



CINCINNATI



PARKS



# Fort Washington Way Decks

Concept Design  
**Hargreaves  
Associates**

Cincinnati  
Ohio  
September 2001

**Fort Washington Way Decks Design Concept**

September 2001

Addendum to the Cincinnati Central Riverfront Park  
Master Plan August 2000

consultant team

Project Design Landscape Architect and Master Planner

Hargreaves Associates  
118 Magazine Street  
Cambridge MA 02139

617.661.0070

Engineer

KZF Design Inc.  
655 Eden Park Drive  
Cincinnati OH 45202

513.621.6211

context	2
process	2
programming	3
design synthesis	4
design concepts	4
preliminary conclusions	6
additional study	6
concept revision	6
- concept design	8
- site section A	9
- site section B	10
cost implications	11
conclusion	11

**CONTEXT**

The Fort Washington Way Design Concept is a product of two riverfront development design efforts. In 2000, the Riverfront Advisory Commission identified the decking over of the soon to be completed Fort Washington Way Reconfiguration Project as a critical component in the success of the Banks development plan. Simultaneously, the Cincinnati Park Board was engaged in master planning for the Cincinnati Central Riverfront Park. Both the Banks and the Central Riverfront Park are viewed as critical to reconnecting downtown to the Ohio River, and both build on the momentum put in motion by the completion of Paul Brown Stadium, the construction of the Great American Ballpark, and the National Underground Railroad Freedom Center. In order to most efficiently coordinate central riverfront open space, the Cincinnati Park Board was asked to fold the planning and design of the Fort Washington Way Decks into the larger Central Riverfront Park design process. This strategy is intended to consolidate the design process as well as strengthen the physical design that will reconnect downtown and the Ohio River.

Late in the construction of the Fort Washington Way realignment project, the City, Hamilton County and private business owners financed the driving of structural piles along the median of Fort Washington Way to make the decking over of the trench possible at a future date, with a minimum of traffic disruption. The construction of these piles makes possible consideration of multiple decking options each with various financial implications. Financing for the final surface restoration of the Decks would be funded by a combination of city, state, and federal sources, as well as significant contributions from adjacent property owners, whose property values stand to benefit from the decking project.

**PROCESS**

The Fort Washington Way Design Concept process began with a public meeting to solicit citizen input on the content and direction the design of the Decks should take. The 30 January 2001 meeting included a broad overview presentation by Parks outlining the goals and constraints of the Decks.

Structurally, the piles driven are capable of supporting decks topped with a 4-story development. However, the prevailing consensus is that the Decks should primarily be developed as public open space. Among the basic Deck characteristics presented to the public, the Decks would include:

- green, including lawn and trees
- flexibility, paved areas for events
- individual identities, yet connected to one another as a family
- ventilation shafts, penetrating each deck
- non-profit activities (for-profit use is restricted): skating, concessions, etc.
- vendor carts

Compared with other, similar Cincinnati open spaces, the Fort Washington Way Decks were comparable in area to Fountain Square and the Procter & Gamble corporate gardens.

<b>Fountain Square</b>	7572 m2	<b>1.87 Ac</b>	<b>81,457 sf</b>
<b>Procter &amp; Gamble</b>	11771 m2	2.91 Ac	126,759 sf
	8424 m2	2.08 Ac	90,605 sf
<i>total</i>	<u>20,195 m2</u>	<b>4.99 Ac</b>	<b>217,364 sf</b>

<b>Fort Washington Way</b>			
Deck 1	2508 m2	.62 Ac	27,007 sf
Deck 2	4903 m2	1.21 Ac	52,707 sf
Deck 3	4733 m2	1.17 Ac	50,965 sf
Deck 4	2573 m2	.64 Ac	27,878 sf
<i>total</i>	<u>14,717 m2</u>	<b>3.64 Ac</b>	<b>158,558 sf</b>



Existing conditions at proposed deck location (2001)

## PROGRAMMING

A number of "workshops" were initiated during the public meeting during which citizens were encouraged to discuss their ideas and work toward a compilation of ideas for how the Decks could be developed. The workshop yielded a broad spectrum of ideas. Consensus was achieved only on the idea that the Decks should be "green" with grass and trees. There was no obvious selection of a single programmatic use of the Decks.

A partial listing of ideas are categorized as expressed at the public meeting. Individual ideas are not necessarily compatible with one another, and many suggestions did not necessarily receive widespread support. This list reflects the broad list of citizen input.

### Memorials

- Memorial to all veterans
- Memorial to firefighters
- Place for gatherings, ceremonies, remembrance
- Recognition of need for inclusion / memorialization for all rather than just one group

### Historic Commemoration

- Historic interpretation (educational, interpretive, timeline)
- Storytelling
- "Mosaic" of history of region, city, neighborhoods

### Greenspace/Park-like

- Lawns
- Trees, plantings
- Shade
- Seating
- Meandering walkways
- Areas to eat lunch/picnic
- Areas for informal play or gatherings
- Dog walking

### Water Elements

- Fountains/sprays
- Recognition/connection to Tyler Davidson Fountain / River

### Connection

- Pedestrian link between river and downtown
- Part of a designated walking route

### Recreation

- Skating rink
- Skateboard area
- Attractions for kids and teens
- Family attractions

### General Comments

- Vibrant/active space
- 24 hour use / supportive of residents
- Each deck with its own integrity
- Decks related to each other in design
- Well lighted
- Dramatic use of lighting
- Bike-friendly, bike lockers, relationship to transit center
- Art opportunity
- Color, banners
- Transition space/front door to city
- Relationship to Freedom Center - open, green
- Should not compete with and should be different from other downtown green space and from CRP
- Should be open
- Should be urban

### Buildings/Commercial Uses

- Small-scale retail / shops
- Coffee shops, pubs
- Retail continuity from 3rd street to 2nd
- Seamless commercial connection to downtown
- Potential visitor center / information center
- Pavilion for multiple uses/rentals

### Additional Program Ideas

- Seasonal skating rink or reflecting pool
- Public toilets, self-cleaning with advertising commitments
- The Ferris Wheel
- Dance-able paving
- People movers
- Thematic gardens / monuments

## DESIGN SYNTHESIS

In the absence of a clear programmatic mandate from the public meeting, the Design Team encompassing both consultants and City departments, focused on the study of a physical decking configuration, or framework, upon which program components could be added and tested at a later date for compatibility and appropriateness.

The Fort Washington Way Design Concept would outline a broad vision for creating a "park." The Decks would become vessels for embedding a variety of program components. Programmatic uses might vary from Deck to Deck, yet the identity of individual decks would read as a single, urban landscape. The strategy of creating a single Deck identity is drawn from the already constructed Fort Washington Way project that successfully established a strong visual identity for the streetscape. The Deck project would build upon the successes of the earlier project, utilizing components of the streetscape, and ultimately reinforcing the identity of the Fort Washington Way corridor.

## DESIGN CONCEPTS

Three broad strategies for the Decks were developed:

- The Green Park*, emphasizing grass, trees, and paths
- The Wall Scheme*, adding walls and landforms to the The Green Park
- Park + Sculpture*, combining and intersecting components of both The Green Park and The Wall Scheme

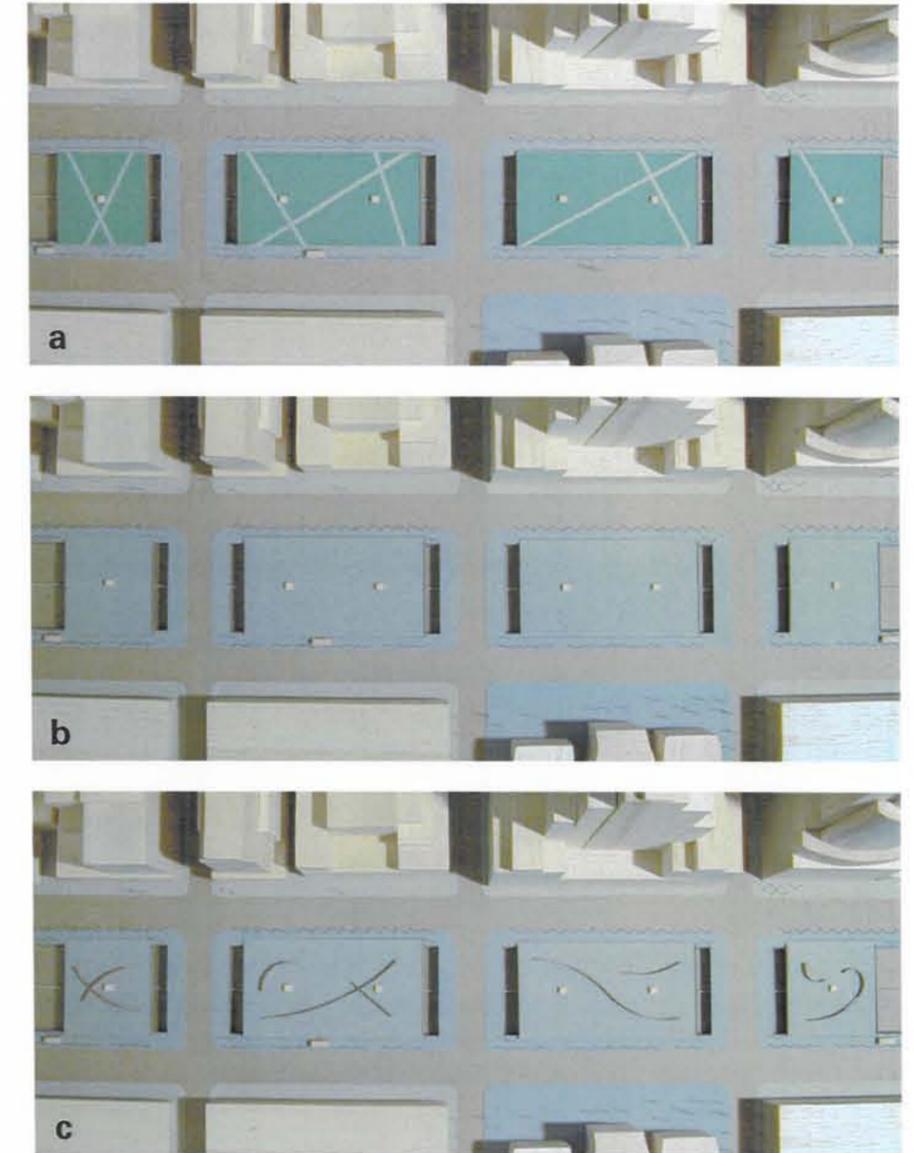
Common to all Deck landscape concepts is the objective to buffer the presence of the Fort Washington Way highway, and to minimize the ventilation noise and vibration. In all options, the number and size of ventilation units are variable between two larger units and several smaller units. Regardless of number, these vents are to be arrayed along the centerline of Fort Washington Way. The actual exhaust outlet on the Decks can be rerouted off-center if needed. To move toward the objective of buffering highway and vents, the landscape vegetation of trees and grass requires adequate soil depth, irrigation and under drains to ensure that they flourish in the context of a structure spanning a highway.

Within the three concepts noted above, a series of options were developed to explore the spatial characteristics resulting from these configurations. Among them:

### *Quadrangle*

The first series of studies envisioned the Decks as purely "flat" with the ground plane rendered as either entirely lawn [a] or entirely paved plaza [b]. In both cases, the ground plane would be criss-crossed by pathways, reflecting pedestrian desire lines to traverse the Decks. The effect would echo a prototypical college campus quadrangle of intertwined pathways and universally flexible space. The most prominent drawback of either "flat" option is that the structural cross section of the Deck would not allow enough soil depth for the planting of trees.

The all-plaza option introduced a series of walls that curved across the Deck in a broad arc, interrupting or spanning the pedestrian walks [c]. The walls could either be low seatwalls or a taller architectural element that program components such as memorials, water walls or interpretive elements could be combined with.

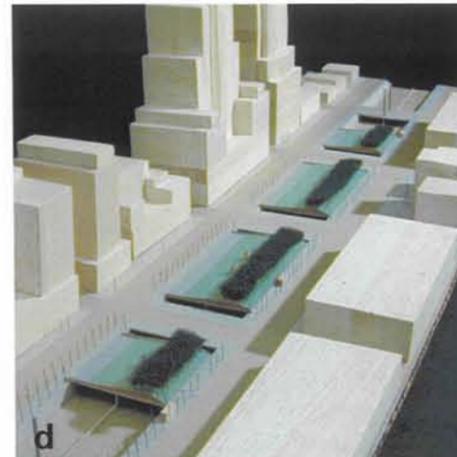


Quadrangle options

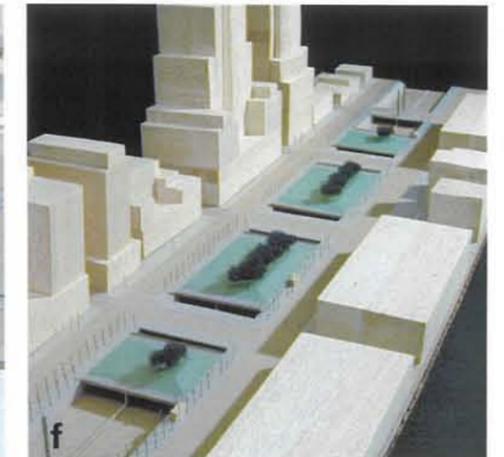
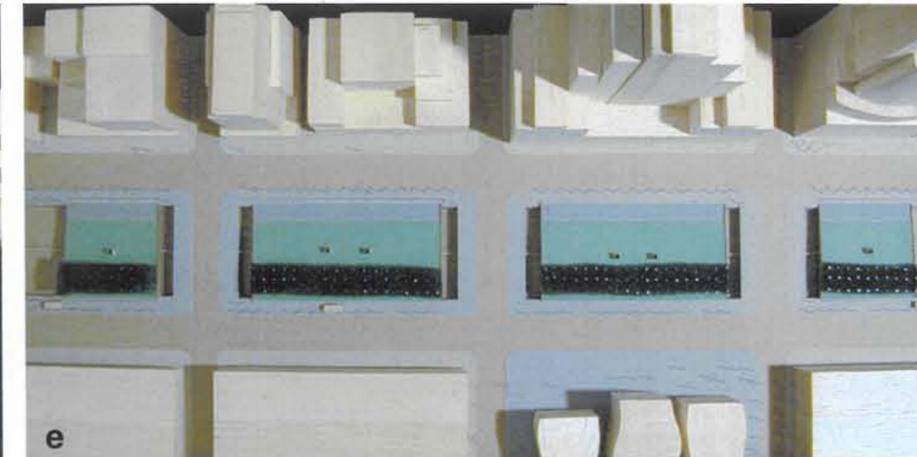
### **Park Approach**

In order to plant trees, the soil depth has to be increased from "flat" to a minimum of 80cm (30") by sloping upwards. In this series of studies the earthworks are sloped up to the south, nearly 3m (84") high. Trees are arrayed in one of two variations concentrated to the south ridge: as regimental lines, east to west [d,e], or as looser drifts, irregularly spaced [f].

In this series, paved plazas are positioned either along the 3rd Street frontage or north-south on either side of the earthworks, linking 2nd and 3rd Street sidewalks.



*Park Approach*

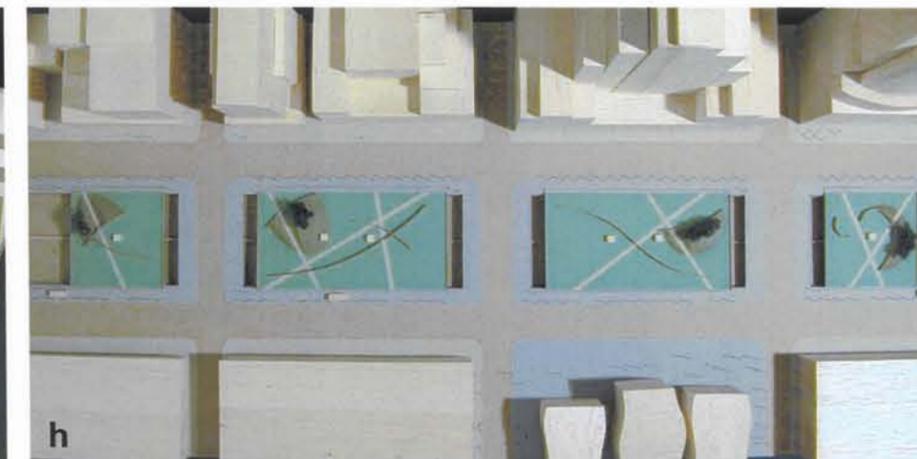


### **Wall Options**

Using the Quadrangle as the starting point, several prominent landforms are situated on the Decks, as objects. These arc-ing landforms rise upward to allow trees to be planted upon the Decks. The quadrangle pathways intersect and affect the landforms. Vertical walls also arc across the Decks, spanning the pathways and cutting into the landforms. The walls parcel the larger decks into smaller spaces to be inhabited by smaller groups of users. Maximum flexibility of Deck area is achieved whether grass [g,h] or paving [i], but the Decks lack much in the way of shade, except that offered by the walls and few trees.



*Wall options*



### **Drum**

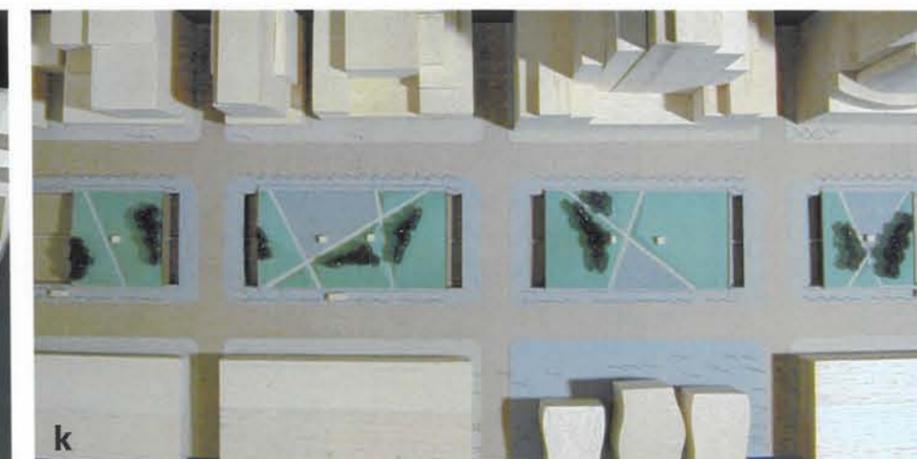
In a derivative of the Quadrangle and Park Approach series, the cross section is shaped as a cylinder, with a high point along the centerline of each Deck. Paths roll across the Decks on a camber from north to south, affording universal access [j]. The deeper soil cross section toward the middle allows for rows or a loose drift of trees along the centerline.

One variation of the Drum series is the "flattening" of one panel on each Deck to become a paved plaza [l]. Seatwalls or steps transition from the rolling path to the lower plaza.

A further variation is to keep the paths "flat" while faceting the grass landforms to allow for trees toward the highpoints [k].



*Drum*



## PRELIMINARY CONCLUSIONS

Presentation of the series of options described above resulted in a general consensus for a "green park" supplemented with the need for event flexibility. A unified or seamless "connection" of pedestrian circulation between the riverfront and downtown repeatedly emerged as a dominant priority.

Piles for the proposed Decks were driven and capped prior to the design of the Deck landscape. The structural configuration was designed to provide a range of flexibility between 4-story development and public open space. Provision of adequate ventilation for the Fort Washington Way trench, after decking, requires 7.62m (25') wide open air "slots" adjacent to the recently completed bridges and planters, spanning from north to south sidewalks.

The Decks design team found that these "slots" separate the bridges from the Decks, and would work against the ability of pedestrians to move diagonally from the north-south streets onto the Decks. Pedestrian desire lines for accessing the Decks would be limited to the 2nd and 3rd Street sidewalks, isolating pedestrians travelling North/South from the deck amenities and benefits.

The slots pose a variety of structural, ventilation, life safety, urban design and financial constraints that complicate resolution of any deck strategy. These constraints must be considered collectively when analysing alternative solutions.

## ADDITIONAL STUDY

Deck landscape and structural contingencies were discussed with the City, and additional structural study was undertaken to achieve the urban design objectives without increases to the projected costs.

Three structural alternates were identified:

- 1 Minimum strategy of adding transverse beams at the corners of each deck to carry "wings" of paving, affording expanded walking surface between bridge and Deck
- 2 Eliminate the air intake "slots" on either side of Vine Street, though retaining air slots at Race and Walnut
- 3 A continuous tunnel from Race to Walnut, with no air intake slots

The design team also made the following conclusions, related to generating a final Design Concept:

- 1 Simplify length and arc of any walls
- 2 Identify areas of walls that may contain waterwalls or adjacent pools
- 3 Designate café structure and possible restroom facility
- 4 Add rows of trees toward the south to resonant with proposed Ted Berry Way Promenade and to offset loss of street trees along Fort Washington Way due to future decking configuration

## CONCEPT REVISION

Following further structural and regulatory evaluation determining critical dimensions bearing on the categorization of the Decks as a "tunnel," the design team pursued a single revised Design Concept of two decks rather than four, with air intake slots at Race and Walnut, but not on either side of Vine Street.

The final Design Concept is comprised of a paved area centered along Vine Street containing the majority of all program components flanked by a grass-covered landform rising from the 2nd and 3rd Street sidewalks up to a high point along the Fort Washington Way centerline. The landform height of approximately 2m (7'), constructed with structural Styrofoam and planting soil, allows adequate depth for several rows of trees.

<b>Area</b>			
West Deck	5323.5 m <sup>2</sup>	1.31 Ac	57301.6 sf
Deck East	5265.2 m <sup>2</sup>	1.30 Ac	56674.7 sf
<i>total</i>	<u>10588.7 m<sup>2</sup></u>	<b>2.61 Ac</b>	<b>113976.3 sf</b>

### West Deck

Programmatically, the West Deck is the "active" Deck, with paved surfaces large enough to accommodate an elliptical 25m x 48m skating rink, a Ferris Wheel, or public gathering of approximately 3000 people freely circulating across the plaza. A terrace of ascending seatwalls rise up to meet the landform, with an ADA-accessible path integrating both. The south facing terraces provide the primary seating opportunity for the West Deck. Movable tables and chairs are to be found at a 115m<sup>2</sup> (1238 sf) Pavilion, containing a Café and restroom facility, located at the northwest intersection of 2nd and Vine Street.

Two vent towers, configured as sculptural elements rise up through the West Deck, one located within the grove of trees and one in the plaza. The vent towers, the broad expanse of paving and the terraced seatwalls provide excellent opportunities for integrating art, interpretive or memorial content into the project.

### East Deck

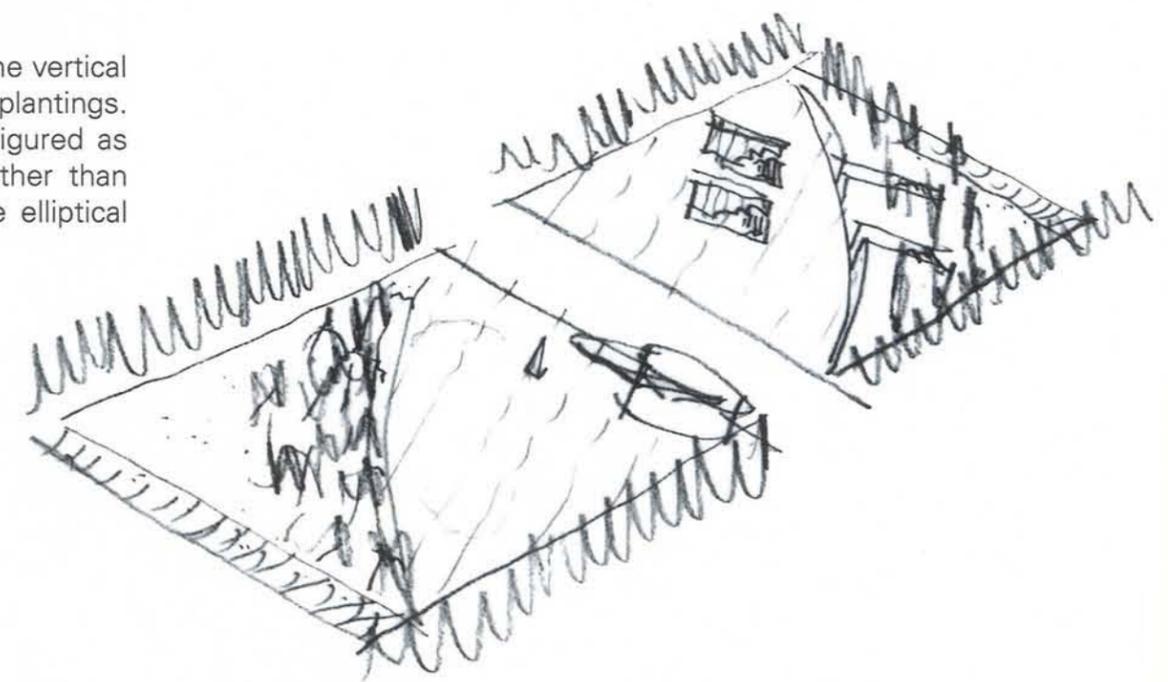
The East Deck is programmed as the more "passive" Deck. Though similar to the West Deck, the East Deck has numerous distinctive components. Rather than a ramp and integrated terrace, the East Deck has a 2m (7') high vertical wall with two niches. The wall and niches offer a variety of opportunities for memorials, monuments, interpretive elements and art integration. The niches cut into the landform, terminating with a stair rising out onto the grass landform.

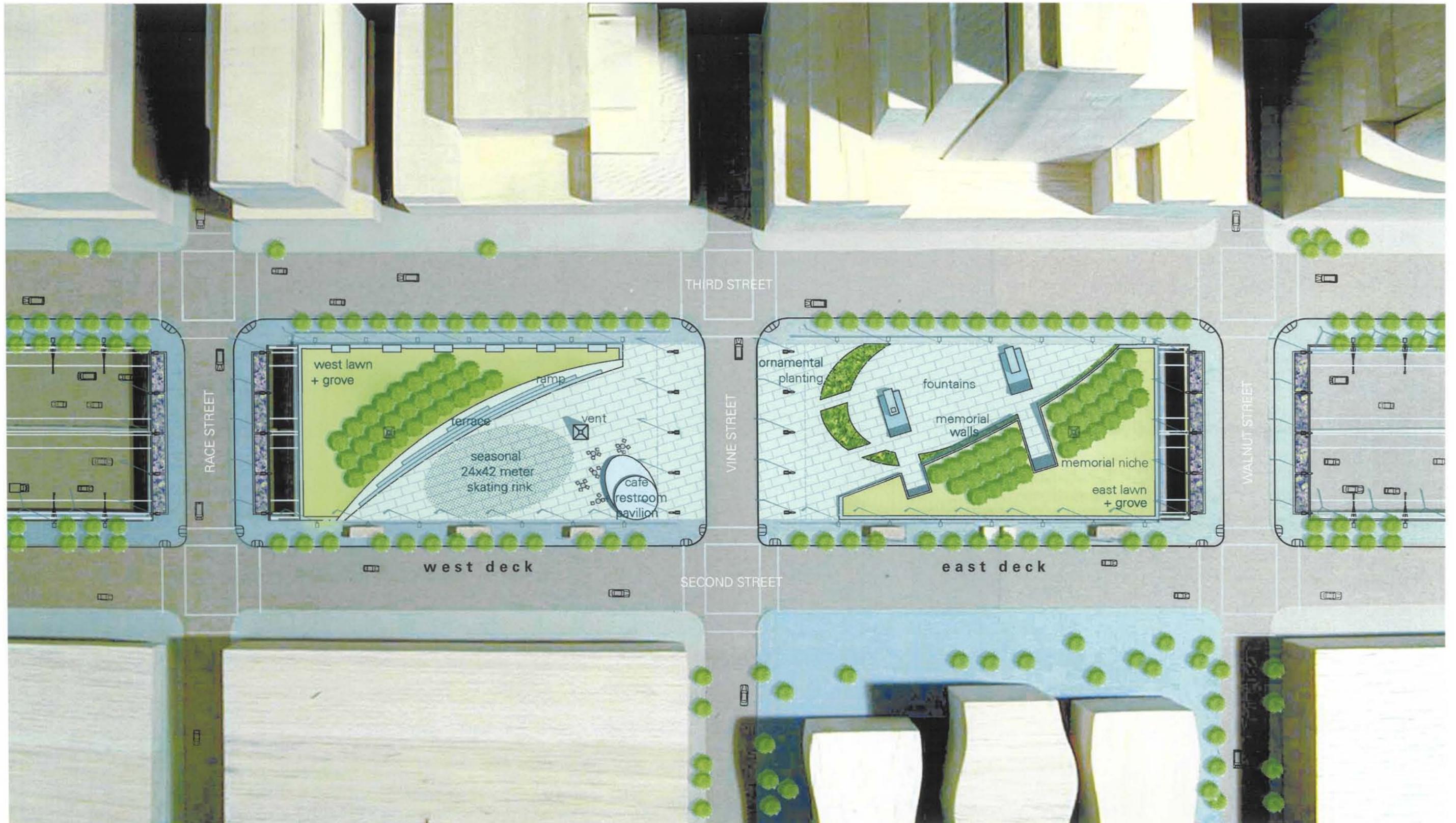
Aligned with the niches, and occupying the center of the East Deck plaza, are two sculptural fountain pieces. In each case, a monolithic volume rises out of a pool on the north side, while an exaggerated water stair sits on the south side. The sound of water activates the East Deck, buffering the sound of traffic for a more contemplative space. Two vents penetrate the East Deck, with one in a grove of trees and the other integrated into the fountain's monolithic volume. In this instance, the westernmost vent of the East Deck is redirected from the centerline of Fort Washington Way to exhaust through the top of the rectangular shape.

An elliptical fragment arcs through the plaza, paralleling the vertical wall, containing either ornamental grasses or annual plantings. Alternatively, portions of the vertical wall could be configured as water walls with water collected within the ellipse, rather than plantings. A low seatwall would be integrated into the elliptical fragment.

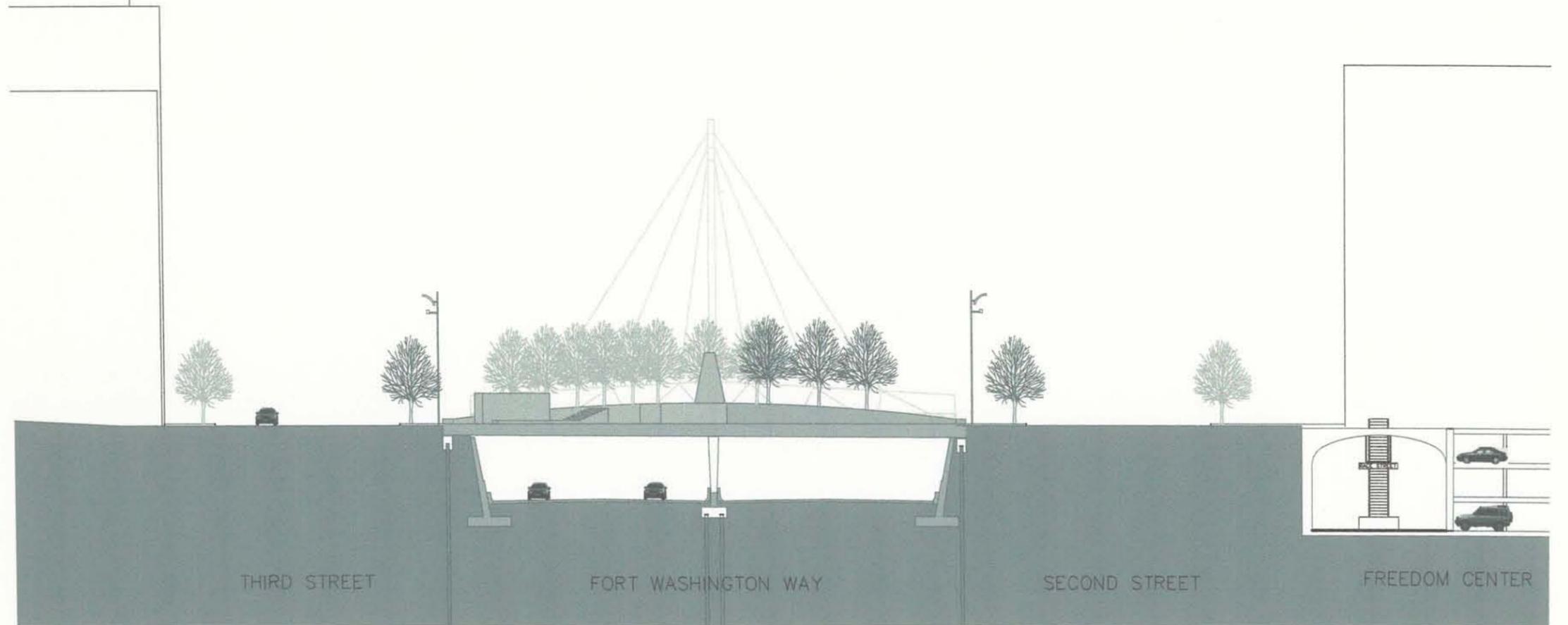
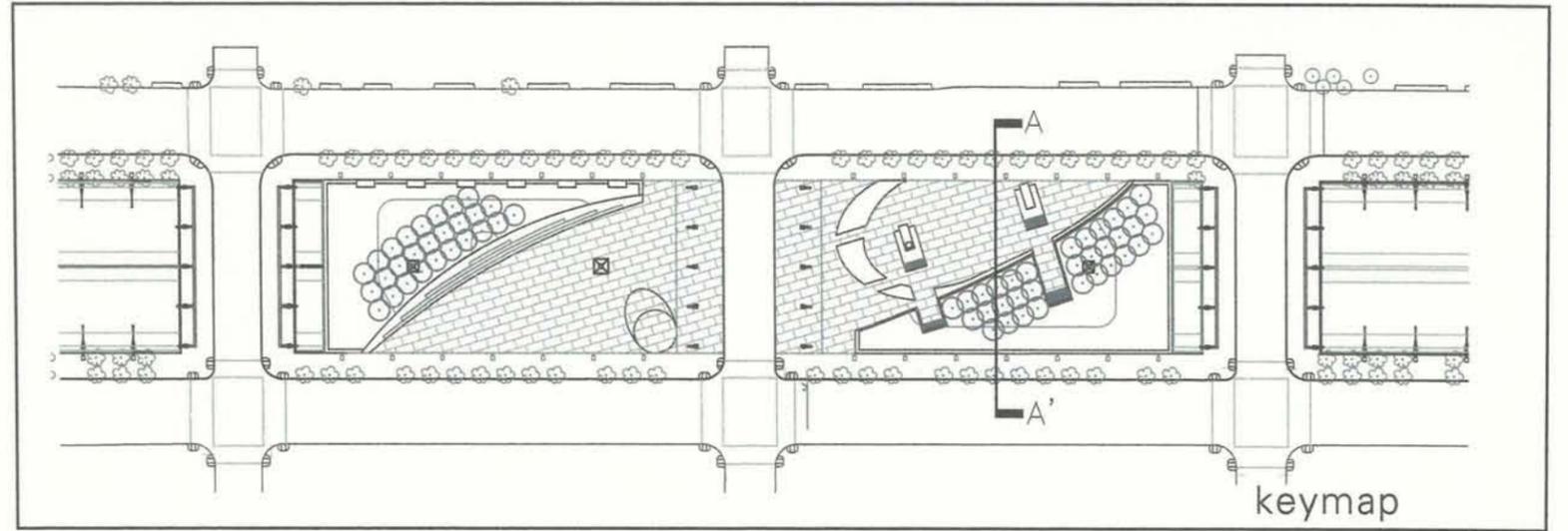
### Common to both Decks

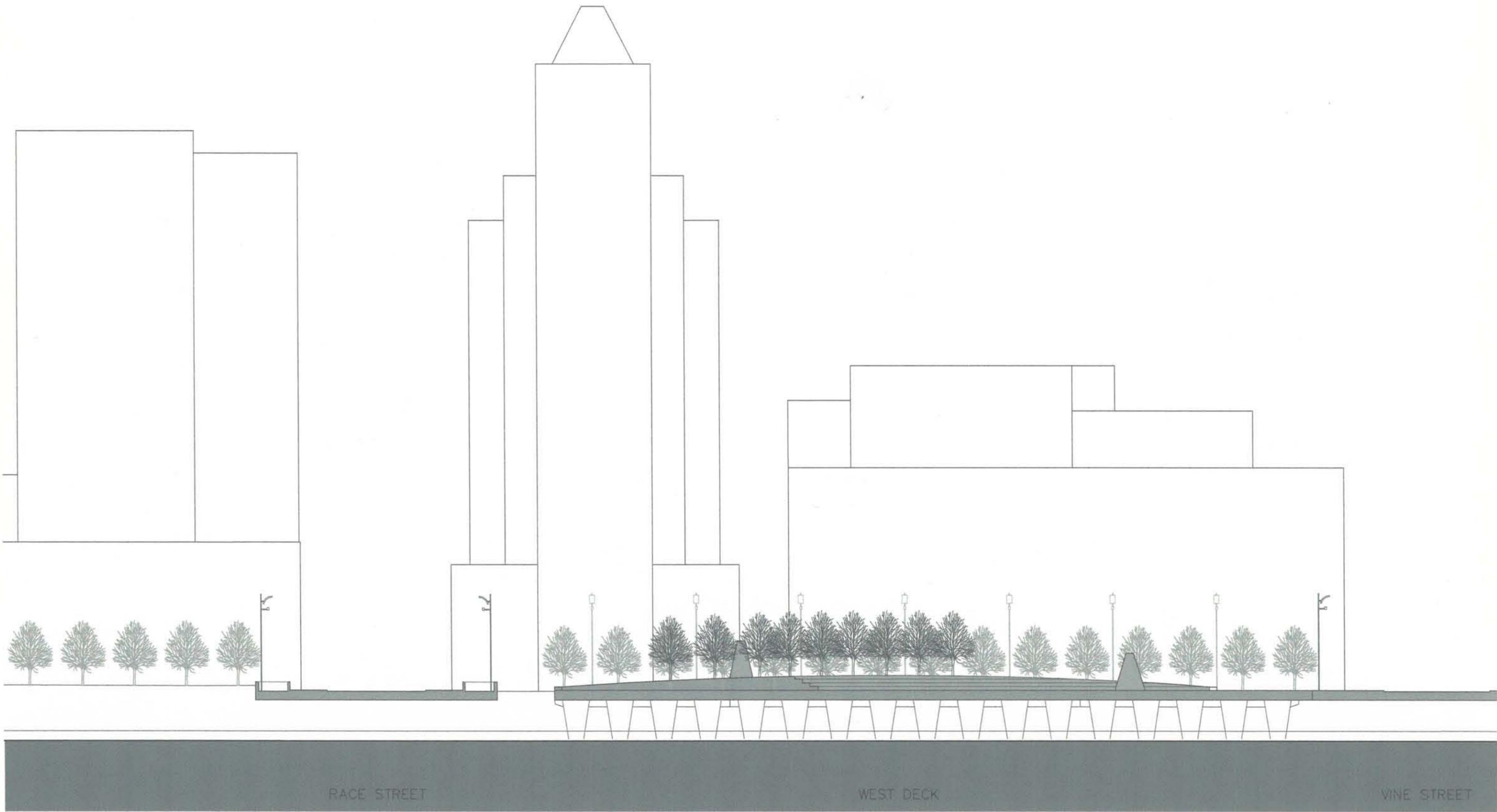
In both instances, the Intermodal Center's headhouses open onto the south edge of both Decks. On the West Deck, the headhouses open onto the plaza. To the East, the headhouses open at a low perimeter seatwall that allows the landform to rise higher. The Decks are intentionally reverse images of one another on a conceptual level to distinguish between the more active and passive program of each, as well as to offer a diversity of seating and shade opportunities. The light standards established by the Fort Washington Way Streetscape are reintroduced in their same position, though without the outriggers.

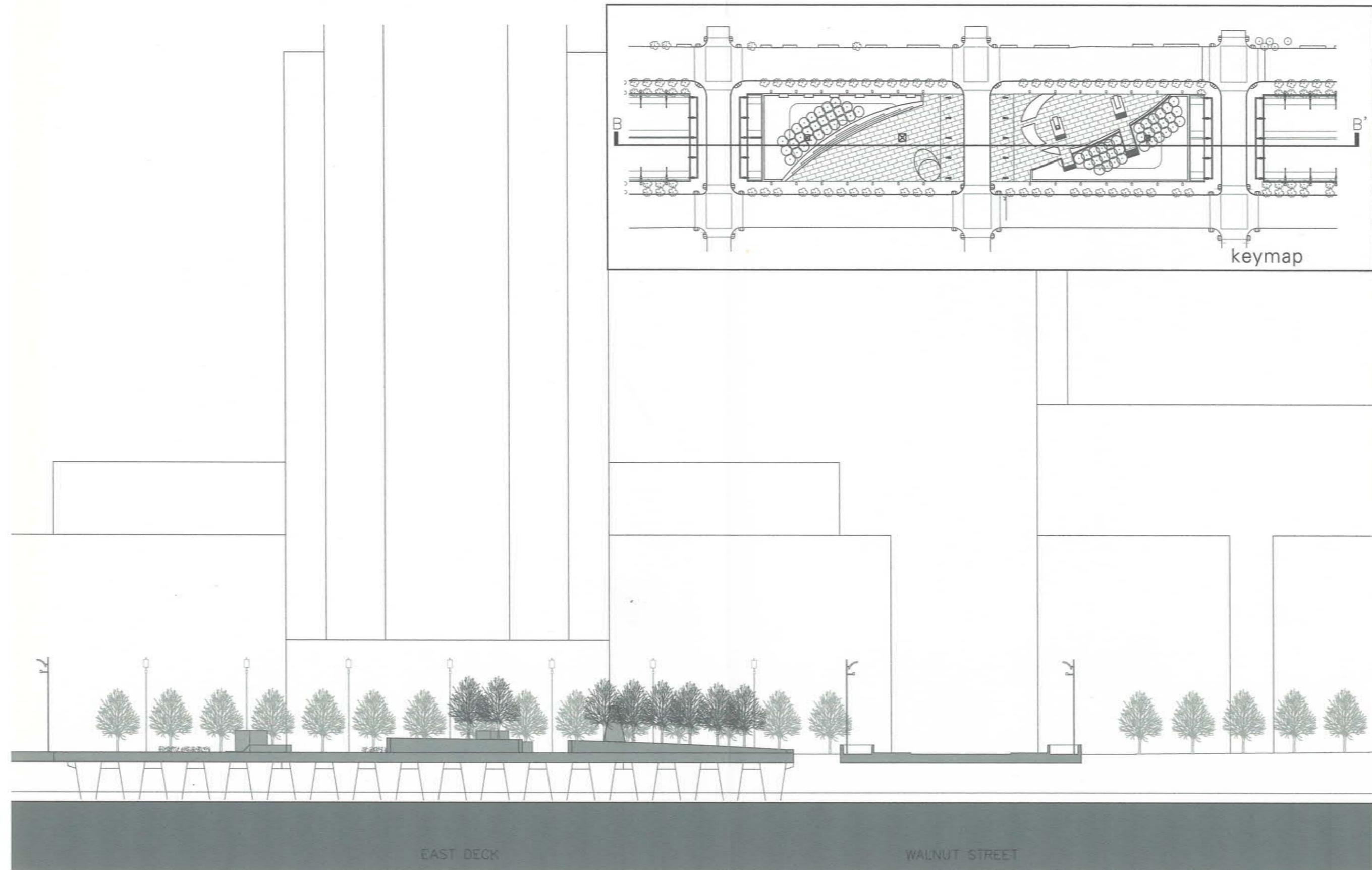
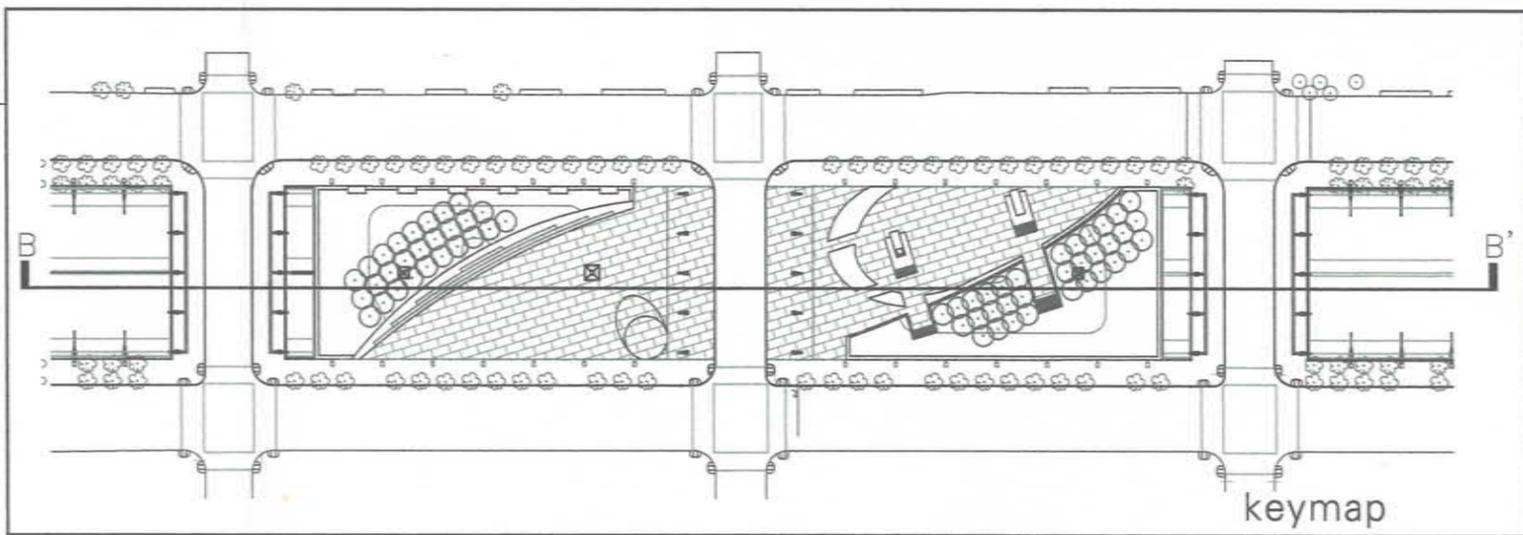




Fort Washington Way Decks Concept Design, Scale 1:1000







### **COST IMPLICATIONS**

Initial cost estimates for the Deck landscape assumed \$84/sf, excluding all structural components. In light of the most recent Deck reconfiguration, from four decks to two, and a significant repositioning of park program components, the estimated landscape budget of \$12.8 million is anticipated to be sufficient. Assuming \$100/sf, the proposed project of 2.61 Ac totals \$11.4 million. With the Café / Restroom Pavilion estimated to cost on the order of \$400/sf, totaling \$ .5 million, the Deck landscape remains within the \$12.8 million budget. The size, number and complexity of fountains will push the cost upwards toward the budget.

### **CONCLUSION**

The Concept Design puts in place a landscape framework for further design and detailing of the Decks. This concept anticipates that specific memorials, artwork and interpretive elements will be developed further instilling meaning and sense of place in the Decks landscape.