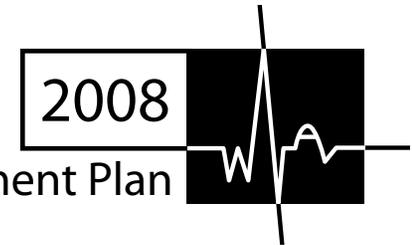


City of Shaker Heights



Warrensville/Van Aken Transit-Oriented Development Plan

Final Report

April 28, 2008



Acknowledgements

The Warrensville/Van Aken Transit-Oriented Development Plan is the result of terrific collaboration among many committees that were organized to assist the team, and well attended public workshops with residents that are truly passionate about their community. We thank all those who worked with us over the past several months.

Members of the Core Project Team, Technical Advisory Committee and Community Advisory Committee were:

Core Project Team

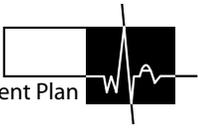
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Maribeth Feke, Director of Planning, Greater Cleveland RTA
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Ron Ratner, Developer/Partner, RMS/Stark
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Norm Bliss, Shaker Heights School Board
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Sandra Madison, Architectural Board of Review
Bryan Moore, Lomond neighborhood resident
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Rick Santich, Van Aken Business Development Association
Jeanne Shatten, Shaker Heights Public Library Board
David Weiss, Developers Diversified Realty Corporation
Rob Zimmerman, City Council



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i | Executive Summary

The Warrensville/Van Aken (WVA) Transit-Oriented Development (TOD) Plan implements the call to revitalize the district that was explored in the Strategic Investment Plan (2000). That Plan recommended reconstructing the Warrensville/Van Aken/Chagrin intersection, improving transit connections and transfer points, redeveloping existing strip shopping centers into a mixed use downtown, and improving pedestrian connections between the station and surrounding areas.

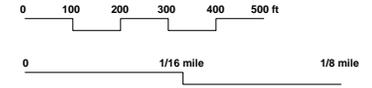
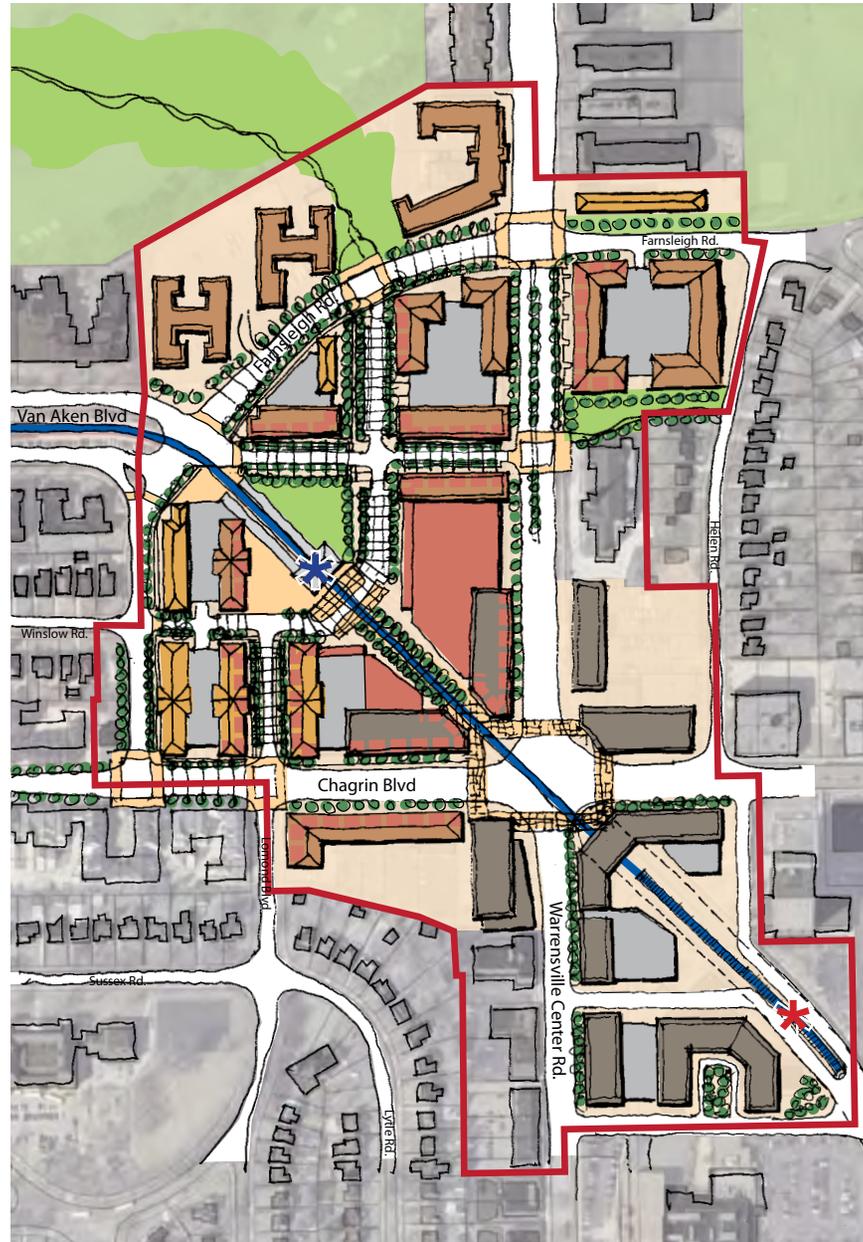
There is tremendous potential to improve transit and the arterial road system and to reconnect both to land use - the legacy of the City's original, historic development plan. An important objective of the Warrensville/Van Aken Transit-Oriented Development Plan is to reinvent this intersection as an important meeting place and a central node within the City.

Study Area

The Warrensville/Van Aken study area encompasses land in all quadrants of the Warrensville Center Road/ Van Aken Boulevard/Chagrin Boulevard intersection. The area within a 1/2 mile radius around the intersection is included in the study area.

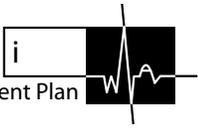
Work Program

The WVA TOD Plan was completed in three phases over 4 months within a framework of collaboration. The work program was organized around three public workshops that provided the structure for collaborating with a variety of stakeholders.



Urban Design Plan
31 March, 2008

- Study Area Boundary
- Rapid Transit (Blue Line)
- Retail at Grade
- Retail
- Office
- Apartments
- Townhouses
- Parking Garages
- Park/Green Space
- ★ Transit Station
- ★ Intermodal Station



Study Goals & Vision

The City's Terms of Reference for the WVA TOD Plan identified a number of goals, including:

1. Transform the Warrensville/Van Aken district into an exciting, urban, pedestrian friendly district;
2. Design a safer and more efficient road layout and traffic pattern;
3. Create an intermodal transportation center that enhances the transit experience now and accommodates system expansion in the future;
4. Evaluate utility relocation needs;
5. Evaluate and address vehicular access and parking needs;
6. Add better pedestrian and bicycle connections between the station and the mix of uses in the surrounding area;
7. Increase the visibility of transit to positively influence the residential and business location decision-making processes; and,
8. Respect and strengthen the historic context and urban design of the surrounding neighborhoods.

Roads and Traffic

The WVA Development Plan sets out a program of calming a dangerous intersection and connecting the surrounding community to a new vibrant mixed-use district. The plan calls for closing Van Aken Boulevard and Northfield Road where they intersect with Chagrin Blvd and Warrensville Center Road creating a four way intersection.

Transit

The Blue Line will be extended through the intersection to a new end-of-the-line intermodal station in the southeast quadrant next to the University Hospital office building. The current Farnsleigh Station will be relocated to the center of the new district.

The Urban Design Plan

The design intent of the WVA Plan is to extend the Shaker tradition of transit planning. Buildings are located to reinforce the edges of streets and public spaces with uses that range from primarily residential and mixed use in the area bordering Farnsleigh Road, to office and mixed use near the main intersection, to a retail focus in the center. The central focus of the district is a park intended as an amenity for residents and a meeting and gathering place for employees and shoppers. Parking will be located in multi-level structures in the centers of most blocks with buildings and active uses facing the adjacent streets and spaces.

The major changes that will take place include:

- Changing the six-way intersection at Chagrin and Warrensville into a standard four-way intersection;
- Reconfiguring Van Aken to extend straight east between Farnsleigh and Warrensville;
- Reconfiguring Northfield to connect with Warrensville near the Post Office;
- Maintaining the rapid transit line in its current diagonal configuration; and,

- Extending the rapid transit line through the Chagrin/Warrensville intersection to a new transit/bus terminal near the University Hospitals Administrative building,

The Program

The initial program for development illustrated in the Plan includes:

1. 160,000- 200,000 s.f. of retail,
2. 500-600 residential units,
3. 250,000-500,000 s.f. of office,
4. an intermodal transit facility
5. parking to meet development needs
6. on-street parking where possible

A comparison of the program with the amount of development illustrated in the proposed plan and outlined on the block-by-block basis indicates that the program goals have been realized.

Implementation

The implementation strategy includes 10 recommendations for bringing the plan to fruition as well as a discussion of the phasing of the plan, related costs and a review of funding sources.



Looking northwest along Van Aken Blvd



Looking north on Warrensville Center Rd



Aerial overview of district looking north

1.0 | Introduction

Shaker Heights has an illustrious history as a unique community. From the 1820's as a Shaker settlement, to the 1920's "Garden City" suburb, Shaker Heights has continued to be a precedent for community planning. Like many "streetcar communities" in North America, Shaker Heights was conceived of and built by private developers. The Van Sweringen brothers envisioned Shaker Heights as an upscale community free from the City and, to assure that it remained in its intended form, they included 99-year deed restrictions to guide development.

Today, Shaker Heights reflects the vision of its original founders as modified by changes in society and the economy of the Cleveland area. What has been constant is the existence of transit, which was fundamental to the layout of the original community and continues to define it today.

Purpose of the Study

The Warrensville/Van Aken (WVA) Transit-Oriented Development (TOD) Plan is a pivotal project for the City of Shaker Heights. It implements the call to revitalize the district that was explored in the Strategic Investment Plan (2000). That Plan recommended reconstructing the Warrensville/Van Aken/Chagrin intersection, improving transit connections and transfer points, redeveloping existing strip shopping centers into a mixed use downtown, and improving pedestrian connections between the station and surrounding areas.

There is tremendous potential to improve transit and the arterial road system and to reconnect both to land use - the legacy of the City's original, historic development plan. It is easy to imagine this area as the vibrant, vital and distinct new center for the City of Shaker Heights complementing Shaker Square and Shaker Town Center.

An important objective of the Warrensville/Van Aken Transit-Oriented Development Plan is to reinvent this intersection as an important meeting place and a central node within the City.



Van Aken Blvd west of the study area



New residential development on Chagrin Blvd



Shaker Heights' residential streets



Study area



Study Area

The Warrensville/Van Aken study area is centered on the intersection of Warrensville Center Road and Chagrin Boulevard. It includes land in all four quadrants of the intersection including land within a 1/2 mile radius.

The six-way intersection at the core of this commercial district is notorious for its awkward, unsafe and inefficient layout. It is ranked as the fifth busiest intersection in the County. All intersections in the study area operate at a very poor level of service during the morning and evening peak hours. Three of the intersections in the study area are ranked in the top ten most dangerous intersections in the City by the Shaker Heights Police Department.

The existing character of the study area is defined by wide, busy roadways surrounding two strip shopping plazas with large surface parking lots.

The Warrensville RTA station is the eastern terminus of the Blue Light Rail Line. The station is awkwardly located in the Van Aken median in the center of busy streets. Regionally, it fits within the eastern portion of the transit network that links bus and rail service from the rail station to destinations throughout Cuyahoga County. The Warrensville/Van Aken TOD Plan presents an opportunity to enhance the RTA facility by providing a more efficient interface between bus routes and the Rapid, to increase transit ridership and to add service radiating from this district.

Four Issues to Overcome

Based on the observations made over the course of this study, four key issues have been identified in the WVA district that must be overcome if the new transit-oriented vision is to be achieved.

1. Poor Image

Currently, the Warrensville/Van Aken district portrays a poor image, not equal to the quality of development in other parts of Shaker Heights. Combined with a hostile roadway pattern, misaligned sidewalks and isolated land uses, the area is not an inviting place.

2. Under-utilized Transit Facilities

Accessibility to the transit facility is less than optimal and pedestrian safety is highly compromised due to the multitude of vehicular traffic lanes converging and intersecting at the district. In addition, there is no dedicated parking for transit users.

3. Unsafe Traffic Circulation

The Warrensville/Van Aken district presents significant safety concerns from the perspective of drivers, transit users and pedestrians alike.

4. Declining Business Opportunities

Like many older areas, the retail plazas in the Warrensville/Van Aken district have had increasing difficulties attracting and retaining tenants. The lack of a clear planning vision for the Warrensville/Van

Aken district has ultimately limited the district's ability to respond to shifting markets and attract reinvestment and redevelopment opportunities.

Work Program

The WVA TOD Plan was completed in three phases over 4 months within a framework of collaboration. The work program was organized around three workshops that provided the structure for collaborating with a variety of stakeholders.

Phase 1: understanding the study area in its context to explore possibilities for change.

Phase 2: options for road structure, transit service, private development and the public realm.

Phase 3: evaluation of options, the preferred plan and implementation strategy.





Study Goals

The City's Terms of Reference for the WVA TOD Plan identified the following goals:

1. Transform the Warrensville/Van Aken district into an exciting, urban, pedestrian-friendly district that contributes to the attraction and retention of a diverse population of residents and businesses and that adds life and vitality to the street;
2. Design a safer and more efficient road layout and traffic pattern;
3. Create an intermodal transportation center that enhances the transit experience now and accommodates system expansion in the future;
4. Evaluate utility relocation needs;
5. Evaluate and address vehicular access and parking needs;
6. Add better pedestrian and bicycle connections between the station and the mix of uses in the surrounding area;
7. Increase the visibility of transit to positively influence the residential and business location decision-making processes; and,
8. Respect and strengthen the historic context and urban design of the surrounding neighborhoods.



Photos from the first workshop

Public Process & Outcomes

The work program was organized around three multi-day workshops. Each workshop was used to obtain input at key decision-making milestones in each phase of the study and was organized with a series of sequential working sessions with the Core Project Team, Technical Advisory Committee, Community Advisory Committee and specific stakeholders groups. Each workshop also included an open public session.

The **Core Project Team** was composed of senior staff from the City of Shaker Heights and the Greater Cleveland Regional Transit Authority (GCRTA) staff, as well as representatives from the major landowner/developer RMS.

The **Technical Advisory Committee** was composed of representatives from local and regional organizations who worked with the consulting team and Core Project Team on many technical issues associated with the plan.

The **Community Advisory Committee** was composed of residents who met to provide the team feedback from a community perspective in advance of the open public sessions.



Workshop #1

The first workshop was held from December 5 to 7 2007. The primary purpose of this workshop was to gain a common understanding of the principles for the WVA TOD Plan, the key opportunities and challenges for change and some initial framework plans that demonstrated options for change. The workshop resulted in acceptance of the fundamental principles as outlined in Chapter 3 and identification of opportunities for change. During the workshop, the most prevalent design direction from the residents was that the final design for the station area reflect the character of Shaker Heights. During the public session of the workshop, residents responded to a visual preference survey where they were asked to identify their preferred photograph depicting various built form conditions with respect to streets, transit, open space, parking and buildings. The preferred photographs on the next page clearly depict a preference for high quality urban environments with lush streetscapes and public spaces.

Workshop #2

The second workshop was held from January 23 to 25, 2008 to obtain feedback on four options for the study area. The options depicted variations in the street and block pattern, open space, transit and distribution of building height. During the public session, there was a wide variety of comments received, however, there was a general preference for the transit to remain in its current location. Also, there was an overwhelming desire to upgrade the Warrensville/Van Aken/Chagrin

intersection and to have local street and pedestrian connections with the adjacent neighborhoods. The options provided a range of suggestions for building height. Given the range of site locations and adjacent conditions, there are opportunities for a variety of building heights from 3 stories adjacent to single detached residential neighborhoods to taller buildings along Warrensville Center Road and to mark key intersections.

Workshop #3

The third workshop was held on February 27 and 28, 2008 to obtain input on the preferred option developed from feedback received at the first two workshops. During the public session, there was general agreement that the preferred plan demonstrated the appropriate direction for the Warrensville/Van Aken area and that it should be the basis to prepare the draft Warrensville/Van Aken TOD Plan.

A complete record of the input received during the workshops is included in the Appendix.

Workshop participants were asked to write a headline that might appear on the front page of the local paper in 2015 after redevelopment of the Warrensville/Van Aken district. This is a sample of what they wrote:

Shaker changes and LIKES IT!

New residents flood in

1500 new jobs attributed to new town center

You can now walk across Chagrin!

Van Aken opens! Bring your credit cards

Shaker "most livable" neighborhood in Cleveland

Model TOD to open to rave reviews!

Best of both worlds: easy access to everything

Back to the future

Vintage look at modern TOD draws crowds!

Shaker reborn!

What's old is new again in Shaker

Shaker Square east forms to rave reviews

Proud community has more to be proud of

Shaker unveils the county's newest sustainable community

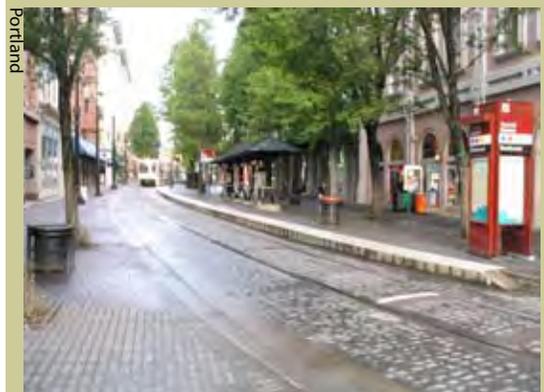
Shaker stops traffic and invites visitors.

Results of the Visual Preference Survey at the First Public Workshop

Streets



Transit



Urban Open Space



A selection of photos were organized around various components of the urban environment. Participants at the public workshop were invited to choose their favorite image. These images represent the image choices in each category that received the most yellow dots from the public at the workshop.

The public recording their visual preferences





Places to Put Cars

Crocker Park, Westlake, Cleveland



University of Houston



Sidewalk

Santa Barbara



Easton Town Center, Columbus



Shaker Square, Cleveland



Building

Front & Jarvis, Toronto



Shaker Boulevard, Cleveland





Pentagon Row, Washington D.C.

2.0 | Transit-Oriented Development

Definition of Transit-Oriented Development

Transit-Oriented Development (TOD) is generally defined as mixed-use development designed to maximize access to public transit and stimulate transit ridership. TOD has higher density development located in proximity to an established or planned transit facility. In the Warrensville/Van Aken district, the Light Rail Transit (LRT) facility already exists, and it already functions as an intermodal terminal between the LRT and bus services. Given the current state of adjacent land uses (in general decline as a retail center), the Warrensville/Van Aken district is a prime candidate for Transit-Oriented Development on a comprehensive scale.

Benefits of Transit-Oriented Development

The benefits of TOD are multi-faceted, resulting in buildings and land uses that are attractive, walkable, and transit-supportive. Transit-Oriented Development is scaled to the pedestrian, encourages travel on foot and by other modal alternatives to the car, and ultimately fosters and facilitates public transit functionality and ridership.

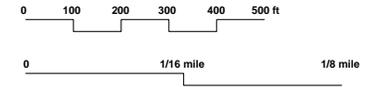
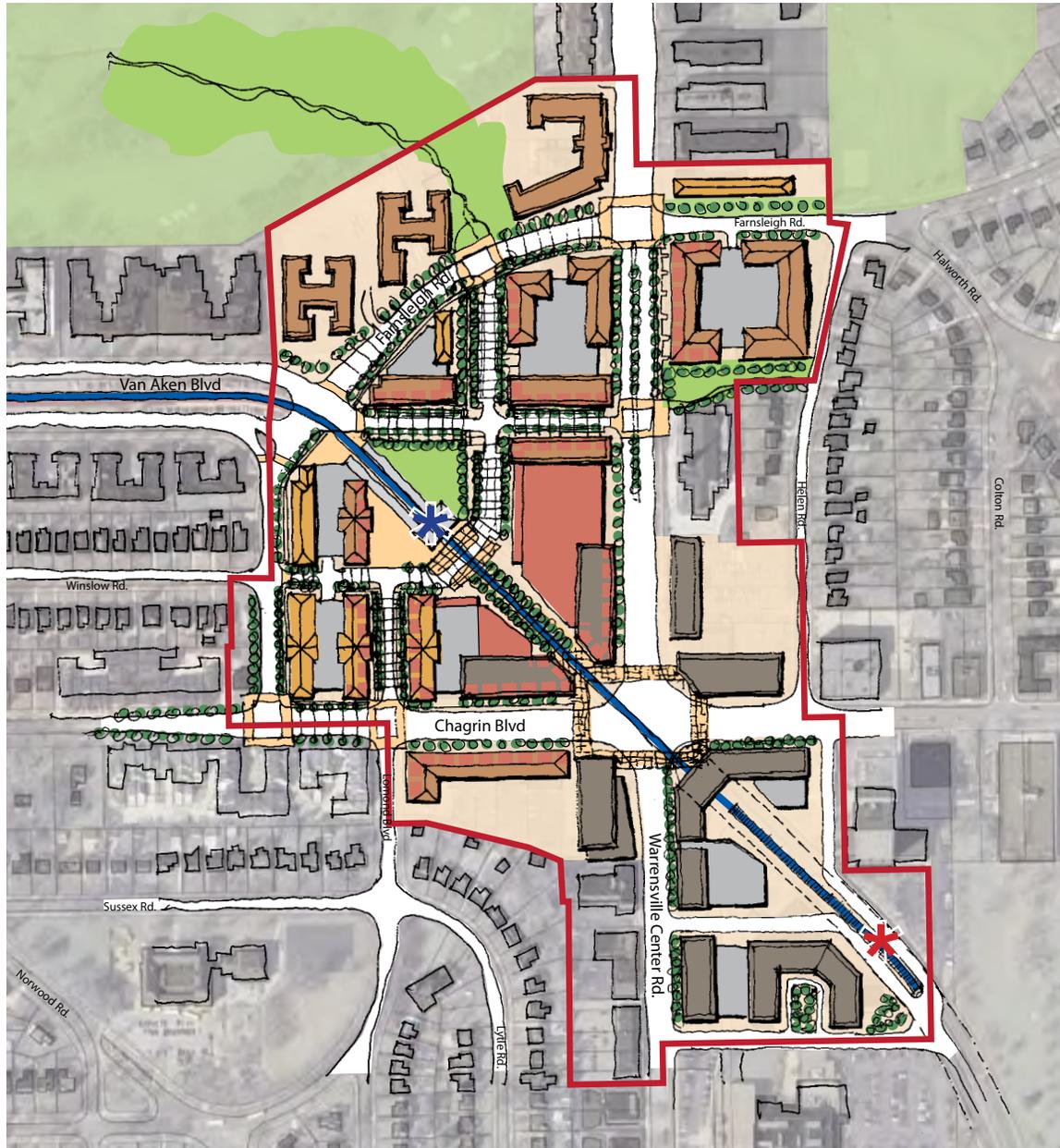
In addition to these general benefits, the redevelopment of the Warrensville/Van Aken district provides additional potential benefits that are important considerations, including opportunities to:

- enhance vehicular circulation, and the safety of the existing intersections, through the implementation of a revised road/intersection configuration;
- establish an environment for new investment and economic development in an area that is in decline. The status quo is no longer appropriate, and significant change here would be a catalyst for economic opportunities; and,
- support an urban structure that provides a better balance among auto use, transit ridership, cyclists and pedestrians.

Principles of Transit-Supportive Development

Drawing on North American research and case studies on Transit-Oriented Development, as well as implemented transit strategies, four key and interrelated principles have been identified:

1. **There is a direct relationship between transit ridership and distance from the station.**
2. **Density drives transit ridership.**
3. **Land use has an impact on transit use patterns.**
4. **Urban design has an impact on ridership.**



Urban Design Plan
31 March, 2008

- Study Area Boundary
- Rapid Transit (Blue Line)
- Retail at Grade
- Retail
- Office
- Apartments
- Townhouses
- Parking Garages
- Park/Green Space
- ★ Transit Station
- ★ Intermodal Station



3.0 | The Vision

The Urban Design Plan is presented as one demonstration of the possible build out of the Warrensville/Van Aken Transit-Oriented Development Plan (WVA Plan). The Urban Design Plan is intended to guide the detailed planning and design that will occur over the long term.

The Vision is based on the intent to extend the Shaker tradition of transit planning and integrate it into a new vibrant mixed use context. In the process, an important component of the new plan is the creation of a public space the will become a focus for this part of Shaker Heights.

The location of a new station at the heart of the development will bring more people to the district and, with the mix of residential and office, result in a 24 hour district, a place for people to live, work, and play. The plan will be described in detail illustrating the mix of residential apartments over retail, office uses, a new transit station all focused on a new urban park which will be a great place for community functions.



Massing model, view looking southeast

The Vision for the Warrensville/Van Aken district is to:

1. create an authentic Town Center.
2. have a significant public realm, including beautiful tree-lined streets with wide sidewalks and civic space.
3. have a vibrant, diverse and mixed use node, that will include higher density residential uses.
4. have high quality development and a “made-in-Shaker Heights” solution.
5. accommodate a high volume of traffic, which may travel at slow speeds.
6. have a road pattern that is connected to adjacent areas.
7. balance all modes of transportation and will include the opportunity to expand transit in the very long term.
8. protect existing retailers, be realistic and flexible to accommodate market factors that may change over time.
9. protect adjacent stable residential neighborhoods.
10. have a transit station that is integrated in the district, providing a hub of activity and an asset for associated development.

Winter Park, Florida



Savannah, Georgia



Pentagon Row, Washington D.C.



Winter Park, Florida



Quebec City, Quebec



Addison Circle, Dallas



Celebration, Orlando, Florida



Michigan Ave, Chicago





4.0 | Roads & Traffic

4.1 | Roads & Traffic Today

A detailed Traffic Study was prepared as a component of the WVA TOD Plan (included in the Appendix). The Study included an inventory of existing roads, traffic volumes and accident history. Traffic conditions were projected for various network options. It also included a VISSIM analysis, a model that simulates traffic flow, lane change logic, pedestrian and bicycle movement under various constraints and results in a computerized movie of traffic flow.

Warrensville Center Road, Chagrin Boulevard, Northfield Road and Van Aken Boulevard all meet in a single, six-legged intersection. It is the #1 highest accident intersection in the City of Shaker Heights. This intersection is ranked at #263 in ODOT's 2006 Hot Spot Non-Freeway List (2004-2006) for the entire state. Also, this intersection is ranked as the 11th highest collision intersection in Cuyahoga County with 34 crashes recorded in the 2005 Accident Report produced by NOACA dated June 2007. Fourteen, or 41%, of the accidents at this intersection were of the sideswipe passing crash type. It is likely that the high frequency of sideswipe passing crashes is due to the complex, multiple lane turning movements required. This is also an indication that the current intersection geometry and operation is confusing to drivers and is probably a contributing factor to the accident history at this location.



Intersection of Van Aken Blvd, Chagrin Blvd, Warrensville Center Rd and Northfield Rd today

The City of Shaker Heights Police Department ranks the top ten most dangerous intersections in the City based on the total number of traffic collisions at each intersection. Three of the intersections in the study area are on that list. Between 1997 and 2007, over 40% of all intersection collisions in the top ten, occurred at one of the study intersections.

The following lists the crash data for intersections within the study area (1997 to 2007) that were on the top ten list:

- Warrensville/Van Aken/Chagrin/Northfield (#1 - 474 collisions)
- Fairmount/Warrensville (#2 - 247 collisions)
- Farnsleigh/Van Aken (#5 - 211 collisions)

This six-legged Chagrin Boulevard/Warrenssville Center Road intersection is near capacity and will likely continue to degrade over the next 20 years if no roadway or traffic control improvements are made. Significant capacity improvements at the intersection are required to allow for future development.

Despite the Chagrin Boulevard/Warrenssville Center Road intersection's poor Level of Service results, most of the other peripheral signalized intersections perform reasonably well. However, the long cycle length of 180 seconds for the Chagrin/Warrenssville intersection results in long average wait times of 81 seconds and long queues that can block adjacent intersections during peak times. Cut through traffic has been a problem in the neighborhoods surrounding the Chagrin/Warrenssville intersection. Commuters traveling through the intersection will seek out alternate routes to avoid the current congestion and long wait times. As specific movements are not allowed at this key intersection (e.g. east on Chagrin to north on Warrenssville), traffic will seek out alternate routes – such as Norwood and Scottsdale - to get to their ultimate destination.

The table on page 22 provides the existing Level of Service at the key intersections within the Study Area. The quantified level of service (LOS) describes traffic conditions by the delay at each intersection. This is done using capacity analysis techniques to analyze the adequacy of the intersections within the study area. These

service conditions are defined by the letters "A" through "F", with "A" being excellent (no delay) traffic conditions, and "F" equating to congested, unstable traffic flow with excessive delay. The analysis also calculates the volume to capacity ratio for individual movements and the overall intersection. This provides insight into the ability of any given intersection to accommodate additional traffic. Details of this analysis can be found in the appendix.

The City has implemented a number of traffic controls, including turn restrictions and one-way streets to cut through traffic. Based on counts undertaken in support of this study, these measures are proving to be effective. The problem that has been created as a consequence is that access into the neighborhood is often circuitous for residents and confusing for visitors.



Existing traffic restrictions

4.2 | Planned Street Pattern

At a regional level the Warrensville/Van Aken Transit-Oriented Development Plan (WVA Plan) is an important component of the City's overall urban structure and transit strategy and crucial to the success of the district. The recommended capacity improvements include the following:

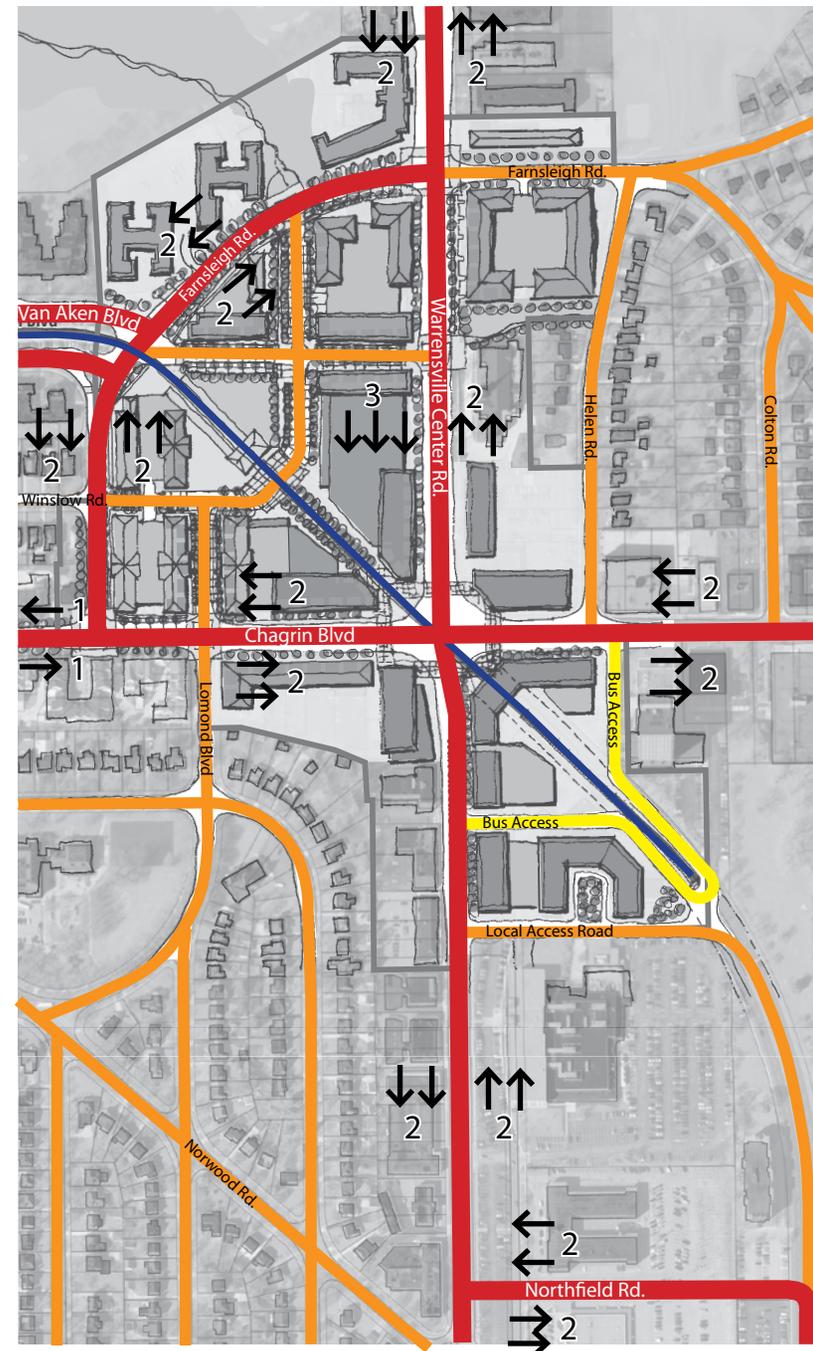
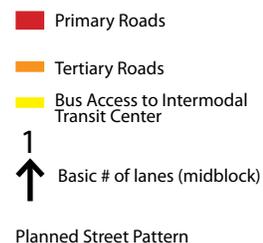
- Improved transit operations and increased transit coverage
- Improved operational efficiency of the Chagrin / Warrensville intersection
- Additional network connections, including a new east west road between Northfield and Warrensville and a new street pattern within the study area

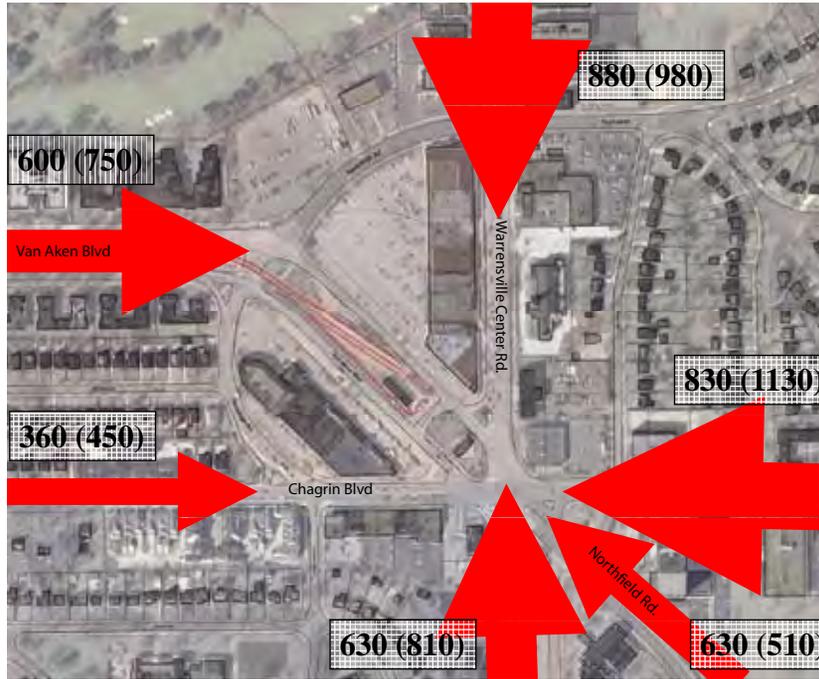
The primary roads of Warrensville Center, Van Aken, Chagrin and Northfield connect the district with the larger region. Warrensville Center Road is a five-lane road planned as a spine through this area with street facing buildings to create interest and activity along a wide tree-lined sidewalk. Similarly, Van Aken Boulevard is a four lane road with two lanes in each direction divided by a tree/landscape median for the transit line. Van Aken Boulevard will be reconfigured at Farnsleigh with a through local street to Warrensville Center Road. Chagrin Boulevard is a two to four lane road. It has historically been the location of street facing retail and is planned to be a spine and an important

interface with the adjacent lower density residential neighborhood. Finally, Northfield Road is a four lane, median divided road. It is reconfigured to connect with Warrensville Center Road south of Chagrin Boulevard. The other primary road in the street system is Farnsleigh Road, a four lane local street that defines the west edge of the district. It is realigned to terminate in a T-intersection with Chagrin Boulevard.

The tertiary roads are the local streets. Local streets are planned to enhance the connection from adjacent neighborhoods. Lomond Boulevard is extended one block north and terminates in the extension of Winslow Road. These local streets are designed to avoid cut through travel, while still providing integration with the surrounding area.

Based on preliminary traffic analysis contained in Appendix H and summarized on page 22, the basic number of lanes has been determined for the primary system. Local widenings at intersections will be required. Cross sections for each road are provided in Appendix E.

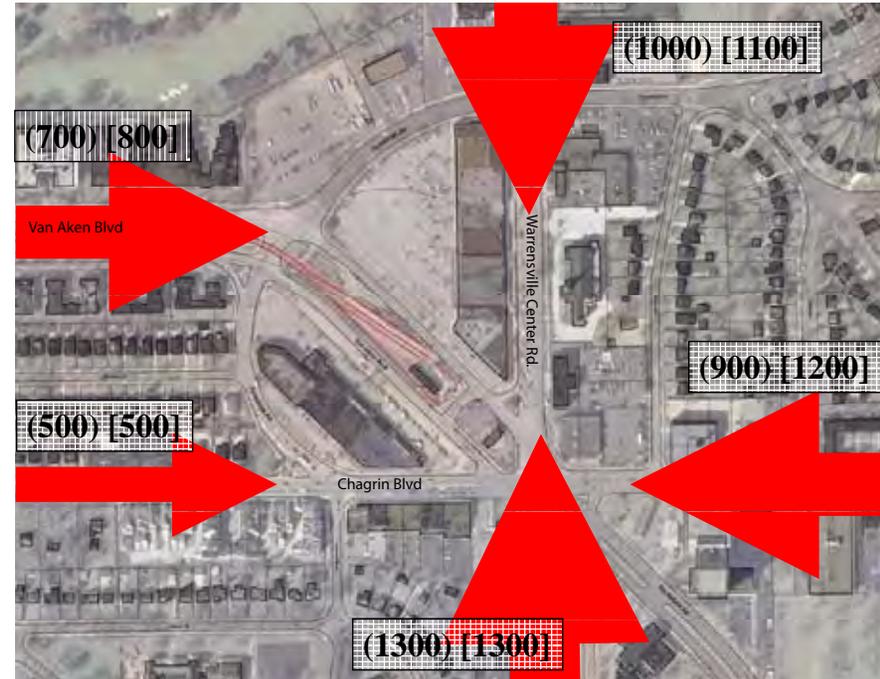




Existing traffic AM (PM) peak hour entering the study area

Location	Average Daily Traffic	AM	PM
1 Warrensville Center Road/Farnsleigh Road	24,700	B	C
2 Chagrin Boulevard/Warrensville Center Road	45,150	E	F
3 Van Aken Boulevard/Farnsleigh Road	19,700	B	B
4 Chagrin Boulevard/ Farnsleigh Road	16,100	C	D
5 Chagrin Boulevard/ Lomond Boulevard			

Existing Average Daily Traffic and Peak Hour Level of Service



Proposed Network (design year projection) traffic (AM) [PM] peak hour entering the study area

Location	Existing		Future	
	AM	PM	AM	PM
1 Warrensville Center Road/Farnsleigh Road	B	C	C	C
2 Chagrin Boulevard/Warrensville Center Road	E	F	C	C
3 Van Aken Boulevard/Farnsleigh Road	B	B	C	C
4 Chagrin Boulevard/ Farnsleigh Road	C	D	A	B
5 Chagrin Boulevard/ Lomond Boulevard				

Existing versus Future Level of Service

Location	Existing	Future
1 Warrensville Center Road/Farnsleigh Road	24,700	23,300
2 Chagrin Boulevard/Warrensville Center Road	45,150	37,800
3 Van Aken Boulevard/Farnsleigh Road	19,700	11,950
4 Chagrin Boulevard/ Farnsleigh Road	16,100	20,050
5 Chagrin Boulevard/ Lomond Boulevard		

Existing versus Future Average Daily Traffic

Anticipated Traffic Conditions

The recommended road improvements work for the proposed development program and have been thoroughly reviewed. The Design Year full build morning and afternoon peak hour volumes were analyzed for four different transportation network alternatives with the purpose of determining which configuration would support the redevelopment of the study area. Of the four scenarios tested, only two resulted in acceptable road and transit operations. The preferred network as described in the previous section was one of the two acceptable networks and is recommended because it:

- Can support the significant redevelopment of the site with a mix of residential, office and retail space.
- Will enhance safety of the Warrensville / Chagrin intersection by greatly reducing the number of conflict points within the intersection.
- Will enhance pedestrian accessibility by reducing the Warrensville / Chagrin intersection to a normal 4-legged intersection with crosswalks on all four legs.
- Creates an opportunity for an improved intermodal facility at the end of RTA's Blue Line.
- Protects for the expansion of the Blue Line in accordance with RTA's Long Term Plans.

The success of this reconfigured road network is predicated on two key considerations:

- All modifications and new road network connections are standard right angle, three and four leg

intersections, which reduce the overall required cycle time, allow all movements and support conventional pedestrian provisions; and,

- Redistribution of traffic will occur at a local level by the localized road improvements and new road connections. Redistribution will also occur at a regional network level. As estimated by NOACA, this could mean a 10% increase in traffic on Warrensville, south of Chagrin and a corresponding decrease on Northfield.

It should be noted that some of the future daily traffic volumes are lower than the existing daily traffic volumes based on NOACA's region-wide travel demand forecasting model. The traffic model prepared by NOACA has redistributed some of the traffic to other parallel arterials outside the study area of this project. This redistribution of traffic is based on the changes to the region's roadway system, including the proposed network changes contained within this plan.

The diagram on page 22 indicates the projected future volumes with the proposed road network. The table on page 22 compares Level of Service for the existing and proposed networks.

The impact on travel time and associated queues at the key intersection of Warrensville Center/Chagrin/ Northfield/Van Aken will be greatly improved. The new cycle length will be 120 seconds with an average wait time of 43 seconds, versus a cycle length of 180 seconds and an average wait time of 81 seconds today.

These improvements can support the significant redevelopment of the site with a mix of residential, office and retail space. The safety of the Warrensville/Chagrin intersection is enhanced by greatly reducing the number of conflict points within the intersection. Pedestrian accessibility will be enhanced by reducing the Warrensville/Chagrin intersection to a normal 4-legged intersection with crosswalks on all four legs. This creates an opportunity for an improved intermodal facility at the end of RTA's Blue Line and it allows for the expansion of the Blue Line in accordance with RTA's Long Term Plans.

Traffic in Surrounding Neighborhoods

Some localized increases in traffic will occur as the surrounding neighborhood interacts with the district, however, the existing significant contributing factor, the six legged intersection, will be gone and therefore changes can be contemplated.

Three options that were considered and discussed with the Technical Advisory Committee and the public were:

1. Leave existing traffic controls in place;
2. Remove all traffic controls; and,
3. Employ traffic calming methods.

The following table summarizes the strengths and weaknesses for each option.

Based on initial consultation, leaving the current restrictions in place is the preferred approach. However, the community is receptive to re-evaluating this decision once all the network improvements are in place and this re-evaluation could result in the removal of some or all restrictions.

	Leave existing traffic controls in place	Remove all traffic controls	Traffic calming
Description	Current signage for turn restrictions and one way streets are left in place	Remove all restrictive signage and allow all movements at all locations	Remove all signage and install speed humps and bump outs within the neighborhood
Strengths	<ul style="list-style-type: none"> - Continues to protect the neighborhood from outside traffic - Traffic counts show that existing intersections operating adequately, should continue to do so 	<ul style="list-style-type: none"> - Access into and out of neighborhood by vehicle greatly improved for residents and visitors - Reduces internal circulation of traffic 	<ul style="list-style-type: none"> - Access into and out of neighborhood by vehicle greatly improved for residents and visitors - Controls speed and can discourage cut-through traffic
Weaknesses	<ul style="list-style-type: none"> - Access into and out of neighborhood by vehicle - Internal restrictions are only signs – not physical 	<ul style="list-style-type: none"> - Increases in traffic anticipated along streets Norwood, Lomond and Sussex. 	<ul style="list-style-type: none"> - Increases in traffic anticipated along streets Norwood, Lomond and Sussex. - Additional costs (capital and maintenance) - Traffic calming is precedent setting

Traffic Analysis to be Undertaken as Part of Future Work

Prior to the implementation of any development, additional analysis must be undertaken including:

- Development access points – The level of development intensity will depend on how the local roads and access to parking areas interrelate. Site-specific access on a development block-by-block basis will be required to confirm the safe and efficient movement of traffic;
- Environmental document – Future environmental planning efforts may be required and may consider alternative networks or concepts within this report; and,
- Development of a retail strategy – The current retail serves the local community. As part of the development plan, the type and regional draw of the retail component could appreciably change the findings of this report. This will depend on the type and amount of actual retail proposed as part of any future development. Future development applications should address how the retail will affect the transportation system.





Warrensville/Van Aken Station bus terminal



5.0 | Transit

Residents of Shaker Heights have been able to take “the rapid” to downtown Cleveland since 1913. As a streetcar community planned by private developers, the residential neighborhoods have always been well served by transit. In the early years, the developer’s own company operated the transit. The City of Shaker Heights took over operation in 1944 until 1975, when the Greater Cleveland Regional Transit Authority took over almost all of the transit operations in the county. Today Shaker Heights is well served by both light rail and bus service making it an important intermodal center and nexus for the transportation system.



A Blue Line Rapid car at the Lynnfield station in the late 1970’s (National Parks Service photo)



A Blue Line Rapid LRV at the current Warrensville/Van Aken Station

5.1 | Transit Today

The Greater Cleveland Regional Transit Authority (RTA) operates both Rapid Transit (Blue Line) along Van Aken Boulevard and bus service, comprising multiple routes, along Chagrin Boulevard and Warrensville Center Road. The existing Warrensville/Van Aken station of the Blue Line is located in the center of the study area. Annual ridership for all routes operating in the Study Area are summarized in the chart at right.

Other key transit elements within the Study Area that have been considered within the WVA plan include:

- **Warrensville/Van Aken Station**

As an end-of-the-line station, the Warrensville/Van Aken Station has maintenance and cross over

Route	Annual Ridership (2007)	Comments
5 Chagrin Blvd	300,000	All day service in Chagrin corridor from Van Aken – Warrensville Rapid Station to Chagrin Falls
14 Kinsman	2,000,000	All day service in Chagrin corridor from Cuyahoga Community College in the east to downtown Cleveland
24 Van Aken / Tri C	N/A	All day service to Tri-C community college - formerly part of route 14 until December 2007
27F Solon Flyer	8,000	One bus during weekday mornings to serve outlying industries in Solon
41A/C Warrensville	1,200,000	All day service in Warrensville corridor, connecting Solon and other communities to the south to the Blue, Green and Red RT lines
441 Geauga Lake	29,000	Seasonal operations serving Geauga Lake and Wild Water Kingdom
67AX Blue Line	3,100,000	Rapid Line connecting Shaker Heights to downtown Cleveland

tracks, as well as a traction power substation that are essential to RTA operations. As part of the Intermodal Transit Center (ITC) included in this plan, new cross over tracks will be constructed to serve the new end of line. Maintenance tracks at the Warrensville/Van Aken station will be relocated out of the new development area, either into the new ITC or to the west of the Study Area in the median of Van Aken Boulevard. The final substation location will need to be evaluated further in context with the final development direction.

- **Warrensville/Van Aken Station bus terminal**

The Warrensville/Van Aken Station bus terminal is an off street facility, able to accommodate 4 buses. This station is insufficient for current routes operating into this station, and is the result of an unplanned ad hoc arrangement.

- **Farnsleigh Station**

The Farnsleigh Station is within the Van Aken median, immediately to the west of Farnsleigh Road and provides a convenient stop for the adjacent apartment buildings and is an informal park-n-ride station. This station needs to be rationalized in the WVA Plan.

- **Chagrin bus routes**

Certain bus routes on Chagrin Boulevard are required to make significant deviations off their route to access the Warrensville Station bus terminal.

Any future intermodal transit center needs to reduce off route circulation.

- **Warrensville Center bus routes**

Bus routes on Warrensville Center Road are adversely affected by the complexity of the Chagrin/Warrensville intersection. Northbound routes on Warrensville pick up and drop off on the east side of the street. This requires transit patrons to cross Warrensville and Van Aken to access either the Blue Line or any other bus route. The future intermodal station must consolidate all transit operations into a single bus terminal facility.

Current Transit Problems within the Study Area

There are a number of operational problems that limit RTA's ability to provide good transit within the Study Area. These are:

Undersized Warrensville/Van Aken Station bus terminal

Created approximately 10 years ago when the former Rapid turn around loop was removed, the Warrensville/Van Aken Station bus terminal is an off street 4-bay facility and allows passengers to transfer from bus to rail (and vice versa). Four bays are insufficient space for transfer and layover operations given the number of bus routes currently operating in the Study Area.

This limit in capacity also constrains RTA's ability to expand bus services to the growing markets to the south and east of this station. Furthermore, since the



-  Warrensville NB buses
-  Chagrin buses to/from west
-  Walking route for Warrensville to Blue Line transfer

Current bus operations and transfers to the Blue Line



RTA map of existing routes through the district



current bus terminal is situated in between the westbound and eastbound lanes of Van Aken Boulevard, the Rapid station to the south and a private development to the north, there is no opportunity for expansion in its current location.

Poor Accessibility for Chagrin Buses

Given the turn restrictions imposed on the area by the six-legged intersection of Chagrin/Warrensville/Van Aken/Northfield, bus routes traveling to/from the west on Chagrin Boulevard are required to make significant deviations off their route to access the Warrensville Station bus terminal, as illustrated. Any future intermodal transit center needs to reduce off route circulation.

Poor Transfer from Warrensville Center Bus Routes to Blue Line

Bus routes on Warrensville Center Road are adversely affected by the complexity of the Chagrin/Warrensville intersection. Northbound routes on Warrensville pick up and drop off on the east side of the street. This requires transit patrons to cross Warrensville and Van Aken to access either the Blue Line or any other bus route. Pedestrians have to cross 10 lanes of traffic. The future intermodal station must consolidate all transit operations into a single bus terminal facility.

No Commuter Parking

Although there is some parking located at the intersection of Farnsleigh Rd and Van Aken Blvd, it is dis-

tant from the station. In essence, the Warrensville/ Van Aken Station has no provision for commuter parking and passenger pick-up and drop-off (Kiss-N-Ride) activity happens informally from the side of the road on Van Aken Boulevard. Given the constraints that limit RTA's ability to expand their bus facilities (as described above), there is no opportunity to provide commuter facilities at this terminal station. This severely limits RTA's ability to attract riders out of their private automobiles and onto transit.

Limited Ability to Expand/Extend

The opportunity to extend the Blue Line is extremely limited by the capacity constraints and safety issues associated with the Warrensville/Van Aken/Chagrin intersection. Grade separated solutions over or under, create significant barriers to pedestrian activity within the WVA area which undermines the redevelopment principles that the City is trying to achieve in the Study Area. Furthermore, given structural requirements and utility impacts (and associated relocation costs), economically viable solutions must focus on at grade opportunities.



Warrensville/Van Aken Station bus terminal

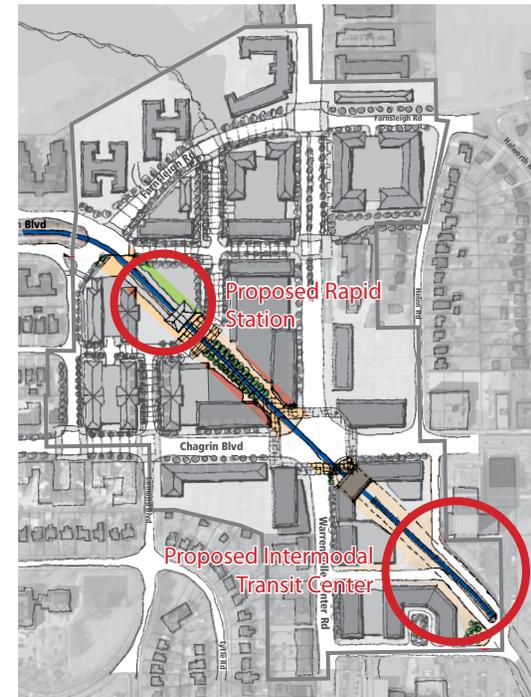


Warrensville/Van Aken Station bus terminal

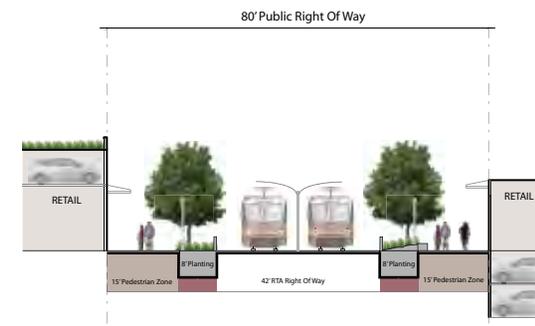
5.2 | Planned Transit

Shaker Heights has a long tradition of community planning where transit acts as an important unifying element. Most of Van Aken Boulevard is a lush, green setting for the Blue Line with beautiful 4-6 story apartment buildings and large homes lining the route. Transit in the Warrensville/Van Aken district should not be a physical barrier, but rather an element that draws people in. Transit and the intermodal station will be the catalyst to re-create this district as a dynamic hub of mixed use development that will be a draw for residents from the entire region. The location of the intermodal station south of the intersection offers the opportunity to develop the site more fully, and presents a method of creating park and ride conditions that will help to increase transit ridership and enable the system to be expanded in the future.

The 2001 "Blue Line Major Investment Study" (MIS) identified a preferred long-term strategy of extending the Blue Line 3.3 miles south to the Harvard Road/I-271 Interchange on an alignment along Northfield Road and Harvard Road. The December 2004 "Transit 2025, Long Range Plan" further set the framework for transit priorities, including expansion through RTA's system. Within the Study Area, this report proposes an extension of the Blue Line southeast from its current terminus. Analysis undertaken as part of this study has developed a conceptual approach to the following key elements:



Downtown Plano Station of the DART Red Line, Dallas



Proposed Blue Line cross-section in a transit mall as it approaches the Warrensville Center/Chagrin intersection



Track Alignment Through the Study Area

Two alternative alignments were assessed as part of this study:

- a realignment and relocation along an easterly alignment to a new terminal on the east side of Warrensville; and,
- an extension along the existing diagonal alignment to a new terminal location in the southeast quadrant of Chagrin/Warrensville.

Based on a consideration of ridership potential, inter-modal opportunities, impact on traffic, land use / development and cost, the extension along the existing alignment was selected as the preferred alternative.

Track Alignment in the Southeast Quadrant of the Study Area

Based on preliminary investigations of alignments along the east side of Warrensville and within the right-of-way for Northfield, it was determined that a Northfield alignment is preferred, because:

- there are a number of constraints along the Warrensville right-of-way, including the proximity of the University Hospital building and the reduced right-of-way at the City limits which would frustrate any future alignment extensions;

- there is sufficient publicly owned property (the Northfield right-of-way) to develop a terminal station and bus terminal and the availability of right-of-way for a future extension in accordance with RTA's long term plans; and,
- this alignment was preferred in the Blue Line MIS.

Farnsleigh Station

In order to encourage transit-oriented development within the district, the existing Warrensville station and the Farnsleigh station will be consolidated into the center of the development block. Key design considerations include an integrated approach that will allow crossings of the track at key locations in the district.

Transit Priority at the Reconfigured Chagrin/Warrensville Intersection

With the Chagrin / Warrensville intersection reconfigured to a standard four legged intersection, transit can be accommodated efficiently on the diagonal through the intersection during a special transit only phase. During this transit only phase, traffic is stopped on all four legs long enough to give transit the priority to cross through the intersection. Given that the RTA line in this area has a headway of 10 minutes during the peak hours, this operation will only affect every second or third cycle during the peak hours.

The traffic analysis in support of this approach is contained in the Traffic Study, included in the appendix

Intermodal Transit Center

The intermodal demonstration plan illustrated in the diagram at the right illustrates one possible way of developing an end-of-the-line intermodal station. The plan has been developed to demonstrate the potential of locating such a station completely within the Northfield Road right-of-way in the southeast quadrant of the study area. The plan illustrates a yard track that is the minimum length for such a facility as well as a 300-foot long platform. The station is accessed by buses along the old right-of-way from Warrensville by means of a new transit street north of the University Hospital offices and from Chagrin in the future.

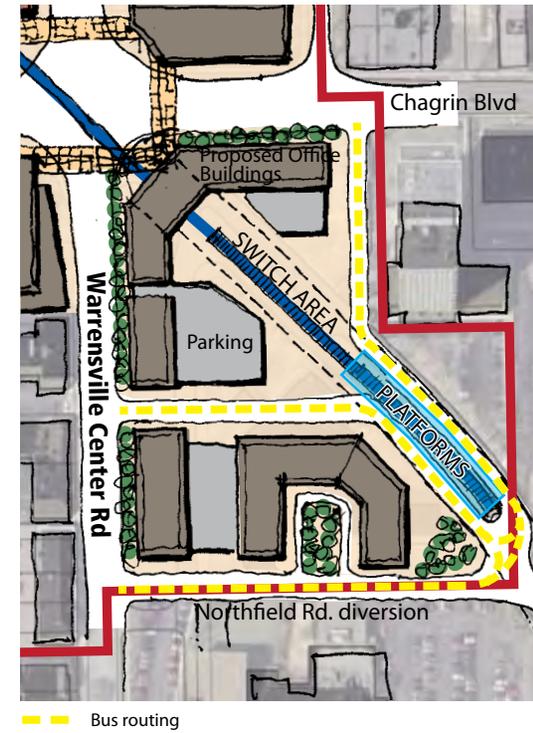
The plan also illustrates the potential to build end-of-the-line park and ride facilities adjacent to an important employment center as well as new office buildings along Warrensville, both creating new riders for the system.

The concept contains the following key features:

- A new Blue Line platform and cross over tracks in advance of the station - The platform would be similar in nature to the existing Warrensville Station, with weather protection, such as a canopy or platform shelters.
- A new 8 bay off street bus terminal - 8 bays accounts for existing and future bus routing needs for the area. The final design should consider an integration of the Blue Line and bus platforms to facilitate efficient and convenient transfers be-

tween bus and light rail. Other alternatives are possible and the final configuration will be subject to a detailed planning study by RTA.

- Transit priority access to Chagrin and Warrensville - Integral to the planning of the new terminal station will be ensuring bus access possibly through transit priority signals on Chagrin and Warrensville. The optimal location and operation will be subject to more detailed planning and traffic analysis and will be optimized to address RTA's bus routing changes that will occur as a result of this relocation.
- Parking - To encourage commuters traveling through the area to transfer from private automobile to transit, parking and "Kiss-N-Ride" facilities should be integrated into the final design. The location and amount of parking will be subject to future planning efforts.
- Pedestrian provisions - A significant opportunity that is created by extending the line into the southeast quadrant is that major employment centers like the University Hospital offices and Tower East will be within walking distance of the Blue Line. To encourage higher modal splits from these locations, any future plan should have an attractive and convenient pedestrian connection component. This would also apply to any future intensification that may occur on other underdeveloped lands within the southeast quadrant.
- A facility for waiting/bus operator welfare should be provided in this location.



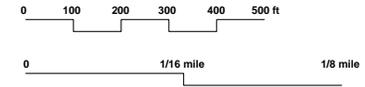
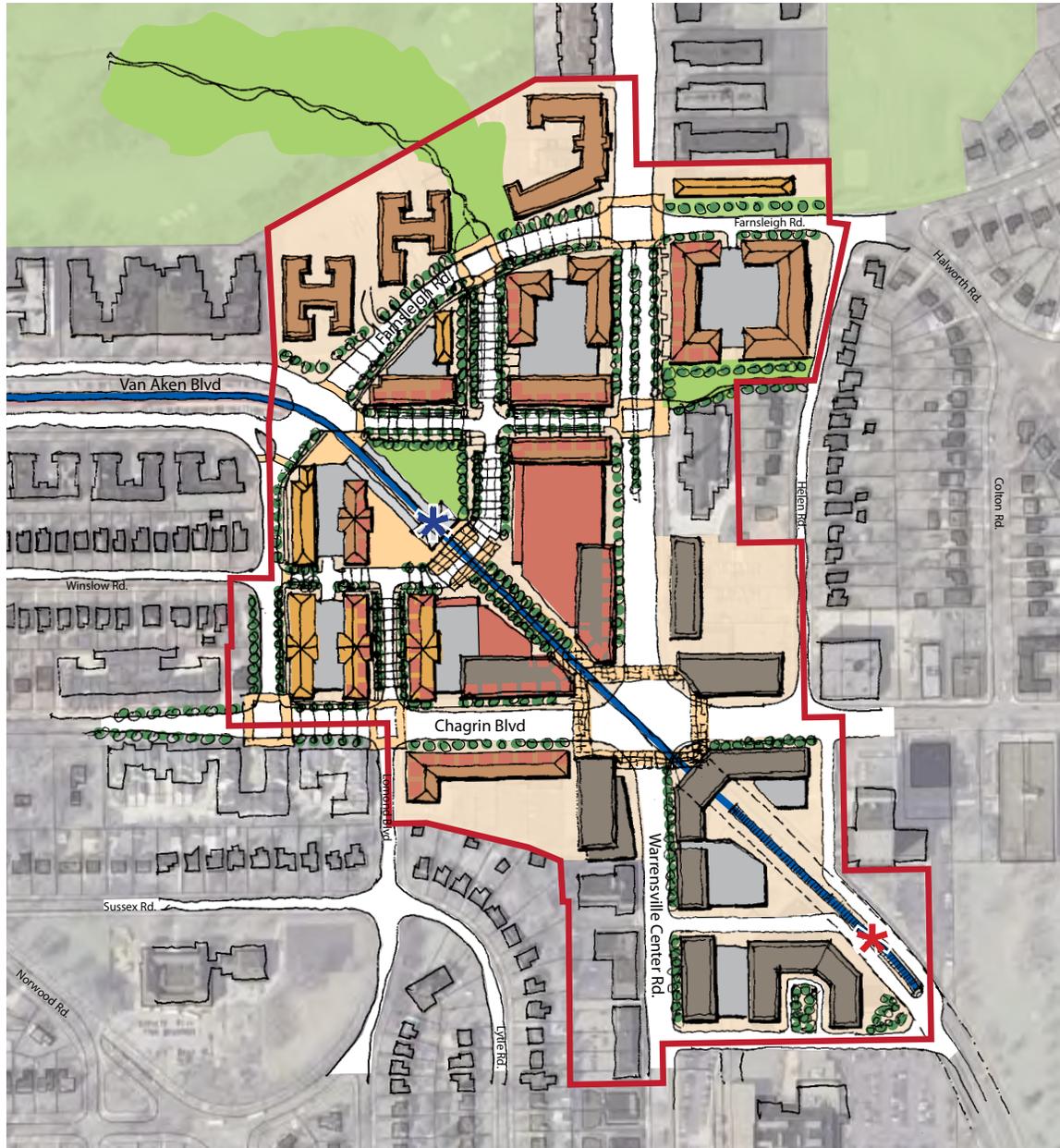
The proposed Intermodal Transit Center



Simple bus and Rapid interaction at the proposed ITC



Contextual overview of proposed ITC



Urban Design Plan
31 March, 2008

- Study Area Boundary
- Rapid Transit (Blue Line)
- Retail at Grade
- Retail
- Office
- Apartments
- Townhouses
- Parking Garages
- Park/Green Space
- ★ Transit Station
- ★ Intermodal Station

6.0 | Land Use & Urban Design

As has been mentioned previously in the report, the Urban Design Plan is presented as one demonstration of the possible build out of the Warrensville/Van Aken Transit-Oriented Development Plan (WVA Plan). The Urban Design Plan is intended to guide the detailed planning and design that will occur over the long term.

Shaker Heights achieved international renown in the early 20th century as a planned community. Guided by the ideals of the Garden City movement, the plan was based on an extensive system of parks, public and private gardens. Streets were lined with trees and houses were set on large lots to enhance the sense of open space. The lush gardens on private property were integral to the public experience of the community. The main streets were lined with the most prestigious houses, set well back from the road. Schools and other community facilities were sited in green spaces, as the central and highly visible focus of neighborhoods. The green space formed a continuous system of parks, natural features, boulevard streets and community facilities.

The street pattern was organized within the framework of the arterial roads of Lee, Warrensville Center, Chagrin and South Woodland Road. The two transit spines are Van Aken and Shaker Boulevard. Within that structure, local residential streets were organized to provide views through to the primary park system and to the transit service. Most of the community has long, narrow blocks with the exception of the north east corner where the street pattern is curvilinear. The

City's original plan did not include retail uses, the goal was to create a residential community.

The key elements of the WVA Plan necessary to generate a vibrant, mixed-use district include:

- Changing the six-way intersection at Chagrin and Warrensville into a standard four-way intersection;
- Reconfiguring Van Aken to extend straight east between Farnsleigh and Warrensville;
- Reconfiguring Northfield to connect with Warrensville near the Post Office;
- Maintaining the rapid transit line in its current diagonal configuration; and,
- Extending the rapid transit line through the Chagrin/Warrensville intersection to a new transit/bus terminal near the University Hospitals Administrative building,

Buildings are located to reinforce the edges of streets and public spaces with uses that range from primarily residential and mixed use in the area bordering Farnsleigh Road, to office and mixed use near the main intersection to a retail focus in the center.

At the center of the district is a park intended as an amenity for residents and a meeting and gathering place for employees and shoppers. Housing and new office space overlooks the park, which has the transit station in the center.

Parking will be located in multi-level structures in the centers of most blocks with buildings and active uses facing the adjacent streets. In addition there is ample on-street parking in front of the stores.

Building heights range across the site to accommodate new development that compliments the existing neighborhoods. On the west adjacent to the existing residential community the buildings are 3-4 stories in height. On Farnsleigh, east of the Van Aken intersection, they are envisioned as 4-5 stories as an extension of similar uses on Van Aken. The highest residential building is 10 stories high, located at the intersection of Van Aken and Farnsleigh. It is meant to be an iconic building that can be seen as one approaches the district from the west. The highest buildings are the 10 story office buildings at the intersection of Chagrin and Warrensville.

6.1 | Key Structuring Elements

The Development Program

A block-by-block analysis of the land was completed (see Appendix) to assure that the initial program of uses can be achieved, that transit can act as a catalyst to development and to assure that traffic and parking can be accommodated within a pedestrian environment. A phasing plan can be established to assure existing major retail establishment can continue to function during the redevelopment of the district.

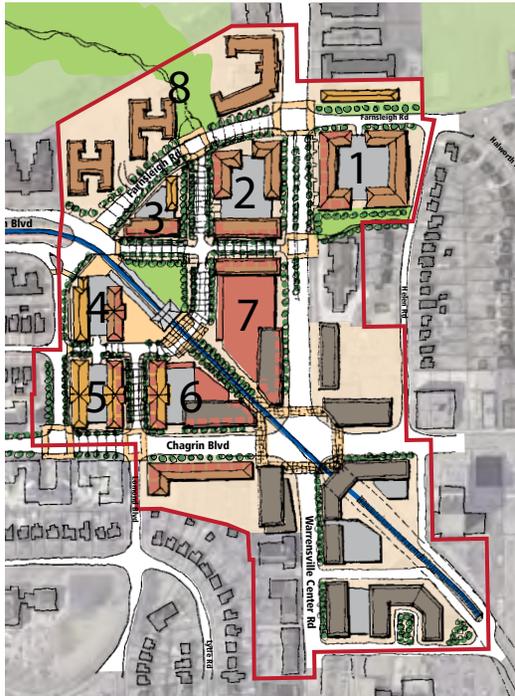
The initial program for development illustrated in the Plan includes:

1. 160,000- 200,000 s.f. of retail,
2. 500-600 residential units,
3. 250,000-500,000 s.f. of office,
4. an intermodal transit facility
5. parking to meet development needs (see Appendix F)
6. on-street parking where possible

A comparison of the program with the amount of development illustrated in the proposed plan and outlined on the block-by-block basis indicates that the program goals have been realized.

Reading the Charts

The chart with each block analysis indicates the location of the site as indicated in the master plan, the number of residential units (@1000s.f./unit), the amount of retail and office, the number of parking spaces on the block and the number of levels of parking above and below grade (i.e. 3 above + 1 below).



Site	Residential	Retail	Office	Parking	Heights
1	40 Apt. Units	6,000 s.f.	0	360 Cars (shared parking)	4 Flrs. Apts 3+1 Parking
2	70 Apt. Units	35,000 s.f.	0	180 Cars	8 Flrs. Apts. 3+1 Parking
3	6 T.H. Units 90 Apt. Units	4,000 s.f.	0	144 Cars	3 Flrs. T.H. 8 Flrs. Apts 3+1 Parking
4	102 Apt. Units	4,000 s.f.	0	288 Cars	8 Flrs Apts 3+1 Parking
5	24 T.H. Units	3,000 s.f.		240 Cars	4 Flrs. T.H. 6 Parking
6	70 Apt. Units	50,000 s.f.	120,000 s.f.	240 cars	8 Flrs Apts. 10 Flrs Off. 3+1 Parking
7	70 Apt. Units	100,000 s.f.	120,000 s.f.	1000 cars	8 Flrs Apts. 10 Flrs Off. 2 Flrs Retail 2 1/2 below grade
8	270 Apts 3 Buildings	10,000 s.f.		450 cars	5 Flrs 3+1 Parking
Totals	30 TH. Units 712 Apartments	212,000 s.f.	240,000 s.f.	2,902 cars	



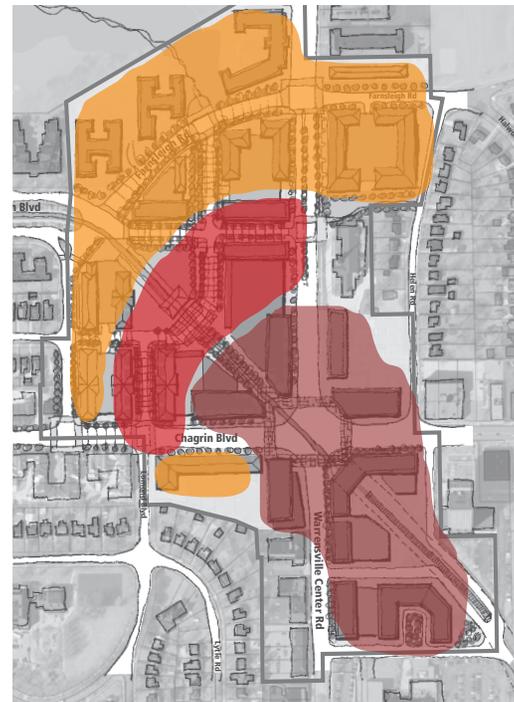
Land Use

The diagram illustrates the distribution of land use across the WVA Plan. The concept inherent to the land use distribution is based on the supporting transit, providing a sensitive transition to existing use and built form on the edge of the district, and to provide the flexibility to allow the private sector to be responsive to the market.

Residential uses are primarily located along Farnsleigh Road to extend the existing apartment form into the district on the north side and to provide a transition to the lower density residential neighborhoods on the west and south.

Open space is central to the area and provides the transit focus as the site of the station for the development. Retail uses are provided around the transit mall and on local streets to generate a pedestrian friendly environment, with active and safe streets.

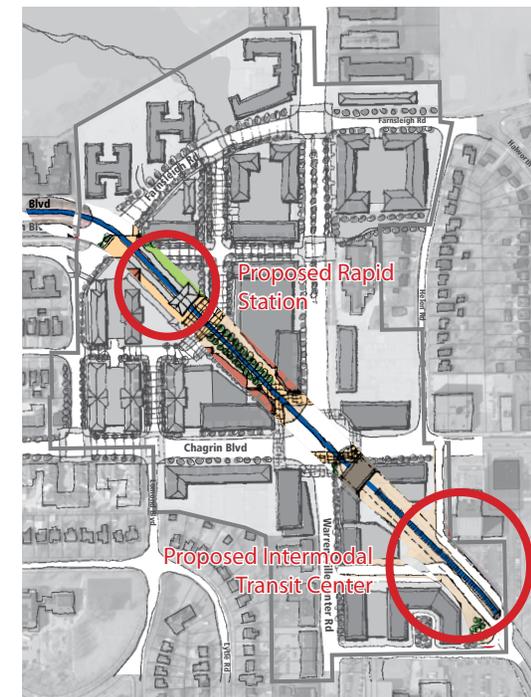
The location of office at the intersection of Chagrin Boulevard and Warrensville Center Road locates these uses close to existing office, and provides an opportunity to create a landmark building at the intersection.



General use areas of the Urban Design Plan

Transit

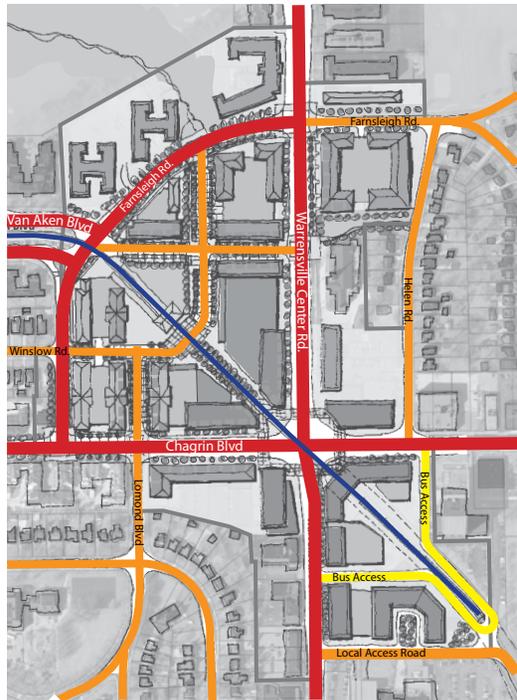
The WVA Plan is based on the transit remaining on its current alignment west of Warrensville Center Road. In this area, the route is intended to be set in an urban plaza where pedestrian circulation is defined by walkways and landscape treatment. Extension of transit is accommodated through a diagonal crossing of the reconfigured intersection. East of Warrensville Center Road, transit is located in the Northfield Road right-of-way and terminates at a new intermodal station located close to the University Hospital building.



The proposed transit infrastructure

Street & Block Pattern

The primary change to the pattern of streets in the area is the reconfiguration of Van Aken and Northfield resulting in a new “four legged” intersection at Chagrin Boulevard and Warrensville Center Road. The local streets and the transit route create small blocks that are compatible in size with the blocks in the immediately adjacent Shaker Heights neighborhoods. The integrated and fine grained street pattern creates blocks that accommodate a variety of land uses and building types from townhouses to mixed use buildings with a character and form that are typical of town centers.



Primary Roads Bus Access to Intermodal Transit Center
Tertiary Roads

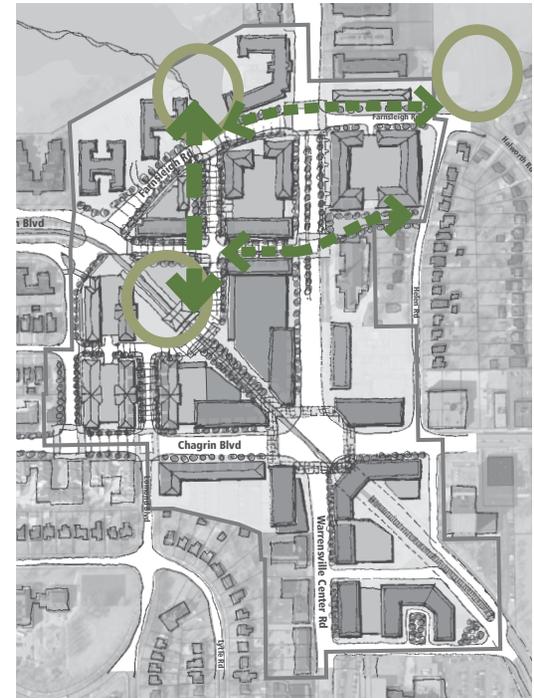
The proposed street & block pattern

Streets & Open Space

All streets in the Warrensville/Van Aken district are planned to function as multi purpose urban roads that are both transportation corridors and pedestrian oriented places.

The Urban Design Plan demonstrates a distinctly urban district. A focus of the district is a park intended as an amenity for residents and a meeting and gathering place for employees and shoppers. The park should be designed with both hard surfaces and landscape areas.

An open space connection is illustrated from the park to the open space on the north side of Farnsleigh Road. The intent is to re-establish Doan Brook (the existing water course) in an open space that links with the adjacent Shaker Heights Country Club. Additionally, an open space connection will be made eastwards along Farnsleigh Road to connect the district to Thornton Park.



Open Spaces
Open Space Connections
Key open spaces and open space connections



Easton Town Center, Columbus



Place d'Youville, Montreal

Parking

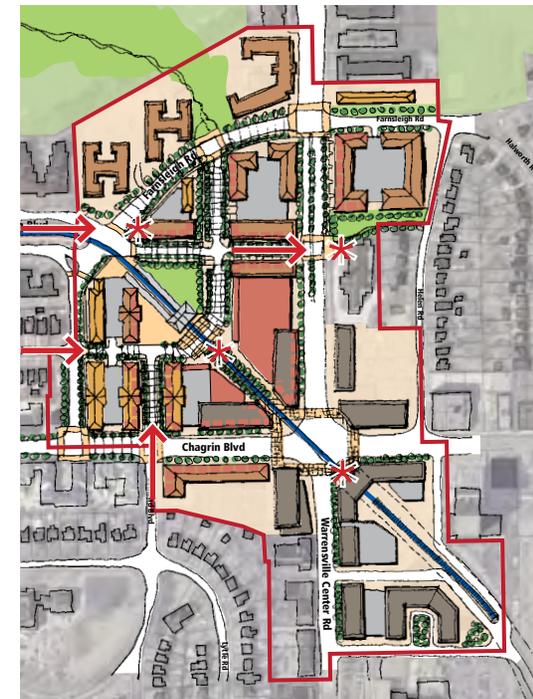
Parking is important for the success of the retail and office components of the WVA Plan. The challenge is to provide sufficient parking while not generating a surplus that discourages walking to the district or use of transit.

The WVA Plan accommodates a variety of options including on-street parking on all local streets and structured parking. Structured parking as illustrated on the Urban Design Plan is always located internal to the block with a veneer of residential or mixed use buildings. This is of paramount importance to ensure that the streets are lined with uses that provide activity and interest at the sidewalk.

Supplied parking will include 2,902 spaces in structured parking, and 90 on-street parking spaces on internal streets within the district, as well as 55 off-peak spaces on Chagrin and Farnsleigh for a total of 3,047 available spaces.

Vistas

Vistas are enhanced by unique architectural buildings located to terminate views, enhance identity and add focus to the area. The diagram illustrates important sites that terminate views. In addition, the diagram suggests highly visible locations (such as important intersections or the central open space) that provide the opportunity for creating vistas. One important building is the Christ Episcopal Church on Warrensville Center Road that terminates the view along Van Aken Boulevard in its new configuration. New buildings at vista terminations should include special architectural treatment or details to celebrate their special location and role in creating a sense of place for the district.



- Key Views
- * Vista Terminations

Landmarks and key views



Charleston, South Carolina



Christ Episcopal Church on Warrensville Center Rd



Reused Old Summerhill Train Station, Toronto

6.2 | Key Streets

Throughout the process of developing the plan, the importance of key streets has been seen as a manner of generating an identity for the Warrensville Van Aken District that reflects the nature of Shaker Heights. Streets have been designed to ODOT standards, which require 12' travel lanes. However, the preferred lane widths are 11'-0". The following key streets represent the concept of a new transit-oriented district that is pedestrian in nature.

The Residential Street

Farnsleigh Road between Van Aken and Warrensville is the main residential street in the new district. This provides a natural transition between the existing apartments and the new residential buildings. Retail uses may be provided at the street level, where appropriate. On the north side of the street, new apartment buildings are proposed adjacent to the golf course, and townhouses will be located on the east side of the street facing Winslow. The streetscape is intended to include the following:

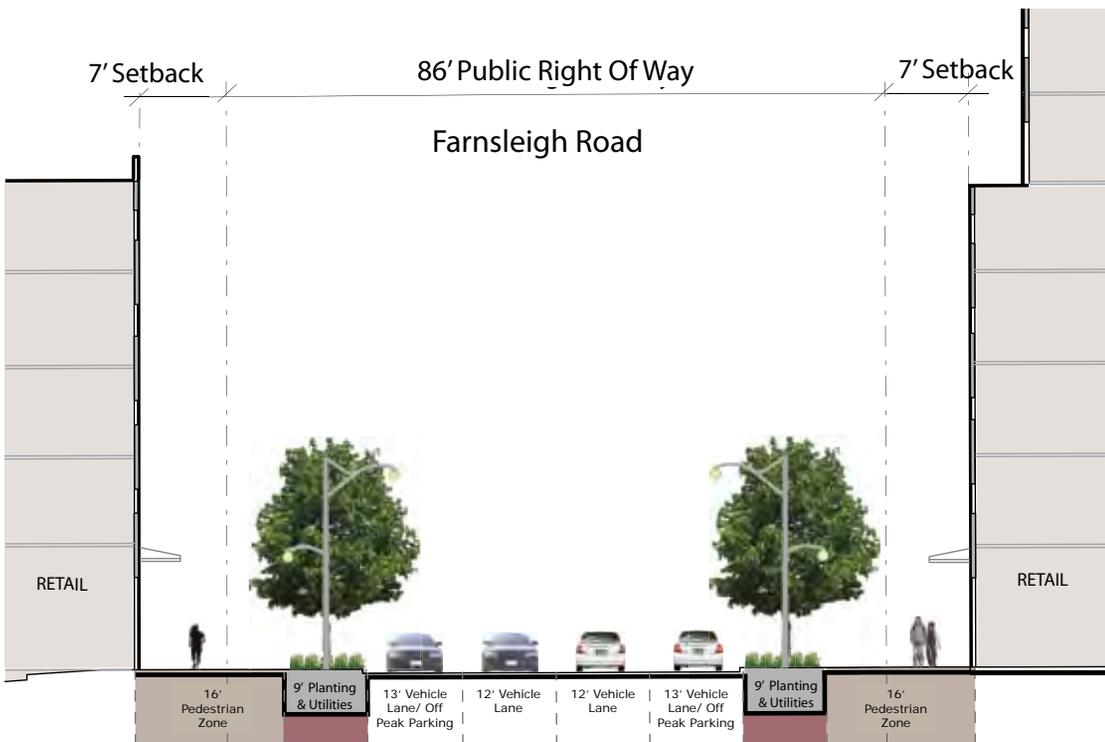
- an attractive and comfortable pedestrian zone;
- buildings set close to the street with a rich landscaped edge; and,
- on-street parking.



Baldwin Park, Orlando, Florida



Vancouver, British Columbia





The Retail Street

The retail street is the heart of the new district. The extension of Van Aken from Farnsleigh to Warrensville provides the opportunity to create a pedestrian scaled street that is unique to the Warrensville/Van Aken District. It is meant to act as a main street within the district promoting pedestrian activity while providing the opportunity for smaller retail establishments to coexist with the larger format stores.

The new street extends Van Aken into the center, passes by the park and ends at Warrensville Center Road. In order to produce the desired environment the street includes the following elements:

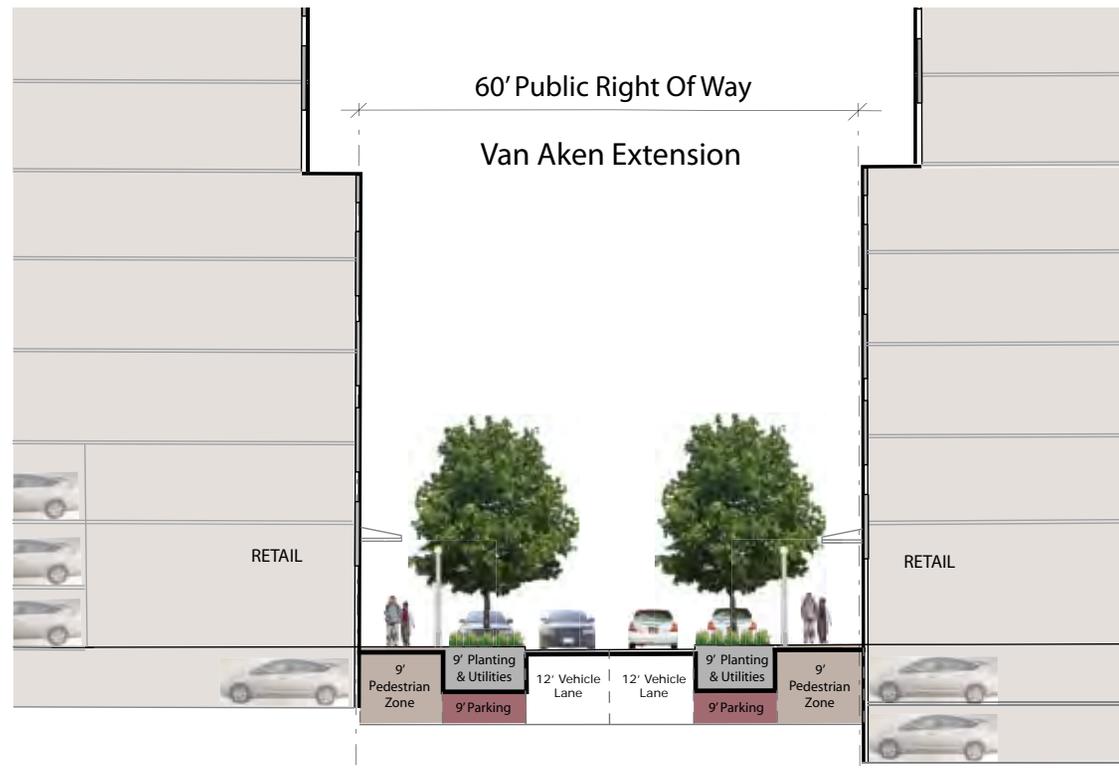
- sidewalks wide enough for comfortable walking, and outdoor dining;
- a rich landscaped environment;
- a mix of uses at the street edge; and,
- on-street parking.



Bethesda, Maryland



Minneapolis, Minnesota

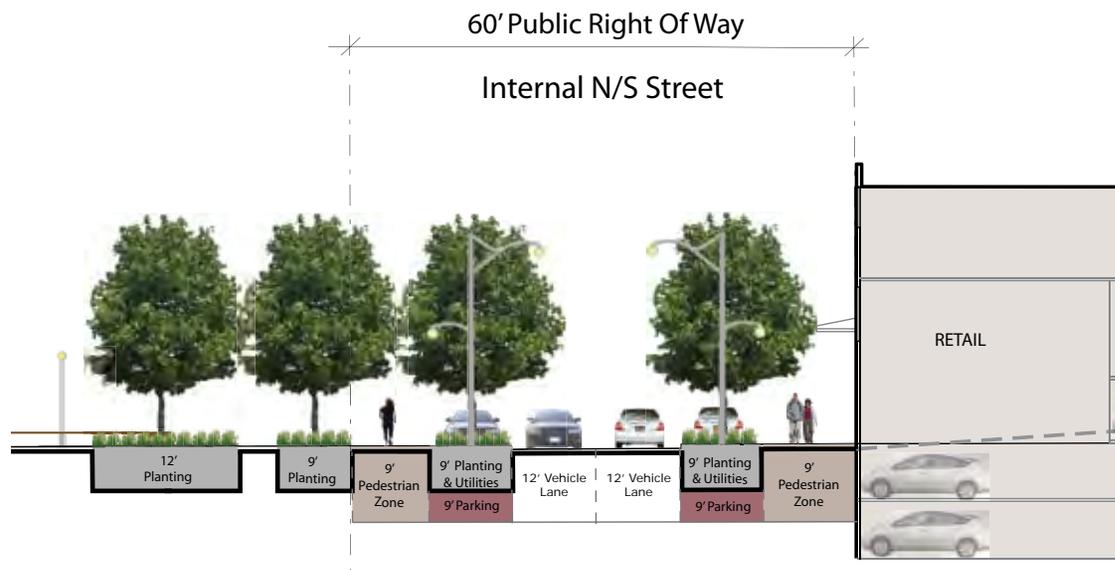


The Core

The core of the district is a new park surrounded by local streets with retail uses. The importance of this public space cannot be underestimated. The park is a new transit/open space focus that will be distinct for the district and provide special place for new residents and those from the surrounding neighborhoods. The core is envisioned as a lively 24 hour space with the new transit station located in the plaza and shops facing the square. Both office and residential buildings will have views into the square providing more “eyes on the street” for safety and comfort.

To assure that the core area is a true transit/pedestrian area within the district, the following design elements should be included:

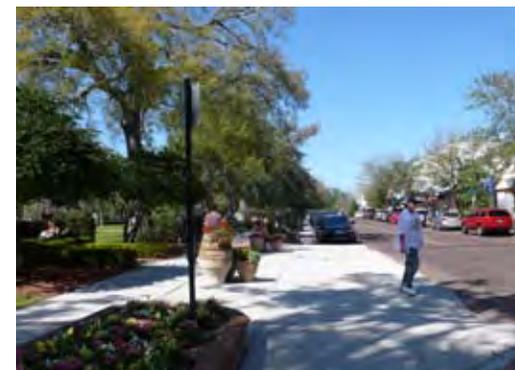
- there should be easy movement through and around the park;
- retail spaces should be oriented to the park;
- the transit line should be designed such that barriers from the tracks to the plaza are transparent or made up of low hedges and plantings;
- pedestrian crossings of the tracks should be clearly identified and easy to cross; and,
- public art should be integrated into the public realm.



Quebec City, Quebec



Pentagon Row, Washington D.C.



Winter Park, Florida



The Edges

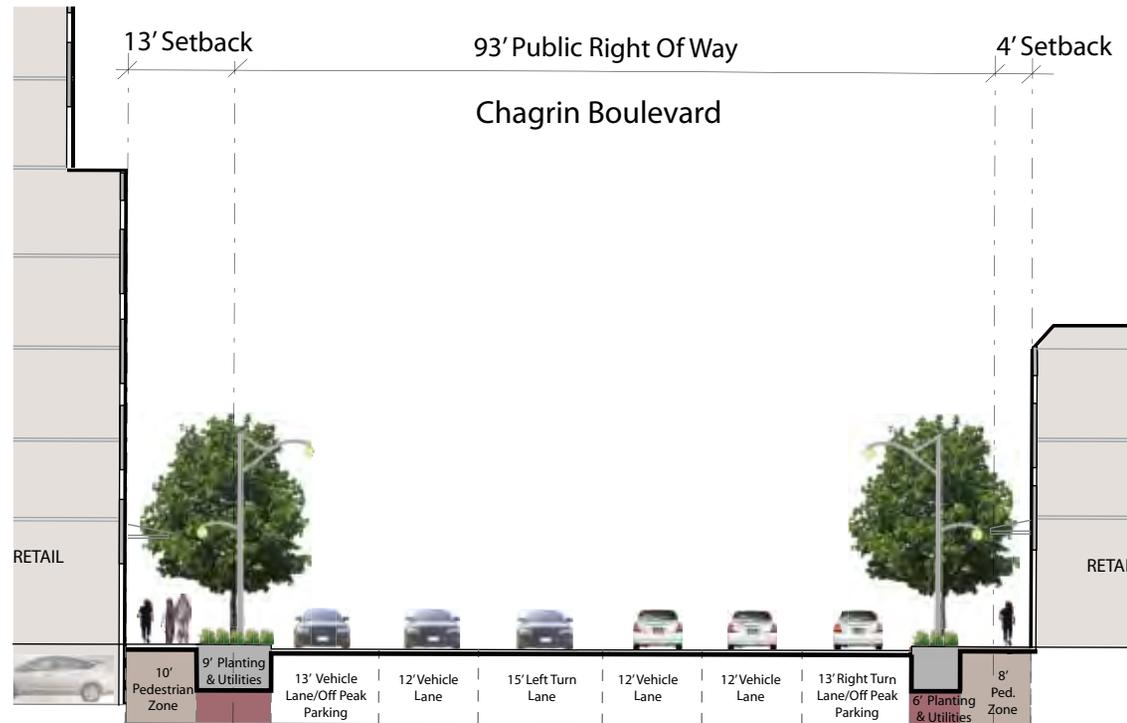
The edges of the district are defined by major streets. The largest of these streets are Warrensville Center Road and Chagrin Boulevard. The plan has been designed to assure that there are opportunities to enliven the pedestrian spaces along those streets. Chagrin, as illustrated below, will have wider sidewalks than at the present time. The walking environment along fast moving traffic will be isolated through the use of landscaping. Retail and other uses, with windows on the street, will create a safe and comfortable environment for pedestrians.



Pentagon Row, Washington D.C.



Michigan Ave, Chicago





Warrensville/Van Aken district looking southeast



7.0 | Implementation

7.1 | Ten Recommendations

1. Establish a Transit-Oriented Development Team

The City of Shaker Heights needs to establish a Transit-Oriented Development Team, comprised of key staff members from the City Administration and key stakeholders including, RTA, the developer, County Engineer and ODOT to reinforce the political will and create the administrative culture to activate and promote the policies and regulations that will promote Transit-Oriented Development in the Warrensville/Van Aken district. The role of the Team will be twofold: First, to lead strategic decision making with regard to public sector investment (i.e. new civic buildings and capital improvements); and, second, to facilitate Transit-Oriented Development proposals.

One of the Team's main objectives will be to expedite planning approvals. This, in itself, is considered a key incentive, and crucial in the ultimate achievement of Transit-Oriented Development. A second objective will be to increase coordination at City Hall to mitigate potential overlapping and conflicting jurisdictions that may combine to frustrate implementation.

2. Investment Priorities

There is infrastructure investment required in three categories – utilities, roads and transit. All of these need to be carefully sequenced in order to ensure efficiency of investment. The following sequence of infrastructure investment is considered appropriate:

Short to Mid-Term Priorities

(2 to 7 years for completion)

Phase 1: Construction of the new Northfield Road connection to Warrensville, which will then facilitate reconfiguration of the intersection.

Phase 2: Underground utilities need to be comprehensively relocated under Farnsleigh Road, with Farnsleigh Road being reconfigured at the same time.

Phase 3: Van Aken Boulevard within the District is to be closed to vehicular traffic. It will remain open for transit vehicles only.

Mid to Longer-Term Priorities

(5 to 10 years for completion)

Phase 4: The transit upgrades, including the extension of the LRT line, the construction of a new station and the general enhancement of the functional and aesthetic components of the transit facility are ex-

pected to happen as one major project, following the reconfiguration of the intersection.

Private Sector Redevelopment

Throughout this Report, the concept that private sector redevelopment will respond to public sector investment has been promoted. Within the Warrensville/Van Aken District it is also important to recognize that road capacity and accessibility issues need to be resolved to facilitate the significant redevelopment potential identified by the vision.

As such, while some small scale private sector redevelopment is likely to occur at any time, with respect to the phasing of substantial private sector redevelopment within the Warrensville/Van Aken District, the residential development on the north side of Farnsleigh Road could happen concurrent to the reconstruction of Farnsleigh Road as identified in Phase 2.

It is expected that significant mixed use redevelopment within the District itself (south of Farnsleigh Road) would not occur until after the first three steps in the public infrastructure program are complete. Notwithstanding that, private sector redevelopment is expected to occur incrementally, on a block by block basis, allowing for the shifting of existing retail tenants into new space within the District while other blocks are redeveloped over time. It

is anticipated that the development blocks on the north side of the LRT line would occur first, followed by the development blocks on the south side.

3. **Establish Transportation Improvement District**

The City should establish a Transportation Improvement District (TID) to coordinate federal, state and local resources the planning, financing, construction and operation of transportation related projects. The establishment of a TID provides a formal administrative structure and funding capacity to augment City infrastructure building and to provide opportunities for road network improvements, Level of Service (LOS) and intersection improvements as well as transit infrastructure and service enhancements.

4. **Maximize Funding Sources**

The implementation of infrastructure and transit improvements will be most effective if various funding and financing sources are strategically combined for maximum leverage. To obtain the optimal funding and financing package, a station area “champion” should be identified that offers experience working with government agencies at all levels and devotion to improving the Warrensville/Van Aken station area.

Given that many federal programs require a 20 percent cash or in-kind local contribution, the City of Shaker Heights needs to explore innovative strategies to meet local share requirements. Some possible strategies include:

- **Land Donations** - the value of land not previously dedicated to support transit-related purposes can be utilized as a local match for capital improvements under FTA programs.
- **Private Utility Relocation** - local franchise agreements with private utility companies often include provisions that utility companies are responsible for relocation costs associated with publicly funded community betterment improvements. A number of cities have used these agreements to pay for public improvements (street/sidewalk reconstruction and streetscape improvements related to transit-oriented devel-



- opment). The value of private utility company investments qualify as local match for federally funded projects.
- **Local Infrastructure Improvements** - local funding for pedestrian infrastructure improvements and utility improvements paid for through public works and/or Community Development Block Grant (CDBG) funds can be used to satisfy local match requirements for federal funding grants and transit-related land appropriations.

5. **Prepare a TOD Ordinance**

As an initial step, the City must prepare a TOD Ordinance for the Warrensville/Van Aken District to facilitate higher intensity built form and permit mixed use development that will not only support transit but also enhance development opportunities within the District. The Ordinance should include key planning concepts related to parking requirements, land use, building setbacks and height.

6. **Enhance & Maintain Pedestrian Realm**

The City must commit to building and maintaining an enhanced pedestrian realm. A high quality pedestrian realm is a critical element in promoting transit ridership, and at the same time can have considerable economic benefits for an area. Therefore, investments in the public realm must be made to ensure the long term sustainability of the Warrensville/Van Aken Center and its transit functionality.

The City and the GCRTA must commit capital funding to establish functional improvements such as connected sidewalks, utility corridors and trees, while investments in capital and maintenance for aesthetic enhancements should be provided through Public Private Partnerships, through the GCRTA's Joint Development Program or through other means between the City and private sector developers.

These pedestrian realm investments effectively reduce overall costs to developers as the full cost of pedestrian improvements are augmented through City and GCRTA capital funds and shared among other area landowners.

A relatively consistent building edge is important to provide spatial definition and containment to the street. Build-within zones are recommended for all TODs, requiring buildings to locate their

front and exterior side walls within a defined zone on the lot - measured from the back of the curb, rather than from the property line/street right-of-way line.

The build-within zones essentially set both a minimum and maximum setback. It is anticipated that, due to varying street right-of-way widths and pavement/transit facility requirements that the build-within zone may incorporate public land, and/or private lands from the abutting development block or lot.

7. Establish Private/Public Partnerships

The City and GCRTA (Joint Development Program) should actively pursue partnerships with private land developers and other public agencies to leverage public and private funds and competencies in order to facilitate TOD within the Warrensville/Van Aken District plan area.

8. Provide Financial Incentives

The intent of financial incentives is quite simply to entice private landowners and developers to build TOD in the Warrensville/Van Aken District and along the transit line. Incentive programs need to be tied to the need for a reduction in the gap between the cost of development and the achievable rent/price. While parking standard reductions, approval process efficiencies, density bonuses and development fee reductions are critical elements of an overall incentive package, they are not expected to effectively close the gap. Therefore, the City may need to establish more direct development incentives through tax abatements and/or the establishment of a Tax Increment Financing (TIF) District to stimulate TOD within the Warrensville/Van Aken District in the short-term.



9. Build new Civic Buildings/Public Parking

Signaling a commitment to continued public investment and transit, the City should, where feasible, build new civic buildings within the Warrensville/Van Aken District. In addition to associated infrastructure investments, new civic buildings within the District will increase transit accessibility to public services.

As part of its commitment, the City should also build and maintain public parking facilities to augment the overall supply of parking, and to, ultimately, reduce the cost of providing parking to the private sector. Strategically located public parking facilities are seen as a potential market stimulator and can increase commuter ridership.

10. Promote Economic Development

The establishment of planning regulatory tools and incentives (via an amended Zoning Ordinance), tax abatement programs and/or tax increment financing measures, must function collaboratively to advance economic development and redevelopment objectives for the Warrensville/Van Aken District. While capital investment is critical to the District's redevelopment, business promotion, job creation and other economic development initiatives are also an essential element to the long-term vibrancy of the District and the City as a whole and therefore must be part of a comprehensive redevelopment strategy.

7.2 | Phasing

The Warrensville Van Aken Development Plan will be implemented over time. The phasing of the project has been analyzed in large increments in accordance with the following schedule:

1. Phase One

In order to accomplish the rationalization of the Chagrin/Warrensville intersection the first infrastructure initiative will have to be the construction of the connection between Northfield Road and Warrensville Center Road.

2. Phase Two

The utilities that are now under the site will be comprehensively moved to beneath Farnsleigh Boulevard. The new orientation of Farnsleigh Boulevard to meet Chagrin to the west of its current location will occur. This will create a “T” intersection at Chagrin.

3. Phase Three

The closure of Van Aken between Farnsleigh and Chagrin to automobile traffic will occur in this phase and improvements to the intersection will be completed.

The Transit upgrades will extend the line south of Chagrin and the construction of the new bus/intermodal station will occur.

4. Phase Four - Future

Private investment will occur over the life of the project. Once the infrastructure has been moved, new development can occur.

One scenario might include the portion of the existing shopping center north of the extension of Van Aken which can be demolished and a new mixed-use development constructed in the Northeast quadrant of the site to accommodate the Fresh Market and other smaller retailers. The extension of Van Aken and the north leg of the new internal road can occur at this time.

Once the retailers have been moved to the new mixed-use site, the southern portion of the shopping center can be removed and new construction for retail, residential and office begun in the southeast quadrant of the site. This will open up space to move retailers such as the Walgreen's to this site and work on other portions of the existing site can begin.

