

Van Aken District Public Realm Plan



Prepared for
**City of Shaker Heights with
Greater Cleveland Regional Transit Authority and
The Van Aken District**

Prepared by
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Van Aken District Public Realm Plan



This plan was developed through the collaborative efforts of the Project Team with a planning process that was based on a workshop-driven approach, integrated public realm best practices, and grounded in open communication:

City of Shaker Heights
Greater Cleveland Regional Transit Authority
The Van Aken District
WSP USA



PLAN DEVELOPMENT

The plan development process was centered around a series of three work sessions, where the project team worked together to develop, refine and assess potential concepts, resulting in the development of a public realm framework plan that met the project goals and objectives, as established by the guiding principles, which were developed at the start of the project. Concept development was informed by considerations and integration of public realm best practices.

Guiding Principles

- Enhance connectivity and walkability
Public spaces have the power to connect people and the streets
 - Cohesive connection to public space(s) to the north
 - Enhance green space east of Tuttle and south of Meade with consideration of future development
 - Enhance safe pedestrian mobility and connectivity to track, platforms, and busway and adjacent rights-of-way on both sides of Van Aken Boulevard and Tuttle Road
- Integrate public realm and Transit Waiting Environment (TWE) best practices into the plan
Different things people can do (at least 10 reasons to be there)
 - Diversity of uses
 - Active facades
 - Social dimension & urban vitality
 - Human scale
 - Lighting
 - Safety (CPTED)
 - Stimulate local economy
 - Local identity
 - Complete streets
 - Green areas
 - Social participation
- Facilitate transit access within the VAD
 - Facilitate connectivity for bus-bus and bus-rail transfers
 - Soften/minimize the “edge” of the RTA area, improving integration within VAD
- Integrate the built form within the environment to enhance walkability and connectivity
- Establish sense of arrival at the transit station
- Connect to the south: Chagrin and neighborhoods to south
- Build upon substantial public and private investments in VAD
- Consider overall planned context of existing and future building phases of this transit-oriented development, as well as access to, and the functionality of, the rapid transit stop and its adjacent busway
- Compliance with budget and schedule requirements
- TWE area is attractive to more than transit riders
- Accommodate existing and potential future transit service



Public Realm Best Practices

What is placemaking?

Placemaking inspires people to collectively reimagine and reinvent public spaces as the heart of every community. Strengthening the connection between people and the places they share, placemaking refers to a collaborative process by which we can shape our public realm in order to maximize shared value. More than just promoting better urban design, placemaking facilitates creative patterns of use, paying particular attention to the physical, cultural, and social identities that define a place and support its ongoing evolution. Furthermore, placemaking best practices include safety considerations which are integrated through Crime Prevention Through Environmental Design (CPTED) strategies.

What makes a successful place?

- Sociability
- Uses & Activities
- Access & Linkages
- Comfort & Image

Example Guidelines

- Create multi-use destinations
- Understand assets and liabilities
- Walking & street audits
- Test with Lighter/Quicker/Cheaper strategies
- Streets as public spaces
- Plan for community outcomes

CPTED (Crime Prevention Through Environmental Design)

- Multi-disciplinary approach of crime prevention that uses urban and architectural design and the management of built and natural environments.
- CPTED strategies aim to reduce victimization, deter offender decisions that precede criminal acts, and build a sense of community among inhabitants so they can gain territorial control of areas, reduce crime, and minimize fear of crime.
- CPTED strategies are based on natural surveillance, natural access control, territorial reinforcement, and maintenance and management.

The TWE and Public Realm Best Practices presentation is included in the appendix.

Project Schedule & Objectives

Phase 1: Investigations

Establish basis for concept development and public realm/TWE best practices

- 6/23/20 Project Team Meeting 1 (kickoff)
- 6/26/20 Stakeholder Meetings
- 6/29/20 Work Session 1, Day 1
- 6/30/20 Work Session 1, Day 2

Phase 2: Options

Development of two preliminary site plans

- 7/8/20 RTA Work Session – Busway Options
- 7/14/20 Project Team Meeting 2 (work session prep)

Van Aken District Public Realm Plan



- 7/16/20 Work Session 2, Day 1
- 7/17/20 Work Session 2, Day 2

Phase 3: Refinement

Development of Public Realm Plan, which includes a schematic illustrative site plan of the preferred plan with a planning level cost estimate and documentation of public realm and TWE best practices.

- 7/27/20 RTA Work Session – Options & Construction Phasing
- 8/5/20 Project Team Meeting 3 (work session prep)
- 8/11/20 Work Session 3, Day 1
- 8/12/20 Work Session 3, Day 2
- 8/18/20 Project Team Meeting 4 (post work session)
- 9/1/20 Submit Draft Plan
- 9/3/20 Project Team Meeting 5 (draft plan review)
- 9/11/20 Submit Final Plan
- 10/6/20 Presentation to Shaker Heights City Planning Commission
City Council and Architectural Board of Review also invited to attend

Work session meeting presentations are provided in the appendix.

Due to COVID-19 and social distancing practices, all meetings and work sessions and concept development were conducted using the Zoom technology platform.

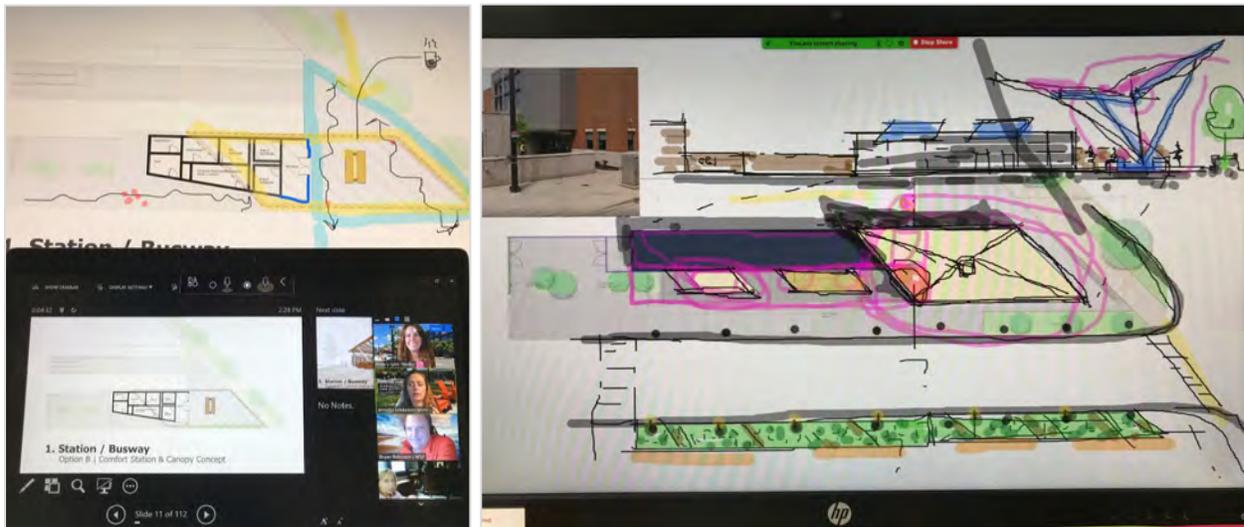


Figure 2. Zoom Meeting Platform & Concept Development Process



PLAN CONCEPTS & OPTIONS

The overall project site was subdivided into seven areas to facilitate concept development and evaluation. Furthermore, concept development integrated RTA’s planned improvement projects, with considerations given to layout, phasing, and RTA’s work done to date on the various aspects of their projects. The RTA projects will be phased, as indicated below. RTA’s projects are expected to be complete between 2020 and 2022.

New Substation and CEI Service

This project includes five utility boxes, two large and three smaller, as substation power/support infrastructure that will be located between the rail tracks and the busway. Project completion and CEI service is anticipated in 2020.

New Comfort Station

Anticipated completion in 2022.

Relocate Track and Reconfigure Catenary

This work will be accomplished in two phases with catenary work in the first phase along with relocation of the Eastbound Blue Line track. Phase 2 will relocate the Westbound Blue Line track and the third track. Phase 1 completion is expected in 2021 and Phase 2 in 2024 or later.

New Rail Platform

Anticipated completion in 2022.

The concepts, features and recommendations for the project site and each area within the site are illustrated and summarized below.

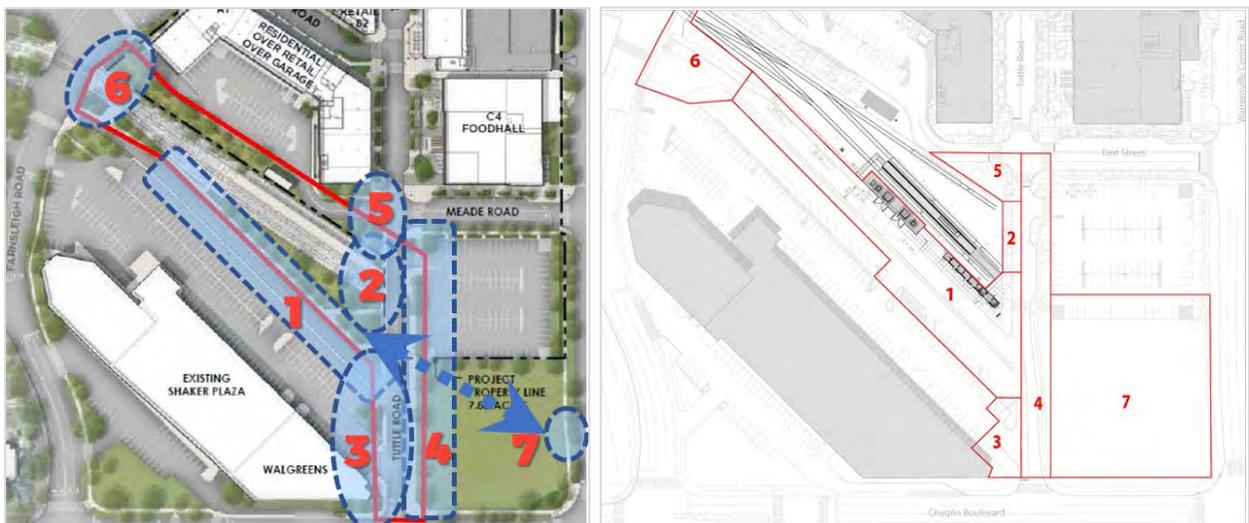


Figure 3. Project Site and Areas

Van Aken District Public Realm Plan

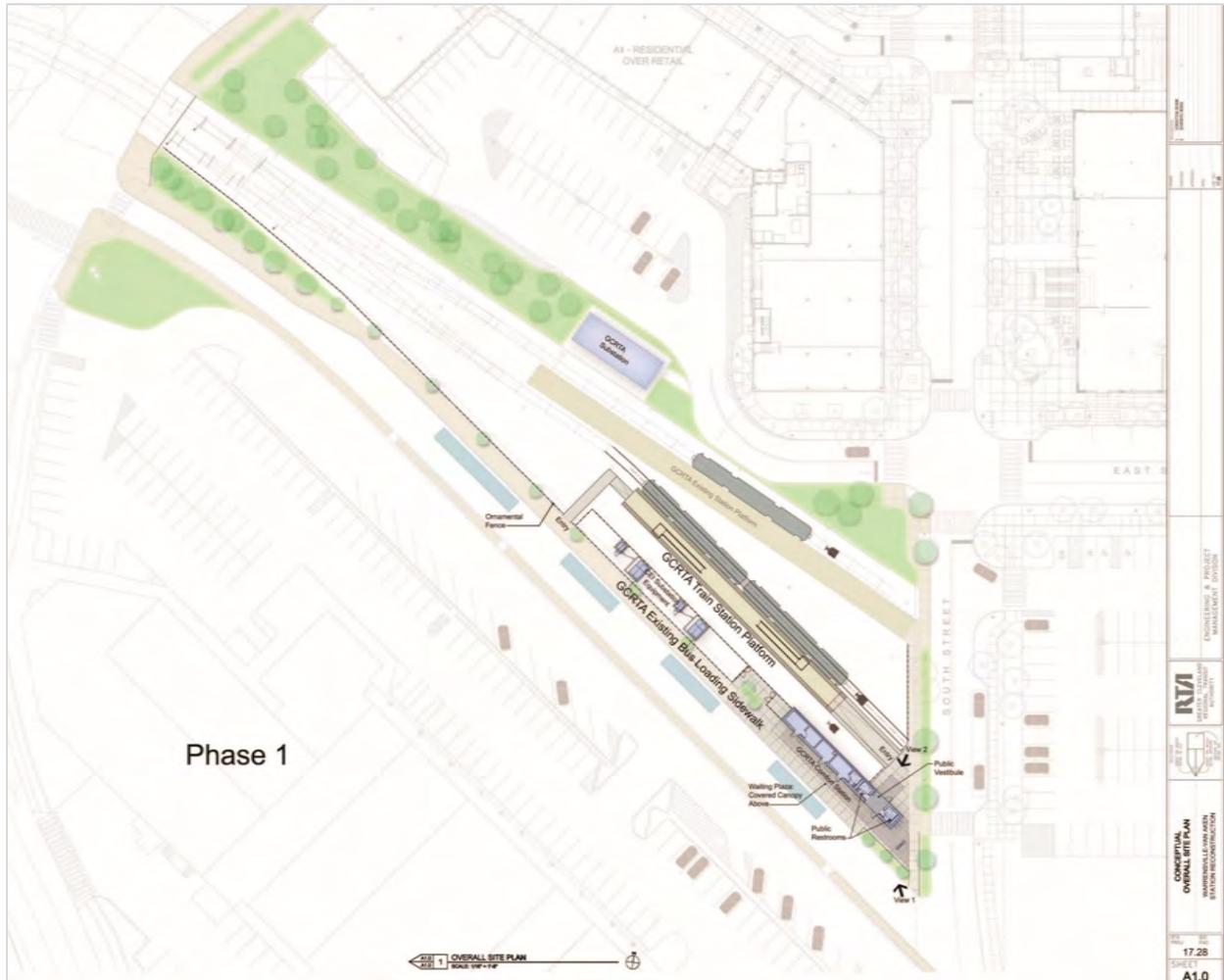


Figure 4. RTA Phase 1 Site Plan

Concept development was based upon the parameters associated with RTA’s Phase 1, to ensure effective integration of the public realm elements with the RTA projects. Note: Some aspects of the site plan were adjusted as the VAD public realm plan was developed, such as the specific locations of the CEI boxes and the comfort station, but RTA’s overall Phase 1 concept plan served as the basis for development of the VAD public realm plan.

Schematic Plan Options

The project team developed two concepts for each of the areas, providing variety in the major and minor aspects of the areas including functionality, features and cost.

The most significant feature difference addressed the busway configuration and function. Option A retains the busway in its existing location and creates a plaza on the south side of the busway. Option B realigns the busway, expanding the pedestrian realm on the north side along with provision of a pedestrian plaza on the south side of the busway. Due to construction phasing of the RTA project elements and the City of Shaker Heights' public realm funding and timelines, together with function and anticipated costs, Option A is the preferred busway function.

VAD Schematic Plan Options

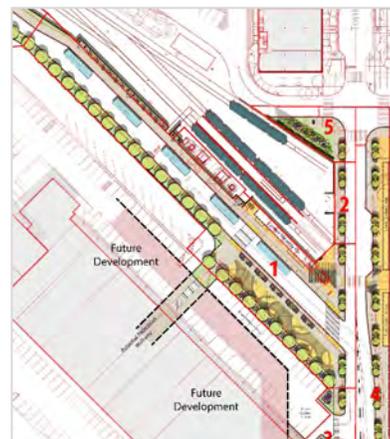
Area 1: Busway

Busway alignment

- Option A. Existing busway (no change)
- Option B. Realign busway, entrance shifted south

Pedestrian plazas (close and replace existing concrete/north parking lot between Tuttle and connection to asphalt/south parking lot) with new pedestrian plaza; create connection between south plaza and asphalt/south parking lot.

- Option A. Expanded north plaza with smaller south plaza
- Option B. Retain existing north plaza with larger south plaza



Canopy integrated into north plaza

East end of south plaza presents potential public art opportunity

Decorative fence between busway and rail with screening of CEI boxes

- » Potential public art opportunity with fence for screening CEI boxes

Bus shelters along busway

- » Off the shelf but not standard RTA shelters

Lighting integrated into north and south plaza areas and along the busway

Benches

- » Classic, off the shelf, different than Phase 1 VAD street furniture

Bike racks

- » Accommodate transit travelers and visitors to the VAD
- » Potential public art opportunity



VAD Schematic Plan Options

Area 2: Tuttle West

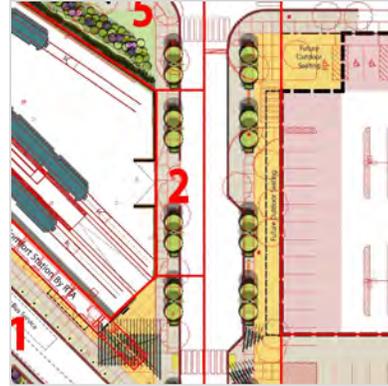
Street trees and planters (same style as Tuttle north of Meade)

- Option A. Pedestrian walkway adjacent to street
- Option B. Pedestrian walkway away from street, trees buffer the street

Access for future RTA driveway to future RTA maintenance yard via mountable curb

Decorative fence along back edge of sidewalk

- » Potential public art opportunity along decorative fence and with catenary structure



The large, physically significant catenary system that provides overhead power to the Blue Line light rail trains will be relocated by RTA to accommodate relocation of the rail station platform and tracks. The catenary structures at the east end of the tracks will be stabilized with a large, robust anchoring system due to the size of the structures and the constraints associated with the locations of the tracks and retaining wall. (The new catenary system has not yet been designed.)

Area 3: Tuttle / Chagrin

Tuttle north of Chagrin

- Option A. No change in roadway geometry
- Option B. Improve geometry for bus turns (WB left); reconstruct west curb to widen road and restripe centerline to west

Realign entrance to Shaker Plaza parking lot

- » Shift entrance to north and create driveway (close four parking stalls)

Landscape treatment

- Option A. Raised landscape beds in areas north and south of driveway
- Option B. Street trees and planters (same style as Tuttle north of Meade)



This area presents potential opportunities for green infrastructure and public art.



VAD Schematic Plan Options

Area 4: Tuttle East

Street trees and planters (same style as Tuttle north of Meade)

- Option A. Pedestrian walkway adjacent to street
- Option B. Pedestrian walkway away from street, trees buffer the sidewalk

Accommodate outdoor seating (future development)



Area 5: Tuttle / Meade

Create screen wall/back drop on southeast corner

- Option A. Green wall with illuminated sign
- Option B. Hardscape screen/wall
 - » Potential public art opportunity
 - » Install crosswalk and curb ramps along south leg of intersection

This area presents a potential opportunity for green infrastructure.

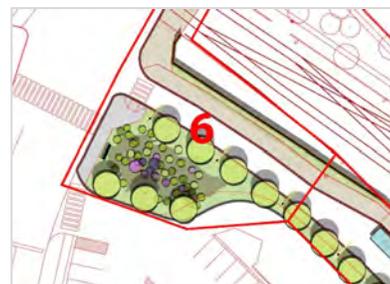


Area 6: Farnsleigh

Install sidewalk on east side of Farnsleigh (eliminate missing link)

Enhance pedestrian crossing across rail lines

- Option A. Install rail crossing warning signs (RTA standard signage for sidewalks across Blue Line and Green Line crossings)
- Option B. Install fencing to channelize pedestrians at rail crossing; add pedestrian signal heads



Area 7: Warrensville Connection

Provide pedestrian connection between southbound Warrensville bus stop and Tuttle

- » Replicate pedestrian connection style that was created between the parking deck and Market Hall building (VAD Phase 1)
- » Relocate bus stop to align with gap in building (direct pedestrian path)



Van Aken District Public Realm Plan



Figure 5. Van Aken District Plan Option A

Van Aken District Public Realm Plan

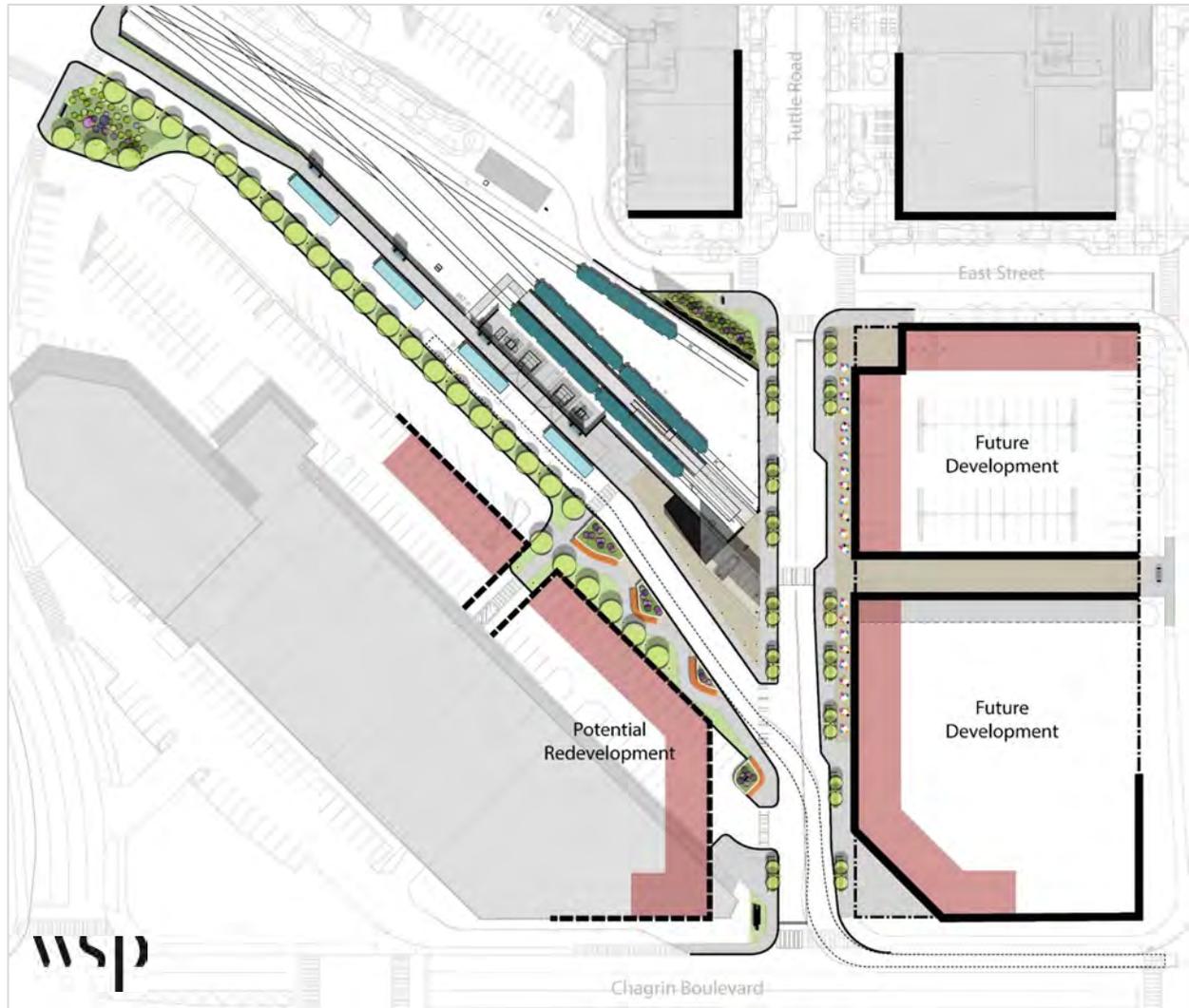


Figure 6. Van Aken District Plan Option B



PREFERRED PLAN

The preferred plan combines the desired elements for each of the areas, with the governing consideration centered on the busway retaining its existing alignment. The existing alignment is preferred based on considerations and opportunities for the pedestrian treatments in the north and south plaza areas as well as the construction scheduling and phasing for the RTA projects and the public realm improvements, which will be constructed two years apart. The preferred plan is illustrated in the figures below, followed by descriptions and images of plan elements. Enlarged versions of the preferred plan are provided in the appendix.

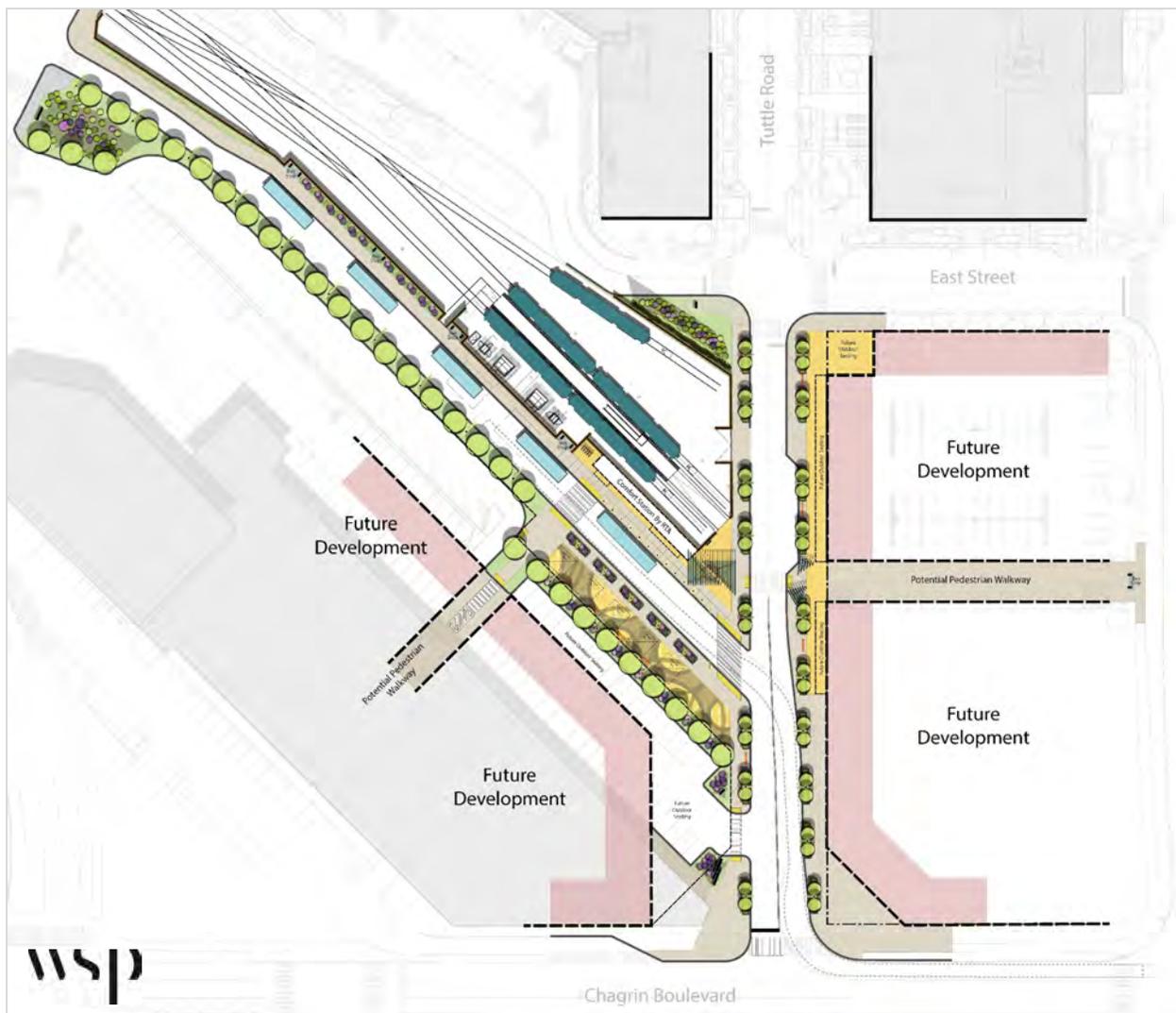


Figure 7. Van Aken District Public Realm Plan

Van Aken District Public Realm Plan

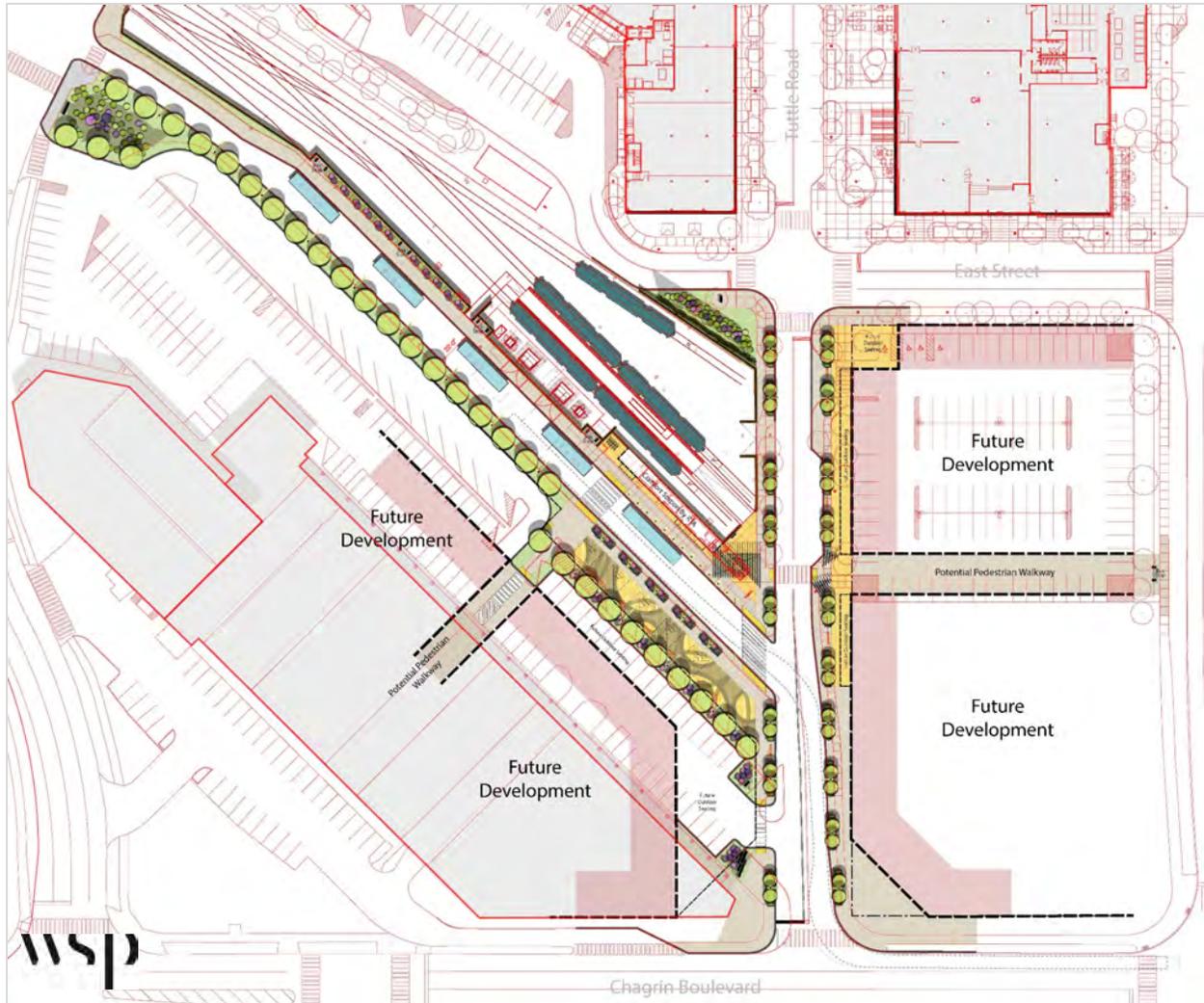


Figure 8. Van Aken District Public Realm Plan with Existing Conditions

Van Aken District Public Realm Plan

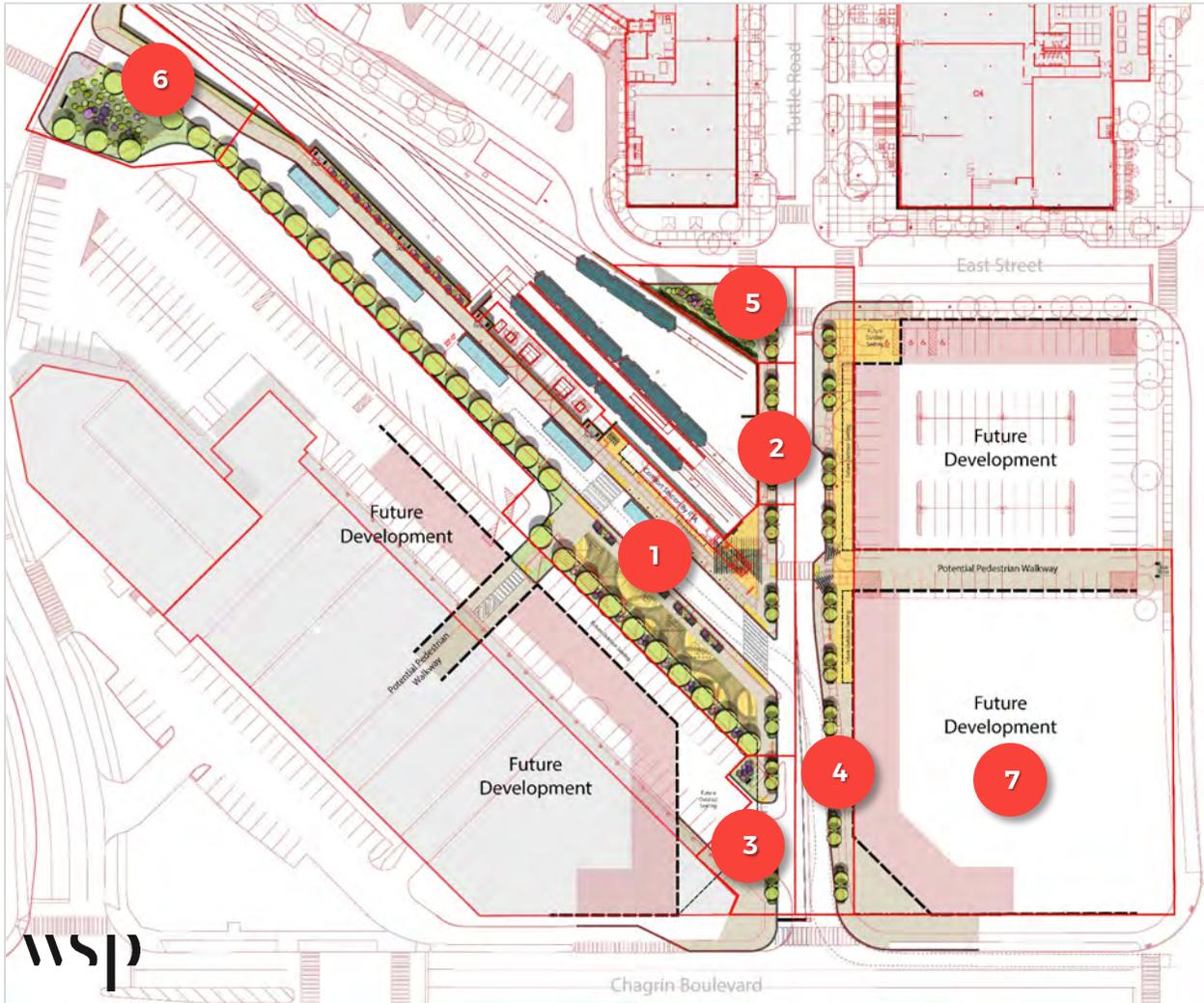


Figure 9. Van Aken District Public Realm Plan with Areas

Van Aken District Public Realm Plan



Figure 10. Van Aken District Concept Rendering

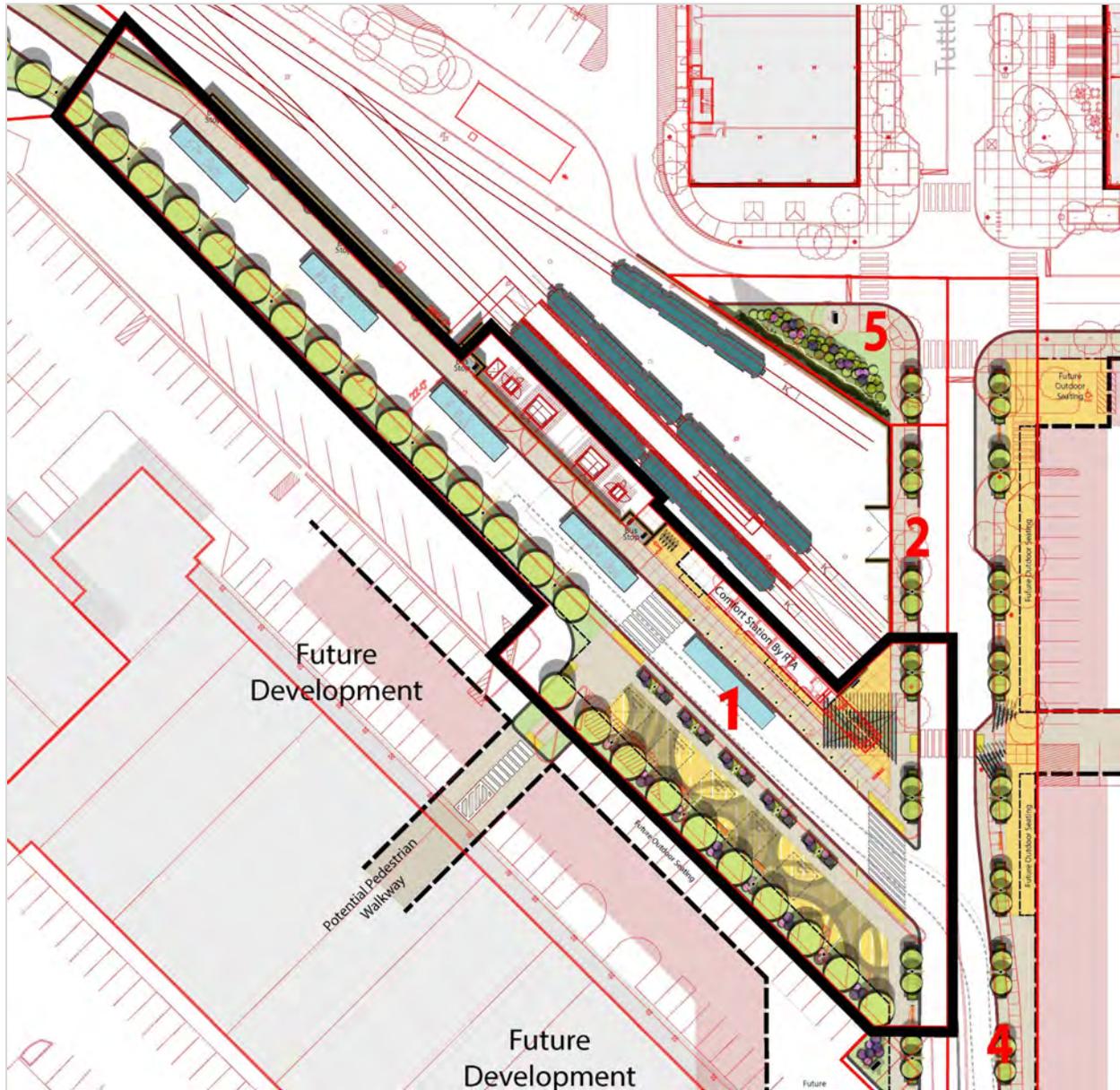


Figure 11. Van Aken District Area 1, Busway

Area 1: Busway

This area is comprised of multiple elements and features that will improve connectivity between Warrensville Station and the surrounding Van Aken District as well as enhance the pedestrian experience throughout the area. The east end of the south plaza presents an opportunity for public art. The design of the comfort station, canopy, bus shelters, lighting elements, and site fixtures should be considered together in order to create a sense of unity between the color, materiality, and design of the elements. If anywhere is most appropriate for deviation, the canopies are the element which should be considered unique or different and may have variation from other elements.

Busway Configuration

The preferred busway configuration retains the existing roadway geometrics and curbs. This allows for a more substantial pedestrian plaza to the south of the busway and it simplifies construction phasing for the RTA projects and the public realm improvements, which will be constructed two years apart.

Busway Landscaping

Landscaping along the busway will include trees within the median between the busway and the parking lot as well as landscape treatments north west of the sidewalk to the bus platform, in between the sidewalk and the two bus shelters.

North Plaza

Although the geometry of the North Plaza remains unchanged, it will be improved. Enhancements will include the new comfort station (RTA project), bus shelters, and a canopy on the Tuttle end of the plaza. In addition, illuminated lighting/bollards along the southwest curb, bike racks, and landscaping along Tuttle may be included.

South Plaza

The South Plaza will be created with the conversion of the parking lot located south of the busway into a pedestrian plaza. The plaza will be constructed at sidewalk level and northeast edge of the plaza will include raised landscaped planters to discourage pedestrians from crossing the busway between the two busway crosswalks. The plaza will include trees along the southwest border to provide greenery and shade. Benches will be provided within the plaza and decorative lighting will be integrated into the plaza.

Benches

Benches will be provided within the South Plaza; benches within the North Plaza and along the busway are not programmed.

Walkway Connecting Station with Existing and Future Development

A pedestrian walkway will connect the busway with the South Plaza and the Shaker Plaza shopping center (the future redevelopment site).

Crosswalks

Crosswalks with ADA-compliant curb ramps will be provided at the three locations shown: Across the busway entrance along the west side of Tuttle, and two crosswalks for the walkway connecting the station with the South Plaza and the Shaker Plaza shopping center (the future redevelopment site).

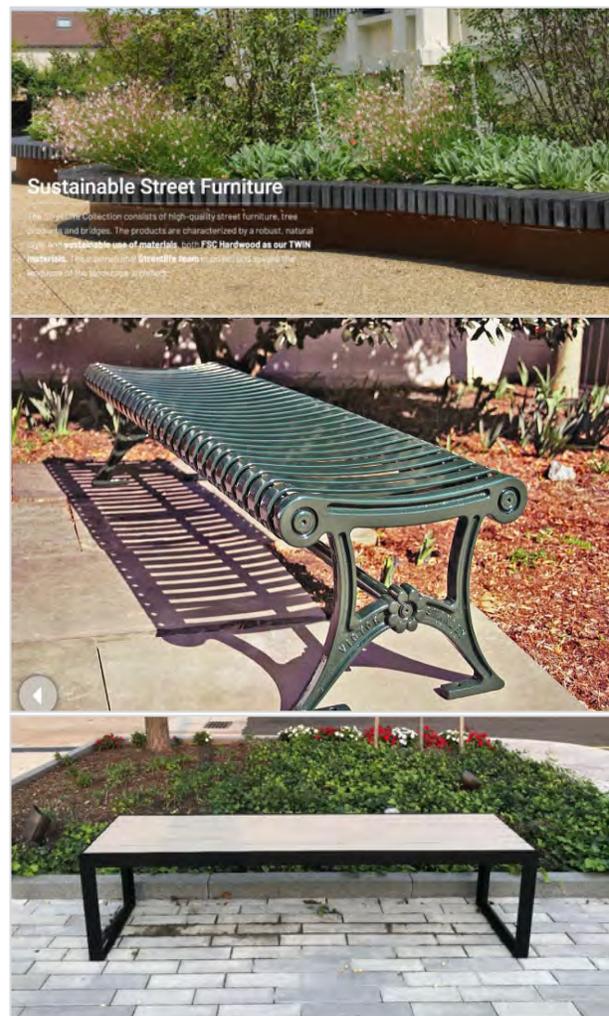


Figure 12. Bench Examples



Figure 14. Decorative Lighting Examples

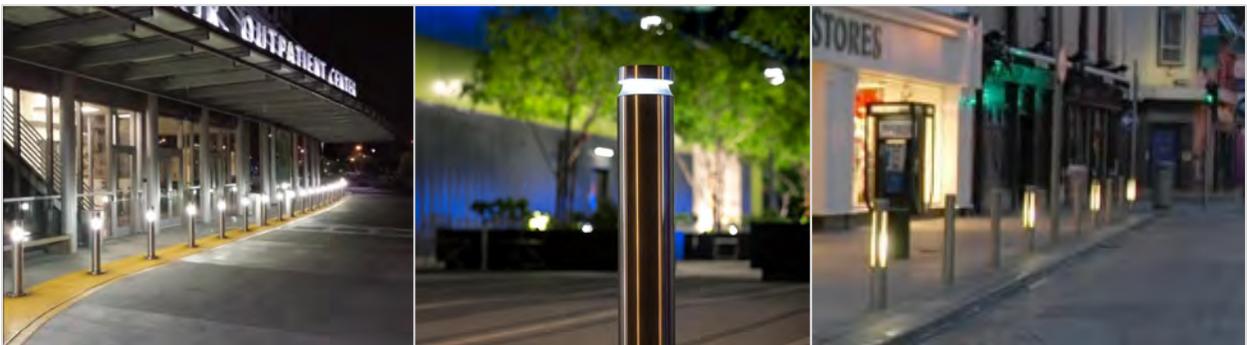


Figure 13. Illuminated Bollard Examples

Canopy

A canopy will be built on the North Plaza near Tuttle, serving as a visual landmark for the Warrensville station as well as providing shelter for pedestrians. The details of the canopy (size, appearance, specific location, etc.) will be determined during the design phase of the VAD public realm project.



Figure 15. Canopy Examples

Comfort Station

The comfort station will be located along the north side of the North Plaza, adjacent to and not extending beyond the end of the Blue Line tracks, as illustrated. Construction of the comfort station is an RTA project.



Bus Shelters

Four enhanced bus shelters will be installed along the busway sidewalk to serve the four current bus routes – Route #5, Route #14, Route #41/41F and Route #67R – and a potential future bus stop. The bus shelters will not be standard RTA shelters, but they will be off-the-shelf products, to conserve cost. Bus shelters will be funded as part of the RTA’s federally funded shelter grant.



Figure 16. Bus Shelter Examples

Bike Racks

Bike racks will be installed within the North Plaza, located between the comfort station and the CEI boxes. Bike racks are a potential public art opportunity. Bike racks may be funded as part of the RTA’s federally funded shelter grant.

Decorative Fence & CEI Screen

The existing black chain link fence that surrounds RTA’s rail facilities will be replaced with decorative fencing. This could include standard fencing that would support the creation of a green screen effect around the station perimeter. A more substantial fence or screen will be installed around three sides of the CEI utility boxes as part of RTA’s substation project; the fourth side, adjacent to the light rail tracks, will remain open due to rail and CEI clearance requirements. Furthermore, an artistic, stylized, customized architectural fence will be installed within the core of the station area.



Figure 17. Decorative Fence Examples



Figure 18. Fence Screen Examples (for screening of CEI utility boxes)

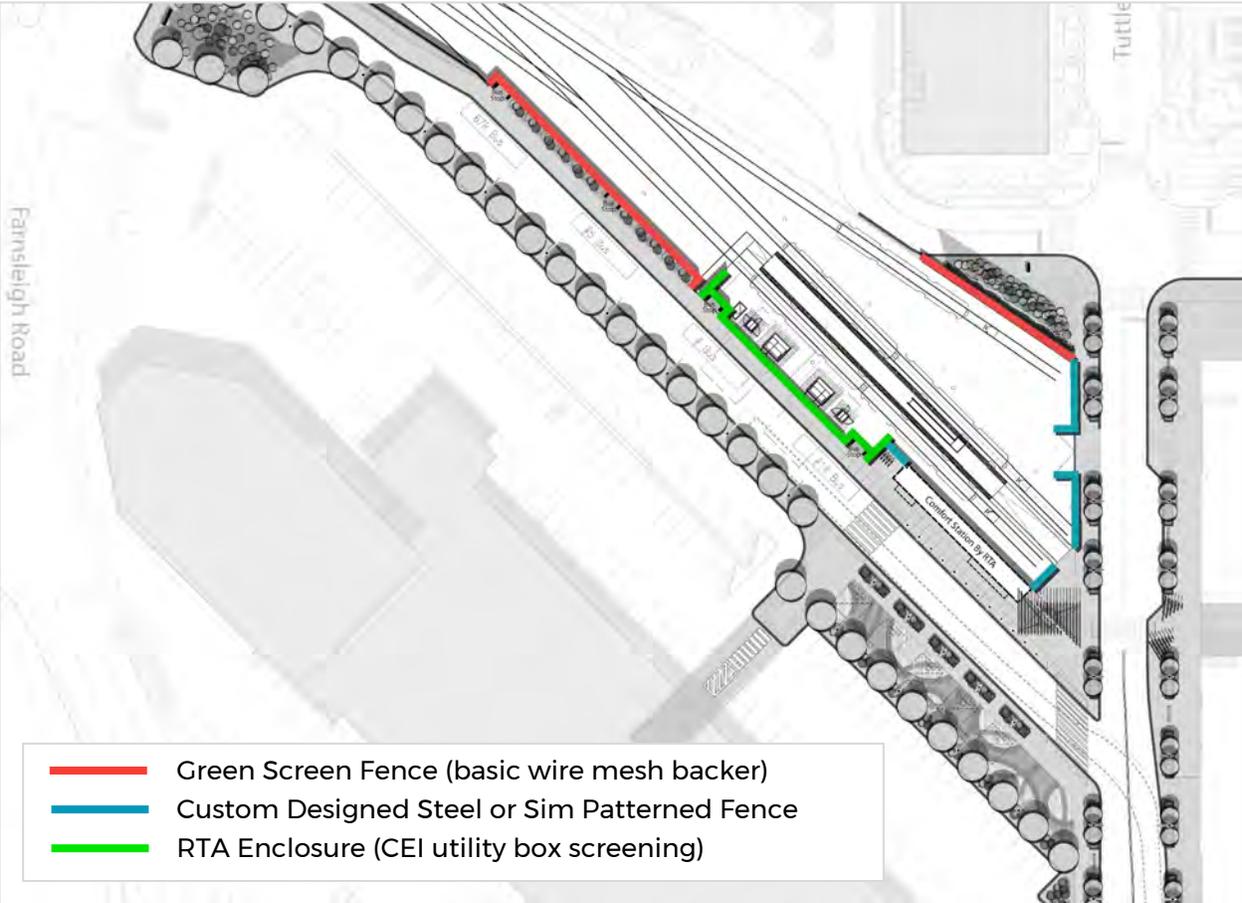


Figure 19. Decorative Fence Locations

Area 2: Tuttle West

The preferred treatment for the west side of Tuttle includes installation of street trees and planters that replicate the style to the north along Tuttle. These landscape features will be placed close to the curb, providing a buffer between the pedestrian walkway and the street. In addition, this area includes features related to the Warrensville Station: a decorative fence will separate the pedestrian realm from the station area, with the exception of the walkway to the rail platform and a gated access to the future RTA maintenance yard. Although access to the maintenance yard will cross the sidewalk, pedestrian movements will be prioritized so the crossing will be at sidewalk level (not a traditional driveway) with a mountable curb. The decorative fence and RTA's relocated catenary structures may provide potential public art opportunities.

The City will fund the fencing in Area 2, but the gate across the driveway to the future RTA maintenance yard will be an RTA cost.

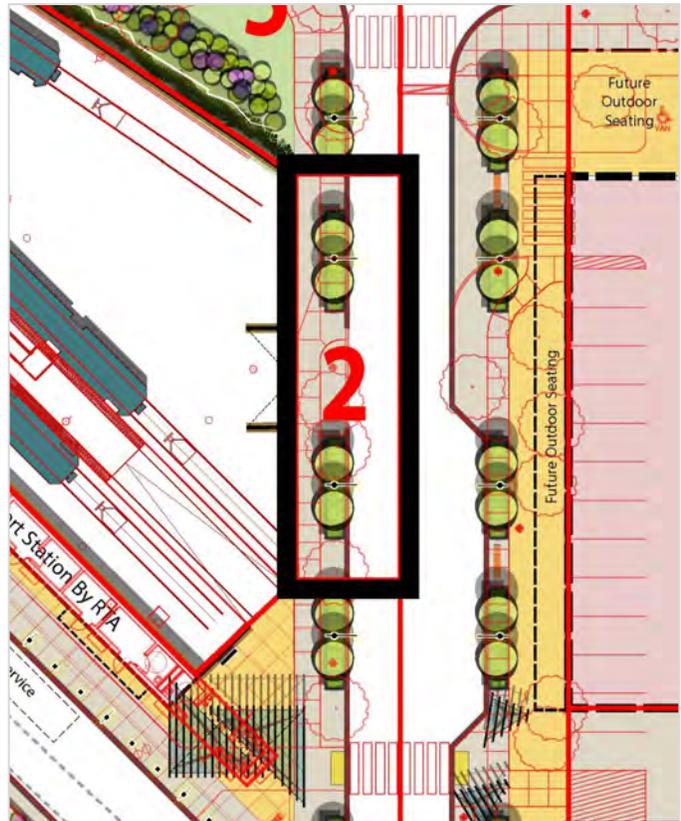


Figure 20. Van Aken District Area 2, Tuttle West

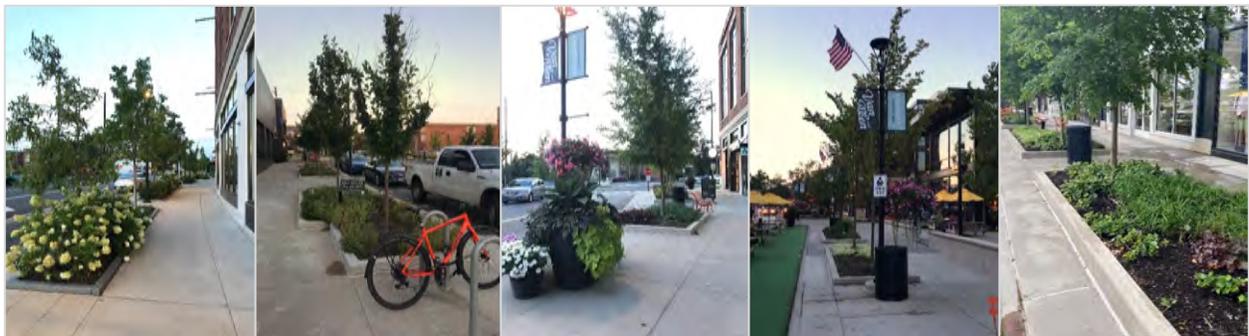


Figure 21. VAD Street Trees & Raised Planters



Area 3: Tuttle / Chagrin

This area includes treatments that will improve traffic operations as well as enhancements to the pedestrian realm. Between Chagrin and the busway entrance, Tuttle’s west curb will be shifted to the west and the centerline will also be shifted west; this will widen the northbound Tuttle travel lane to enable westbound right turning buses to make the turn without any part of the bus crossing the centerline.

The access drive to the south (asphalt) Shaker Plaza parking lot will be reconfigured to define the driveway, improve the intersection angle between the driveway and Tuttle, and add a bit more storage capacity to southbound Tuttle. A crosswalk with ADA-compliant pedestrian ramps will be provided across the Shaker Plaza access drive. This reconfiguration will remove four of the existing parking stalls. Landscaping of this area includes street trees and raised planters that replicate the style to the north along Tuttle. These landscape features will be placed close to the curb, providing a buffer between the pedestrian walkway and the street. Additional landscape treatments will be placed along both sides of the reconfigured parking lot access drive, potentially including signage and/or green infrastructure.



Figure 22. Van Aken District Area 3, Tuttle/Chagrin

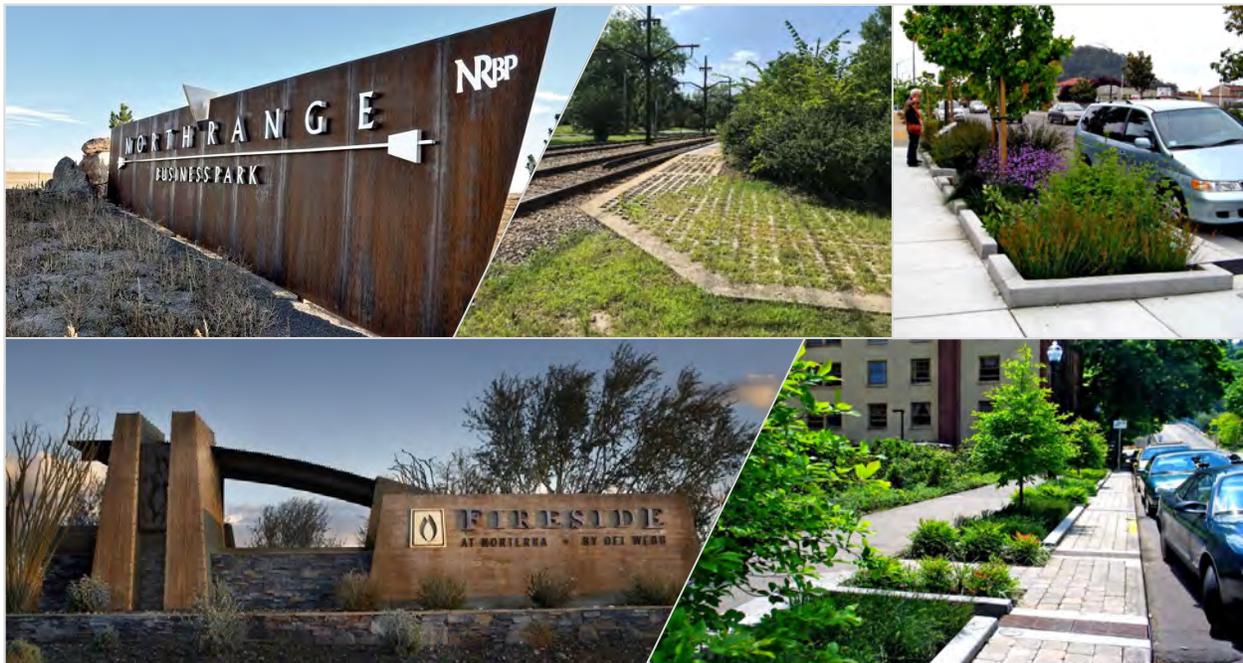


Figure 23. Gateway Sign & Green Infrastructure Examples

Area 4: Tuttle East

The Tuttle East improvements include street trees and planters that replicate the style to the north along Tuttle. These landscape features will be placed close to the curb, providing a buffer between the pedestrian walkway and the street. In addition, the area to the east of the walkway will be configured in a manner that will accommodate outdoor seating as part of the future development. The Tuttle East improvements are expected to be incorporated into the future development of the adjacent site.

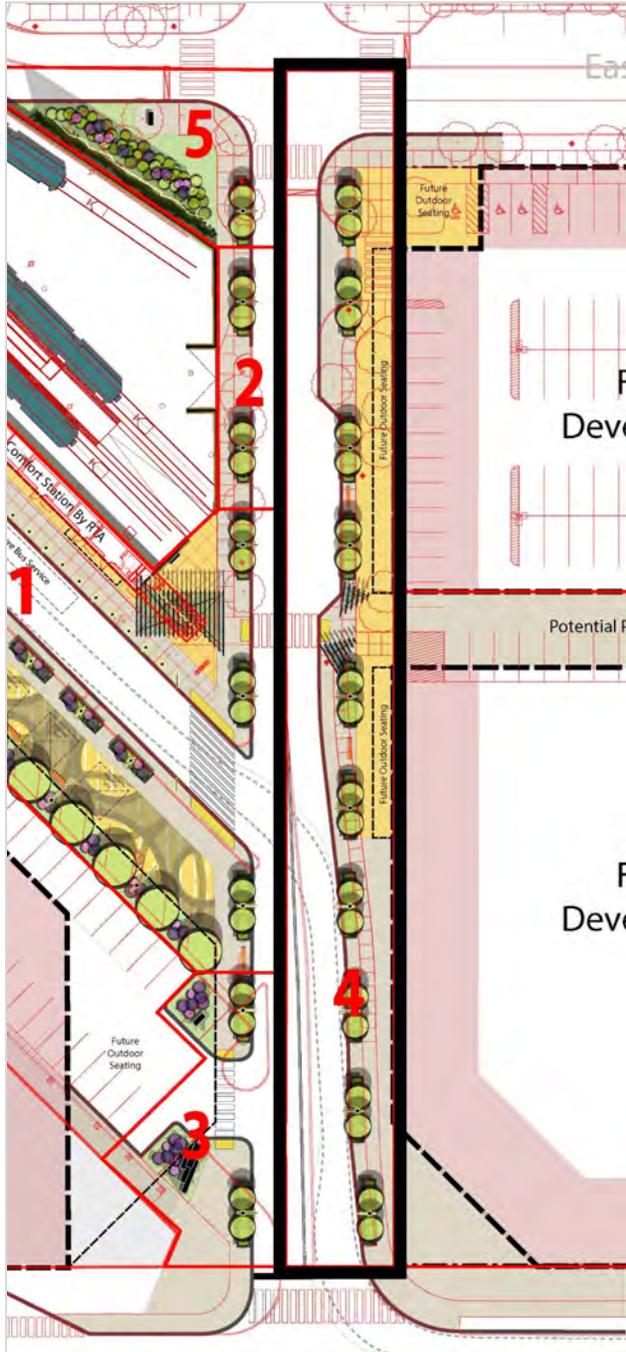


Figure 24. Van Aken District Area 4, Tuttle East



Figure 25. VAD Street Trees & Planters



Area 5: Tuttle / Meade

Improvements at the Tuttle/Meade intersection address pedestrian circulation and safety as well as aesthetics. Treatments include a new crosswalk and ADA-compliant curb ramps along the south leg of the intersection and a green wall with an illuminated sign. The green wall provides an opportunity for public art and green infrastructure, as well as serving as a visual screen of the future RTA maintenance area that will be located on the north side of the Warrensville Station area.



Figure 26. Van Aken District Area 5, Tuttle / Meade



Figure 27. Green Wall Examples



Area 6: Farnsleigh

The preferred treatment is construction of the missing sidewalk link along the east (northbound) side of Farnsleigh across the light rail tracks. This new pedestrian facility will include RTA's standard signage for pedestrian crossings across Blue Line and Green Line rail crossings.

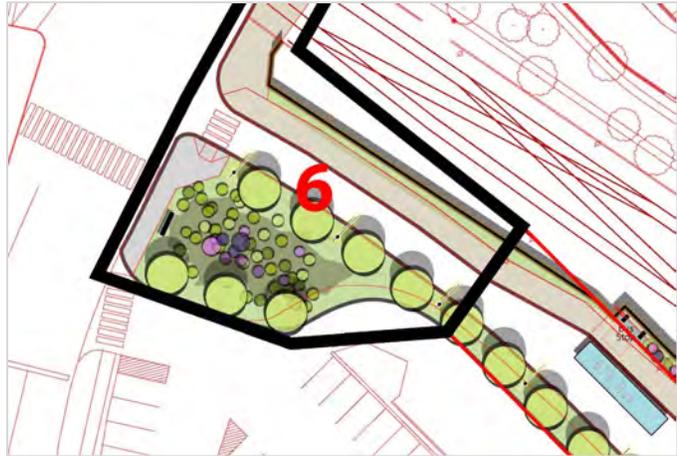


Figure 28. Van Aken District Area 6, Farnsleigh

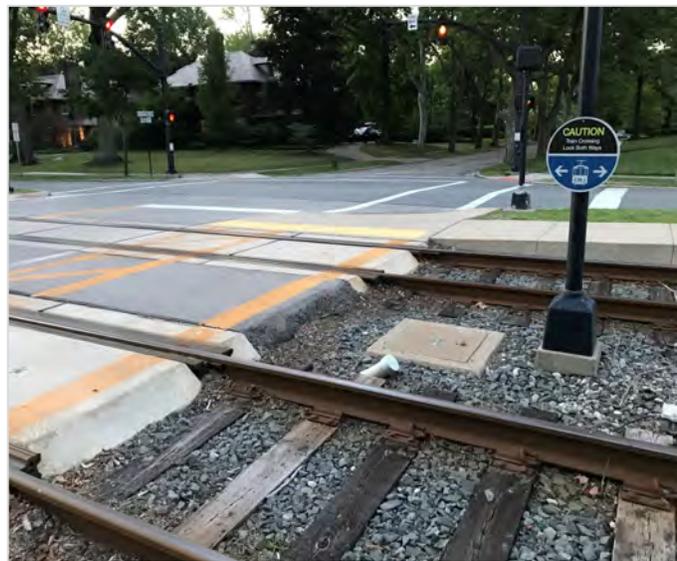


Figure 29. RTA Standard Rail Crossing Warning Sign



Area 7: Warrensville Connection

The plan will provide a pedestrian connection that links the southbound Warrensville bus stop with Tuttle and the Warrensville Station. This pedestrian connection may be incorporated into the new development that will be built on the existing parking lot and vacant parcel between Warrensville, Chagrin, Tuttle and Meade. The connection may replicate the style of the existing pedestrian connections created along the north and south sides of the parking garage (VAD Phase 1). In addition, the Warrensville bus stop may be relocated to create a direct pedestrian connection between the Warrensville bus stop and Warrensville Station.

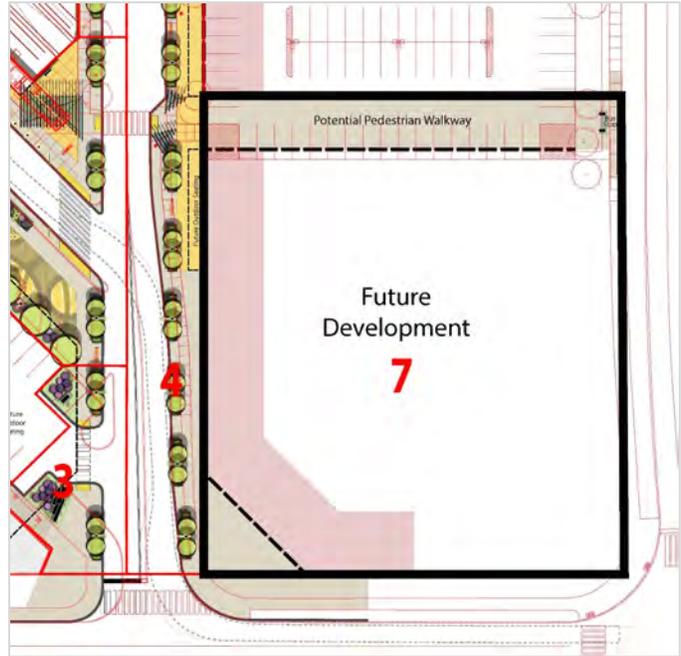


Figure 30. VAD Area 7, Warrensville Connection

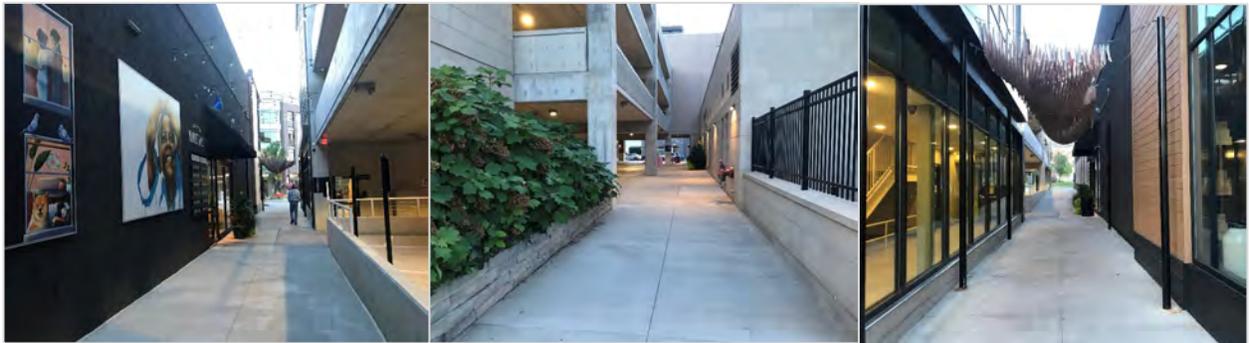


Figure 31. Existing VAD Walkways



PLANNING LEVEL COST ESTIMATE

A rough, planning level cost estimate was developed during Phase 2 to inform the concept evaluation process. The cost estimate for the preferred plan was based on the original estimate with updates based upon refinements to the plan. Based on the costs as developed and shown in the table, the estimated cost of the preferred concept plan is \$3.2 million. In the design phase, the concepts may be adjusted and the contingency will be reduced, providing the ability to reduce the estimated cost.

Basis of Cost Estimate

The cost estimate provided is Rough Order of Magnitude (ROM) level. Various construction elements have been itemized and all items priced using either a historical unit price, lump sum or percentage allowance. The following outlines the information and methods used in establishing the opinion of probable cost for the construction elements associated with the ROM design for the public realm planning for the identified project area in the Van Aken District.

General Methodology

The following describes the process used to develop scope, quantity and cost parameters for each cost item used in the estimate:

- **Scope.** For most of the site work cost items, the scope was determined by an evaluation of the discrete construction items or activities that could reasonably be associated with each item in each subarea based on a review of the final conceptual design plan.
- **Quantities.** Sitework construction items and their related quantities were developed from the conceptual design plan. Direct measurement from drawings and mathematical calculations were used to prepare quantities for significant construction items in the cost estimates. Some quantities have been estimated using allowances or other indirect means for items where there was insufficient detail to perform a direct quantity takeoff.
- **Cost.** Unit prices for each of the construction items or activities was developed utilizing one of following methods:
 - For sitework items, representative bid unit prices adjusted to the Cleveland area were used.
 - For the landscape, lighting and other site furnishing items, representative cost per square foot for space functional areas was used. RS Means square foot cost data was utilized in the selection of the various unit prices.
 - Professional services allowance pricing used a percentage markup approach based on professional experience and judgement.

Design Contingency

A design contingency is typically included in an estimate as address uncertainties based on the level of engineering design completed or imperfections in estimating methods that are associated with a project's development stage. The design contingency is estimated as a percentage by which a calculated value may differ from its true or final value. The design contingency is used to account for those items of work (and their corresponding costs) which may not be clear or cannot be quantified at the current level of design.

Van Aken District Public Realm Plan



General Exclusions

- Cost associated with the purchase of the property
- Cost associated with any third-party improvements, such as RTA
- Financing costs.

Reference Documents

The estimate was based upon the Final Conceptual Plan drawings dated September 3, 2020.

Qualification

This estimate represents an opinion of probable construction cost in 2020 dollars, based on WSP's professional experience and qualifications and is a rough order of magnitude estimate. There are many factors which can influence a probable contractor's actual bid, therefore WSP cannot guarantee that actual bids or final construction costs will not vary from this opinion of probable cost and the use of this information should be subject to this understanding.

Van Aken District Public Realm Plan



Van Aken District Station Area Plan

9/3/23/2020

Planning Level Estimate

		TOTAL		\$ 2,150,000			
		QTY	UNIT	UNIT COST	TOTAL COST		
Area 1: Busway				Subtotal	\$ 980,501	NOTES	
				Contingency	30%		\$ 294,150
				Escalation (2023)	6%		\$ 58,830
				Area 1 Total			\$ 1,333,481
New comfort station	1	ls	\$ 550,000	\$ -	RTA Cost Item		
Equipment screen and access gates	1	ls	\$ 20,000	\$ -	RTA Cost Item		
New prefab glass canopy bus shelters w/ integral LED	4	ea	\$ 25,000	\$ -	RTA Cost Item (Estimate)		
Art allowance	1	ea	\$ 75,000	\$ -	Other Shaker Heights Budget Item		
Specialty fencing	50	lf	\$ 250	\$ 12,500	Wood and/or custom metal (station area)		
Prep parking area for plaza & landscape	9,358	sf	\$ 12	\$ 112,296	Demolition does not include subbase - see paving		
Specialty paving added to the busway	622	sf	\$ 70	\$ 43,540	12", northside plaza		
New sidewalk	3,910	sf	\$ 10	\$ 39,100			
New large awning/ structure over plaza for	550	sf	\$ 91	\$ 50,050			
New concrete tree beds with two trees each	3	ea	\$ 3,000	\$ 9,000	1400 for curb and gutter combo, 800 for the trees, 300 for excavation and soil disposal, 400 for new planting soil mix, 50 for mulch		
Level plaza south side of busway (6")	3,268	sf	\$ 70	\$ 228,760	unit pavers with loading for temporary installations		
Power stubs for pop-up services	10	ea	\$ 350	\$ 3,500			
In ground decorative LED lighting (plaza)	45	ea	\$ 1,200	\$ 54,000	4' length ea. Including conduit		
Internally lit stainless 36"H steel bollards	8	ea	\$ 950	\$ 7,600			
Add Pedestrian scale LED light poles	21	ea	\$ 9,500	\$ 199,500	Includes extended conduit and foundations		
New wide sidewalk crossing with pedestrian crossing warning	2	ea	\$ 30,000	\$ 60,000	Sim to RRFB, but improved; in ground at crosswalk; 100K?		
Accessible curb ramp	6	ea	\$ 1,000	\$ 6,000	Includes demolition of existing sidewalk & curb, installation of new ADA accessible curb ramp with truncated domes		
New crosswalk striping (standard)	1	ea	\$ 1,200	\$ 1,200	Thermoplastic		
Green screen fence	158	lf	\$ 300	\$ 23,700	West end of busway - decorative wire mesh sub fence (8') with ivy (cost shared with RTA)		
Remove south walkway along busway	4,000	sf	\$ 5	\$ 20,000	17 Trees		
Low shrubbery plantings	871	sf	\$ 5	\$ 4,355	Specialty shrubs/ flowering bushes		
New trees	26	ea	\$ 400	\$ 10,400	(southside) 11 trees with beds		
Regular planting beds	28	cy	\$ 360	\$ 10,000	24" high		
New custom benches	10	ea	\$ 7,500	\$ 75,000	Budget number		
Bike Racks	1	ls	\$ 10,000	\$ 10,000			
Area 2: Tuttle West				Subtotal	\$ 32,900		
				Contingency	30%		\$ 9,870
				Escalation (2023)	6%		\$ 1,974
				Area 2 Total			\$ 44,744
Drive access curb cut (future)	1	ls	\$ -	\$ -	RTA Cost Item		
Removal of existing trees	3	ea	\$ 200	\$ 600	Includes prep for landscaping/ sidewalk install as applicable		
New concrete tree beds with two trees each	2	ea	\$ 3,000	\$ 6,000	1400 for curb and gutter combo, 800 for the trees, 300 for excavation and soil disposal, 400 for new planting soil mix, 50 for mulch		
New sidewalk	230	sf	\$ 10	\$ 2,300			
Specialty fencing	96	lf	\$ 250	\$ 24,000	Wood and/or custom metal		

Van Aken District Public Realm Plan



	QTY	UNIT	UNIT COST	TOTAL COST	
Area 3: Tuttle / Chagrin			Subtotal	\$ 77,781	
			Contingency	30%	\$ 23,334
			Escalation (2023)	6%	\$ 4,667
			Area 3 Total	\$ 105,783	
Demolish existing curb and sidewalk	810	sf	\$ 6	\$ 4,860	
New district branding, monumental sign system	1	ea	\$ 24,500	\$ 24,500	Custom, includes relocated business signage
New concrete tree beds with two trees each	2	ea	\$ 3,000	\$ 6,000	1400 for curb and gutter combo, 800 for the trees, 300 for excavation and soil disposal, 400 for new planting soil mix, 50 for mulch
Irregular, raised planting beds	55	cy	\$ 360	\$ 19,733	24" high
Accessible curb ramp	2	ea	\$ 1,000	\$ 2,000	Includes demolition of existing sidewalk & curb, installation of new ADA accessible curb ramp with truncated domes
New crosswalk striping	1	ea	\$ 1,200	\$ 1,200	Thermoplastic
New sidewalk	1,828	sf	\$ 10	\$ 18,280	
New curb	151	lf	\$ 8	\$ 1,208	
Area 4: Tuttle East			Subtotal	\$ 267,800	
			Contingency	30%	\$ 80,340
			Escalation (2023)	6%	\$ 16,068
			Area 4 Total	\$ 364,208	
Accessible curb ramp	2	ea	\$ 1,000	\$ 2,000	Includes demolition of existing sidewalk & curb, installation of new ADA accessible curb ramp with truncated domes
New crosswalk striping	2	ea	\$ 1,200	\$ 2,400	Thermoplastic
Remove parking access, new curb and sidewalk	700	sf	\$ 12	\$ 8,400	Demo of existing curb and replacement of new straight curb with sidewalk infill
Add Pedestrian scale LED light poles	10	ea	\$ 8,300	\$ 83,000	Includes extended conduit and foundations
New concrete tree beds with two trees each	10	ea	\$ 3,000	\$ 30,000	1400 for curb and gutter combo, 800 for the trees, 300 for excavation and soil disposal, 400 for new planting soil mix, 50 for mulch
Colored & stamped concrete sidewalk paving	4,100	sf	\$ 25	\$ 102,500	
Custom canopy (small)	2	ea	\$ 8,500	\$ 17,000	Lightweight canopy for minor gateway marker
New custom benches	3	ea	\$ 7,500	\$ 22,500	Budget number
Area 5: Tuttle / Meade			Subtotal	\$ 45,830	
			Contingency	30%	\$ 13,749
			Escalation (2023)	6%	\$ 2,750
			Area 5 Total	\$ 62,329	
New concrete tree beds with two trees each	1	ea	\$ 3,000	\$ 3,000	1400 for curb and gutter combo, 800 for the trees, 300 for excavation and soil disposal, 400 for new planting soil mix, 50 for mulch, minor sidewalk repair
Removal of existing trees, prep for associated install	5	ea	\$ 200	\$ 1,000	Includes prep for landscaping/ sidewalk as applicable
Green screen fence	95	lf	\$ 250	\$ 23,750	Decorative wire mesh sub fence (8') with ivy
Germination area in lawn	1,730	sf	\$ 4	\$ 6,920	
Low shrubbery plantings	675	sf	\$ 5	\$ 3,375	Specialty shrubs/ flowering bushes
Extend sidewalk	230	sf	\$ 10	\$ 2,300	Includes area for relocated sign as well as relocation at south area.
Relocate area plan sign	1	ea	\$ 1,500	\$ 1,500	
Branding light/ billboard installation on fence line	1	ea	\$ 2,985	\$ 2,985	LED Branding (art installation opportunity)
Accessible curb ramp	1	ea	\$ 1,000	\$ 1,000	Includes demolition of existing sidewalk & curb, installation of new ADA accessible curb ramp with truncated domes
Crosswalk (included in area 4)	0	ea	\$ -	\$ -	

Van Aken District Public Realm Plan



	QTY	UNIT	UNIT COST	TOTAL COST	
Area 6: Farnsleigh			Subtotal	\$ 94,554	
			Contingency	30% \$ 28,366	
			Escalation (2023)	6% \$ 5,673	
			Area 6 Total	\$ 128,593	
Remove existing rail crossing	1	ls	\$ 1,000	\$ 1,000	Remove Ex Farnsleigh timber ped crossing located to the east of Farnsleigh Rd. (2 tk) 12'
Add new at grade crossing along Farnsleigh	1	ls	\$ 37,500	\$ 37,500	Install new concrete surface panel Farnsleigh ped crossing (2 tk 10') parallel and adjacent to Farnsleigh Rd. Install new concrete surface panel ped xing at proposed WVA station (1 tk 10') = \$12,500
New pedestal mounted pedhead	1	ea	\$ 15,000	\$ 15,000	Pole, foundation, wiring, (RTA Signaling cost increase if spare conduit not available)
Sidewalk demo	736	sf	\$ 4	\$ 2,944	Portion of sidewalk that connects from Farnsleigh to the existing RTA parking area
Low shrubbery plantings	900	sf	\$ 5	\$ 4,500	Specialty shrubs/ flowering bushes
New mid-size trees	3	ea	\$ 600	\$ 1,800	To match existing
Germination area in lawn	1,540	sf	\$ 4	\$ 6,160	50% of remaining area less shrubbery
Add Pedestrian scale LED light poles	3	ea	\$ 8,300	\$ 24,900	Includes extended conduit and foundations
Add signage	1	ea	\$ 750	\$ 750	Suggested RTA signage near landscaped area and entrance to the parking
Area 7: Warrensville Connection			Subtotal	\$ 78,260	
			Contingency	30% \$ 23,478	
			Escalation (2023)	6% \$ 4,696	
			Area 7 Total	\$ 106,434	
Relocate bus stop	1	ea	\$ 2,500	\$ -	RTA to provide (estimate \$2,500)
No cost for development	0	ea	\$ -	\$ -	No Cost
New pedway	5,590	sf	\$ 14	\$ 78,260	10' wide decorative sidewalk minimal lighting provided by development agency (no cost)