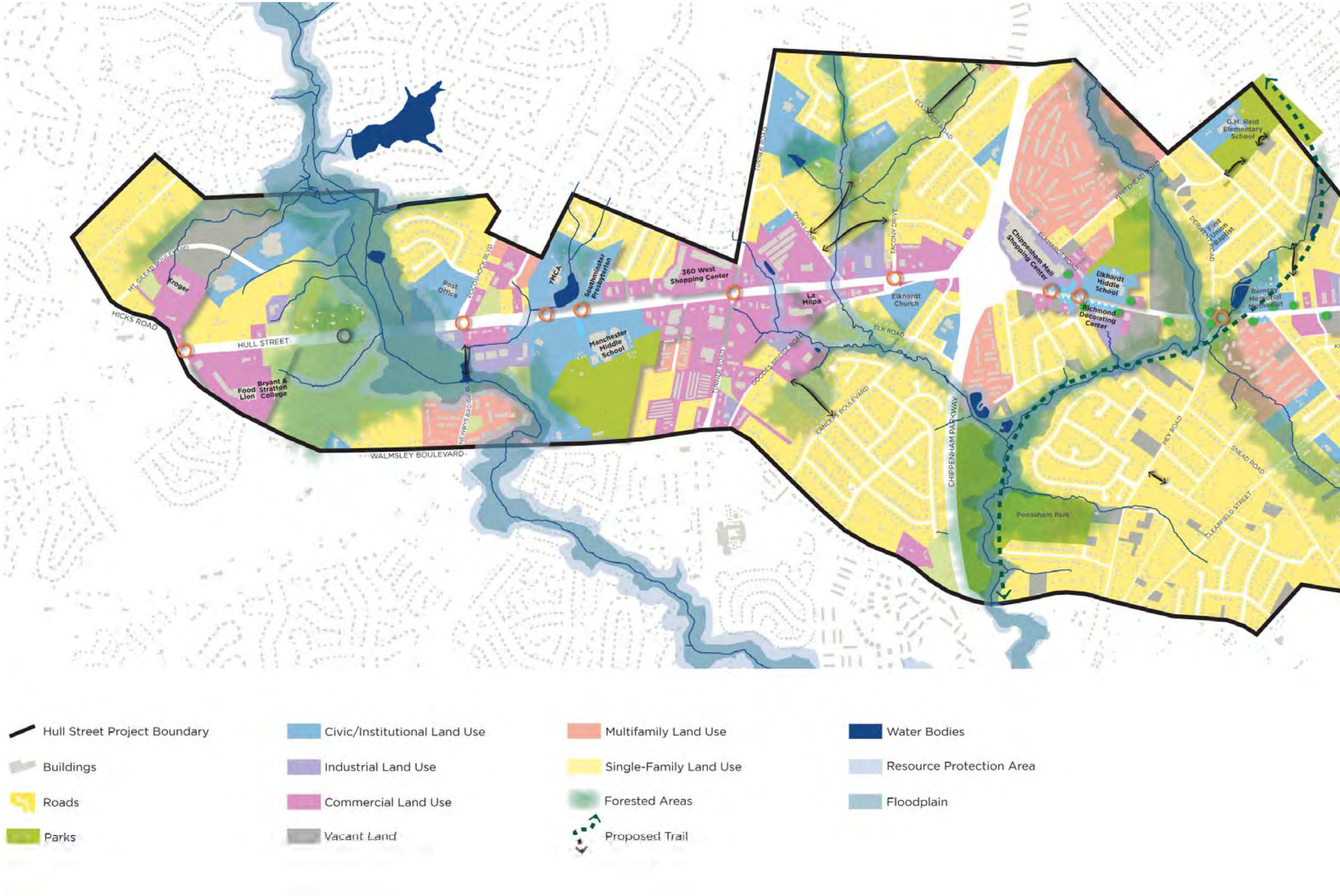
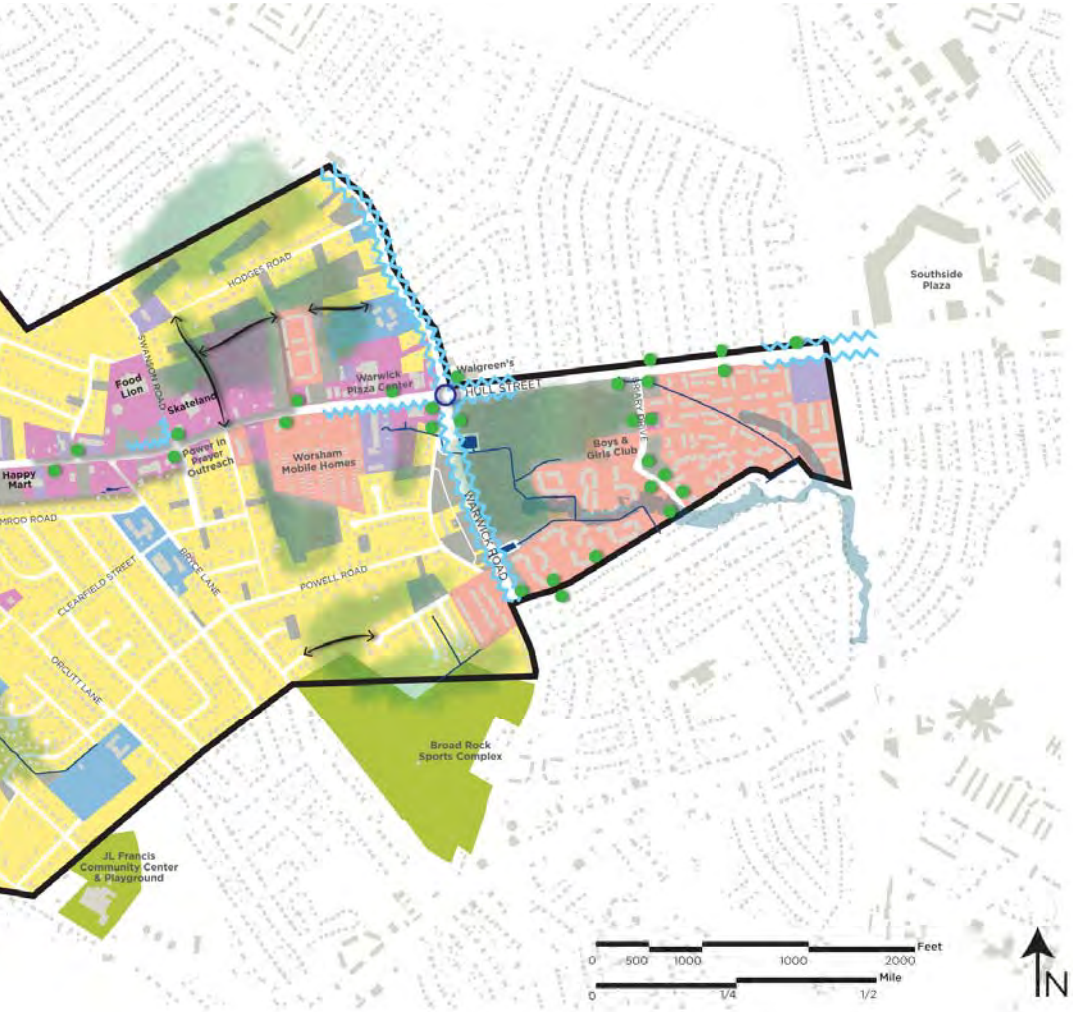


Figure 3.2: Existing Study Area Land Uses and Green Space Network



west of the Turner Road intersection. East of Turner Road over to Chippenham Parkway, the 360 Plan calls for general commercial/light industrial land uses along Hull Street.

The City of Richmond Master Plan splits the study area into two Planning Districts—Midlothian and Broad Rock. The Midlothian Plan (north side of Hull Street) calls for maintaining the general commercial activity at Chippenham Mall Shopping Center, community commercial uses in the Swanson Road/Warwick Road area, and single family residential along the rest. The Board Rock Plan (with side of Hull Street) maintains community commercial uses between Chippenham Parkway and Warwick Road. The large vacant parcel in the southeast quadrant of the Warwick Road intersection is shown as a Housing Opportunity Area.

Zoning for the study area is presented and analyzed in ***Chapter 12, Zoning Analysis and Recommendations***.

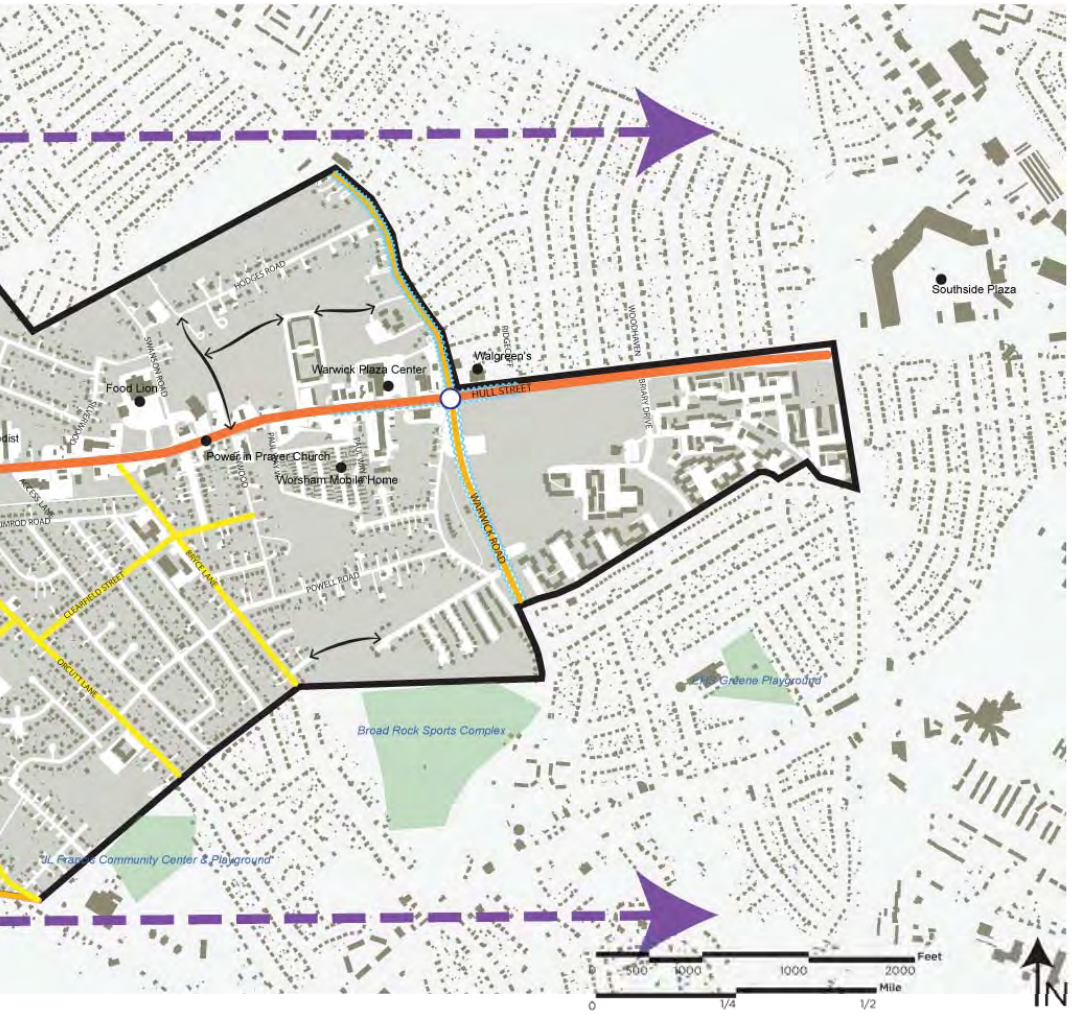
3.2 EXISTING MULTI-MODAL TRANSPORTATION CONDITIONS

The 4.7-mile segment of the study area has tracts of undeveloped land and open space mixed with a few shops and housing areas. Although generally lacking sidewalks, multiple goat paths provide clear evidence of pedestrian demand. Parking is generally free and abundant and provided almost exclusively in surface parking between buildings and corridor. Truck volumes, at 6% of total vehicles, are higher than the typically experienced 3%. Progressing from east (urban) to west (suburban) the corridor steadily gains volume, posted speed, and capacity (Figure 3.4).

3.2.1 Driving

The primary street network today resembles a cross shape. Hull Street Road provides access east-west and Chippenham Parkway connects north-south. There are no parallel east-west routes. North-south, Warwick Road and Turner Road connect to Midlothian Turnpike to the north and Belmont Road/Broad Rock Boulevard to the south, but overall large swaths of the developed areas have few routing options (Figure 3.5).

Figure 3.3: Local Network Connectivity



From/To	Volume	Speed	Lanes
Warwick to	23,000	35 MPH	2 x 2
Hey/Derwent to	26,000	35 MPH	2 x 2
Chippenham to	46,424	45 MPH	3 x 3
Turner Road to	35,253	45 MPH	3 x 3
Hicks/Walmsley	40,038	55 MPH	3 x 3

Figure 3.4: Select Characteristics by Segment

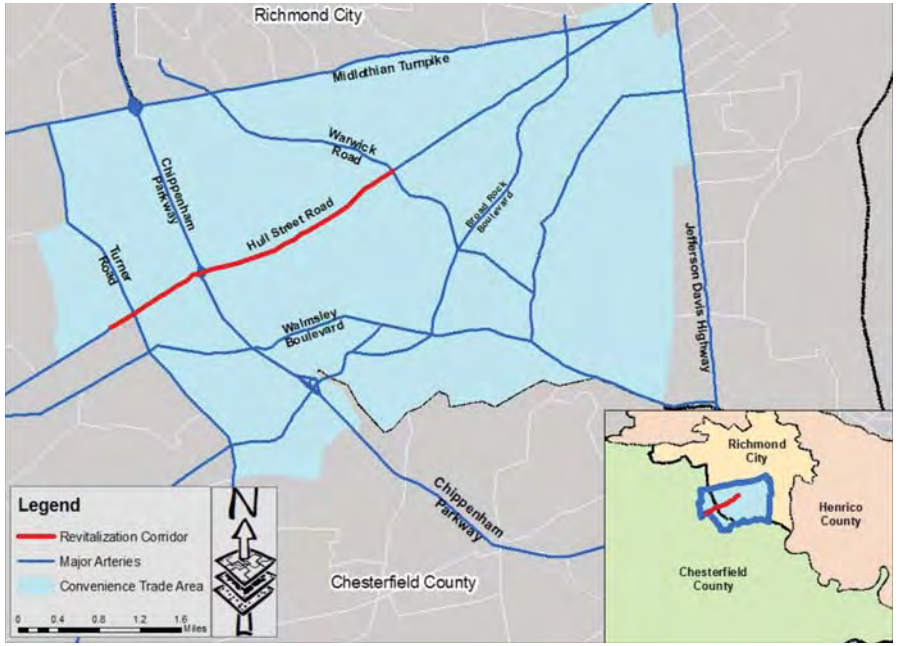


Figure 3.5: Network Context

	2001	2004	2006	2009	2011	Change	Annual
Hicks/ Walmsley Blvd	40,000	41,000	37,000	39,000	38,000	(2,000)	-1.5%
Chippenham Parkway	27,000	32,000	33000	26,000	23,000	(4,000)	-5.3%
Hey/Derwent	26,000	26,000	26,000	23,000	21,000	(5,000)	-5.6%
East Belt Boulevard	21,000	19,000	19,000	19,000	17,000	(4,000)	-5.6%

Figure 3.6: Annual Traffic Counts

Many of the residential areas were developed as superblocks, with arterial-type roads surrounding the neighborhood and, within, a series of lollipops, loops, and dead end streets (Figure 3.3). Blocks are long, with signals spaced as far apart as 1 mile. Neighborhoods, as a result, are isolated from one another and the retail offerings of the corridor. Access to all residential communities and commercial activity are forced onto Hull Street Road thus concentrating traffic on the corridor whether for short local connecting trips or long through commuting trips.

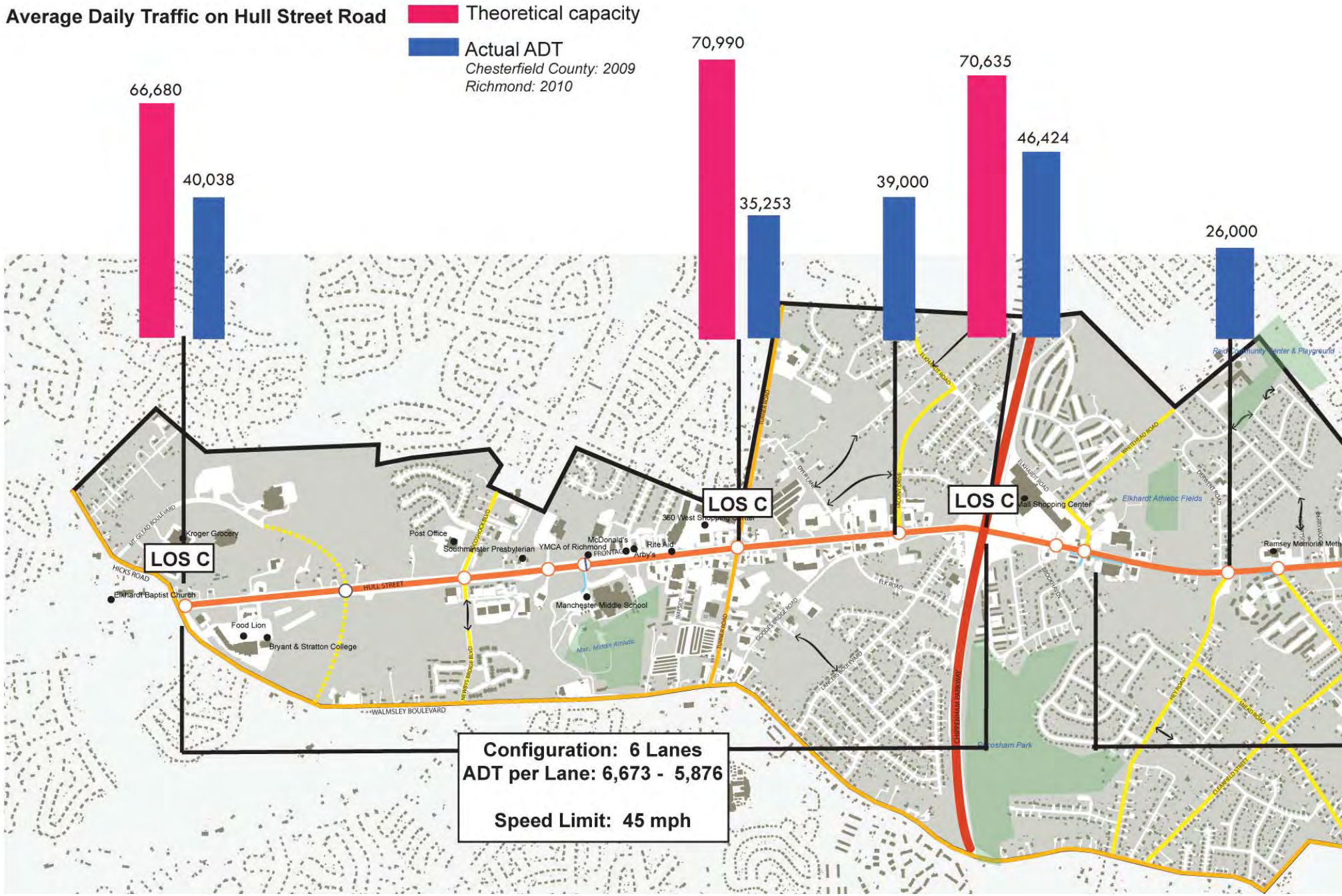
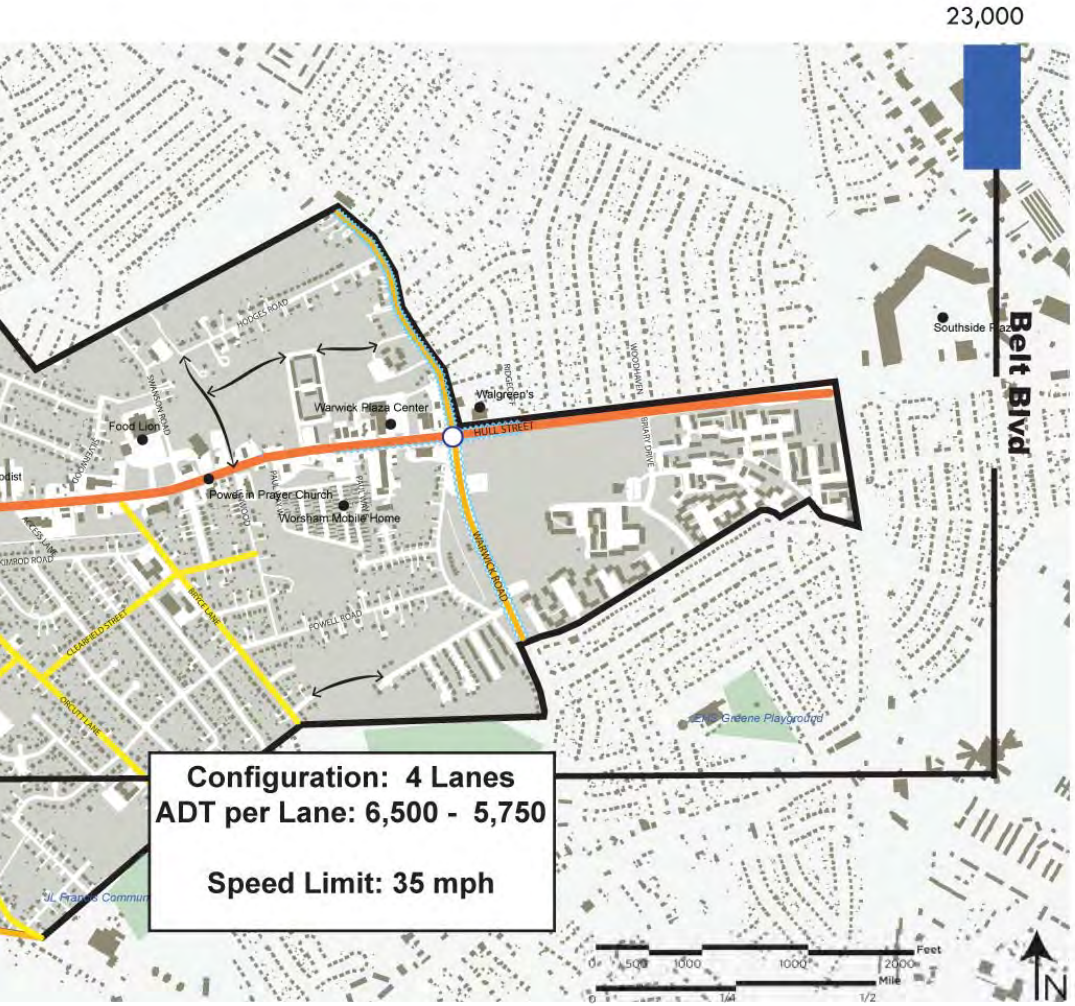


Figure 3.7: Available ADT Level of Service



Movement	Walmsley		Turner		Chippenham		Warwick	
	AM	PM	AM	PM	AM	PM	AM	PM
EB	C	B	C	B	C	D	D	C
EB - Left	B	F	B	D			A	B
EB - Right	A	A	A	A			A	A
WB	B	D	B	D	A	C	B	E
WB - Left	B	C	B	B	D	E	B	B
WB - Right	A	B	A	A			A	A
SB	B	C	D	E			B	C
SB - Left	C	F	D	D	D	D	B	B
SB - Right	A	A	A	A	A	D	B	B
NB	C	E	D	E			B	C
NB - Left	B	C	D	D			B	B
NB - Right	A	A	B	A			A	C

Figure 3.8: Level of Service by Intersection of Movement

Daily vehicle volumes on Hull Street have decreased from 2001 to 2011 at all four count stations within the study area.[1] Average Annual Daily Traffic (AADT) throughout the corridor has decreased between 2,000 and 5,000 over the past decade with a *negative* annual growth rate of approximately 5% (Figure 3.6). While some portion of this reduction of traffic is likely attributable to the economic contraction of the past decade, it may also signal changing travel behaviors in the region and particularly on the Hull Street corridor and represents an opportunity to think about the corridor differently.

Capacity on Hull Street Road west of Chippenham Parkway far exceeds actual volumes. Figure 3.7 illustrates theoretical capacity at intersections where data was available compared against actual 2009 volumes. Major destinations, locations of existing and planned signals, and street classifications are also shown.

Vehicular level of service on the corridor overall operates well with ample capacity to handle intersection volumes (Figure 3.8). During the PM peak hour in 2012, Hull Street Road and Walmsley Boulevard, which consists of 20 lanes at the intersection (five per approach), processed 5,607 cars (average of 280 per lane). Turning movement level of service was available for several key intersections. On average, movements operate at LOS D or better.

1 VDOT traffic count data.

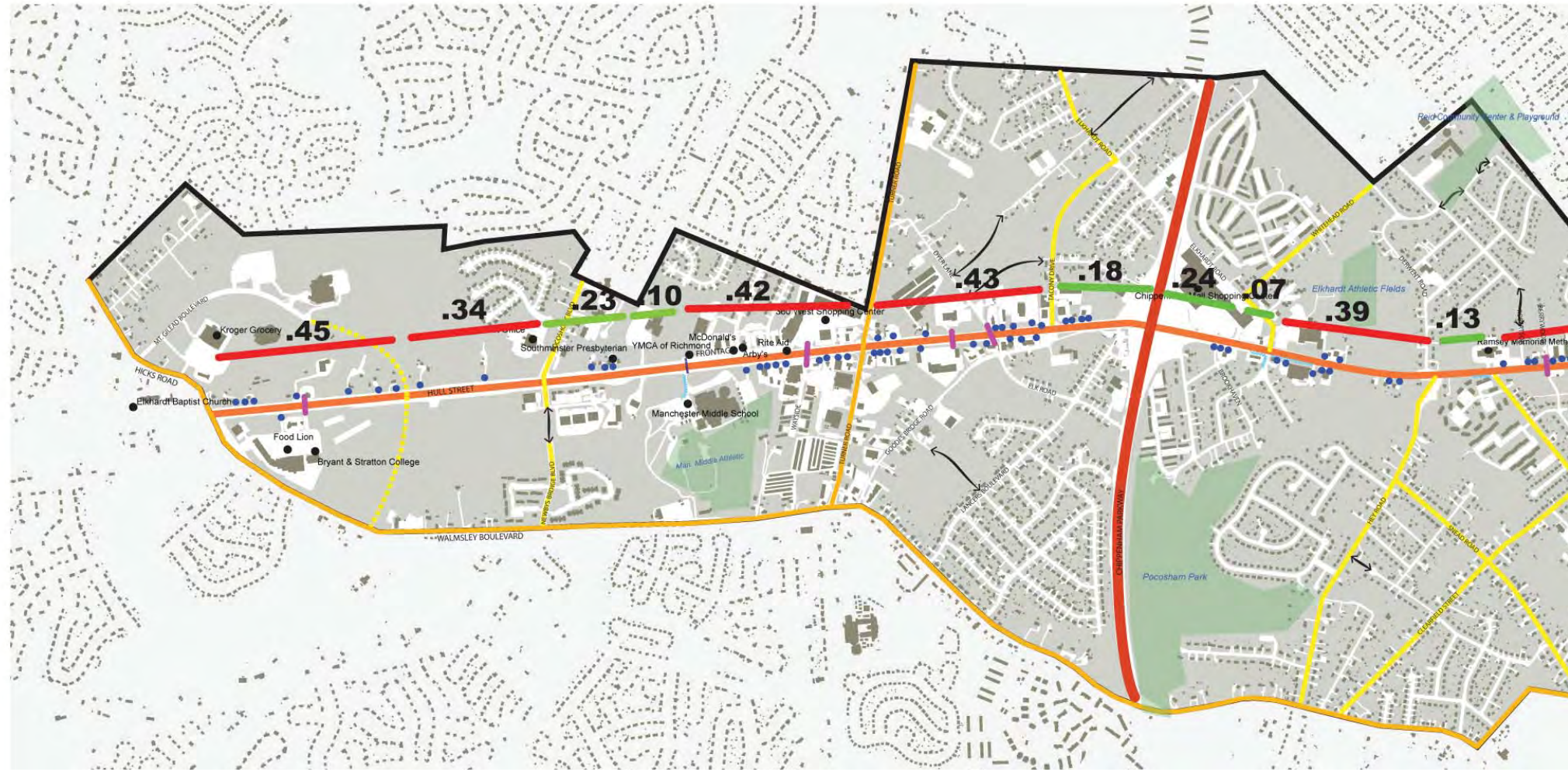
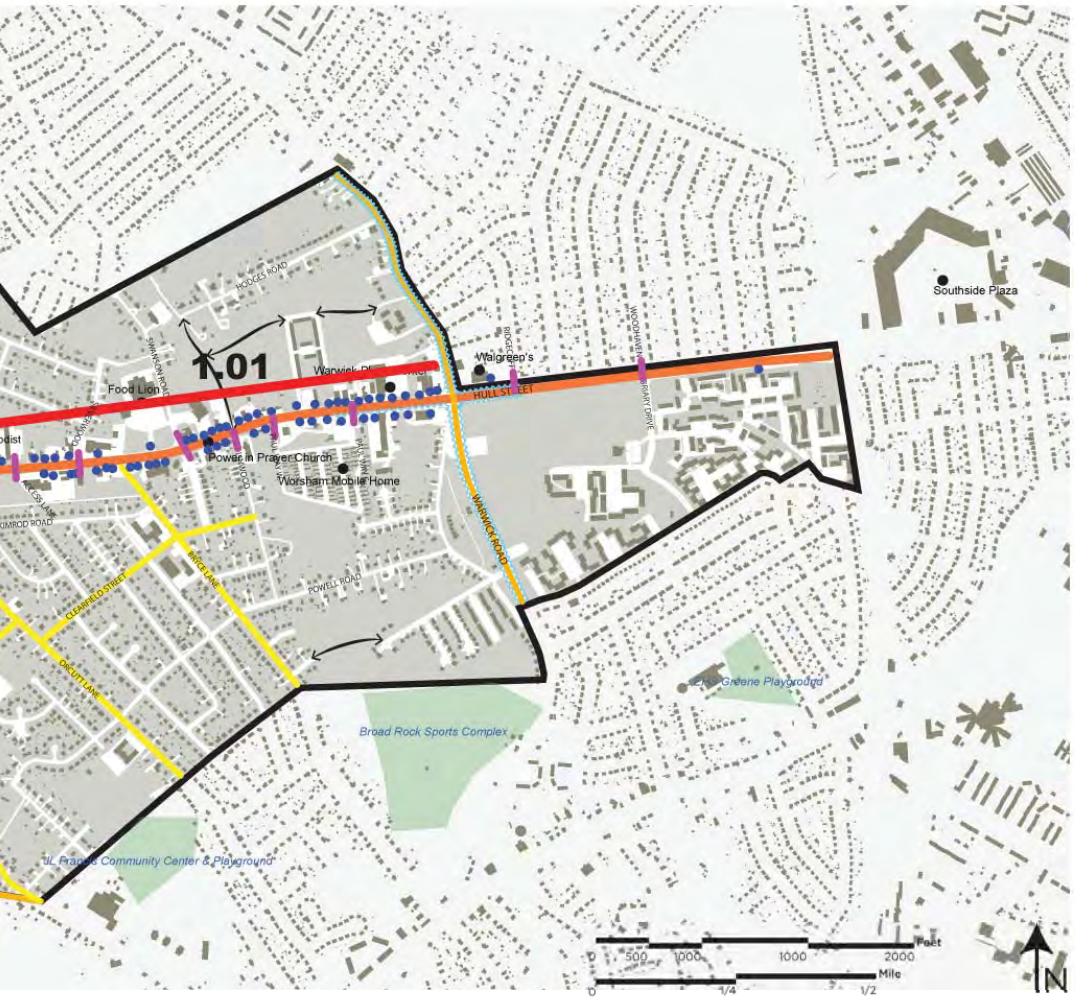


Figure 3.9: Signal Spacing



Signal spacing of 1/4 mile or less

Signal spacing over 1/4 mile

0.00 Signal spacing distance in miles

Unsignalized intersection

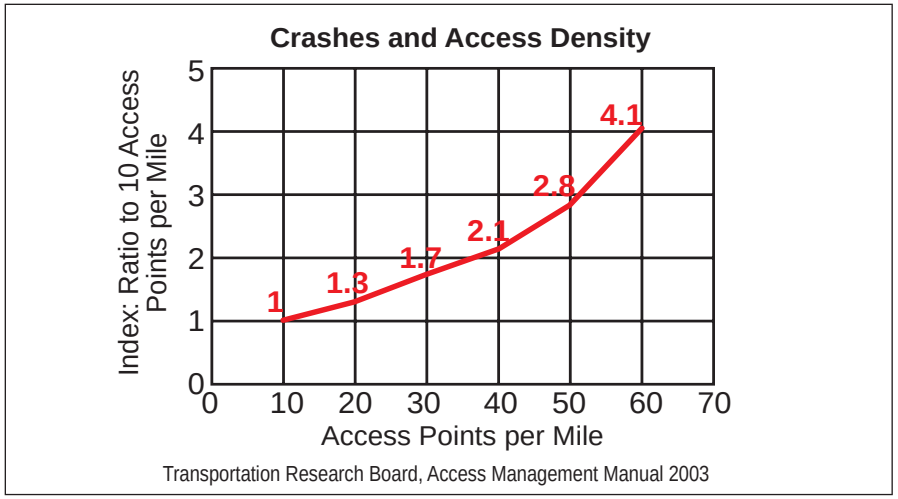


Figure 3.10: Crashes in relation to access points

Figure 3.11: Spacing of curb cuts at this location is too close

Access to businesses is provided via driveways - in many cases, one parcel has two or even three driveways. At some businesses the entire frontage is designed as asphalt driveway. This proliferation of driveways is a safety risk for drivers, a hazard for pedestrians, and a harm to the aesthetics of the corridor. Research has found that increasing points of access to businesses results in increased crashes (Figure 3.10).

The aerial in Figure 3.11 shows an example of the close spacing of driveways west of Turner Road. These curbcuts each represent a conflict point and degrade the overall throughput of the corridor.

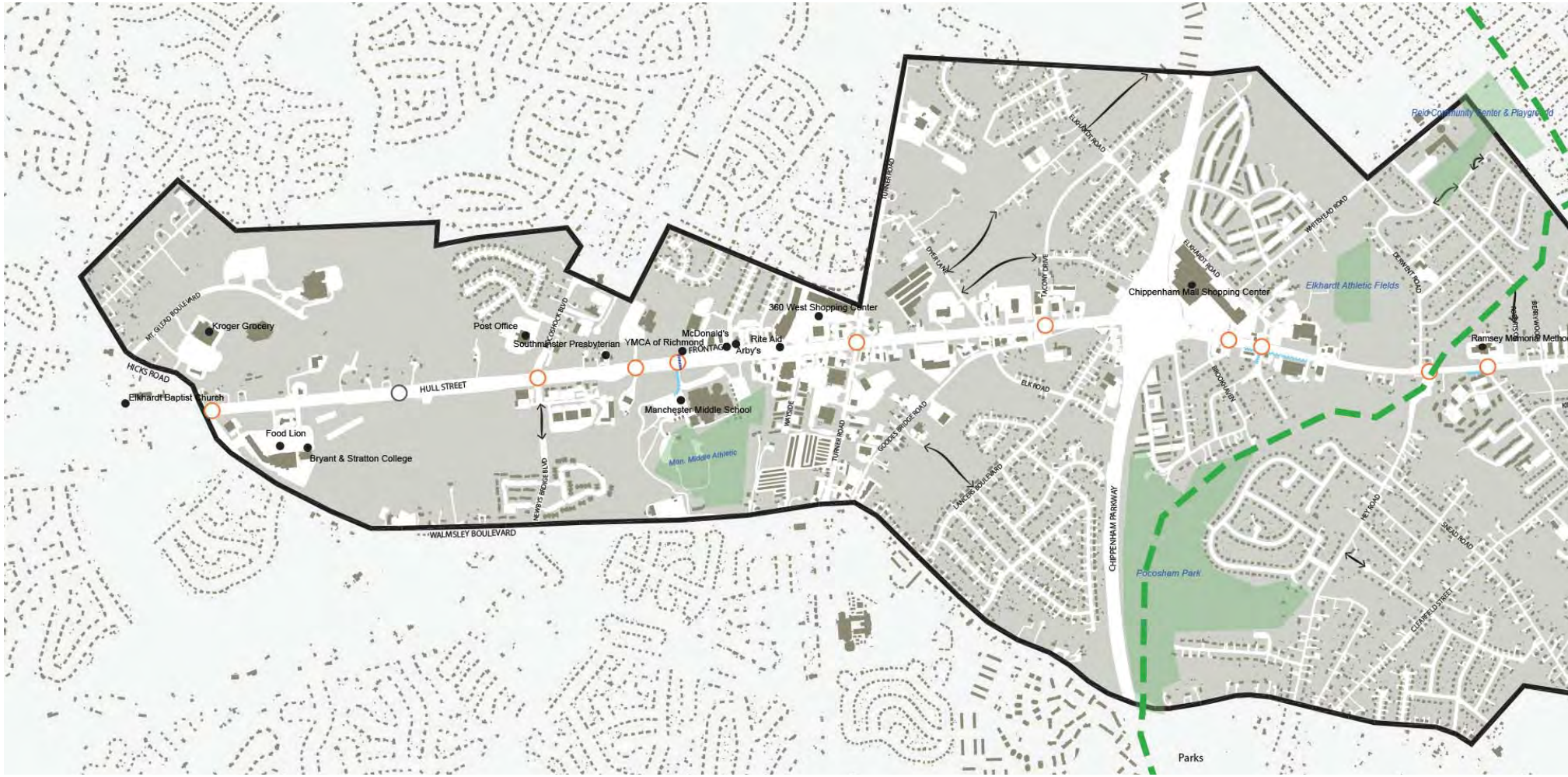
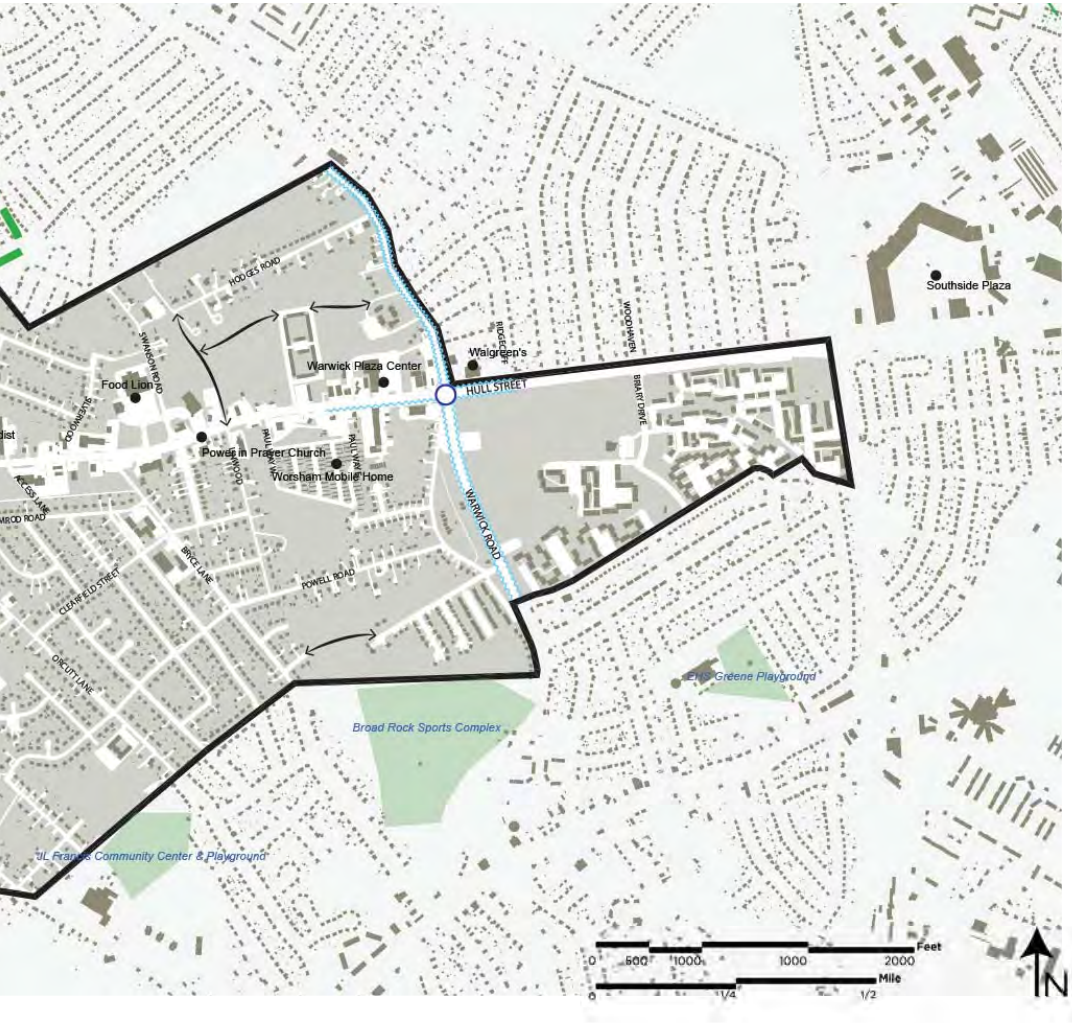


Figure 3.12: Walking & Bicycling Network



3.2.2 Pedestrian Accommodation

The walk environment lacks interest, lighting, amenities and a sense of place. Very long distances between signals, few sidewalks or crosswalks, and high vehicle speeds make walking feel unsafe and unattractive. Sidewalks along the corridor only occur in a couple spots east of Chippenham Parkway and west of Orcutt Lane but are largely missing along the corridor. Continuous sidewalks exist around the Warwick Avenue intersection, but do not continue much farther than the immediate junction area. Crosswalks are present only at Warwick Road.

The long spacing between signals forces pedestrians to resort to uncontrolled and unprotected midblock crossings across four or six lanes of traffic to access many destinations (Figure 3.9). Signals every quarter mile are generally preferred to create a pedestrian-friendly and accessible street .

The current and future potential to walk and cycle on the corridor is constrained by the barrier of the interchange onto Chippenham Parkway. Hull Street Road goes under the parkway, and room for future non-motorized facilities is limited. Pedestrians today must cross numerous high-speed on and off ramps to get through this area.

3.2.3 Bicycle Accommodation

On a corridor with three lanes in each direction and posted speeds of 45 mph, cyclists require separate facilities to operate safely. Although the speed limit drops to 35 mph east of Chippenham Parkway, the street's general design accommodates and invites higher speeds. In some areas of Hull Street Road a shoulder exists which provides some accommodation to cyclists. However, this shoulder is not continuous and suitable to only the more experienced and confident cyclists. A new greenway along Pocosham Creek is planned which will provide greater north-south connectivity. Figure 3.12 shows where sidewalks are present and the general alignment of the proposed greenway.

Figure 3.13: Current bicycle and pedestrian accommodation

Non-motorized travel in the corridor is present, but severely challenged. In the absence of sidewalks, pedestrians have tramped hard-packed dirt paths along many segments of the corridor. Bicycle accommodations are entirely absent from the corridor. Cyclists must complete with general traffic and/or navigate the many curb cuts and conflict points (Figure 3.13).

3.2.4 Transit Services and Facilities

GRTC bus routes 62 and 67 serve the corridor as far west as Chippenham Mall Shopping Center. The 62 carries very high ridership, and stop-level data shows numerous boardings and alightings at Southside Plaza and west to the mall. Transit stops generally have few to no amenities aside from the bus stop sign. Stops are well-spaced and 20 total trips per day serve the mall (10 per direction) on hourly headways. A trip from Chippenham Mall to 7th and Broad Streets in downtown Richmond takes 45 minutes. Figure 3.14 shows stop activity for the Hull Street corridor taken from GRTC's Transit Development Plan.

3.2.5 Crash Analysis and Summary

Chesterfield County crash data was available for the years 2006 to 2008 in the Strategically Targeted Affordable Roadway Solution (STARS) *Report on Route 360*.[2] The report examined three hot spots on the corridor. Crash statistics for the City of Richmond section of the Hull Street Road corridor were gleaned from the City of Richmond's Motor Vehicle Accident File for 2009 to 2011.[3] Figure 4.13 below shows traffic-related injuries and fatalities along the Hull Street Road corridor.

One reported traffic fatality occurred over the years and locations for which data was reviewed. The fatality occurred at Orcutt Lane as a car, traveling eastbound, disregarded the traffic signal while another car made a left turn onto Hull Street Road from Orcutt Lane.

As shown in Figure 3.15, the greatest number of traffic related injuries occur at:

1. Chippenham Parkway
2. Turner Road
3. Tacony Drive
4. Elkhardt Road
5. Orcutt Lane

2 VDOT. (2011). "Strategically Targeted Affordable Roadway Solution STARS: Route 360."

3 City of Richmond. (2011). "Motor Vehicle Accident File."

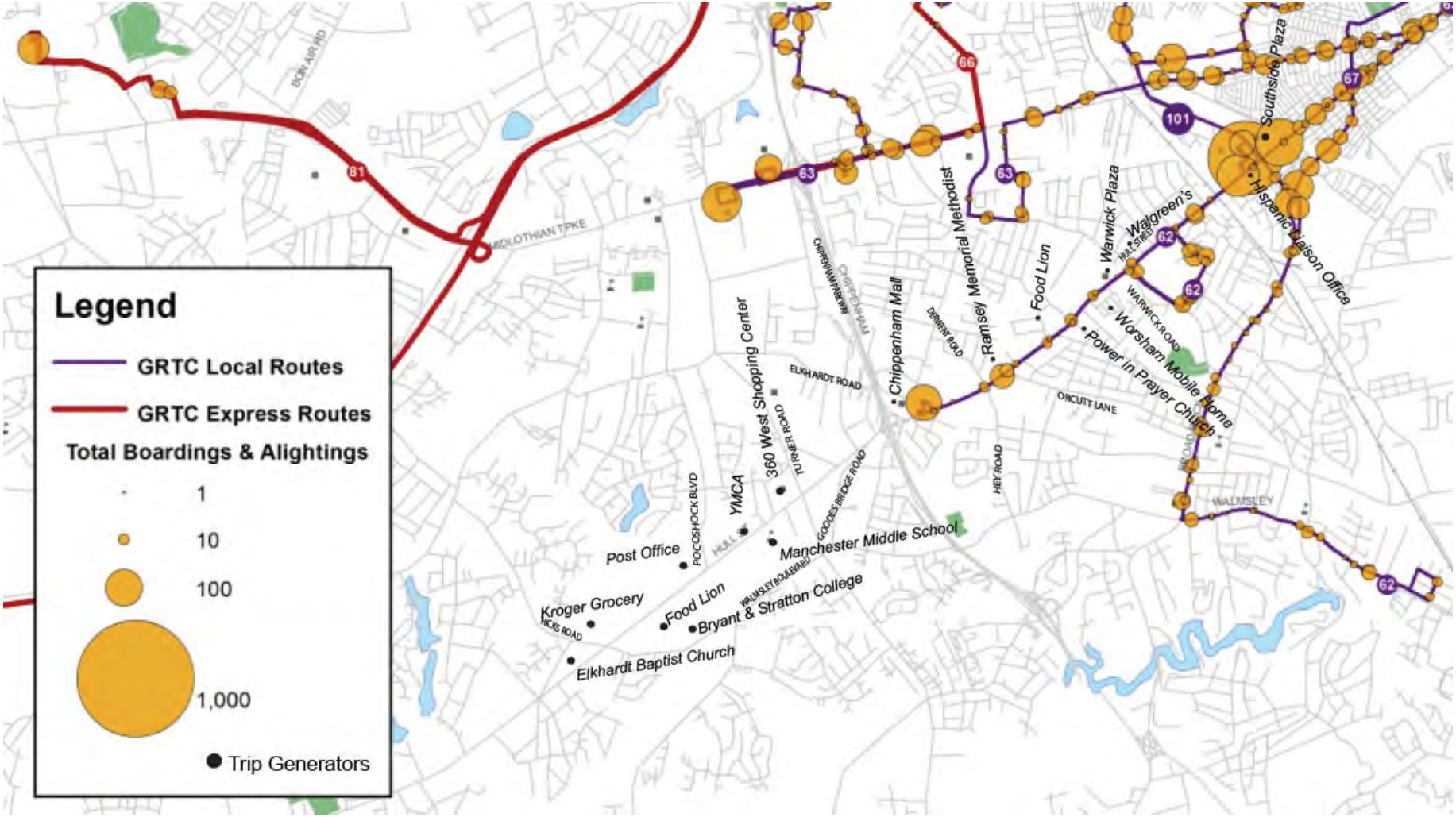


Figure 3.14: Transit Ridership

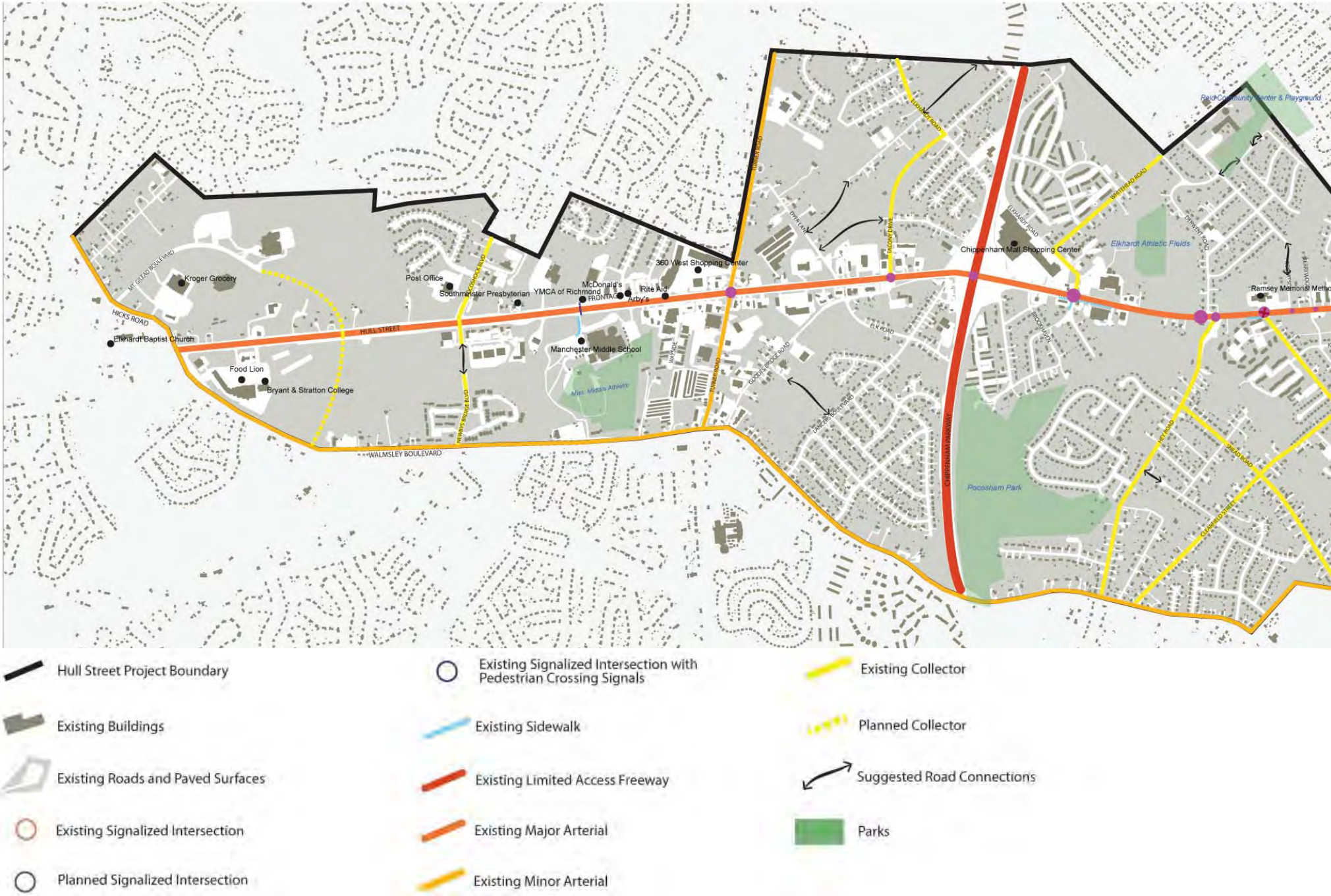
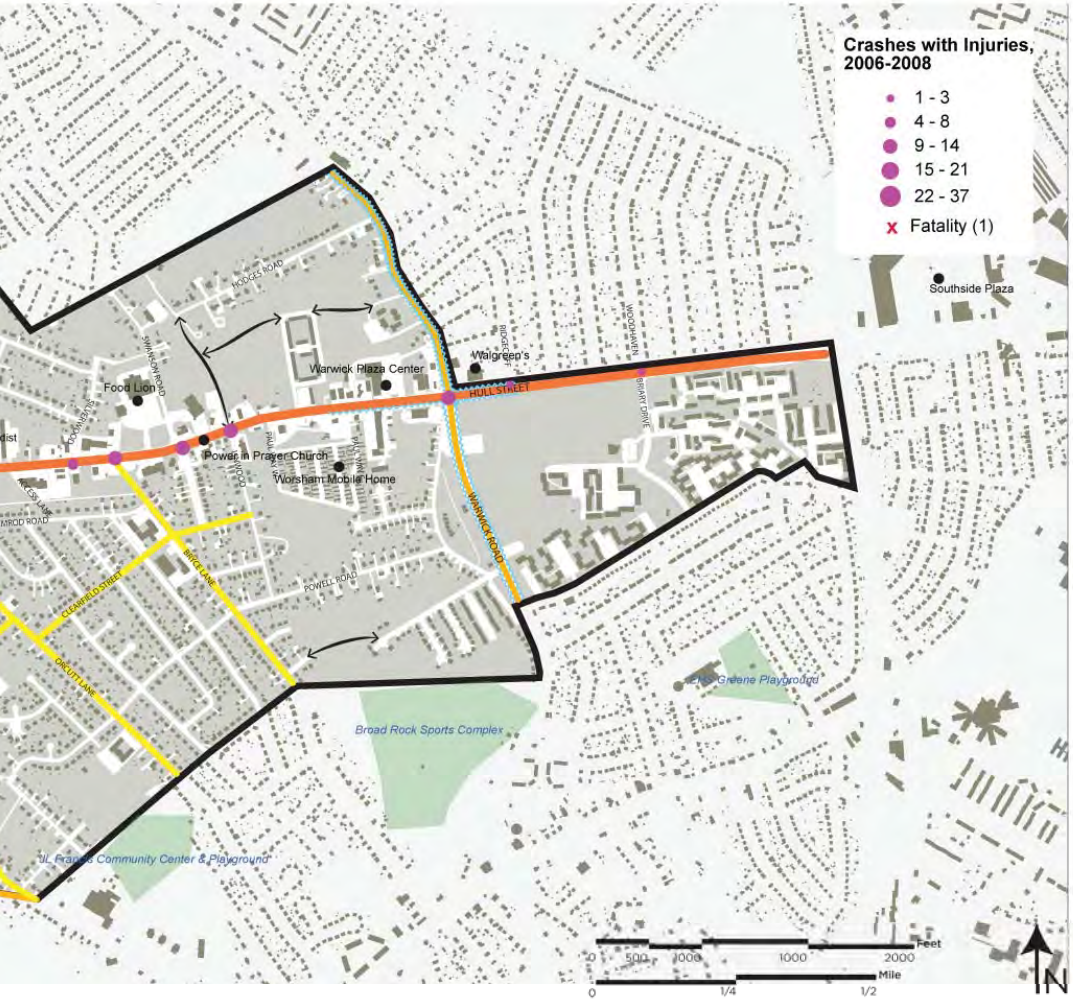


Figure 3.15: Crashes, 2001-2009 (using available data)



At Chippenham Parkway, the majority of traffic-related injuries were associated with westbound left turns (56 percent). The majority of injuries at Turner Road and Tacony Drive involved rear endings, (41 and 54 percent, respectively). Crash records at Elkhardt Road and Orcutt Lane include more detailed case by case data from the City of Richmond's Motor Vehicle Accident File. At Elkhardt Road, two pedestrians were injured in traffic crashes and the majority of crashes involved at least one vehicle being rear ended. Of the eight traffic related injuries at Orcutt Lane, two traffic related injuries, on separate occasions, were the result of an eastbound vehicle on Hull Street Road that disregarded the traffic signal as another vehicle made a left turn onto Hull Street Road from Orcutt Lane, similar to the circumstance that caused the 2011 fatality at this location.[4]

U-turns along the corridor contribute significantly to traffic-related injuries. Ten injuries were the result of four separate accidents from cars making U-turns along Hull Street Road at Bryce Lane, Swanson Road, Linwood Avenue and Warwick Road. One accident at Hull Street Road and Warwick Road caused by an illegal U-turn resulted in four of these ten injuries.

Along the study corridor four pedestrian injuries occurred, of which two were hit and run incidents. Property damage only incidents were most numerous at Chippenham Parkway, with 45 crashes in the past six years. The STARS report states that crashes at this intersection are predominately caused by left turning vehicles turning with the left-turn phase.[5] In recent years, the intersection of Hull Street Road and Hey Road has a high number of minor crashes, 26 with property damage only, between 2009 and 2011.

4 Ibid, 17.

5 VDOT. (2011). "Strategically Targeted Affordable Roadway Solution STARS: Route 360." pg. 6.

3.2.6 Opportunities & Constraints

Although Hull Street Road is entirely dominated by the auto today, there is both need and desire for multimodal options on the corridor and an understanding that roadway design conveys the character and identity of the community and influences economic investment.

According to the latest Census, 13% of residents in surrounding block groups do not own a vehicle, and 43% own just one vehicle per household. As shown inFigure 3.16, people are increasingly carpooling to work as an alternative to driving alone.

Opportunities

Hull Street Road is well positioned to fulfill the vision of a vibrant corridor that fulfills both local and regional demands for mobility and accessibility.

- The corridor provides enviable accessibility to markets north and south, east and west.
- Vehicle level of service is good to excellent at most hours of the day.
- Transit service provides travel options to destinations on the eastern half of the corridor.
- Declining vehicle volumes provide an opportunity for street redesign to improve pedestrian and bicycle access without significantly reducing vehicular services.

Constraints

Although possessing many strengths, Hull Street Road is rife with challenges as well:

- Numerous, closely spaced curb cuts and parking for each individual land use significantly degrade pedestrian access, increase risk of crashes for drivers, and degrade long-term vehicle corridor operations
- The overall image of the corridor is generally uninviting (even hostile) to travelers and potential investors.
- The corridor is wholly unsafe for cyclists - this mode is not a viable option at present
- Poor lighting and minimal street activity threaten personal safety and comfort due to .
- The pedestrian network and narrow median refuges do not meet ADA accessibility requirements or the needs of the surrounding community which includes many who have low income, are older adults, or are children
- The corridor lacks a sense of place, arrival, or destination along the five-mile extent.
- Vehicles routinely exceed posted speeds.
- The Chippenham Parkway interchange divides the corridor literally and figuratively.
- The absence of a parallel east-west network means all traffic is funneled onto Hull Street Road for both local and long distance trips.

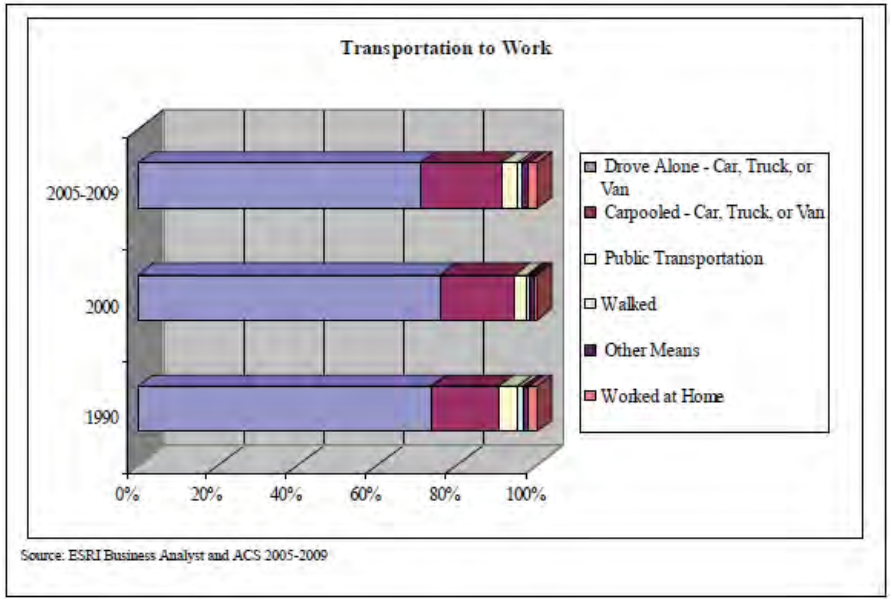


Figure 3.16: Commute mode to work

Figure 4.1: Visualization of La Milpa Plaza

4.0 ECONOMIC DEVELOPMENT ANALYSIS AND OPPORTUNITIES

Achieving the vision for Hull Street corridor revitalization will depend initially on public sector actions that lay the groundwork for private investment in the corridor. Public actions to achieve economic development should:

- Enhance the public realm to remove the stigma of physical decay,
- Improve connections between businesses and nearby customers,
- Provide technical assistance and financial incentives to businesses investing in the corridor, and
- Invest in public/private partnerships to achieve quality redevelopment.

Equally important will be strategies and investments in the corridor residents' work skills and capacity through transportation service investments, public school improvements, adult education, workforce development, and links to employers and available jobs.

4.1 EXISTING BUSINESSES

The Hull Street corridor is characterized by a series of small locally-owned businesses focused primarily on auto repair services, auto dealers, restaurants, retail, and construction contractors, as well as several physician, dentist, attorney, real estate and insurance agent offices. Major businesses and institutions in the corridor include Hunter Holmes McGuire VA Medical Center, the City of Richmond's Southside Community Service Center, Bryant & Stratton College, Food Lion, Kroger's, Haynes Home Furnishings, Chesterfield Family Practice, and Clinical Services of Virginia.

Beyond the immediate Hull Street corridor, Midlothian Turnpike hosts a wide variety of retailers and restaurants. Chippenham Hospital anchors a significant and growing concentration of health care providers at Chippenham Parkway and Jahnke Road. To the east along Jefferson Davis Highway (U.S. 1) are several industrial parks with manufacturing, service and distribution tenants.

4.2 SITE INVENTORY AND ASSESSMENT

The study area has 20 sites potentially suitable for development or redevelopment, ranging in size from 0.4 to 34 acres, as summarized in the Appendix C. The sites were selected based on:

- Hull Street access;
- Visibility on Hull Street and other thoroughfares;
- Vacant or underutilized land;
- Parcel size;
- Building condition; and
- Proximity to an existing cluster or anchor business.

In most cases these sites are vacant properties, though a few have some modest buildings remaining, primarily in poor condition. The largest properties are greenfields that have never been developed. Most significant is the property in the southeast corner of Hull Street and Warwick Road, a major intersection. Other major greenfield properties include land east of

The plan focuses on nodes at major intersections – Hull Street at Hicks Road/ Walmsley Boulevard, Turner Road, Chippenham Parkway, and Warwick Road – where developing mixed-use clusters would be most feasible.

Figure 4.2: Existing conditions along the Hull Street Corridor

Elkhardt Middle School and a major site east of Bryant & Stratton College on the western end of the corridor.

Other smaller redevelopment parcels stretch along the corridor. Some are occupied by low-density uses such as used car dealerships. Chapter 5, Preliminary Market Analysis and Opportunities, indicates limited near-term demand for new commercial and industrial development along Hull Street, as evidenced by absorption and vacancy rates. Until corridor aesthetics and market conditions improve, priority should be given to redeveloping these blighted properties and underutilized sites. Site information and maps are provided in Appendix C.

The plan focuses on nodes at major intersections – Hull Street at Hicks Road/ Walmsley Boulevard, Turner Road, Chippenham Parkway, and Warwick Road – where developing mixed-use clusters would be most feasible. In the Chesterfield County portion, focused redevelopment in the Turner Road node would enhance this gateway and create opportunities for new businesses to meet residents' needs. In the Richmond portion of the corridor, initial redevelopment efforts should focus on the Warwick Road node, upgrading the public realm, working with existing businesses and redeveloping underutilized, blighted properties. These initial priorities reflect consideration of access, visibility, existing businesses and the advantages of clustering.

4.3 BUSINESS AND INDUSTRY POTENTIAL

The Greater Richmond Partnership (GRP) has prepared an economic development strategy that evaluates the region's competitive strengths and weaknesses. It draws on that evaluation to recommend industry groups that should be targeted for business attraction and development. GRP's regional targets include:

- Health and life sciences;
- Supply chain management;
- Advanced manufacturing;
- Finance and insurance;

- Professional and creative services; and
- Food and beverage processing and machinery.

4.3.1 Chesterfield County

Chesterfield County is competitive for businesses in each of these regional target industries. Its labor force and business base support a wide range of advanced industries. However, for each of these target industries, the County offers a number of competitive locations, ranging from organized business parks to individual properties near hospitals to large freestanding campuses with good access to the trained labor force, business executives and support businesses. Hull Street's limited inventory of industrial sites and office buildings does not allow it to compete effectively for new industry. In the long term, as land and space become tighter near Chippenham Hospital, healthcare-related businesses could be attracted to the corridor near the Chippenham Parkway interchange.

4.3.2 Richmond

The 2010 Comprehensive Economic Development Strategy (CEDS) for Richmond refined the regional targets, considering the City's accessibility, available inventory of sites and buildings, labor force and location patterns within the region. From that fine-grained analysis, the City is likely to have its best success in attracting the following target industries:

- Corporate headquarters;
- Creative and knowledge-based services;
- Information and communication technologies;
- Life sciences;
- Research and development (R&D) centers; and
- Professional services.

The CEDS refined list focused on more specific target industries and emphasized the City's:

- Educational and health care assets,
- High-amenity downtown office environment,
- Suitability for less land-intensive sectors, and
- Ability to attract and retain young knowledge workers who value urban locations with a mix of uses within easy walking distance.

These particular City strengths are not evident in the Hull Street corridor. The demographic analysis prepared by the Local Initiatives Support Corporation (Appendix D) reports that 17 percent of corridor residents aged 25 or older had no high school diploma, and 33 percent had only a high school diploma as of 2009. Less than 19 percent had a Bachelor's or higher degree. The occupations most often reported for corridor residents reflect that limited educational attainment:

- Office and administrative support (18.0 percent of corridor residents aged 16 and over in the labor force);
- Construction (10.2 percent);
- Sales and related occupations (10.0 percent);
- Building and grounds cleaning and maintenance (7.7 percent);
- Food preparation and service (7.4 percent);
- Transportation and material moving (7.0 percent); and
- Production (6.6 percent).

Considering both the skills of the corridor's current labor force and its existing real estate market conditions, the Hull Street corridor seems unlikely to be able to attract the types of companies the City has targeted for recruitment.

More likely would be a continuation of the pattern of small businesses taking advantage of both the traffic levels in the corridor and the availability of inexpensive space there. Most of the future businesses in the Hull Street corridor are likely to be generated by local entrepreneurs starting and growing their businesses.

4.3.3 Business Development Opportunities

The types of businesses that could take best advantage of the corridor's labor force include:

- Service and repair shops;
- Small specialty food processors;
- Construction contractors;
- Landscape contractors; and
- Caterers.

Additional businesses could be supported to serve the needs of corridor residents, such as:

- Physicians;
- Dentists;
- Child care centers;
- Tax preparers; and
- Attorneys.

4.4 BUSINESS AND DEVELOPMENT INCENTIVES

Incentives in the Hull Street corridor should focus on helping existing businesses to succeed and expand rather than looking to outside companies to locate into the corridor. While new companies could develop in the corridor, investing scarce resources in business attraction efforts and incentives would not be cost-effective. Rather, those resources should be dedicated to working with individual businesses and improving the corridor, its aesthetics and its accommodations for pedestrians and bicycles. Until the image changes, success in attracting new businesses will be limited.

4.4.1 Small Business Assistance

Small businesses form the economic base for the Hull Street corridor and will be the driving force for its economic improvement. Their potential to grow and expand is constrained by the physical condition of Hull Street, which communicates an image of decay, and at times by the condition of the businesses. Few businesses have invested in improving the quality and appearance of their facilities, making it more difficult to attract customers. Streetscape improvements will start to create a new and enhanced environment and a better image for the area. Where possible, this should be accompanied by building improvements initiated by the corridor's businesses. Building improvement grants and loans can help offset those costs where they are available.

The City and County offer a number of incentives and support programs that address the issues faced by corridor businesses. The key challenge lies in helping corridor businesses access those programs and incentives. For these small businesses, the key assistance needs relate to:

- Working capital;
- Equipment and building facilities financing;
- Contractor bonding;
- Contract bidding;
- Employee recruitment and training;
- Marketing and accessing new markets;
- Business planning;,
- Permits and licensing; and
- Accounting.

The City has several small business programs, including assistance to small and minority contractors, contractor loans, a revolving loan fund and tax abatement for qualified building rehabilitation or replacement. The Commercial Area Revitalization Effort (CARE) provides assistance to small businesses in designated areas. The City portion of the Hull Street study area is designated as an Extra CARE area. Subject to the availability of funds, the City rebates a portion of costs for exterior rehabilitation, interior rehabilitation, security improvements and sprinkler installation. Low-interest loans are available for up to $10,000 in leasehold improvements.

Businesses within those portions of the corridor designated as part of an Enterprise Zone are eligible for 10-year real estate tax abatement and rebates for brownfields assessments, machinery and equipment purchases, relocation expenses, loan fees and development fees. Employment grants also are available for new eligible positions. The Richmond Enterprise Zone includes the Hull Street frontage from Southwood Parkway west to Chippenham Parkway.

Also potentially available to development in the Richmond portion of the corridor are New Markets Tax Credits provided by the Federal government to Community Development Entities (CDE) that invest in qualified low-income communities. The tax benefits offered by the New Markets Tax Credits attract investors willing to make an equity investment in a CDE, which then makes loans or investments in qualified commercial development projects and/or businesses. Mixed-use developments can qualify as long as more than 20 percent of the gross revenue during the seven-year compliance period comes from commercial rents. The most common model allows up to 95 percent of a project's cost to be financed, with favorable debt coverage ratios as low as 110 percent and interest-only loans at rates as low as three percent. Loans can be structured so that debt service is tied to available cash flow. An essential requirement for New Markets Tax Credit financing is that it must involve debt in order to meet Internal Revenue Service requirements.

Chesterfield County's Hull Street Enterprise Sub-zone covers frontage properties from Chippenham Parkway to 360 West Shopping Center and commercial properties on Wayside Drive. However, the County may not qualify for Enterprise Zone designation in the next round following changes in the State legislation. Enterprise Zone incentives are State programs administered by the Virginia Department of Housing and Community Development.

In conjunction with the City of Richmond, Chesterfield County participates in the Greater Richmond Partnership's Business First Initiative, a business visitation and retention effort supported by State and local government agencies and staffed with volunteers from the business community. In one-on-one discussions with key executives of existing businesses, the volunteers

Figure 4.3: Small business assistance, workforce training, and transit upgrades are key contributors to economic development

collect information and feedback about pressing issues. They also use that opportunity to link the businesses with existing programs and resources to help them grow.

The Chesterfield County Small Business Center offers business counseling through the Greater Richmond Small Business Development Center, access to financing sources, site selection assistance and permit processing guidance.

Personal outreach to business groups and individual businesses along the corridor would improve Hull Street businesses' awareness and use of these small business services. Main Street and other commercial revitalization programs have demonstrated the effectiveness of one-to-one outreach and assistance in communities across the country. City and County economic development staff persons visiting corridor businesses on a regular basis (e.g., two mornings per month) to identify needs and link the owners to assistance providers could be very powerful.

If sufficient interest is shown, an informal e-mail network could be established to link businesses along the corridor. One business in each of the four nodes could commit to write a bi-monthly email updating other businesses as to developments in their part of the corridor, e.g., streetscape construction, new businesses, business façade improvements, etc.

Private business groups, such as the Merchants Club of Virginia, can supplement these public-sector resources by helping to build networks among Hull Street businesses and providing informal mentoring by established businesses.

4.4.2 Recommended New Incentives and Initiatives

To address the needs of corridor businesses and support expansion of business activity in the corridor, the City and County should:

- Invest in roadway, streetscape, open space and other public realm improvements that enhance the corridor's image and improve the businesses' ability to attract customers;
- Provide business facility improvement loans to property owners and tenant businesses, extending into Chesterfield County;
- Provide low-cost or free architectural services to businesses considering building improvements to assure quality design;
- Encourage and support development of a Hull Street corridor business association;
- Devote staff time to periodic visits to corridor businesses to help them access available resources;
- Work with businesses that need screening, recruitment and training of new employees;
- Provide direct technical assistance to small construction contractors located in the corridor, including:
    - Introductions to large general contractors to whom they could subcontract
    - Assistance with securing surety bonds and financing,
    - Guidance in preparing business plans, bids and schedules, and
    - Mentoring support.
- Assist corridor businesses in receiving certification as Small, Women and Minority-Owned (SWaM) businesses by the Virginia Department of Minority Business and in accessing eVA, the State's electronic procurement system.

4.5 IMPROVING ECONOMIC CONDITIONS FOR HULL STREET RESIDENTS

Place-based economic development strategies emphasize "growing" the business base in close proximity to residents who need jobs. Such strategies are most often successful when focused on a place that has significant anchors, an attractive setting or other amenities to distinguish itself from other parts of the region. With locational advantages to draw new businesses, such corridors can benefit from physical improvements and business attraction strategies. Job creation near residential communities can provide residents with better employment opportunities at higher wages.

In a corridor such as Hull Street, where such assets are lacking and where

new business development is likely to be limited for some time, the strategies to improve residents' economic conditions must focus instead on enhancing residents' skills and ability to compete for jobs and on improving their ability to access locations with new and existing jobs. Workforce development thus becomes the priority along with improved transportation services.

4.5.1 Enhance Transportation Services

Transportation is a key impediment that makes it difficult for residents to improve their economic situation by accessing better jobs. Hourly bus service is not enough, especially for low-income persons trying to combine two or more jobs or to combine working and training. More frequent bus service that extends into Chesterfield County would help corridor residents better access jobs and services. In particular, service should be revamped to provide better access to the business parks where new jobs are being created and to colleges and workforce training centers. Vanpools and carpools could help to fill the gaps in public transit service. Land use policies could facilitate improved transit accessibility by encouraging aggregation of employers in locations with sufficient density to support transit operations.

4.5.2 Expand School Program and Resources

Workforce development begins with good skills training in elementary, middle and high schools to assure that high school graduates are equipped to function in a modern economy with good reading, communication and math skills. This situation underscores the importance of expanding resources for the corridor's schools, including teachers, staff, facilities, equipment, and materials, and providing a safe learning environment that allows and encourages students to excel and develop to their full potential.

Educators and workforce counselors advise early engagement to help middle and high school students plan their path to postsecondary careers and further education. The Virginia Board of Education guidelines call for personal learning plans for each middle and high school student. All seventh-grade students should develop a personal Academic and Career Plan to guide them through high school class selection to develop the skills they need to pursue their chosen careers.

4.5.3 Workforce Development

For adults finding it hard to compete for higher-wage jobs, workforce development has several components. On the most basic level, some prospective workers need to develop basic job readiness skills as simple as showing up on time every day, following instructions and working well with others. For many of the corridor's recent immigrants, language training will be essential for movement into better jobs. In today's increasingly technological work place, other workers will need specialized training to allow them to move out of basic retail and service jobs.

The Capital Region Workforce Partnership, overseen by the Capital Region Workforce Investment Board, includes the City of Richmond and Chesterfield, Henrico, Hanover, Charles City, Goochland, New Kent and Powhatan Counties. The Virginia Community College System and the Virginia Employment Commission administer the public workforce development system. The system includes One Stop Career Centers, certificate and degree programs, non-degree classes, adult education, customized training and services for employers, apprenticeship programs, academic and career counseling, certification of worker skills, and support services. These programs, which are focused on adults, are supplemented by competitively selected youth service organizations for the provision of employment services for disconnected youth, particularly out-of-school youth. The nearest One Stop Career Center is at 6301 Midlothian Turnpike, reasonably accessible to Hull Street corridor residents.

The Community College Workforce Alliance (CCWA), a collaboration between J. Sargeant Reynolds Community College and John Tyler Community College, provides workforce training services to area employers. Training may be provided at the business's site or at one of the community college campuses. CCWA will customize training to meet the business's specific needs, ranging from upgrading individual employee skills to recruiting and training the full workforce for a new or expanding plant.

The City's Finance and Economic Development Committee prepared policy papers in March 2010 that called for the City's Workforce Development Unit of the Department of Economic and Community Development to revamp its:

- Information collection and dissemination;
- Program development;
- Funding diversification;
- Business interfacing and marketing;
- Partnering and coordination; and
- Performance monitoring.

Among the recommendations were 1) to increase linkages to work opportunities by building stronger relationships with employers so that they can trust the quality of the workforce development programs and the employability of their graduates and 2) to actively market available programs to businesses and unemployed residents. Direct links to future employers are critical in making sure that people are training for real jobs and that the training is appropriate and is focused on skills that are both needed and marketable.

In response, the Richmond Department of Economic & Community Development has opened two neighborhood workforce development centers to provide neighborhood residents with access to computers, child care and classes in interviewing and resume writing. These centers bring focused services in closer proximity to unemployed and underemployed residents so as to reduce transportation and other impediments to their use. A neighborhood workforce development center in the Imani Center in the 1400 block of Hull Street is planned for development in the near future with Success 360, a local job training organization. Its location is two miles east of the corridor, but on a direct bus line and should greatly improve Hull Street corridor residents' access to workforce development programs.

The Department also operates the Richmond Workforce Pipeline, a relatively new intensive training program to prepare workers for specific local jobs. Though still in the pilot phase, the program is showing good results by targeting its efforts on providing businesses with quality workers who meet their needs. The program focuses on job candidate screening and assessment, customized skills training and intensive job readiness preparation, including job search skills and interviewing, to make sure that job seekers are responding to what employers need. In one year, the program worked with 270 unemployed residents, resulting in job placements for more than half of the participants. Also available is a Workforce Hot Line that links job seekers with job training and employment opportunities. The Workforce Division is available to work with Hull Street corridor businesses to help them meet their need for qualified employees and will provide recruitment and screening services.

4.6 CONCLUSION

Attraction of one or more new businesses is unlikely to provide the "silver bullet" that catalyzes revitalization of the Hull Street corridor. There are many competitive locations throughout the region more likely to attract the new technology company, manufacturer or distribution center. More likely is a step-by-step improvement of the corridor's ability to compete, starting with enhancement of the public realm and then targeted reinvestment in focused nodes. Growth will develop business by business as technical assistance, incentives and financial support help them improve their operations and facilities. The upgrading of the corridor will help them better compete for residents' and commuters' spending.

Investment in the workforce skills of the corridor's youth and adult residents, helping them find and qualify for good jobs, and improving transportation services to get them to jobs will improve their family finances and economic stability. Upgrading the quality of life for corridor residents will encourage them to stay as their incomes rise and will attract other middle-income residents, helping to achieve a wider range of incomes.

Chapter 12, Revitalization and Implementation Strategy, details the economic development strategy for implementation.

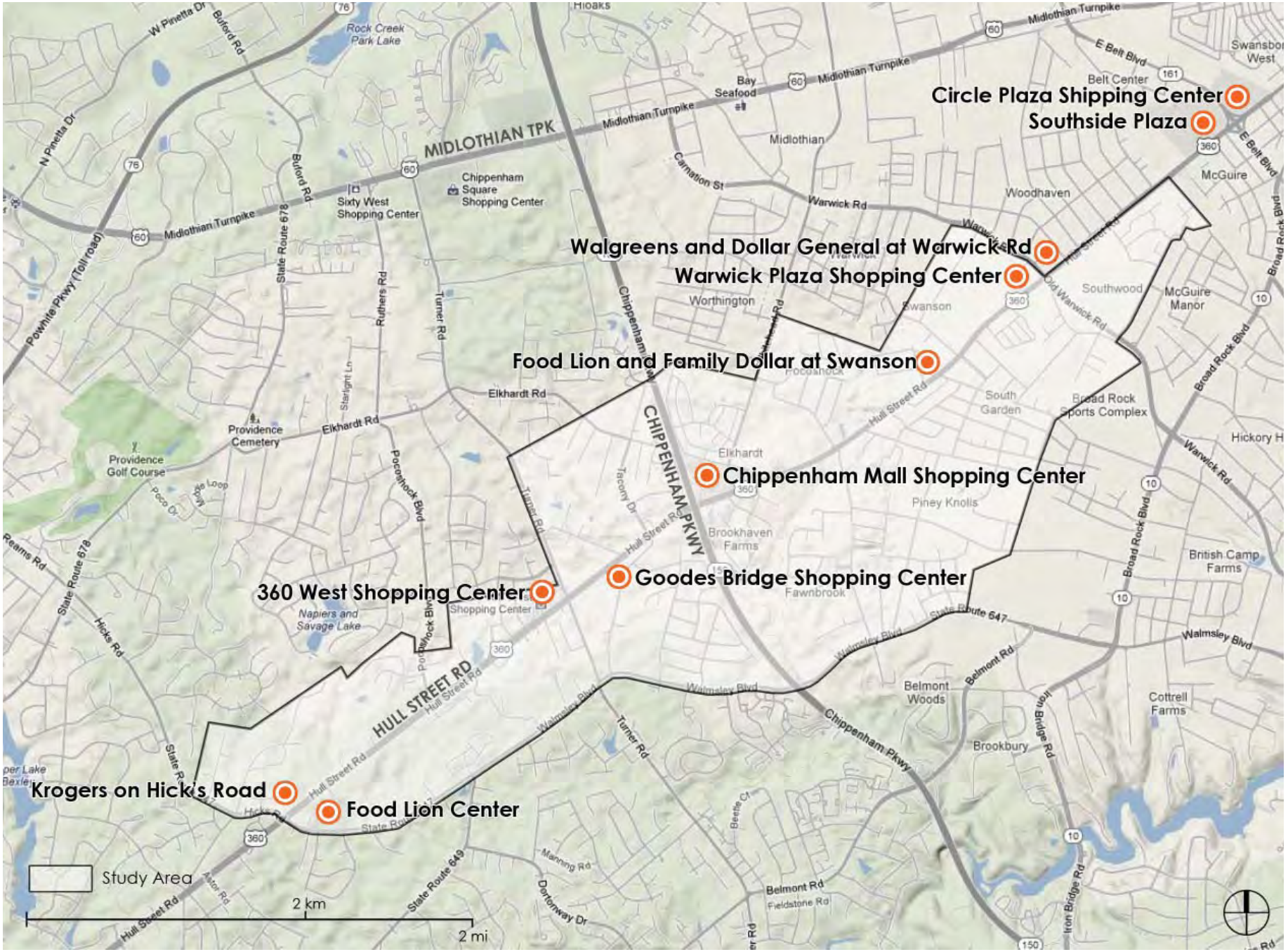


Figure 5.1: Existing Centers and Retail Anchors in the Hull Street Corridor

5.0 PRELIMINARY MARKET ANALYSIS AND OPPORTUNITIES

Revitalization of the Hull Street corridor ultimately must be driven by private investment responding to market demand. Understanding the current market will help in devising strategies to change the market dynamics, increase private-sector demand and attract new businesses and investment.

Currently, the corridor's physical condition constrains the commercial market. The low population density in the corridor limits the customer base available to corridor businesses, and the lack of quality pedestrian connections limits businesses' ability to attract customers. The revitalization strategy will address all of these issues

5.1 RETAIL MARKET

The Hull Street corridor retail offerings include aging strip shopping centers and freestanding businesses that depend on drive-up customers. The corridor has relatively few national or regional stores, which have favored other nearby shopping centers and locations with better access to higher-income residents. The corridor has many small, locally-owned stores, many of which cater to the growing Hispanic population.

5.1.1 Existing Retail Centers and Anchors

Existing shopping centers (shown on the map in Figure 5.1) include:

- Food Lion Center, the newest of the corridor's shopping centers on the western end of the corridor at Walmsley Boulevard, anchored by Food Lion and Bryant & Stratton College.
- 360 West Shopping Center, an older strip center built in 1968 at Turner Road in Chesterfield County. The center has 154,000 square feet and is anchored by Rite Aid, AutoZone and Dollar General as well as several local restaurants.
- Goodes Bridge Shopping Center, an older strip center west of Turner Road and anchored by La Milpa restaurant and store.
- Chippenham Mall Shopping Center, a shopping center at Chippenham Parkway anchored by Haynes Furniture and Family Dollar Store. Other tenants include Duron Paint, Colonial Downs OTB and a Virginia ABC store.
- Warwick Plaza Shopping Center, a small strip center at Warwick Boulevard whose anchor, Salvage Barn, has closed and is proposed for replacement by a Latino supermarket.
- Southside Plaza, a 375,000 square-foot shopping center just beyond the eastern end of the study area at Belt Boulevard. Once anchored by Miller & Rhoads, the center is now anchored by Community Supermarket, Maxway and the City's Southside Community Service Center. Tenants include Rummage House, Citi Trends, Rainbow, Shoe City, Shoe Time and a MCV Hospital clinic. The center is relatively well leased with a number of small local businesses and two churches. Vacancies total less than 27,000 square feet or 7.2

The Hull Street corridor retail offerings include aging strip shopping centers and freestanding businesses that depend on drive-up customers. The corridor has relatively few national or regional stores...

Store Type	# of Businesses	Estimated Sales
Neighborhood Goods & Services		
Food and beverage	15	$37,885,790
Health and personal care	3	$2,036,572
Subtotal	**18**	**$39,922,362**
Neighborhood Goods & Services		
Full-service restaurants	19	$3,773,723
Limited-service eating places	6	$4,658,192
Special food services	3	$622,507
Drinking places	1	$200,973
Subtotal	**29**	**$9,255,395**
Shoppers Goods		
General merchandise	5	$10,709,598
Apparel & accessories	4	$3,095,708
Furniture & home furnishings	3	$10,900,182
Electronics & appliances	6	$1,614,728
Sporting goods, hobby, book, & music	1	$80,770
Miscellaneous store retailers	9	$816,485
Subtotal	**28**	**$27,217,471**
Other Retail		
Motor vehicle & parts dealers	16	$19,951,605
Building materials, garden equipment & supplies	8	$4,541,798
Subtotal	**24**	**$24,493,403**
Total Retail	**99**	**$100,888,631**

Figure 5.2: Hull Street Corridor Retail Businesses, 2011

percent. Additional land from a former drive-in movie theater is available to the rear.

- Circle Plaza Shopping Center, a newly renovated center on Belt Boulevard east of Southside Plaza. Anchors include Save-a-Lot, Family Dollar, It's Fashion Metro and Easy Home.

Key freestanding stores include:

- Kroger's on Hicks Road
- Food Lion and Family Dollar at Swanson Road
- Walgreen's and Dollar General at Warwick Road

In addition to fast food outlets (e.g., McDonald's, Wendy's, Subway), the Hull Street corridor has 19 full-service restaurants with offerings including Latin, Chinese, Italian and barbecue, though several of these focus primarily on carry-out.

Figure 5.3: Existing Hull Street businesses

Figure 5.4: Existing Hull Street businesses

Entertainment options are relatively limited in the corridor. Skateland near Swanson Road is a popular destination. Southside Bowl duckpin lanes closed recently.

Recent new construction has been limited to a small strip center at Bryce Lane.

Figure 5.2 provides a count of stores in the Hull Street corridor by type and their estimated sales in 2011. Store sales were estimated by ESRI based on data from the 2002 and 2007 Census of Retail Trade updated with trends from the Bureau of the Census's Monthly Retail Trade reports, coupled with the Infogroup's database of businesses in the corridor.

5.1.2 Competitive Shopping Centers

The Hull Street corridor competes with an extensive array of modern shopping facilities better located to capture the dollars of southwest Richmond residents.

The closest, most competitive centers (shown on Figure 5.5) are:

- Chesterfield Towne Center, a 1.0 million square-foot enclosed mall on Midlothian Turnpike at Huguenot and Courthouse Road remerchandised in 2008. Anchored by Macy's, Home Goods, Sears, JCPenney, Garden Ridge, Barnes & Noble and TJ Maxx, the center offers 140 shops and restaurants. Located six miles north and west of the corridor, this is Hull Street's key competition for department store-type merchandise.
- Commonwealth Centre, a big-box power center at the intersection of Hull Street Road and WWII Veterans Memorial Highway, State Route 288, six miles west of the corridor. Anchors along Commonwealth Centre Parkway include Target, Kohl's, Regal Commonwealth 20, Best Buy, Stein Mart, Barnes & Noble and Michael's. Opened in 2002, the open-air centers face major parking lots.
- Chesterfield Crossing, an 80,000 square-foot strip center attached to

a Walmart Supercenter and Home Depot. Located on Hull Street Road at Warboro Road, the center is just east of State Route 288, five miles west of the corridor.

- Stonebridge, a new mixed-use development on the former site of Cloverleaf Mall at Chippenham Parkway and Midlothian Turnpike, two miles north of the corridor. The project's first phase will include Kroger's largest store in the Mid- Atlantic and 20,000 square feet of space for smaller retailers. The project's zoning allows a total of 400,000 square feet of retail, office and other commercial space as well as 520 housing units. Chesterfield County sold the property to Crosland in a major public/private partnership that includes financial support for new site infrastructure.
- Spring Rock Green, a redevelopment of the former Beaumont Center on Midlothian Turnpike at Chippenham Parkway in Chesterfield County just north of Stonebridge. The mixed-use development will expand the existing footprint to include 285,000 square feet of retail space and 160,000 square feet of office space. The project incorporates sustainable development practices into its design and construction.

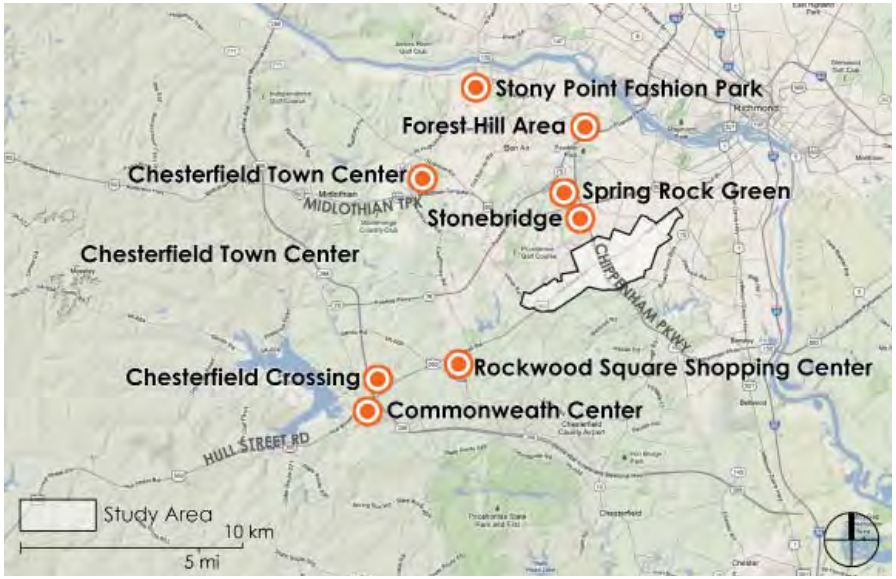


Figure 5.5: Competitive Centers

- Forest Hill Area, a cluster of stores along Forest Hill Avenue at Chippenham Parkway five miles north of the corridor that includes Target, a Walmart Supercenter, Lowe's, Martin's Food Store and a number of restaurants. Though almost five miles from Hull Street, the easy vehicular access provided by Chippenham Parkway makes Forest Hill a retail destination for study area residents.
- Rockwood Square Shopping Center, a 38,600 square-foot strip center located at Hull Street Road at Courthouse Road almost three miles west of the corridor. This small center is anchored by Wolfgang's Gym and Bakers Kitchen.

Though further away at Chippenham Parkway and Stony Point Parkway, Stony Point Fashion Park also competes with offerings that emphasize high-end apparel, specialty retail, movies and higher-end dining options.

5.1.3 Retail Vacancies

CoStar, a national source for office and retail inventory data, reports that the Southwest Richmond market (west of I-95 and south of the James River and the Chesterfield/Henrico County line) has a total of 11.8 million square feet of retail space in 264 buildings. Over the last three years, 1.7 million square feet of space has been leased, but on a net basis the amount of occupied retail space declined by more than 194,000 square feet. Vacant spaces total 2.2 million square feet and represent 19 percent of the retail space in the Southwest market. This compares with a healthy vacancy rate of 5 to 8 percent. An additional 0.8 million square feet of space are available for lease as current leases expire in the next few months. These high vacancy rates demonstrate a serious oversupply of retail space in the market and a need to reduce that supply by demolishing or converting obsolete strip retail facilities to other uses.

5.1.4 Implications for Hull Street Corridor

The extensive and effective competition offered by Chesterfield Towne Center and other nearby shopping centers inhibits successful new retail development for shoppers goods in the Hull Street corridor. Shoppers goods include the types of goods sold in department stores – apparel and accessories, furniture

and furnishings, and general merchandise – for which shoppers prefer to be able to comparison shop. The chance to compare offerings from a number of stores means that shoppers prefer large clusters of stores, typically in malls and shopping centers. The smaller shoppers goods retailers typically depend on the center's department stores and other anchor stores to bring in customers. This leads them to seek out organized shopping centers, often the newest centers located near new growth areas with middle- and upper-middle-income residents. As development of Chesterfield Towne Center and Stony Point Fashion Park killed Cloverleaf Mall, this extensive competition will discourage new shoppers goods retail development in the Hull Street corridor.

Therefore, a new model is needed for Hull Street – not a suburban shopping center corridor. To compete effectively over time, Hull Street needs to develop mixed-use districts that provide a quality pedestrian experience that combines housing with small offices and supportive retail. Given the wide variety of available shopping choices, Hull Street needs to offer a better experience that encourages corridor residents and commuters to stop and spend time in a comfortable and safe environment. Enhancing physical conditions is an important first step toward creating a more competitive Hull Street corridor that will support new and existing businesses and attract new residents as well.

5.1.5 Market Demand

Hull Street corridor retail opportunities are focused on neighborhood goods and services, which include grocery stores, other food shops, drugstores, and eating and drinking establishments. The spending potential of market area residents will dictate the scale and type of supportable retail development. The Hull Street market analysis technical information is provided in Appendix E and summarized in the following pages.

The Hull Street corridor does not function as a single market. Its length means that residents at one end of the corridor are unlikely to shop at the other end. For this analysis, retail opportunities in the corridor are considered in three clusters:

- Southside Plaza and nearby properties on the eastern end of the corridor
- Chippenham Mall Shopping Center and nearby properties central to the corridor
- Properties on the western end of the corridor near Hicks Road.

Each of these clusters serves a market area, from which retailers will draw most of their shoppers. Market areas are determined based on access patterns – primarily road access but also transit access – and the locations of competitive retailers.

Comparing the dollars that market area residents spend (expenditures) on each type of retail good versus the sales of market area retailers provides evidence of the market's ability to support new retail space. The Belt Boulevard retail cluster serves residents in the eastern end of the study area and residents living in neighborhoods further east. On a per capita basis, market area residents spend an estimated $1,391 annually in food and beverage stores, $303 in drugstores and $847 in restaurants and fast food outlets. The data show that residents are spending their grocery, drugstore, restaurant and fast food dollars elsewhere outside the market area.

For Chippenham Parkway, the market area extends north to Midlothian Turnpike, incorporating shops in Chippenham Mall Shopping Center, 360 West Shopping Center and centers along Midlothian Turnpike. The analysis shows that the grocery stores are enjoying significant inflow from shoppers who live outside the market area as sales exceed residents' expenditures. However, there is still unmet demand for drugstores, full-service restaurants and limited-service eating places.

The Hicks Road retail cluster with both Kroger's and Food Lion also is attracting dollars from residents beyond the market area. It is experiencing leakage in drugstore expenditures, full-service restaurant expenditures and limited-service eating place expenditures.

The fact that there is outflow of resident dollars to stores outside the market area does not necessarily indicate an opportunity for new retailers. In some

cases there may be a drugstore just beyond the market area boundary that serves the needs of market area residents. Outflow of 30 to 40 percent of residents' eating and drinking expenditures is not unusual given vacation and work lunch spending away from home.

The business models and location criteria for most retail chains favor locations in new shopping centers. Most have a basic formulaic requirement of needing so many households within one to five miles with a minimum income. For example, Applebee's requires 20,000 to 50,000 middle-income residents within five miles with a traffic count of at least 20,000 vehicles per day. Outback Steakhouse requires 70,000 middle- to high-income residents within five miles with at least 25,000 vehicles per day. Meeting these criteria may be difficult within the Hull Street study area in the near term.

5.1.6 Development Opportunities

Successful development of new retail space to take advantage of local resident spending depends on creating a viable retail environment and attracting retailers to fill the space. The corridor's character as a mish-mash of aging shopping centers and service businesses provides neither the amenities nor the sense of place that would encourage residents and commuters to stop, shop and enjoy a meal in pleasant surroundings. Until the corridor's aesthetics are upgraded, new retail will gravitate toward the newer centers and greenfield sites along Midlothian Turnpike and further southwest on Hull Street Road. Major investments in Midlothian will attract retailers and shoppers for many years to Stonebridge and other centers. These new mixed-use centers plus the new streetscape along Midlothian Turnpike will create a highly competitive "sense of place."

To compete, the Hull Street corridor will need to evolve beyond its aging commercial center reality to better appeal to prospective customers, residents and businesses. The strategy for the corridor's future should include:

- Improved aesthetics and
- Creation of exciting new mixed-use clusters.

Concentrating retail activity at major intersections would improve the corridor's appearance and ability to compete for customers. Clustering allows shoppers to make one stop and conveniently patronize more than one store, encouraging

Figure 5.6: Precedent images: An urban CVS location and Findlay Market in Cincinnati, OH

Figure 5.7: Precedent images: Shopping and dining in Algonquin, IL and Seattle, WA

cross-shopping. Going forward, redevelopment and new development activity should focus on four key nodes – Hicks Road/Walmsley Boulevard, Turner Road, Chippenham Parkway, and Warwick Road. Over time, the City and County should encourage elimination of strip retail centers outside of these key activity nodes.

Chippenham Parkway offers the opportunity to draw shoppers from a larger area. With longer-term redevelopment of the Chippenham Mall Shopping Center, a unique use could attract from a broader market, particularly if it were not duplicated by similar facilities in Stonebridge, along Midlothian Turnpike or in the Forest Hill area.

The Richmond area is developing a base of sports-related tourism, attracting individuals and teams to compete in regional races and tournaments, particularly involving youth teams. Expansion of this tourism base was suggested in a community meeting as a key opportunity to build on the swim meets at the new Aquatic Center in Ukrop Park on Route 10 and tournaments at River City Sportsplex (formerly Sports Quest) sports and family entertainment campus and the Clover Hill Athletic Complex. Additional fields could be used for lacrosse or soccer.

Store performance for existing Hull Street retailers would benefit from pedestrian and transit access improvements, façade improvements and new streetscape. The City's façade loan program should be effectively and aggressively marketed to business owners along the corridor to encourage property upgrades.

The expenditure analysis detailed in Appendix E suggests that the eastern half of the corridor, on the Richmond side, could support:

- Another drugstore;
- Two to three full-service restaurants;
- A medium-sized grocery store;
- One to two limited-service food outlets; and
- Possibly one furniture/home improvement store.

That development should focus primarily on the Warwick Road development node.

The western portion of the corridor, in Chesterfield County, could support:

- Another drugstore;
- Two to three full-service restaurants; and
- Two to three limited service food outlets.

The international diversity of corridor residents and businesses could be leveraged to create a unique image for the corridor and attract new patrons from beyond the corridor. The current farmers market organized by Latino merchants (La Plaza Latino Market) could be expanded and relocated to the Hull Street corridor for better visibility and access to its customers and other pass-by traffic. With enhanced transit accessibility and physical improvements, properties in the Goodes Bridge Shopping Center adjacent to La Milpa could be very appropriate for the farmers market's location. The market could help to anchor a larger cluster of internationally-themed businesses and service providers linking existing and new ethnic restaurants and stores in the 360 West Shopping Center and the Goodes Bridge Shopping Center.

Over the long run, the prospects for additional retail space could improve as the corridor begins to attract new residential development. For example, a 25 percent increase in the number of households in the corridor would bring 1,300 new households. Assuming that their average incomes were 20 percent higher than those of existing residents, their incremental new retail expenditures could support an additional 9,000 square feet of restaurant space, enough for four to six more restaurants.

5.2 OFFICE AND INDUSTRIAL MARKETS

The market for new office and/or industrial facilities in the Hull Street corridor is quite limited due to the relatively stagnant nature of the regional market, competition from facilities with better locations and lot configurations outside of nodes. Office tenants have a range of location criteria. Headquarters offices and other major companies that serve a regional or national market prefer prestigious locations with good access to their employees and customers, nearby retail and support services, proximity to other businesses (e.g., customers, service providers, etc.) and visibility. Traditionally, these needs were met best in downtown locations. Now business parks offer some of the same advantages in locations that are less central but closer to employees' suburban homes. Free parking and lower rents help attract tenants.

Professionals who provide service to local residents (e.g., doctors, dentists, accountants, insurance agents, etc.) prefer office locations close to their clients. Often they choose locations near shopping centers to take advantage of the area's access, visibility and drawing power. Most major thoroughfares also attract a small contingent of neighborhood-serving office tenants.

Manufacturers typically seek superior accessibility to highways, rail service, existing industrial buildings that can be adapted to their needs, access to workers, and few limits on their operations from nearby residential neighborhoods. Warehouse and distribution operations depend heavily on good road access to local highways and increasingly seek modern buildings on a single story with high ceilings that allow mechanized operations. Service and repair operations are more interested in inexpensive space in smaller buildings accessible to their customers, often along major thoroughfares. The Hull Street corridor has attracted many of these small service and repair businesses, taking advantage of the lower rents and visibility provided by locating on major traffic routes – both Hull Street and Chippenham Parkway.

5.2.1 Existing Conditions

The amount of occupied office and flex space in the Richmond/Chesterfield metropolitan area has declined by 3.0 million square feet since 2007, a loss of 11 percent from 27.4 million square feet to 24.4 million square feet currently. Occupied space declined an average of 640,000 square feet per year. The total inventory of 33.0 million square feet grew by 1.4 million square feet from the fourth quarter of 2007.

Within the Hull Street corridor, there has been very little new construction for several years and the total inventory remains at 1,469,425 square feet. Occupied space has declined 7.2 percent or 97,285 square feet from 2009. Vacancies have grown to 14.8 percent from 8.2 percent in 2009.

5.2.2 Chesterfield County

The corridor's largest concentration of office space is located in Chesterfield County in Pocoshock Square Office Park (developed in 1983), Pocoshock Center, and other buildings on Pocoshock Boulevard. Office space in these locations leases for $11.50 to $12 per square foot, full service. Locations further west benefit from demand for office space in proximity to County Courts and government offices.

Office tenancy along the corridor emphasizes real estate and insurance (21 businesses), attorneys and accountants (10 businesses), and physicians and dentists (16 businesses). Most are concentrated in and near the Pocoshock Square Office Park. Other than two larger medical practices, these are small businesses averaging 4.6 employees.

The 360 West Shopping Center has an office building with 22,000 square feet of space as part of the strip center. It is experiencing a roughly 55 percent occupancy rate due in part to the impacts of the recession.

Bank of America at Turner Road is the only full-service bank in the study area. Wells Fargo and SunTrust have branches immediately west of the study area's western boundary at Hicks Road. It is significant, however, to note that there are no banks on the Richmond side of the corridor. The nearest Richmond branch banks are along Belt Boulevard, serving Hunter Holmes McGuire VA Medical Center employees and area residents.

5.2.3 City of Richmond

Other than the City's Southside Community Service Center, there is limited office space within the Richmond portion of the corridor. The City end of the corridor is dominated by small- to medium-sized service and repair facilities as well as older manufacturing buildings.

The Richmond portion of the Hull Street corridor will find it very difficult to compete for private office development in the near- and mid-term until the corridor's aesthetics and market conditions improve and the residential base expands with higher-income households.

Industrial structures in the corridor serve primarily light industrial uses, focusing on a wide variety of construction-related contractors – 30 businesses employ a reported 417 workers. Twenty-one auto repair and service shops have 62 employees. The corridor has no significant inventory of industrial buildings or sites.

The I-95 and US 1 corridors in South Richmond and eastern Chesterfield County offer an extensive inventory of industrial sites and buildings. The superior access they offer to the regional market and the East Coast corridor eclipses the potential for significant industrial development in the Hull Street corridor.

Better opportunities exist for expansion of the base of industrial facilities oriented to repair and service operations.

5.2.4 Commercial and Industrial Opportunities

Medical office buildings have expanded significantly in the Boulders area surrounding Chippenham Hospital at the Jahnke Road interchange with Chippenham Parkway. Locations close to hospitals appeal to physicians who practice in the hospital and seek to minimize their travel time from office to hospital. This is particularly true for specialists, who are not as tightly linked to a cluster of residents in the same way as a primary care physician. As land and space become more constrained around the hospital, the market for medical office space may shift to other locations with easy access along Chippenham Parkway.

Under existing conditions, the Hull Street corridor's demand for office space will be limited to additional small offices. Most of the corridor's future opportunities are likely to be focused on entrepreneurial development and growth of existing businesses rather than on recruitment of new businesses. Several independent businesses operate along Hull Street, and other entrepreneurs may be contemplating starting new businesses. Pedestrian and transit accessibility improvements as well as streetscape investments would help to attract and keep these small businesses in the corridor. A more aesthetically appealing environment would complement their business image, and improved accessibility would deliver more customers to their

doors. Enterprise Zone incentives from the City and County and the City's Upper Hull Extra CARE program also will help them to compete, at least in those areas where the zone is applicable.

Attracting a branch bank to the Richmond portion of the corridor would benefit area residents. Banks' key location criteria relate to the extent and incomes of nearby households, the volume of pass-by traffic, visibility from major thoroughfares, a quality environment with easy access and proximity to retail activity generators. Within the City, sites near Walmsley Boulevard and/or the Food Lion offer the best opportunities for new branch bank development.

The primary constraints on business development relate to the availability of capital for initial start-up and expansion costs, and the limited business experience of some area entrepreneurs. The existing supply of low-cost space acts as good start-up space for new businesses with limited capital. Outreach to provide existing businesses with technical assistance could enhance their ability to create new jobs. Even without a dedicated incubator facility, small business specialists could help area businesses to access services and resources.

Opportunities include better networking among existing businesses for mutual support, advice, referrals and cross-marketing. Such networking is often the most effective assistance available to an entrepreneur. One example of this is the Merchants' Club of Virginia, a locally-based, Latino-focused business organization. Efforts to organize Latino-owned businesses are helping to build a stronger network with mentoring, advice and referrals to attorneys, accountants and other service providers essential to business success. A similar effort could support other types of Hull Street businesses, but it will take a concerted outreach effort to help the corridor's wide variety of businesses to see the benefits of participating.

Under current conditions, the market will not support significant new private development without extensive public financial support. Physical and market conditions will need to change before project economics will improve to the point of attracting significant private investment.

5.3 CONCLUSION

The near-term redevelopment potentials for the Hull Street corridor have been constrained by:

- Over-reliance on automotive transport to the detriment of pedestrians and cyclists;
- The pattern of strip development with stand-alone businesses that do not benefit from cross-shopping by other businesses' customers;
- Poor pedestrian connections that limit residents' ability and interest in patronizing corridor businesses;
- A low population density that limits the number of nearby customers for corridor businesses;
- Decay and disinvestment among existing businesses; and
- Extensive competition that is continually improving its appeal to customers and businesses.

Hull Street's long-term revitalization should focus on creating a more attractive, pedestrian-friendly, walkable and sustainable corridor. Clusters of mixed uses will bring new residents to the corridor and create competitive environments for new businesses.

Figure 6.1: Visualization, Town and Family Entertainment Center

6.0 HOUSING ANALYSIS AND OPPORTUNITIES

Ultimately, the long-term strength and sustainability of the corridor will lie in its neighborhoods and residents, the people who form the community, invest in their homes and patronize corridor businesses. Stabilizing the corridor's resident base and attracting additional middle-income families will help to achieve a more economically diverse population. A larger close-by customer base will allow corridor businesses to improve their performance and new businesses to open along Hull Street. Providing additional affordable housing will improve living and economic conditions for corridor families.

The Hull Street Road Revitalization Plan Study Area Demographics White Paper prepared by the Local Initiatives Support Corporation (LISC) provides an in-depth demographic and economic profile of the Hull Street corridor (see Appendix D). This section builds on LISC's findings as they relate to households and housing. Currently, the Hull Street corridor is characterized by aging, low-density commercial uses in strip centers that front on the corridor, with a mixed collection of single-family neighborhoods and multi-family housing complexes behind these.

The corridor has a large reservoir of affordable housing, most of which is privately owned and does not receive public assistance. The corridor's affordability has in turn attracted low- and moderate-income households, particularly within the City. The housing remains inexpensive due to limited demand for ownership housing and higher-rent apartments. This limited demand results from a number of factors, most important of which are:

- The performance and perception of the local public schools;
- Real and perceived crime; and
- The corridor's physical condition and appearance.

6.1 DEMOGRAPHICS

The corridor's population grew 18 percent from 10,549 residents in 1990 to 12,491 residents in 2000. Growth slowed to 0.4 percent in the last decade, adding only 47 residents for a 2010 total of 12,538 residents. From 2000 to 2010, the corridor's African-American population declined from 64 percent to 52 percent of the total population. At the same time, the corridor attracted a large Hispanic population, increasing from 124 Hispanic residents in 1990 to 3,573 or 28 percent of corridor residents in 2010. Appendix F a provides more detailed analysis of study area demographics.

The study area's population is relatively young with a median age of 30.5 years. Twenty-nine percent is below the age of 20, and less than 7 percent are 65 or over. The Hispanic population is markedly younger with a median age of 26.3 as compared with 38.9 years among white residents.

In 2009, one-third of the corridor's population aged 25 and above had graduated high school and had not pursued higher education. Another 16 percent had no high school diploma. One-quarter had some college experience with an additional one-quarter having received an associate, bachelor or higher degree. As a result, the corridor's residents earn lower

Currently, the Hull Street Corridor is characterized by aging, low-density commercial uses in strip centers that front on the corridor, with a mixed collection of single-family neighborhoods and multi-family housing complexes behind these.

incomes and experience higher unemployment rates – 15 percent in 2010 as compared with 7.7 percent in Chesterfield County and 10.7 percent in the City of Richmond as a whole.

Among employed residents in 2011, 54 percent worked in white-collar occupations, 26 percent in blue-collar jobs and 20 percent in service jobs. The corridor has attracted fewer professionals, managers, health workers and educators than the City or the County as a whole.

These disparities are reflected in the median household incomes in the corridor in 2010. Households living in the eastern end had a median household income of $33,324, equivalent to 80 percent of the citywide median and 60 percent of the regional median. In the western end of the corridor in Chesterfield County, the median household income of $52,490 represented 93 percent of the regional median income and compared with the countywide median of $75,532. Corridor households included 18.4 percent with incomes below the poverty line.

6.2 EXISTING CONDITIONS

The corridor's housing inventory included 5,594 units in 2010, 112 more units than in 2000, representing a 2.0-percent growth. During that same period, the corridor's housing growth was outpaced by the City of Richmond's 3.7 percent growth and far outstripped by Chesterfield County's 22.4 percent growth. During the decade, the balance between owners and renters in the study area shifted somewhat from 39 percent of units occupied by homeowners in 2000 to 41 percent in 2010. More detail is provided in Appendix F.

6.2.1 Housing by Type and Age

One-half of the corridor's housing stock comprises single-family detached units, with attached townhouses accounting for another 3 percent. The multi-family housing stock is primarily garden apartments, in buildings of less than 20 units each.

The corridor's housing has a median construction year of 1973 as compared with 1954 for the City and 1985 for the County as a whole. Almost 40 percent of units were built before 1970 with another 30 percent built during the 1970s. Only 18 percent of the units have been built since 1990 including 495 units from the 1990s and 419 units built since 2000.

6.2.2 Vacancies

As a result of the number of occupied units growing more slowly than did the total study area housing inventory, housing vacancies increased from 6.5 percent in 2000 to 13.5 percent in 2010. This represents an increase from 357 to 742 vacant units. These trends reflect the impact of the national housing crisis that started in 2007 and peaked in 2008. The 2010 vacancy rate compares with 20.9 percent in Manchester, 15.5 percent in Blackwell, 12.6 percent in Broad Rock, 11.8 percent in Midlothian, 7.0 percent in Huguenot and 8.6 percent in the Far West neighborhoods.[1]

Foreclosure activity has affected, but not overwhelmed, the corridor. Realtytrac.com reports 60 foreclosed homes owned by banks and 144 being actively marketed for resale in the 23224 zip code.

6.2.3 Rental Housing

Renters dominate in the corridor with 59 percent of all occupied units. While the majority are housed in multi-family buildings with five or more units, almost one-third rent single-family detached and attached houses. Within the neighborhoods between Warwick Road and East Belt Boulevard, one-third of the single-family detached units are rentals.

Active apartment complexes in the Hull Street corridor offer one-bedroom, one-bath apartments for $550 to $697 per month ($0.82 to $1.08 per square foot). Two-bedroom apartments with one bathroom rent for $577 to $765 per month ($0.73 to $0.88 per square foot). The addition of a half bath increases rents to $625 to $825 per month.

1 Census tracts in neighborhoods: Manchester - CT 610; Blackwell includes - CT 6 02; Broad Road - CTs 608, 609, 706.02, 708.01, 708.02 and 709; Midlothian - CTs 706.01, 707, 710.01, 710.02 and 711; Huguenot - CTs 701, 703 and 704; Far West - CTs 501, 502, 503, 504, 505 and 506.

Figure 6.2: Existing housing within the Hull Street corridor study area

The rental apartments were generally built between 1967 and 1979. Town and Country Apartments, located behind the Chippenham Mall Shopping Center, were built in 1981 with financial support from Low-Income Housing Tax Credits. The most recent multi-family development, Chippenham Place, located on Orcutt Lane near its Hull Street intersection, was developed in 1988 with project-based Section 8 financing.

6.2.4 Owner-Occupied Housing

The corridor also offers affordable ownership housing with a median value of $139,200 in 2009. This compared with the City median of $192,400 and the County median price of $225,400. Owner-occupied housing within the Richmond portion of the study area had a median value of $127,800 as opposed to a median of $161,100 in the County portion.

According to the American Community Survey, 21 percent of the corridor's owner-occupied housing was valued below $100,000 in 2009. Houses priced from $100,000 to $174,999 constituted 53 percent, and houses valued at $200,000 or more were 17 percent of the total.

6.2.5 Cost Burden

The U.S. Department of Housing and Urban Development (HUD) defines housing affordability as households spending not more than 30 percent of their total household income on gross rent, including utilities. The American Community Survey reports that almost 48 percent of renters in the study area spent 30 percent or more of their income for rent in 2009, including 24 percent who spent one-half or more of their income for rent.

6.3 HOUSING OPPORTUNITIES

Improving housing conditions in the Richmond portion of the corridor will need to involve a variety of efforts to help residents achieve higher incomes and to improve the quality of life in the corridor.

6.3.1 Higher Resident Incomes

Helping residents to improve their economic situation through education and workforce development programs is critical to the corridor's long-term sustainability. A significant number of the area's housing problems are, in fact, problems of too little income. Many of the corridor's residents have educational limitations that may inhibit their ability to advance in their careers and earn higher incomes. A holistic strategy that includes improved educational opportunities and effective workforce development programs can help to improve their ability to achieve a living wage sufficient to support their families (see the Chapter 4 Economic Development Analysis).

6.3.2 Improved Quality of Life

Improving the quality of life in the corridor will be critical to retaining households as their incomes increase and attracting additional new households. This requires addressing the full range of residents' needs – housing, personal safety, schools, transit accessibility, recreation, churches, shopping, entertainment and services.

6.3.3 Public Schools

If the study area is to attract moderate- and middle-income families with enough income to choose among multiple neighborhoods, the performance of the corridor's public schools must improve. Resolving the challenges facing urban education – poverty, dysfunctional families, students' inadequate preparation for school, language issues, drugs and public safety concerns – is beyond the scope of this corridor plan. Rebuilding the public schools will require long-term sustained efforts by all segments of the society. One option – charter schools – has delivered mixed results based on the quality of the staff and the program. However, some charter school programs with high academic and discipline standards have made a profound difference in the education of their pupils.

6.3.4 Public Safety

Also essential to long-term revitalization will be reduction in criminal activity in the corridor. This often goes hand-in-hand with upgrading of the corridor's appearance and housing stock. The "broken windows" theory suggests that a run-down area with blighted buildings, litter and graffiti attracts criminals by communicating that no one values or takes care of the area. Fixing broken windows and other evidence of decline and neglect can set a new tone and communicate that criminal behavior will be tolerated no longer. Aggressive programs involving both the Police Department and the community can "weed" out gangs and other criminal behavior and "seed" better behavior through youth initiatives.

Richmond has a well-developed program of community policing and working with communities to fight crime. The Community Assisted Public Safety (CAPS) program works with community members to identify problem properties and other issues impacting a neighborhood. With a team that includes the Police Department, the Fire Department, the Health Department, Social Services, Planning and Development Review, Tax Enforcement, the City Attorney's Office, the IRS, the Commonwealth's Attorney's Office and Richmond Team Zero Tolerance, multi-pronged solutions can be developed.

One tool holds landlords responsible for their tenants' activities. When landlords don't fulfill their responsibilities for screening their tenants and maintaining their properties, the results impact the whole neighborhood. This program involves informing landlords when one of their tenants is arrested for drugs and warning them that if the activity continues, the property owner will be liable for prosecution. The property owner is counseled about how to be a better landlord. In some cases, small landlords may own only one, two or three houses and have no experience in screening tenants and enforcing lease terms. This training can help these small landlords be more effective in assuring that their tenants are law abiding and responsible residents.

Some communities are improving public safety and residents' perceptions of safety by providing significant discounts to public safety employees – police officers, fire fighters and emergency medical technicians – who want to buy a house in a lower-income neighborhood.

6.3.5 Public Space Improvements

Better public and open spaces that are easily accessible to corridor residents can improve the corridor's appeal. Upgrades to Hull Street and its streetscape would help to reverse the visual blight and negative image created by the corridor's current conditions.

6.3.6 Improved Housing Upkeep

Strategies to encourage good upkeep of existing housing would help to preserve the quality of existing neighborhoods. Concentrated code enforcement can encourage owners to better maintain their properties, particularly when accompanied by funding assistance to help elderly and/or low-income households in making repairs. Partnerships with area churches could help elderly homeowners to bring their properties into compliance. Tool libraries can provide residents with access to the tools they need for specific repairs.

6.3.7 New Development

Given conditions in the private mortgage market, construction of new single-family houses will find limited private market support for at least the next two to four years. Conservative lending standards are disqualifying many of the moderate-income households that might find attractive the chance to buy a home in Richmond's portion of the corridor. The City's and non-profit organizations' efforts to support homeownership should focus on filling vacancies in the corridor's neighborhoods, converting rental properties to owner-occupied properties, preventing foreclosures and preparing prospective homeowners through financial counseling and training. A household at 80 percent of area median income ($51,200 for a family of four) could support a house purchase up to $213,000 with a five-percent downpayment in today's low-interest rate environment.

Without governmental subsidies, new private multi-family housing development in the Richmond portion of the corridor also is unlikely until conditions improve significantly. The corridor's relatively low rents and home values make near-term new construction financially difficult without outside financial support.

6.3.8 Longer-Term Development

In the longer term, a mixed-use, mixed-income development could provide a quality living environment that allows residents to carry out more of their trips by walking and biking with less dependence on single-occupant cars. However, overall improvements to the corridor, as described in the Chapter 4 Economic Development Analysis, will be essential before such a development could move ahead. These improvements would include:

- Improved performance of local schools;
- Reduced reality and perception of crime;
- Corridor beautification;
- Upgrading of corridor commercial buildings and sites;
- Focused quality development;
- Public open spaces—parks and/or plazas; and
- A walkable environment.

With significant progress on schools, public safety and upgrading the corridor's appearance and environment, the Richmond portion of the corridor could support construction of an estimated 50 new ownership units annually after 2017. New market-rate apartment development could support 80 units annually.

6.4 AFFORDABLE HOUSING

The Richmond portion of the Hull Street corridor provides a variety of affordable housing opportunities with several large private and assisted housing complexes with affordable rents. However, as noted above, almost half of Richmond households living in the corridor spent more than 30 percent of their income for housing in 2009, exceeding the accepted affordability standard. One-half of those households spent more than half of their income on housing. That suggests a continuing need for additional assisted housing.

Additional assisted housing to meet the housing needs quantified above could be achieved through selective acquisition and renovation of a poorly

performing multi-family development by a non-profit housing developer. That would have the salutary effects of improving residents' housing conditions and quality of life while improving the overall conditions in the corridor. Good property management and tenant screening by a skilled and experienced affordable housing provider also would reduce the impacts of tenants who cause problems for other residents and commit crimes.

Development of a new affordable senior housing development would allow aging homeowners to stay within the community once they are no longer able to maintain their own homes. When combined with Meals on Wheels and social services, such senior housing can help individuals to live independently for a longer time. Such housing should be sited within mixed-use nodes that allow residents to walk to retail, services and parks. Three nodes offer good opportunities for senior housing development – the Warwick Road node near Food Lion, the Turner Road node at 360 West Shopping Center, and the Walmsley Boulevard node near Food Lion and Bryant & Stratton College.

Providing affordable units with no maintenance responsibilities would help seniors to move out of single-family homes that then could be occupied by younger families that need the space and can handle the day-to-day maintenance and upkeep.

Below-market-rate loans and grants for energy efficiency improvements to local homes could help to improve residents' financial condition by reducing their energy costs. Partnerships with Virginia Dominion Power could help to finance such improvements. Additional low-interest loan and grant funds could help low- and moderate-income homeowners, particularly elderly homeowners, to repair their homes.

Federal Low-Income Housing Tax Credits (LIHTCs) provide financial incentives to include affordable housing within mixed-income apartment developments. Typically, they serve households with incomes near 60 percent of the Area Median Income – $34,600 for a family of three and $38,400 for a family of four. One or two LIHTC developments should be accommodated in the corridor within larger mixed-use developments to minimize residents' need for private automobiles and to facilitate provision of transit services. Again, such mixed-use developments are most likely to evolve in the Walmsley Boulevard, Turner Road and Warwick Road nodes, building on the presence of existing retail facilities.

The Richmond portion of the corridor would be best served by a strategy to assist low-income households in purchasing existing homes. Section 203(k) Home Renovation Loans insured by the Federal Housing Administration help new homebuyers fund not only the house purchase, but also up to six months' worth of mortgage payments in repairs and upgrades as well. Any homeownership program would need to be backed by a program of intensive homeownership counseling to prepare buyers for the responsibility of homeownership.

Houses designed for multi-generational occupancy would answer a market need, particularly for certain ethnic groups where such housing arrangements are traditional. A rent-to-own program designed to allow prospective homeowners to build their savings while proving their ability to make monthly payments would help to fill vacant units.

6.5 CONCLUSION

A focus on quality of life will be critical to the corridor's future development. Attracting and retaining residents who have other housing choices will depend on offering quality neighborhoods that provide opportunities to live and raise their families in a safe and healthy environment. This goal should drive the priorities for public investment in the corridor to:

- Enhance the appearance and functioning of corridor neighborhoods,
- Provide quality housing affordable at a range of household incomes,
- Meet the changing housing needs of seniors as they age,
- Reduce adverse traffic impacts,
- Provide quality open space,
- Enhance area schools' performance, and
- Improve both the reality and perception of public safety.

Figure 7.1: Precedent images for mixed-use, pedestrian-oriented activity centers

7.0 A VISION FOR CHANGE

The vision for the future of Hull Street transforms it from a corridor that primarily carries traffic through the area, and secondarily supports neighborhoods and businesses, to a destination in itself. Within this vision, Hull Street becomes a noteworthy and thriving "place" in the region, reflecting the interests and needs of the surrounding community yet responding to and attracting a broadly-based group of supporters. It is, over time, transformed into an attractive, vibrant, and comfortable corridor that serves its function as a vehicular thoroughfare while respecting the interests and multi-modal needs of businesses and residents in the neighborhoods to which it is linked. This chapter describes a way that the land uses on the corridor can evolve and expand over time to build strategically toward this vision. ***Chapter 9, Multi-Modal Transportation Strategy***, describes the corresponding transportation vision that will support and enhance the proposed land uses.

7.1 CREATING WALKABLE, LIVABLE COMMUNITIES

Several key principles inform the vision for transforming Hull Street. These principles are based on Federal sustainability and livability guidance[1] and shaped by input provided in the the Hull Street Plan's community and stakeholder outreach sessions. The principles are:

1. Create "places" not just shopping centers by locating a mix of compatible uses within walking distance of each other
2. Make the street a comfortable place to walk:
    - Provide continuous, wide sidewalks
    - Set buildings up to the street, just behind the sidewalk to allow for "window shopping" and a sense of enclosure and safety
    - Recognize the importance of the public realm in "place" creation through the inclusion of elements such as trees, landscaping, lighting, public art, special pavement treatments, etc.
3. Provide road networks that offer alternative "walk and ride" options
4. Carefully consider the number and economic mix of people needed to support the uses and options that people want
5. Protect existing residential communities while creating new links
6. Provide easy access to parks and other green spaces

1 Partnership for Sustainable Communities, Six Livability Principles, http://portal.hud.gov/hudportal/HUD?src=/program_offices/sustainable_housing_communities/Six_Livability_Principles (accessed 11/27/12).

7.2 OVERALL LAND USE VISION

The overall vision for change on Hull Street responds to existing strengths, economic potentials, and public input to achieve healthy, long-lasting communities. The Plan's early and diversified stakeholder outreach, detailed in Chapter 2, proved essential for developing a vision that could meet both

Within this vision, Hull Street becomes a noteworthy and thriving "place" in the region, reflecting the interests and needs of the surrounding community yet responding to and attracting a broadly-based group of supporters.

HULL STREET CORRIDOR CONCEPT/
CONCEPTO DE CORREDOR DE HULL STREET

Illustrative Plan/
El Plan Ilustrativo

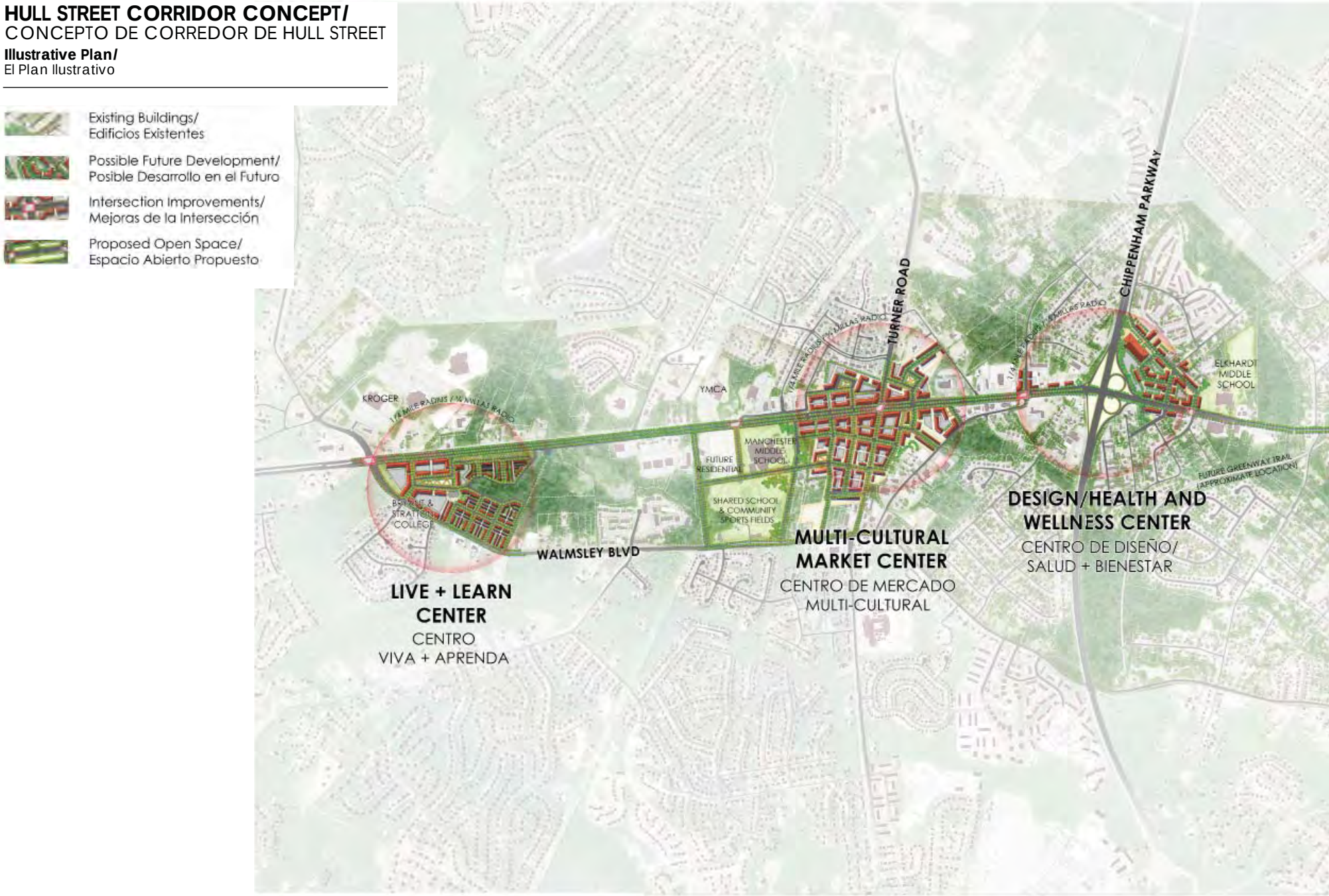


Figure 7.2: Hull Street Corridor: Illustrative Plan

local community interests and regional needs in the short and long terms. The vision promotes nodes of clustered development at four key locations, linked by lower density segments. Its organizing features are the Hull Street roadway itself; the neighborhood street network connecting to and through Hull Street; the creeks, green spaces and other environmental features; Chippenham Parkway; and existing key destinations on the corridor. Figure 7.2 presents an illustrative concept design for the vision.

Preliminary planning efforts by Virginia Commonwealth University students also offered valuable ideas for developing the Hull Street Plan. In particular, the VCU study offered several key development goals based on an analysis of corridor strengths, weaknesses, opportunities and threats (SWOT). Using these goals, the VCU team proposed a series of redevelopment clusters that helped informed the vision for the current Hull Street Plan.

The vision for the Hull Street roadway, highlighted in Figure 7.2 begins with significant improvements to Hull Street itself, transforming it into the "green ribbon" that ties the area together and transforms it into a tree-lined street that is safe and comfortable for pedestrian and bicycle facilities, provides convenient transit access, and includes low-impact stormwater management, while maintaining its current vehicular capacity. The Plan's transportation analysis and recommendations are described in detail in Chapter 9.

The clustered "activity centers" vision recognizes that there is a limited amount of new development that will come to the Hull Street corridor under current conditions. In order to create the kinds of mixed-use, walkable areas envisioned for Hull Street, new development and redevelopment must be directed to designated areas and conform to pedestrian-oriented building patterns. The intent is not to reduce development rights anywhere on the corridor, but rather to incentivize development initially in these activity centers. Development may still occur in the corridor's connector segments, but will likely be at a less intense scale than that envisioned for the activity centers themselves.

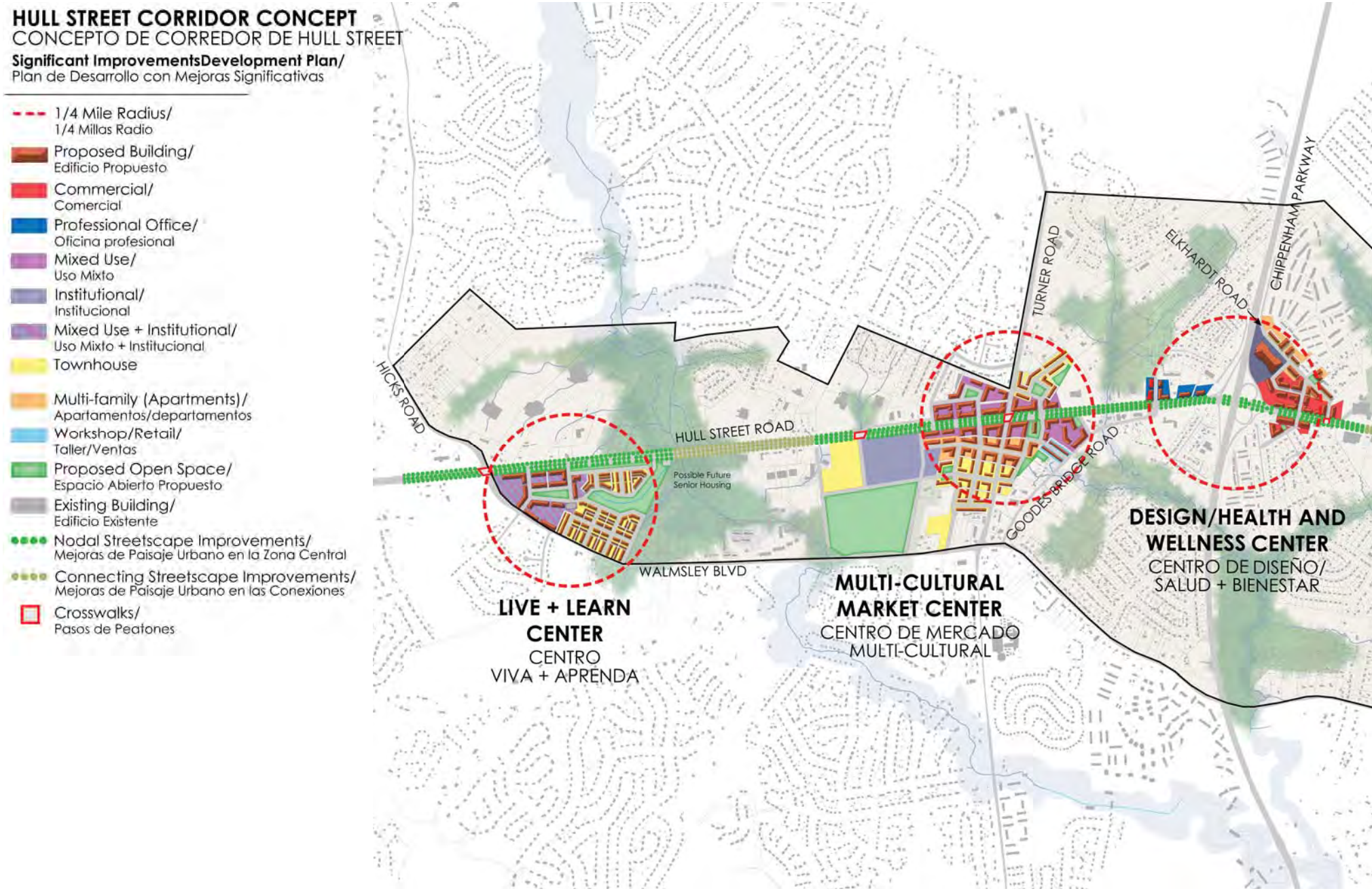


Figure 7.3: Hull Street Corridor: Significant Improvements Development Plan

7.3 ACTIVITY CENTER VISIONS

The Hull Street Plan proposes four activity centers as part of a long-term vision. These areas were designated based on several criteria. Each:

- Is located at a major entry and intersection point along the Hull Street corridor
- Already contains land uses that are defined as assets by both the community and the economic analysis
- Contains larger, consolidated properties under single ownership and, therefore, are more likely to be able to change within a short timeframe

Figure 7.3 shows the conceptual land use map identifying these centers. From west to east along the corridor, they are the:

- Live and Learn Center: in Chesterfield County near the intersection of Hull Street Road and Walmsley Boulevard/Hicks Road
- Multi-Cultural Market Center: in Chesterfield County, at the intersection of Hull Street Road and Turner Road
- Design/ Health & Wellness Center: in both Chesterfield County and the City of Richmond, at the Chippenham Parkway interchange
- Town and Family Entertainment Center: in the City of Richmond, at Warwick Road

The theme for each activity center concept references the primary land uses envisioned for the area. These are recommended land uses, since both market and zoning regulations will determine the types of retail and housing that will locate in the area. The following sub-sections describe each of the activity centers, including existing conditions and an ultimate vision.

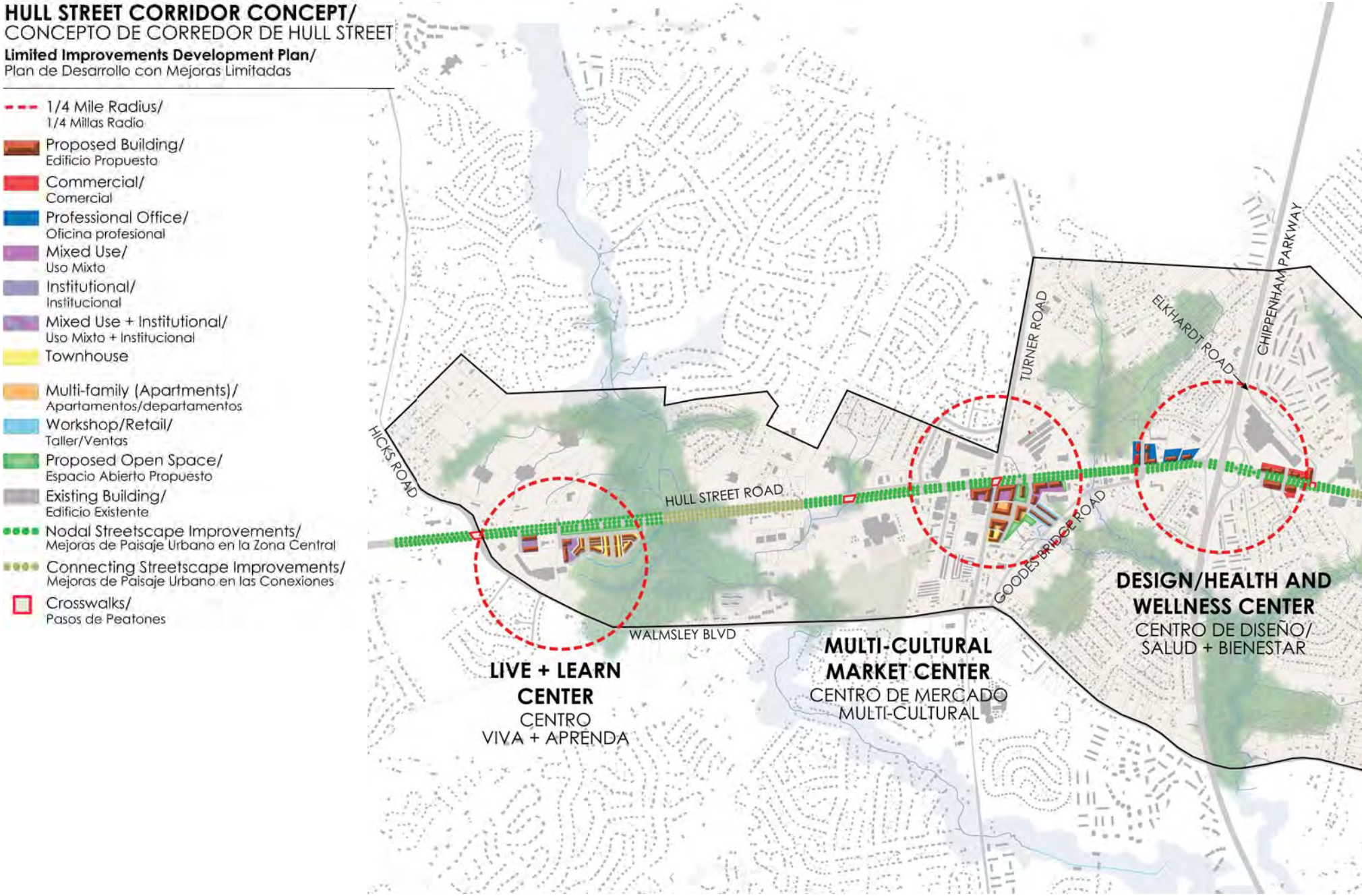
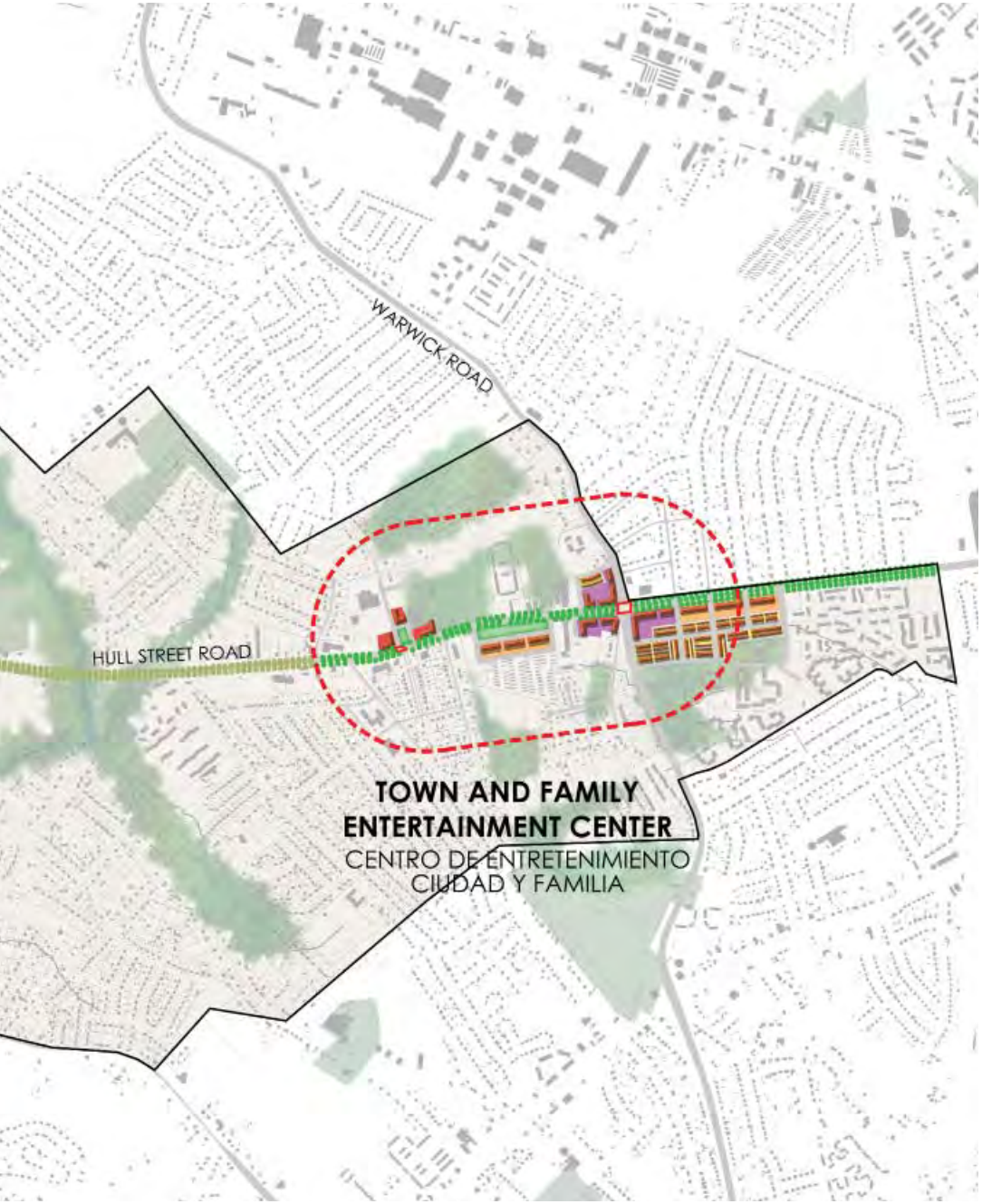


Figure 7.4: Hull Street Corridor: Limited Improvements Development Plan



Each description also shows how the activity centers could begin to evolve through limited improvements to existing conditions that can later spur additional change. Figure 7.4 presents a conceptual land use map with the more limited improvements (perhaps early-phase improvements) that might occur at each activity center.

Figure 7.5: Live and Learn Center: Illustrative Plan

7.3.1 The Live and Learn Center

The Live and Learn Center encompasses the shopping center occupied by Bryant and Stratton College, near the intersection of Hull Street and Walmsley Boulevard/Hicks Road, as well as several parcels to the east of the shopping center. Figure 7.5 shows an illustrative plan for the Live and Learn Center.

Existing Conditions

Bryant and Stratton College, a growing school offering Associates and Bachelor's degrees, is the primary tenant in the shopping center at Hull and Walmsley. Other tenants are Food Lion, a gas station, a nail salon, a sub shop, and Citi Financial. There is a large parking lot located between most of the businesses and Hull Street. Hull Street in this location is an eight-lane road section (including turn lanes) with curb, but without sidewalks or crosswalks.

Vision for Significant Improvements

The Live and Learn Center is envisioned as just that—residential and educational land uses, supported by a small amount of retail. Figure 7.7

Figure 7.6: Precedent images: Institutional and residential buildings

Figure 7.7: Live and Learn Center: Significant Improvements

demonstrates the proposed land uses and building locations for this activity center. The mixed-use and institutional area centers on a "town square" type of public open space and is designed to increase retail options for an expanded college campus.

The parcels to the east are shown as townhouses, some of which front on an existing stream corridor which provides an additional open space opportunity. Senior housing is another possible use for the eastern parcels, and would nicely complement a college campus since continuing education is increasingly popular in senior communities. The residential area could also potentially offer housing for students at the college, particularly since transit

service is currently unavailable on this section of Hull Street. Figure 7.6 displays precedent images for the land uses proposed for the Live and Learn Center, and Figure 7.8 shows a before-and-after visualization for the center.

Buildings in the Live and Learn Center have their front doors on Hull Street and Walmsley wherever possible, and parking is located at the rear of the buildings. In the townhouse/senior housing area, the units face Hull Street; however there is a green buffer and frontage street to protect residents from the busy roadway. A network of narrow local streets interconnects all the uses in this activity center, and offers a non-direct connection between Walmsley and Hull Street east of the Hicks Road intersection.

Figure 7.8: Visualization of Bryant and Stratton College, Live and Learn Center

Figure 7.9: Live and Learn Center: Limited Improvements

Limited Improvements Concept

In recognition that land use changes will occur over time, Figure 7.9 shows how the area could begin to redevelop, incorporating new construction with existing development in a pattern consistent with the long-term, pedestrian-oriented vision.

The limited improvements concept for the Live and Learn Center recommends beginning with mixed-use development on the vacant parcel on Hull Street, bringing the buildings up to the street. When Bryant & Stratton is ready to expand its facilities, this could be a logical location. Additional new development could complement Food Lion and the College, possibly in the form of retail uses. The proposed townhouse development could begin on the vacant parcels fronting, but slightly set back and buffered from, Hull Street to the east of the shopping center.

Figure 7.10: Multi-Cultural Market Center: Illustrative Plan

7.3.2 The Multi-Cultural Market Center

The Multi-Cultural Market Center focuses on the Hull Street/Turner Road intersection, but extends as far west as the YMCA and Manchester Middle School. It covers all of the intersection quadrants, including the 360 West Shopping Center, Mini Price Storage facility, Goodes Bridge Shopping Center, and many small businesses lining the south side of Hull Street. Figure 7.10 shows an illustrative plan for the proposed Multi-Cultural Market Center.

Existing Conditions

The shopping centers in this area are aging and outdated, and buildings generally appear in poor condition. The 360 West Shopping Center supports numerous international shops and several small restaurants, and includes a few professional offices. Many small auto shops scatter throughout this area, located in large asphalt and gravel parking lots. There is a townhouse complex at the end of Wayside Drive that also appears run down. The Goodes Bridge Shopping Center contains an Asian Market, a Mexican restaurant, and a few other small businesses. A large parking lot is located between Hull Street and most of these businesses. The buildings are outdated, with the exception of

Figure 7.11: Precedent images: Indoor and outdoor markets

the restaurant exterior, which has been repainted. Fast food restaurants, a flower shop, and a church line the north side of Hull Street between the YMCA and 360 West. There are no sidewalks in this area. The only crosswalk is in front of the Manchester Middle School, but it does not link to a sidewalk on either side of the street.

Figure 7.12: Multi-Cultural Market Center: Significant Improvements

Vision for Significant Improvements

The Multi-Cultural Market Center is envisioned as the highest intensity of retail on the corridor. In this concept, both sides of Hull Street are lined with mixed-use development, emphasizing an increase in retail options on the first floor. A walkable street grid is introduced, providing connections throughout the area, including links to a redeveloped Manchester Middle School and shared school and community recreational fields. Figure 7.12 demonstrates the proposed land uses and local street network for this activity center.

A marketplace/farmer's market is a central feature of the center, located in a public open space in the southeast quadrant of the intersection. Public open spaces are also shown in the other three quadrants. Townhouse and

Figure 7.13: Visualization of the Goodes Bridge Shopping Center, Multi-Cultural Market Center: Before (a), Interim (b) and Long Term (c)

multifamily housing are shown behind the redeveloped mixed-use areas, offering a transition as the new development blends into existing single family neighborhoods. The Plan also recommends transformation of the bus parking lot west of the school into residential development.

A small amount of workshop/retail is shown off of Goodes Bridge Road. There are currently light industrial uses throughout the study area. The intent of the workshop/retail use is to demonstrate how some of the light industrial can remain in place, while contributing to the mixed use, walkable vision for the area by providing retail outlets at the front of the space, with workshop facilities behind. Figure 7.11 displays precedent images for the land uses proposed for the Multi-Cultural Market Center, and Figure 3.20 shows a before-and-after visualization for the Goodes Bridge Shopping Center area.

Figure 7.14: Multi-Cultural Market Center: Limited Improvements

Limited Improvements

Land use changes for this and all the activity centers will occur over time. Figure 7.14 shows a limited improvements concept with recommendations for how the area can begin to change as it transitions into the full vision described above.

The limited improvements concept for the Multi-Cultural Market Center recommends initial changes at the Goodes Bridge Shopping Center through addition of a public open space/square within the parking lot, and a new building at the street. The proposed marketplace/farmer's market could also be a strong "place making" initiative just west of the Goodes Bridge Shopping Center. Limited townhouse and multi-family housing could follow from these investments, as could the workshop/retail.

Figure 7.15: Design/Health and Wellness Center: Illustrative Plan

7.3.3 The Design/ Health & Wellness Center

The Design/ Health & Wellness Center extends east and west of the Chippenham interchange, but primarily centers on the area between Chippenham and Elkhardt Middle School. Figure 7.15 shows an illustrative plan for the Design/ Health & Wellness Center.

Existing Conditions

The Chippenham Shopping Center, with the Haynes Furniture company, is the primary land use in this area. Several smaller storefronts also occupy the Shopping Center, including a neighborhood medical center, Duron Paints, Family Dollar, a tool shop, and an off-track betting center. Across from Elkhardt Middle School is the Richmond Decorating Center. There is a sidewalk on the one block in front of the decorating center, but it does not link to any other sidewalks or crosswalks. The Hull Street cross section is six lanes (including turn lanes) in this location, but quickly drops to four lanes east of the Middle School.

Vision for Significant Improvements

The long-term vision for the Design/ Health & Wellness Center emphasizes the potential for focusing on both health and wellness land uses in this area.

Figure 7.16: Precedent images: Indoor recreation and design center

As is presented in the overall land use vision in Figure 7.17, the concept focuses on an indoor recreation center in a redeveloped Chippenham Mall Shopping Center. The Richmond area is an increasingly popular destination for sports tourism and market research suggests that it could likely support such a facility, particularly in an easily accessible location right off of Chippenham Parkway.

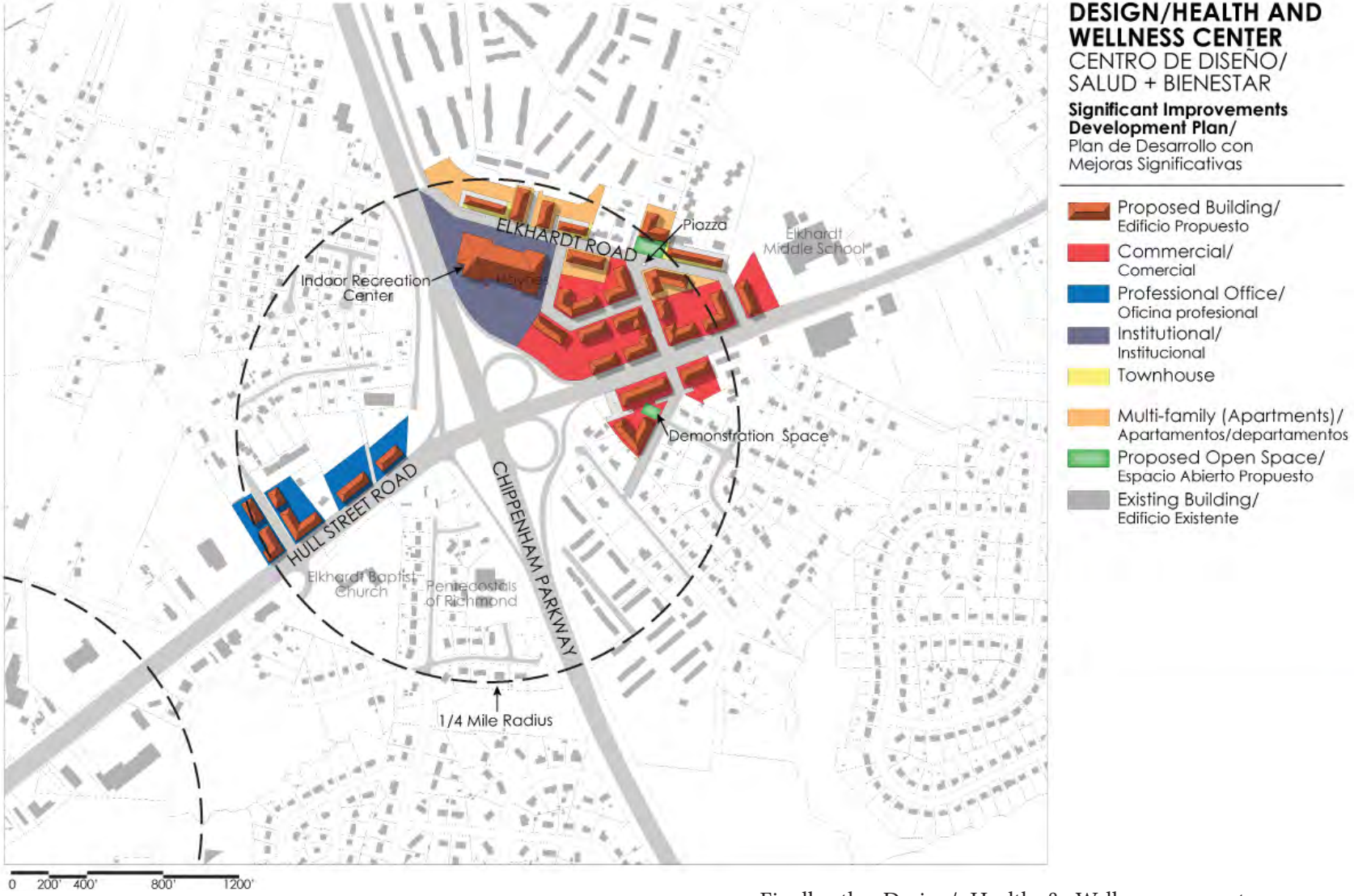


Figure 7.17: Design/Health and Wellness Center: Significant Improvements

The significant investment vision recommends commercial uses lining both sides of Hull Street, and multifamily housing fronting Elkhart Road, consistent with existing adjacent uses. A public open space is a central feature of this expanded residential area. In addition, professional/medical offices are shown west of the interchange, fronting Hull Street.

Finally, the Design/ Health & Wellness concept recommends a design business cluster, centered on the south side of Hull Street. Initially, this design center would grow as a spinoff of both the existing Richmond Decorating Center and the Haynes Furniture business. Both the presence of the Decorating nearby, and the Plan's market analysis shows that there is potential for further growth of this industry along the corridor. Over time, a demonstration garden space could also be created within the design center.

Figure 7.15 displays precedent images for the land uses proposed for the Design/ Health & Wellness Center, and Figure 7.18 shows a before-and-after visualization for the area.

The significant improvements vision assumes that the Haynes Furniture company may, at some point, move its building to a new location, within or outside the study area. If that were the case, the vision suggests an alternative use for the Haynes structure that would likely require minimal retrofit in order to create a viable and economically attractive use on that site. However, this vision does not recommend or promote the idea that Haynes move from its current location. The business is a strong economic generator for the

Figure 7.18: Visualization of the Indoor Recreation Center, Design/Health and Wellness Center

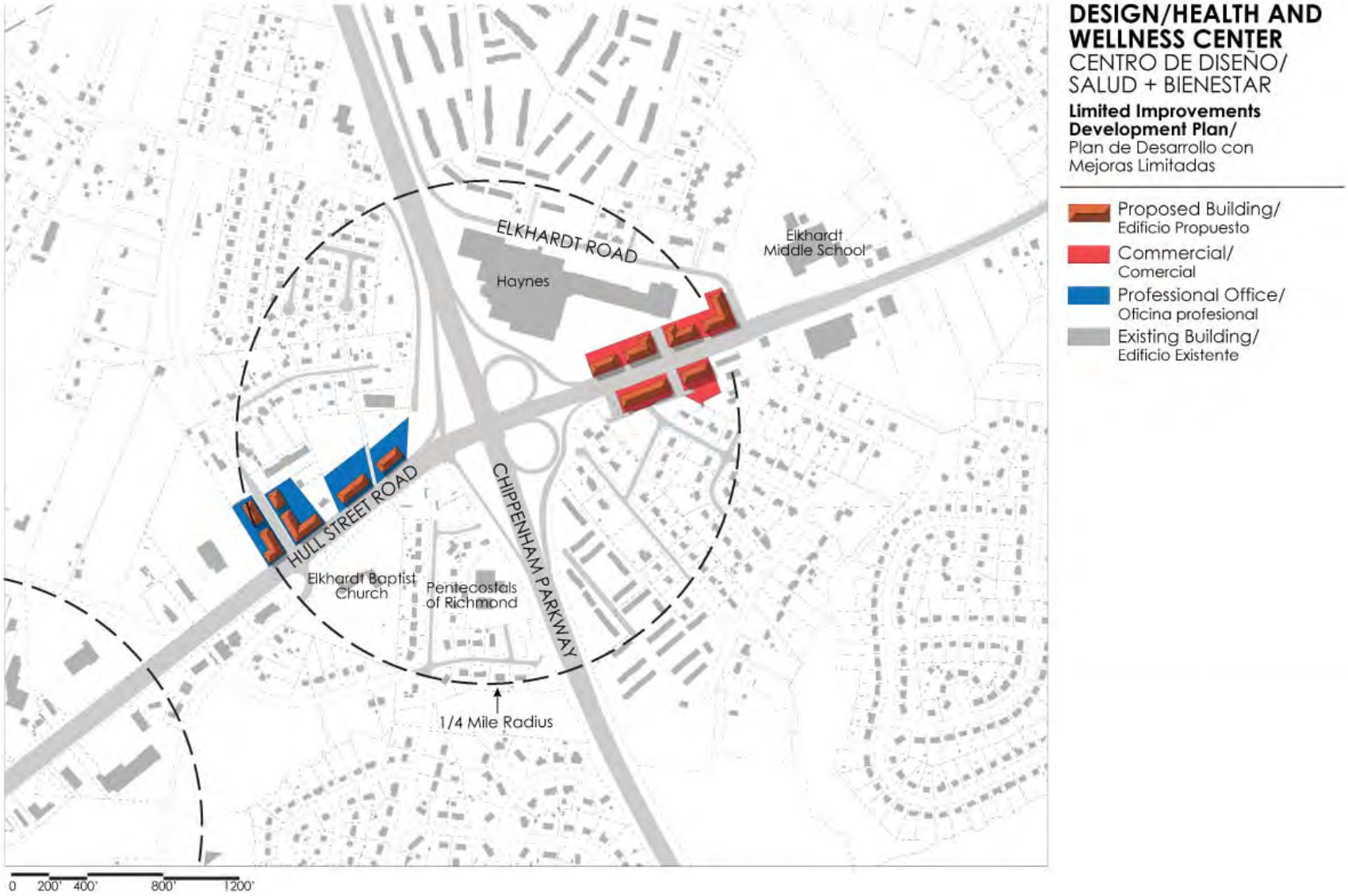


Figure 7.19: Multi-Cultural Market Center: Limited Improvements

corridor, including a job creator, and can be incorporated into the limited and significant vision for this activity center.

Limited Improvements

The limited improvements concept, shown in Figure 7.19 illustrates how the design center could be a first step in the growth and development of the Design/ Health & Wellness Center. In this scenario, the Haynes Furniture Company remains and the design center businesses are a natural outgrowth and expansion of that business. Additional commercial spaces also line Hull Street in front of the Chippenham Mall Shopping Center. The professional/ medical offices begin to locate west of the interchange.

Figure 7.20: Town and Family Entertainment Center: Illustrative Plan

7.3.4 The Town and Family Entertainment Center

The Town and Family Entertainment Center is a gateway to the Hull Street corridor on the Richmond end, and covers the area on either side of the Warwick Road intersection, from Richmond's Food Lion to Woodhaven Drive (the Southwood Apartments entrance road). It generally excludes the northeast quadrant of the Warwick intersection, which is a stable and well-maintained single family neighborhood. Figure 7.20 shows an illustrative plan for the Town and Family Entertainment Center.

Existing Conditions

Significant commercial, residential and open space uses currently exist within the Town and Family Entertainment Center area. The Food Lion shopping center and adjacent Skateland are popular destinations on the corridor. Food Lion is in relatively good physical condition, whereas the Skateland building is in need of upkeep. Large residential complexes are located to the east and include a poorly maintained low-income apartment complex and the Worsham Mobile Home Park, which appears in relatively good care. Small, single use buildings scatter along this section of Hull Street,

Figure 7.21: Precedent images: Mixed-use and workshop/retail

supporting mostly small markets and auto-related businesses. In general these structures look poorly maintained. The large parcel in the southeast quadrant of the Warwick intersection is almost entirely forested.

Vision for Significant Improvements

The Town and Family Entertainment Center will be a gateway to the Hull Street corridor from Richmond. It envisions two central hubs—one in the Food Lion area and the other at the Warwick intersection. Figure 7.22 presents this long-term vision.

Between the Food Lion and Skateland sites, a "town center" is created that focuses on a public green. Commercial buildings frame the green and are located on a grid of streets overlaying the entire area. Ideally family-oriented uses (e.g., family restaurants, skating rink, etc.) would locate in these buildings,

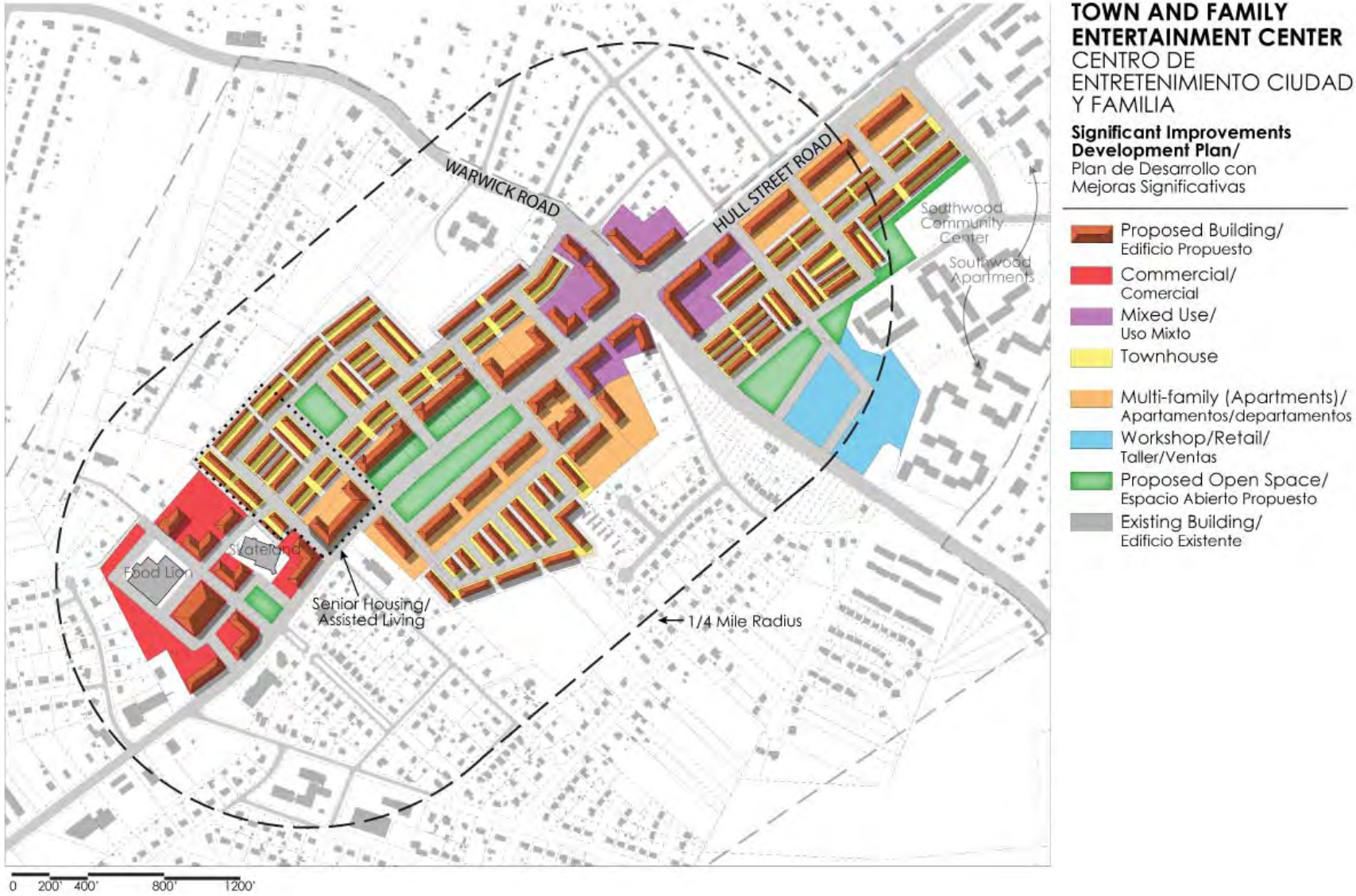


Figure 7.22: Town and Family Entertainment Center: Significant Improvements

creating a node of family activities around Skateland and the "town green."

Along the local streets east of Skateland is a new residential area with another public park. Some of this residential development could be senior housing/ assisted living, which would offer seniors easy access to services in the "town center" without a car. Multi-family housing is located on both sides of Hull Street, but set back behind a green buffer/recreation space. Townhouses are located behind the multi-family development and offer a transition into the existing single family neighborhoods. Figure 7.23 shows a before-and-after visualization for this portion of the Town and Family Entertainment Center.

Figure 7.23: Visualization, Town and Family Entertainment Center

The second hub, at the Hull/Warwick intersection, is anchored on each corner by mixed-use buildings, and designed to enhance the "gateway" feeling of the area. The southeast quadrant is primarily residential, with workshop/retail land uses off of Warwick. Figure 7.21 displays precedent images for the land uses proposed for the Town and Family Entertainment Center.

Figure 7.24: Town and Family Entertainment Center: Limited Improvements

Limited Improvements

The limited improvements concept, shown in Figure 7.24, recommends some possible first steps for implementing the Town and Family Entertainment Center vision. The two vacant parcels in front of Food Lion could become commercial buildings on Hull Street surrounding the public green. This would enhance both the Food Lion shopping center and Skateland facility. The limited improvement suggestions also show residential development emerging in front of the mobile home park, and in the Warwick intersection's southeast quadrant. Additionally, the "gateway" mixed-use buildings are shown on three of the corners, while the current Walgreens building remains on the fourth.

7.4 LAND USE INTENSITIES AND RESIDENTIAL DENSITIES

In the Hull Street vision, activity centers are the nodes of land use intensity. Land uses between these nodes should remain low density in order to promote new mixed use development and pedestrian activity at the centers.

New housing recommendations in the Hull Street Plan primarily consist of townhouse and multi-family dwelling units. For each activity center, townhouses should be accommodated at a density of approximately 20-22 dwelling units per acre. The multi-family building typology, on the other hand, allows for a wide range of densities depending on building height, parking requirements, size of units, and whether the building is fully residential or mixed use. For the Hull Street corridor, density estimates assume a mixture of 1, 2, and 3 bedroom units, allow for some ground floor retail, and use current City and County parking requirements. In this case, multi-family densities in the activity centers will likely be 30-40 dwelling units per acre.

The modest densities envisioned provide opportunities for bringing an increased residential population to the corridor in order to support the retail and other business activities there while, at the same time, providing for a compatible transition to the lower densities in the corridor's adjacent residential communities.

Figure 8.1: Open space and low impact development precedents

8.0 ENVIRONMENTAL ENHANCEMENT AND GREENING OPPORTUNITIES

8.1 GREENING THE CORRIDOR: PARKS, OPEN SPACE, AND GREEN INFRASTRUCTURE

As a key organizing element for the overall corridor vision, green space was carefully evaluated and integrated into the Hull Street Plan. Green infrastructure planning aims to create a balance between development and open space, to connect open spaces with one another, and to protect or improve both human and natural landscapes. While "open space" can be used to describe many different kinds of places, it is generally used to refer to undeveloped or unbuilt land and, in particular, natural, vegetated, or pedestrian/non-vehicular space. This can include a variety of physical forms and uses, such as parks, plazas, agricultural land, forests, gardens, pedestrian boulevards, lakes, ponds, and more. Green infrastructure includes the entire network of open space that sustains ecological and social vitality.[1]

Currently, open space within the Hull Street Corridor study area consists of forested land, private lawns, the Manchester and Elkhardt Middle School athletic fields, Pocosham Park, and the Reid Community Center grounds. While these areas comprise a relatively large quantity of open space, they offer limited usage based on their current designs (or lack thereof), or are isolated from one another and from the main corridor.

1 Virginia Department of Conservation and Recreation. (2007) 2007 Virginia Outdoors Plan. Pp. 45.http://www.dcr.virginia.gov/recreational_planning/documents/vopchapt04.pdf

Figure 8.2 shows a plan of new and enhanced open space proposed for the study area. The Hull Street Plan recommends increasing opportunities for public use of open space by integrating both larger parks and smaller green spaces into other proposed land use areas, analyzing ways to upgrade the facilities in these open spaces to better accommodate the community's passive and active open space needs, facilitating community use of existing athletic fields, and creating a vegetated pedestrian and bicycle route along the length of Hull Street Road. Existing resource protection areas and surrounding forests along the area's stream corridors are to be preserved.

8.1.1 Large Open Spaces

Open space to be included in the revitalization of the Hull Street corridor should be varied in size, form, and local context to meet the needs of diverse users and node activities. Large parks and fields serve an important role. In these places, people can gather to watch athletic events, practice sports, or be immersed in the natural environment while hiking a nature trail. The Hull Street Plan recommends adding to existing large open spaces by creating a more accessible forested park near the (Pocoshock Creek tributary) corridor while maintaining the riparian buffer zone. Additionally, the Plan recommends that when Manchester Middle School redevelops, the athletic fields be designed and managed as a resource shared between the school and the public to provide a greater community benefit.

Green infrastructure planning aims to create a balance between development and open space, to connect open spaces with one another, and to protect or improve both human and natural landscapes.

HULL STREET CORRIDOR CONCEPT/
CONCEPTO DE CORREDOR DE HULL STREET

Illustrative Plan - Open Space/
El Plan Ilustrativo - Espacio Abierto

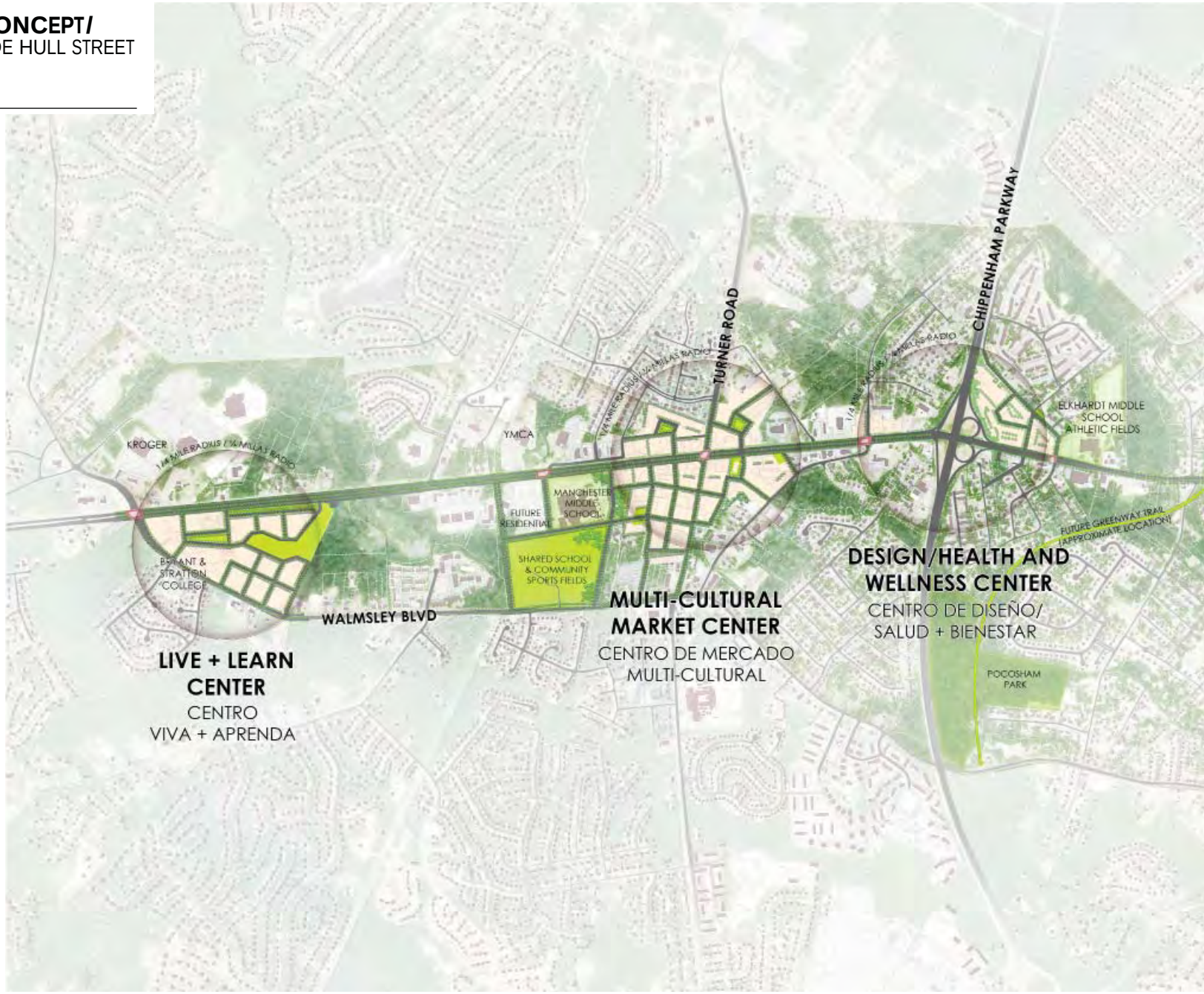


Figure 8.2: Hull Street Corridor: Illustrative Plan - Open Space

8.1.2 Small and Medium-sized Open Spaces

In developed areas like Hull Street, small to medium-sized green spaces serve many functions that larger, more isolated parks cannot. Along the Hull Street Corridor, there is great potential to increase public access to green space and enhance the aesthetic value of the area by integrating parks and plazas into other proposed land uses.

Medium-sized civic and green spaces, like those along downtown Richmond's waterfront (Figure 8.3) provide space for community fairs or festivals, recreation, social interactions, or individual activities. They can accommodate programmed active use like athletic fields and dog parks, and less structured passive use activities such as walking or picnicking. Small pocket parks may offer benches for sitting and relaxing, a playground for families to visit, or may simply be vegetated spaces that enhance the aesthetic quality of the neighborhood. Central Space Plaza in Arlington (Figure 8.4) and Richmond's Paradise Park and Scuffletown Park (Figure 8.5) serve as examples of efficiently designed parks that offer valued community amenities within a limited amount of space.

Figure 8.3: Downtown Richmond Waterfront

Figure 8.4: Central Space Plaza, Arlington VA

Figure 8.5: Pocket parks in Richmond, VA

In an urban setting, open spaces function best when integrated into developed areas. Close proximity to actively-used retail or residential buildings and transportation routes makes open space more accessible, and visibility from the surrounding area will both encourage use and deter illegal activity. While many open spaces proposed in the Hull Street Plan are placed in central locations to function as community "squares," the configuration of each is based on its individual context. In the Town and Family Entertainment Center, for example, parks along Hull Street act both as a buffer between the road and residential buildings, and a place for children to play.

The content of these spaces may vary as well, as appropriate for surrounding land uses. Parks to be used for events should have larger, open areas, while those intended to accommodate individual, passive use should have quieter seating areas. Play structures can be considered for family-oriented parks, while recreation spaces usually require an expanse of turf grass. Elements such as these may be used in combination or separately as contextually appropriate, but it is essential to offer a variety of open space amenities throughout the Hull Street corridor. One open space in the Multi-Cultural Market Center is proposed as a market building within a vegetated square, while others act as "back yard" areas for adjacent residential developments. Unique open spaces help to define the communities they're located within and serve functions specific to a particular area.

8.1.3 Green Corridors

Open spaces that are connected typically have greater value than those which are isolated from one another. Greenways are corridors of open space that provide linkages between areas of recreational, cultural, or ecological importance (Figure 8.6). They are usually programmed for conservation, recreation, and alternative modes of transportation such as biking or walking.[2] The majority of the Pocosham Creek Greenway, part of a greenway plan adopted by the [City of Richmond Mayor's] Pedestrian, Bicycle and Trails Commission, falls within the Hull Street Plan's study area.[3] The

2 Virginia Department of Conservation and Recreation. "Recreation Planning: Greenways." www.dcr.virginia.gov/recreational_planning/greenway.shtml.

3 Richmond Regional Planning District Commission. "Bicycle and Pedestrian Planning." http://www.richmondregional.org/MPO/MPO_Div_Cats/bikeped.htm

Figure 8.6: Warrenton Branch Greenway

greenway will connect Pocosham Park to the Reid Community Center, and will link in with a larger regional network of green infrastructure.

Similarly, the redesigned transportation corridor offers a significant opportunity for increased open space. Shade trees and benches add to the quality of open space along Hull Street, while sidewalks, cycle tracks, and multi-use trails link areas of higher-density development, join open spaces, and connect create connections between neighborhoods. The proposed streetscape serves as a critical piece of green infrastructure by functioning as a transportation route and supporting community activity while improving the aesthetic quality of the corridor as a whole.

8.2 LOW IMPACT DEVELOPMENT AND SUSTAINABLE DESIGN

A number of low-impact development (LID) techniques and sustainable design strategies can be integrated into revitalization efforts to minimize the environmental impact of development and improve existing site conditions. The following recommendations fall generally into three categories: storm water management, vegetation, and material and furnishings.

8.2.1 Storm Water Management

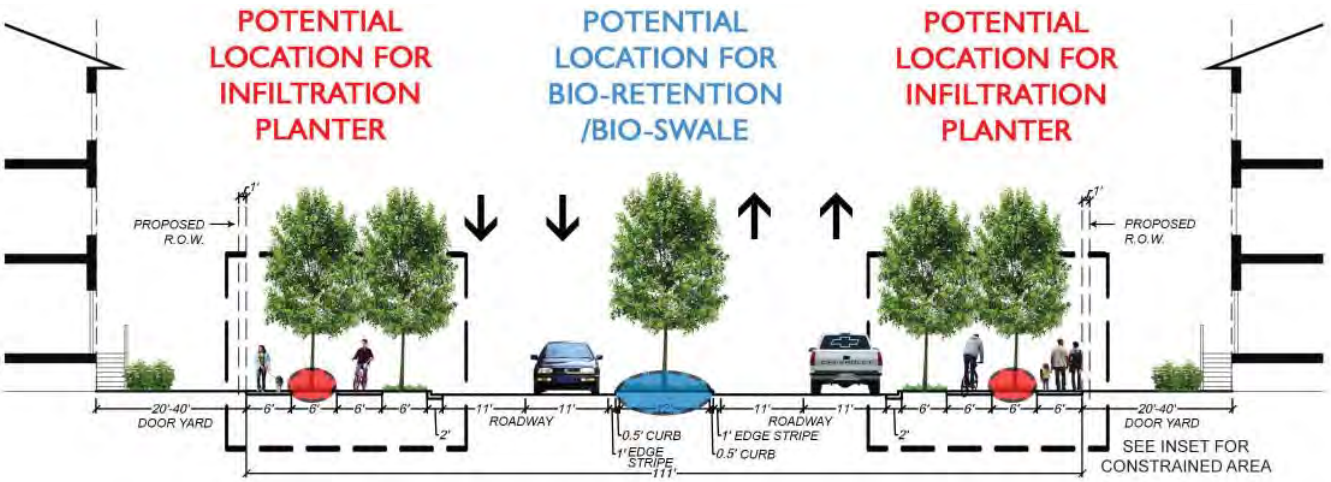
The primary intent of LID is to reduce the quantity of surface runoff following a storm event, remove pollutants from storm water, and increase the potential for groundwater recharge. These goals are particularly important in developed areas where impervious surfaces are prevalent and natural hydrological systems have been disrupted. The Hull Street Plan implements LID practices along the length of the corridor, and also uses existing BMPs within Chesterfield County to maximize storm water management on site. Minimization of impervious surfaces within the streetscape will contribute to water quality improvements in Chesterfield County and the City of Richmond. Informational signage will be installed at pedestrian nodes along the Hull Street corridor to provide opportunities for sustainability education. Potential locations for Stormwater Management LID features such as bio-retention/bio-swales and infiltration planters on Hull Street are shown in Figure 8.7.

LID Feature 1: Bio-retention /Bio-swales

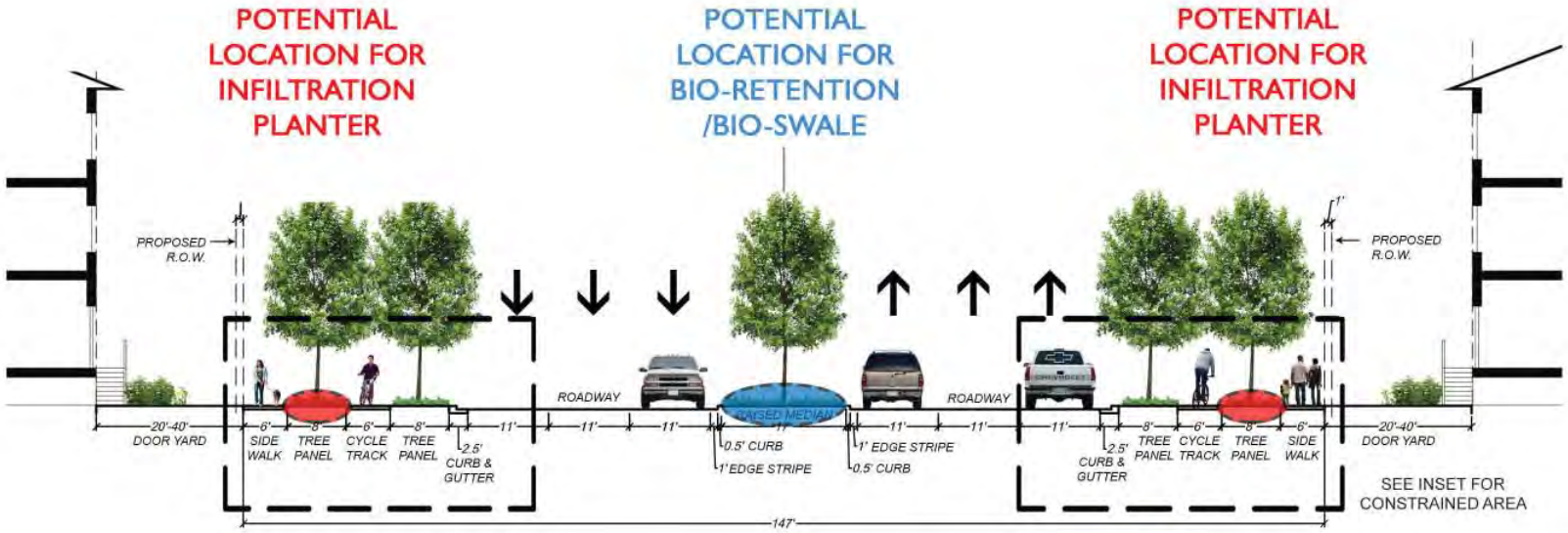
Bio-retention facilities serve to capture, filter, and infiltrate storm water shed from surrounding impervious surfaces, reducing the quantity and increasing the water quality of runoff. In addition to detaining water for infiltration, bio-retention removes suspended solids and chemicals from runoff as these pollutants adhere to soil particles and are absorbed by plant material.

Bio-retention facilities are comprised of a depressed area with an engineered soil mixture, a layer of organic material (usually mulch), water-tolerant vegetation, a ponding area, an entrance for water in-flow and an exit for water overflow. Flow-through facilities also require an under-drain to move treated water, in addition to providing storm water management functions. Bio-retention facilities should be designed to enhance the aesthetic quality of the corridor.

Bio-swales are designed landscape features that remove pollutants from storm water runoff as it is slowed and filtered through a planted drainage area. Bio-swales typically have a moderate grade (1 to 5 percent) and are planted with grasses and other plant materials. In urban settings the bio-swale may serve to reduce sediment load and other water pollutants from



City of Richmond



Chesterfield County

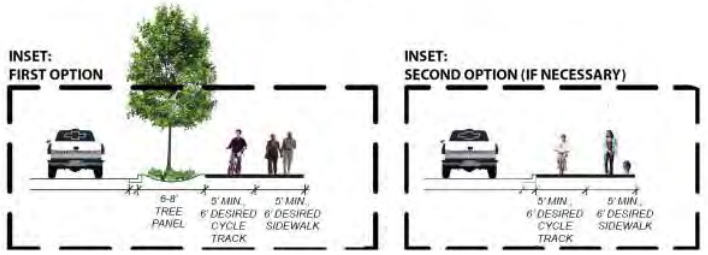


Figure 8.7: Potential Locations on Hull Street for Infiltration Planters and Bio-retention/Bio Swales

reaching natural watercourses[1]. Visually pleasing and cost-effective, bio-swales enable the usage of narrow spaces, such as medians, for storm water mitigation.

Bio-retention and bio-swales will be implemented along the Hull Street corridor as a median treatment within areas that receive storm water runoff from the road surface. These LID features are recommended for use within the City of Richmond and Chesterfield County. VDOT may not accept responsibility for bio-retention or bio-swales in the Chesterfield County section of Hull Street and a third party maintenance contract may be necessary. Figure 8.8 presents examples of median and roadside bio-swales.

LID Feature 2: Infiltration Planters

Infiltration planters are an ideal solution for storm water capture and treatment in constrained areas with good drainage. Infiltration planters are structures with open bottoms that allow storm water to pool and then slowly infiltrate[2]. Infiltration planters typically contain a gravel water storage layer where runoff may collect while soaking into the ground[3]. The primary benefit of infiltration planters is in the reduction of flow, the removal of pollutants and ground water recharge. Along the entirety of the Hull Street corridor the infiltration planters will be implemented in the planting strip between the pedestrian walkway and cycle track to create a sustainable demonstration area.

A modular precast system, such as the 'Freno' system by Midwest Products Group, allows for the implementation of storm water management into an urban streetscape setting. The prefabricated parts create a custom storm water solution that is cost-effective and low-maintenance compared to traditionally poured-in-place installations.

Infiltration planters are recommended for use within the City of Richmond and Chesterfield County. VDOT may not accept responsibility for these LID

Figure 8.8: Bioswales alongside the road and in the median

1 Hogan, C. M. "Water Pollution: Bioswales." www.eoearth.org. N.p., 28 Apr. 2010. Web. 27 Nov. 2012.

2 Portland Bureau of Environmental Services. (2008) *Stormwater Management Manual.* Portland, OR: PBES. Pp. 2-53 – 2-55.

3 Portland Bureau of Environmental Services. Pp. 2-32-2-33.

Figure 8.9: Infiltration planters

Figure 8.10: Pervious pavers

features in the Chesterfield County section of Hull Street and a third party maintenance contract may be necessary. Figure 8.13 presents an example of infiltration planters.

LID Feature 3: Pervious Paving

Pervious paving reduces the quantity of runoff that enters a storm drain system by allowing water to soak through into the ground. Pervious asphalt and pervious concrete are similar to traditional paving, but contain many small holes that allow water to pass through them. Permeable unit pavers are paving units with gaps between them that permit water infiltration. All forms of pervious pavement have a gravel layer under the paved surface where water is stored while infiltrating into the soil.

All bus stops along the corridor will be identified with pervious paving to emphasize the pedestrian nodes. Informational signage will be posted to notify users of the application of pervious paving and their role in low-impact development. Figure 8.14 presents an example of pervious pavers. Other types of pervious pavement may also be utilized in other areas of the corridor, such as the pedestrian and bicycle lanes.

VDOT may not accept responsibility for pervious paving in the Chesterfield County section of Hull Street and a third party maintenance contract may be necessary.

8.2.2 Vegetation

Tree Canopy

In areas where forests have been removed to make room for development, street trees can be used to rebuild the urban canopy. In addition to offering significant aesthetic benefits, an increased tree canopy can reduce heat gain and air temperature, provide oxygen, remove pollutants from the air, and reduce runoff by collecting rainwater on leaves and branches.[4] Street trees should be appropriate for the conditions of the site, and the planting strip should be designed to provide a soil volume sufficient to support the health of each tree. Where the surface planting area is limited, soil volume can be maximized by covering tree soil with pavers or grating, using structural soil

4 Portland Bureau of Environmental Services. Pp 2-45.

under sidewalk paving, or creating root paths under pavement to allow root spreading.[5] Using these methods, tree soil can continue under paved pedestrian areas to connect the planting strip where breaks may be required or to link tree panels of either side of the sidewalk (along the Richmond segment of Hull Street). Figure 8.15 presents an example of a sidewalk shaded by a double row of trees.

Plant Selection

Selecting site-appropriate plantings can both enhance the local ecosystem and reduce the need for resource inputs. Chosen plantings should be non-invasive, adapted to the region and climate, and promote biodiversity by representing a variety of species and providing habitats for birds and insects. [6] In addition to enhancing ecological integrity, a diverse planting palette can provide resistance to disease and pests. It is recommended that for larger sites, plantings should be limited to 10% of any one species, 20% of any one genus, and 30% of any one family.[7] After installation, a management plan should be implemented to control invasive plants found on-site and promote the health of the area's ecosystem. Figure 8.16 shows a planting area with primarily native species. Native and non-native plants adapted to the conditions of the site can also reduce the resources needed to maintain the health and appearance of new plantings. Selected plants should be suitable for an urban environment and have lower water and maintenance requirements. Grouping plants with similar water requirements will allow irrigation to be used more efficiently. As turf grass in particular can be resource-intensive, a species should be chosen to minimize the extent to which irrigation, pesticide and fertilizer application, and general maintenance will be required. [8]

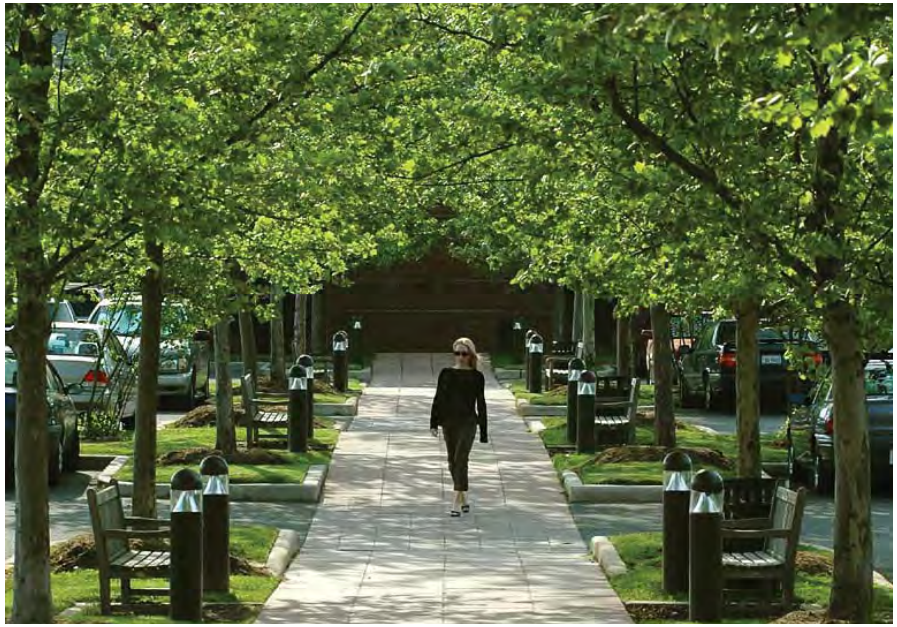


Figure 8.11: Shade trees lining a pedestrian walk

Figure 8.12: Sustainable landscaping dominated by native plant species

5 Casey Trees. (2008). *Tree Space Design: Growing the Tree Out of the Box*. Washington, DC: Casey Trees. Pp. 4-5.

6 American Society of Landscape Architects, Lady Bird Johnson Wildflower Center at The University of Texas at Austin and the United States Botanic Garden. (2009) *Sustainable Sites Initiative Guidelines and Performance Benchmarks 2009*. Pp.88.

7 Sustainable Sites Initiative. Pp. 90.

8 Sustainable Sites Initiative. Pp. 90.

8.2.3 Materials and Site Furnishings

Material Sourcing

Choices in material selection may reduce waste, energy consumption, and resource depletion, and contribute to the overall well-being of the local environment and beyond. Materials that are locally-sourced will reduce resources used in transportation, encourage demand for local products, and enhance the connection between the site and the surrounding region (e.g., by using rock from a local quarry). Using salvaged materials or those made with recycled content reduces the use of virgin resources and decreases landfill waste. Wood products should be derived from non-threatened tree species or replaced with recycled plastic or composite lumber.[9]

When possible, the full lifecycle of materials and furnishings should be considered. Products and materials can be chosen for their ability to be reused or recycled once they no longer serve their use on the site. Additionally, existing materials may be incorporated into the redesigned site in their original form or as a recycled element, such as crushed pavement reused as aggregate for new paving areas.

Lighting

The selection and placement of lighting fixtures can reduce light pollution by directing illumination where it is needed and limiting excess glow cast into the sky. Street lights, lighting for parks and other public areas, and external building lights should utilize full cut-off fixtures and be used in compliance with the standards set by the International Dark-Sky Association. Up-lighting is permissible to light the underside of the Chippenham Parkway overpass, where light cast upwards with be blocked from the sky by the bridge structure. Selecting appropriate light quality and fixtures can also limit energy use, material waste, and maintenance.

8.2.4 Existing Natural Features

Though much of the Hull Street Corridor has been developed, revitalization efforts should protect the area's natural features, including streams and forested areas. Design proposals should preserve and enhance the natural setting by taking advantage of existing views, avoiding disturbance of soil and forested areas when possible, and protecting or repairing riparian buffers along the stream edge.

Vegetation and Soils

Though expanded development will require some forested areas to be reduced, existing native plant communities should be preserved where feasible, and the removal of vegetation should be limited where it is of significant aesthetic value or performs a critical function (e.g., soil stabilization along a stream corridor).[10] Soil disturbance should be moderated to the extent that development allows in order to maintain soil structure, organic matter, nutrient content, and existing hydrology, thereby minimizing the need for soil restoration and surface drainage improvements. [11] Additionally, the preservation of existing topography and/or limited re-grading conserves resources by reducing or eliminating the need to transport soil into or out of the site.

Streams

In sites adjacent to stream corridors, development should be planned to minimize disturbance of the stream and riparian buffer, and to enhance the quality of these areas if necessary. Redesigned sites should refrain from depositing sediment and contaminants into existing streams, handling storm runoff that could enter stream channels with low impact development techniques. Vegetation in the riparian zone and floodplain should be protected or enhanced where necessary to maintain or increase flood and erosion control, water quality, and wildlife habitat.[12]

9 Sustainable Sites Initiative. Pp. 124.

10 Sustainable Sites. Pp. 99, 111.

11 Sustainable Sites. Pp. 95-96.

12 Sustainable Sites. Pp. 57-58.

Figure 9.1: Multi-modal transportation precedents

9.0 MULTI-MODAL TRANSPORTATION STRATEGY

Hull Street Road is an arterial and an address. It, like many suburban principal corridors, must serve dual, and somewhat competing, demands to function as a conduit in a regional system and at the same time support the vibrancy and health of the communities along it.

Today the corridor serves the first function – that of a traffic thoroughfare – fairly well, but fails significantly in its second function as the front door to, and backbone of, complete communities in Chesterfield County and the City of Richmond. In response to this situation, the local community and public leadership have envisioned a new identity for Hull Street. Rather than an auto-dominated corridor, Hull Street can be a vibrant corridor that offers more options in services, housing, commercial offerings and modes of travel, while simultaneously supporting automobile travel needs.

Even in the presently weak economy and real estate market, changes in transportation on the corridor can positively change the overall image and perception of the corridor and enhance its competitiveness and attraction. A multi-modal transportation vision, in coordination with the land use concepts in Chapter 3, is an important element of the Hull Street Plan's strategy for revitalization.

The following chapter builds on the existing conditions information summarized in Chapter 2 by proposing new typical cross sections for Hull Street in the City and County and recommending specific configurations for the key intersections at the activity centers. Appendix B presents an analysis of alternatives considered for the street, sidewalk, and cycle track configurations.

9.1 TRANSPORTATION CONCEPTUAL PLAN

The transportation analysis, presented in Appendix B, included evaluation of multiple alternatives for street cross section and intersection configurations. Each was tested against the objectives and priorities listed below and final preferred designs selected that incorporated aspects of various alternatives. The objectives and priorities against which each alternative was measured are:

- Improve safety for all users
- Expand travel options
- Maintain regional mobility
- Enhance local community connectivity along, across, and adjacent to the corridor
- Develop positive corridor character, identity and place
- Support and attract economic development
- Enrich the natural and human environment

The following sections present the preferred alternatives for Richmond and Chesterfield.

Today the corridor serves the first function – that of a traffic thoroughfare – fairly well, but fails significantly in its second function as the front door, to and backbone of, complete communities in Chesterfield County and the City of Richmond.

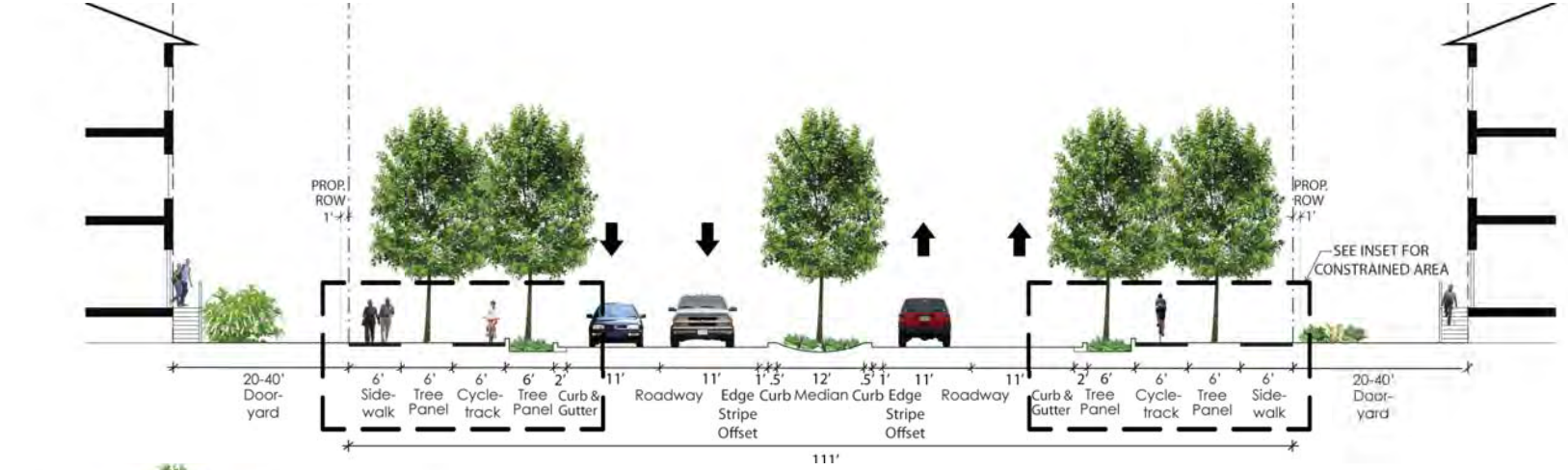


Figure 9.2: Recommended Typical Section - City of Richmond

Figure 9.3: Medians must protect its users - wide enough for a bicycle, a stroller and a parent, a shopping cart, or a wheelchair

9.1.1 City of Richmond Recommended Typical Section

The revitalization plan required solving for multiple objectives. Safety for all travelers was the first priority, but also important were the dual objectives of expanding non-auto travel options and changing the physical image and character of the street. After evaluating options, the alternative that best addressed the safety, mobility and revitalization objectives of the effort was a "typical section" that provided separate facilities for all modes – pedestrians, cyclists and vehicles – as well as medians and planting strips that made dramatic changes in the visual impression of the corridor.

The preferred typical section for Hull Street in Richmond is shown in Figure 9.2. Section 9.1.4 explains differences between the recommended typical section and general VDOT standards. The section also notes supplemental studies, reviews and processes that are required prior to implementation. The recommended typical section provides for:

- A continuous pedestrian sidewalk network and crossings;
- A separated cycle track/bicycle way on each side of the corridor;
- A landscaped buffer between pedestrians and bicycle way and travel way that provides sufficient space for comfortable and furnished transit stops and amenities;

- A landscaped median that provides accommodation of left turn lanes at intersections to reduce rear end and rear-angle crashes; and provide safe pedestrian crossings with a minimum 6' pedestrian refuge even when the median is reduced to provide a left turn pocket (see Figure 9.3).
- Two travel lanes in each direction to maintain vehicular capacity and operation
- A gutter pan that can channelize water into low impact development (LID) features in the planting buffer.

To further improve pedestrian safety and continuous travel ways, and adhere to the principles of access management on major arterials, some crossovers and/or driveway closures are specifically recommended. These include:

- Roberson Lane - close median
- Food Lion - close median and access via Swanson Road
- China Dragon - close median and access via Felton Road

A visualization of the City of Richmond's recommended typical section is shown in Figure 9.4.

Figure 9.4: City of Richmond Recommended Typical Section Visualization

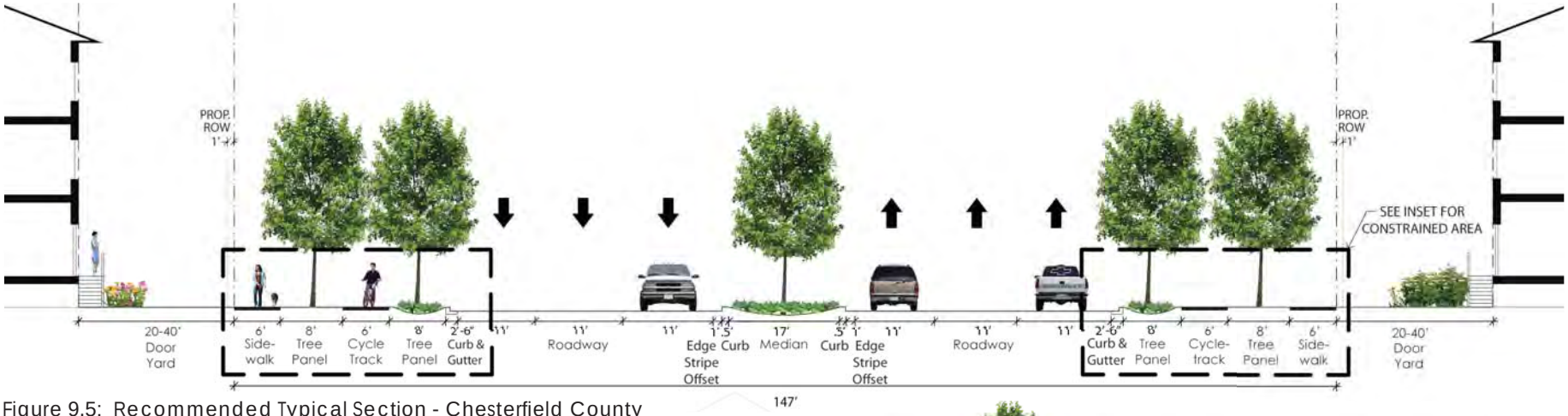


Figure 9.5: Recommended Typical Section - Chesterfield County

9.1.2 Chesterfield County Recommended Typical Section

One goal of the project was to visually unite the corridor from Richmond through to Chesterfield and provide continuous non-motorized accommodation while at the same time maintaining the important regional function the corridor is required to perform. To achieve these priorities, the recommended section provides a consistent, and in places narrower, 18' median with pedestrian and bicycle facilities that reflect the same general cross section as in Richmond with the addition of one travel lane in each direction. Features of the design include:

- Six Travel lanes: 2' gutter, 11' lanes, 1' median off-set striping
- Trees: To meet clear zone requirements, smaller tree species will be planted against the travel lanes and larger trees in the second row (between cycle track and sidewalk)
- Lighting: pedestrian-scale lighting
- Median: 18' median, reduced to 6' at left turn lanes. Generally existing right-of-way is very generous at intersections, thus the full concept can be applied at locations with double left turn lanes and still maintain a 6' median.
- Cycle track: at sidewalk level
- Sidewalk: set back from the roadway by two landscape buffers and the cycle track

The full Chesterfield Recommended Typical Section is shown in Figure 9.5. Recommendations for constrained right-of-way conditions in Chesterfield County follow the same priorities as the City of Richmond. The insets in Figure 9.5 demonstrate these dimensions for the County.

Section 9.1.4 explains the difference between the recommended typical section shown in Figure 9.5 and general VDOT standards. A visualization of the Chesterfield County recommended typical section is shown in Figure Figure 9.6.

9.1.3 Intermediate Improvements in Constrained Right-of-Way Conditions

The recommended "typical" section represents the preferred distribution of space. It cannot, however, be achieved in all segments of the corridor, at least

Figure 9.6: Chesterfield County Recommended Typical Section Visualization

in the very near term. Full implementation of the recommended typical section will need to occur over time as properties redevelop and items that present physical barriers at present – such as gas station shelters or parking lots – can be removed or relocated as parcels redevelop.

The right-of-way is highly inconsistent along the length of the corridor. For example, it ranges from greater than 110' in the eastern and western sections of the city to less than 80' in width just east of Elkhardt Road to approximately 600' west of Warwick Road.

In constrained segments of the corridor (those incapable of accommodating the full preferred typical section), the following modifications will be made in order of preference and intensity of constraint:

1. Reconfigure site parking (if no built improvements or environmental impacts) to accommodate full width of typical section,
2. Remove the landscape buffer between bicycle and pedestrian facilities and combine facilities into a multiuse path (differentiate between the facilities with different paving materials)
3. Combine the facilities into a multiuse path and reduce the overall width to a minimum of 10' total
4. Acquire additional right-of-way
5. Remove the landscape buffer between the cycle track and the roadway (e.g. locate path on the back of curb)
6. Narrow or remove raised median as an option of last resort where

constraints dramatically limit the feasible section.

For example, in the constrained segment between Elkhart and Warwick, the preferred typical section cannot be achieved in the near or mid term. In this area an "intermediate" typical section is recommended for implementation as the first phase of the project. This section establishes the ideal dimensions in the curb to curb zone but combines the pedestrian and bicycle accommodates into a single multiuse trail facility as an interim condition. The intention is that, upon redevelopment of parcels in the constrained area, new development will rebuild the frontage using the permanent preferred typical section dimensions and separated facilities. As noted above, in areas of even more significant constraint, this section will be further reduced by removing curbside planting zones and/or further narrowing pedestrian and bicycle facilities. The "intermediate" or constrained right-of-way dimensions for the City of Richmond are shown as inset options in Figure 9.2. The constrained right-of-way dimensions for Chesterfield County are shown as an inset in Figure 9.5.

9.1.4 Recommended Typical Sections Versus VDOT Standards

The impetus of the Hull Street transportation analysis was to evaluate how the transportation infrastructure of the corridor can support the larger revitalization goals of walkability, economic competitiveness, and environmental quality place-making. Accomplishing these goals means that the arterial design must calm traffic speeds to adhere to the posted limits and improve human comfort on the corridor; shorten pedestrian crossing distances to knit the corridor together and improve accessibility; and accommodate landscaping to change the image of the street.

With these objectives in mind, the recommended section(s) maintain a narrow cartway (area between face of curb and face of curb) that slows traffic, reduces pedestrian exposure, and minimizes right of way acquisition and impervious pavement areas while maximizing areas for landscaping and non-motorized travel.

However, these sections vary subtly from general VDOT and Richmond DPW standards. Additionally, certain desired modifications require supplemental studies and processes before implementation can occur. These include speed studies for recommended speed reduction, de-designation of Chippenham Interchange as a limited access facility and a required interchange modification report and associated analysis and study. Signal timing plans will need to be completed to introduce pedestrian crossings at intersections. Additional turn lane warrant studies will be required during the final design process to determine required turn lane geometry, including minimum storage and taper lengths.

9.1.5 Chippenham Interchange Recommended Configuration

The Chippenham Interchange is a significant challenge for creating a unified Hull Street Road. Safely designing for pedestrians and cyclists to pass through the interchange was a major goal of the study.

In its existing configuration, the Chippenham Parkway interchange presents a major barrier for pedestrians, bicyclists and transit riders. Hull Street Road features four travel lanes in each direction between the parkway's on and off ramps, separated by a median. There are no sidewalks, crosswalks or bicycle facilities provided. As transit service stops at the city line at Chippenham Mall Shopping Center, bus passengers cross the interchange by walking on shoulder of the road and crossing multiple on- and off-ramps without pedestrian signals. Since Hull Street Road goes under the parkway, available space for all modes is limited by the current retaining walls. Free right turn lanes, designed for unimpeded vehicular movement, are found at signalized intersection of Chippenham Parkway South and the unsignalized on- and off-ramps accessing Chippenham Parkway North.

Chippenham interchange recommended design, shown in Figure 9.7 and Figure 9.8, adds curbs and sidewalks along Hull Street Road with pedestrian crossings at all existing approaches. This removes one through vehicle lane between the on and off ramps to/from northbound Chippenham Parkway. This lane is regained as a continuation of the exiting ramp from the northbound parkway thus removing the merge condition that exists today. Significantly, the free right movements to and from southbound Chippenham (the western portion of the interchange) are removed in favor of stop and turn movements. Due to the high volumes of the westbound exit ramp the ramp is widened to provide for double right turns and lengthy storage space. It is recommended that, contrary to existing policy in the area, right on red be permitted at this location during the peak hours. The left turn pocket to Chippenham Parkway South is extended.

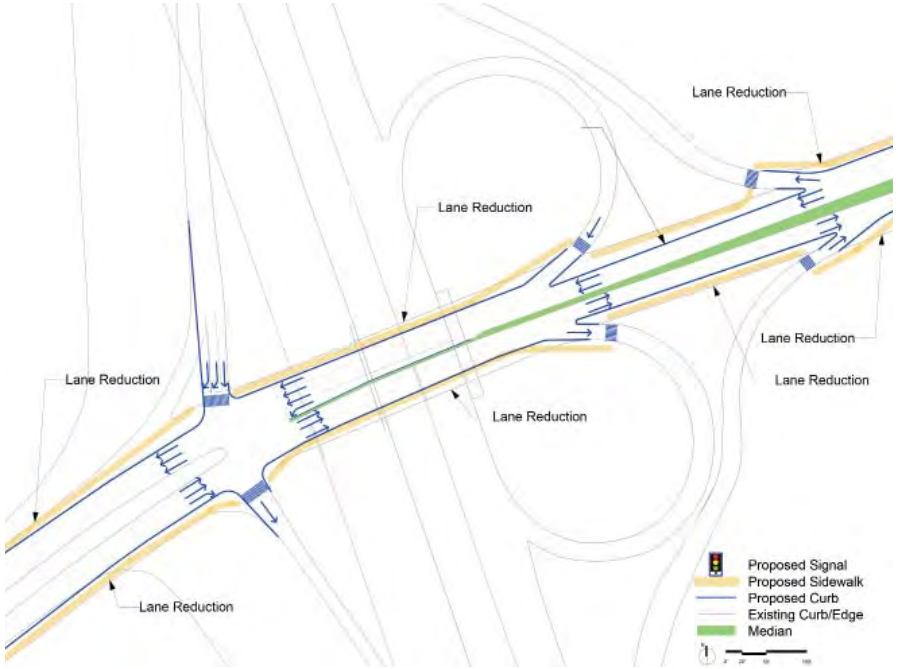


Figure 9.7: Long-term Chippenham Recommended Design

Figure 9.8: Chippenham Recommended Concept

Figure 9.9: Hull Street at Chippenham Parkway Visualization

Although not fully addressing pedestrian safety concerns through the Chippenham interchange area, the recommended configuration provides a balanced solution that resolves some existing vehicular conflicts and constraints and improves pedestrian accommodation and safety through the area. The significant change in the southbound off ramp will require additional analysis through the interchange modification process. A rendering of the recommended Chippenham Interchanges Redesign is shown in Figure 9.10. A visualization of the recommendations is shown in Figure 9.9.

Figure 9.10: Rendering of Recommended Chippenham Interchange Redesign

Figure 9.11: Walmsley Recommended Concept

Figure 9.12: Turner Recommended Concept

9.1.6 Activity Center Key Intersections

To support the goal to enhance safe multimodal travel options and strengthen conditions for future economic development, the following concepts for the three nodes are recommended.

Walmsley Boulevard

A rule of thumb with intersection design is to keep them as compact as possible. Intersections are where conflicts - which can cause injury or death - occur between motorists, buses, trucks, pedestrians, and bicyclists. Keeping the space compact increases visibility so all users can see one another, reduces speeds, increases intersection legibility, and results in safer operation for all. The design in Figure 9.11 maintains all existing vehicle through and turn lanes, so capacity remains the same. To make it compact, the medians are extended to protect newly striped crosswalks and reduce turning speeds. Right turn islands reduce crossing distance and raise up space that is currently unused. The Chesterfield County preferred concept is overlaid in the right-of-way.

Turner Road

Turner Road is another very large intersection. It handles a high volume of traffic, thus all turn lanes were preserved. Room exists to extend the medians and add right turn islands. At this location, right-of-way is constrained and the full preferred concept does not fit. In this case, the layout of landscape

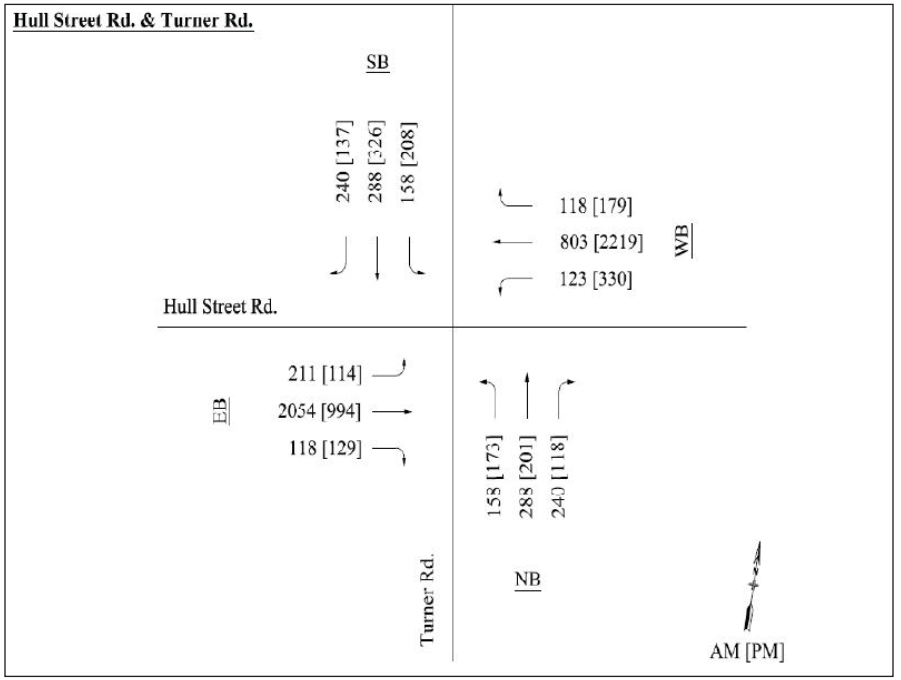


Figure 9.13: Turner Road Volumes

buffer + cycle track + landscape buffer + sidewalk is transitioned to a multi-use path. (Figure 9.12 and Figure 9.13)

Warwick Road

The proposed concept (Figure 9.14) adds the full corridor design of a cycle track, sidewalk, and landscape buffers, as the Warwick Road area has plenty

Figure 9.14: Warwick Recommended Concept

of right-of-way available. The design maintains left and right turn lanes. At Warwick Road eastbound, the two left turn lanes are reduced to one. During the evening peak, these two lanes together process 166 cars, which one lane can handle.

9.1.7 Transit service

Currently GRTC's Route 62 terminates at Chippenham Mall Shopping Center, yet several key destinations, such as 360 West, Bryant & Stratton, and the Kroger remain unserved. Passengers alighting at Chippenham Plaza and destined for a place further west must brave the interchange and walk through extremely dangerous conditions.

Bryant & Stratton began operating a shuttle from downtown Richmond 1.5 years ago to help students reach class. This shuttle, contracted from a private provider, carries 12 students by subscription and is currently full. The driver drops the students off for their 8:30 AM classes. Classes generally run until noon, after which students do homework. The driver returns around 3 PM for the return trip. There are another block of classes in the afternoon, as well as evening classes from 6:30-9:30 PM. The college enrolls more than 1,000 students, and a children's college exists at that location as well.[1]

Given this major destination, as well as other nearby places that transit riders are already putting themselves at great risk to reach, extending GRTC's route 62 makes sense. Currently 20 trips per day serve Chippenham Plaza - eight trips westbound and 12 inbound. The first trip of the morning westbound reaches Chippenham Plaza at 8:54 AM, which is too late for students. The route serving Chippenham Plaza, route 62, actually runs quite frequently, but has several different route variants past downtown Richmond. Service on one earlier AM trip would need to be extended out to Chippenham Plaza and then out to Walmsley Boulevard to tap into the student market. A map of the proposed routes and routing for an extended 62 is shown in Figure 9.15, Existing and Proposed Bus Stops.

1 Brenda Hines, Bryant & Stratton, phone interview 11/14/12

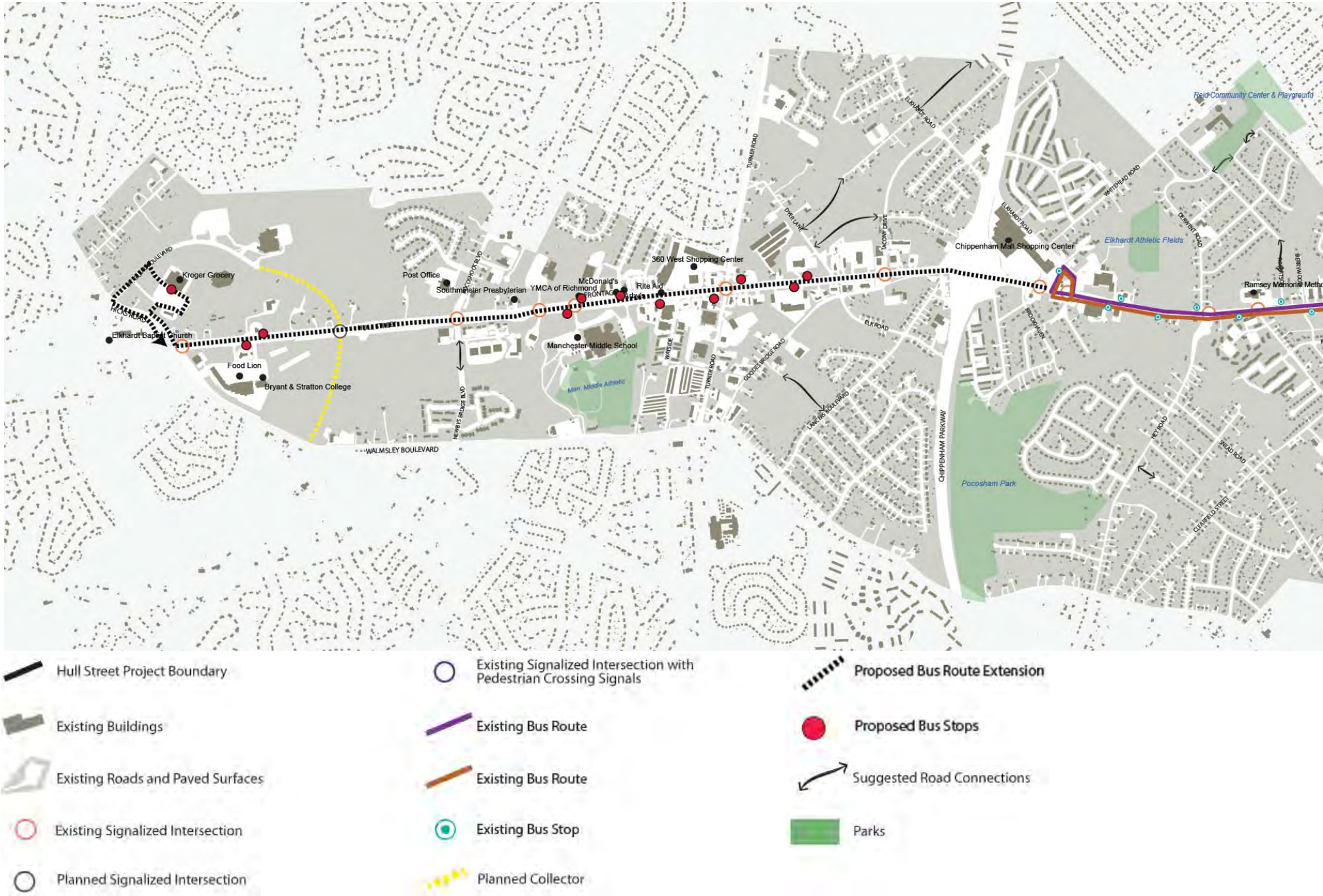


Figure 9.15: Existing and Proposed Bus Stops

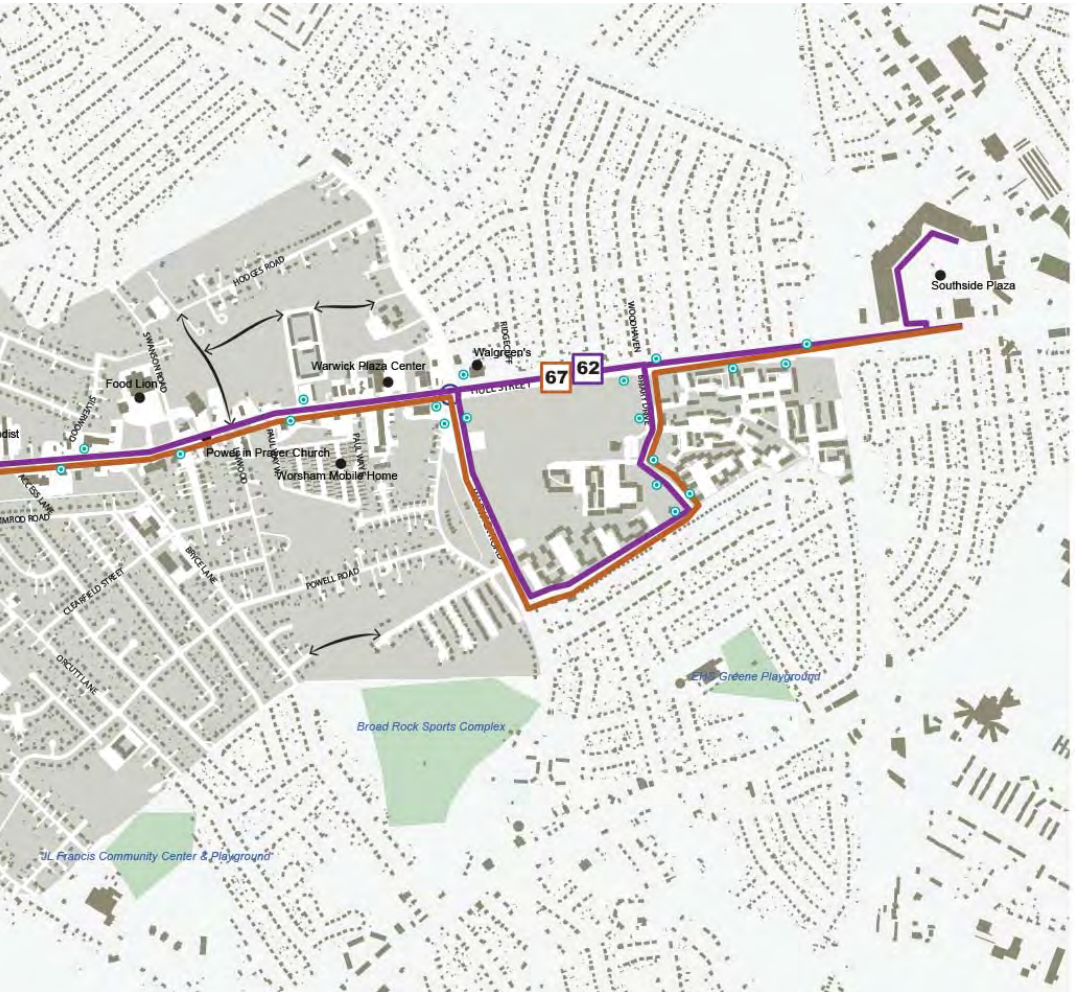


Figure 9.16 shows how the current route 62 would be extended. At the outset of service, it is important to provide robust enough options to attract riders; however, during off peaks, the bus might run every 2 hours. The table shows which current buses should be extended to Walmsley Boulevard as well as which variants that currently do not serve Chippenham should be extended. Based upon this schedule, the marginal cost of extending service is shown in Figure 9.17.

Bus Arrival at Chippenham Plaza	
Eastbound	**Westbound**
5:00 AM	
5:38 AM	
6:09 AM	
6:47 AM	7:57 AM
8:54 AM	8:54 AM
10:07 AM	9:57 AM
11:07 AM	11:07 AM
12:37 PM	12:27 PM
1:52 PM	1:52 PM
2:37 PM	2:37 PM
3:35 PM	3:35 PM
4:22 PM	4:12 PM
	5:20 PM
	6:20 PM
Extend to Walmsley	
Currently does not stop at Chippenham Plaza	

Figure 9.16: Current 62 Schedule and Routes to Extend

Direction	Service Span	Cost/ Mile	Round Trip Miles of Extension	Cost per Trip	Trips per Day	Total Cost
Westbound	8:00 AM-6:20 PM	$7.70	5.2	$40.04	7	$280.28
Eastbound	5:00 AM-4:30 PM	$7.70	5.2	$40.04	8	$320.32
Total Daily Cost						$600.60

Figure 9.17: Marginal Cost for Transit Extension

Figure 9.18: Bus stop visualization

Figure 9.18 presents a visualization of a bus stop addition to the corridor. This visualization is for illustrative purposes and is not a specific design for a specific location.

9.2 GOVERNING POLICIES

Achieving the recommended design above requires examination and potential modification or amendment of four policies that typically govern planning and design on a major arterial in Virginia such as Hull Street Road. These are:

- Assuming and designing for future traffic growth
- Limited access facilities and segments
- Design vehicle, and
- Posted and design speeds

Appendix G presents the VDOT processes for requesting variances from these and other policies."

9.2.1 Projected Future Traffic Growth

It is standard practice among many transportation agencies to assume traffic will continue to grow at a roughly consistent rate for the foreseeable future. This introduces some real and philosophical challenges: Do we assume traffic will grow forever? If so, how can we ever accommodate it and what does it mean for the preservation and accommodation of other modes?

Typically a 1% annual growth in traffic volumes is assumed and acceptable designs must meet this projected growth rate. Hull Street Road, however, introduces a conundrum for this policy as the corridor in reality has experienced a roughly 1% annual *decline* in traffic volumes over the past decade.

It is recommended that the city and state contemplate capping vehicular *capacity* of the Hull Street corridor at current (or even 2001) levels and focus instead on corridor *management*. The corridor, at present, is well below the theoretical capacity. It is only at the peak of the peak that congestion issues prompt consideration of capacity expansion or operational decisions that favor vehicle movements over alternative modes.

The recommended designs comfortably accommodate past and current traffic demands, but are not sustainable if unmitigated traffic growth is allowed on the corridor. These designs strive to enable the transfer of vehicular trips into the more space-efficient pedestrian, bicycle and transit options. If successful, allowing the satisfaction of local trips via these alternate modes will free up capacity on the corridor for trips originating outside of the immediate area and allow more efficient trip chaining that does not necessitate an arterial trip for every errand.

9.2.2 Limited Access Facility Designation

At present, the Chippenham Interchange is designated as a limited access facility both for the Parkway itself as well as Hull Street Road through this segment. This designation means that pedestrians and other non-motorized travelers are *prohibited* in this segment of the corridor.

Achieving a continuous pedestrian network between the Richmond and Chesterfield portions of the corridor will require reexamination of this designation.

9.2.3 Design Vehicle(s)

Roadway designers often utilize the most conservative (largest) design vehicle (WB 50 to WB 67 – semi tractor trailers) in arterial design, regardless of frequency. Although it is a designated truck route, the predominant vehicle type on Hull Street Road is the passenger auto (P). The larger design vehicles require larger curb radii (min 45' as opposed to 24' for autos turning at 10 mph). These larger radii result in faster travel speeds and turns by drivers of passenger vehicles, and longer crossing times for pedestrians. This can result in increased safety risks for drivers, pedestrians, and cyclists.

Trucks and buses constitute approximately 2% of vehicle volumes in the Richmond segment of the corridor but upwards of 7% in the Chesterfield segment. This is a significant number and requires that geometries be appropriately designed for these larger vehicles *where they are reasonably anticipated to be turning* however, given the concerns above, the radius of each intersection and curb cut should be individually fine tuned with the objective of providing the minimum acceptable radius for reasonably anticipated vehicles.

However, in keeping with the goals to revitalize the corridor, there should also be a second "design vehicle" – the pedestrian - specifically a youth or older pedestrian. The facility design should concurrently be reviewed and evaluated for ease of use and safety for this "design vehicle" together with the more traditional wheeled vehicle and the consequences to the safety and operation of the pedestrian vehicle if a larger wheeled design vehicle is used.

9.2.4 Posted and Design speed

Target speed on the corridor is 45 mph in the westernmost segment and 35 mph in the eastern portion of the study area. It is recommended that the existing short segment of the corridor between Walmsley Road and Bryant Stratton College currently posted at 55 mph be reduced to 45 mph. Such a reduction will improve safety and potentially increase vehicle throughput (Figure 9.19).

According to the VDOT design manual, the selected design speed should:

- "be logical with respect to topography, anticipated operating speed, adjacent land use, and functional classification
- be as high as practicable to attain a desired degree of safety, mobility and efficiency [and]
- be consistent with the speed a driver is likely to expect. Drivers do not adjust their speeds to the importance of the highway, but to their perception of the physical limitations and traffic."[2]

Given these considerations, posted speed (45 mph or 35 mph depending on location) should be used as design speed to maintain safety and reduce risk for all travelers – particularly non-motorized ones - by conveying appropriate environmental cues to drivers to travel at the designed speed.

Speed kills (Figure 9.20). The faster a vehicle is traveling, the greater probability of death should they encounter a pedestrian. As a vehicle increases in speed, their cone of vision is decreased, reducing their ability to see, respond to, or enjoy events in their surroundings (Figure 9.21).

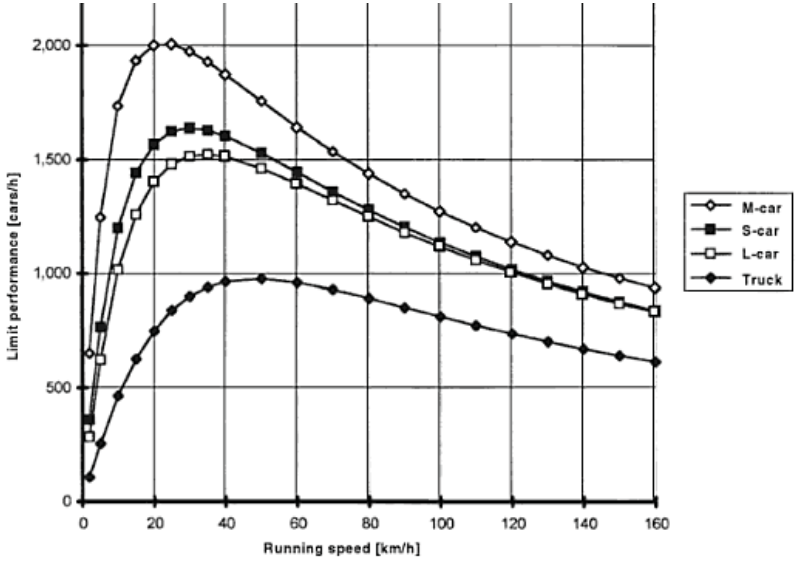


Fig. 13.5 Speed dependency of limit performances of a traffic lane

M-car mini passenger cars (e.g. Smart-car)
S-car standard passenger car
L-car large passenger car
Truck tractor trailer unit

Figure 9.19: Travel speed and vehicle throughput

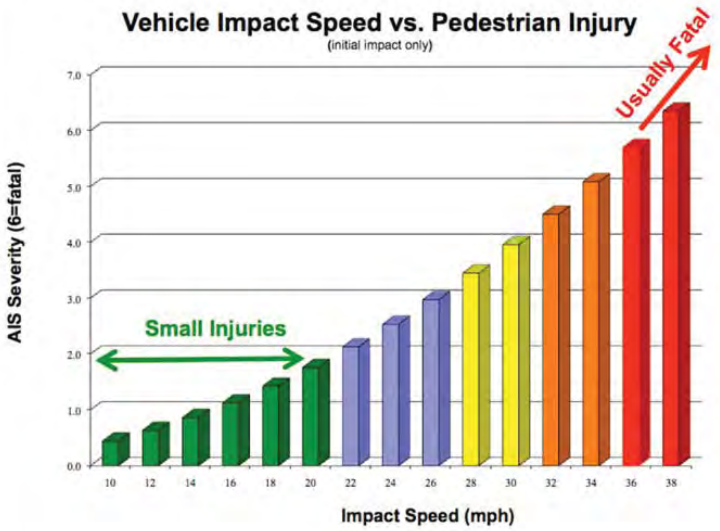


Figure 9.20: Relationship between speed and injury severity

2 Virginia Department of Transportation *Road Design Manual*, Commonwealth of Virginia (2005) Appendix A. Pp. A-3

How fast a person drives is directly related to the design of the road. The road, in turn, is based upon a "design speed" that accommodates the fastest set of drivers. The actual posted speed is based upon the 85th percentile. The VDOT road design manual states that on level principal arterials, a design speed of 60 mph (the lower for areas with more slope) should be used.[3] (Figure 9.22) This is in opposition to the other principles that design speed should:

- "be logical with respect to topography, anticipated operating speed, adjacent land use, and functional classification
- be as high as practicable to attain a desired degree of safety, mobility and efficiency [and]
- be consistent with the speed a driver is likely to expect. Drivers do not adjust their speeds to the importance of the highway, but to their perception of the physical limitations and traffic."[4]

Recommendation: Given these considerations, posted speed (45 mph or 35 mph depending on location) should be used as design speed to maintain safety and reduce risk for all travelers – particularly non-motorized ones - by conveying appropriate environmental cues to drivers to travel at the designed speed. It is recommended that the existing short segment of the corridor between Walmsley Road and Bryant Stratton College currently posted at 55 mph be reduced to 45 mph.


15 mph


20 mph


25 mph


30 mph

Figure 9.21: Example of how a driver's cone of vision decreases as speed increases

3 Virginia Department of Transportation *Road Design Manual*, Commonwealth of Virginia (2005) Appendix A.Figure A-1-1

4 Ibid, Pp. A-3

GEOMETRIC DESIGN STANDARDS FOR URBAN PRINCIPAL ARTERIAL SYSTEM (GS-5)													
	Design Speed	Minimum Radius		(13) Minimum Stopping Sight Distance	Minimum Width of Lane	Minimum Width of Total Shoulders			(2) Paved Shoulder Width		(3) Minimum Width of Ditch Front Slope	(4) Slope	New and Reconstructed Minimum Bridge Widths and Vertical Clearances
		U	ULS			Fill W/GR	Fill	Cut	Lt	Rt.			
Freeways	70	1815’	-	730’	12’	(1) 17’	14’	(1) 14’	4’	12’	12’	CS-4 or 4B	See Footnote[1] (7)
	60	1204’	-	570’									
	50	760’	-	425’								CS-4 or 4E	
Other Principal Arterial with Shoulder Design	60	1204’	-	570’	(12) 12’	13’						CS-4 or 4E	
	50	929’	-	425’									
	40	536’	593’	305’	(5) (6) (12) 11’							CS-3 or 3B	
	30	251’	273’	200’									
	Design Speed (MPH)	Minimum Radius		Minimum Stopping Sight Distance	Minimum Width of Lane	(8) Standard Curb & Gutter			Buffer Strip Width		(9) Minimum Sidwwalk Width	(10) Slope	
		U	ULS										
Other Principal Arterial with Curb & Gutter	60	1204’	-	570’	(12) 12’	CG-7			(11)		5’	2:1	
	50	929’	-	425’									
	45	713’	795’	360’	(5) (6) (12) 11’								
	40	536’	593’	305’		CG-6							
	30	251’	273’	200’									

Figure 9.22: VDOT Geometric design standards

9.3 PERFORMANCE TARGETS AND MEASUREMENTS

“We achieve what we measure.” So goes a familiar saying. Measurement is also a way of assessing whether the decisions made were the right ones and evaluating what modifications might be necessary to improve upon them. Recommended performance measures are outlined in Figure 9.23.

Hull Street Road is a corridor rife with opportunity. Although change may not occur immediately, providing positive conditions for growth and enhancement are a critical first step.

The recommended transportation strategy increases the opportunity for choices in travel. It increases resident and worker access to destinations and opportunity. It supports the multiple students, educational, cultural and religious institutions along the corridor to expand their access and impact.

Achieving the goals of the plan is not necessarily quick nor easy. Simply adding sidewalk facilities along the corridor is not enough. This plan, and the component transportation element, examine the corridor comprehensively to support the many dimensions of its function and its community.

This plan, however, is just a beginning. Further analysis and refinement is anticipated and needed as the project progresses to and through implementation. Assessment against priorities and the associated performance measures will ensure that the changes made enhance and extend the ability of the corridor to serve the multiple goals of sustainable transportation, thriving communities, and a healthy environment.

Theme	Goal	Measure	Existing Condition (if known)	Progress		
				Short-Term	Medium-Term	Long-Term
Safety	Revitalize with safety foremost - no deaths, minimize injuries	Reductions in crashes	4 pedestrians injured; 126 total injuries; 1 fatality	3% reduction in injuries	6% reduction in injuries	10% reduction in injuries
	Create secure environments	Police incidents reduced		Maintain existing	3% reduction	6% reduction
		Reported crimes reduced		Maintain existing	3% reduction	6% reduction
		Use of the street at night - track 1 location annually		5% increase in peds/bike	7% increase in peds/bike	10% increase in peds/bike
Mobility	Make walking safe and attractive	Sidewalk/paths added		Sidewalks on 10% of corridor	Sidewalks on	Sidewalks on 100% of corridor
		Protected crossings added		Crossings at major generators (School, Food Lion)	Crossings every half-mile	Crossings every quarter-mile
		Sidewalks buffered		No buffer	Grass buffer	Tree buffer
	Make bicycling safe and attractive	Cycle Track or path added		10% of corridor	50% of corridor	100% of corridor
		Number of cyclists - track 1 location annually		0.5% of mode share	0.75% of mode share	1% of mode share
	Keep vehicle flows at acceptable levels	LOS D or better at intersections overall		LOS D	LOS D	LOS D
Economic Development	Retain and increase investment	Vacancy rate of existing buildings		Maintain existing	Vacancy rate decrease by 3%	Vacancy rate decrease by 6%
	Attract new residents	New housing units added	2010: 5,746 units	Additional 100 units	Additional 200 units	Additional 300 units
		Increase in home ownership	2010: 37% home owners	37% home owners (maintain 2010)	43% home owners	50% home owners
		Decrease housing vacancy	2010: 9% vacant	9% vacant (maintain 2010)	7% vacant	5% vacant
	Attract new developments	# of proposed developments				

Figure 9.23: Recommended Performance Targets and Measures

1 FHWA. "Safe Access is Good for Business." http://ops.fhwa.dot.gov/publications/amprimer/access_mgmt_primer.htm

9.4 SUMMARY OF CONCLUSIONS

- Transportation obstacles to the revitalization of Hull Street Road as a vibrant and distinctive multimodal mixed use corridor include the lack of pedestrian and bicycle facilities along and across the corridor, limited transit service area, high vehicle speeds, lack of uniform street edge or sense of place in the public realm, and the division created by the Chippenham Parkway interchange.
- Opportunities include cooperation and commitment of state, county and city agencies; accessibility to regional populations and markets; generally high vehicle levels of service; and a trend of declining traffic volumes on the corridor.
- Design principles for the corridor should create safe and attractive facilities for transit, bicycles and pedestrians while accommodating current levels of vehicular traffic. "Design vehicle" should include not only traditional vehicles, but also vulnerable pedestrians such as youth, disabled, and the elderly. Vehicle speeds should be managed through street design and the environmental cues it conveys to drivers.
- The recommended design establishes continuous, occasionally shared, bicycle and pedestrian facilities along the corridor; protected crossings across the corridor at all signalized intersections; and a uniform landscaped median while generally maintaining the current number of travel and turning lanes.
- Recommended reconfiguration of Chippenham Parkway interchange, subject to further processes, provides safe non-motorized accommodation through the interchange.
- Performance measures are recommended to track the impact and effectiveness of recommended modifications in achieving the revitalization vision for the corridor.

9.5 SPECIFIC NEAR-TERM RECOMMENDATIONS

- Restripe all existing pedestrian crossings, provide pedestrian crossings at intersections where sidewalks exist (e.g. Elkhardt), and explore means to provide pedestrian crossings at all signalized intersections.
- To adhere to the principles of access management on major arterials, specific driveways recommended for closure include:
- Roberson Lane - close median
- Food Lion - close median and access via Swanson Road
- China Dragon - close median and access via Felton Road
- Conduct necessary speed study(ies) to reduce speed in existing short segment of the corridor between Walmsley Road and Bryant Stratton College currently posted at 55 mph to 45 mph and consider further reductions at other proposed development nodes.
- De-designate Chippenham Parkway interchange under the overpass (e.g. Hull Street Road segment) as a limited access facility in order to permit pedestrian and bicycle travel continuously along the corridor.
- Program an interchange modification report to further explore concepts for interchange multimodal improvements.

HULL STREET CORRIDOR (US ROUTE 360)

FROM: HICKS/WALMSLEY (CHESTERFIELD COUNTY)
TO: ARIZONA DRIVE (CITY OF RICHMOND)

CHESTERFIELD COUNTY & CITY OF RICHMOND, VIRGINIA

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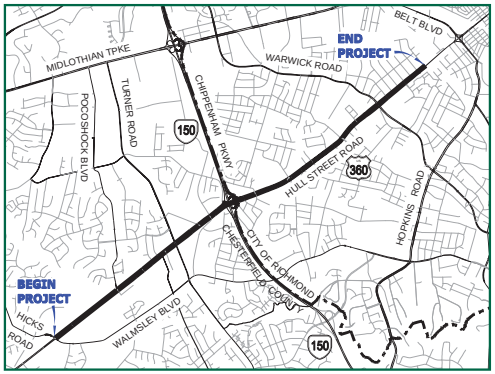

VICINITY MAP
SCALE: 1" = 6000'

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30% CONSTRUCTION PLANS

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RHODESIDE&HARWELL

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HULL STREET CORRIDOR
CHESTERFIELD COUNTY & CITY OF RICHMOND - VIRGINIA
COVER SHEET

DATE 1/18/13
DRAWN BY NJS
DESIGNED BY BTC
CHECKED BY BTC
SCALE AS SHOWN
JOB NO. 32994
SHEET NO. CR-100

L:\20\3\32994-Hull_Street_Corridor\DWG\Sheet\CD\32994C-CR100-COVR.dwg | Plotted on 1/16/2013 8:38 AM | by Nick Soucie

Figure 10.1: Cover of the preliminary design drawings (30% plans) for the Hull Street roadway and streetscape vision

10.0 ROADWAY, STREETSCAPE AND UTILITY PLANS

The roadway and streetscape design for Hull Street Road responds to the multi-modal transportation strategy described in Chapter 9 and the following key goals, consistent with the overall plan vision:

- Creation of a cohesive streetscape design which unifies the Hull Street Corridor in Chesterfield County and the City of Richmond.
- Achievement of overall safety and security throughout the corridor through enhanced lighting, ADA compliant walks, and incorporation of Crime Prevention Through Environmental Design (CPTED) principles through the streetscape.
- Development of an overall district character and series of node identities through selection of unique site furnishings, pedestrian-scale lighting, and year round native and adaptive plantings.
- Integration of stormwater Low Impact Development (LID) features throughout the streetscape to promote environmental/sustainable design.
- Enhancement of long term economic and aesthetic value through implemented of the transportation vision along the corridor length.

The following section (Section 10.1) described the purpose of the preliminary design drawings (30% plans), and the roadway and streetscape elements. Section 10.2 describes the Transportation Design Standards and Guidelines developed to accompany the 30% plans. Section 10.3 describes the utility infrastructure element of the 30% plans.

10.1 PRELIMINARY DESIGN (30% PLANS): ROADWAY AND STREETSCAPE DESIGN

A valuable planning tool that can assist the implementation of a revitalization plan is the development of preliminary design drawings (or 30% plans). These drawings allow for specific areas within a study area to be focused on in more detail and provide a good measurement for how a vision for revitalization can be implemented on a real-world scale. These preliminary design drawings also provide an opportunity to look at practical engineering related issues, potential impact to specific property owners, and the preparation of more refined cost estimates that strengthen future funding applications. Varying degrees of detail can be provided in such a document, however for the purposes of the Hull Street Corridor Revitalization Plan, the 30% plans have been prepared to focus on the Hull Street roadway, bicycle/pedestrian accommodations, landscaping and lighting, and utilities.

The drawings titled "Hull Street Corridor (US Route 360)" have been prepared as a separate document, however should be considered part of the overall Hull Street Corridor Revitalization Plan. This 30% plans generally include plan/detail information, typical roadway sections, civil plan sheets and landscape/lighting plan sheets. The civil plan sheets are focused on the site-specific (1"=40' scale) implementation of the recommended typical

[Preliminary design] drawings allow for specific areas within a study area to be focused on in more detail and provide a good measurement for how a vision for revitalization can be implemented on a real-world scale.

sections in each locality and revitalization plan's guiding principles, which include the illustration of the proposed geometric layout of roadway (traffic operations) and multi-modal transportation improvements.

The purpose of these preliminary engineering documents is to support future implementation efforts. Uses of this plan may include submission with funding applications/requests, development of a phasing plan that allows for construction in sections while maintaining a vision for the entire corridor, initiating right-of-way acquisition discussions, guiding the final engineering design documents, and as exhibits for early public meetings.

The landscape/lighting plan sheets focus on the streetscape improvements that could be implemented in conjunction with the roadway improvements to create a truly transformative experience for the travelers of Hull Street Road. Improvements have been proposed to conform to the optimum streetscape section with enhancement through the placement of plantings, site furnishings, and specialty lighting. Some of the key considerations for the landscaping/lighting elements of the 30% plans are listed below:

- Due to approximate locations of utilities, street trees have been placed in the preferred locations as shown in the approved sections with potential utility conflicts identified.
- Billboard view sheds will be maintained according to the Code of Virginia § 33.1-371.1. No trees shall be planted within the 700 linear foot view shed.
- Vehicular sight lines will be maintained along the Hull Street corridor. Within the City of Richmond limits, the ASHHTO guidelines will be implemented along the streetscape. Within Chesterfield County, VDOT guidelines will be implemented along the streetscape.
- Densely planted shrub masses will be located within the medians located in areas in which sightlines (vehicular and billboard) preclude the planting of trees or vegetation above 3 feet tall. All shrub plantings in the medians will be maintained at a maximum height of 2.5 feet to retain visibility.

Equally important in the use of these preliminary engineering plans is the understanding of those components which are shown as approximate only and not yet fully determined. Everything in the 30% plans is shown as approximate and subject to change during the final engineering design for construction. These preliminary plans should be utilized as a guidance document as they are based on aerial imagery, the county and city's GIS database, and limited supplemental survey using GPS technology. These sources of data are not considered accurate for the purpose of final engineering design and/or construction and should not be relied upon in any way for this use. Final engineering design will require the information shown in this plan to be verified through design survey, utility designation/location, utility owner coordination, property research/survey, environmental studies, traffic studies, geotechnical engineering and other all other civil engineering design practices necessary for approval by each governing jurisdiction and/or construction. The plans use the latest available aerial imagery, GIS data, and a supplemental GPS survey.

10.2 TRANSPORTATION DESIGN STANDARDS AND GUIDELINES

As described in Section 10.1, the 30% plans lay a strong foundation for implementation of the Hull Street Plan. They are, however, only the first step in civil engineering for the project. It will be critical that the next engineering phases continue to reflect the philosophy and key elements of a multi-modal corridor that is safe and attractive for pedestrians. For this reason, the Hull Street Plan includes Transportation Design Standards and Guidelines to accompany the 30% plans. The idea is that these guidelines will offer assistance to future transportation planners and engineers as implementation progresses. The Guidelines are presented in Appendix H of this report and are included within the 30% plans.

10.3 UTILITY INFRASTRUCTURE

With the implementation of roadway and streetscape improvements also comes the opportunity to improve roadside drainage conveyance and utility infrastructure. Improved drainage along the Hull Street corridor can enhance

Figure 10.2: Views of Hull Street in the Future. Top: Chesterfield County, bottom: City of Richmond

visual appeal as well as safety to all modes of travel along the corridor. Likewise, utility upgrades can also make future private investment more attractive to development prospects.

10.3.1 Drainage Infrastructure

The predominant roadside condition in Chesterfield County is wide paved shoulders and ditches to covey storm drainage to stream outfalls. The majority of the City of Richmond contains narrow shoulders with closely spaced entrances and/or pavement surface that continue from the travel way directly to the building frontage. These conditions, particularly in the City of Richmond, create areas of poorly draining roadway edges where ponding frequently occurs. These issues can be greatly improved upon as part of roadway and streetscape improvements.

Along with the installation of bicycle/ pedestrian facilities and streetscape improvements, the Hull Street improvement plan also includes the installation of 6" roadside barrier curb and gutter that not only provides physical separation from vehicles and pedestrians, but also provides an opportunity to convey roadside drainage to curb inlets. This allows storm water to sheet flow from the travel way into a gutter conveyance system, and ultimately into a storm sewer collection system that carries drainage underground to an adequate drainage outfall. This system will be designed to minimize ponding water along the travel way to improve vehicular safety during storm events while eliminating the nuisance of ponding water on adjacent commercial and residential sites. Chapter 8 describes low impact development methods that can be incorporated into the overall drainage infrastructure plan.

10.3.2 Utility Infrastructure

Within Chesterfield County, both developed and most undeveloped parcels have public water and wastewater lines immediately available. Development of some vacant parcels may require line extensions of reasonable length.

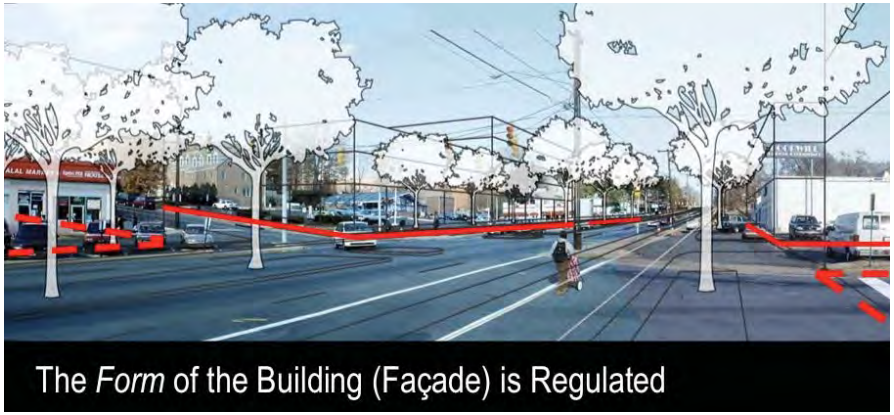
The development nodes within the County call for the predominately commercial uses mixed with residential uses. Since the existing public utilities in those areas were originally designed to support commercial uses, no system capacity or water pressure concerns have been identified at this early stage within the County. However, the additional proposed residential uses may warrant more analysis, once building square footages and unit counts have been determined.

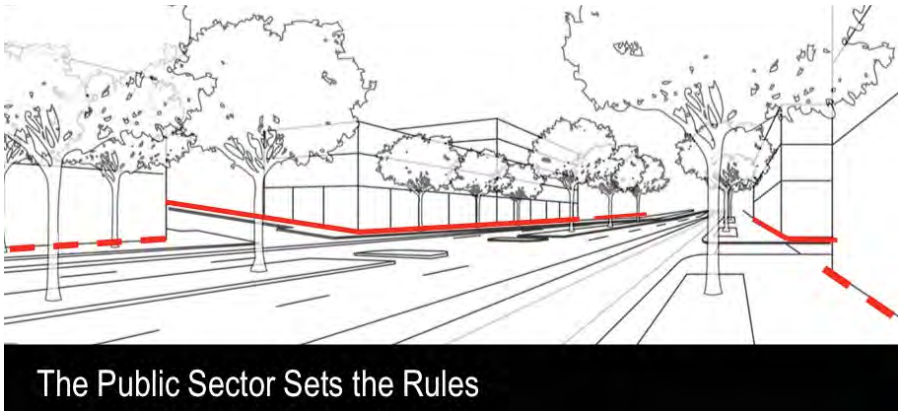
As with any redevelopment project which will include major roadway enhancements such as additional lanes and entrances, sidewalks and landscaping, there will be required adjustments of water valve boxes and sewer manhole covers, as well as the relocation and addition of fire hydrants. Major redevelopment of existing commercial areas may necessitate the abandonment, relocation, and/or installation of new water and wastewater lines.

Chesterfield County Department of Public Utilities (DPU) is beginning to look at the need to replace the existing 24" water line which runs along Hull Street Road, from Turner Road west to Walmsley Boulevard and beyond. That water line is over 49 years old, with some sections as much as 15 feet deep, and with the majority of the line beneath pavement. As the revitalization project moves forward, close coordination with the Chesterfield County DPU will be necessary, as the desired location for any replacement water line would be outside the ultimate right-of-way of Hull Street Road.

The City of Richmond contains severely aging utility infrastructure that will require improvements to support future growth of the Hull Street corridor and to maintain a well-functioning utility system. The existing water system is largely comprised of aging transite pipe that is in need of replacement with ductile iron pipe. After review of specific locations where removal and replacement is necessary with the Department of Public Utilities, the segments of needed replacement have been illustrated on the preliminary (30%) plans and include significant waterline improvements between the Chippenham interchange and Elkhart Road, Orcutt Road to Warwick Road, and Warwick Road to the future 30" transmission line near the railroad. The City currently has no planned upgrades of the sanitary sewer system, however adjustments will likely be required as part of the roadway improvements. There are no known combined sewers along the corridor and most sanitary lines are perpendicular crossings.

Both Chesterfield County and the City of Richmond will require that no trees are planted within 10' of any existing and/or proposed water and sewer lines as part of the streetscape improvements. During final engineering design, the exact location of all existing utility infrastructure will require subsurface utility exploration (SUE) to determine conflicts with roadway/ drainage improvements or landscape/streetscape improvements. Determination of relocation or design adjustments will be made at that time.





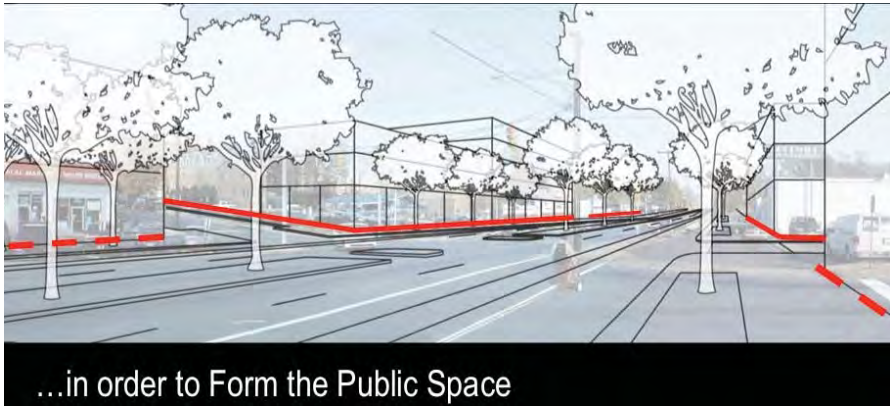


Figure 11.1: Illustration of the potential role of new zoning in improving the corridor

11.0 ZONING ANALYSIS AND RECOMMENDATIONS

Zoning and other development regulations are one of the primary implementation tools for encouraging revitalization and redevelopment in a community. Having an understanding of the existing zoning along the corridor and how it relates to the future revitalization plans is fundamental to implementation of those plans. Although public investment and market demand are also key, making sure that the regulations reinforce and support the community vision (and are easily understood), and that the process makes it easy for the private sector to build that vision, are among the first steps to revitalization. For the long-term, the private development and public investment in transportation and the public realm should work together to create the type of place the community has envisioned for the Hull Street corridor.

The analysis and recommendations provided in this section follow from the purpose of this corridor planning effort: to fundamentally change the character of the study area by promoting or enabling compact, mixed-use, transit-ready development. When reviewing zoning, it is important to consider not only what an ordinance permits and prohibits, but also what it requires. Are there intended physical outcomes or desired forms of development? Or is the primary focus to prevent certain uses from occurring next to one another, with the built form being determined using abstract statistical standards or as a result of unintended consequences?

Based on the findings described in this chapter, our conclusion is that the land use vision plan will not be achievable in either the City of Richmond or Chesterfield County under their existing zoning. However, we believe that, through the types of zoning and other land development modifications recommended at the conclusion of this chapter, both the City and the County can set the stage for phased implementation of the Hull Street revitalization vision.

11.1 GENERAL REGULATORY ISSUES AND OBSTACLES

In both the City and the County, the existing corridor zoning promotes "suburban sprawl"—emphasizing the separation of land uses through primarily single-use zones with large setbacks, buffers and low allowable lot coverage. There is no guidance for the physical aspects of place-making—in the ordinances, each zoning district begins with a list of allowable and conditional land uses and basic physical limitations such as: maximum heights; percentage of allowable lot coverage; and front, rear, and side yard requirements (setbacks). Resulting development under these requirements will take the form of whatever is "leftover." In addition, the zoning district boundaries are typically street centerlines—so the opposite sides of the street can be of fundamentally different character, with the street serving as a dividing line. There are no graphics provided, as either illustrations or regulatory standards, in these portions of the ordinances. Some specific issues are highlighted below.

In both the City and the County, the existing corridor zoning promotes "suburban sprawl"—emphasizing the separation of land uses through primarily single-use zones with large setbacks, buffers and low allowable lot coverage. There is no guidance for the physical aspects of place-making.

11.1.1 City of Richmond

The existing zoning districts along the corridor include a variety of business, office, manufacturing and residential uses.

- In the residential districts, the smallest allowable lot is 7500 square feet (sf) with a 60-foot minimum frontage width.
- Some of the residential districts do include general statements requiring "architectural variation" and "usable open space" which may improve aesthetics but do not address the underlying suburban form.
- In the business and office districts, the physical form resulting from the standards provided will be that of low-rise strip commercial centers or office parks. Most heights are limited to 35 feet, with some exceptions based on increased setbacks from lot lines.
- The manufacturing district is designated for light industrial, with an express prohibition of dwelling units.

11.1.2 Chesterfield County

The existing zoning classifications in the County portion of the study area are comparable to those in the City, with the addition of an agricultural district.

- In the office and business districts, there is some recognition of scale and character differences based on the intended "service area"—whether the businesses are expected to draw from the surrounding neighborhoods or the larger community—with some requirements that these districts be "compatible" with the adjacent residential areas, primarily through setbacks and buffers. Although flexible in permitting a range of use types and forms, the C-5 district is also potentially the most problematic in the study area. It is expressly intended for auto-oriented uses (and is also the County's designated locale for "adult businesses"), enabling the "highway frontage sprawl" that is common on the outskirts of many American cities.
- The agricultural district is flexible—it allows single-family residential uses by right, along with agricultural uses such as farming and forestry (but no livestock); however, it has a minimum lot size of 5 acres, with a 20% maximum lot coverage and a 150-foot front-yard setback and 40-foot side-yards. It also allows several conditional uses that may be less than desirable in the context of future redevelopment, including landfills, gravel pits, and airports.

11.1.3 General Ordinance Organization and Format

Neither jurisdiction's ordinance can be easily understood by a general audience. The ordinances do not use headers or footers to inform the user of where they are within the document. There are very few graphics. There are many pages listing various and particular land uses rather than consolidated categories identified through tables.

11.2 PRECEDENTS FOR A NEW REGULATORY APPROACH ON THE CORRIDOR

Both the City and County have precedents for the creation of mixed-use zoning districts for unique circumstances or contexts, although none of these districts are currently in place within the study area. These precedents could be the basis for new regulations addressing the Hull Street Plan implementation.

11.2.1 City of Richmond

The City has created a series of districts with the general titles of urban residential, urban business, and mixed-use business. These districts each begin with a clear description of the intent of the district, typically recognizing the traditional urban form that exists in many parts of neighborhood main streets with shopfront buildings and no setback, and residences above commercial uses. In the CBD/downtown districts, the City has used maps (included in the body of the ordinance) to designate frontages with specific requirements, such as pedestrian-oriented retail. These zoning districts are currently used to promote compatible urban infill and redevelopment for older parts of the city.

The City has also made extensive use of graphics in other portions of the zoning ordinance, such as parking and landscaping requirements.

These precedents provide the opportunity to create some new form-based zoning districts, using graphics and text, to specifically enable the redevelopment of the Hull Street corridor, either along its full length or in key locations identified through this planning process, into a more urban, pedestrian-friendly form.

11.2.2 Chesterfield County

The County has adopted a "floating" Traditional Neighborhood Development (TND) District that includes an application and approval process along with the requirements for a neighborhood master plan and design guidelines. Although this district requires the owner/developer to request a rezoning, it could provide the foundation for new (potentially smaller scale) mixed-use districts in locations targeted for redevelopment in conjunction with the future corridor transportation improvements.

11.3 COMPARING THE EXISTING ZONING TO THE HULL STREET REVITALIZATION VISION PLAN

In addition to the broad issues identified above, this report compares the parcel-specific zoning to the Hull Street vision concept plans presented in Chapter 7, asking the basic questions:

- Which, if any, of these proposed scenarios could be developed, by-right, under the existing zoning (if supported by market conditions)?
- Are the proposed types of uses allowed?
- Would the development standards produce the types of physical places envisioned by the concept plans?
- Would the standards require place-making development or merely "allow" it as one choice among many?

The following sections highlight some potential zoning implementation issues within the proposed activity centers in the corridor vision, but should not be considered an exhaustive accounting of potential conflicts between the conceptual vision plans and the existing zoning.

11.3.1 Richmond Town and Family Entertainment Center

The current zoning districts in this area are primarily B-3, R-48, and OS, with a small amount of land area designated B-2 and R-MH.

- In B-2 and B-3, the list of permitted uses is quite extensive, accommodating most, if not all, of those uses envisioned for the Town and Family Entertainment Center. The most likely hurdle to implementing the vision concept plan in this area would be the proposed number of, and configurations for, dwellings, due to regulatory limitations on street-level units and on the total residential floor area (limited to three-times the area of other principal uses). The height restrictions could also come into play in the B-3 district with regard to overall site configuration, since an additional one-foot setback is required from each lot line for each foot of height from 35 to 60 feet, forcing taller buildings to the center of the lot, away from the street frontage.
- In the OS zone, residential townhouses and multifamily dwellings are not permitted uses, regardless of the site configuration.
- The R-48 zone would generally allow the proposed townhouse and multifamily apartments; however, some of the standards, such as the required 25-foot front yard, would not allow much of the proposed site configurations, such as a more compact "brownstone" arrangement with the buildings located at the back of the sidewalk. In addition, depending on the manner in which they are calculated for townhouse and multifamily developments, the maximum density, minimum lot size, usable open space, and lot coverage requirements could also be problematic for the implementation of this conceptual development plan.
- The R-MH zone could accommodate the envisioned townhouses as a use category (following the R-6 standards), but not in terms of the density, lot size, usable open space, and lot coverage requirements.

11.3.2 Richmond Design/Health and Wellness Center

The current zoning districts in this area are primarily B-2 and B-3, with a small amount of land area designated RO-1 and R-43.

- As in the Town and Family Entertainment Center described above, the B-2 and B-3 zones should easily accommodate the uses envisioned for this activity center. Any limitations would most likely be those related to site configuration—although the current rules would seem to allow the proposed compact, walkable block plan with street-oriented buildings, they would not necessarily require it. Limitations based on FAR and parking requirements could also be problematic.
- The R-43 zone can accommodate the multi-family dwelling uses; however, some of the yard and usable open space requirements might be difficult to achieve within the vision plan configurations.
- As envisioned in the concept plan, the small area designated RO-1 would serve as a transition/buffer between the more intense core of the activity center and the adjacent single-family neighborhood. The proposed residential uses would be permitted; however, the maximum height (25 feet), minimum lot size, front yard, usable open space, and lot coverage requirements would be impediments to achieving the vision.

11.3.3 Chesterfield County Multi-Cultural Market Center

The current zoning in this activity center is primarily C-5, with a small amount of land area designated C-3, I-1, and A.

The intent of the C-5 zone is auto-oriented uses; however, it permits everything allowed in C-3, which clearly promotes the creation of community-scale, mixed-use projects with integrated design controls, with an emphasis on compatibility with surrounding residential development; however, specific standards are not included. (It should be noted that many of the allowable uses in this zone could be incompatible with the character of development envisioned under this concept plan.) The "marketplace" – whether an open air pavilion, enclosed building, and /or public facility, could rules about "outdoor display and sale". The land area designated for townhouse and apartments on the concept plan would exceed the gross acreage limitation for this use established for C-3 and C-5. In addition, the sites may not meet the minimum acreage size for mixed-use projects with a residential component.

11.3.4 Chesterfield County Live and Learn Center

The current zoning in this activity center is primarily C-3, with a small amount of land area designated A.

- As described above, the C-3 zone provides great flexibility in regard to use, although there are restrictions related to minimum project size and percentage of project allowed for residential uses that could be impediments to the full implementation of this concept plan.

11.3.5 Analysis Conclusion

Although fragments of the Hull Street Plan could be implemented within the existing zoning and development standards, much would be prohibited, leading to a piecemeal approach to revitalizing the corridor, with potential individual redevelopment projects having no predictable relationship to adjacent properties or to the community vision. In the following section we provide recommendations for changes in zoning and development regulations, for both the short and long term, to further implementation of the corridor vision plan.

11.4 VISION CONCEPT PLANS: BUILDING FORM & FUNCTION RECOMMENDATIONS

11.4.1 Importance of Appropriate Building Form and Function for the Vision Plans

The Hull Street Corridor Vision Plan envisions certain building forms and functions. These have been located to fulfill specific urban design purposes while providing an opportunity for a range of uses. The recommended building forms are provided below, along with parameters for their distribution and siting within each activity center.

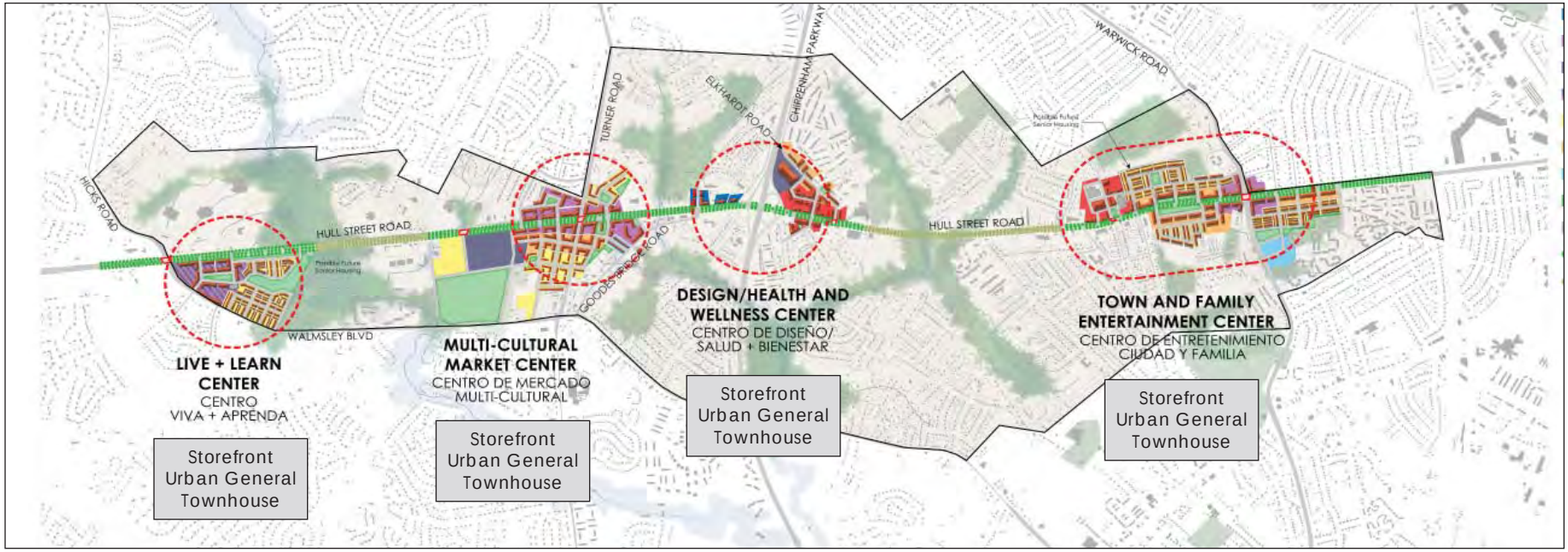


Figure 11.2: Conceptual Building Forms

The Building Form and Function types are not as specific/limiting regarding use as are the Improvements Development Plans—which illustrate one potential distribution of uses (per broad conventional zoning categories).

The Building Form/Function types should have tight parameters for a building's form, mainly for its sidewalk-facing elevation (or facade), and generally less for its internal use. Properties designated in the Improvements Development Plans as Commercial/Office/Mixed-Use have use flexibility. The Townhouse form and function buildings (shown on the vision plan as smaller, thinner building footprints, generally with outbuildings) are sited for specific urban design reasons (often to transition to adjacent single family detached neighborhoods) and should remain largely unchanged.

11.4.2 Appropriate Building Form and Siting Guidelines

Storefront: this form mandates retail storefronts on the ground floor and should be used sparingly and only at high priority/high traffic frontages. Where there is not a clear and high demand for retail, the requirement could be for the form of a retail storefront, allowing other commercial uses within.

Urban General: this form is very flexible regarding use, allowing everything from all office or all residential, to vertical mixed use (with retail uses not being allowed above the ground floor). The Urban General combines physical predictability and market flexibility, providing the "rooftops" to support retail and place-making. This form may comprise a large portion of any activity center. It should not be sited directly adjacent to single-family detached houses.

Townhouse: this single-family attached form provides the full advantages of a single family house in a land- and energy-efficient package. This building form is useful to transition to single-family detached neighborhoods. It is also more suitable to fronting on more active areas and busier streets than a traditional detached single-family house. Townhouses may make up the bulk of a less intense activity center.

General parameters for Building Forms are on the following pages.

11.5 BUILDING FORM/FUNCTION CONCEPTS

11.5.1 Storefront Frontages

This is the basic American Main Street frontage, once common in towns and downtowns across the United States. These are multi-story buildings sitting at the back of the sidewalk with regular and closely spaced entrances and windows across the facade. Typical Main Street environments have buildings lined up shoulder to shoulder, filling out a block.

This frontage is located in the most intense portions of the vision plan activity centers, often fronting Hull Street. Storefront buildings can accommodate a range of uses, with retail or commercial ground floors and office or residential upper stories.

Storefronts should only be required in limited locations, where significant pedestrian traffic is anticipated, with easy access for autos, transit and bicycles. Where there is not a strong market demand for retail, other commercial uses should be allowed within the storefront/ground floor.

BUILDING FORM PARAMETERS

Maximum Building Height: 3-4 stories

Facade Transparency:
Ground floor 50-90%;
Upper floors 20-70%

First Floor Elevation: Maximum -18 inches above sidewalk

Permitted Projections: Awnings, bay windows, shopfronts, balconies, and signs

Minimum First Floor Ceiling Height: 12-20 feet above sidewalk

Street Frontage Build-To: Minimum 80% of the street frontage

Minimum Private Open Area: 10% of buildable area, at or above grade

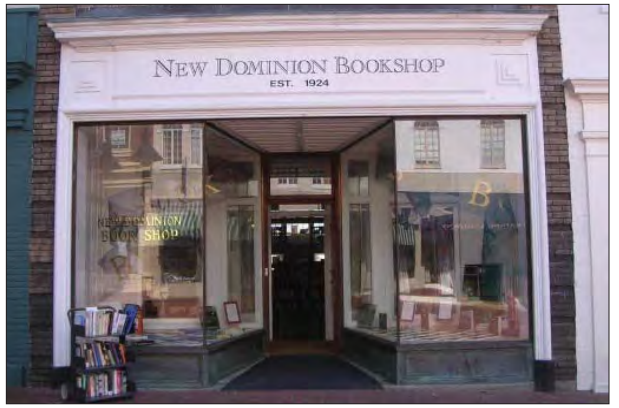


Figure 11.3: Storefront Frontages

11.5.2 Urban General Frontages

This is a basic urban street frontage. The primary form is a multi-story building with windows across the facade and one or more entrances along the street. Urban General allows a range of uses, including retail shopfronts, office or residential buildings, and/or mixed-use buildings. Thus, it provides the flexibility needed to accommodate current and future market demands.

The character and intensity of this frontage varies according to the placement of the required building line. Buildings may be placed up to the sidewalk, or further back with dooryard gardens and/or front porches. The buildings define the street-space, but often with a greener edge than that found in the Storefront Frontage.

BUILDING FORM PARAMETERS

Maximum Building Height: 3-4 stories

Facade Transparency:
Ground floor 33-70% (if retail 50-70%);
Upper floors 25-70%

First Floor Elevation: Minimum 0-3 feet above sidewalk, depending on use

Permitted Projections: Awnings, covered entrances, bay windows, shopfronts, balconies, and signs

Minimum First Floor Ceiling Height: 12-15 feet above sidewalk, depending on use

Street Frontage Build-To: Minimum 75% of the street frontage

Minimum Private Open Area: 15% of buildable area, at or above grade

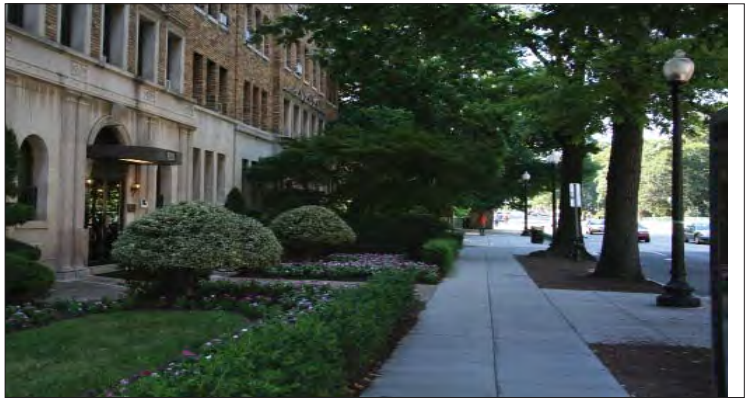


Figure 11.4: Urban General Frontages

11.5.3 Townhouse Frontages

This residential frontage is of moderate intensity, created by a series of smaller attached structures—configured as single-family or stacked flats. This building form has regular street-space entrances, as frequently as 18 feet.

The character and intensity of this frontage varies depending on the street-space and the location of the required building line—the buildings may be placed up to the sidewalk with stoops, or further back with dooryard gardens and/or front porches.

The Townhouse (or rowhouse) can be used to transition down in scale to abutting single-family neighborhoods. Townhouses with no rear yard and garage (having parking within the main building) should not make up more than half (1/2) of activity center's Townhouses. The pedestrian activity along these frontages will vary considerably based on the time of day and day of the week.

BUILDING FORM PARAMETERS

Maximum Building Height: 2-3 stories, excluding English basements and attic stories

Facade Transparency: 25-60%

First Floor Elevation: Minimum 3 feet, maximum 8 feet above sidewalk

Permitted Projections: Awnings, bay windows, stoops, porches and balconies

Minimum First Floor Ceiling Height: 9 feet clear, 12 feet above sidewalk

Percentage Build-To: Minimum 65% of the street frontage

Continuous Building Frontage: Maximum 120 feet per building

Minimum Private Open Area: 15% of buildable area, primarily at grade

Figure 11.5: Townhouse Frontages

11.5.4 Public Open Space Concepts

The first public space for any healthy town, neighborhood or city is the pedestrian-friendly street. While the balance between throughput/transport and context/place (generally the auto versus the pedestrian) shifts as appropriate from local neighborhood scale streets to more urban scale streets, pedestrians comfort must be maintained in walkable urban areas.

Squares, Civic Greens and Plazas should be situated at prominent locations and dedicated to important events or citizens.

Neighborhood Greens and Pocket Parks should be distributed throughout, such that no resident of an activity center is more than a 5-minute walk away.

Parks, active recreation, and natural landscape should be available for all residents, but not located within the core of the activity centers.

PUBLIC OPEN SPACE PARAMETERS

Public Perimeter: Minimum 60% of their perimeter fronting public rights-of-way and 75% surrounded by canopy street trees.

Shape and Dimensions: Tract dimensions not narrower than a 1:5 ratio and Minimum width or breadth dimension 25 feet.

Clear View: Required clear view through the public open space (from two to seven feet in height), for safety and urban design purposes.

Functions: no active recreation structures such as ball fields and courts

Storm-water: design should incorporate pervious paving materials (to allow oxygen for tree roots and absorb storm-water)

Figure 11.6: Public Open Space Concepts

11.6 RECOMMENDATIONS FOR DEVELOPMENT REGULATIONS

11.6.1 Best Practices for Implementation

The zoning analysis makes clear that regulations in both jurisdictions do not foster/promote place-making (mixed uses, pedestrian-friendly buildings close to and aligned with the sidewalk) and appropriate intensity. They instead allow low-intensity, land inefficient, auto dominated uses and building forms that will not create synergy and promote growth. The existing development regulations work against the stated project goals.

The purpose of the corridor revitalization plan is to provide a comprehensive, implementation-oriented strategy and guide for creating quality of life improvements on the corridor. These improvements will include multi-modal transportation infrastructure upgrades, beautification strategies, housing improvements, job opportunities, recreation/environmental protection investments, and building a constituency to champion long-term change. The plan will recommend market-driven strategies and incentives to attract both public and private commercial, mixed use and residential development to key locations in the corridor as well as enhance the experience of travel along the corridor by foot, bike, bus, and car.

The Hull Street Plan calls for new town or neighborhood activity centers with mixed-use, residential, and community buildings and a complementary relationship with the existing neighborhoods. The Plan is based on the creation of synergy between commercial and residential functions, and the significant pass-by traffic on Hull Street. The visions for the activity centers call for more intensive use of the parcels—a clear incentive for private sector redevelopment and the base for future multimodal transportation options.

America's great towns, cities, and neighborhoods did not happen by accident—they were planned. Implementation of the Hull Street vision will require development regulations that support place-making, appropriate mixed-use and residential building forms, parking requirements, and complete streets. They must also disincentivize new auto-dominated forms that will damage the corridor's real estate values and potential growth.

Both municipalities should begin thinking about land use, subdivision, and thoroughfare regulations in an integrated, holistic manner. This is fundamental to place-making—these regulations work together to shape development opportunities and create economically viable, high quality places.

Commitment to a master plan for each of these activity centers, pairing enabling development regulations with streetscape projects will create a better development environment, and will significantly lower the bar for private sector development interests to act within the corridor.

In order to transform the corridor, both the City and County should consider adopting a new regulatory approach for a "special revitalization district" in their respective sections of the Hull Street corridor. Such an approach should have a greater emphasis on place-making, with a primary focus on physical form, and a secondary focus on land uses.

11.6.2 Best Practice for Place-Making Development Regulations

Place-making, form-based development regulations are being increasingly used in Virginia and across the United States. The principal regulatory sections of such an ordinance are described below.

A. The Regulating Plan

1. A Regulating Plan is the application key for the Code. It provides a public space master plan with specific information on development parameters for each parcel within its boundaries. The Regulating Plan includes the specific details necessary to create the physical form and character of a mixed-use, pedestrian-oriented place.
2. The Regulating Plan shows how each lot relates to the street-space (streets, squares/civic greens, pedestrian pathways, etc.) and the surrounding neighborhood. The Regulating Plan may identify additional regulations for lots in specific locations.

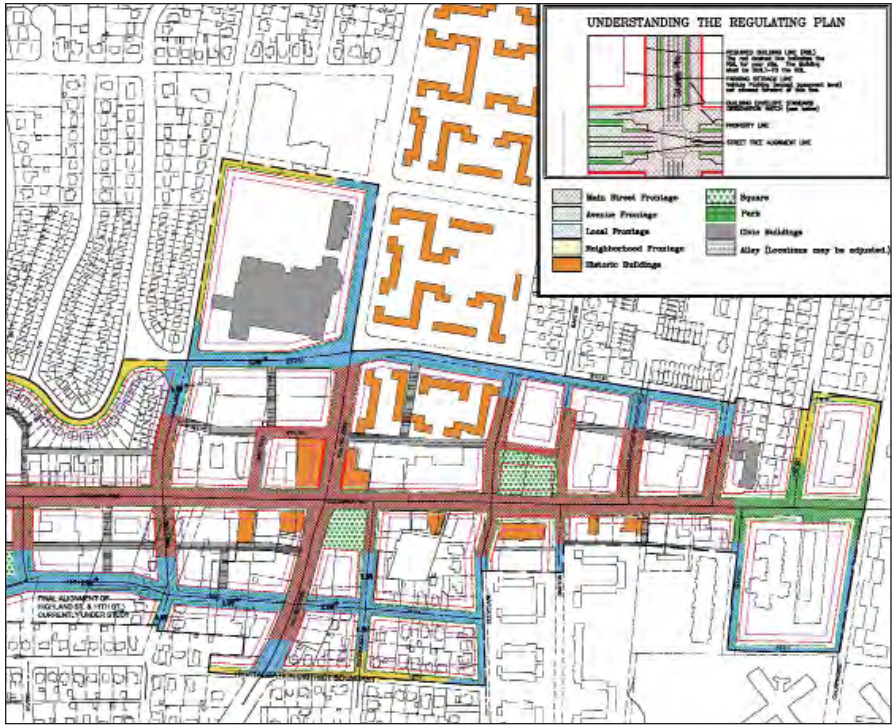


Figure 11.7: Example Regulating Plan

B. The Building Form Standards

1. The primary intent of the Building Form Standards (BFS) is to shape the street-space—its specific physical and functional character—through placement and form controls on buildings as they frame the street-space or public realm. The secondary intent of the Building Form Standards is to ensure that the buildings cooperate to form a functioning, sustainable, block structure. These BFS aim for the minimum level of control necessary to meet those goals. Regulating by street frontage produces a coherent and integrated street-space with less interference in the private land use activities within the lots.

2. The Building Form Standards establish basic parameters governing building form, including the buildable envelope (in three dimensions) and certain permitted and/or required elements, such as storefronts, balconies, and street walls. The Building Form Standards establish both the boundaries within which things may be done and specific things that must be done. The applicable standard for a building site is determined by the street frontage designated on the Regulating Plan.

C. The Street Type Specifications

The Street Type Specifications illustrate typical configurations for streets within the district. They address vehicular traffic lane widths, curb radii, sidewalk and tree planting area dimensions, and on-street parking configurations.

D. The Urban-Space Standards

The purpose of the Urban-Space Standards is to ensure coherent street-space and to assist builders and owners with understanding the relationship between the public space of the district and their own building. These standards set the parameters for the placement of street-trees and other amenities or furnishings (e.g., benches, signs, street lights, etc.) within the street-space.

E. The Architectural Standards

The goal of the Architectural Standards is a coherent and quality building character that is complementary to the best local traditions. The architectural standards govern a building's exterior elements regardless of the Building Form Standard and set the parameters for allowable materials, configurations, and techniques.

F. Building Function Standards

The Building Function Standards provide for the uses allowed on ground floors and in upper floors, correlated with each Building Form Standard. Because the Code emphasizes form more than use, it includes fewer, broader categories than those provided in the zoning ordinance.

G. Parking and Loading Standards

Parking and Loading Standards provide goals and requirements to promote a "park once" environment through shared parking and encourage a pedestrian-friendly district.

H. Definitions

Certain terms in this type of Code are used in very specific ways, often excluding some of the meanings of common usage.

11.7 REGULATIONS MUST BE BASED ON A COMMUNITY VISION

While these zoning recommendations include changes in the regulatory approach of both jurisdictions, such approaches are no longer "cutting edge" and/or experimental techniques, nationally or in the state of Virginia. In concert with public-participation planning, they are an efficient and proven means to promote both private sector investment and community buy-in.

Existing standards could be amended in order to allow or enable more compact, walkable, mixed-use, interconnected development patterns, if the jurisdictions are not prepared to require them outright. It is important to calculate usable open space, etc. at the district, as opposed to lot, level to enable aggregated community benefits which would contribute to an overall "sense of place."

For most of the envisioned activity center development, pushing the buildings up to the street would not only help to define the pedestrian space, it would also provide greater "breathing room" at the rear of the lot, providing greater protection for the abutting single-family residential property owners.

Streetscape and street geometry improvements will provide evidence of public sector commitment and provide some encouragement and reassurance to private sector investors. However, the absence of master plans for each activity center and supportive development regulations, the limited predictability for adjacent parcels will shift the burden toward large scale private developers to do a coherent, large scale master plans for the activity center areas.

11.7.1 Near Term Changes to Promote Implementation

If a large-scale rezoning is not a viable option (politically, legally, or economically) at the present time, there are lesser steps the City and County might consider. All assume the adoption and initial implementation of the recommended streetscape improvements in the Hull Street Plan as the foundation for any progress.

11.7.2 City of Richmond

Framework for overall approach:

- **Overlay or Parallel Zone:** One approach would be to adopt the Plans and Regulations as an Overlay or Parallel Zone (as per Arlington County's Form-Based Code for Columbia Pike). This is an incentivized optional/parallel development process, in which the underlying zoning remains in place and the increased development potential in the concept plans can only be achieved if the new development standards are followed. In concert with a streamlined and predictable review process, this will ideally be significant enough an incentive to obviate development using the underlying zoning.
- **Conceptual Adoption of the Plans:** A second approach would be to adopt the Plans and Regulations conceptually, with all the market-based incentives of the conceptual vision plans (if the new proposal meets objective measures of connectivity and street grid, as mentioned above) and a stated favorable disposition toward such consistent development applications. For Richmond, this might be carried out through the Plan of Development process.

Incremental adjustments and future planning efforts:

Incremental changes to improve the development environment include:

- Use existing urban revitalization regulations. Richmond has several districts it is currently using in urban revitalization areas that could be applied here with minimal adaptation (specifically: urban residential, urban business, and mixed-use business districts)
- Apply innovative parking strategies already in use elsewhere in the City, such as park once policies and supportive parking standards – standards connected to development consistent with the vision concept plans and relative to the desired situation versus the existing one.
- Adopt standards and guidelines for existing business expansion in a form consistent with and/or working toward the vision concept plan's place-making goals.

- Update sign regulations along and around the corridor, moving them toward the goals of the vision concept plans; more urban or "Main Street" within the activity center areas and more residential/discreet within the residential in-between areas. Sign regulations could vary by activity center, based on the desired character. For example, the Town and Family Entertainment Center might allow illuminated or neon signs (only near its core.)
- Provide tax incentives for development consistent with and/or working toward the vision concept plan's place-making goals.

Policy toward areas between the activity centers:

The overall conceptual approach of the vision concept plan is that commerce be concentrated in the activity centers, where there will be synergy with the adjacent commerce (especially retail) and support from compact/concentrated new residential development above and around it. The existing surrounding neighborhoods will provide additional market support to, and benefit from, the adjacent activity center amenities. The existing pattern of loosely distributed commercial uses means that there will be some commercial activity along the length of the corridor for the foreseeable future. We recommend that, in addition to extra care being taken to ensure compatibility between existing businesses and the adjacent residences, a set of broad and basic standards be applied, corridor-wide, within which all new construction should abide, such as:

- A reasonable build-to or setback line relative to Hull Street, which will begin to define the street space.
- A set-back and height transition from existing single-family detached neighborhoods (rear and side lot lines)
- Parking setbacks
- Signage (more discreet/subdued than allowed within the activity enters)
- Façade materials (a broad, permissive list, banning only materials deemed obnoxious)
- Street-tree planting requirements

11.7.3 Chesterfield County

Conceptual adoption of the plans:

One approach would be to adopt the plans and regulations conceptually, with all the market-based incentives of the vision concept plans (if the new proposal meets objective measures of connectivity and street grid, as mentioned above) and a stated favorable disposition toward such consistent development applications.

Future planning efforts:

Under the next phase of the Hull Street Planning process the County could consider adopting these plans as Revitalization Plans and/or Special Area Plans. The County might also make the following incremental changes to improve the development environment.

- Update/modify the existing TND ordinance to enable the vision plan concepts as a way to support the surrounding neighborhoods.
- Adopt innovative parking strategies already in use elsewhere in the County, such as park once policies and supportive parking standards—standards connected to development consistent with the vision plan concepts—and relative to the desired situation versus the existing one.
- Adopt standards/guidelines for existing business expansion in a form consistent with and/or working toward the Hull Street Plan's place-making goals.
- Provide tax incentives for development consistent with and/or working toward the Hull Street Plan's place-making goals.
- Update sign regulations along and around the corridor, moving them toward the goals of the Hull Street Plan; more urban/Main-Street within the activity center areas and more residential/discreet within the residential in-between areas.

Figure 12.1: Visualization of the Chippenham Parkway Underpass

12.0 REVITALIZATION AND IMPLEMENTATION STRATEGY

The revitalization and implementation strategy is designed to guide the Hull Street transition from vision plan to reality. It will be a long, multi-step process, requiring long-term commitment from numerous stakeholders and interested parties; however each step can demonstrate visible change and improvement to the quality of life for residents, and property and business owners. This chapter reiterates the Hull Street Plan intent, and then outlines the key implementation strategies that emerged from the planning process. For each strategy there are a variety of immediate-, short-, mid-, and long-term actions that can promote realization of the corridor vision. Figure 12.1 lists these actions while defining responsible parties and priorities.

12.1 PLAN INTENT

The Hull Street Corridor Revitalization Plan is intended to provide a comprehensive, implementation-oriented strategy for creating sound, economically sustainable quality of life and transportation enhancements along the Hull Street corridor. The improvements include the provision of strong and safe multi-modal connections, transportation infrastructure upgrades, visual and physical enhancements, improved housing options, job opportunities, and recreational and environmental investments—all of the provisions needed to transform Hull Street from a roadway to a place.

12.2 IMPLEMENTATION STRATEGIES

Key long term implementation strategies to achieve the Plan's intent and goals are:

1. Build resident and business coalitions to support the Plan's vision over time and continue to advocate for implementation.
2. Improve the overall appearance of the corridor to increase its viability as a live, work and play environment.
3. Grow existing businesses on the corridor and attract new businesses and jobs.
4. Focus future growth and development in four mixed-use activity centers.
5. Promote safe and convenient pedestrian, bicycle and transit activity in the study area.
6. Expand accessibility to a range of open space types and "green" the corridor.
7. Invest in the people who currently live in the study area, and attract new people to the area.

The revitalization and implementation strategy is designed to guide the Hull Street transition from vision plan to reality.

12.3 IMPLEMENTATION ACTION PLAN

The implementation action plan is summarized in the implementation matrix shown in Figure 12.1. Key actions are organized into the implementation strategy categories. The "Responsible Party" column refers to the organization, department, or individual who should take the lead role in initiating and guiding that action. For each action, however, there will need to be a much larger constituency of support than just the party listed as responsible. The "Schedule" column offers assistance in prioritizing the actions. The "immediate" items are those that can be begun or accomplished completely within the first year after the Plan is complete. It will be important to begin demonstrating change and follow through as soon as possible in order to maintain enthusiasm and support in the community. "Short term" items are those that should occur approximately within the first 3-5 years. "Mid term" are recommendations for approximately the next 5-7 years. "Long term" are those items that will likely take more than 7 years to accomplish. Finally, the last two columns in the matrix include estimated (order of magnitude) costs for each implementation action where relevant, as well as potential funding sources for those actions.

This implementation matrix should be revisited annually to evaluate implementation progress, reassign responsibilities as necessary, and reconsider schedules and priorities. At that time, additional items can also be added to the matrix or reorganized within the matrix. Ideally the annual evaluation of the implementation matrix will be a joint process with the City of Richmond, Chesterfield County, LISC, and other key participants.

	ACTION	RESPONSIBLE PARTY*	SCHEDULE	COST ESTIMATE	POTENTIAL FUNDING SOURCES*
Immediate Actions to Jumpstart Change					
A	Consider hiring a Hull Street Program Manager in each jurisdiction (or one that can represent both the City and County) to be responsible for coordinating the immediate actions defined in the Plan, to monitor plan progress, to identify and write grants for program funding, to guide and direct implementation steps, and to plan and program events.	City of Richmond and Chesterfield County Planning Departments	Immediate	$50-75,000 per jurisdiction	Staff position(s) funded by the City and County
B	Pass resolutions in support of the Hull Street Corridor Revitalization Plan in each jurisdiction.	Project Team	Immediate	N/A	N/A
C	Pursue potential federal funding associated with the HUD/DOT grant to begin implementation.	Project Team, led by new Program Manager (see A above)	Immediate	N/A	N/A
D	Strategize likely "low hanging fruit" in each jurisdiction to jumpstart change.	Project team/ new Program Manager	Immediate	N/A	N/A
E	Define the regulatory framework and "marketing" strategy needed for implementation.	Project team; Planning and Economic Development Departments for City and County	Immediate	N/A	N/A
F	Present the Revitalization Plan to the local chapter of the Urban Land Institute (ULI), regional Chamber of Commerce, and other groups with strong connections to the development community.	Project team/ new Program Manager	Immediate	N/A	N/A
G	Reactivate the negotiation process with VDOT regarding clean-up and/or screening of the Chippenham interchange storage site.	Chesterfield Transportation	Immediate	N/A	N/A
H	Conduct a code enforcement sweep	Richmond PDR and Chesterfield Planning	Immediate	N/A	N/A

Figure 12.2: Implementation Matrix

	ACTION	RESPONSIBLE PARTY*	SCHEDULE	COST ESTIMATE	POTENTIAL FUNDING SOURCES*
H	Conduct a code enforcement sweep	Richmond PDR and Chesterfield Planning	Immediate	N/A	N/A
Strategy #1: Build Coalitions					
A	Establish a Hull Street Champions group, made up of residents, business/property owners, and other community leaders from Richmond and Chesterfield.	Project Team/ new Program Manager	Short term	N/A	N/A
B	Initiate a Hull Street Marketing Coalition with representatives from the local and regional business networks (Chamber of Commerce, Hull Street Business Association, Merchants Club of Virginia, etc.).	Area business organizations; Richmond and Chesterfield ED	Short term	$5,000-$10,000	Combined economic development funds and membership funds
Strategy #2: Improve the Overall Appearance of the Corridor					
A	Organize a community clean-up/paint up/ beautification initiative.	Hull Street Champions group (see strategy #1)	Immediate	$25,000-$50,000	Corridor businesses & institutions; Dominion Virginia Power; Home Depot
B	Reactivate negotiations with VDOT regarding clean-up of Chippenham interchange storage site. (Also noted under immediate actions to jumpstart change.)	Chesterfield Transportation	Immediate	N/A	N/A
C	Establish a program for consistently promoting code enforcement and corridor maintenance, similar to the former neighborhoods in bloom program	Richmond			

	ACTION	RESPONSIBLE PARTY*	SCHEDULE	COST ESTIMATE	POTENTIAL FUNDING SOURCES*
D	Work individually with businesses to promote use of existing CARE building improvement loans available through the City of Richmond. Establish a new program to provide low-cost architectural services to help property owners make design improvements consistent with the Hull Street Plan. Publicize these programs. (Also noted under Strategy #3.)	Richmond ED and Chesterfield ED	Short term	($2,000-$3,000 x 5-10 loans/year)	CARE and other existing home improvement local programs
E	Initiate sidewalk/streetscape construction at key activity center locations (as may be possible without making significant roadway improvements). (Also noted under Strategy #5.)	Richmond PDR and ED; Chesterfield Planning and ED	Mid term	$10,000-$30,000	CMAQ, HSIP, TAP, RSTP, RSP, local, and/ or private funds
F	Establish signage standards for the corridor, along with architectural and site design standards consistent with the Hull Street Plan. (Described further with code updates under Strategy #4.)	Richmond PDR and Chesterfield Planning	Mid term	$250,000 - $750,000	City and County Planning budgets
G	Establish a Public Art Program in coordination with Virginia Commonwealth University's Art Department to define both permanent and temporary art installation programs (possibly competitions) for the corridor.	Hull Street Champions group and Hull Street Marketing Coalition	Mid term	$ 50,000 to $150,000 annually	National Endowment for the Arts "Art Works"; Virginia Commission for the Arts
Strategy #3: Grow Existing Businesses and Attract New Businesses and Jobs					
A	Enforce existing codes related to building and site appearance and maintenance.	Richmond PDR and Chesterfield Planning	Immediate	$40,000-$60,000/year	City/County code enforcement
B	Market the availability of small business assistance services: • Reach out to local business groups • Contact real estate brokers and other professionals that work with corridor businesses to make them aware of services available to their clients • Visit each business to discuss available services and explore other ways to help them expand and thrive • Prepare and distribute informational materials about how to access these programs	Richmond ED & Chesterfield ED	Short term	N/A	N/A

	ACTION	RESPONSIBLE PARTY*	SCHEDULE	COST ESTIMATE	POTENTIAL FUNDING SOURCES*
C	Work individually with businesses to match them with appropriate assistance programs and resources that are already available for use: • CARE building improvement loans available through the City of Richmond • Certification as Small, Women and Minority-Owned (SWaM) businesses by the Virginia Department of Minority Business • Registration in eVA, the State's electronic procurement system • Contractor training programs in licensing, estimating, bidding and business planning offered by the Richmond Office of Minority Business Development • Employee workforce training in job readiness and specific technical skills required by the business available through the Workforce Development Division • Virginia Small Business Finance Authority loans for business equipment, facilities, including small business micro-loans	Richmond ED & Chesterfield ED	Short term	$15,000 - $25,000/year	City and County Economic Development programs; Virginia programs as appropriate
D	Establish new business assistance programs: • Provide free or low-cost architectural services to help property owners make design improvements consistent with the vision proposed in the Hull Street Plan. Publicize these programs. • Assist Section 3 and other small construction contractors in securing bonds and generating working capital • Arrange mentorships among large and small contractors • Develop contractor and employee training in green building techniques	Richmond ED & Chesterfield ED; Richmond Storefront for Community Design	Short term	$100,000 - $200,000	US Dept of Labor Workforce Development Grants
E	Enhance Hull Street business organizations: • Create an email group to share information • Develop a network of small business service providers, designed to offer referrals to each other	Richmond ED & Chesterfield ED; and Hull Street Marketing Coalition (see strategy #1)	Short term	$5,000	Combined Economic Development and membership funding

	ACTION	RESPONSIBLE PARTY*	SCHEDULE	COST ESTIMATE	POTENTIAL FUNDING SOURCES*
	• Connect with the Greater Richmond Small Business Development Center and the Richmond chapter of SCORE (a national nonprofit dedicated to educating entrepreneurs and helping small business start, grow and succeed)				
F	Organize special events/programs that will attract people to the corridor: • Festivals and other family-oriented events • Establish a Public Art Program in coordination with Virginia Commonwealth University's Art Department	Hull Street Marketing Coalition (see strategy #1)	Short-Mid term	$20,000 - $50,000/year	Corporate sponsors; Corridor businesses National Endowment for the Arts "Art Works"; Virginia Commission for the Arts
G	Continue to assist the farmers market (proposed in the multi-cultural marketplace activity center) in securing funding support through grant applications and contacts with foundations.	Richmond ED & LISC	Mid term	$25,000 - $50,000/year	US Dept of Agriculture Farmers Market Promotion Program; Private Foundations
H	Identify organization(s) with New Markets Tax Credits investment funding and connect developers with these organizations, as appropriate. NMTCs fund qualified projects that aid low-income residents in qualified Census tracts.	Richmond PDR and ED	Mid term	N/A	City Economic Development (County is not eligible)
I	Work with the owner of the Goodes Bridge Shopping Center to upgrade the center's appearance and accommodate the farmers market. Begin creation of open space amenities related to the market area. Create an open space and parking plan for the area.	Chesterfield ED and Chesterfield Planning	Mid term	$ 75,000 - $100,000 for open space and parking plan	Small Business Administration; Virginia Small Business Financing Authority; Private Foundations
Strategy #4: Concentrate Growth in Four Mixed-Use Activity Centers					
A	Revise corridor zoning to accommodate and encourage mixed-use, pedestrian-oriented development in the Plan's activity centers. (Consider adapting existing Richmond "Urban" zones to facilitate implementation of the concept plans.)	Richmond PDR and Chesterfield Planning	Short term	$75,000 per jurisdiction to hire zoning consultant(s)	Budgeted planning funds to update zoning code

	ACTION	RESPONSIBLE PARTY*	SCHEDULE	COST ESTIMATE	POTENTIAL FUNDING SOURCES*
Strategy #5: Promote Safe and Convenient Pedestrian, Bicycle and Transit Activity					
A	Prioritize corridor segments for pedestrian and bicycle facility upgrades, and roadway and landscape upgrades. Street tree planting will be particularly important. (Key prioritization factors: relationship to proposed activity center locations, relationship to currently common origins and destinations.)	Project team with Richmond DPW and Chesterfield Transportation	Short term	N/A	N/A
B	Incorporate the Hull Street roadway and streetscape priorities into each jurisdiction's capital improvement program.	Richmond DPW and Chesterfield Transportation	Short term	N/A	N/A
C	Seek outside sources for roadway/streetscape improvement funding (state and federal level funding opportunities, possible private sources). E.g. Safe Routes to School funding, and street tree donations.	Project team	Short term	$25,000 - $50,000 grantsmanship services	CMAQ, CDBG, HSIP, TAP, RSTP, RSP, local, and/or private funds
D	Develop a system for monitoring the multimodal performance targets annually and use them as a strategy for ensuring implementation progress. (Performance target recommendations outlined in Chapter 4.)	Project team	Short term	$25,000 - $50,000/year	Local transportation funds
E	Reduce the speed limit on the Live and Learn segment of Hull Street to match the limit for the rest of the Hull Street study area in Chesterfield. Reduce from 55 mph to 45 mph.	Chesterfield Transportation	Short term	$15,000 - $30,000	Local funds
F	Engineering design, right-of-way acquisition and utility relocation for Richmond segment	Richmond DPW	Short term	$4M - $6M	Some funding already secured/ Federal and State funds
G	Engineering design, right-of-way acquisition and utility relocation plans for Chesterfield County segment	Chesterfield Transportation and Utilities	Mid term	$4M - $6M	Available Federal and State funds
H	Begin necessary right-of-way coordination/ acquisition, using the established implementation priorities (not recommended prior to final engineering design as the area is subject to change)	Richmond DPW and Chesterfield DOT	Mid term	$100,000 - $2M	CMAQ, HSIP, TAP, RSTP, RSP, local, and/or private funds

	ACTION	RESPONSIBLE PARTY*	SCHEDULE	COST ESTIMATE	POTENTIAL FUNDING SOURCES*
I	Begin to close and consolidate curb cuts on the corridor through parking and access management plans and policies applied to redevelopment projects. The concept plans recommend access configurations and parking locations in the activity centers.	Richmond PDR and Chesterfield Planning	Short-Mid term	To be included as part of new zoning requirements	Public /Private funds
J	Initiate pilot projects related to sidewalk/streetscape construction at key activity center locations (e.g. Warwick Road intersection should be a starting point.)	Richmond PDR and DPW; Chesterfield Planning and CDOT; VDOT	Short-Mid term	To be determined based on each pilot project	CMAQ, CDBG, HSIP, TAP, RSTP, RSP, local, and/or private funds
K	Upgrade bus stops to include shelters and benches	GRTC and Richmond Transportation	Short-Mid term	$50,000 - $150,000	CDBG, TAP, local funds
L	Extend bus service into Chesterfield County and increase frequency of current service in order to better connect residents with employment opportunities and training/education centers.	Hull Street Champions group, Chesterfield County Transportation, GRTC	Mid term	To be determined at the time of this action	Chesterfield County; GRTC
M	Initiate detailed conversations with VDOT regarding reconfiguration of the Chippenham interchange to accommodate pedestrians and bicycles, as proposed in the Hull Street Plan. Interchange Modification Report (IMR).	Richmond DPW and Chesterfield DOT	Mid term	$50,000 - $100,000 for interchange TIA	State and local funds
N	Engineer the reconfiguration of the Warwick intersection as the first intersection redesign for the corridor (the “gateway” from Richmond).	Richmond PDR and DPW	Mid term	$200,000 - $400,000	CMAQ, HSIP, TAP, RSTP, RSP, local, and/or private funds
O	Construct the upgrades to the Warwick intersection.	Richmond DPW	Long term	$2M - $5M	CMAQ, HSIP, TAP, RSTP, RSP, local, and/or private funds

	ACTION	RESPONSIBLE PARTY*	SCHEDULE	COST ESTIMATE	POTENTIAL FUNDING SOURCES*
P	Engineer and construct the upgrades to the Chippenham, Turner, and Walmsley intersections.	Richmond DPW, Chesterfield DOT, VDOT	Long term	$2M - $6M each	CMAQ, HSIP, TAP, RSTP, RSP, local, and/or private funds
Strategy #6: Expand Accessibility to Open Space and "Green" the Corridor					
A	Support the Pocosham Creek Greenway project, creating pedestrian and bicycle connections within the study area and to the region.	Project Team and Richmond Parks & Recreation	Short term	$75,000 - $100,000 for development of a ped/bike plan for this area	CMAQ, CDBG, HSIP, TAP, RSTP, RSP, Recreational Trails Program (remaining funds from SAFETEA-LU), Transportation Enhancement Funds (if funds remain from STP), local, and/or private funds
B	Improve existing park land in the corridor area (e.g. Pocosham Park), including improved accessibility to open spaces for passive and active recreation.	Richmond Parks & Recreation	Short-Mid Term	$50,000 for development of an access plan	Local and state open space funding
C	Upgrade the fields at Manchester Middle School as part of any school improvements. Design the space for joint use by the school and the public.	Chesterfield County Parks & Recreation; Chesterfield Board of Education	Mid term	TBD – Will require a decision re the future of the middle school site.	N/A
D	Create an open space and parking plan for the Multi-cultural Market Center site to improve its appearance and accommodate the new market area. (Also noted under Strategy #3.)	Chesterfield ED and Chesterfield Planning	Mid term	See 3"I" above	Virginia Outdoor Fund
E	Adapt codes to incentivize use of context-appropriate stormwater management practices on development sites. (Also noted in Strategy #4.)	Richmond PDR and DPW; Chesterfield Planning and Utilities	Mid term	See Strategy 4E	See Strategy 4E

	ACTION	RESPONSIBLE PARTY*	SCHEDULE	COST ESTIMATE	POTENTIAL FUNDING SOURCES*
F	Implement LID measures on the corridor (consistent with the 30% plans)	Richmond DPW and Chesterfield Transportation	Long term	$1M	National Fish and Wildlife Foundation grants for water quality improvements within the Chesapeake Bay watershed; DCR grants for TMDL implementation programs
G	Acquire land or create partnerships for new publicly accessible parks, consistent with the Plan's concepts. (e.g. Work with property owners near the Richmond Food Lion to create a "community plaza" adjacent to Hull Street.)	Richmond and Chesterfield Parks & Recreation	Mid-Long term	$75,000 for Food Lion Plaza Plan	Public incentives/ Private funding
H	Begin to develop these park spaces. A priority location should be the Warwick Road area/Town and Family Entertainment Center.	Richmond and Chesterfield Parks & Recreation	Long Term	$100,000 for Town and Family Center Parks Plan	Virginia Outdoor Fund and local parks funds; Groundwork RVA Trust
Strategy #7: Invest in Current Residents and Attract New Ones to the Area					
A	Invest in education and training for current residents:				
	• Increase instructional and materials funding to support Hull Street area schools. • Support efforts to reduce truancy from local schools through family outreach to identify any problems contributing to truancy and truancy-specific training for teachers and staff.	Richmond and Chesterfield School Boards, Communities in Schools - Richmond, Champions group	Short term and continuing	$75,000 - $200,000 per jurisdiction	School Boards, Local foundations

	ACTION	RESPONSIBLE PARTY*	SCHEDULE	COST ESTIMATE	POTENTIAL FUNDING SOURCES*
	• Encourage residents to take advantage of the existing One Stop Career Center in Richmond by providing information at schools, the Southside Community Service Center, libraries and recreation centers.	Capital Region Workforce Partnership, Virginia Employment Commission, Virginia Community College System	Short term and continuing	$1M	National Fish and Wildlife Foundation grants for water quality improvements within the Chesapeake Bay watershed; DCR grants for TMDL implementation programs
	• Create the new Neighborhood Workforce Development Center proposed by the Workforce Development Division for Hull Street to provide more convenient access to intensive training programs. • As the Richmond Workforce Pipeline program expands beyond the pilot stage, provide services in the Hull Street Neighborhood Workforce Development Center.	Richmond ED, Workforce Development Division	Short term	$50,000 -$100,000/year	US Dept of Labor Workforce Development Grants
	• Encourage provision of additional adult education classes in the corridor to help immigrants to learn English (ESOL Programs).	Richmond Adult Career Development Center & Chesterfield County Public Schools	Mid term	$15,000-$20,000/ year	School Boards; J. Sargeant Reynolds and John Tyler Community Colleges
B	Improve existing housing stock/conditions:				
	• Assist local homeowners and landlords in securing home improvement funding to enhance their energy efficiency and reduce their homeownership costs	Richmond ED, Division of Neighborhood Revitalization	Short term	N/A	Dominion Virginia Power; VA Department of Mines, Minerals and Energy rebate programs

	ACTION	RESPONSIBLE PARTY*	SCHEDULE	COST ESTIMATE	POTENTIAL FUNDING SOURCES*
	• Further develop and expand the Community Assisted Public Safety (CAPS) program with corridor residents to address issues in higher crime development along the corridor. Note: CAPS is a Richmond program supported by existing staff.	Richmond and Chesterfield Police Departments, area landlords, Champions group	Short term	$25,000	US Department of Justice—Byrne Criminal Justice Innovation program
	• Provide counseling to corridor homeowners facing foreclosure	Richmond ED, Division of Neighborhood Revitalization	Short term	$75,000	Virginia Housing Development Authority
	• Assist elderly homeowners to bring their homes up to code	Chesterfield ED & Richmond ED, Division of Neighborhood Revitalization; Coordinate with churches/local organizations	Mid term	$25,000-$75,000/ year	ElderHomes; Virginia Housing Development Authority
	• Enforce penalties that encourage corridor landlords to better screen their tenants and enforce lease provisions for property upkeep and noise. (Existing penalties are enforced through CAPS.)	Richmond PDR, Richmond and Chesterfield Police Departments, Commonwealth's Attorney	Mid term	N/A	N/A
C	Encourage/incentivize development of new senior housing in walkable locations close to retail and services (e.g. Live and Learn Center, Town and Family Entertainment Center). • Pursue Section 202 funding for affordable seniors housing.	LISC and other area housing non-profit organizations	Mid term	TBD	US Housing and Urban Development Section 202; Virginia Housing Development Authority

	ACTION	RESPONSIBLE PARTY*	SCHEDULE	COST ESTIMATE	POTENTIAL FUNDING SOURCES*
D	Pursue one or two Low-Income Housing Tax Credit developments in the corridor to provide additional affordable housing as part of larger mixed-use and mixed-income developments.	LISC; area housing non-profit organizations, Richmond ED; Division of Neighborhood Revitalization; Champions group	Mid term	TBD	Virginia Housing Development Authority
E	Provide intensive homeownership counseling for first-time homebuyers.	Richmond ED, Division of Neighborhood Revitalization	Mid term	$25,000-$50,000/ year	Virginia Housing Development Authority
F	Partner with developers that are complying with the vision for the activity centers by providing public funding for public facilities adjacent to and/or within the development area (sidewalks and bicycle facilities consistent with the Plan's concepts, parks consistent with the Plan's vision, etc.)	Richmond ED and Chesterfield ED	Long term	TBD	NMTCs, Tax-Increment Financing

*** Abbreviations Key:**

Responsible Parties

Project Team = The current project team with representatives from Richmond, Chesterfield and LISC
Richmond ED = City of Richmond Department of Economic & Community Development
Richmond PDR = City of Richmond Planning & Development Review
Richmond DPW = City of Richmond Department of Public Works
Chesterfield ED = Chesterfield County Economic Development
GRTC = Greater Richmond Transit Company
LISC = Local Initiatives Support Corporation

Funding Sources:

CMAQ = Congestion Mitigation and Air Quality Program
RSTP = Regional Surface Transportation Program
T**AP** = Transportation Alternatives Program (previously Transportation Enhancement, Safe Routes to School, & Recreational Trails Programs)
HSIP = Highway Safety Improvement Program
RSP = Revenue Sharing Program
CDBG = Community Development Block Grant

12.4 IMPLEMENTATION PRIORITIES

1. Create a new Hull Street Program Manager position to coordinate immediate actions, monitor plan progress, identify and pursue grant opportunities, guide implementation and be the primary point of contact for the Plan. (Note: This may be one shared position for both City and County, or two positions, one in each jurisdiction.) (Immediate Action A)
2. Pursue federal funding to develop engineering design, right-of-way acquisition and utility relocation plans. (Immediate Action C, 5F)
3. Put in place the regulatory framework (including incentives) for implementing Plan recommendations. (Immediate Action E)
4. Establish a Hull Street Corridor Champions Group made up of property owners, business owners, key community leaders. (Action 1A)
5. Establish a corridor-wide marketing Coalition to develop a marketing strategy and inform businesses about various assistance loans (Actions 1B, 2C, 3B)
6. Complete construction drawings for key Activity Center locations, as identified by the jurisdictions; recommendation is to begin with Warwick Road/Hull Street intersection area (Action 5J)
7. Establish a coordinated "On Hull Street" public arts program in coordination with VCU. (Action 2F)
8. Seek federal USDA and local funding to assist in implementation of the Multi-Cultural Marketplace farmers market. (Action 3G)
9. Upgrade bus stops to include shelters and benches. (5K)
10. Initiate dialogue with VDOT to develop a plan for the addition of sidewalk/bikeway across the Chippenham Parkway interchange on Hull Street. (Action 5M)
11. Create public/private partnerships for the development of new open space opportunities along the corridor. (Action 6G)
12. Create and support a new Hull Street Neighborhood Workforce Development Center. (Action 7A)

12.5 CONCLUSION

It has taken many years for the Hull Street corridor to evolve into its current condition, and it will take more years for the City of Richmond and Chesterfield County to reverse the area's decline and realize Hull Street's potential. However, as envisioned in this Plan, a vibrant and livable Hull Street is possible given appropriate strategic actions and a strong commitment from residents, business owners, and elected officials. As noted in the introduction, communities across the country are facing the same challenges as Hull Street presents, and this project can serve as a model for revitalization on the urban/suburban fringe. Section 12.4 highlights key initial projects that can be used to jumpstart this change. We invite you to return to Hull Street in ten years to see progress toward Hull Street's revitalization!

IMAGE SOURCES

Figure 1.2: Rhodeside & Harwell

Figure 2.1: Rhodeside & Harwell

Figure 2.3: Rhodeside & Harwell

Figure 3.1: Rhodeside & Harwell

Figure 3.13: Google Street View

Figure 4.2: Rhodeside & Harwell

Figure 4.3: Einstein Healthcare Network, www.einstein.edu/patients-visitors/for-patients/patient-support-services/financial-counseling/

California State University Dominguez Hills, www.csudh.edu/ee/adulted.html

TimesDispatch.com: Joe Mahoney, weather.blogs.timesdispatch.com/2012/10/28/release-updated-grtc-schedule/

Figure 5.3: Rhodeside & Harwell

Figure 5.4: Rhodeside & Harwell

Figure 5.6: Bloomberg Businessweek: Getty Images, images.businessweek.com/ss/08/12/1211_climate_change/9.htm

365 Things to do in Cincinnati, 365cincinnati.com/things-to-do/findlay-market

Figure 5.7: Algonquin Commons, shopatalgonquincommons.com/index.php/merchants/bonefish-grill/

Flickr: Brett VA, www.flickr.com/photos/smart_growth/4575706080/in/photostream (okay to use)

Figure 6.2: Rhodeside & Harwell

Figure 7.1: Daily Feed, bunrab.com/dailyfeed/2011November/dailyfeed_november-11_p1.html#nov0211

The Good Street, thegoodstreet.blogspot.com/2010/05/chicago-neighborhood-plaza-and-streets.html

US Department of Health and Human Services Office of Disease Prevention & Health Promotion,www.health.gov/paguidelines/blog/category/Playing-Outside.aspx?page=3

Northwood Ravin, www.nwrliving.com/apartments/properties/birkdale-apartment-homes/

Figure 7.6: Ferrell Madden

HGTV Front Door: Northstar ML, www.frontdoor.com/listing/market/17522-re8318365/221-1st-ave-ne-apt-44-44-minneapo-minneapolis-mn-55413 (no longer posted)

Better Homes and Gardens Real Estate Area Leaders: www.minnesotaloftsandcondos.com/building-directory/the-village-homes.php

Figure 7.11: About.com Washington DC: Miller Taylor, http://dc.about.com/od/neighborhoodphotos/ig/Capitol-Hill-Photos/EasternMarket_MT2.htm

Block Avenue Blog, blog.blockavenue.com/dc/2012/09/

A Culinary Journey with Chef Dennis, www.askchefdennis.com/2011/06/our-food-bloggers-festival-destination-asheville/

Figure 7.16: Keeper Goals, www.keepergoals.com/products/facilities/trevian-indoor-soccer-facility.html

MerchantCircle, www.merchantcircle.com/business/Stewards.Hardware.Company.860-669-0505/picture/gallery

Figure 7.21: City of Boulder, Colorado. Understanding Density and Floor Area Ratio, P.35., www.bouldercolorado.gov/files/PDS/planning%20and%20zoning/density_floorarearatio.pdf

Market to Latinos, www.markettolatinos.com, www.markettolatinos.com/the-unlimited-power-in-the-latino-community-in-the-u-s-latino-spirit/

Commercial Quest NW, www.commercialquestnw.com/properties-for-sale/pdfs/1520-1530.SE.7th.pdf

Figure 8.1: City of Indianapolis and Marion County,www.indy.gov/egov/city/dpw/sustainindy/rrr/recycle/pages/adopt-a-median.aspx

Milwaukee Avenue Green Development Corridor: Viridian Landscape Studio, logansquareh2o.org/

Yarmouth Village Improvement Society, www.yarmouthvis.org/projects-villagegreenpark.php

The Good Street, http://thegoodstreet.blogspot.com, http://thegoodstreet.blogspot.com/2010/07/south-park-downtown-los-angeles.htmlthegoodstreet.blogspot.com/2010/03/hope-street-green-street-downtown-los.html

Figure 8.3: Outside Magazine: KC Johnson/Image Machine LLC, www.outsideonline.com, http://www.outsideonline.com/adventure-travel/best-towns/Best-Towns-Richmond-Virginia.html?167718525

Figure 8.4: Grahm Foundation: Cannon Design, www.grahamfoundation.org/grantees/4891-new-practice

Figure 8.5: RVA Magazine, rvamag.com/articles/full/4543/geometry-

paradise-park-revival

Architecture Richmond, architecturerichmond.com/2012/09/15/pocket-parks-part-ii/scuff-2/

Figure 8.6: Fauquier Now, www.fauquiernow.com/index.php/fauquier_news/article/national-recreation-trails-website-features-warrenton-greenway

Figure 8.8: Sustainable Technologies Evaluation Program, www.sustainabletechnologies.ca/Portals/_Rainbow/images/default/LID%20Manual%20proj%20pg-small%20pic.jpgwww.sustainabletechnologies.ca/Portals/_Rainbow/images/default/LID%20Manual%20proj%20pg-small%20pic.jpg

Flickr: Aaron Volkening, www.flickr.com/photos/87297882@N03/7994695119/in/photostream

Figure 8.12: Rhodeside & Harewell

Figure 8.14: City of Portland Bureau of Environmental Service, www.portlandoregon.gov/bes/29323, www.portlandoregon.gov/bes/article/123776

Rhodeside & Harwell

Figure 9.1: The Good Street, thegoodstreet.blogspot.com, http://thegoodstreet.blogspot.com/

Slate,www.slate.com, http://www.slate.com/articles/arts/culturebox/2005/04/the_mall_goes_undercover.html

Figure 9.3: John S. Allen's Home Page, www.bikexprt.com/massfacil/cambridge/freshpond/sidepath.htm

Figure 11.1: Ferrell Madden/Steve Price

Figure 11.3: Ferrell Madden

Ferrell Madden/Urban Advantage

Figure 11.4: Dover Kohl & Partners

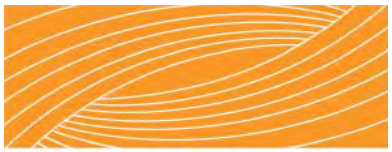
Ferrell Madden

Steve Price

Figure 11.5: Ferrell Madden

Figure 11.6: Ferrell Madden

NHC Annapolis, www.med.navy.mil/sites/annapolis/home/Pages/NewtoArea-Command.aspx



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