

30TH STREET STATION PLAZA

PREFERRED CONCEPT PLAN



NOVEMBER 7, 2017

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Executive Summary





30th Street Station Plaza | Design Guidelines

The Station Plaza Concept Plan offers a consensus vision and design direction for the plaza, that is crucial to the future functioning of the station, and to creating a nexus of future development for the city. The Plan builds on the work of previous plans, and was developed through an iterative design process and engagement with both internal and external stakeholders. The Concept Plan, and the accompanying design guidelines, address the core needs of the plaza, build on the history and successes of the plaza today, while addressing its shortcomings. The plan creates a vision for a public space that complements and enhances the majesty of 30th Street Station and its important role in the city and a wider transportation network.

Philadelphia's 30th Street Station, built in 1934, is the third-busiest Amtrak station in the country, with direct rail connections to Southeastern Pennsylvania Transportation Authority (SEPTA) and New Jersey Transit, as well as dozens of local and regional bus, subway, and trolley connections. The station building is a national historical structure, a City of Philadelphia landmark, and a recognized icon of the city.

Approximately 11 million passengers traveled through 30th Street Station in 2015 – a figure that could more than double over the next 25 years. The Philadelphia 30th Street Station District Plan, completed in 2016, offered a comprehensive vision for the future of 30th Street Station and the 175-acre district that surrounds it, including three alternative plans for the Station Plaza. This Concept Plan builds on the previous planning efforts and provides a consensus plan that aligns with the vision and goals of the District Plan.

The station and plaza sit at the heart of an area that is anticipated to undergo rapid growth and transformation in the coming years, yet the plaza does not function adequately as a gateway for a major transportation nexus, a social space for a growing neighborhood, nor as a setting befitting the grandeur of an architectural icon. Much of the plaza is taken up with disorganized and confusing vehicular station, resulting in inadequate pedestrian space, and both vehicular and pedestrian congestion. A pedestrian cannot enter the station

across the plaza without crossing vehicular traffic. Vehicular patterns increase congestion both within the plaza and on the surrounding streets, and posted regulations regarding parking and drop-offs are routinely ignored.

Increased rail traffic in the coming years for Amtrak and SEPTA will necessitate the redesign and upgrading of rail operations at 30th Street Station, while bus activity is also predicted to increase. This growth in transit use will result in a surge of pedestrian activity. The Concept Plan ensures that the 30th Street Station Plaza develops to meet current needs and accounts for the planned future growth of the neighborhood and anticipated increases in train ridership.

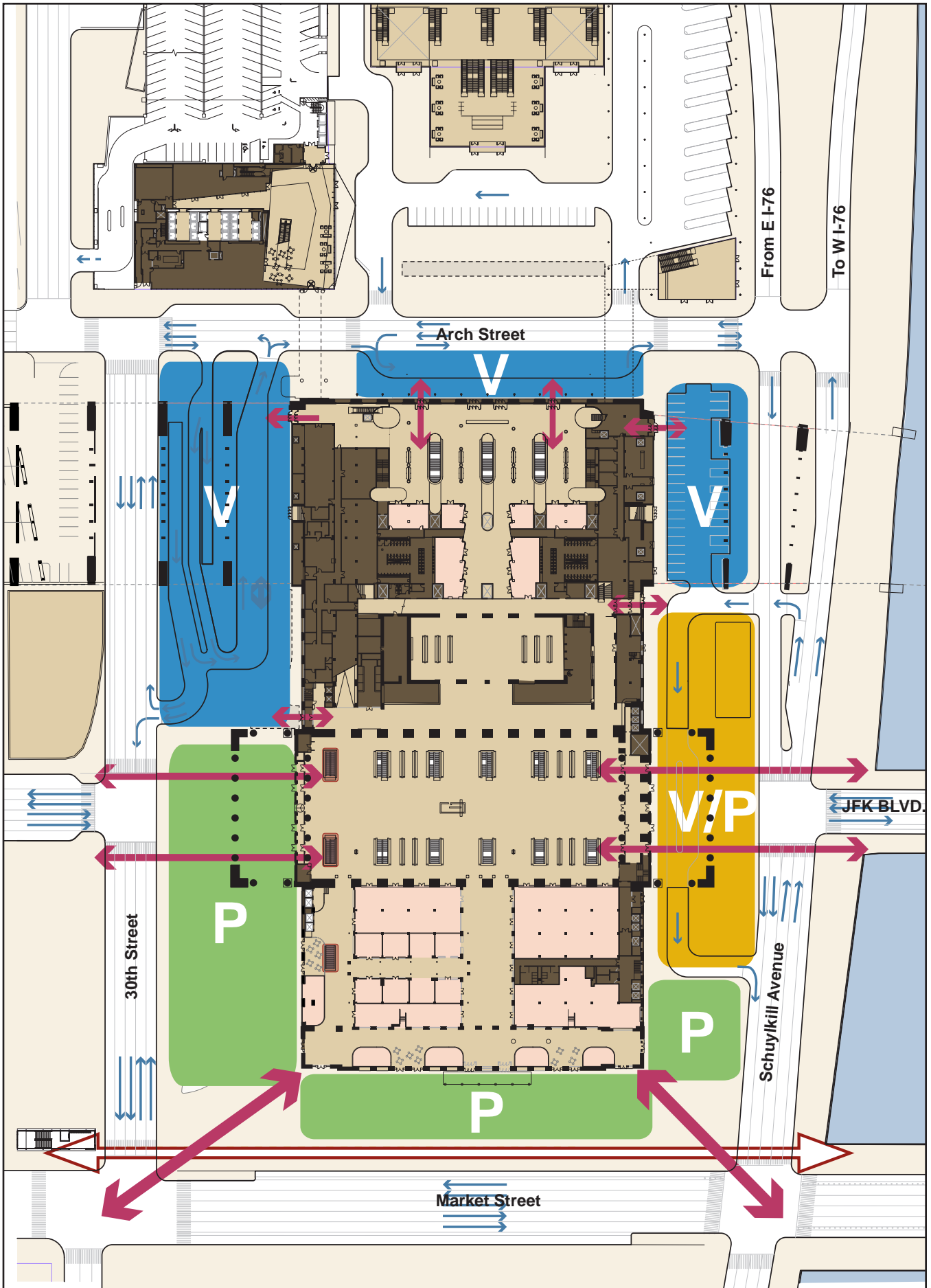
In recent years, the success of “The Porch” with temporary landscape and programming installations on a portion of the plaza along Market Street has demonstrated the inherent potential to transform the plaza into vibrant, functional, and beloved public spaces. As The Porch was always considered a short-term solution, The Concept Plan offers an opportunity to learn from the success and scale it into a permanent solution encircling the entire station.

The Concept Plan has been coordinated to work in concert with numerous planned and ongoing projects, including the planned new North Concourse, the West Underground Concourse, the SEPTA 30th Street Underground Connector, Drexel Square, and the future development envisioned in the District Plan.

The Concept Plan identifies the critical functions and primary uses of the plaza, as well as key planning principles to establish a set of design guidelines. The immediate improvement and long-term success of Station Plaza is reliant on addressing four major issues:

- Vehicle circulation and parking
- Pedestrian circulation
- Programming of the plaza and interaction with the station
- Design of the landscape and public realm.

The Concept Plan is the result of testing multiple



Key Principles	Vehicle Only Zone	Vehicle and Pedestrian Zone	Visual and Physical Desire Lines
	Pedestrian Only Zone	Vertical Circulation Elements	Vehicle Traffic Flow Direction

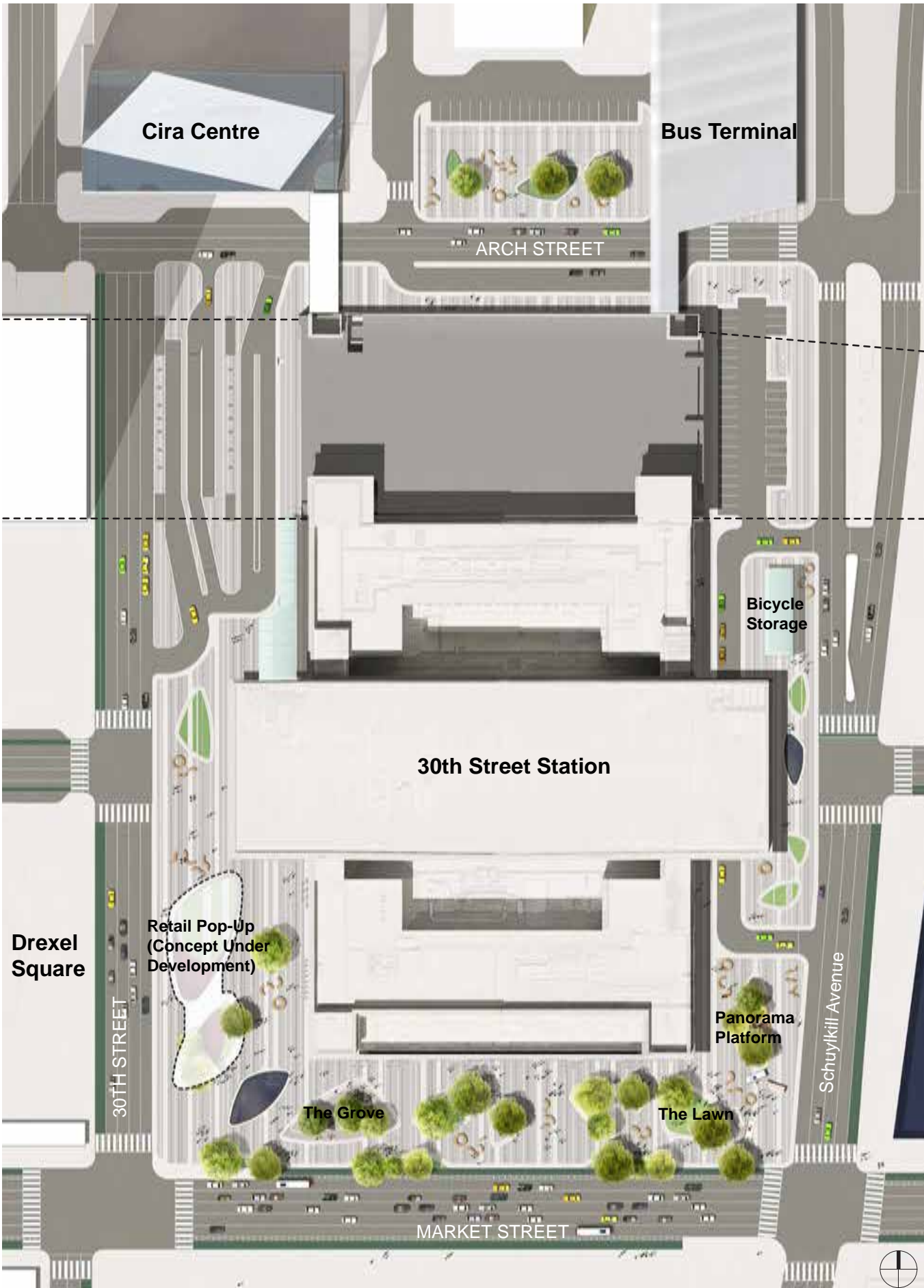
scenarios to measure their success on traffic flow efficiency, passenger flow efficiency, public space capacity, and potential for future growth. Pedestrian and vehicular circulation are the two primary drivers in organizing the plaza, and set the framework that all other pieces of the plaza fit within. The Concept Plan proposes a reworking of traffic flow and pedestrian circulation by organizing vehicular circulation around the northern part of the station and focusing pedestrian spaces around the southern portion of the station. This improves the public realm for pedestrians and provide clear and efficient vehicular circulation.

The Concept Plan takes advantage of spaces that may currently be under utilized, namely the underground parking garage beneath the western plaza, and the spaces underneath the SEPTA overpass at the north side of the station. By fully utilizing these spaces and the connections and cover they offer, the plan helps to rationalize the circulation and parking patterns. Certain functions are moved off the plaza into adjacent locations, such as the Cira Centre garage, or the planned plaza immediately north of the station. The Concept Plan allows the station to function at full capacity for passengers using all five different transportation modes that depart and arrive from the facility, and for the thousands of people who either work in or near the station, or pass through while walking to nearby destinations.

The landscape design elements of the Concept Plan create an overall unity to the plaza and a setting appropriate to an iconic piece of civic architecture, while at the same time creating a wide variety of spaces that will be welcoming to a diverse set of users, and offer a range of experiences within the plaza. The landscape plan uses “soft” geometries to offer a playful contrast to the station building, and shape the plaza spaces to encourage movement and flow. Landscape elements are arranged to guide and frame clear, unobstructed paths of travel for those rushing to the station, while simultaneously offering areas of respite. Raised planters permit the introduction of shade trees and other plant material on the plaza, which is built on a deck that does not allow sufficient planting depths. Views of the historic station from key approaches, especially of the

east and west porticos, are preserved and sometimes framed to enhance the experience of them. Different zones of the plaza are designed and programmed to promote different kinds of activities, from retail offerings, to intimate and semi-secluded places to relax, to theater-like elements. With vehicle circulation efficiently reorganized to the north, the west portico becomes the main pedestrian-focused entry. Directly south of the portico the plaza is enlivened with spillover seating and retail activity from the station. A “pop up” retail kiosk frames the route to the portico while the accompanying “pop down” provides light and strong connections to the future West Underground Concourse beneath the plaza. Along Market Street both hurried passengers and passers-through are accommodated with unobstructed circulation zones running next to the station and along the street. Scattered between these circulation streams a series of landscape islands offer shade and relaxation. “The Grove” provides a shaded area of intimate seating clusters, set slightly above the hubbub of plaza, and partially enclosed by vegetation. Toward the eastern end of Market Street, “The Lawn” provides a gently sloped area of grass for seating, picnicking, or sunbathing. Along Schuylkill Avenue, the “Panorama Platform” creates an informal amphitheater-like setting with integrated wood benches for small-scale performances, admiring the skyline, or taking that all-important “I’m in Philly” selfie against a sparkling Center City backdrop. A kiosk built into the station side of the Platform – envisioned as a coffee or sandwich stand - adds an important retail amenity to this area of the plaza. Other areas around the plaza offer opportunities for additional greenery, shade, fountains, sculpture and informal seating.

The Concept Plan and design guidelines will help direct a future team of designers in the creation of a plaza which both supports the transportation mission and creates a world-class public space and destination. While detailed development of the design will likely alter some of the aspects of the Concept Plan, it is intended to codify and memorialize the design intent for the plaza. Guided by this Concept Plan future teams can help to realize its vision for an efficient, lively, and beautiful plaza worthy of the station and the City.



Illustrative site plan

Background

- A. Purpose of Project
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- C. Conditions Today
- D. Future Context
- E. District Plan Options
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Purpose of Project

Today, 30th Street Station Plaza is the result of many decades worth of piecemeal and patchwork solutions to the station's circulation and public space requirements. While some of these interventions have been successful, many have not. In addition, the station's needs, and the demands placed on the plaza, have continued to change and grow, so that even once-successful elements of the plaza are no longer adequate for today's needs or tomorrow's vision. That vision anticipates growth in the use of the station and significant development in the area around it.

Along with the 2016 District Plan, this Concept Plan is the first since the station's original design to consider the plaza as a whole, with the intent of integrating both the surrounding urban fabric and the interior functions of the station. While the Concept Plan addresses some immediate shortcomings of the plaza, it primarily takes a long-range view, planning for several decades of future growth and development.

The goal of the Concept Plan is to build on the successful elements of the District Plan and to work with stakeholders to create a preferred, consensus-backed design. The Concept Plan satisfies the District Plan design objectives, meets stakeholder needs, incorporates best practices in transit-oriented public space design, and defines the design parameters and overall layout. The Concept Plan represents the design intent, goals and aspirations for the plaza among many internal and external stakeholders.

The Concept Plan addresses key issues, including:

- Vehicle pick up/drop off (taxi, ride share, and private vehicle)
- Vehicle parking (long and short term)
- Vehicle staging (private vehicles and public bus)
- Bicycle circulation and parking
- Pedestrian access through the plaza (to and from the station)
- Public programming and activation of the



plaza

- Coordination with ongoing projects including the West Underground Concourse, North Concourse, Drexel Square, and SEPTA subway/30th Street Station Underground Connector
- World class landscape and public realm design appropriate for the station
- Security

The harmonious synchronization of these competing demands is a primary goal of the project. The plaza aims to be mutually beneficial for various uses and multiple transit modes, and to balance the functional needs of a major transit hub with the desire for a public place of repose and enjoyment.



30th Street Station from JFK Boulevard

Process Summary

The process of creating the Concept Plan began with building on the work and understanding of previous planning studies. There have been a number of development studies that touched on Station Plaza and the adjacent Amtrak and SEPTA rail yard in recent years, including:

- Philadelphia 30th Street Station District Plan and Technical Appendices
- 30th Street Station Historic Preservation Guidelines
- Schuylkill Yards “Innovation District” Master Plan
- The Porch at 30th Street Station: 5 Years, 5 Lessons

This Concept Plan builds on the previous work to produce a comprehensive overhaul of Station Plaza.

Valuable perspective and feedback was provided through an iterative series of meetings between the Design Team and key stakeholders within Amtrak and key parties representing the interests of other users and government agencies. The Design Team began by meeting with



30th Street Station Plaza | Design Guidelines

Amtrak’s internal stakeholders in order to understand the pros and cons of the District Plan schemes. The disciplines consulted included:

- Historic preservation
- Rail operations
- Building operations
- Real estate
- Security
- Environment and sustainability
- Stations planning and design

These sessions provided valuable insight into the operational needs and priorities of Amtrak and its departments.

Simultaneously, the Design Team embarked on its own investigation of the site in order to understand its context and existing constraints and opportunities. The Design Team then met again with various stakeholder groups to present their understanding and analysis. These stakeholder groups provided confirmation and feedback on the Design Team’s analysis, which the Design Team modified in response.

In addition to Amtrak’s internal stakeholders, the Design Team met with a robust group of external stakeholders throughout the planning process to address the following concerns:

- To ensure proper coordination with ongoing adjacent projects, the Design Team met with Drexel University, Shop Architects and West 8 Urban Design and Landscape Architecture to discuss their ongoing plaza work on the west side of 30th street.
- To coordinate the underground connection/ West Underground Concourse between the Market-Frankford Line (MFL) and the station, the Design Team met with SEPTA, Sowinski Sullivan Architects, Gannett Fleming, and Gensler.
- To ensure both district and city-wide goals were met, and to coordinate with other City initiatives, the Design Team met with representatives from the City of Philadelphia and PennDOT.

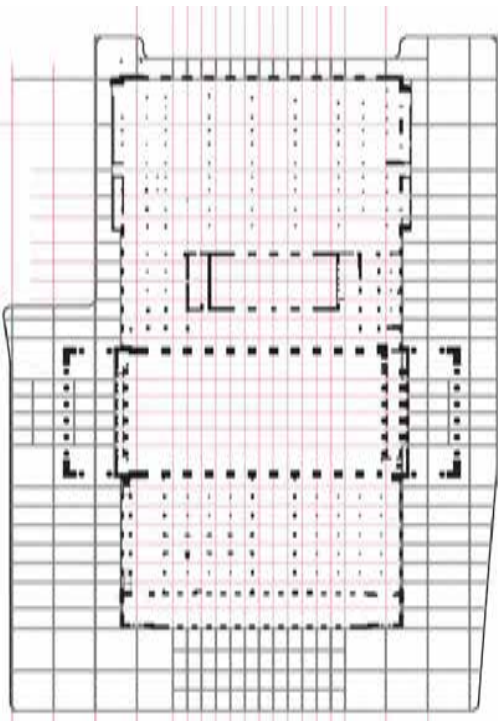
- To build on and extend the success of “The Porch” along Market Street and make use of a wealth of experience and data, the Design Team met with representatives from University City District.

The Design Team initially met the stakeholders as part of a fact-finding mission, a second time to present design options, and a third time to present a final design concept. Multiple smaller sessions were held with specific stakeholders as unique needs and design opportunities arose that required input.

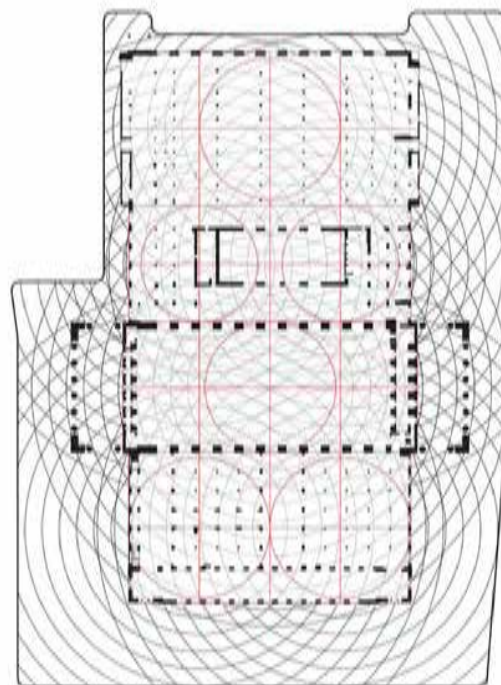
With the input from these stakeholder sessions, the Design Team created three unique plan alternatives. The three options were then presented to the stakeholder groups for review. Following their feedback, the Design Team revised the plans, taking the best elements of each plan to create a consolidated scheme.

The scheme was presented at a Public Open House on July 12th, 2017, held at 30th Street Station. At this meeting, Amtrak representatives and Design Team members were presented and discussed the design ideas with the members of the public. Participants were asked to fill out a survey to further solicit detailed feedback on key elements of the plan. The Open House presentation materials were also made available online, along with an online version of the survey. The comments and suggestions received were reviewed and analyzed, and further modifications and refinement were made to the plan, including some key design changes.

The Concept Plan presented here is the result of a rigorous process of stakeholder and public dialogue, and design modifications and refinements in response to input and engagement. While it is not possible for one plan to accommodate every need and desire in a project of this scale and complexity, the Concept Plan represents a broad consensus that balances many competing needs.



Process Sketch



Process Sketch

Conditions Today

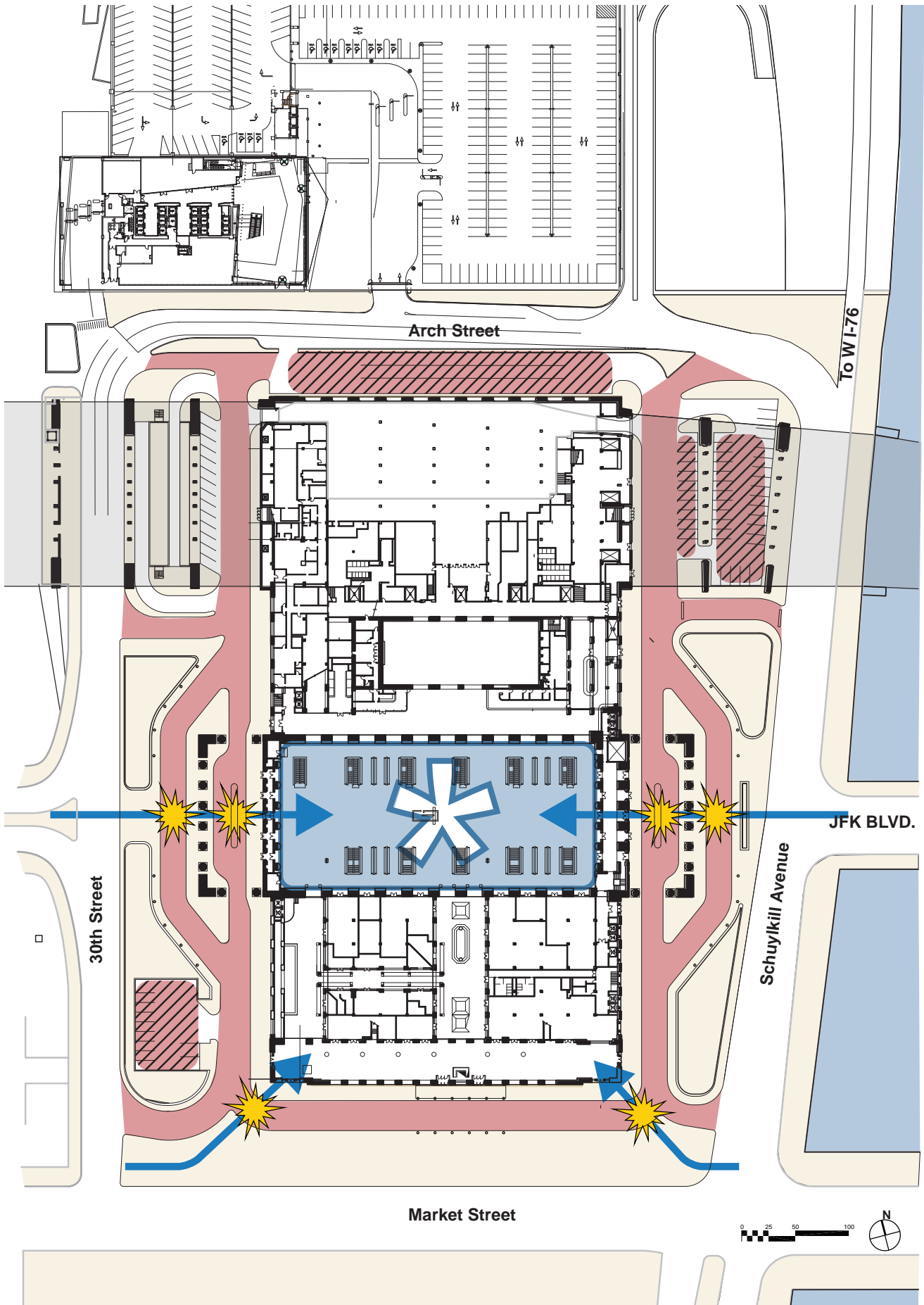
Today, 30th Street Station sits surrounded by a sea of driveways, parking, and other automobile infrastructure, rendering its exterior space less than ideal for pedestrian activity. Traffic circulates around the station block in a one-way loop, and all four sides of the existing plaza are used for vehicular circulation and surface parking. Taxi operations are concentrated on the east and north sides, private car and rideshare pick up/drop-off at both east and west porticos, the Amtrak Thruway bus at the West Portico, and Amtrak employee and police parking beneath the SEPTA viaduct, with short term parking distributed throughout. A section of the plaza along Market Street known as “The Porch” provides a public space programmed and maintained by University City District (UCD) and located within the public right-of-way.

The east portico houses taxi pickups and private car/ride share pick up, as well as a small number of short-term, metered parking spaces. Additionally, taxis queue for 700 feet around the station, wrapping from the east portico around the north side and into three lanes of traffic along Arch Street. Short term parking is distributed throughout the plaza, occurring at the corner of Market

and 30th Street, the northeast corner under the SEPTA overpass, and around the driveways of both porticos. This scattered pattern of parking creates confusion and increased traffic as cars circle the area looking for open spaces. Private car pick up/drop off, taxi drop off, private car parking, and ride share queuing and pick up/drop off all take place under or around the west portico. Despite the temporal nature of this use, with vehicles coming and going relatively quickly, an overlapped queuing of various vehicle types here leads to disorder and an unclear use of space.

Currently, 50% of the total station plaza area is allocated to vehicle use, 40% of the area is designated for or non-vehicular use, and 10% is inaccessible to both cars and pedestrians. Although accessible by foot, much of the non-vehicular area is less than ideal for pedestrian use, as it is either fragmented and discontinuous, or surrounded by vehicular paths. The station has two demarcated vehicle drop-off points, however, vehicle paths and building access points encourage additional non-permitted pick up/drop off activity, further adding to an existing a sense of confusion.





Current Pedestrian Access Interrupted by Vehicle Movement

Currently, there is no direct route from the curb to the station without crossing at least one path of vehicular circulation. If a pedestrian chooses to enter the station through one of the grand portico entries, he or she must cross two driveways containing four vehicle lanes. This condition presents not only a safety issue for both pedestrians and vehicles, but also undermines the role of the porticos, whose architectural design clearly signals their function as main entrances to the station. As a result, the station's primary entries within the porticos are likely underused, and the station's southwest corner entry has become the "main" entrance with the highest flow of pedestrian traffic. This use pattern runs contrary to the architectural intent and vision of the original station de-

sign, and denies many users a sense of grandeur from using one the portico entries.

For vehicles, circulation patterns both within the plaza and on surrounding streets tend to force traffic around the station in order to reach desired pick up/drop off or parking destinations. This additional circulation adds to congestion and traffic delays, while signage directing particular uses or circulation is routinely ignored.

Overall, 30th Street Station's plaza does not function today as the grand entry for the station it could be. Impeded by driveways and parking, the plaza is more of a tangled guideway for cars than a destination.



West SEPTA Exit Blocked by Parking



North Side Along Arch Street



West Driveway Blocked by Rideshare Pick up



Existing Public Realm on 30th Street



Overall Aerial

Future Context

In designing Station Plaza, a grand, district-wide vision of the future must be considered and planned for. The District Plan envisions the area becoming home to 8.1 million square feet of residential development, 6.3 million square feet of office development, and an additional 3.9 million square feet of hotel and retail development including a major anchor tenant. 30th Street Station and Station Plaza will become the centerpiece of this new district.

Future plans for the district, which include an overbuild development above the rail yards, will create a new, high-density neighborhood, shifting the balance of Philadelphia to the west. Development of Schuylkill Yards will dramatically increase the pedestrian traffic to and from the west side of the station. JFK Boulevard west of 30th Street and 30th Street north of JFK Boulevard will become primary station access routes as these development plans are realized. This will also enormously increase pressure on existing public spaces in the area, including the plaza at 30th Street Station. The new Station Plaza is envisioned to become a destination for thousands of new residents to enjoy. As a public space with a strong civic role, it will offer a vital moment of repose and leisure in a rapidly changing urban environment.

Amtrak is expecting to see a large increase in ridership on current lines, as well as the expansion of high speed rail service, both of which will considerably increase passenger volume. Station Plaza will need to absorb the new passenger volume and function efficiently as means of access to the station, in addition to being a welcoming and spacious place for new residents of the district.

The District Plan presents ambitious goals for the future of the both the district and the station. But it is unlikely that development will happen exactly as the District Plan envisions. The district could grow faster or slower, or could develop with a different set of program elements than those called for in the District Plan. The Station Plaza is envisioned as an early phase of redevelopment, and will likely precede much of the larger development. With an uncertain future in mind, Station Plaza must be adaptable. The Concept Design is intended to be flexible and adaptable, serving both current and future needs, however rapidly they may evolve.

Station Plaza will connect to two proposed infrastructure projects in its immediate vicinity: a new West Underground Concourse below the southwest corner of the plaza, and the Underground Connector, which will provide direct access between 30th Street Station and the SEPTA Market-Frankford Line Subway and Trolley station.

Across 30th Street, Station Plaza will be complemented by a public space known as Drexel Square. Drexel Square is part of Drexel University's Schuylkill Yards "Innovation District," a 14-acre master-planned community being developed by Brandywine Realty Trust. Drexel Square is in its final design phase, and construction is anticipated to begin in 2017.

PennDOT is also studying traffic patterns around the station, and considering shifting highway entrance and exit ramp locations between Schuylkill Avenue and I-76, as envisioned in the District Plan.



District Plan Options

The Philadelphia 30th Street Station District Plan (the “District Plan”) is a long-range, joint master plan conducted by Amtrak and several development partners between June 2014 and June 2016, which presents a comprehensive vision for the future of 30th Street Station and the 175-acre district surrounding it. The District Plan lays out a phased roadmap for the station over the next 35 years, to accommodate a projected 20 to 25 million passenger trips per year (double the current capacity), as well as 18 million square feet of new development including 40 acres of new open space and an entirely new mixed-use neighborhood built above 88 acres of rail yards.

Within this larger study is a more focused analysis of 30th Street Station and its associated plaza and street level functions. The District Plan presents three concept alternatives for Station Plaza, seeking to satisfy three primary objectives:

1. Create seamless access to the station for all transportation modes
2. Plan for flexibility to accommodate shifting demands and preferences over time
3. Program the plaza to serve a range of users including travelers, residents, students, workers and visitors.

The three District Plan alternatives offer different approaches to meeting the design objectives, with each alternative aiming to strike a balance between vehicular access, pedestrian access, bicycle access, parking, recreation space, event space, and retail amenities. Each vision shares the same basic organization and distribution of vehicle and pedestrian flows. Also common to all three alternatives are street traffic improvements that provide two-way circulation on Schuylkill Avenue, Arch Street, and 30th Street in order to enhance traffic flow to and from the station.

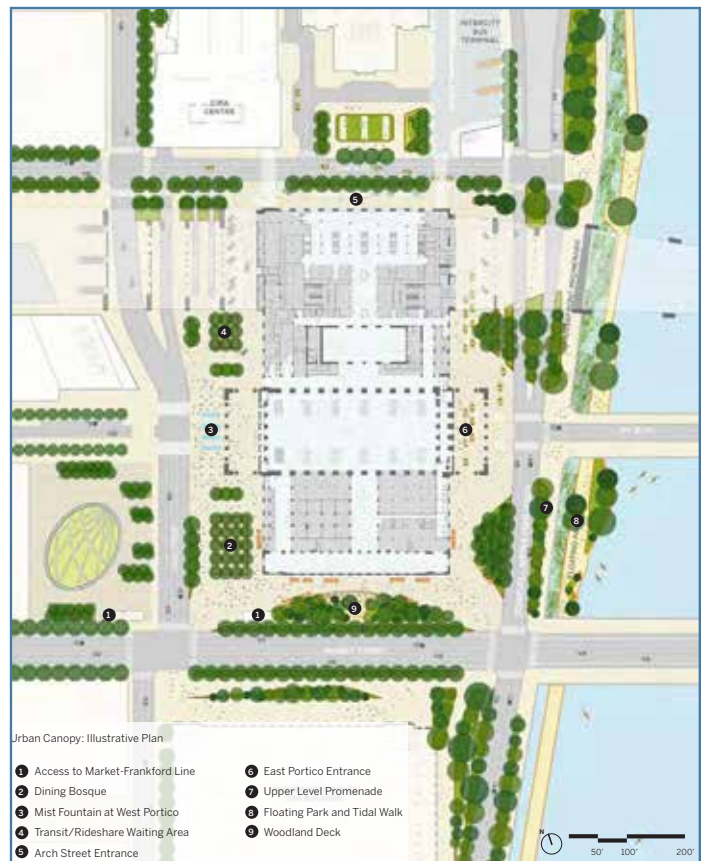
The three schemes differ in how they treat the public realm, the aesthetic of the plan, and how pedestrians use the plaza. These schemes are themed, and named accordingly:

1. Urban Canopy: a tree- and landscape-heavy scheme

2. Mirror Plaza: focused on a large, surface-mounted water feature running parallel with 30th street
3. Ribbon Plaza: multiple small spaces are defined using large, fixed and raised planters.

The Design Team carefully reviewed and analyzed each of these schemes, both internally and with Amtrak stakeholders, to better understand what worked well and what could use further refinement. Through this analysis it became clear that the key to the plaza’s success was balance: it would need enough landscaping to function as an oasis away from the bustle of the city while still maintaining large hardscape capable of handling heavy foot traffic and vehicular traffic.

Programming balance became another key idea. Plans featuring large, permanent physical elements are difficult to program, and not generally as successful as plans that are flexible and adaptable to changing needs. However, the goal of placemaking and developing a destination can be difficult to achieve with temporary elements.



Urban Canopy Alternative - District Plan

Finally, the plaza's relationship to and connectivity with the future West Underground Concourse was seen as a design driver. One of the District Plan's visions featured a skylight above the West Underground Concourse. This element was received favorably by the public and considered a

"must-have" in the concourse. This feedback determined the starting point for the Concept Plan: a hybrid of successful elements from each of the District Plan's visions, supplemented by a deep dive into the plaza's needs.



Station Plaza at Market Street - Ribbon Plaza Alternative from the District Plan



Mirror Plaza Alternative - District Plan



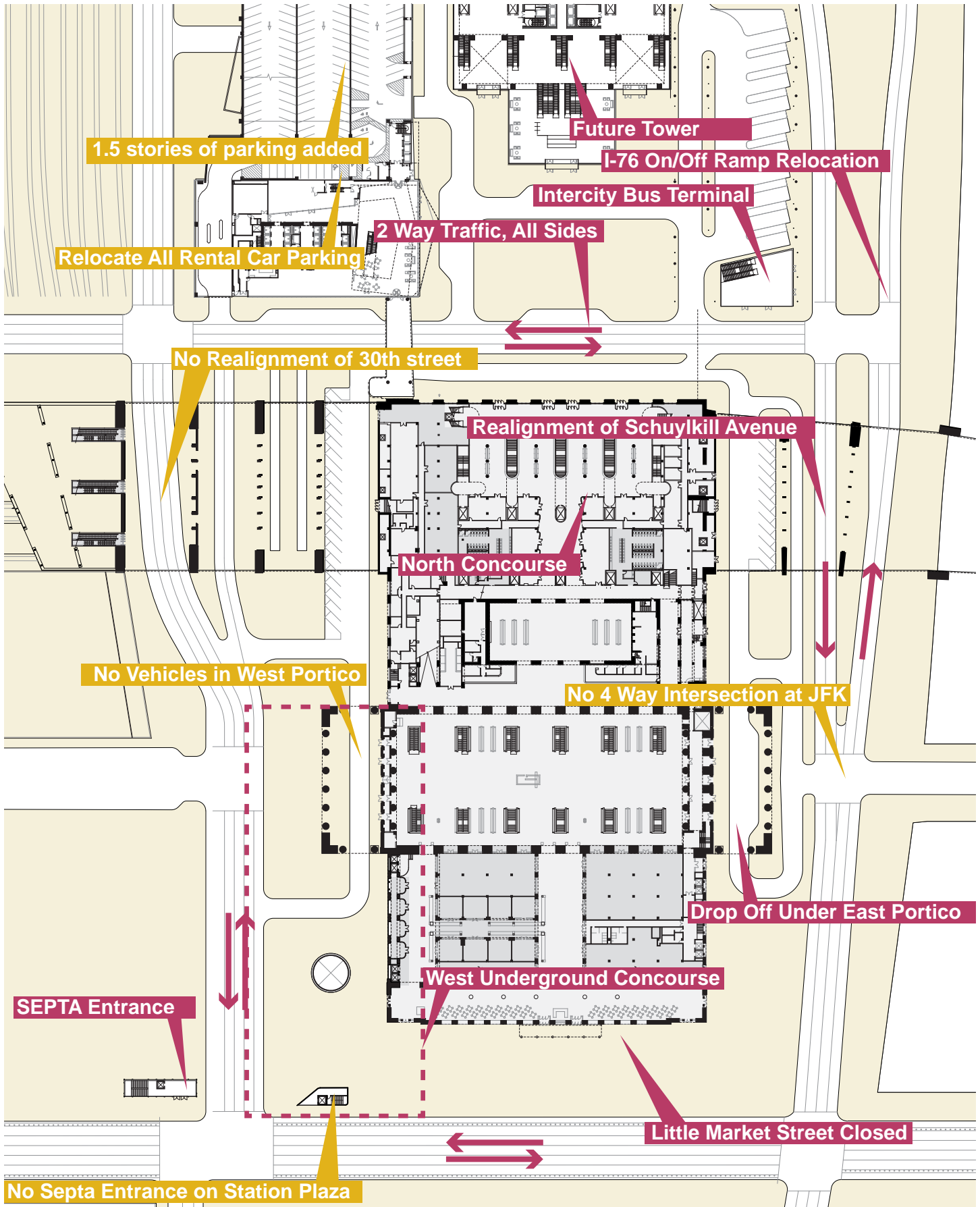
Ribbon Plaza Alternative - District Plan

District Plan Assumptions

As the Station Plaza design needs to respond to both current conditions and a desired long-term vision, the Design Team took the District Plan as the starting point for that long-term vision. The District Plan and its assumptions about development, including the opening of the North Concourse, traffic flow, and a host of other elements, was assumed to be the desired “end state” to plan for. However, following a series of stakeholder interviews and onsite investigations, the Design Team made some key exceptions to which elements from the District Plan would be carried through in Station Plaza’s Concept Plan.

Key elements from the District Plan worth noting include:

- The Design Team decided not to propose a realignment of 30th street between JFK Boulevard and Arch Street. This decision was a reaction to the development parcel immediately west of the station that would be negatively impacted if 30th street were realigned. All other circulatory road assumptions from the District Plan were maintained.
- The Design Team elected to keep a drop off driveway underneath the east portico but differed from the District Plan by removing all vehicles under the west portico. As the main entrance that will serve new development to the west and north of the station, the west portico will be a dedicated pedestrian entrance free of vehicular circulation. This decision was made to coordinate with planned public space across 30th Street, and to relieve current pedestrian congestion at the southwest corner entrance of the station. In addition, the “Pop-Up” retail kiosk, and “Pop-down” connection to the West Underground Concourse in the Concept Plan preclude any vehicular circulation routes on this part of the plaza.
- The District Plan aligned vehicular access with JFK Boulevard, but after further study of traffic signaling, the Design Team chose not to create a four-way intersection at JFK Boulevard. Analysis of signal timing showed a 3-way intersection, and a drop-off exit further south was more efficient.
- The location and design of the bus depot to the north of the station was an additional major District Plan element that was largely maintained. The Concept Design makes slight alterations to the north plaza area, but the overall idea of a large bus station is kept.
- The District Plan called for the reopening of a connector between the SEPTA Market-Frankford line and 30th Street Station via a connector two levels below the street, with a direct vertical connection to the plaza level. The addition of an independent vertical access from the connector level directly to the plaza was eliminated. It was determined that passengers would be better served by a vertical connection within the station to the retail concourse and a connection to the plaza that integrated the plaza and concourse designs.
- The District Plan proposed two-way traffic on all streets directly surrounding the station. The Concept Plan takes a neutral position on this, with the understanding that one-way traffic on some streets would likely be at least an interim condition. All plaza circulation in the Concept Plan is designed to work with either or one-way or two-way circulation on the surrounding streets.
- The District Plan calls for a two-way cycle track on 30th Street. While this may be justified once there is development north of the station, it is anticipated that most cyclists traveling north on 30th Street will either turn on Market Street or proceed north to the station plaza on the east side of the street, as they do today. The Design Team recommends adding a one-way cycle track for southbound cyclists on the west side of the street and pairing it with a one-way cycle-track on Schuylkill Avenue northbound cyclists on the east side of that street, but only as far as JFK Boulevard. A two-way cycle track on 30th Street should be added once the street grid has been expanded to the north and west along the Arch Street Extension.



Stakeholder Feedback

After conducting various meetings and working design sessions, it became clear that Station Plaza would have to address a wide array of broad and specific requirements, and be flexible enough to adapt to future needs.

The primary feedback received from the Amtrak stakeholder group emphasized that the plaza must function first in support of the station and its mission to serve transportation customers. Stakeholders underscored that any plan for the plaza should facilitate passenger access and improve passenger experience, and not impede the path of travel to and from trains for both pedestrians and vehicles.

Stakeholders also expressed a desire for the plan to reduce conflicts between pedestrians and vehicles. The Amtrak group acknowledged the importance of safety and security in this regard, and that the plaza is currently very automobile-

dominated. Amtrak also acknowledged a desire for the plaza to provide a place of repose and enjoyment for pedestrians.

There was a general consensus among stakeholders that while much of the spatial quality of the plaza depicted in the three District Plan visions was good, certain elements of the plaza might make future growth and adaptation difficult. Providing elements such as a water feature, food and beverage programming, interactive elements, and public art were all concepts that resonated well with stakeholders. Stakeholder groups also expressed a desire for any plan to not block views of the station's major façade elements, especially the east and west porticos entrances. Amtrak's team also discussed a predicted influx of large numbers of rail users in the future, so the durability and ease of maintenance of plaza materials was considered paramount.

Key Issues and Goals

The exact future of the district may be unknown, but the role and importance of Station Plaza are clear. Station Plaza will need to perform in two primary ways:

1. It must function as a means of station access and serve a projected increase in rail ridership in a clear and efficient manner
2. It should prioritize and enhance passenger experience and safety by providing social spaces for people to congregate which are sufficiently sheltered or protected from primary circulation routes

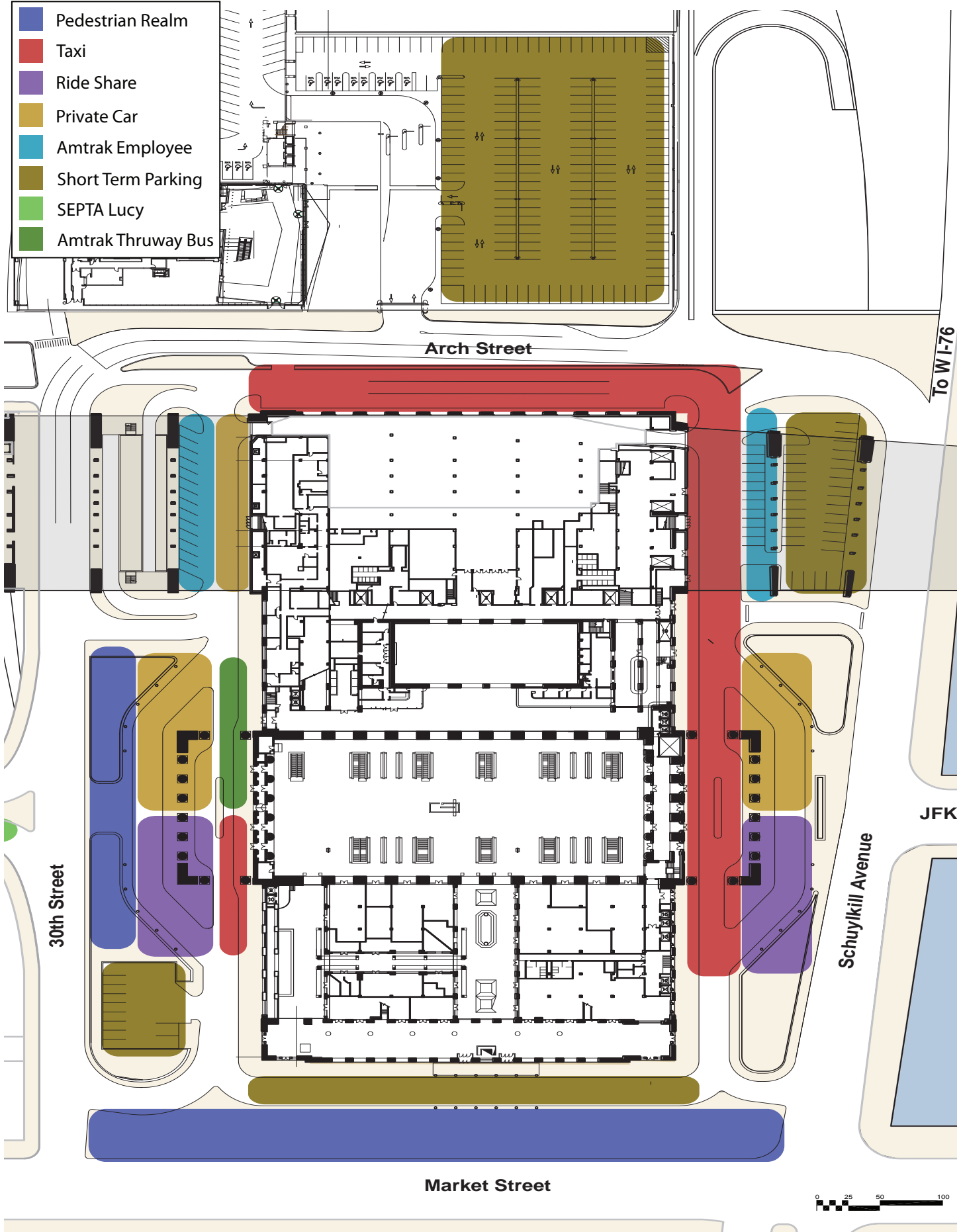
The positioning and size of vehicle zones is the primary controlling factor in the organization of the plaza. By consolidating, relocating, and clearly defining distinct zones for each vehicle use type, conflicts and negative impact can be limited.

Within all design iterations, the following issues and goals were kept constant in regards to circulation patterns:

- Clearly define zones for each vehicle use type
- Increase the amount and quality of space dedicated to pedestrians
- Minimize the moments of pedestrian/vehicle interference
- Provide clear and efficient vehicle travel patterns around the station
- Provide the most direct pedestrian access to/from the stations primary tenants, Amtrak/ SEPTA
- Both pedestrian and vehicle elements should be flexible for change and growth overtime

Lastly the Concept Plan sought to build in flexibility, creating spaces and circulation that could be easily reconfigured or repurposed if needed.

- Pedestrian Realm
- Taxi
- Ride Share
- Private Car
- Amtrak Employee
- Short Term Parking
- SEPTA Lucy
- Amtrak Thruway Bus



Initial Design Options

In order to explore these issues, the Design Team iterated numerous options and alternatives for the plaza's organization, eventually arriving at three initial plan options. Each of these three options follows the established key goals, but also explored a variety of ways to structure the flow of traffic, the location of parking, bicycle routes and parking, pedestrian safety, and opportunities for public realm improvement. Each has fundamental differences in how it organizes vehicular circulation and the resulting impact on pedestrian space.

In order to enhance pedestrian safety and avoid pedestrian-vehicle conflicts, all schemes concentrate vehicular circulation to the north and pedestrian activity to the south. This arrangement takes advantage of the existing underground garage, the areas underneath the SEPTA overpass, and the future North Concourse.

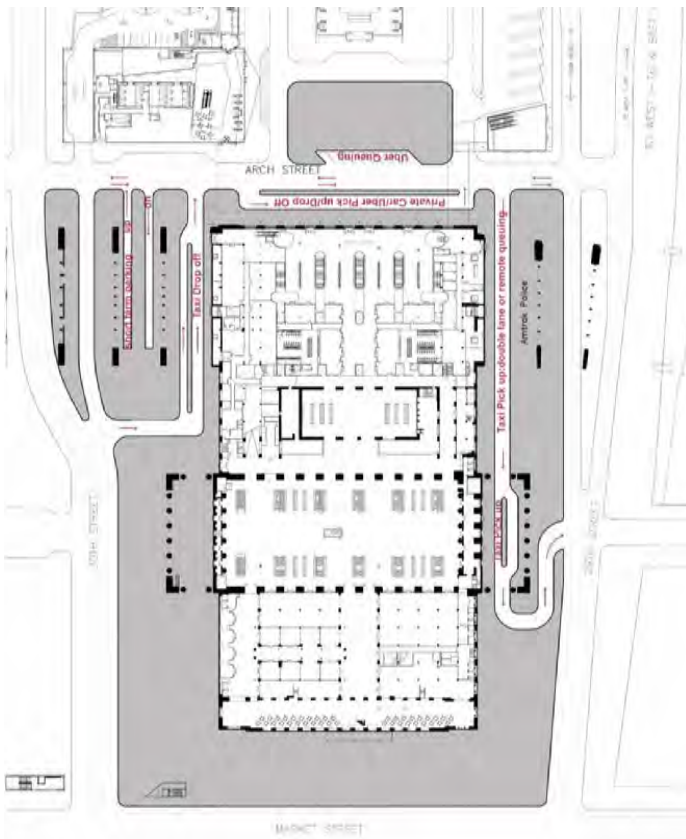
Other major transportation stations and airports often separate vehicular circulation by type on different levels. The Design Team explored this model, utilizing of the station's existing parking garage. By

locating some vehicular uses on a different level the plans alleviate some of the demand for vehicular functions on the plaza.

Addressing taxi pick up and taxi queuing location, proved to be one of the biggest challenges, and became one of the main drivers for the conceptual layouts. Taxi pick-up is very location-sensitive, while queuing takes up a significant amount of space. Consequently these functions were used as one of the defining element in the plan options.

Taxis currently queue on the north and east sides of the station with space for 45-50 taxis. Future taxi use is likely to change with shifts in modal use patterns towards ride share services (e.g. Lyft or Uber). It is difficult to predict what the future balance between ride share services and taxis will be, but with input from stakeholders, it was felt that the taxi queuing area could be reduced to 25 spaces.

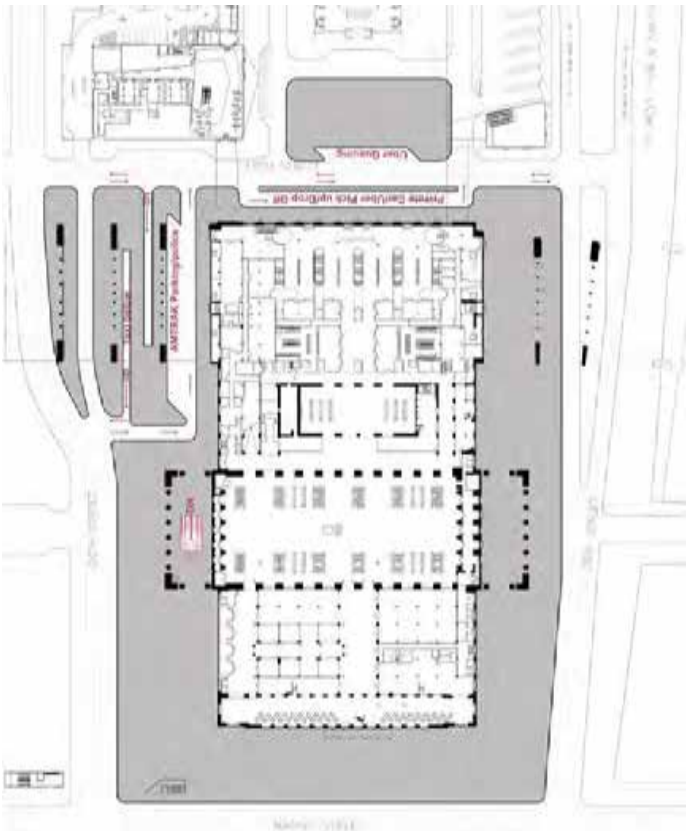
As a result of these explorations, three schemes were devised.



Scheme A maintains all critical vehicle needs at the street level. The taxi pick up function is relocated to the west, under the SEPTA overpass, queuing in two lanes. On the north side along Arch Street, private car pick up/drop off is paired with ride share pick up/drop off. Ride share services are given a designated queuing space on the north side of Arch Street. Taxi drop off runs along the east façade of the station, ending at the front door under the east portico. The lower level garage contains short term parking, while Amtrak employee parking is relocated to the Cira Centre garage. The Cira Centre Garage is currently under-parked and additionally has the capacity to add additional levels to increase its capacity. Scheme A provides a significant amount of open space for pedestrians, but still dedicates half of the plaza to vehicle use. This scheme is the least adaptable over time.



Stair from West Underground Concourse to Plaza Under the West Portico

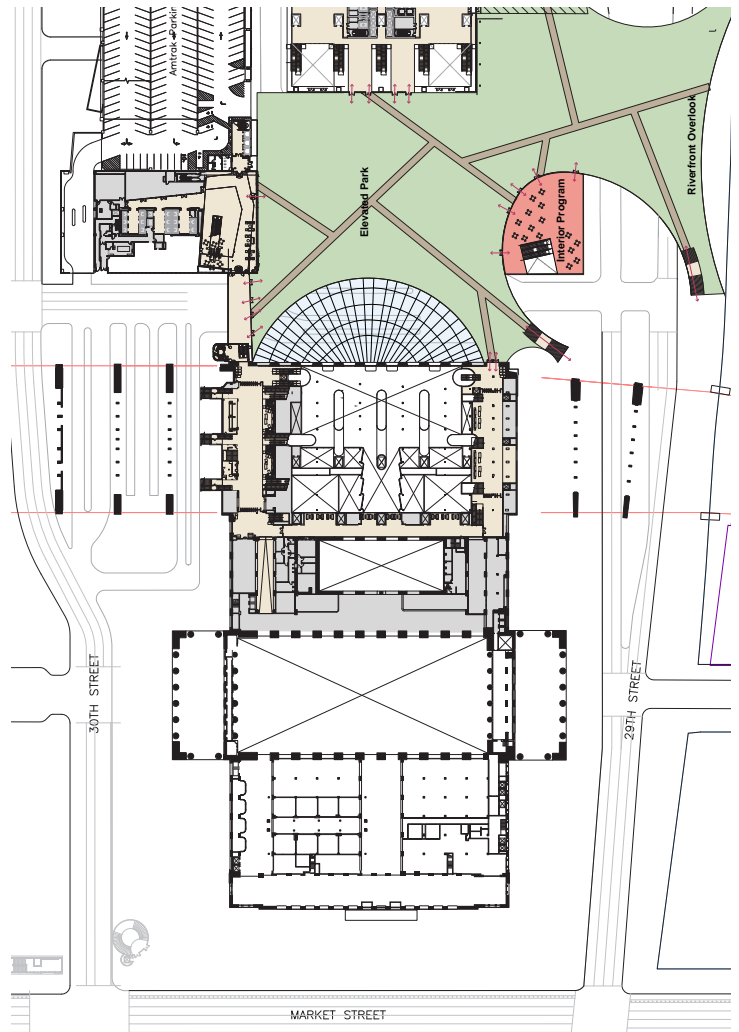
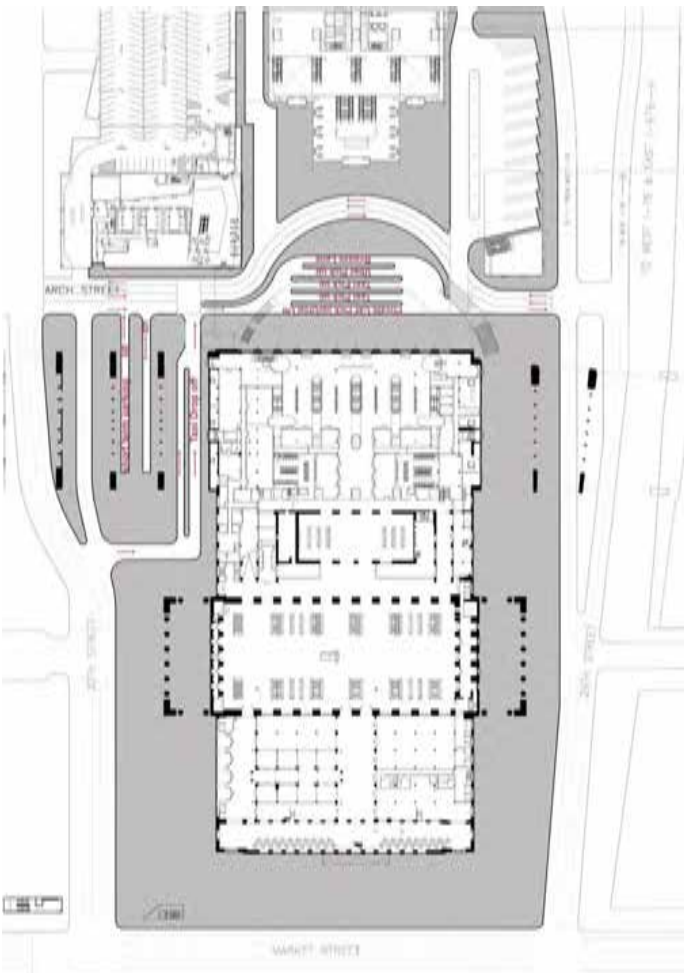


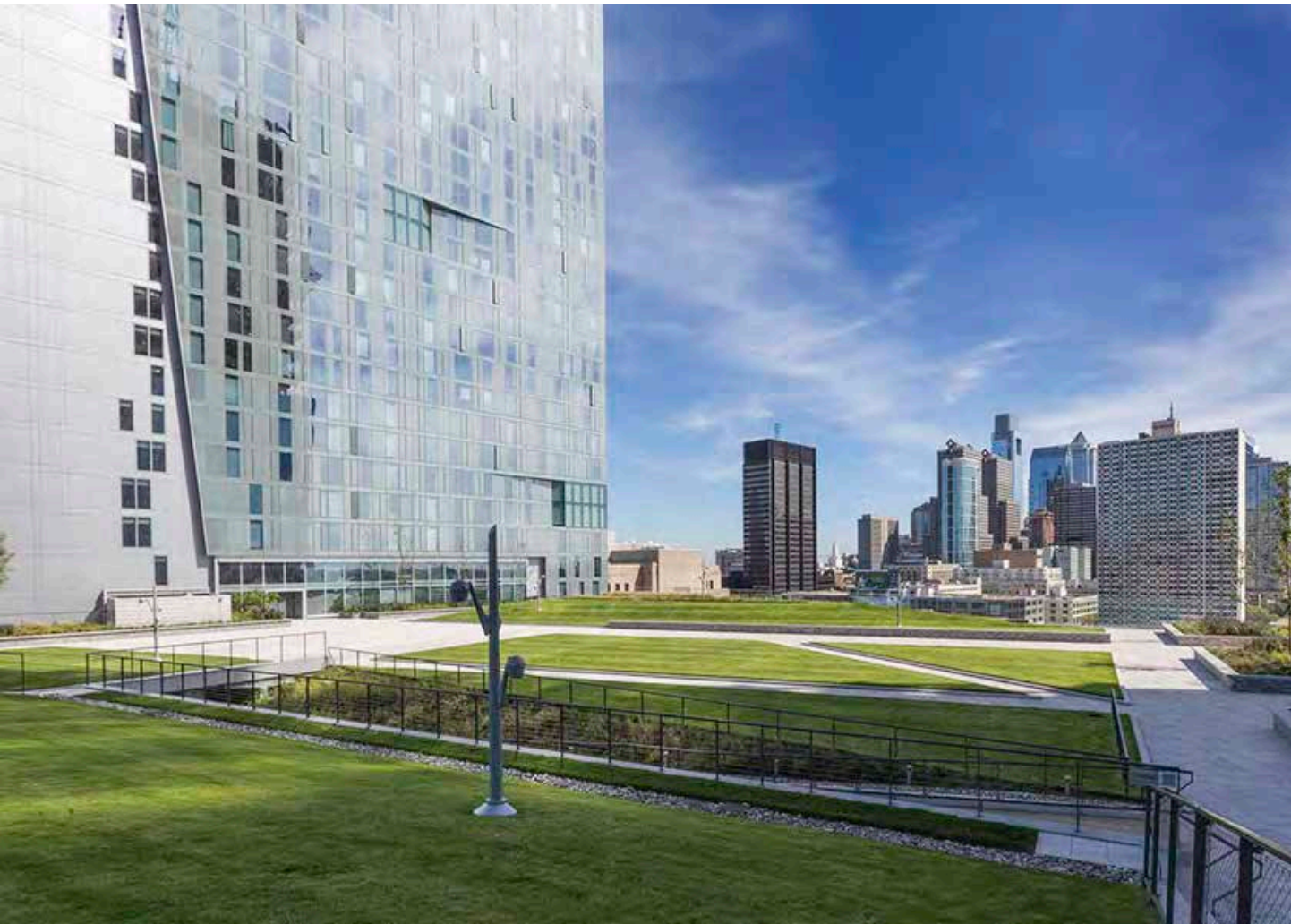
Scheme B Plaza Plan

Scheme B matches Scheme A on the north side but places taxis entirely below grade. Taxi pick up/drop off and queuing is moved to the lower level garage with access from the two ramps under the west SEPTA overpass. Amtrak police and executive parking is placed adjacent to these two ramps, as well as a pass-through for taxis turning east onto Arch Street. This allows the east side of the station to remain 100% pedestrian, and provides a great deal of flexibility, as taxis are not taking up a large area of the plaza. The lower level garage can be returned to parking functions in the future, if needed. Scheme B introduces a stair and escalator connection underneath the west portico to the concourse level. Based on an historic plan for the station that was published in 1934 but never built, it would give those arriving to the station via this stair a dramatic experience of the grand portico space and its elegantly coffered ceiling.

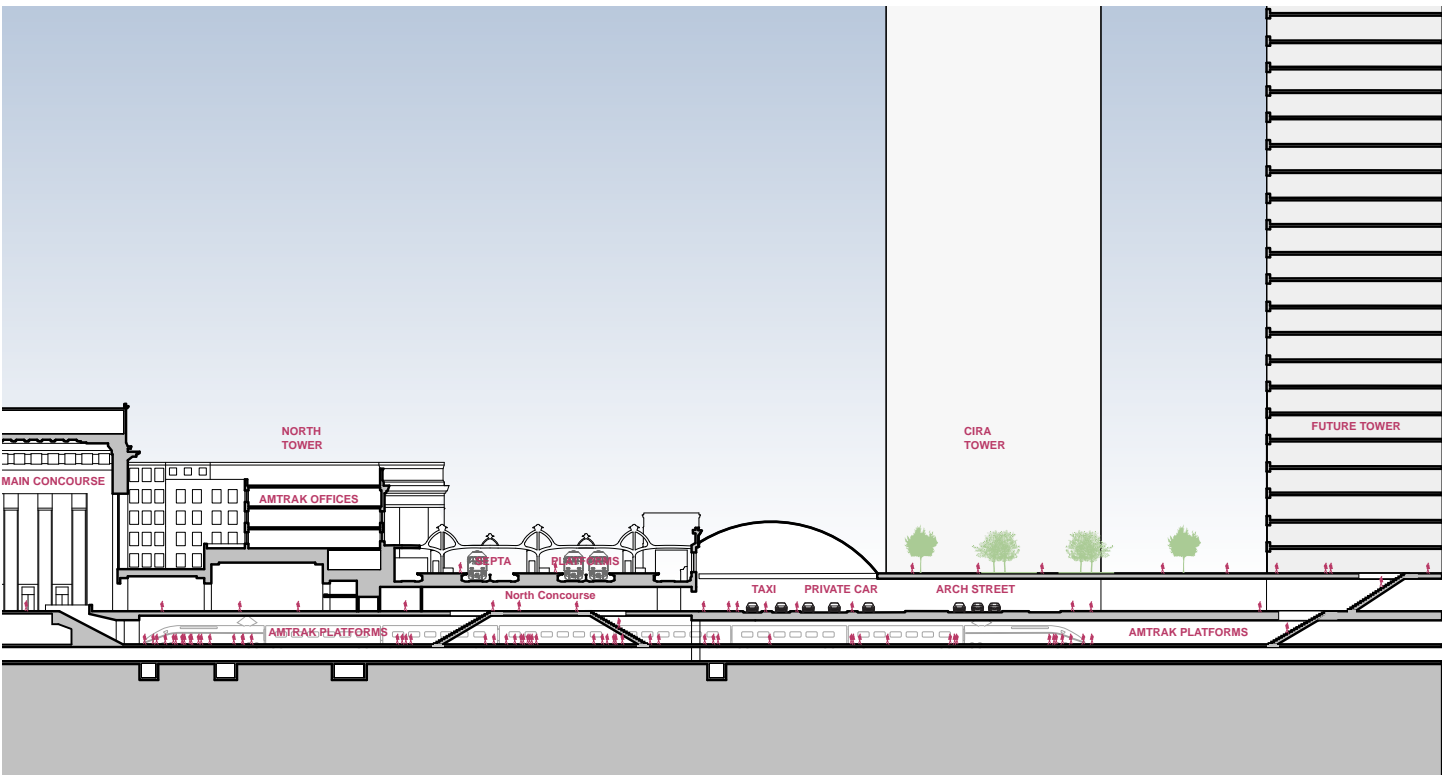
Scheme C locates taxi, private vehicle, and ride share pick up/ drop off all on the north side of the station, along Arch Street. To accommodate this, Arch Street is curved north towards the Cira tower. This arrangement is feasible for the functions needed, but could create difficult intersections along Arch Street and cause significant traffic bottlenecks within queuing spaces. Scheme C creates an elevated plaza over the northern vehicular area, at approximately the elevation of the existing skybridge between the station and Cira Centre. This allows for the greatest amount of plaza to be dedicated to pedestrian use, activates the second level of existing and new development. The landscape deck would provide an amenity to passen-

gers and workers in the surrounding buildings, shielding the vehicular circulation from the view of the towers above, and providing pleasant landscape approaches to the buildings. The future bus terminal could also be integrated into this upper deck, with the roof of the terminal extending the deck toward the river and the Center City skyline views. It should be noted that this upper level public space could work with any of the three schemes but, is most advantageous in Scheme C. Although the final concept plan does not include any upper deck at the north plaza, the idea may be worth exploring further as development to the north is designed.





View from Cira Green Elevated Park



Scheme C Section Through Upper Level Park

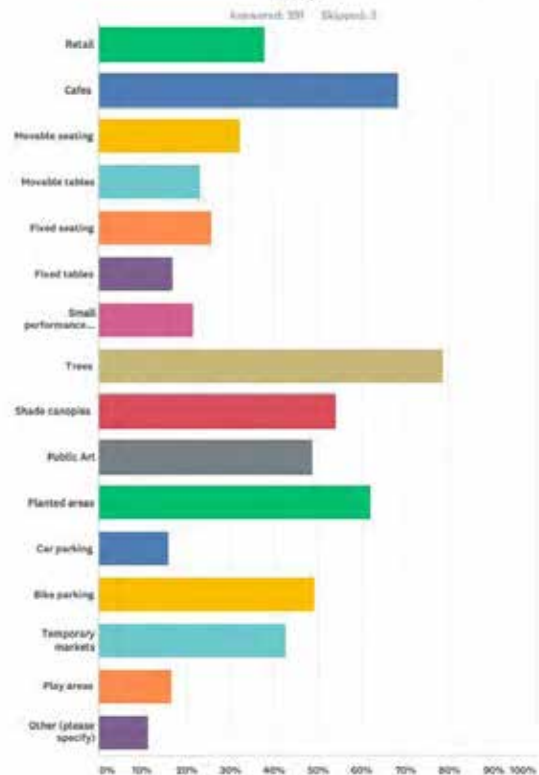
Public Engagement

Based on feedback from Amtrak stakeholders, the successful elements of each of the three scheme options were merged and modified to form a consolidated scheme. This option is largely a hybrid of schemes A and B. In the consolidated scheme, Taxi pick up/drop off is located within the west portico but direct access is limited to an entrance from Schuylkill Avenue. The north side of the station, along Arch Street, accommodates ride share and private car pick up/ drop off. Taxi pick up is located under the west SEPTA overpass, while taxi queuing is located partially at plaza level with the bulk of it located in the lower level garage. This scheme adds flexibility, should at some point in the future taxi pick-up also be desired at the concourse level.

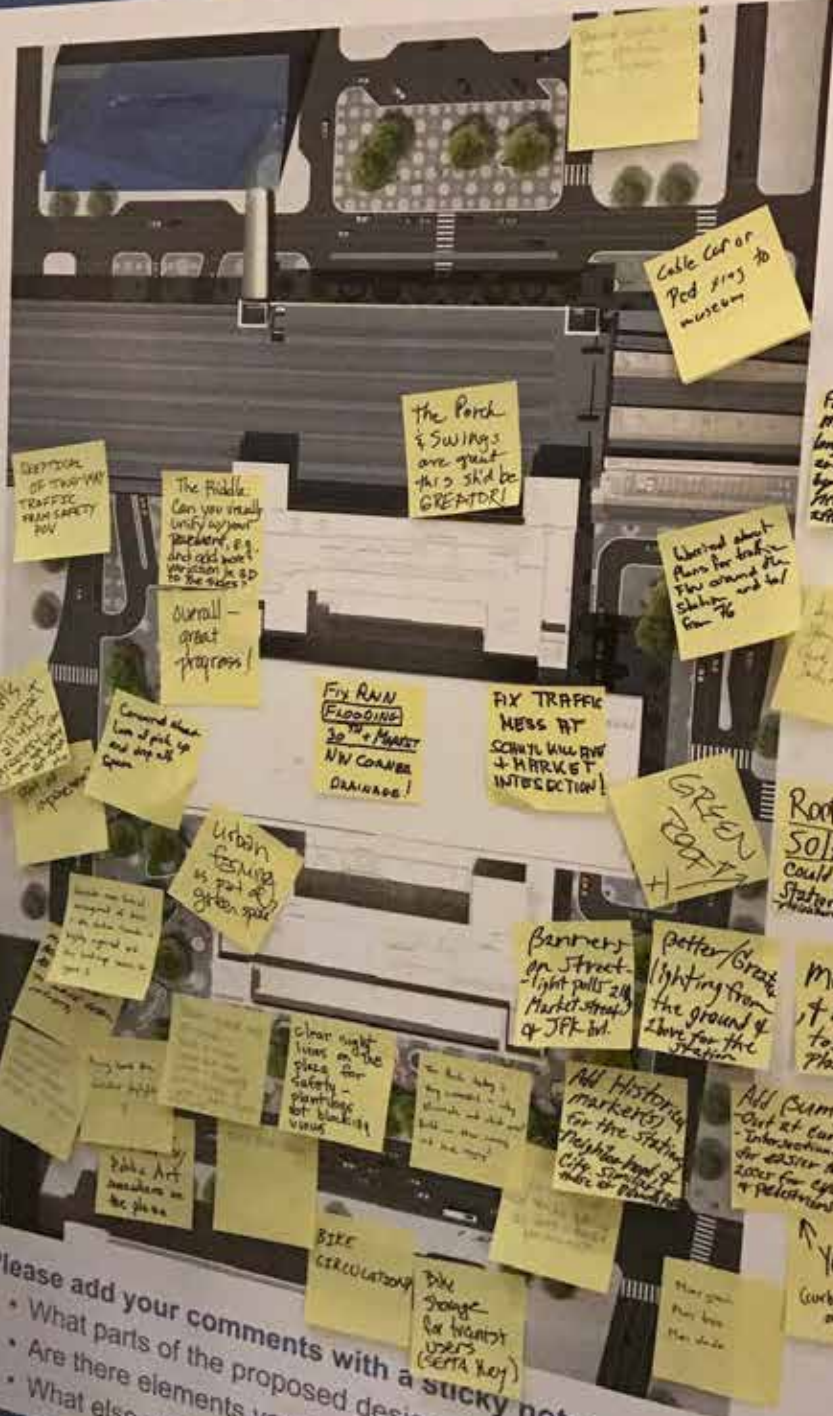
The landscape design looks to elements of trains, tracks, and train stations for inspiration. Taking cues from the circular forms (wheels, clocks, turntables) that permeate rail architecture and the determining geometry of railroad tracks in station design, the landscape paving was designed as a grid of variously-sized circles aligned to the tracks below. Planters and other landscape elements are articulated as soft geometries derived from the joining of multiple circles. In this plan Station Plaza features elevated planters with shrubbery and trees, water features, and elevated platforms from which one can view the city.



Q8 Do you think Station Plaza should include (Check your top five).



Your Feedback



Please add your comments with a sticky note:

- What parts of the proposed design do you like best?
- Are there elements you have concerns about?
- What else would you like to see?

KEEP ROAD OF TWO-WAY TRAFFIC FROM SAFETY POV

The Middle: Can you really unify your pavement, e.g. and add more vegetation in SD to the sides?

The Porch & Swings are great this should be GREATER!

Call a Car or Pod ring to museum

For Plan Overall make sure that long term Residents are not displaced by Dev. of that & it for Dev includes affordable Housing

Overall - great progress!

Interested about Plans for traffic flow around the Station and how far to

What is the purpose of the 'pod' ring? Is it for safety or just a decorative element?

Concern about how it will be used and how it will be maintained

Fix RAIN FLOODING TO MARKET NW CORNER DRAINAGE!

FIX TRAFFIC MESS AT SCHOOL WILLIAM + MARKET INTERSECTION!

GREEN ROOFS

Roof Top Solar!!!! Could help pay for Station & District

Urban farming as part of green space

Banners on Street - light pulls all Market Street & JFF Int.

Better/Brighter lighting from the ground of Love for the Station

Add Memorials & monuments to Station Plaza

Make sure that the 'pod' ring is not just a decorative element but also serves a purpose

Clear sight lines on the plaza for safety - plantings not blocking views

Make sure that the 'pod' ring is not just a decorative element but also serves a purpose

Make sure that the 'pod' ring is not just a decorative element but also serves a purpose

Add Historical markers for the Station Plaza - top of City Street - make it a landmark

Add Curb-Out at Curbed Intersection for easier cross streets for cyclists & pedestrians

YES (Curb bump out)

Make Art markers on the plaza

BIKE CIRCULATION

Don't change for transit users (SEPTA Key)

Make sure that the 'pod' ring is not just a decorative element but also serves a purpose

Make sure that the 'pod' ring is not just a decorative element but also serves a purpose

30th Street Station Plaza

FX FOWLE

This consolidated scheme was refined and described in order to be presented for public feedback. The preferred scheme was presented at a Public Open House on July 12th, 2017, held at 30th Street Station. On a series of display panels, the Design Team presented a narrative explaining key issues of the site, the long-term vision, and the design proposal. At this meeting, Amtrak representatives and Design Team members were present and discussed the design ideas with the members of the public. Over 150 people attended and reviewed the consolidated scheme. Partici-

pants were asked to fill out a survey to further solicit detailed feedback on key elements of the plan. The Open House presentation materials were also made available online, along with an online version of the same survey. An additional 294 responses were collected online.

Attendees and online participants exhibited a wide range of responses both in favor and against various elements of the proposed plan. In general, the reorganization of vehicle and pedestrian flows was considered a positive, and



the public also liked the additional pedestrian-oriented open space and acknowledged how much safer the proposed plan would be compared to existing conditions. The relocation of taxis underground received mixed reviews but was generally accepted. Public feedback however, indicated that the paving and landscaping approach was not appropriate for the historic nature of the station and would not age well.

The open house gleaned valuable new information for the Design Team on how the public uses and views that plaza. Over 75% of those surveyed view the plaza as a place to pass through as opposed to a place of repose. The value of trees and landscaping was clearly evident,

as multiple requests were made to reduce the amount of hardscape within Station Plaza. Creating a pedestrian connection to the SEPTA Market-Frankford Line station, and adding a new stair in the west portico, were unanimously considered successful.

After the Open House, the comments and suggestions received were reviewed and analyzed, and further modifications and refinement were made to the plan, including some key design changes. Following additional stakeholder reviews, the Design Team arrived at the final Concept Plan.



Public Open House



Public Open House

Concept Plan

A. Key Principles

B. Vehicular Circulation & Parking

C. Pedestrian Circulation

D. Programming

E. Retail Opportunities/Concourse Coordination

F. Landscape

G. Next Steps

H. Conclusion

Key Principles

Station Plaza will ultimately take on a different form through the process of more detailed design and construction. But its design should strive to achieve the principles uncovered through a lengthy, in-depth stakeholder engagement process. The Concept Plan embodies these principles and sets forth design guidelines that can be implemented to achieve a successful project for both project stakeholders and the residents of Philadelphia.

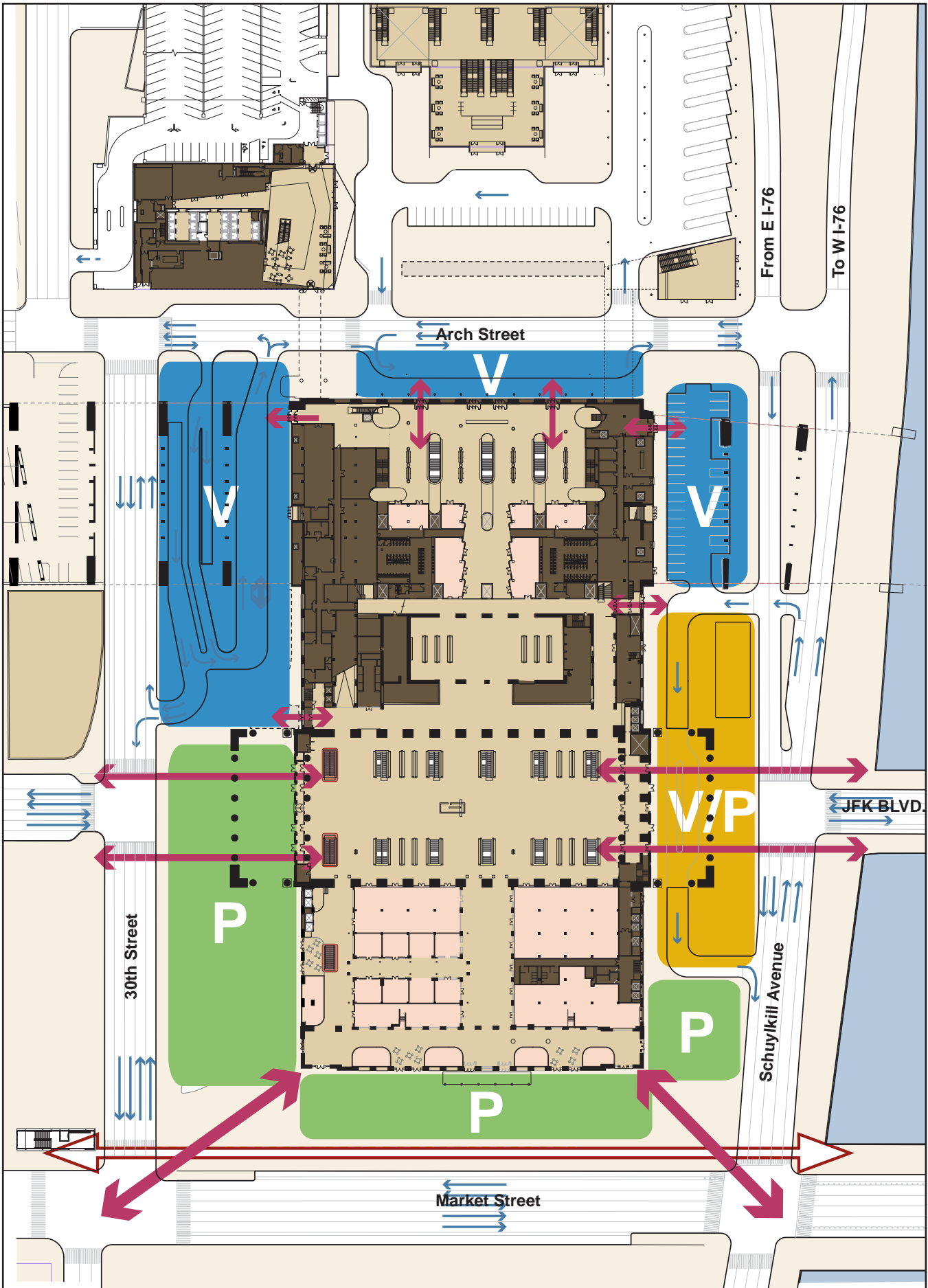
The key principles proposed embrace strategies that support the functional needs of the plaza and station while striving to create an iconic, world-class public realm. They include:

1. Create and preserve clearly defined pedestrian access routes and physical and visual

desire lines.

2. Clearly delineate and separate pedestrian zones from vehicle zones, allowing for minimal conflicts between the two.
3. Ensure any vehicular organization strategy works with either two-direction or one-direction traffic circulation on the streets encircling the station.
4. Create multiple vertical circulation points connecting the future lower concourse and SEPTA Frankford-Market line to the station.
5. Create an imageable, world-class public realm with multiple scales of space that balances hardscape and softscape while allowing for flexibility of future use.





Key Principles

- Vehicle Only Zone
- Vehicle and Pedestrian Zone
- Visual and Physical Desire Lines
- Pedestrian Only Zone
- Vertical Circulation Elements
- Vehicle Traffic Flow Direction

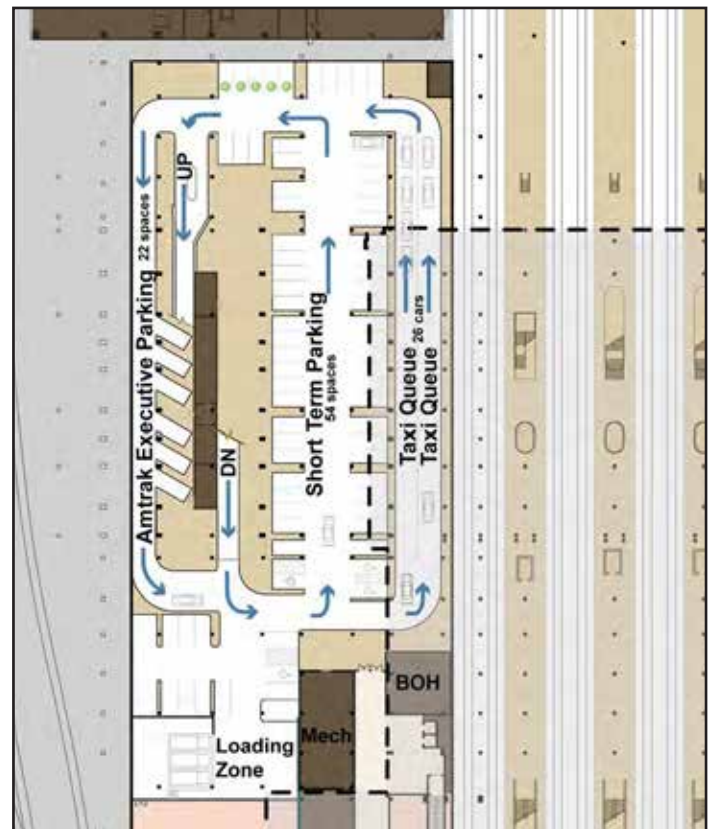
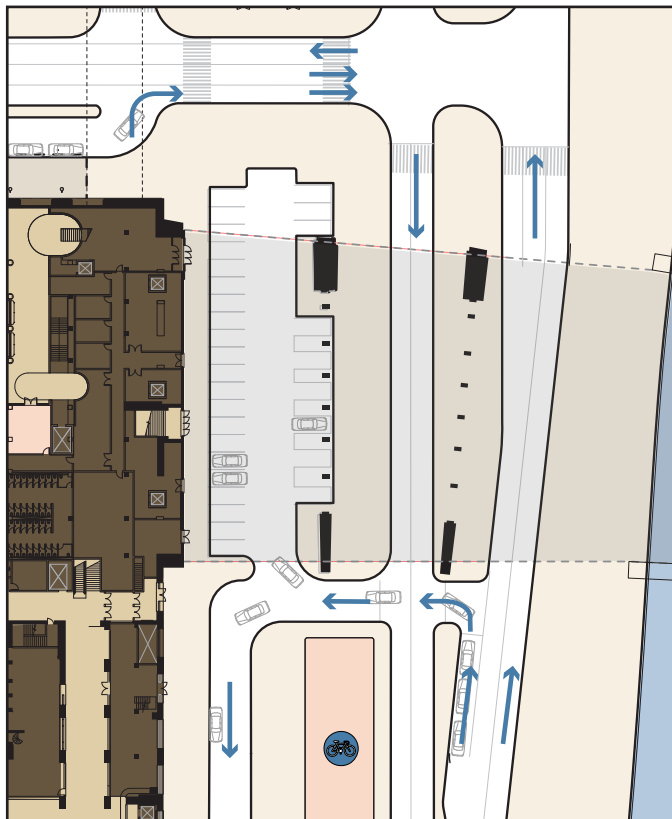
Vehicular Circulation & Parking

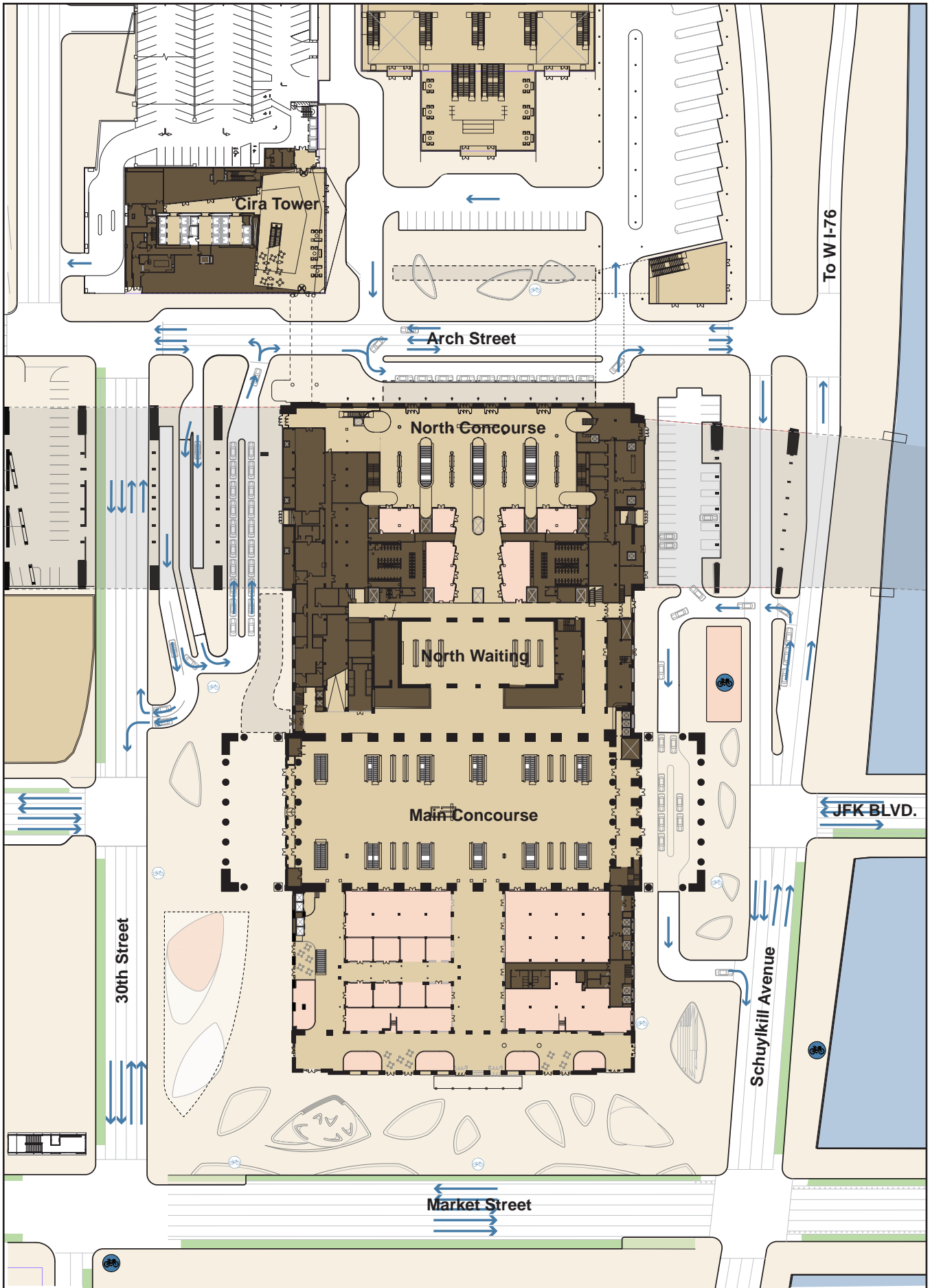
The Proposed Circulation recommended by the District Plan is a two-way circulation pattern with the eastbound I 76 and I 676 combined off ramp relocated to the east to intersect with Arch Street at Schuylkill Avenue. PennDOT has a Point of Access Study ongoing to determine if this two-way pattern will work. The Points of Access of the station discussed below will work with either the current one-way pattern or the proposed two-way pattern.

One of the key achievements of the new plaza design is the improvement of Pedestrian Safety by:

- removing some of the existing pedestrian-vehicle conflicts, and
- providing additional space for pedestrians by reducing motor vehicle lanes.

There are seven proposed access points with the new plaza configuration, which maintains the current number of access points in the existing configuration, but modifies and reorganizes them for greater clarity and ease of circulation. Access points are shifted generally northward. Two of the existing seven are now just north of Market Street. In the proposed layout all access points except one are located north of JFK Boulevard. The one access point (the exit from east portico) that is south of JFK Boulevard is shifted farther from Market St. and should have significantly less volume than the current condition. Below is a description of the Circulation of various modes of travel.





Station Plaza Traffic Directions

Taxi Pick Up/Drop Off

Currently most taxis pick up and drop off on the east side of the station with the taxi queuing area on the north side of the station. Most of the taxis either originate from Center City or use one of the two freeways to access the station. The Concept Plan proposal is to split the taxi drop off from the pick up. Getting train passengers rushing to catch their train to the station is clearly important, and can be improved from the current condition. The Concept Plan seeks to drop passengers at the east portico where they are closest to the train platform access, ensuring the shortest, fastest route from car to train. With the relocated eastbound I 76 and westbound I 76 off ramp directly to Schuylkill Avenue most of the taxis will arrive via Schuylkill Avenue and can easily access the east portico near where the existing access to the east portico is located today. Under the two-way pattern this will be a signalized left turn off of northbound Schuylkill Avenue. The signal can be timed so not to interrupt the flow of the interstate ramp. Under the one-way pattern it will be a simple left turn with yielding to pedestrians crossing the drive. Anytime vehicle

congestion reaches the point where pedestrians can walk faster than the vehicles move, the passengers of taxis and other vehicles may exit the vehicle and walk the last block to the station. While the proposed circulation pattern should reduce the frequency of this it may still occur.

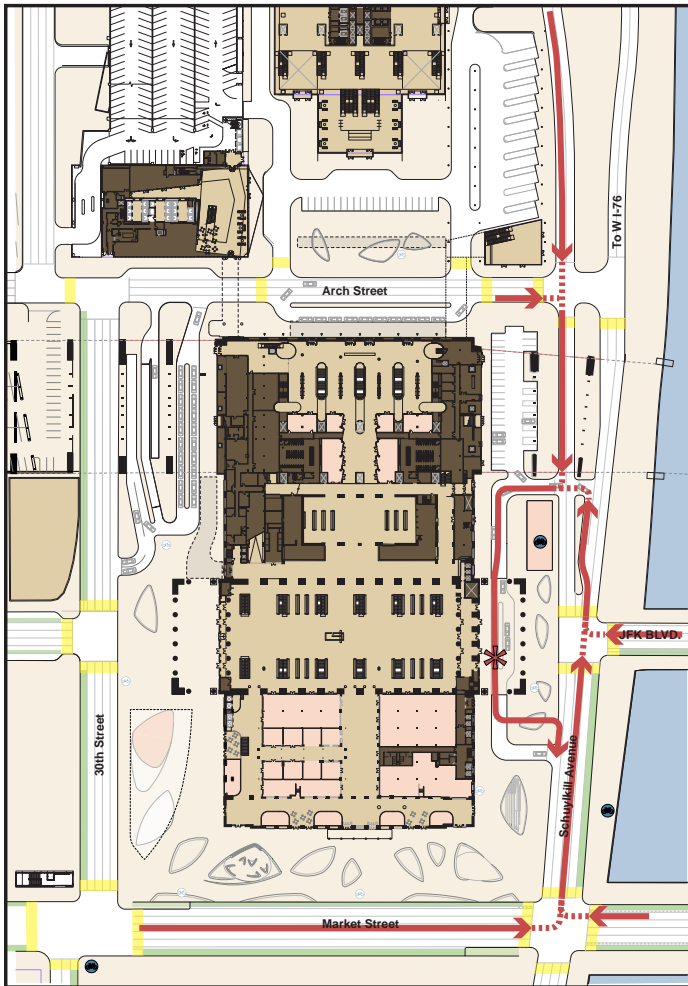
Taxis exiting the drop off area will enter Schuylkill Avenue about 110 feet south of JFK Boulevard. Under the two-way pattern they will turn right and proceed clockwise around the station to the taxi entrance to the pick up area off Arch Street. If the one-way pattern is used they will turn left onto Schuylkill Avenue and proceed counter-clockwise around the station to the taxi entrance to the pick up area. This exit is further north and will have less impact from queuing for the interstate ramps since those vehicles will be using the right most lanes and the taxis can enter the left lane and reach the taxi entrance to the pick up area quicker than currently.

The taxi pick up area will be relocated to the west side under the SEPTA Regional Rail Lines overpass. This provides a much larger covered

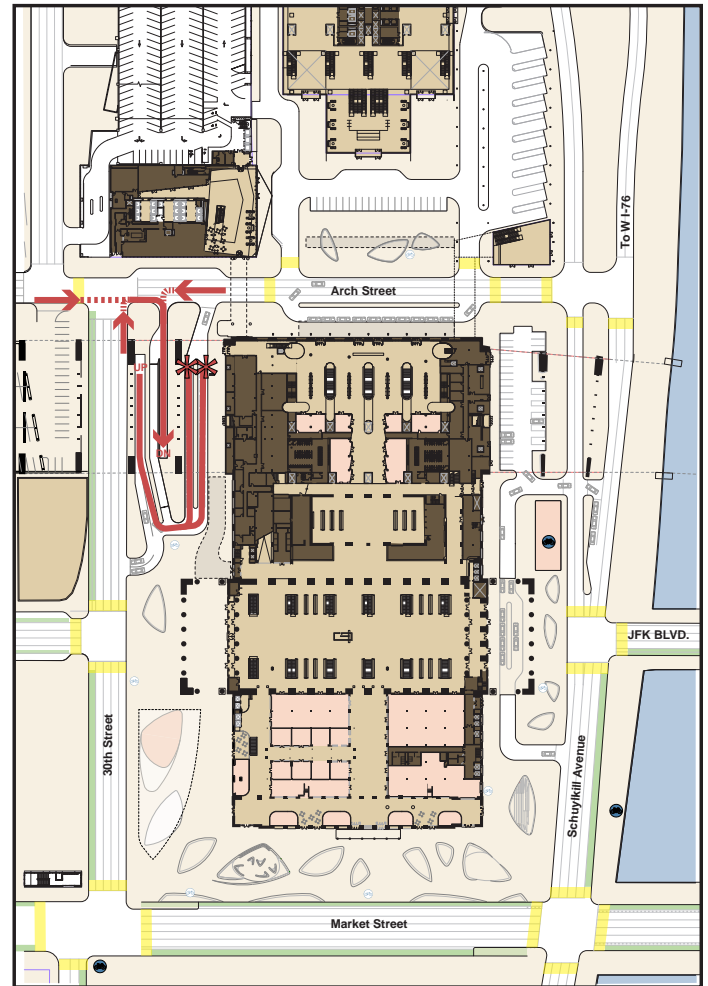


area for passenger queuing and taxi boarding then the west portico. Under the Concept Plan some taxi queuing can happen underneath the SEPTA overpass (approximately 20 spaces) and extended taxi queuing can be accomplished on the lower level, with an additional 27 spaces. This allows more valuable street level space plaza for the station's passengers and also enables the planned opening of the north concourse onto Arch Street. Lower level queuing would likely occur much of the day, however at off-peak times electronic signage (or possibly a gate) can divert taxis pulling off from Arch Street into the queue directly into the plaza level queue, allowing them to bypass the lower level. This taxi bypass signal would likely be under the control of the station agent staffing the taxi boarding area.

The exit from the taxi pick up area is directly onto Arch Street. Under the two-way traffic pattern, taxis will quickly be able to exit the station area. Under one-way pattern taxis will have to take 30th Street to Market Street to exit the area. Taxis heading to West Philadelphia and I 76 South will have a quick exit, taxis to Center City will have minimum delay, but taxis heading to westbound I76 and I676 would have to make a left from Market Street onto JFK Boulevard. However, today the exit from the east side plaza has significantly more vehicles and often experiences a backup during the PM Peak. Under this Concept Plan circulation pattern taxis will have more alternatives to complete their trips, which reduces congestion impact.



Taxi Drop-off



Taxi Pick-up

Ride Share

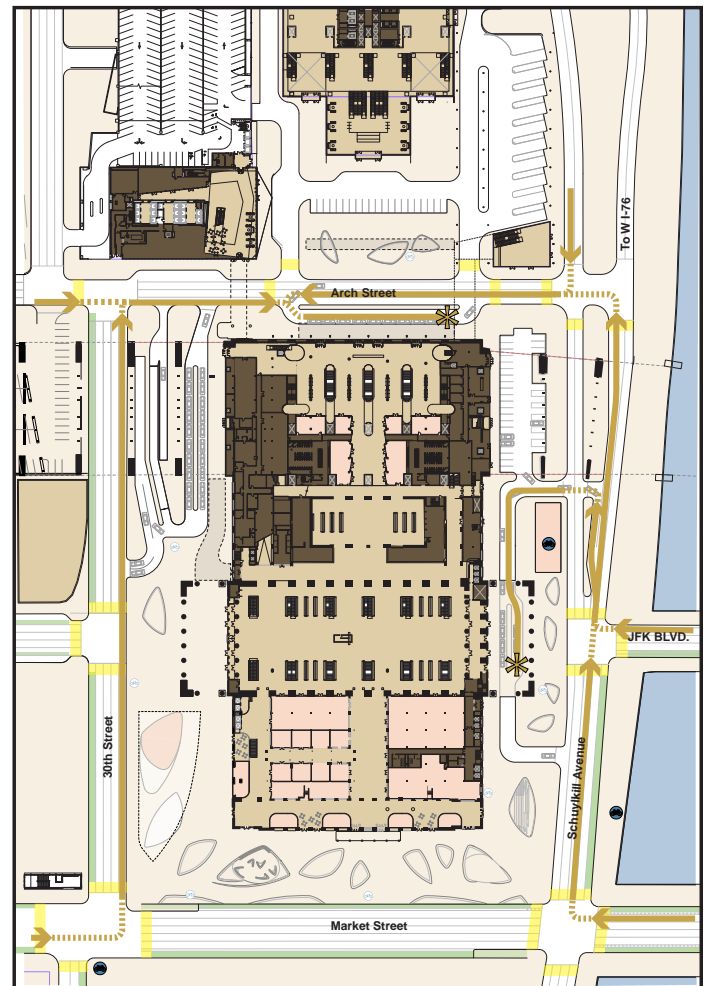
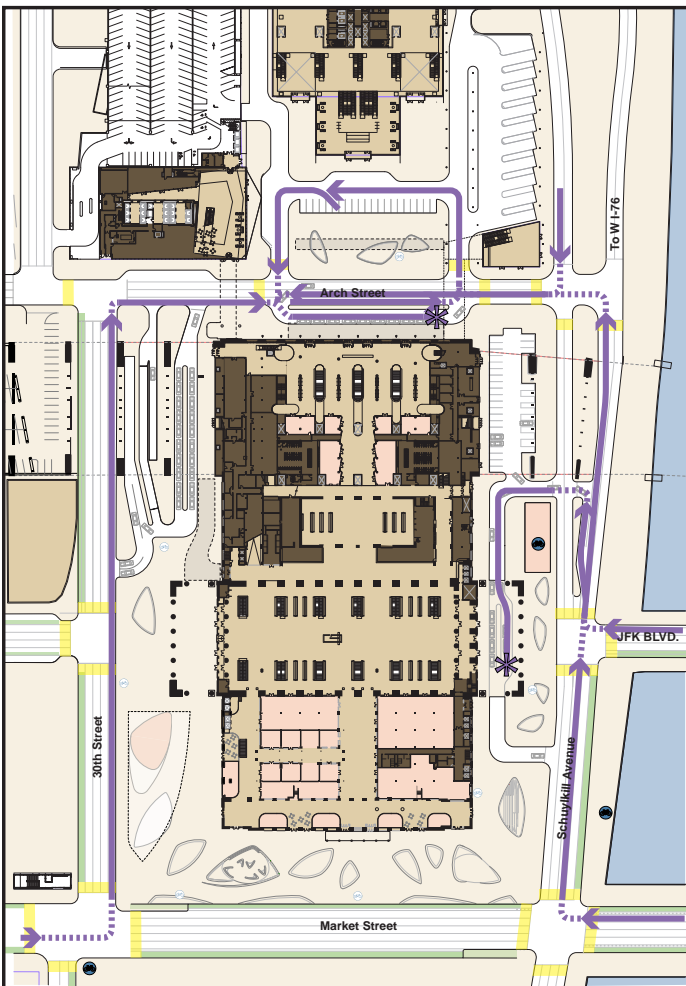
Under the Concept Plan the ride share services (such as Uber or Lyft) will drop off in the pick up/ drop off area on the north side of the station on the south side of Arch Street. This is directly adjacent to the planned north concourse, providing passengers with the shortest most direct route to and from the train platforms. For pick up, ride share services will have a staging area located north of Arch Street. Ride Share cars waiting here can circulate across Arch Street to the pick up area. Alternatively passengers can access the waiting area via the Cira Centre skybridge, the proposed skybridge at the east side of the North Concourse or at a pedestrian crossing at the Cira Centre driveway, which would be a signalized crossing.

Private Vehicles

Private passenger vehicles are basically divided into three types:

1. Dropping or picking up a passenger at the station.
2. Driving to long term parking and either catching a train or using facilities at the station.
3. Using short term Parking. Short and Long Term Parking are described in Section the Parking below.

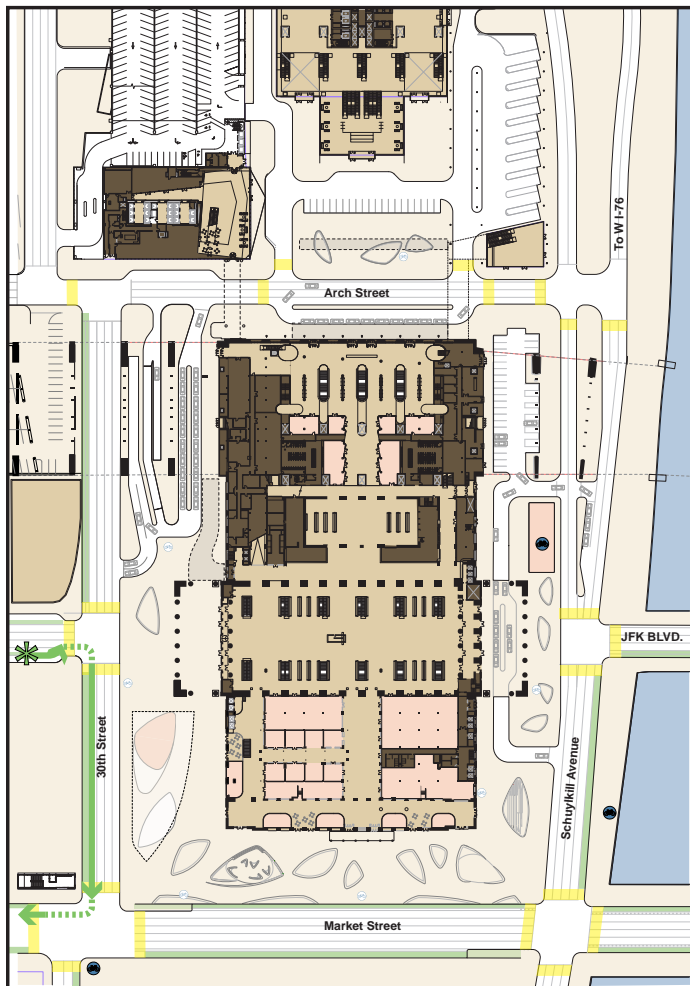
The drop off and pick up for passenger vehicles would be relocated to Arch Street on the north side of the station in the Concept Plan. Under the two-way pattern vehicles will be able to enter the drop off/pick up zone by turning right or left off Arch Street. This will be a signalized location due to the driveway out of the Cira Tower area and the primary exit for the planned bus terminal. The location of this entrance is about opposite the current driveway to Cira Centre North. Arch



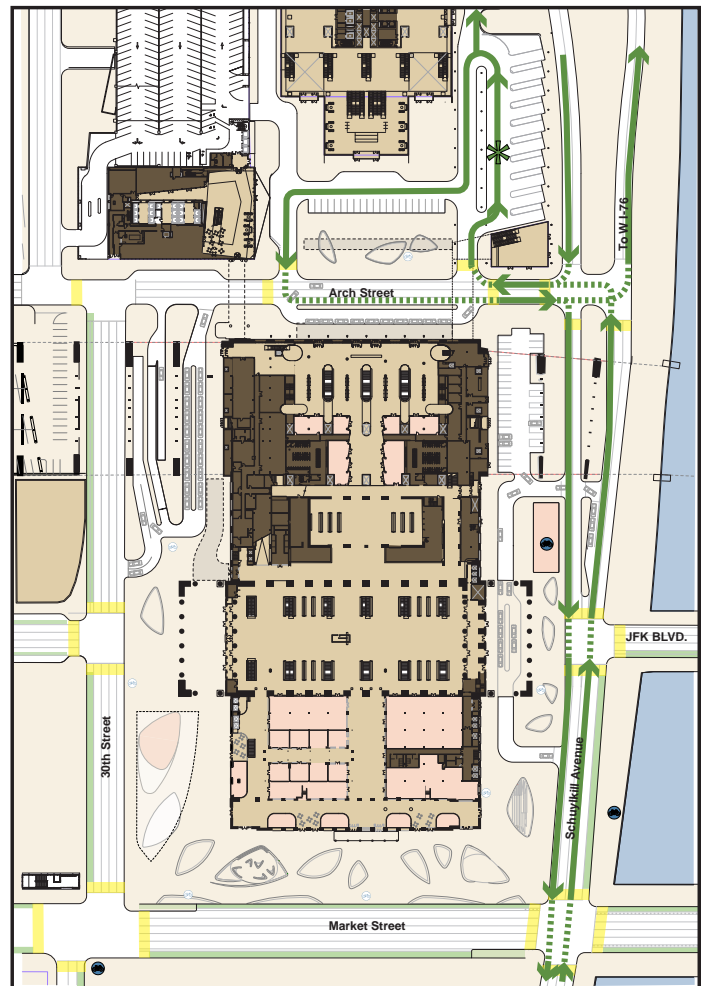
Street at this point will be two lanes westbound with the left lane a turning lane and one lane eastbound. The exit will be about the east end of the station building and all traffic will be required to turn right toward Schuylkill Avenue. This exit will be opposite the bus terminal entrance. Arch Street will be two lanes east of the driveway with the left lane bound for the freeway on ramps to I 76 westbound and I 676. The right lane will be for southbound Schuylkill Avenue. Vehicles leaving this zone will have quick access to all areas of the City. Ride Share will drop off passengers in this same area that private vehicles will drop off. This simplifies circulation, signage, and management, as distinguishing or enforcing the difference between ride share and private vehicles poses a significant challenge.

Buses

In the Concept Plan, the SEPTA Buses running through the area will continue to use their current stops. This can be further studied to determine if better stop locations exist. The Intercity Buses and the Amtrak Bus will use the proposed bus terminal north of Arch Street west of the relocated I 76 off ramp, as envisioned in the District Plan. This ramp needs to be relocated even if the one-way pattern remains to allow this location of the bus terminal. Under either the two-way or one-way patterns buses will have easy access to the terminal. For the exit under the two-way pattern, buses will exit at a signal near the existing Cira Tower driveway and be able to turn left to access the two interstate on ramps. The one-way pattern will require the busses to use the same exit but travel counter clock wise around the station to access the two Interstate on ramps. This should be less travel distance than the current stop location on JFK Boulevard west of 30th Street. The new bus terminal will have improved facilities for the bus passengers and access to the station.



SEPTA Lucy Bus



Amtrak Thruway Bus

Service Vehicles

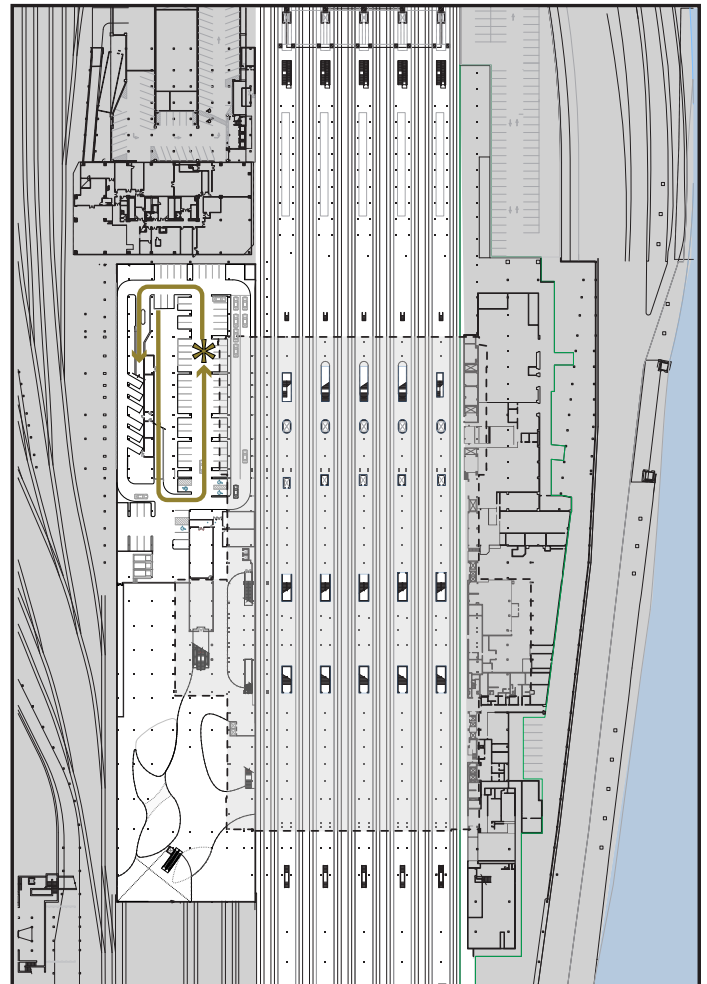
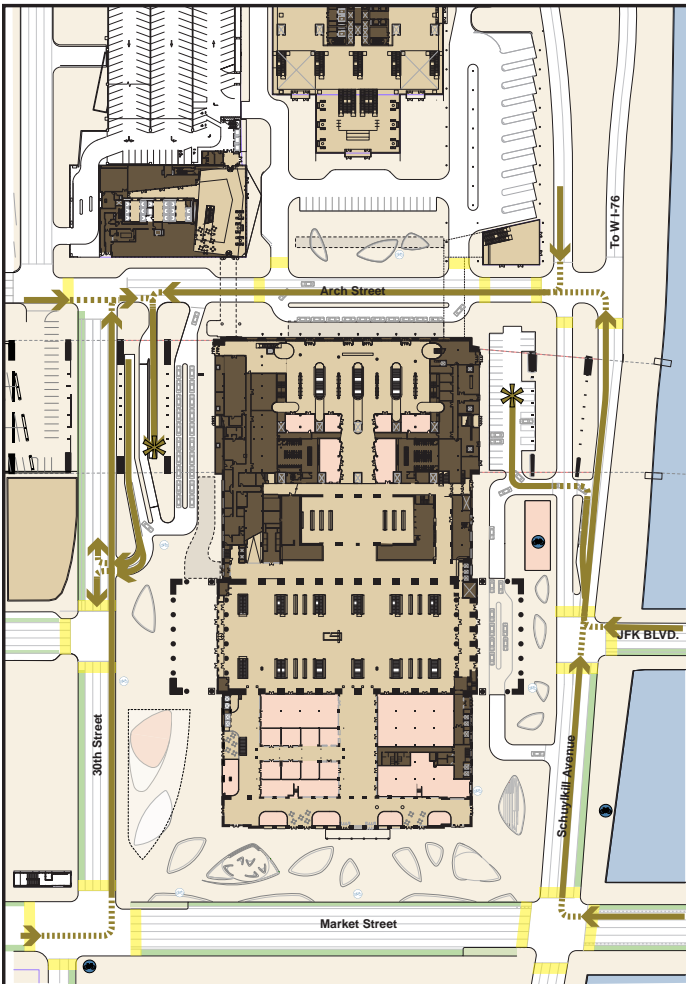
Most service vehicles will continue to use the current loading docks below the east side plaza. The Concept Plan also proposes new loading areas in the lower level below the western part of the plaza. This loading service will be restricted to smaller size vehicles due to clearance heights on the ramp, and limited maneuvering room at the lower level. However this loading may be essential to supporting the concourse level retail, and managing the hours of service may be essential to supporting the retail without interfering with other uses of the lower level. Access to the lower area is off Arch using the same down ramp as the taxi queue. The exit is an up ramp that enters 30th Street just north of JFK. Access to the current loading area under the east side plaza will be by the bus terminal driveway with a new ramp to the east side lower level. The exit will be by the same ramp with the exit onto Arch Street at the current Cira Centre north driveway. There is an area between the current I 76 off ramp and I 76 main line that is used for service vehicles and some

parking. This can remain under the new bus terminal although with a different layout.

Parking - Short Term Passenger

The concept Plan offers two locations for short term parking. The first is located on the lower level on the west side of the station, with 54 spaces available. Second, there are 34 metered spaces at plaza level on the east side under the SEPTA Rail overpass. The two locations offer a great deal of flexibility to manage the short term parking. The plaza level parking might be metered parking with shorter time limits with the below grade parking offering slightly longer timeframes. Additional spaces could be added to the Cira Centre North Garage by adding additional levels to the garage. Variable electronic message boards can be used to indicate to drivers where space is available prior to the entrances to both garages.

The entrance to the Lower Level Parking is the west side of the station off Arch Street east of 30th



Street and is shared with the taxis. The Exit is on 30th Street 50 feet north of JFK Boulevard The exit will be signalized and the movement will be concurrent with the eastbound JFK movement with turn and store of the vehicles exiting onto southbound 30th Street under the two-way pattern and under stop control for the one way. Under one-way pattern the vehicles will have a similar trip to the current conditions.

And under the two-way pattern traffic heading to the I76 westbound and I 676 on ramps will be more direct. The metered short term spaces on the east side are access by the driveway off of Schuylkill Avenue just south of the SEPTA structure. This is shared with taxi drop off.

Parking -Longer Term Passenger

Long Term Parking will be in the expanded Cira Centre Garage with a proposed expansion of the

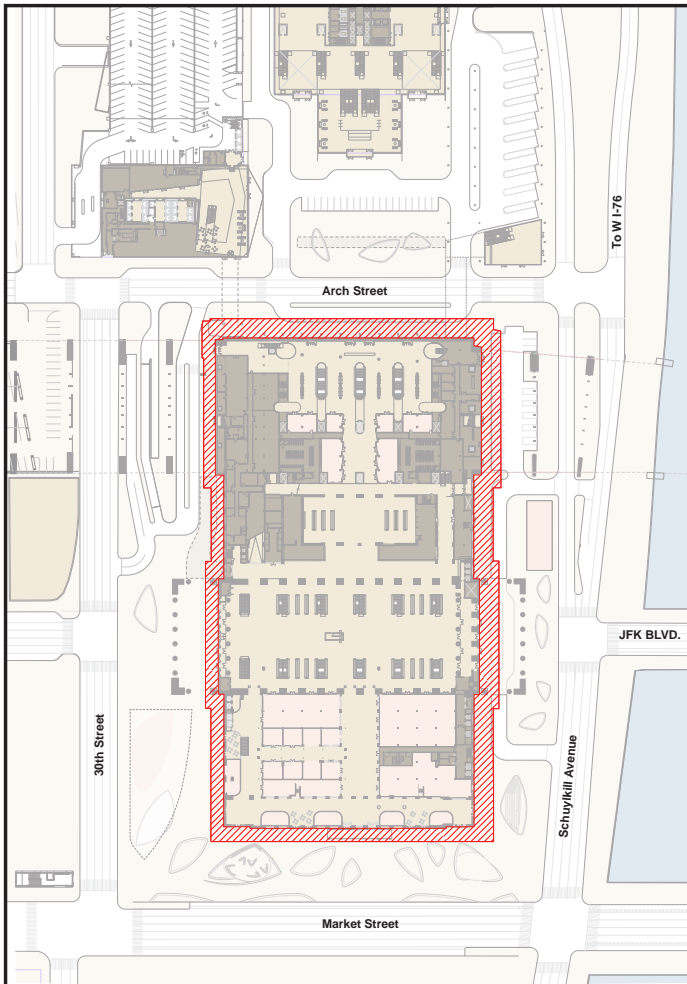
Garage. Earlier studies indicate one and a half levels could be added, yielding approximately 255 additional spaces.

Parking - Employee

Employee parking is indicated for executives in the lower garage on the west side, with approximately 15 spaces. This parking is accessed via the same ramps as used for taxi queuing. The remaining employee parking will be in the Cira garage. The lower garage on the west side. The remaining employee parking will be in the Cira garage.

Parking - Police

Police Parking will be on the east side under the SEPTA Rail Structure.



30th Street Station Plaza Use Summary		
	Existing	Proposed
Taxi Queue	44 cars/700**	470' (26 cars*)
Ride Share Staging	15 cars	21 cars
Short Term Parking	119	84**
Employee Parking	33	22**
Bicycle Parking	79	79
Protected Bicycle Parking	0	150

* assumes 18' per car
 **Additional spaces may be provide in the Cira Garage
 Data from the District Plan report

Existing Counts Compared to Proposed Counts

Bicycle

The District Plan called for new bicycle lanes in the roadways along Market Street, 30th Street and Schuylkill Avenue, and along JFK Boulevard on both sides of 30th Street Station.

Recognizing that this project is focused on Amtrak's plaza, the plan for a bicycle network is fairly high-level. Based on the District Plan proposal, the most recent Philadelphia Bicycle Network Plan, field observations, and a review of data from DVRPC, the Design Team is proposing a mix of one-way, curbside, cycle tracks protected either with floating parking or flexible delineators. Basic on-street, striped bike lanes could replace the cycle tracks if it is determined that they are not workable at this time. There are two intersections which will likely have a high demand from cyclists: 30th Street and Market Street and Schuylkill Avenue and JFK Boulevard. Both require complex solutions which should be devised in collaboration with the City of Philadelphia Department of Streets. The Design Team has explored three options for the latter, including some which would require a special bicycle phase.

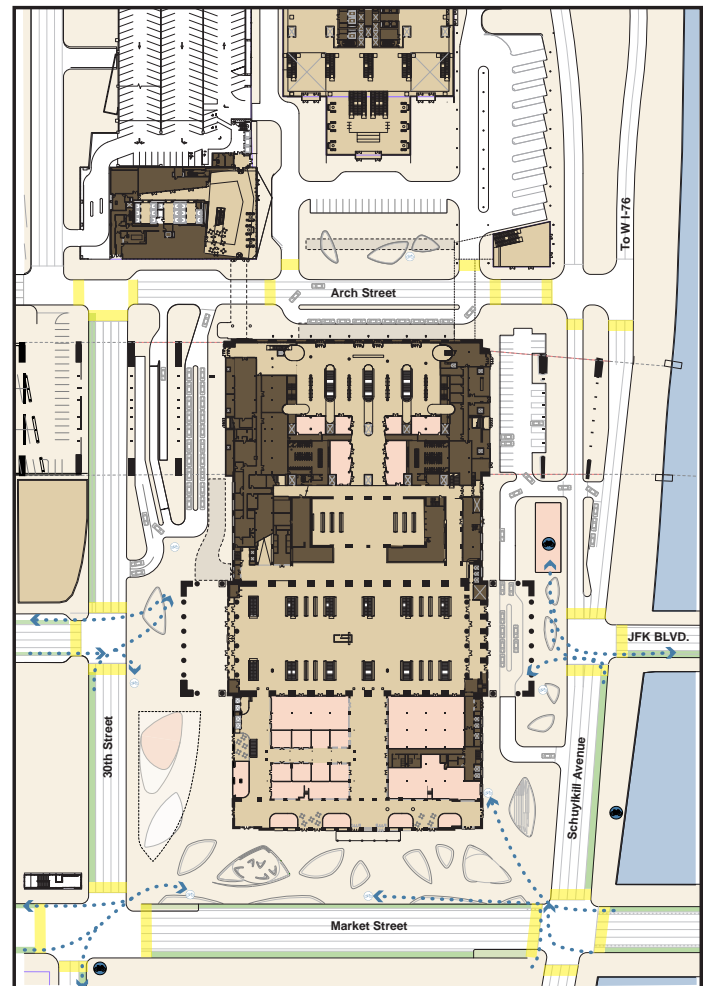
Once cyclists have reached the station area, they will need a place to safely store their bikes. The way to calculate the provision of bicycle parking at transit facilities varies based on the design standard being referenced and the type of transit stop (bus, commuter rail, subway, ferry, etc.). During the morning peak period, the Association of Pedestrian and Bicycle Professionals (APBP) recommends creating a "short-term" bike parking space for 1.5% of riders and a "long-term" space for 5% of riders. The Danish Cycling Federation recommends 1 space for every 10 riders during the peak period.

Amtrak recommends using APBP standards, so the design Team applied that guidance to the "In" and "Out" data for 30th Street Station received from Amtrak (June 2014). Using that method, parking spaces for 320 bicycles is recommended. There are currently roughly 79 bike racks scattered around the station area, and street furniture and fences are also used for locking up bicycles.

To accommodate the bicycle parking and offer cyclists better options, the Design Team has proposed increasing the amount of basic bicycle parking from

the current level of 80 "inverted U" or staple racks, to roughly 100 within Station area. However, the racks would be replaced with a new style of rack (similar to the inverted U, but more in line with the aesthetic of other elements of the plaza) and placed in six new locations around the plaza which better serve the demands and desires of cyclists. Of these, at least one on the west side should feature a simple covered structure for weather protection.

Additionally, to reach the recommended number of spaces and offer the highest quality of security, weather protection, and amenity, the Design Team is proposing a large bicycle parking structure, also referred to as a "Bike Station". Located just north of the east portico, it would be similar in function to what is at Washington, D.C. Union Station. With a dimension of 105' by 25', the structure will have space for roughly 220 bikes (using stacked racks) and amenities such as lockers, bike rentals, a small service station, as well as CCTV and other security features. This was also recommended in the District Plan.



Bicycle Routes and Parking

Cross Traffic Variations

Option 1: Dedicated Bike Phase

All vehicular movements are held, except vehicles turning left onto JFK from southbound Schuylkill, and vehicles turning right onto northbound Schuylkill from westbound JFK. The timing of the phase would need to be determined based on demand, but if coordinated, all bikes could access or exit the station area with limited conflict. Pedestrians would also need to be held for all movements as well. There could be another phase that permitted westbound bikes to go straight across Schuylkill to reach the station when westbound vehicles are turning left (southbound) onto Schuylkill, but cars would need to yield to bikes and pedestrians.



Option 2: Hook Turn

Cyclists traveling northbound on 30th Street and wishing to access the station would veer to the right just before the crosswalk south of JFK, then enter a small turning bay and wait for the signal for westbound vehicles and bikes before proceeding directly across Schuylkill to access the station. Cyclists heading north but wishing to go east on JFK would be able to proceed onto JFK only when the northbound and southbound movements have a green light. This traffic would be held when the bikes exiting the turning bay got their green. A protected phase could be built in which would require holding westbound vehicles wishing to turn left onto southbound Schuylkill.



Option 3: Two Phase Left Turn Box

In this case, cyclists approaching the station from the bike lane on northbound Schuylkill would use a treatment referred to as a Two-Phase Left turn. Somewhat similar to the jug handle in Option 2, cyclists would get themselves into a position where they could move west to the station once the westbound traffic on JFK got the green signal. In this case, they would be doing it from the north side of the intersection. At the same time, westbound cyclists who had just come across JFK would also go west to the station on the same phase, but on the south side of the intersection.



Pedestrian Circulation

Types/Profiles/Modes

In support of the design Team's proposal for the 30th Street Station Plaza, information from the District Plan and data provided by Amtrak were used to understand how pedestrians (mostly Amtrak and SEPTA riders, but also employees and neighborhood residents) move through the space, and how they connect to the various modes of transportation accessible in the area.

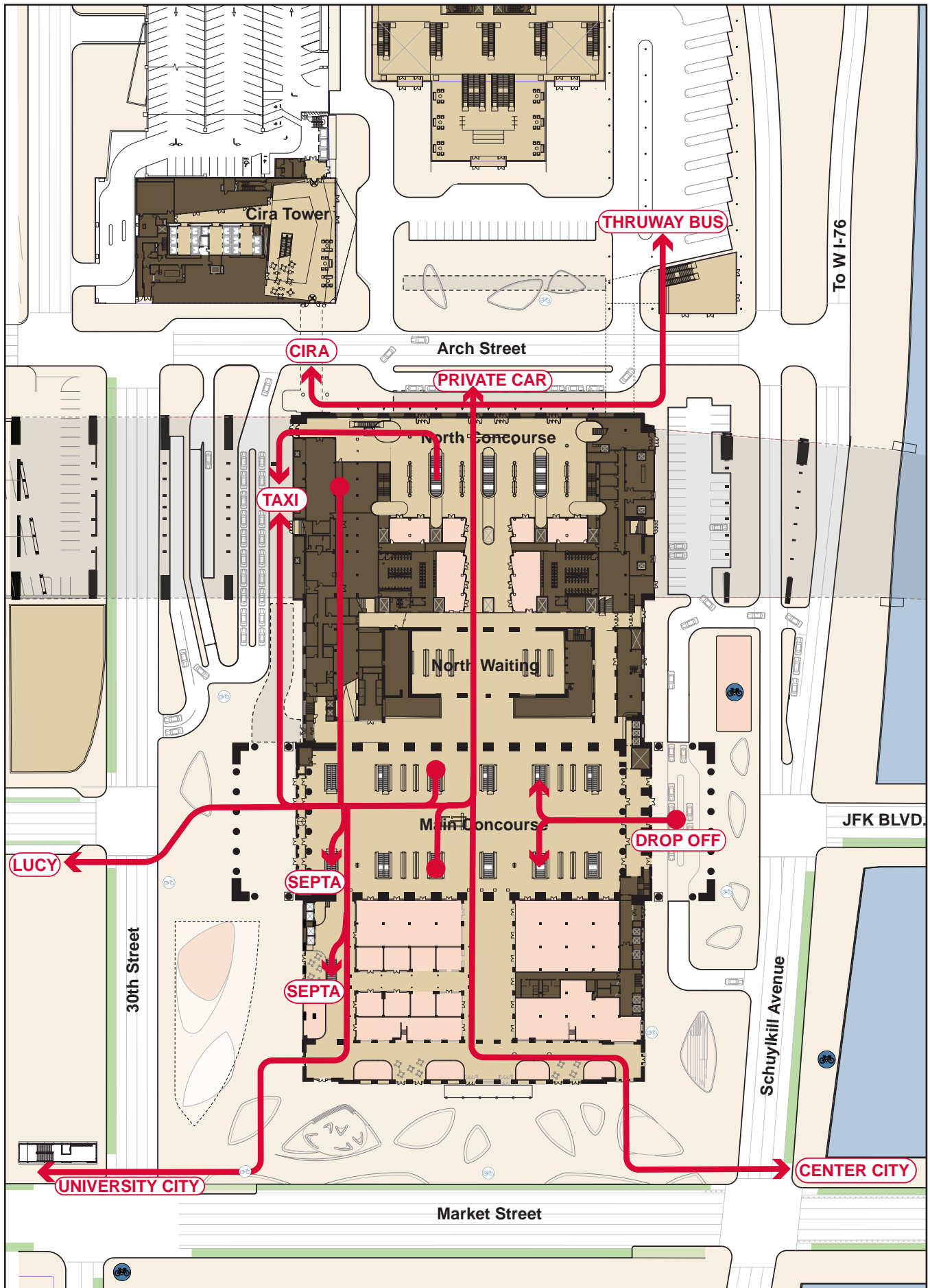
Pedestrian movements through the station area vary by the transportation mode they are either moving towards or originating from. Some movements have an inverse correlation of destination and time of day. For example, there is a heavy movement from SEPTA commuter rail to the SEPTA subway in the morning and the opposite in the evening, while other movements are more consistent, such as pedestrian flow through the doors on the east portico near the taxi drop off. In general, the current conditions for pedestrians moving through the station are less than ideal. A high level of demand for certain movements result in congested corridors and longer paths than necessary.

As is often stated, every traveler is a pedestrian at some point in their journey, and while this is true, not every pedestrian is the same. A variety of different travelers makes for unique profiles, often distinguished by modal connection. For example, daily commuter connections from SEPTA commuter rail to SEPTA subway move at a quicker pace and are less encumbered by baggage than Amtrak passengers connecting to taxis - some of whom might be tourists or business

travelers who move slower than SEPTA customers because they are carrying more luggage or are less familiar with the station area.

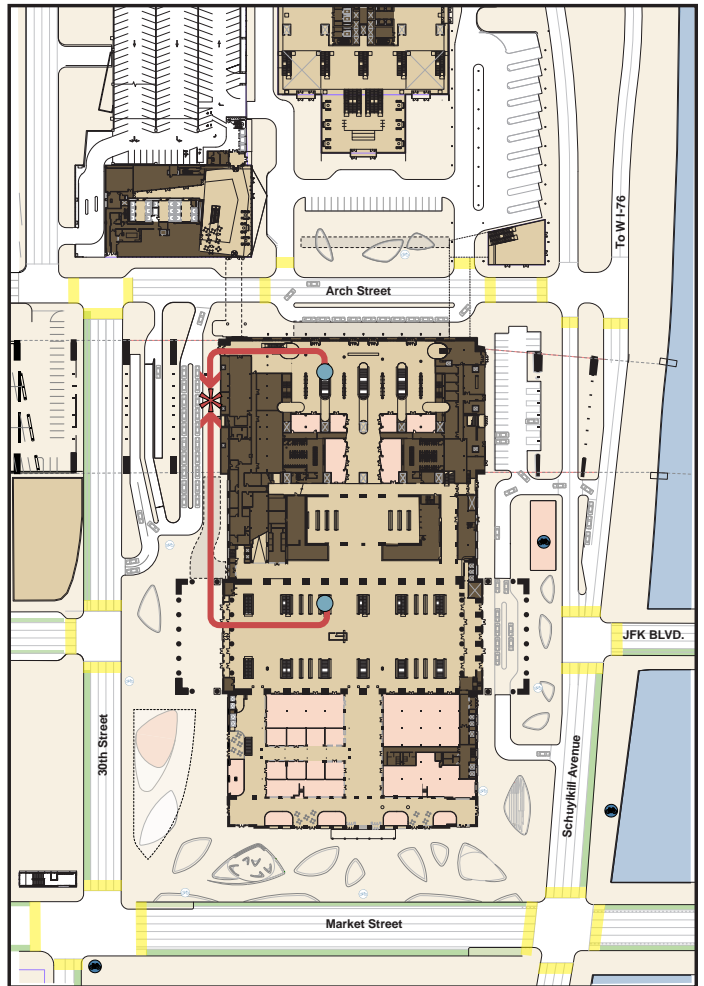
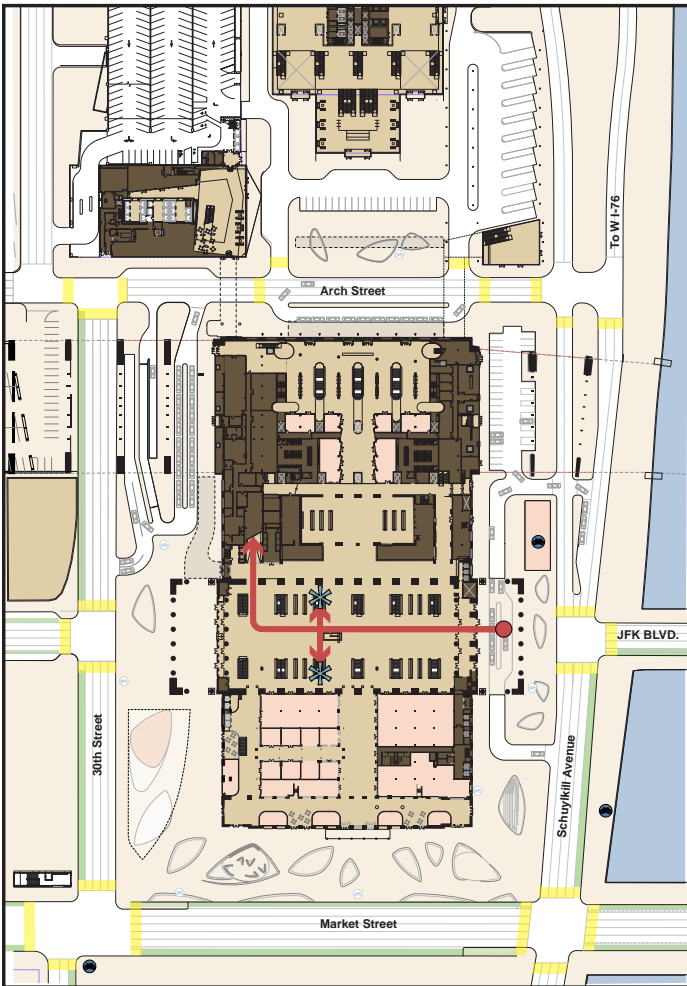
Being mindful of how different travelers become different pedestrians, the Design Team's goal was to change traffic operations at the curb in ways that best responded to the needs of those different users, with the ultimate goal of facilitating safe and convenient connections for all those traveling through 30th Street Station. For example, by prohibiting vehicles from entering the western portico, that side of the station becomes completely open for pedestrians heading due west to University City or southwest to the SEPTA connection (which can now also occur below grade through a new concourse). Currently, there are major conflict points between heavy flows of pedestrians exiting the southwest corner of the station (approaching Market Street and 30th Street) and vehicles circulating through the station to pick-up or drop-off passengers near the west portico.

Focusing drop off activity on the east side of the station allows quick access for drivers exiting the adjacent highway, or coming from Center City via JFK Boulevard or Market St. This also allows those arriving by taxi to be dropped off very close to the station before following a short and direct walking path to the platforms. Finally, opening the north concourse and allowing pickup/drop-off along Arch Street will further separate heavy vehicle demand from locations with the highest pedestrian demand, namely along Market Street and 30th Street



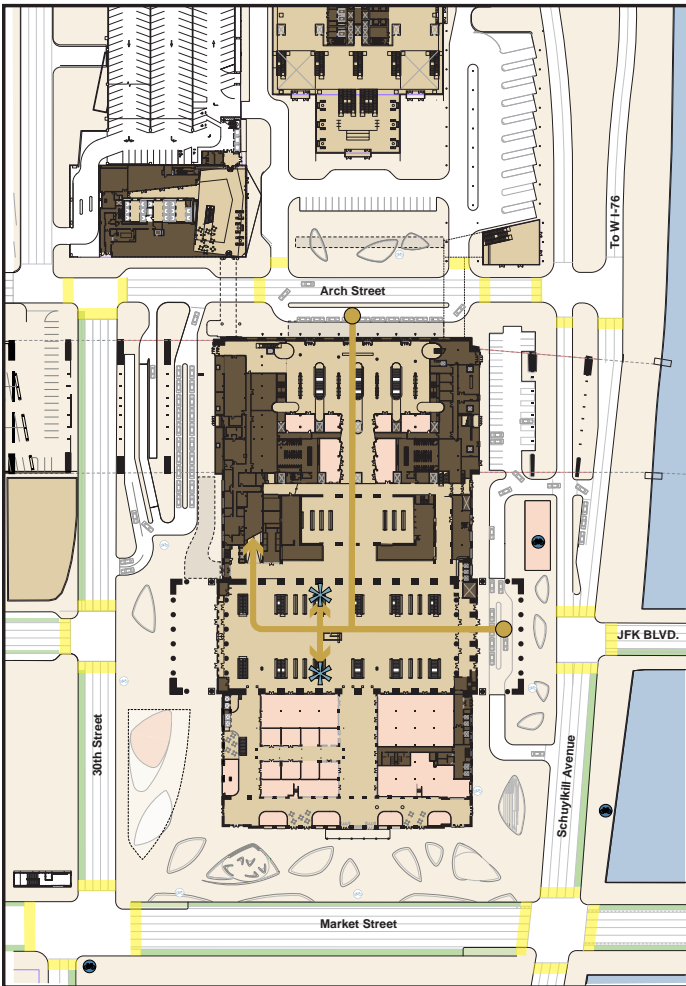
Arrivals and Destinations
Pedestrian Circulation - Taxi Pick up/Drop Off

The taxi pick-up location in the preferred scheme is removed from other pick-up points to avoid congestion between people and vehicles. It also provides direct access to the station doors so pedestrians do not have to cross vehicle lanes..

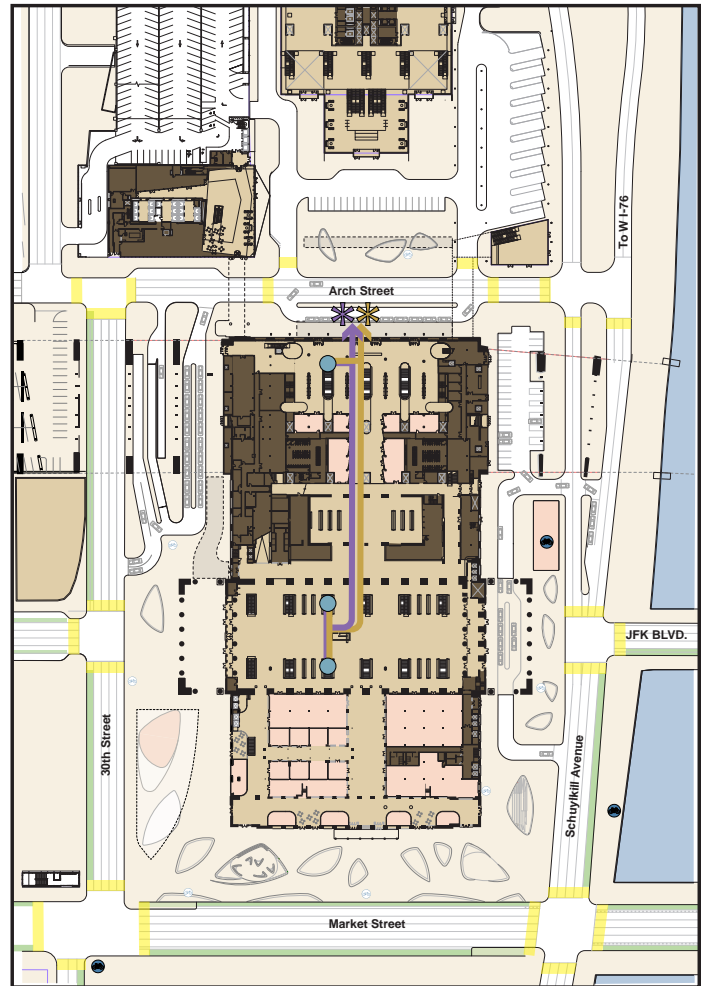


Pedestrian Circulation - Private Car/Ride Share Pick up/Drop Off

The taxi pick-up location in the preferred scheme is removed from other pick-up points and avoids congestion between people and vehicles. It also provides direct access to the station doors so pedestrians do not have to cross vehicle lanes.



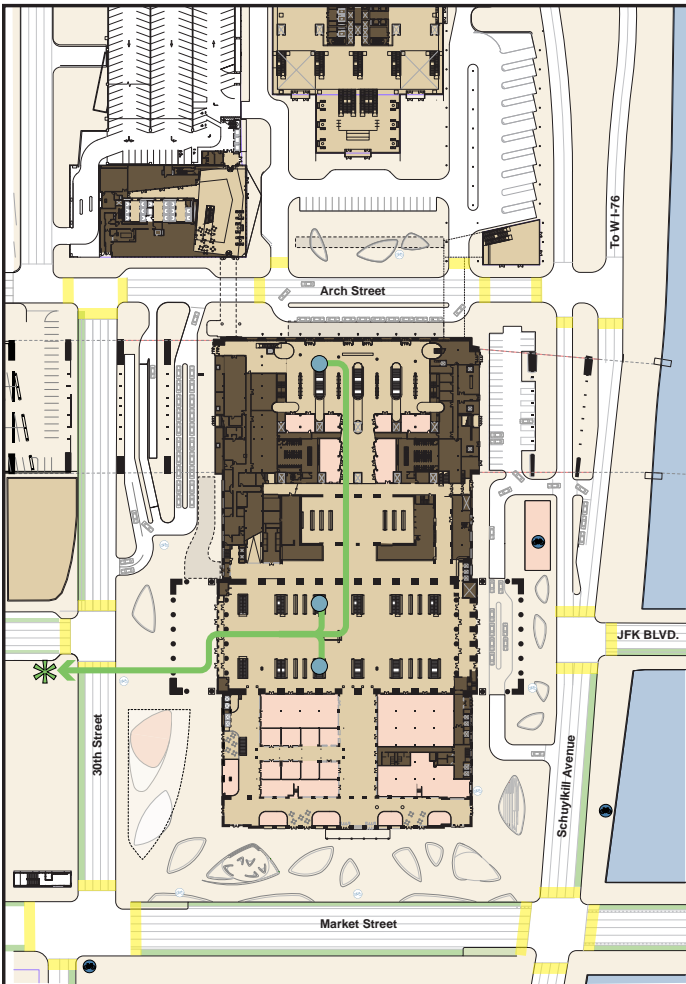
From Ride Share



To/From Private Car & Ride Share

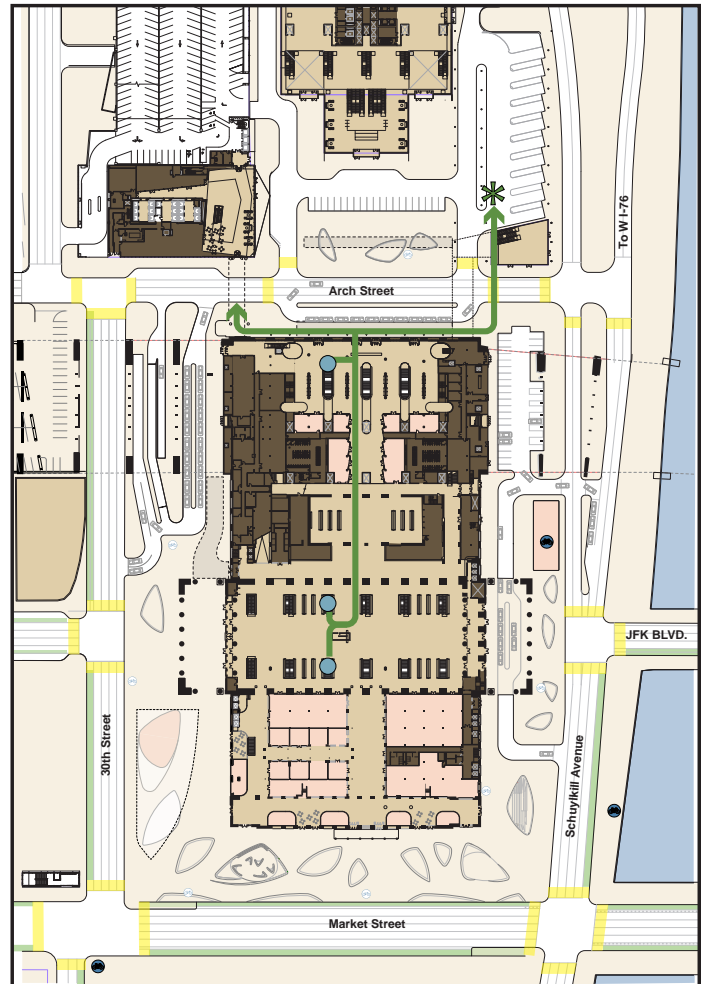
Pedestrian Circulation - SEPTA Lucy

The LUCY stop remains in place on the southwest side of JFK Boulevard. Passengers will access this stop by exiting through the west side of 30th Street Station and using the crosswalk to cross 30th street.



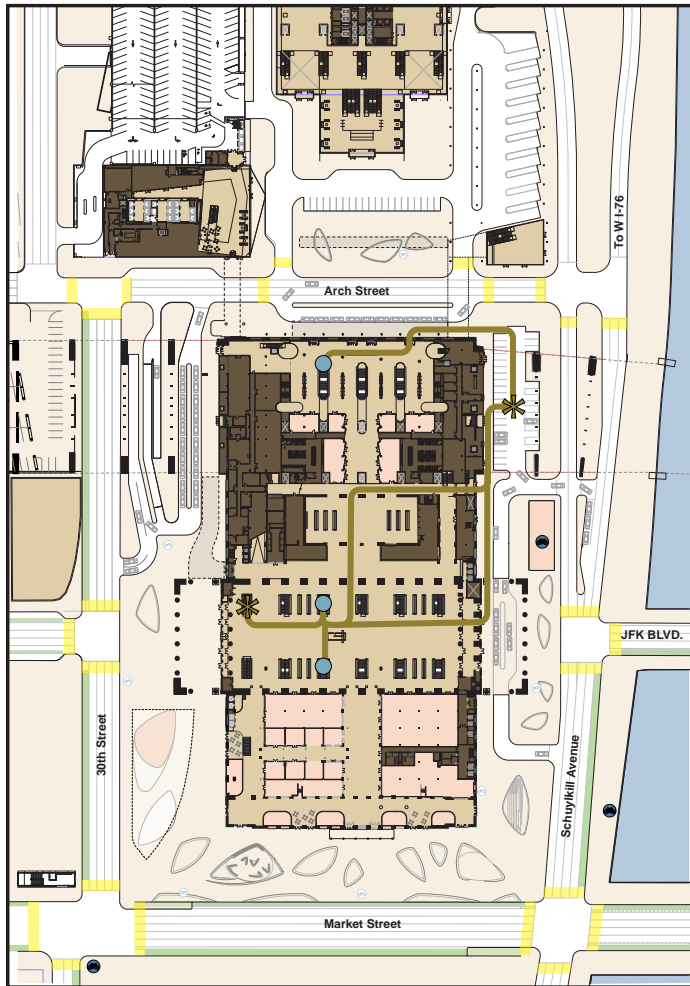
Pedestrian Circulation - Amtrak Thruway

Pedestrians use the crosswalk on Arch Street on the northeast side of the station to access the thru-way bus station



Pedestrian Circulation - Short Term Parking

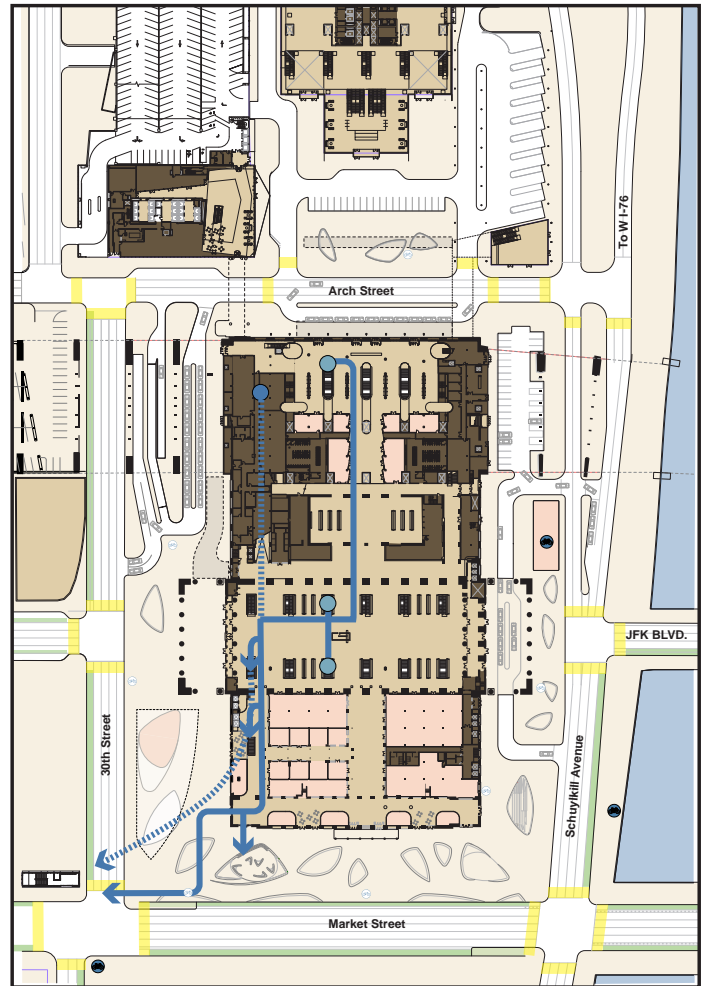
Arriving passengers have direct access to the short term parking area through the east exit, or by exiting through the north exit and then walking east on the sidewalk.



To Short Term Parking

Pedestrian Circulation - Subway

Riders will still be able to connect via the plaza and crossing at 30th Street and Market Street. There will also be two new access points within the station. This direct access to the subway is below-grade and passing through a retail area. This connection also allows pedestrians to avoid



To SEPTA Frankford/Market Line

Pedestrian Flow Modeling

Pedestrian flow modeling was an important design tool used throughout the iterative design process. The Design Team used pedestrian flow modeling as a qualitative analysis of the various design options and layouts of the plaza. Flow modeling used current numbers for in/out of the station doors and up/down of each vertical circulation element during the half hour morning peak. Flow modeling does not accurately show final destinations and cannot project future use of the station or plaza, however, this analysis is able to illustrate the expected pedestrian flow patterns and density levels generated by a given layout. It gives a good sense of how the arrangement and layout of certain elements impact the choices pedestrians make and the resulting flow volumes and potential pinch points. The existing station was also modeled as a baseline for comparison.

Pedestrian flow modeling is able to analyze a layout based on numerous metrics. For Station

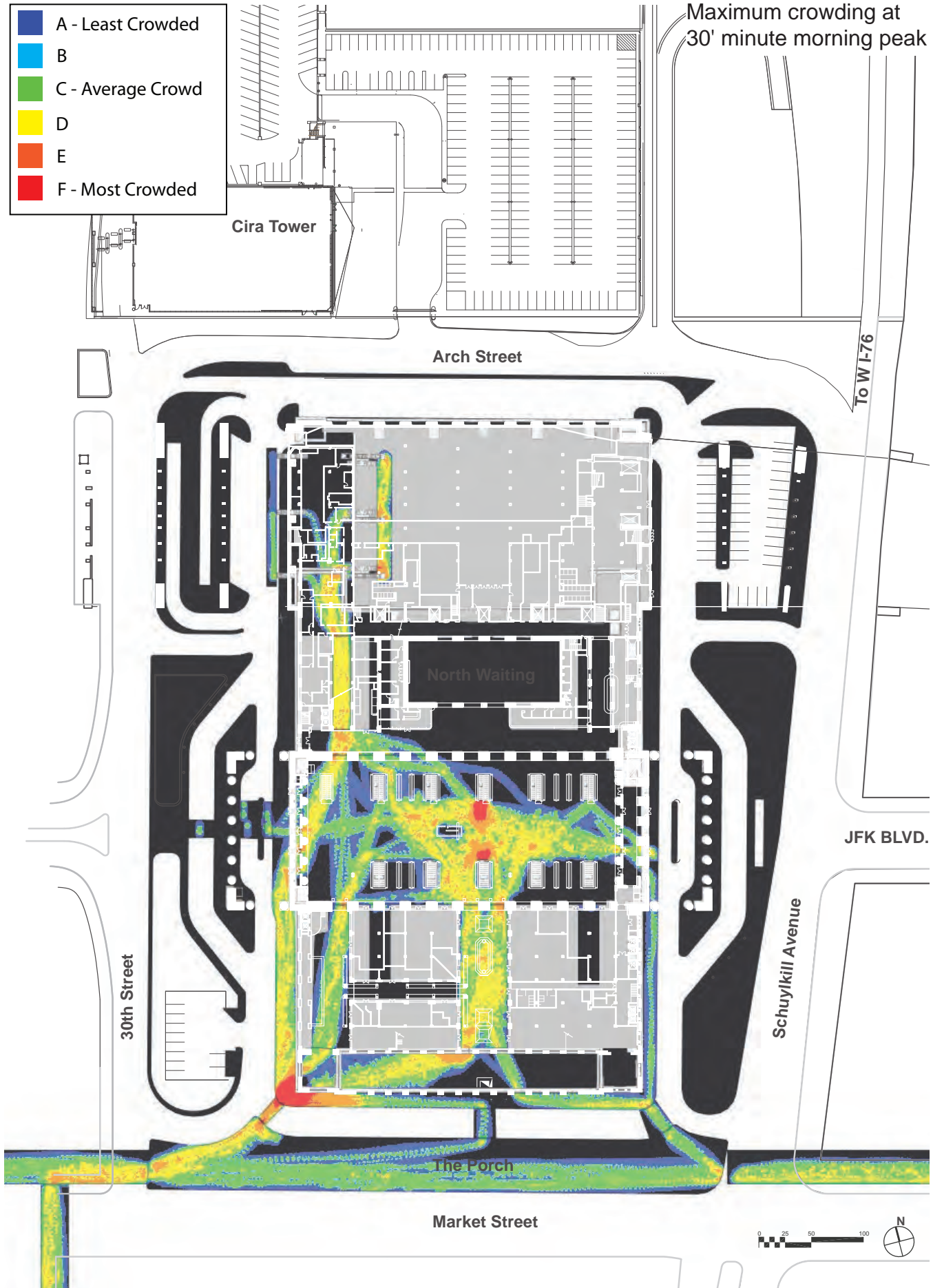
Plaza, the Design Team used the “maximum density” metric, which shows the highest density experienced by an individual pedestrian at any given moment. The density is scaled from A (blue – least crowded) to C (green – average crowd), and finally to F (red – most crowded). In general, blue-ish green flows with hints of yellow are considered “normal” flows expected in a public place.

Flow modeling for Station Plaza was successful in illustrating a vast improvement in pedestrian flow through before-and-after comparisons. The modeling of the Preferred Plan shows the benefits of relocating vehicle uses throughout the north and northwest side of the station. The model of the existing condition shows expected pinch points of pedestrian circulation at the southwest corner entry, within the center of the station, and along the doors, but also shows consistent, thick, bands of yellow to orange density. This indicates a pedestrian would be experiencing a sustained level of congestion during the morning peak.



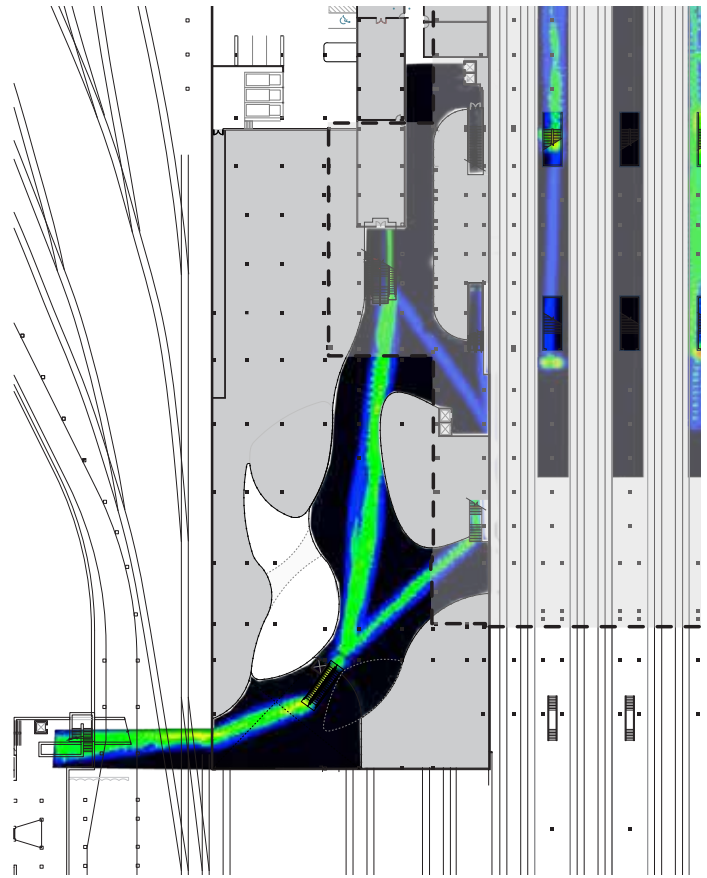
- A - Least Crowded
- B
- C - Average Crowd
- D
- E
- F - Most Crowded

Maximum crowding at 30' minute morning peak



Existing Plaza Level Pedestrian Flow

When the Concept Plan is analyzed, the pinch points are reduced or eliminated, with an exception at the center of the station related to the existing circulation to and from the tracks. Most notably, the bands of pedestrian flow trend towards green and, more importantly, are thinner and more spread out due to a dispersal of program and vehicle uses.



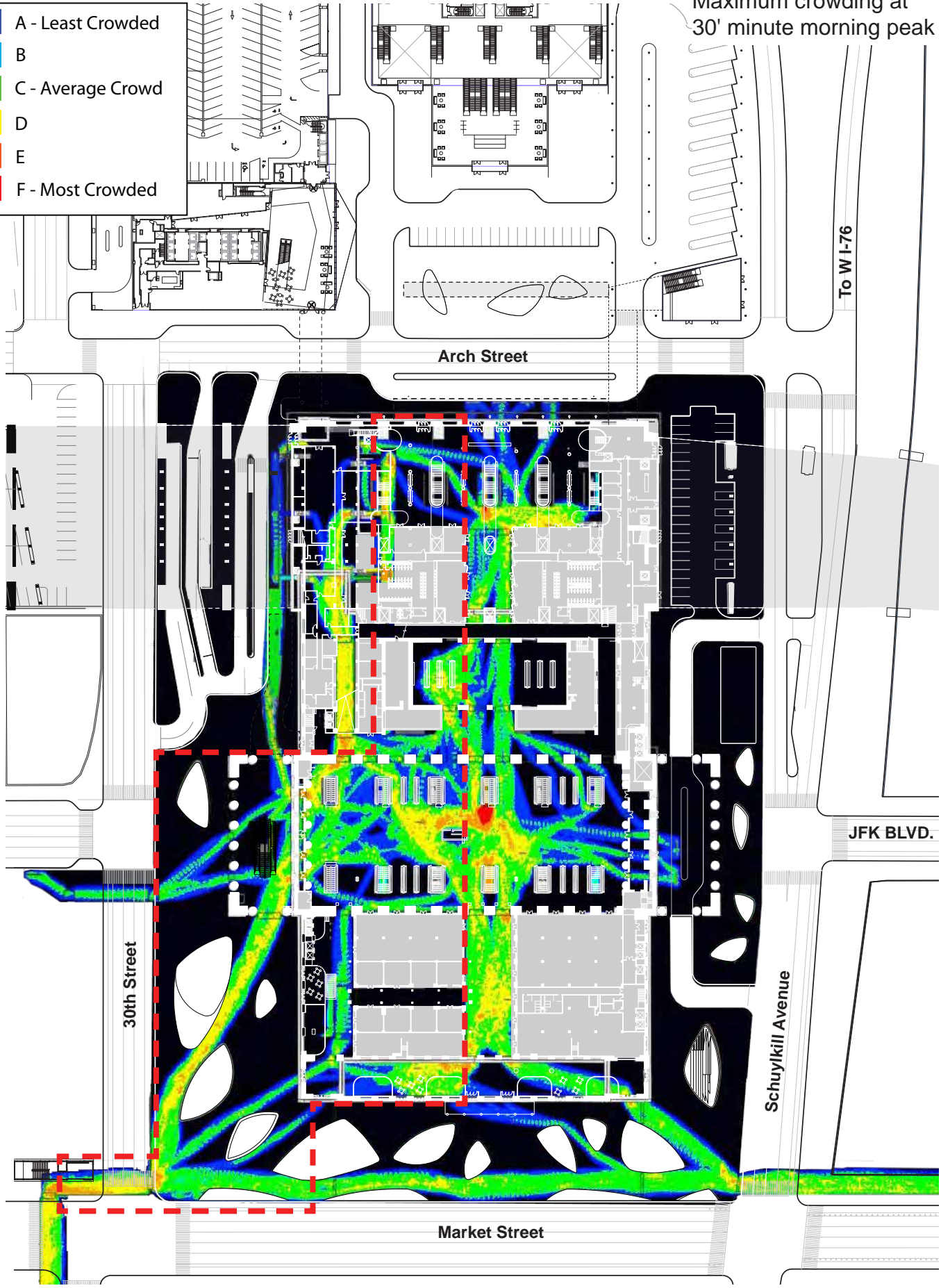
Lower Level Pedestrian Flow



30th Street Station Plaza | Design Guidelines

- A - Least Crowded
- B
- C - Average Crowd
- D
- E
- F - Most Crowded

Maximum crowding at 30' minute morning peak



To W I-76

Arch Street

JFK BLVD.

30th Street

Schuylkill Avenue

Market Street

Crosswalks and Signals

There are six traffic signals existing around 30th Street Station. Under the Concept Plan there will be eight traffic signals for the two-way pattern and seven with the one-way pattern. Five of the six current signals will remain. The current eastbound I 76 off ramp signal will be relocated with the ramp and there will be additional three phases: one for the off ramp, and northbound Schuylkill Ave, a second for eastbound Arch, and a third for the northbound left turn. The other new signals are:

1. Cira Centre driveway with Arch, and
2. The northbound left turn from Schuylkill Ave. to the east Side Plaza. This will only stop southbound traffic and will not affect southbound off ramp Traffic. This signal is not needed if the one-way pattern says.
3. The Lower Level Garage Exit will require a signal in the two-way option but will be part of the 30th Street and JFK Boulevard signal.

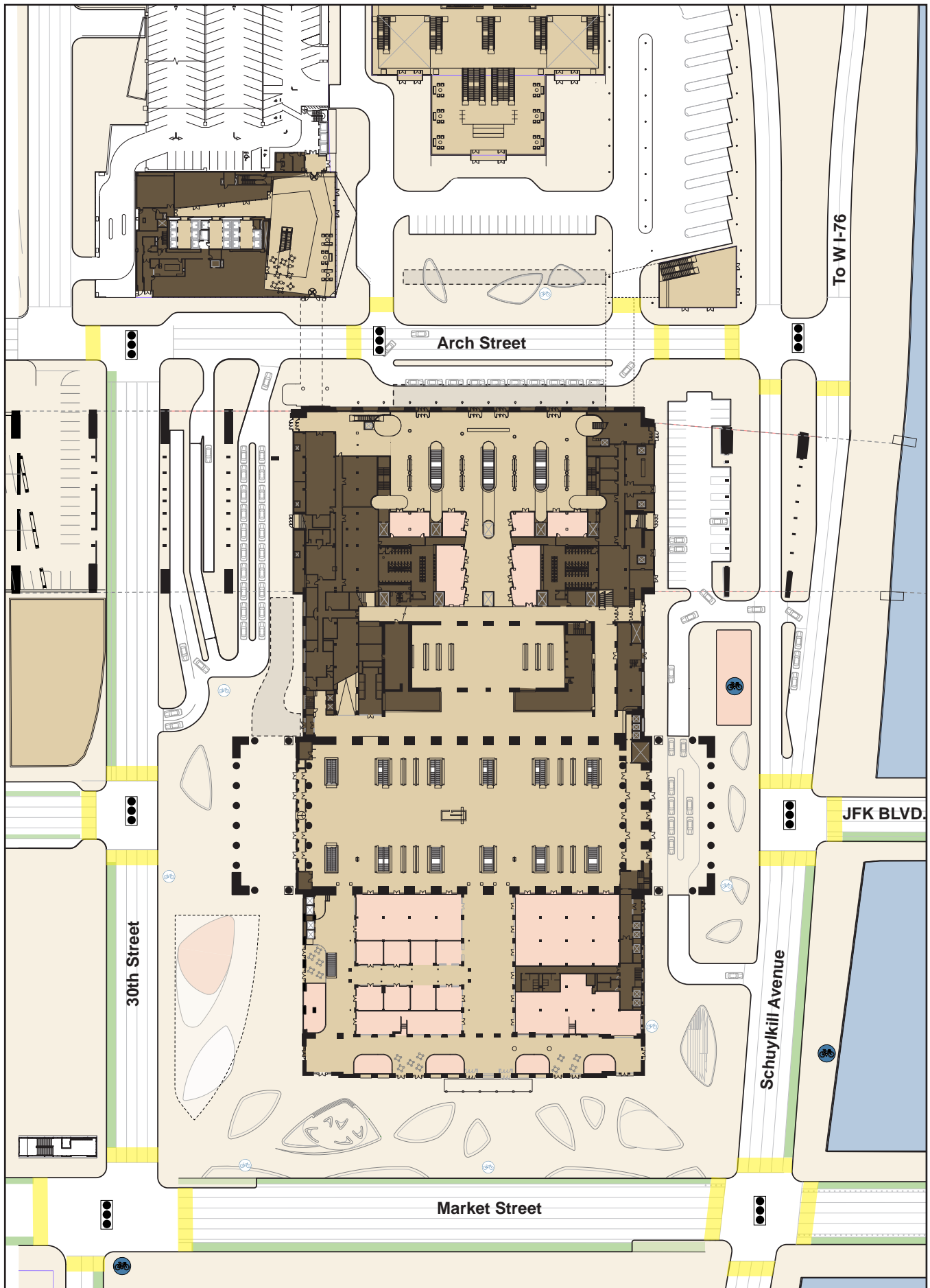
Bikeways on 30th and Schuylkill will affect the signals on 30th Street and only the Market Street and JFK signals on Schuylkill Avenue. The westside Bikeway on 30th Street will be have more impact because of the needed extra phase then the east side. The Eastside Bikeway on Schuylkill Avenue affects the pedestrian crossing at Schuylkill Avenue and JFK Boulevard. A staging area at Schuylkill and Market Street will be

needed on the southeast corner if bikeways are established on Market Street. A bus loading area will be required northbound on Schuylkill Avenue between Market Street and JFK Boulevard. The bikeway will have to travel behind a bus loading platform. The bike lane could be along the river's edge of this deck and reduce the impact to pedestrians in this area. How it transitions to the bikeway on JFK Boulevard and where \will affect the operation of that intersection. Pedestrian crossings will be the same with the one-way pattern for most intersections. The will be new crossings of Arch Street at 30th Street Cira Centre driveway and Schuylkill Avenue..

The feasibility of the two-way pattern will be studied by PennDOT's Point of Access Study. This will determine if the two-way pattern is viable. The two intersections of Schuylkill Avenue with JFK Boulevard and Market Street are the critical intersections and the determining factors. Pedestrian crossings will be more complicated with the two-way pattern at the following locations:

1. 30th and Market Street. A new eastbound left turn movement from Market Street to northbound 30th St. will cross the north leg crosswalk. The left turn movement will be on a protected phase so reducing the conflict. Also,





Crosswalks and Signal Locations

a new conflict with right turning vehicles off westbound Market St. This will be a concurrent phase but could be a Lead Pedestrian Interval (LPI). This movement will be drivers accessing the station and the district north of Arch Street. If a separate right turn lane is established the movement could overlap with the southbound protected left turn movement. This would take space away from the pedestrian plaza but does reduce pedestrian vehicle conflicts on the north leg crosswalk.

2. Market St. with Schuylkill Ave. The two-way pattern adds southbound traffic to this intersection. This adds additional pedestrian conflicts with turning southbound traffic. The volume of the left turn movements for all approaches will require protected left turn movement. This will reduce the conflict between the pedestrians on all crosswalks and the left turn vehicles. Currently all right turns are concurrent with the parallel pedestrian crosswalk. Two options exist. One would be LPIs on each right turn movement to give pedestrians a 3 second head start. The other is to allow right turns from separate lanes during the protected left turn phases of compatible movements. This would reduce the right turn pedestrian conflicts. The problem is this will require an additional lane which would reduce the sidewalk area and increase the crossing distances on all the affected crosswalks. However, this is a critical in-

tersection that needs to function if the two-way pattern is to be implemented. PennDOTs Point of Access Study will determine if this is viable.

3. JFK Boulevard and Schuylkill Ave. The two-way pattern adds southbound traffic and a westbound to southbound left turn to this intersection. The current operation is a channelizing island between eastbound and westbound JFK Boulevard which allows pedestrians to cross the heavy right turn movement from JFK to northbound Schuylkill Avenue. This right turn movement is too large to allow a concurrent movement and therefore the pedestrians should have a protected phase to cross this movement. If the westbound left turn is not allowed then the operations of this intersection can be significantly less complicated and reduce the pedestrian vehicle conflict. The southbound Left turn can be concurrent to westbound right turn movement. The north leg crosswalk is a difficult crossing. The south leg crosswalk can be directly from the southeast corner to the west side. There are multiple options that will need to be considered. However, this is a critical intersection that needs to function if the two-way pattern is to be implemented. PennDOTs Point of Access Study will determine if this is viable. The bikeway through this intersection adds additional complications that will need to be addressed.



4. Arch Street and Schuylkill Avenue. Crosswalks will be established across three legs. The left turn movements should be protected and therefore the conflicts with pedestrians will be minimum. The eastbound right turn movement can run concurrent to the northbound left turn movement and therefore reduce the pedestrian conflict at this point. The southbound off ramp right turn will conflict with pedestrians in the west leg crosswalk. There will be larger vehicles making this turn and this conflict will require further study during the Point of Access Study.
5. Arch Street and the Cira Centre driveway. This will be the primary exit from the development area directly north of Arch Street as well as the exit point for busses using the terminal and service vehicles accessing the lower level on the east side of the station. Due to the difficulty the garage exit has on the intersection of 30th and Arch Streets, consideration should be given to reversing the flow thru this garage. That would add significant traffic to this intersection but would increase the level of service of the street network and 30th and Arch. Pedestrians should be restricted to the west leg crosswalk due to the expected number of vehicles and larger vehicles that would make the left turn out of the garage. The westbound left turn should be protected/permitted. This movement should not have conflicts with pedestrians. The eastbound left turn should be made at the bus terminal driveway. The right turn out of the driveway will be in conflict with pedestrians using the west crosswalk but should be minimal, and an LPI can be provided to give pedestrians a head start on the crossing.
6. 30th and Arch Streets. In the concept plan, 30th street will have to be a jog intersection resulting in a split phase signal operation. northbound and southbound 30th will have separate greens. Also due to the jog eastbound and westbound left turns off of Arch Street will require protected movements. Pedestrians crossing the two legs of 30th street will have conflicts with right turning vehicles. This will be true for the pedestrians crossing Arch Street. The Pedestrians crossing Arch Street can only cross concurrently with the adjacent movement due to the jog. LPIs can be provided with all the pedestrian movements. The current garage exit cannot operate as an exit into this intersection when 30th and Arch Streets are extended to the west and north. The two options are to make the exit of the garage turn right before the intersection onto the north leg of 30th Street or reverse the direction of the garage and make this the entrance. This would be the least disruptive way to make the garage work and have the least impact on the street network and this intersection specifically. The placement of Bikeways needs to be done to reduce the conflict between bikes with both motor vehicles and pedestrian. Adding additional signal phases to the intersection will reduce its ability to carry the expected traffic from the future development over the rail yards.
7. 30th Street and JFK Boulevard. The JFK Boulevard leg is proposed to be a two-lane approach with right turn and left turn lanes. There would be a single lane exiting the intersection. Northbound 30th Street would be a left turn lane and a through lane. A determination for a protected movement for the northbound left will be needed. Currently the pedestrians at this intersection have protected movements. It may be possible to keep this if the pedestrian crossing distances are kept short. The exit from the lower level short term parking area will be about 50 feet to the north of the intersection. It will have to operate as part of this intersection. There will be small number of vehicles using this Garage and the green for the exit should be able to operate as a turn and store during the pedestrian phase. The impact to other traffic will be minimal.
8. Schuylkill Avenue and the East Side Plaza Entrance. This would be a protected movement into the plaza area for a small number of vehicles. This phase can occur when the southbound movement from I-76 and I-676 is stopped at both Arch Street and JFK Boulevard. This has very little impact on traffic operations. There is a sidewalk on the west side of Schuylkill Avenue, but it can cross the driveway on the Schuylkill Avenue green and separate from the left turn movement.

Organization and Programming

The overall organization and programming of Station Plaza is critical to its success, as the plaza must simultaneously act as a quick pass-through, a place of leisure, and a pick up/drop off location, while also needing the ability to adapt to changes in passenger needs over time. The overarching organization of program is illustrated on the facing page. Within these big-picture principles, there are secondary levels of program which must be defined and articulated. Although it is recognized that further development and implementation of the design may alter some of its details, this overall organization should be taken as the guiding principle of the Concept Plan, and should not be altered casually.

Key to the organization and programming throughout are:

- Creating a unified public realm, while responding to different conditions in different areas of the plaza
- Elimination of pedestrian vehicle conflicts
- Maximizing utilization of all available spaces including underground and “leftover” spaces.
- Integrating activity and programming within the station with the plaza
- Introduction of trees and other plant material throughout
- Creating a range of types of spaces that can promote different activities and experiences, including social spaces and spaces for individual repose
- Allowing flexibility for spontaneous activities or temporary programming
- Assuring clear, efficient and unobstructed circulation routes for both vehicles and pedestrians

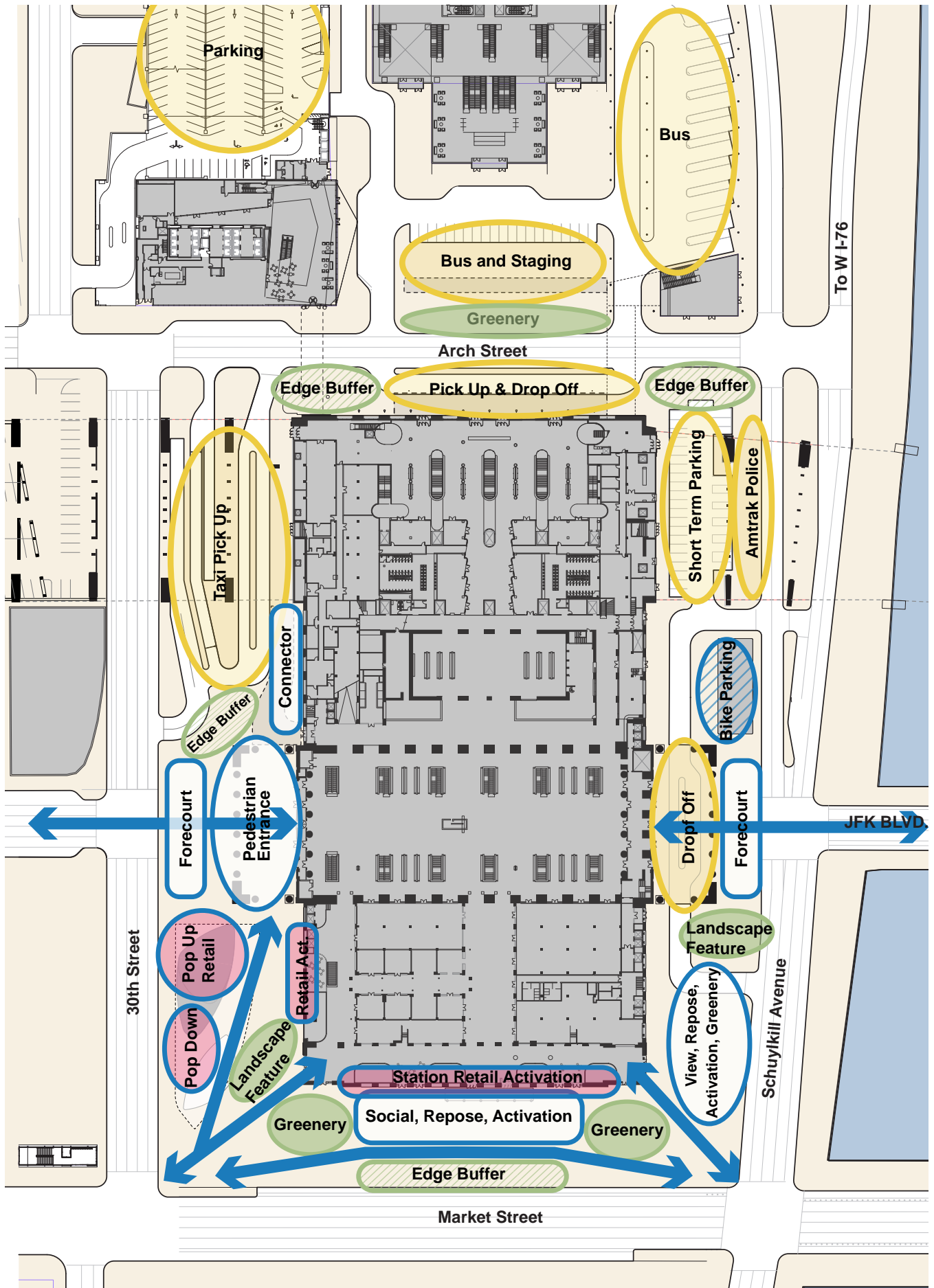
West Side

The west side of the station, along 30th street, will be a major area for both vehicle and pedestrian activity. In the Concept Plan, the west portico is the primary pedestrian entrance and seen as part of a larger urban procession along JFK Boulevard. Vehicular and pedestrian uses are largely separated on the western plaza so they do not conflict. The Concept Plan allows no vehicles within the west portico or on the south-

west portion of the plaza. To the north, under the west SEPTA overpass the taxi pick up is located. A lightweight and visually minimal canopy structure is proposed to connect the west portico to the SEPTA overpass area, to provide passengers a sheltered route. The North Concourse plan is also modified to create an exit directly to the taxi queuing area from the north concourse. This taxi queue location provides a sheltered area for pedestrians to wait, with easy direct access from both the main hall and the new North Concourse. The overpass structure is envisioned to be restored and illuminated to create a pleasant environment and highlight the historic architecture of the SEPTA structure. Signage to help direct passengers should both be integrated into the final design of both the overpass space and the canopy. Opportunity for revenue-generating advertising that might also help enliven the experience should be explored.

The lower level garage, beneath the taxi pick up, is designated for taxi queuing, short term parking, Amtrak executive parking, and for a small loading area to service the future lower concourse retail. Taxis will enter off of Arch Street and be directed by electronic signage either to a queue at the lower level, or, at times of lower taxi volume, directly to the plaza-level queue and pick-up area. Taxis will exit from the plaza queue back onto Arch Street. Taxis may also exit from the lower level ramp onto 30th Street if they opt not to collect a passenger.

Today a large portion of passengers arrive on foot along Market Street from the University City District and enter the station through the southwest corner door. Traffic from this direction is expected to increase as development to the west and north happens. The Concept Plan removes vehicle driveways from the southwest portion of the plaza to allow direct routes to the west portico from the corner of Market and 30th. Plantings, fountains, and other features are organized to help guide the flow of pedestrians while enlivening the journey. It is important that any features of the plaza not block visual connection to the west



portico or inhibit these primary pedestrian routes. The plan envisions the creation of retail storefronts along the southwest facade of the station, whose activity will spill out onto the plaza – likely with tables and seating for food and beverage establishments, engaging pedestrians as they pass.

Along 30th street, coordination with the future underground concourse is a key concern. Area should be reserved here for a retail pavilion and “pop-down” open plaza to allow light into the lower concourse. The retail pavilion should not block the views of the portico and should remain at a minimal height.

South Side

The Porch, operated by UCD, currently brings much energy and vitality to the Market Street side of the Plaza. The Concept Plan’s intent is to build on much of what has been learned from the Porch in terms of the scale and variety of spaces, but to give them a more permanent presence that extends the zone. Key elements of the Concept Plan design include:

- A water feature, sculptural element, or other landscape feature to mark the southwestern corner approach.
- Two green landscape areas at either end of the Market Street portion of the plaza. These zones create a break between the diagonal circulation paths and the main area along Market. Unlike other planted areas these “end caps” may be thought of as occupiable spaces that bring users in closer contact with natural elements and create more intimate social or relaxation spaces. In the concept plan they are described as “The Grove”, an elevated area of intimate seating and plantings, and “The Lawn”, a grassy sloped area for informal relaxation.
- A clear circulation path along Market Street. Analysis has shown a large portion of the pedestrian traffic today is not going to or from the station, but may be considered through traffic, and it is essential that the plan not force detours.
- A green buffer between the through-path and Market Street. This buffer provides psychological protection from the heavy traffic on

Market, and also discourages the use of the Market Street curb as a drop off or pick up area. This buffer should include plant material, and undulate or be discontinuous to create variety and avoid the sense of a wall.

- Activation along the south façade of the station. Interior retail and entrances should be reconfigured to encourage spillover on to the plaza, and areas for outdoor seating and tables should line the building. The opportunity exists for a continuous indoor-outdoor experience.
- Additional planters along the Market Street plaza breaking up the space and creating spaces that can be used for programmed and informal activities.
- Central axis activation. A special “moment” might be created aligning with the central door along the south façade for a sculptural element or seasonal display.
- The southeast corner should be more open in feeling, allowing clear visual access toward the Center City skyline. This is also seen as an area for some temporary programming such as food trucks or holiday markets.

Key to this area of the plaza is providing a range of types and scales of spaces, with opportunity for a variety of experiences. While these areas should feel permanent there also needs to be the flexibility to adapt them to particular events or occasions.

The East Side

The plaza along the east side of 30th Street Station, along Schuylkill Avenue, addresses Center City directly as it transitions from a pedestrian area at its south end to a vehicle zone at its north end, with both pedestrian and vehicular mixing under the East Portico. The south end here is defined by an elevated overlook platform providing views to Center City and a built-in, programmable space for small café or kiosk. The station’s east portico will be the primary taxi drop off location, with taxis entering off of Schuylkill Avenue north of JFK Boulevard and returning to Schuylkill south of JFK. In the area underneath the portico the vehicular lanes are elevated with a “table” to put them on the same level as the pedestrian portions of the plaza, separated by bollards from

pedestrian areas. This helps communicate to drivers that this is a shared space, and encourages slow and cautious driving. It is the only place in the plaza design (beyond street crosswalks) where vehicular and pedestrian traffic cross.

The forecourt in front of the east portico is envisioned contain a landscape feature such as a fountain or sculptural element slightly to the south that will both emphasize the formal axis of JFK Boulevard and transition to the less formal and non-symmetrical geometries of the plaza.

Just north of the east portico will be a secured indoor bicycle parking facility. This is envisioned as a light, visually minimal construction, likely of glass and metal, with the ability to store upwards of 150 bikes. It is important that this structure be largely transparent, both for the security of the bikes and bikers, and to minimize any impact on views of the historic portico.

Underneath the SEPTA overpass a short term parking lot provides 30 spaces. These parking spaces are accessed from the taxi loop. A planned maintenance support area in the station can also be accessed from this parking area. Between the SEPTA structure support and Schuylkill Avenue an area is reserved for Amtrak Police parking. This location gives them easy access to the I-76 on- and off-ramps.

The North Side

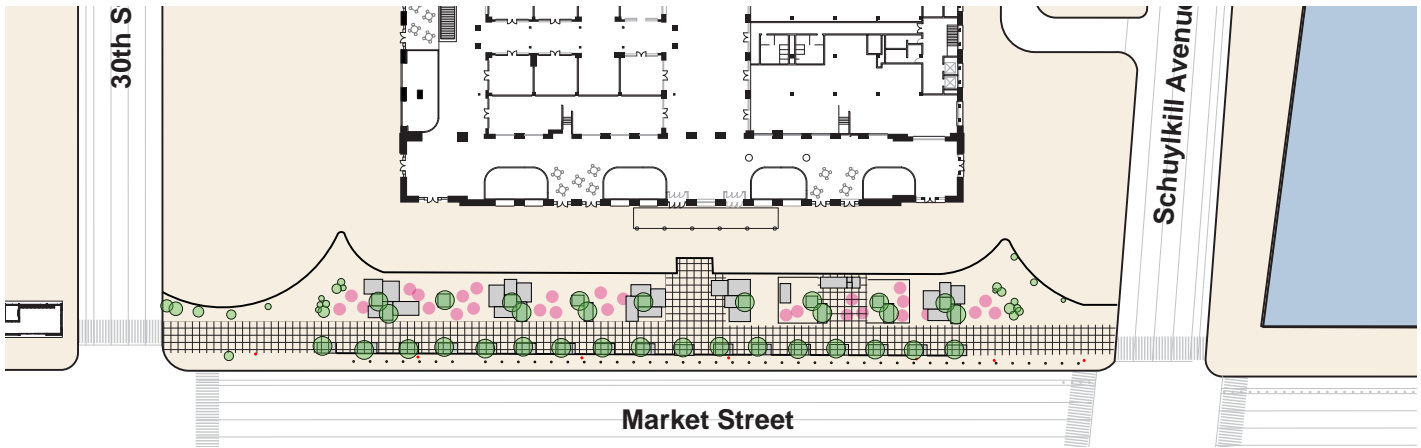
The north edge of the plaza, along Arch Street, is dedicated to private vehicle and car-share service pick up and drop off. This part of the plaza has minimal landscaping and pedestrian realm due to the narrow width. Potential exists for small planted areas due east or west of the drop off area.

Across Arch Street will be another, smaller plaza, a new bus terminal, and further building development. The District Plan placed the largest, tallest building directly on the other side of this north plaza. While not technically part of the Station Plaza, it is envisioned that the same landscape treatment would carry through the plaza area north of Arch Street to help create a consistent language and feel around the station. A one-way vehicular circulation loop off of Arch Street serves the bus terminal, the new development tower, and the Cira Centre and its garage. Within this loop a pedestrian area offers ample space for planting and seating. This area can be used in an interim stage as bus stop for 3/4 buses until the new terminal is built. Along the north edge of this plaza, ride share services will have designated parking of 21 spaces for staging and queuing.



Station Grove Looking East

Learning From the Porch



The Porch

The Porch, a University City District provided public space, has quickly become one of Philadelphia's most successful open spaces. The Porch has become a key gateway to the city and has become an animated and lively destination. The space converted what was a desolate parking lot to a thriving urban space. The Porch offers a wide array of lessons that should be acknowledged and infused in any future design.

Analyzing the porch goes beyond its tactical urbanism aesthetic and into the essence and goals of each element and the role each plays in creating a cohesive and inviting space. The Porch provides for a variety of spaces that appeal to all types of people, individual or group while not only maintaining but improving pedestrian access to the station. The Porch achieves this through a few

strategic moves:

- Provides multiple scales and locations of pedestrian circulation paths
- Provides a variety of surface materials, shapes, and elevations
- Includes multiple seating types, some static and singular others engaging and meant for groups
- Create multiple scales of urban rooms each with a unique spatial experience
- Allow for multiple scales of gathering, from individual reflection, small group conversing, and large group gathering.

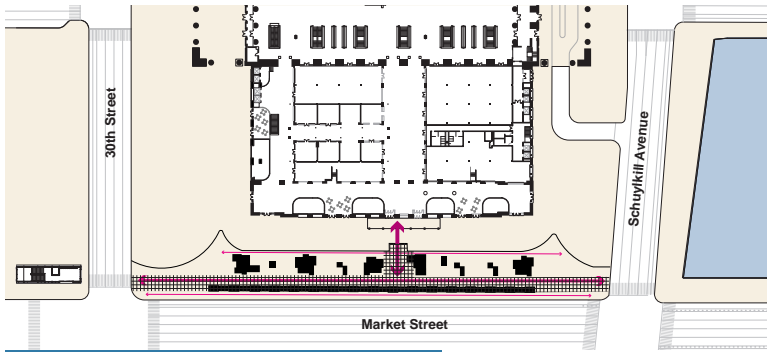
By designing the space using these key gestures The Porch is able to create spaces that are appealing to all walks of people, from commuters in a hurry, office employees on lunch, or students looking for leisure.



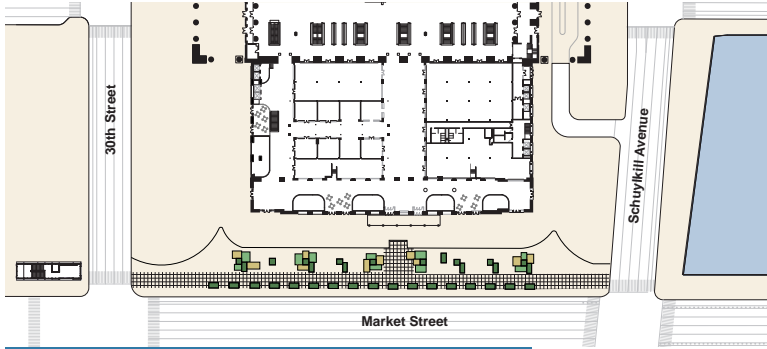
Elevated Seating for Intimate Gathering



Group Seating and Shade for Large Groups



Multiple Scales of Circulation Paths



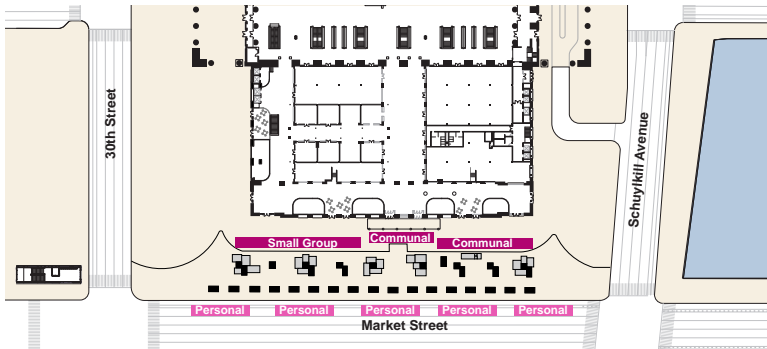
Variety of Surface Materials and Elevations



Variety of Seating Types, Static and Engaging



Multiple Scales of Urban Rooms



Multiple Scales and Types of Gathering Spaces

Retail Opportunities & Concourse Coordination

30th Street Station and Station Plaza offer numerous retail opportunities and a coordinated retail strategy and concept plan are being developed. Station Plaza plays an important role in the retail strategy, and retail offerings, both in the station and on the plaza will be essential to activating the plaza. Future retail offerings were integrated into the Concept Plan in three key locations:

1. Along the southern and western facades of the building, where interior retail is encouraged to engage with and spill out onto the plaza.
2. Stand-alone retail on the plaza in the form of kiosks. These kiosks are intended to be somewhat sculptural in form so that they will continue to have visual appeal even if they are not in use during the winter months.
3. The West Underground Concourse

In addition to these fixed locations, temporary retail such as food trucks or seasonal market stalls should also be encouraged on the plaza.

Station Spillover Retail

At plaza level, the station has the ability to open up and allow retail and dining to spill out onto the plaza. Along the southwest façade it is envisioned that some of the existing station windows could be sensitively adapted as doorways or operable windows that could be opened in good weather. This would allow for interior food sellers to have outdoor seating and tables on the plaza. This could effectively create double loaded retail both within the station and on the plaza itself.



The south façade offers a similar opportunity, and the Concept Plan designates an area along this façade for flexible seating intended for use in conjunction with interior retail. For both of these retail areas, seating might be communal, shared by multiple restaurants, or associated with a single vendor, depending on the ultimate retail strategy.

Kiosk Retail

The concept Plan integrates two kiosks as moments of “stand-alone” retail. The panorama

pavilion on the southeast corner of the station is intended to include a small kiosk facing the station. Though not intended to offer any interior space for customers, this kiosk would be poised to capture customer traffic traveling between the east portico, or the southeast station entry, and east-bound Market Street. A retail structure is also envisioned for the western edge of the plaza. A small structure, integrated with the concourse retail, would create a double-loaded retail zone directly south of the west portico.



West Underground Concourse

The District Plan called for a retail concourse underneath the West Plaza, using the space currently occupied by the rental car garage. This concourse would connect from within the station to a pedestrian connector beneath 30th Street connecting the station and plaza to the SEPTA Market-Frankford Line Station under Drexel Square. Although the three projects – the Plaza, the Concourse, and the Connector – had different timelines for implementation, all three were being designed simultaneously by different design teams. A set of guidelines were developed jointly by the three design teams to guide design of all three areas.

While the Plaza Concept Plan may not exactly match the concept design of the Lower Concourse, they share a common set of principles, and align in their primary configuration. It will be up to the teams tasked with more detailed design to resolve any minor differences or inconsistencies. The following principles reflect the common understanding:

1. A desire line exists between the southwest corner of the plaza and the west portico. The visual connection between the two should not be interrupted, and the physical path should remain unobstructed and relatively straight.
2. A retail kiosk element should occupy the area along 30th Street and south of the

3. West Portico. This physical “Pop Up” should frame the pedestrian route to the portico and create a double-loaded retail condition with the station. The height of this structure should be kept relatively low and the design visually minimal to not detract from views of the portico.
4. An opening in the plaza to the concourse level should bring light air and connectivity between the plaza and the concourse. This “Pop Down” should happen south of the “Pop Up”, without obstructing the connection between the southwest corner and the portico.
5. If the “Pop Down” includes a vertical connection (stair, escalator, or elevator) it should be accessible from either the northern or southern approach, so as to encourage both those coming and going to access the concourse level. Escalators must be sheltered.
6. The southwest entry to the station should be maintained as an entryway.
7. The SEPTA Connector should strive for the shortest possible travel distance at the lower connector level. Vertical circulation between the concourse and the connector should thus be as far west as possible.
8. A vertical connection between the concourse and the station should happen either within the main hall, or along the southwest façade, or both.
9. The southwest façade should open to the plaza with retail uses.

Landscape

30th Street Station, listed on the National Register of Historic Places since 1978, is widely considered to be one of the most impressive, multi-modal transportation landmarks in the United States. The combined ambitions of Amtrak, SEPTA, the City of Philadelphia, and other private and institutional stakeholders to develop 30th Street Station into the epicenter of a dynamic, urban neighborhood full of opportunities for community development, economic development and improved transportation, underscores the importance of a thoughtful, functional, and innovative landscape strategy for Station Plaza.

Grounding one of Philadelphia’s architectural treasures

The challenge of the 30th Street Station public realm can be seen in various depictions of the Station. Historic photographs and illustrations reveal 30th Street Station standing in a vast, undefined, scale-less plane of concrete and asphalt. The site is located along the Schuylkill River, just West of Downtown Philadelphia at the terminus of the John F. Kennedy Boulevard Bridge, and is bound on the south by Philadelphia’s iconic Market Street. Despite this prime location, 30th Street Station was never well integrated into the fabric of Philadelphia. The building merely served as a (stunning) architectural “cap” to converging subterranean networks and infrastructures. Today, the building remains relatively alienated from its urban context, void of the physical environment needed to support and promote a vibrant public realm.

Principles & Components of the Design

The Concept Plan and design guidelines introduce ideas to vitalize the unused and unappealing urban spaces immediately surrounding 30th Street Station, and to establish them as places where the surrounding community can develop its own voice. Such attention to the needs of the community can strengthen support and expand the social, cultural and economic vibrancy of 30th Street Station.

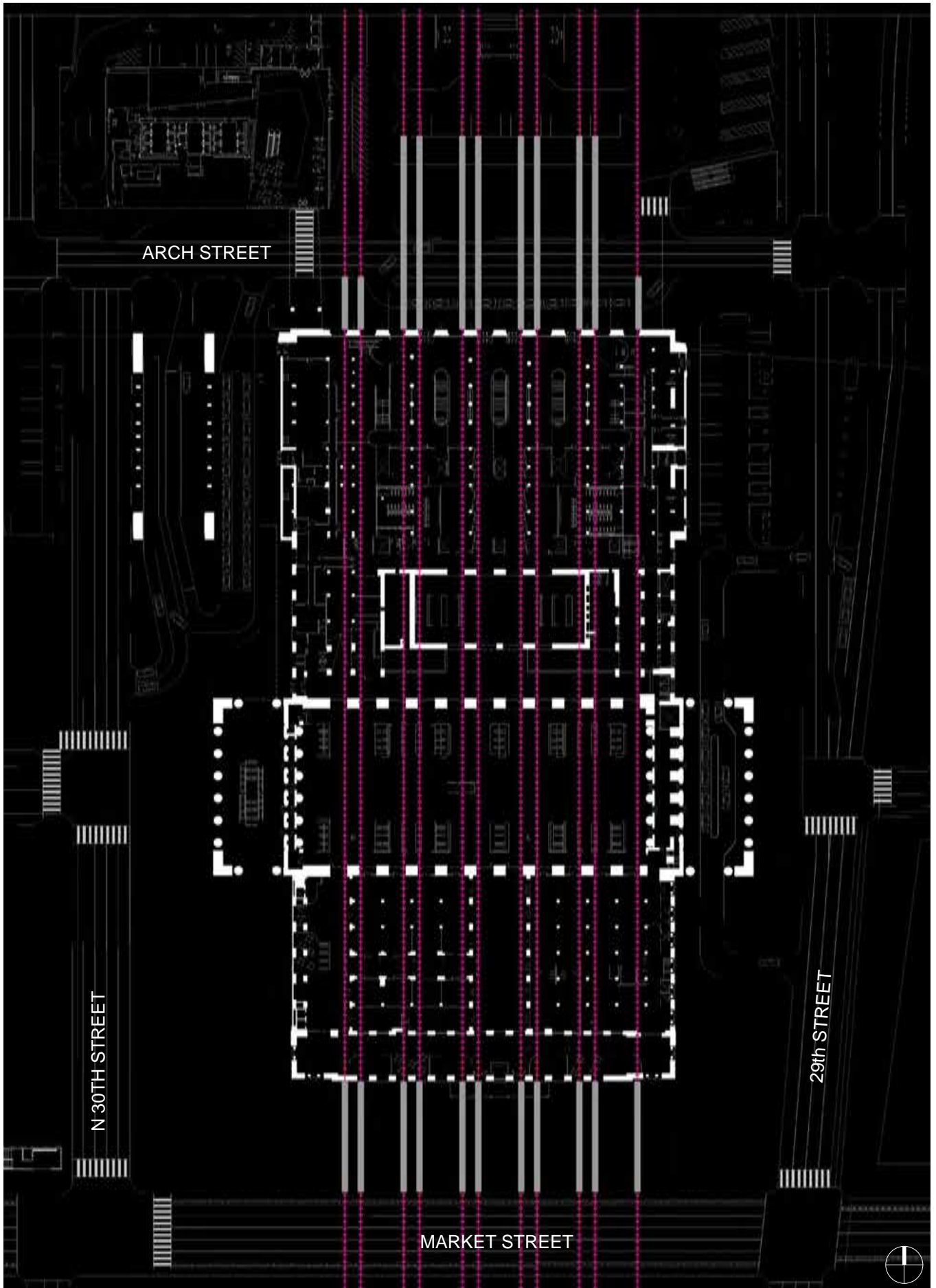
The following elements of the Concept Plan will be addressed in more detail in the Design Guidelines: paving pattern and system, elevated planters and planting, landscape elements such as skylight and concourse openings as well as water features, program elements such as kiosks and pavilions, furniture (movable, fixed, integrated), and lighting.



Idealized plan of Philadelphia (1802)



Historic depictions of 30th Street Station (1970s photographs and postcard)



ARCH STREET

N 30TH STREET

MARKET STREET

29th STREET



Rail lines used as rational to unify plaza and create paving pattern language

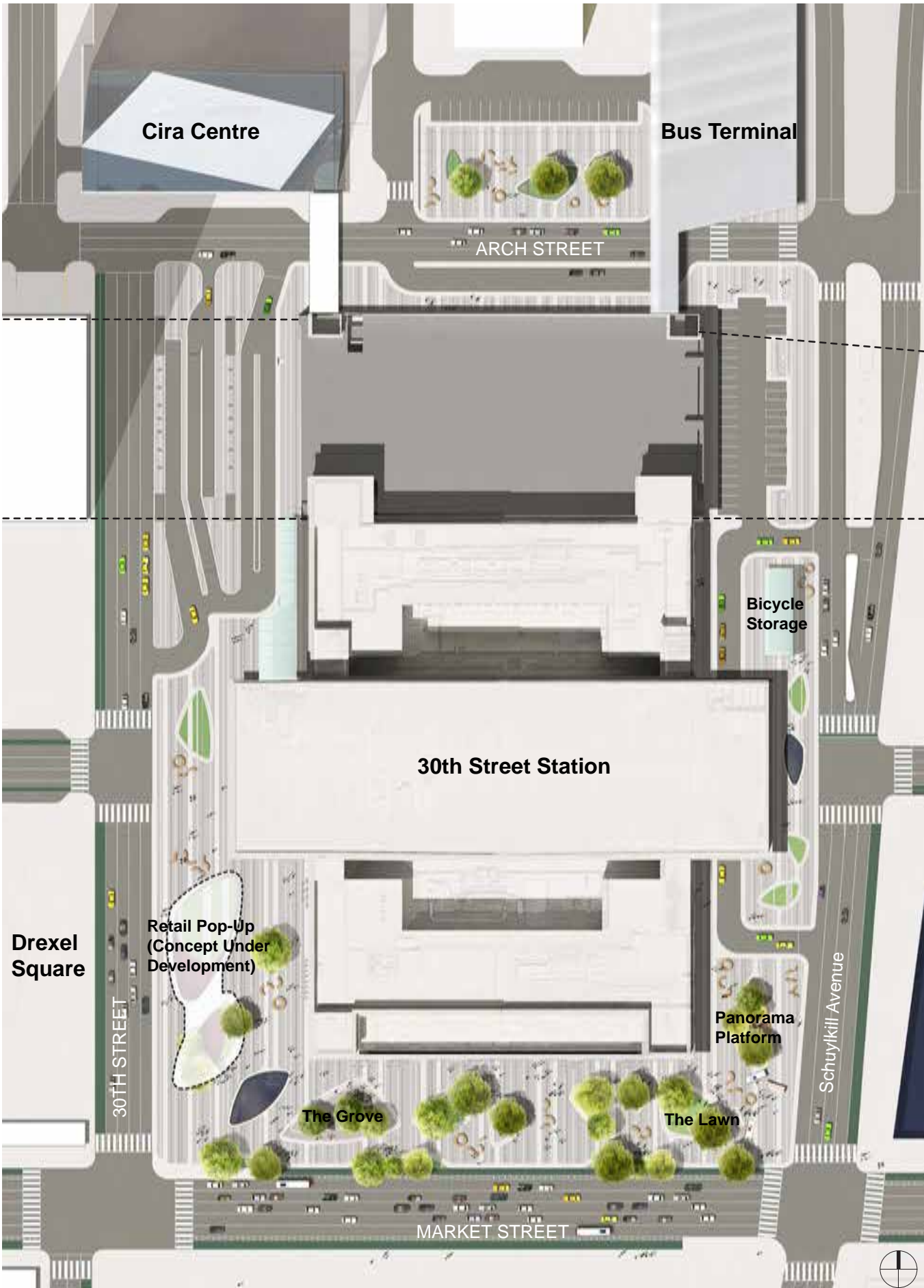
----- Rail Line beneath station ——— Pavement at Plaza Level

Landscape Principles

30th Street Station is a monumental and significant piece of civic architecture within the urban fabric of Philadelphia. Despite this, the Station has never received the proper “grounding” as provided by an appropriate public space. Unlike many examples of classical architecture, or even modern stations throughout the world, today 30th Street Station sits orphaned by the patch-work of materials and circulation that surrounds it. In order to create a unified and enticing public space, the following aspects should be considered:

- Pavements: Create an historically harmonious, durable, and textural ground plane that acts as a “carpet” to unify the entire precinct of Station Plaza.
- Plantings: The plant palette and configuration should create an environment that is welcoming and which provides ample microclimate while preserving historically significant views. The selection of trees should be hearty large and grand in their spread, in order to match the scale of the station, and the ground plantings should be mostly evergreen to allow for winter appeal. In addition, there should be comments of color and botanical delight, as achieved by flowering perennial shrubs and flowers, as well as comfortable areas of lawn that visitors can sit on.
- Configuration and Programming: The configuration of all plaza elements should be derived from a logical analysis of current and projected pedestrian usage, as well as the impact of vehicular circulation both surrounding and within the station precinct. There should be focus on seasonal adaptability, socialization and intimacy, as well as memorability and the feeling of “wanting to return” to Station Plaza.

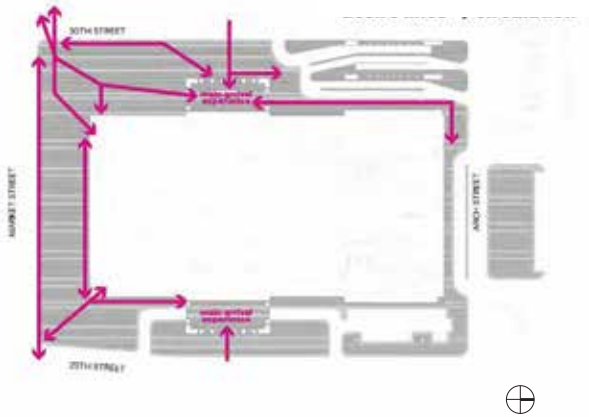




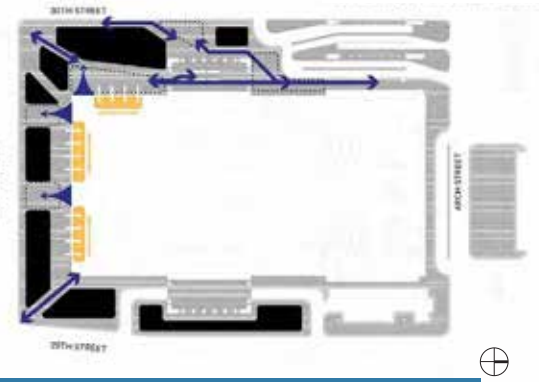
Illustrative site plan

Urban Rooms

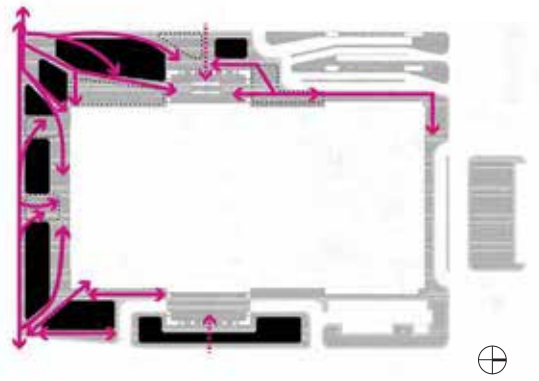
In order to properly configure and curate the public space at Station Plaza it is necessary to first understand the pedestrian flows of traffic and their interface with the station entrances and potential future interior programming. The series of diagrams below explains the multi-step process to analyze these considerations and derive the resultant “urban rooms” and formal language of the primary landscape plaza components.



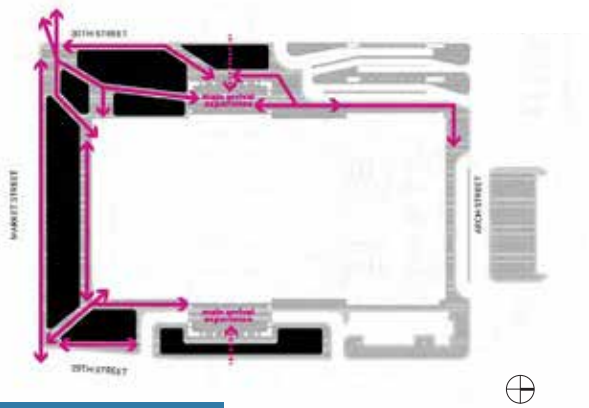
1- Desire Lines and Primary Circulation



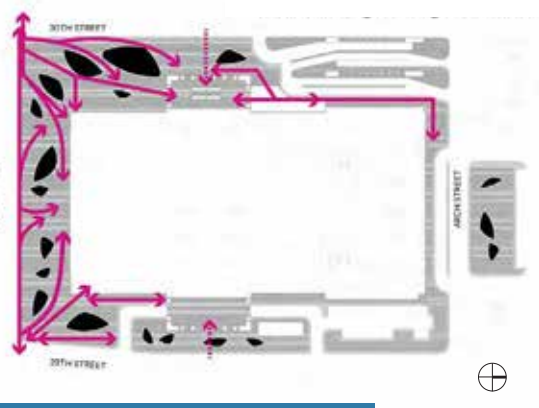
4- Urban Rooms and Architectural Thresholds



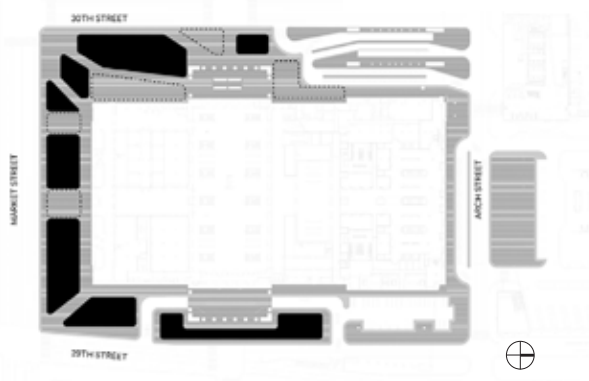
5- Urban Rooms and Circulation



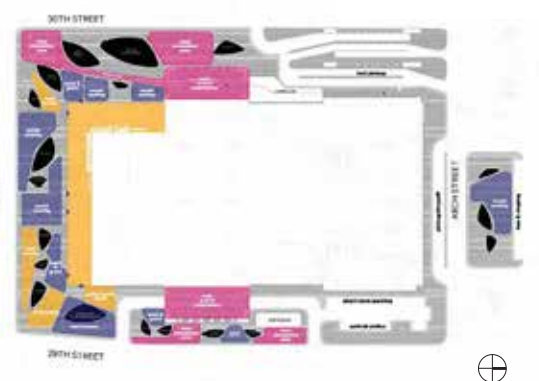
2- Remnant Spaces



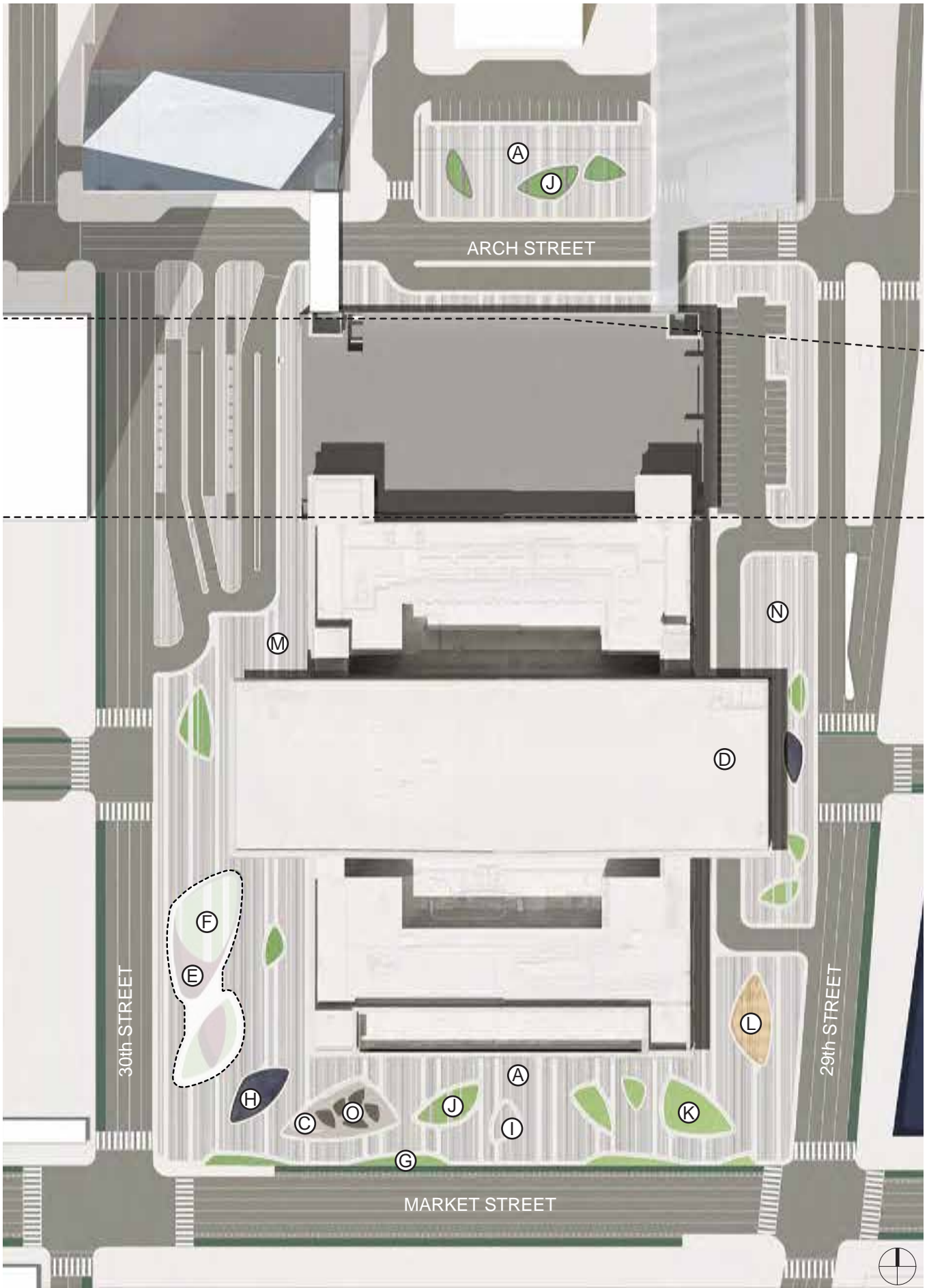
6- Resulting Forms from Circulation



3- Creating Urban Rooms



7- Program Elements



Layout and Materials Plan

- | | | | |
|---------------------------------------|---------------------------|------------------------------|--------------------|
| A. Unit Pavement (low build-up) | E. Lower Concourse | I. Elevated Plaza | M. Taxi Canopy |
| B. Unit Pavement (high build-up) | F. Pop-Up Pop-Down Retail | J. Raised Planter | N. Bicycle Parking |
| C. Decomposed Granite (high build-up) | G. Market Street Feature | K. Lawn | O. Seating Bosque |
| D. Vehicular Unit Pavement | H. Water feature | L. Panorama Platform Terrace | |

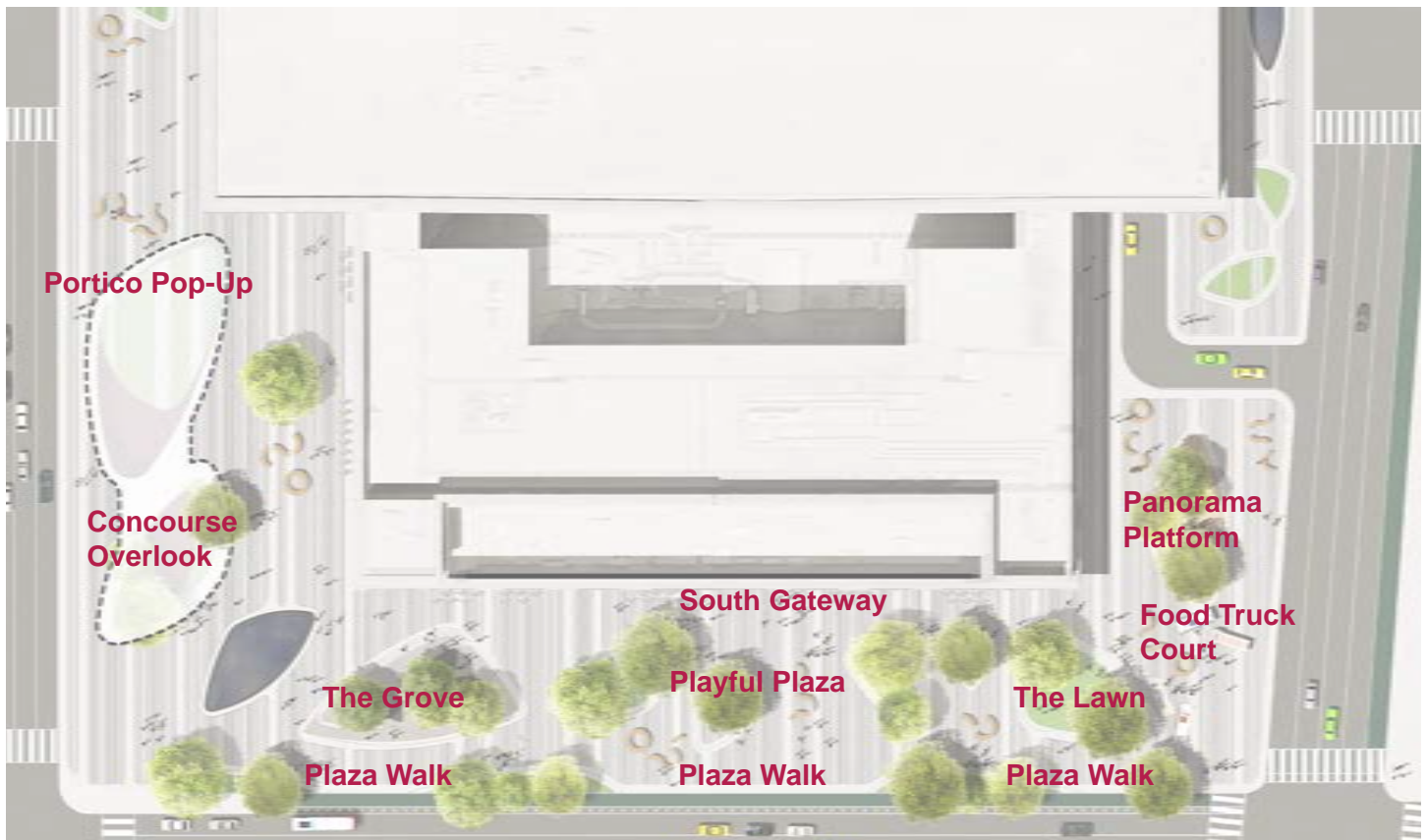
Plaza Character and Identity

In addition to acting as an urban carpet and a unifier for the station and the district, Station Plaza must create imageable and memorable places that become destinations and attractors in and of themselves. The plaza needs to balance the goal of permanent placemaking with the necessity of flexibility and long term growth.

Station Plaza achieves this balance by strategically deploying a set of landscape elements. These elements range from a grove of trees, a grass lawn, to water features and an iconic elevated viewing platform; though uniquely different each of these elements is nested in a common aesthetic and geometric language. This language resonates through the implementation of the elements and into the primary plaza element, the planter. The planter is the primary piece which is used frequently to defined edges, guide pedestrians, and create multiple scales of urban rooms. The more iconic elements are then dispersed across the plaza ensuring

that each side of the plaza has a destination. The combination of the planters and the larger programmed elements allows for the creation of smaller spaces that vary in shape, size, and level of intimacy. These smaller spaces created between elements allows the opportunity for the plaza to accommodate growth in passenger usage over time, various temporary program elements across the plaza, and adapt to the changing needs of the pedestrian.

To supplement the larger space-defining elements 3 types of seating are used to help activate the spaces and provide additional character. Moveable tables and chairs are used to allow users to define their own spaces and add to the flexibility of the plaza. Semi-movable custom benches are used to define a smaller scale of space and to be an iconic element of the plaza.



Landscape Elements

Elevated Planters

Planters are uniformly elevated 30 inches from finished grade. This height is necessary because the structure of the deck supporting the plaza does not allow for sufficient soil depth to support the desired planting. It will also discourage people from walking on the planters, which is optimum for plant health and landscape maintenance. The planter's perimeter retaining wall is comprised of pre-cast concrete units with a quarter-round cross-section.



Elevated plaza plaza with art



Typical planter

The planting palette is intended to be simple for both visual and maintenance considerations. All shrub material is evergreen, and oriented in bands that correspond to the pavement pattern, with intermittent perennial flowering shrubs to infuse the pattern with color and variety in texture.

Water Features

There are two water features at Station Plaza, with one located at the southwest corner, at the intersection of 30th Street and Market Street, and the other located in front of the east portico, on axis with JFK Boulevard. The water features are used to mark and enliven these two key areas of the plaza. The east portico water feature helps terminate the JFK boulevard axis; the intent here is to create a pedestrian-scaled element against the grand scale of the portico as well as to create something that both marks the formal axis of the portico entrance, and transitions to the free-form, playful elements of the plaza design by avoiding a symmetrical composition.

These water features are intended to be dynamic in the respect that they are pleasant in appearance year-round. During warm months, the water features provide programmable water jets that apply water onto a shallow granite table



Typical water feature

with a slight incline, creating sound and providing a constant shimmer of flowing water. In the winter months, the natural stone and detailing of these elements will remain attractive, even if non-functioning as a water feature. However, it is possible, even with the slight incline present for their summertime operation, to place seasonal objects in these areas during the winter.

Market Street Edge

In order to create a comfortable level of separation between Station Plaza and traffic along Market Street, a series of planters are placed at to the very edge of Market Street. This buffer has several functions:

1. Provide sound mitigation
2. Enhance a sense of intimacy in the main east-west circulation route at the southern edge of Station Plaza
3. Provide an enhanced experience within the bike lane corridor
4. Extend vegetation as far to the boundary of Station Plaza to emphasize a presence on Market Street

The Market Street side of the planter walls uses perforated metal paneling, rather than stone, to allow for operation of a lighting element that engages with Station Plaza and Market Street

in an interactive manner. This perforated metal material could also be extended between the planters as a fence or bollards in order to create a greater separation between Market Street and Station Plaza, and to prevent Market Street from being used for passenger pick-up/drop-off.

The Grove

The Grove is intended to create a series of intimate spaces and seating, somewhat removed from the flow of pedestrian traffic on the rest of the plaza. A change in grade, and partial screening using plant material, are essential to this concept. Seating here is arranged in small-scaled groups or clusters to encourage individual repose or small-group social interactions.

This elevated seating area is accessible by both ramp and steps, and has an overall uniform height of 24 inches above finished grade. The perimeter retaining wall is comprised of pre-cast concrete units with a quarter-round cross-section. The pavement on the elevated surface is stabilized, decomposed granite. Fixed benches with a height of 18 inches are placed throughout the seating area to establish an intimate sense of space within the larger context of Station Plaza.



Market Street interactive feature



Bosque seating area

The Lawn

The Lawn is intended to be an open and accessible area of green space, providing a space for repose. In contrast to The Bosque, this area is intended to be more open and exposed, with strong visual connections to circulation routes. In this location, the plaza's users are encouraged to come into direct physical contact with plant material. It is envisioned as being flexible for passive recreation - from group picnics to individual sunbathers. However, both the geometry and the size of The Lawn are intended to discourage more active recreation (e.g. games of catch).

The Lawn features a variation of the Station Plaza planters, whereby the Lawn area is concave in shape in order to create two coplanar touch-points with the plaza pavement to allow for accessibility. The surface of The Lawn will flare up on two sides, with one reaching a height of the 30 inches above finish grade (a typical planter height), and the other reaching no higher than 48 inches above finish grade.

Together with the Panorama Platform Viewing Deck and Kiosk, The Lawn will create a programmatic anchor at the southeast corner of Station Plaza



Lawn

Panorama Platform Viewing Deck & Kiosk

One of the most underutilized assets of the current plaza are the phenomenal views it offers of the Center City skyline. The Panorama Platform is intended to focus on this dramatic vista, providing theater-like seating and a privileged, elevated viewpoint. The Panorama Platform provides integrated bleacher seating intended to act as a viewing deck for uninterrupted views eastward. It can be used as a place of contemplation for the urban majesty of the city, as a tourist destination for capturing a selfie photo with the skyline as a backdrop, or as an informal theater for street performers.

Integrated into the Panorama Platform is retail kiosk underneath its elevated edge that activates the southeast corner of Station Plaza. This kiosk will have an enclosed storefront with climate-controlled interior, and will provide electric and/or gas service, as well as city sewer stub-ups in order to accommodate a full tenant fit-out. The operation of this kiosk may be seasonal, and the portion facing the stations should be attractive even when not in use as a kiosk window



Panorama platform viewing deck

Design Elements

Tables and Chairs

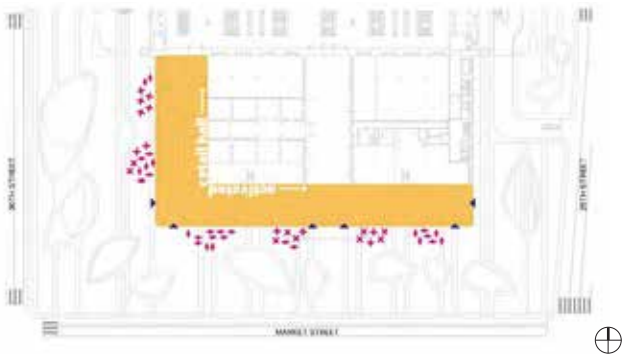
Appropriate Site furniture is critical to the ongoing success of any public space. In the spirit of William Whyte's seminal book, "The Social Life of Small Urban Spaces," Station Plaza must provide opportunity for moveable furniture and other seating opportunities to foster socialization and respite.

Moveable cafe tables and chairs are useful in that they allow for a maximum amount of flexibility within the space. The diagrams below depict three possible configurations for these furnishings on a day to day basis. The tables and chairs themselves should be constructed of high quality materials that resist daily wear and tear, as well as inclement weather. The furnishing should also have relative weight to dissuade theft and to prevent movement from strong winds.

Movable Tables and Chairs Arrangements



Diffused Arrangement



Clustered Arrangement



Linear Arrangement



Table and Chair Appearance



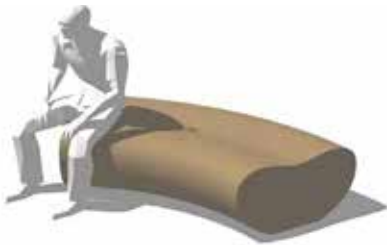
Overall View - Furniture Layout (Custom Bench)



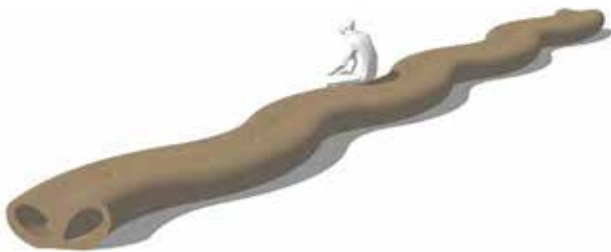
Overall View - Movable Tables and Chairs

Custom Benches

In addition to movable tables and chairs, the plaza should also feature playful and reconfigurable benches. Some of various possible configurations are shown below, and highlights the adaptability of what is, in fact, a single bench segment. The different arrangements range from creating linear “barriers” to help steer pedestrian traffic, to more loose and clustered arrangements that help to randomize the plaza geometry and experience. The benches themselves should be heavy enough to not be movable without equipment, but light enough that seasonal, or even monthly adjustments can be implemented by the Station management.



Singular



Linear

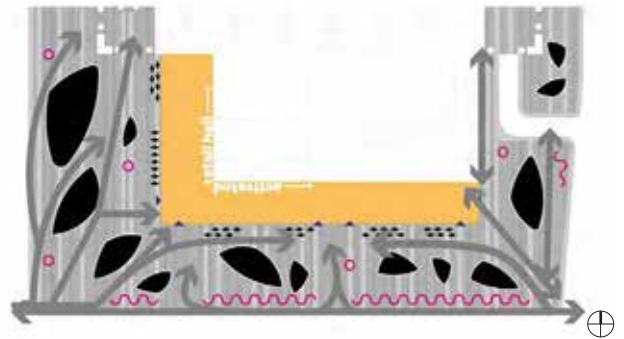


Open

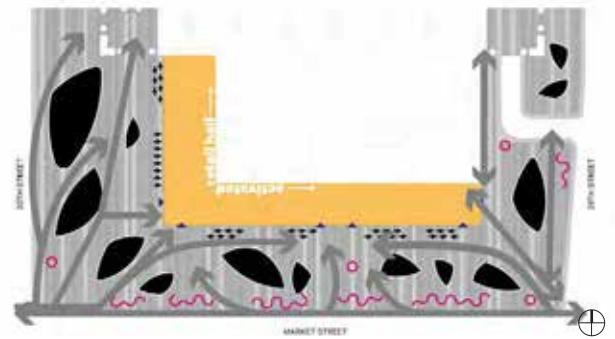


Closed

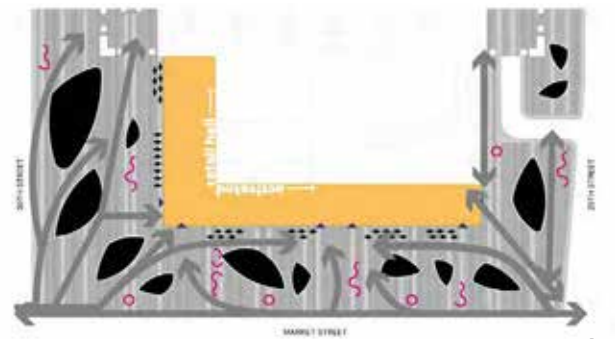
Custom Benches Arrangements



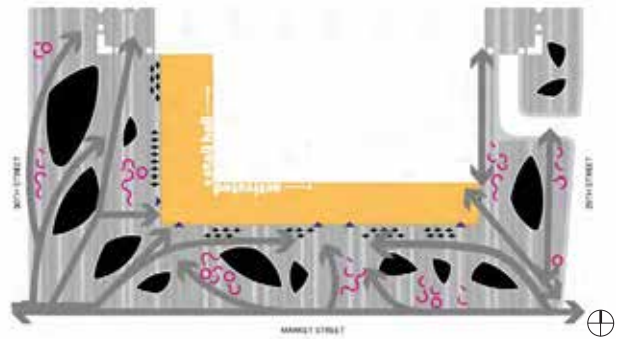
Linear Arrangement



“Loose” Linear Arrangement



Aligned with Paving Arrangement



Clustered Arrangement

Next Steps

The Plaza Concept Plan lays out the basic design intent, parameters, and reasons for the design choices made. The accompanying design guidelines provide greater detail on the design, including dimensions, materials, and more detailed description of key elements. It is understood that the design may alter as it is developed by others in the future, but it is expected that the spirit, intent, and general configuration described here will be maintained as the design evolves. Amtrak will seek a Master Developer relationship for development of the station and the surrounding area, including the plaza.

Plaza Management

Outside the scope of this study was an operations or management plan for the plaza. While ease of maintenance of Station Plaza and its programmed elements was considered from a design standpoint, broader questions of the management structure, maintenance and programming responsibilities, potential revenue or funding sources for ongoing operations was not considered. An understanding of who will maintain, clean, and repair the various elements on the plaza, who will create seasonal programming, as well as determining who will monitor and control vehicle operations like the taxi pick up and queuing, still needs to be determined. It is recommended that such a plan be developed in conjunction with the next phases of design.

Ongoing Coordination and Further Study

Amtrak currently has a number of ongoing and proposed studies and projects that will need to be closely coordinated with Station Plaza. These include:

- West Underground Concourse and station Retail Strategy. This study is expected to produce a concept plan that will need additional coordination with the plaza design
- SEPTA Underground Connector.
- North Concourse design.
- PennDOT Access Point Study
- PennDOT review of on/off ramps
- PennDOT review of two-way traffic
- Station redevelopment Master Developer procurement

Though this study took into account a broad range of analysis, it was accomplished at the conceptual level, and there are areas whose depth or breadth were outside of the scope of this study. As the design is advanced, these studies should be included:

- a deeper structural and loading analysis for the deck system
- Trip count by use study to measure number of riders coming to and from the SEPTA Market-Frankford Line, taxi vs ride share users, and actual destination upon leaving the station.
- A traffic analysis with a broader study area to understand impacts on and from a wider network of roadways
- A safety and security assessment incorporating mitigation measures and existing security design standards (likely part of the preliminary engineering design phase of the project)
- Signage and wayfinding
- Plaza operations and maintenance



Conclusion - Vision

This study is the next step forward towards a world-class public space and efficient front door for 30th Street Station. The plan both fixes many of the deficiencies experienced today and addresses future needs. As passenger numbers increase and the district around the station continues to develop, the importance of Station Plaza will only grow. Station Plaza must become an organizer and beautifier of numerous modes of transit, passenger movements, and public space.

The Concept Plan offers both a vision for a gracious public space and set of practical solutions

for an efficient transportation hub. The Plan proposes an exciting new front door to 30th Street Station that provides clear connectivity for passengers, and an open space that enhances the neighborhood. The plaza design unifies the public realm while embracing a variety of spaces, programs, and experiences, to serve a wide range of users. With this plan, the plaza can fully realize its potential as a nexus of growth for Philadelphia. This Concept Plan offers both a vision and a practical set of plans for an efficient, lively, and beautiful public space worthy of the station and the city.



Appendix: Design Guidelines

A. Purpose of Guidelines

B. Guiding Principles

C. Details

Purpose of Guidelines

The ultimate design of the Station Plaza may differ from the Preferred Concept Plan in order to respond to the future evolving states of the district. These Design Guidelines for 30th Street Station Plaza are meant to ensure the future development, and ultimate implementation, of Station Plaza will follow the Amtrak and project stakeholder needs identified in this report.

Pedestrian and vehicular circulation are the two primary drivers in organizing the plaza, and set the framework that all other pieces of the plaza fit

within. As a direct result of accounting for vehicle and pedestrian requirements, the Design Guidelines describe both urban design strategies and technical requirements for construction. They are intended to allow for some variety of design aesthetics and articulation, but maintain a consistent intent regarding pedestrian and vehicular flow, key dimensions, and pedestrian experience, with the intent of situating Station Plaza as the premier public space for both travelers and the neighborhood.



Guiding Principles

Program

The program at Station Plaza should remain flexible and adaptable for change and growth over time. A few primary principles, however, should be maintained:

- Taxi pick up should be located away from other vehicles under the west SEPTA overpass to avoid conflict between different vehicular circulation types and take advantage of the underground garage for queuing.
- The west portico should be vehicle-free and open to pedestrian flow.
- Any landscape elements or kiosks on the west plaza should not obstruct visual connection to the west portico nor physical movement to the portico or the southwest corner door.
- The west plaza should maintain the ability to have a retail pavilion south of the portico which is light in structure and construction and does not impede physical or visual connections.
- Planters and landscaping should define pedestrian flows and should not create pinch points or overly constrict pedestrian flows.
- The north plaza should maintain a minimum -foot wide, unobstructed pathway between 30th Street and 29th Street along Market Street.
- Elevated planters and landscaping, which are able to be occupied, should define the southwest and southeast corners of the plaza around the station. Between these two planters should be multi-scalar spaces containing areas for intimate repose, social gathering, and program activation.
- The area along the southern edge of the station should remain free of obstructions and available for retail activation along the façade.
- The southeast corner along Schuylkill Avenue should have a raised element which provides areas for repose and viewing the Philadelphia skyline.

- The east portico should maintain a driveway providing taxi and private car drop-off space.
- A large protected bicycle parking garage should be located on the plaza convenient to station entrances but where it doesn't interfere with vehicular or pedestrian circulation.
- Short term parking should be sheltered and can be located in more than one location to allow differentiation of allowed parking time.
- The north side along Arch Street should allow for private car and ride share pick up/drop off.
- The north side of Arch Street should be a public plaza incorporated into the landscape language and circulation patterns of Station Plaza.
- The garage area beneath the west plaza should be used to reduce vehicles on the plaza. It can be used for taxi queuing, short term parking, executive parking and limited loading.
- The plaza should engage the station, framing views and allowing retail spillover onto the plaza.

Views

30th Street Station is a monumental and historic structure and views of the station, specifically of the grand porticos, should not be obstructed by buildings or tall landscape elements. Views should not only be maintained, but encouraged and framed to enhance the visual presence the station commands.

The plaza, with its location on the edge of the Schuylkill River, also presents opportunities for views out towards the city. Opportunities for views to the downtown skyline, Philadelphia Museum of Art, and the Schuylkill River corridor should be maintained and promoted. The plaza's design should be unique and identifiable, but should maintain its role as a backdrop to the historic station and the city's skyline beyond.

Spatial Character

The plaza must provide the setting for the historic 30th Street Station and its monumental and recognizable architecture. As such it can be understood as a field on which the station sits as an object. Key design elements, such as a continuous paving pattern, help to emphasize this role. The aesthetics and character of Station Plaza must not compete with the grand architecture of the station, but should still be a unique attractor in and of itself.

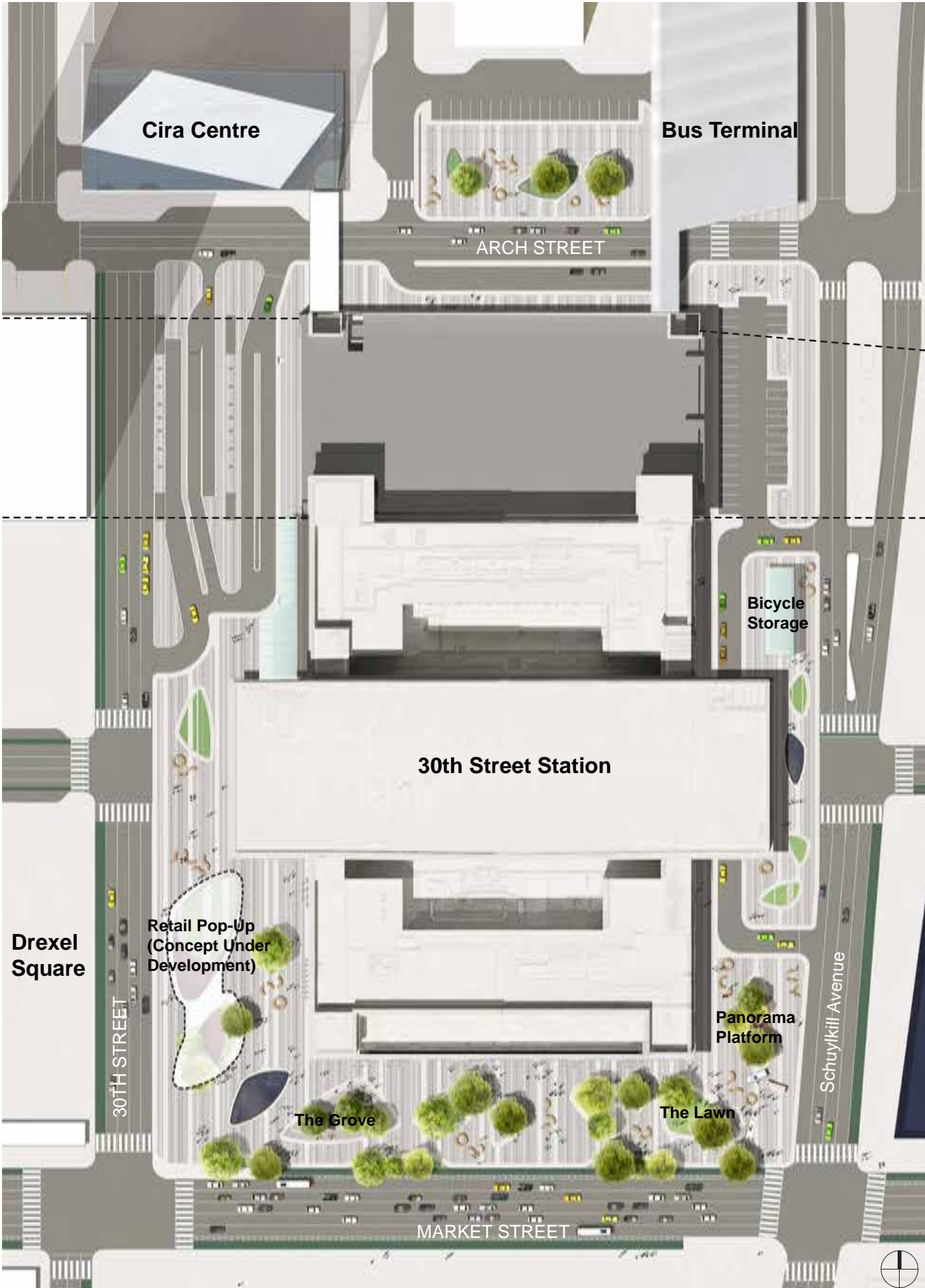
At the same time the plaza must offer a variety of scales and types of spaces that support a range of activities. Foremost of these activities providing clear connections and easy circulation. Sightlines that aid in wayfinding and easily traversable surfaces are essential.

In addition the plaza must embrace a range of other activities, including leisure and social activi-

ties, at a range of scales. The landscape, paving, seating, and objects within the plaza should all work in unison to create a network a multi-scalar spaces, each with its own identity but working together. There should be spaces suited for individual reflection, small group socialization, and large group gatherings. Space should be articulated with a mix of soft and hardscape, seating, lighting, and shade-providing elements. Spaces which facilitate circulation should be wide and avoid pinch points for pedestrian flow, and should also be treated in a similar way to the urban rooms, with a mix of hard and soft scape.

Lastly the plaza should feel inclusive and open to all. By providing a variety of spaces from open to semi-enclosed, using touch-friendly materials, including plenty of places for people to sit or recline, and avoiding dead-ends or cul-de-sacs, the plaza can feel like a welcoming and shared space for a diverse population.





Cira Centre

Bus Terminal

ARCH STREET

30th Street Station

Bicycle Storage

Drexel Square

Retail Pop-Up
(Concept Under Development)

Panorama Platform

The Grove

The Lawn

MARKET STREET

Schuylkill Avenue



Historic Preservation

Historic Overview

Philadelphia's 30th Street Station, by the Chicago architectural firm of Graham, Anderson, Probst and White, was constructed from 1929 through 1934. The building was designed at a monumental scale, centrally located on a city block, bound by Arch Street to the north, Market Street to the south, 29th Street to the east and 30th Street to the west, and encircled by vehicular access lanes and parking, with elevated regional rail lines to the north. The most prominent exterior features of the Neoclassical style building are the 116 feet high unpedimented porticos, centered on the east and west façades, creating visual termini to JFK Boulevard in both directions. The porticos also serve as porte cochères that provide the primary access pathways into the station, facilitating ve-

hicular passenger pick-up and drop-off. In recognition of its significance, the site was listed in the National Register of Historic Places in 1978 for its architectural significance and significance in urban planning. (Following the initial listing, there were National Register boundary modifications to include secondary buildings associated with the rail yard to the north.) With information largely based upon the 1978 National Register nomination, the site was listed in the Philadelphia Register of Historic Places in 1980, with the subsequent individual designation of The Pennsylvania Railroad War Memorial (the interior statue located towards the east end of the concourse) in the Philadelphia Register of Historic Places in 2001.



Site Modifications Over Time*

30th Street Station was designed as an intermodal transportation hub, and the site was conceived to bring multiple types of transportation together, including:

- East (29th): Vehicular access
- South (Market): Elevated Market-Frankford Line, streetcars
- West (30th): Taxi service through portico
- North (Arch): Elevated suburban rail with bus service at grade
- Roof: Small aircraft landing on central east-west roof (heliport)
- Below: North-south through-track service; parking

It is unclear as to whether the full range of transportation options was realized, particularly the aircraft landing on the roof. It should also be noted that one of the features that was conceived in the original design, although never executed, was the installation of an exterior stair within the west portico down to the lower level.

Although the exterior of the station building and elevated suburban rail platforms have remained largely unaltered, historic photographs indicate that the surrounding site has been transformed several times, with the changes primarily geared towards managing automobile traffic, both private and taxis, as well as parking.

This has included altering vehicular traffic flow and parking arrangements, with little to no landscaping or trees until the 1980s (based upon available aerial photographs).

Furthermore, the most significant urban design / landscaping alterations occurred south side of the building. These included the 1956 removal of the elevated Market Frankford Line following the opening of the subway in 1955, and the installation of The Porch, an urban space created in 2011 by PennDOT and the University City District, along the Market Street apron.

Because of the intensity of prior alterations, the Secretary of the Interior's Standards for Rehabilitation are appropriate to review the proposed site modifications.

Proposed Site Interventions

The proposed modifications to the site included in the October 30, 2017 report would shift the current vehicular emphasis to one that is more pedestrian friendly, particularly at the southern third of the site, essentially expanding 2011 The Porch. Many of the alterations would occur at or near grade. These include varied granite paving patterns that reflect the location of the north-south through tracks below, the 18" high granite planters and fountain that organize pedestrian flow.



30th Street Station shortly after construction

* The historical information presented in this document is based upon information found in the Philadelphia 30th Street Station District Plan as prepared by BCA, dated August 12, 2015.

There are several elements proposed in this design that rise above grade, including:

- Trees: Generally located along south end of site with a couple of trees framing the east portico
- Wood Light Masts: Shaft with a steel base and directional lighting located at the south, east and west elevations
- SW Corner Pop-Up Zone: Primarily glazed with a sloped, green roof and a maximum height of 18'-8" above grade, located 100 feet from building
- West Taxi Canopy: North of portico, glazed roof structure with an independent structural steel support structure
- East Bike Shelter: North of portico along 29th street, glazed, freestanding structure
- SE Viewing Deck: Freestanding wood bleachers flanked by stairs located 40 feet from building, with precast panels enclosing café below, rising to a maximum height of 9'-9"
- West Portico Stair: Stair with glazed guard rail located under the west portico

The Philadelphia 30th Street Station District Plan*

The Philadelphia 30th Street Station District Plan primarily focuses on the building and provides a brief overview of the site. As part of the building evaluation and approach to future work, it designates the east, south and west exterior elevations of the station and the suburban elevated platforms as Zone 1, which recommends the preservation and maintenance of character defining features and special relationships.

By contrast, based upon the level of previous interventions, the site should be characterized as Preservation Zone 3:

These areas contain few, if any, character-defining features and therefore do not contribute to the historic or architectural significance of 30th Street Station. This zone also contains spaces or features that were constructed outside the period of significance. Due to their low significance, these areas can be altered to meet contemporary needs....

Treatment Recommendations for Preservation Zone 3:

1. Renovation as needed for new uses is appropriate for Zone 3 spaces.



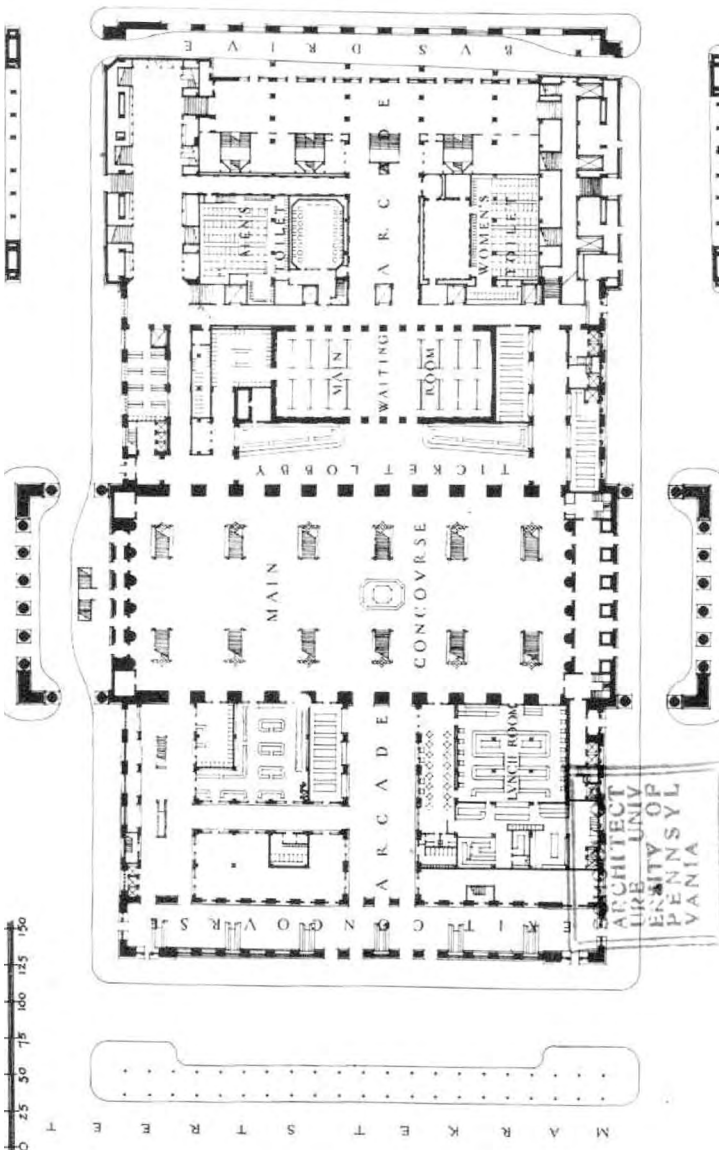
2. Consider restoring Zone 3 areas to their original appearance or use, if this approach would support the station's functional and programmatic needs.
3. C. Any proposed work in Zone 3 needs to consider visual impacts or other indirect effects on adjacent Zone 1 and Zone 2 areas. Changes made to exterior Zone 3 spaces should also be respectful natural light in adjacent Zone 1 and Zone 2 areas, where appropriate.

The proposed modifications at the site meet the Preservation Zone 3 treatment recommendations by renovating the site for new uses in a manner that “support[s] the station’s functional and programmatic needs”, minimizes the visual impacts

on the adjacent Zone 1 elevations, and is “respectful [of] natural light in adjacent Zone 1 and Zone 2 areas”.

Potential Historic Impact of Proposed Interventions

Since the 1930s, there have been ongoing physical alterations to the site surrounding the building and platforms to facilitate public access. With the exception of the historic station building, elevated suburban rail platforms to the north and the definition of site’s perimeter curbs, it is not clear whether any of the original site features remain. As such, the evaluation of the proposed modifications has been limited to the potential impact on the remaining historic resources, namely the station building and platforms.



The proposed site features, namely the paving patterns, planters and fountains are all located at or near grade, and therefore will have little to no impact on the integrity of the historic resources. Trees are largely set back from the building except for those flanking the east portico, and have little impact on the historic integrity of the historic resources. The impact of trees flanking the portico can be further minimized by either being shifted away from the portico, or a selecting a species that would limit the overall height, spread and density of the canopy to maintain the axial, spatial relationship of the portico from JFK Boulevard from the east.

The west taxi canopy is in close proximity, although physically independent from, the historic building elevations. As proposed they are clearly modern interventions composed largely of glazing with a minimalist metal frame supporting the canopy that will have little impact on the historic integrity of the historic resources. All remaining proposed interventions are set back from the station building and elevated rail platforms, and have modern, minimalist designs that will have little impact on the historic integrity of the resources.

The site interventions as proposed meet the Standards for Rehabilitation.

* The historical information presented in this document is based upon information found in the Philadelphia 30th Street Station District Plan as prepared by BCA, dated August 12, 2015.

A. Pedestrian Circulation

Circulation paths

- Preferable to minimize level changes within the station.
- Provide clear signage and intuitive movements to direct passengers to connecting modes.
- Pedestrians avoid or have minimal conflicts with vehicular traffic.
- Circulation paths, to the greatest extent possible, should reflect pedestrian desire lines or those routes that most directly connect origin and destination.
- Station design should consider pedestrian flows during peak periods on weekdays (Tuesdays, Wednesdays, Thursdays).
- If possible, orient Vehicular Circulation Elements (VCEs) to align with prominent pedestrian flow paths.

Vertical Circulation Elements (VCEs)

- Stair “lane” widths that a person needs to travel are generally no less than 30 inches. 3-4 lanes per stair are optimal.
- Stair clearance times for metro/subway transit generally require clearance times of less than a minute due to short headways between trains.
- Stair clearance times for commuter/regional transit could allow for longer clearance times than metro/subway transit, depending on operations schedule and fire code regulations.
- Passenger queuing space at the base/top of VCE to be considered in the design.
- Several studies indicate that the vast majority of station users prefer escalators over stairs.
- Recommended escalator flow is approximately 80 passengers per minute, and speed is 90 fpm.
- VCEs can create “pinch points” and must be evaluated carefully to ensure that demand is met during peak periods.



Clear Signage



Align VCE with Prominent Pedestrian Flow



Stair Lane Widths

Architectural Elements

- A minimum distance of 20 feet of run-off space from the top and bottom of the escalators to any wall, stair or other obstruction should be provided.
- Provide space for queuing away from entry/exit points.
- Ramps available to serve as an alternative to stairs and elevators for accessibility to all passengers, and those with baggage.
- Doorways (swing doors, revolving doors) and turnstiles can create “pinch points” and must be evaluated carefully to ensure that demand is met during peak periods.
- If possible, utilize architectural elements (skylights, archways etc.) to provide wayfinding support in prominent areas.



Run Off Space at the End of the Escalator



Entry and Exit Point

B. Bicycle Circulation

Paths

- To be determined based on existing traffic volumes, prevailing speeds, street width, traffic operations, as well as the larger bicycle network and existing demand from cyclists. However, the District Plan assumed a relatively high mode share for cyclists in 2040 – 10% – therefore the quality of the facilities should match the demand.
- On-street Bike Lanes: minimum of 5 ft; City of Philadelphia’s policy is to install 6 ft lanes where feasible. Typically located between parked cars and travel lane. When space allows, there is a 2 ft or 3 ft buffer from the travel lane. (4 ft are permitted in certain settings). Not currently recommended for any of the sections of roadway adjacent to the station, although could be used on Market Street in place of the curbside.
- One-way Cycle Track: Curbside 5 ft – 7 ft painted bike lane protected by an additional 3 ft buffer to travel lane (buffer could be floating parking lane or flexible delineators). In the project area, these are recommended for southbound 30th Street and northbound Schuylkill Avenue, as well as sections of Market Street. In locations where these bike facilities interact with existing bus stops, the recommended treatment is to extend the sidewalk (curb extension or bus bulb) through the bike lane and bring the bike lane up to the curb level.

- Share Use Paths or Sidepaths: While currently not recommended, if Amtrak were to decide to include a dedicated bicycle lane within the plaza (e.g. leading to the Bike Station), minimum width is 12 ft with 8 ft allowed if there are constraints. These could also be used on the Market Street Bridge to offer better connections to the Schuylkill Trails.

Provision of Parking Spaces

- To be determined based on a percentage of the total number of passengers using 30th Street Station during the peak AM period. Could also be determined based on the land use of the destination or the total number of automobile parking spaces for a given destination. Design Team recommends the guidance provided by the Association of Pedestrian and Bicycle Professionals, listed below. (Also explained on page 50)
- Short Term: Spaces for 1.5% of morning peak period ridership. This is primarily for visitors other than Amtrak, such as SEPTA commuter rail passengers, but is more likely applicable to those making deliveries to the site, or patrons coming to shop, eat, etc.
- Long Term: Spaces for 5% of morning peak period ridership. This is primarily for Amtrak, SEPTA, and other transit riders.
- Regular Long Term: commuters who bike to/from 30th Street Station to connect to trains for business trips might leave their bikes there



Basic Bike Parking Close to Building Entry



Basic Staple Rack

overnight. This number is likely low, and these customers would ideally use the Bike Station

- Long Term: All should be sheltered, weather-protected, illuminated, and in the field of vision of any CCTV in the area. Options include bike lockers, bike sheds, bike garages, or similar.

Location of Parking

- The best guidance is to place bike parking as close to the final destination, in the path the person is travelling along, without being an obstruction to other travelers.
- Short Term: visible from, and close to, the destination it is serving, without being an obstruction to pedestrians. An example would be the racks within the porticos.
- Long Term: can trade off proximity for quality and security, meaning further from the entrances but still within view from the building and near foot traffic. Should not be hidden out of the way.
- Bike Station: similar to long term, though a little further from the station might be acceptable. Finding the right amount of space is the main factor for consideration. Layout, rack system, and other amenities in the facility will also impact size requirement, but should assume 15 to 20 sq ft per parked bicycle, less if using a stacked or two-tiered rack.

Type of Parking

- Durable, easy to clean/maintain, easy to use, of the same design or form of other bike parking in the area (when possible or suitable).
- Short Term: Easy to use, such as “Staple”, “Inverted-U”, encouraged. “Post & Ring”, wheel well secure configured in corrals (“wave” racks discouraged).



Bike Shed at a Transit Station



Stacked Racks Inside Bike Shed



Covered Staple Racks



Bike Station entrance

C. Vehicle Circulation

Paths

The access points of the 30th Street Station Plaza Concept Design are to PennDOT State Highways and therefore these access points or driveways require a PennDOT Highway Occupancy Permit (HOP). PennDOT’s Publication 282 offers regulatory and technical knowledge, policy, process and procedure for use when applying for an HOP. The City of Philadelphia has a Complete Streets Design Handbook that will provide additional guidance on driveways crossing sidewalks and entering City Streets. These two Publications will provide most of guidance for the station’s access points.

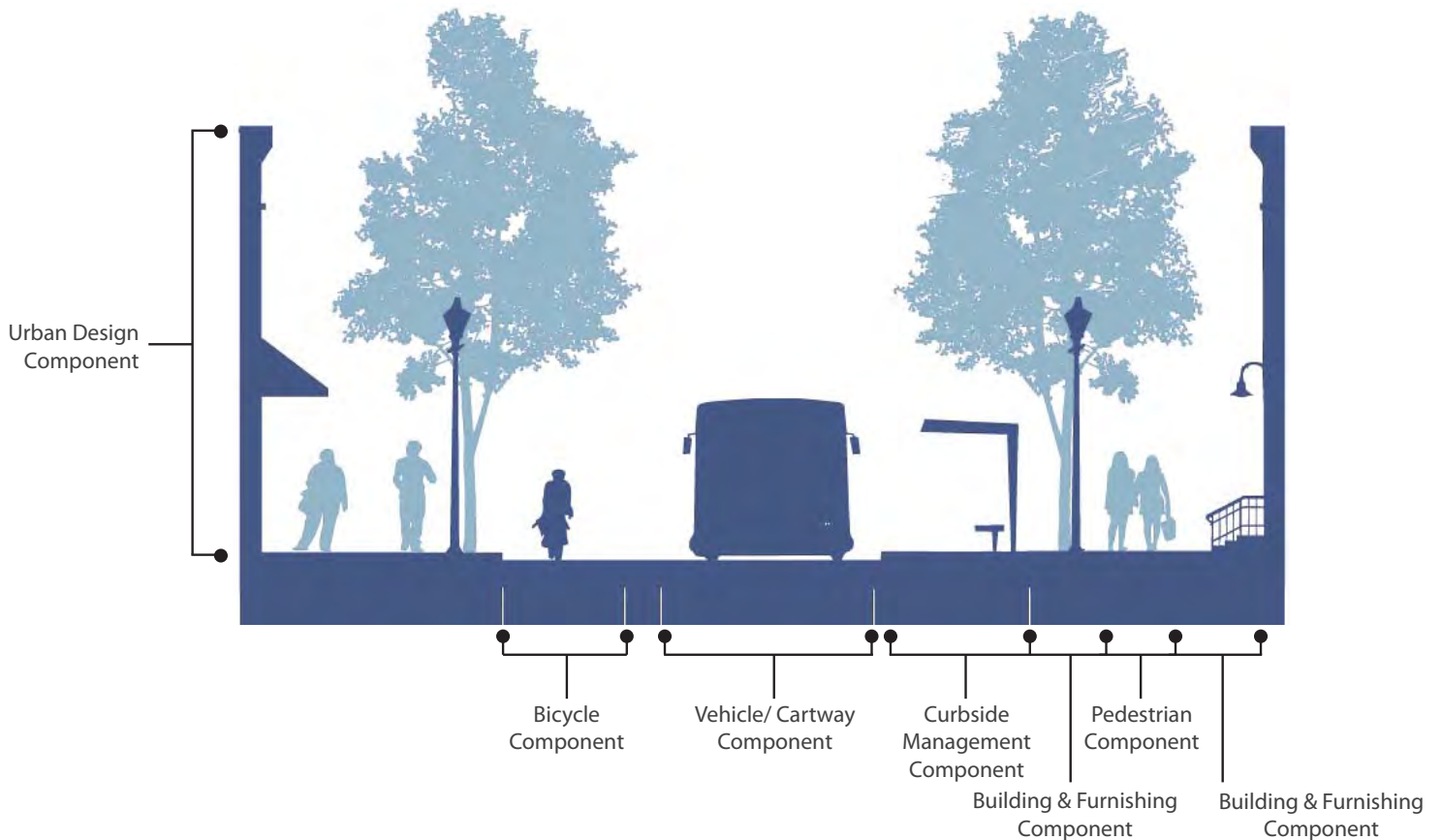
Dimensions

The City’s Complete Streets Policy as stated in Chapter 11-900 of the Philadelphia Code restricts driveways to 24 feet in width. Modifications for the turning radius of larger vehicles will require justification.

Capacity

Capacity of driveways will be studied and determined as part of the HOP. The type of traffic control will be confirmed by the HOP.

30th Street Station Plaza | Design Guidelines



D. Parking

Sizes for parking spaces and aisles are in the Philadelphia Code Section 14-800. The capacity of the parking areas is limited by space constraints for the lower level short term parking on the west side and on the east side in the meter lot under the SEPTA Structure. Additional spaces will be in the Cira Garage which is designed to allow additional level to be added.



Constrained Parking Under East SEPTA Rail Overpass

E. Security

Natural Surveillance

In addition to the electronic security providing video surveillance, the project is to be configured to allow natural surveillance. The following recommendations are examples of natural surveillance:

Item	Description
Easily Observable	Locate activity centers near roadways so they are easily observable by private security, local law enforcement and users of the amenities.
Grouping of Activities	Cluster compatible activities to avoid conflict and to increase social observation.
Children's Areas	Locate children's areas near staffed areas to make observation of these areas easiest.
Areas of Concealment	Eliminate if possible, otherwise minimize locations that a person can use to conceal their presence. This also refers to not creating spaces (e.g. recesses in building exterior) or utilizing design elements (e.g. planters where the soil is not brought within 2 – 3 inches from the top) which would allow for an object to be left concealed and out of the sight of an observer.

Natural Surveillance Strategies

Anti-Vagrancy Design

To help minimize vagrancy, an environment that is not conducive to vagrancy needs to be established and maintained. Through the creative use of design elements that have a purposeful use, vagrancy can be minimized. The following recommendations are examples of natural surveillance:

1. Utilization of benches with seat dividers, breaks or change in surface directions to minimize their use as a skateboarding apparatus and to also limit their use for loitering by homeless.
2. Utilization of embellishments (e.g. various size spheres made of metal or concrete, sculptures, etc.) in areas that can be used by a vagrant to loiter. Such areas are typically those that provide a flat area to lay down and provide shelter from the weather (e.g. rain).

Careful consideration needs to be given to the use of embellishments to minimize vagrants. It is important to define the intent and performance requirement, and then engage with the architect to develop a solution to meet the intent and develop a final solution. Softer approaches have been taken and found to be effective, such as the use of slopped smooth surfaces.

Activity Support

A basic principal of CPTED is the promotion of activity in common areas. Certain types of place, such as public squares and town centers, thrive on attracting a large number of people. The key is to create a high quality environment and alternative opportunities and activities for those who might otherwise become involved in crime or disorder.

A space can be used by different people, in different manners and at different times. It is recommended that public spaces be developed so that they can be enjoyed by different cultural or age groups at the same time. This can be done by providing a range of complementary activities and designing the environment to minimize conflict.

By encouraging the public space to be used, it will generate activity by law abiding citizens and will be a very clear and visible indication to a potential aggressor that their actions will not go unnoticed and will not be tolerated.

Category	Description
Public Activities	Activities such as music concerts, light exhibits, movie under the stars, etc. can help bring the various types of the people that make Parque da Cidade together and form a collaborative community. In addition, activity of the site should be monitored and addition of programs should be made in areas and at times when the space is not busy or typically used.
Kiosks	Locating kiosks of various types (e.g. coffee, ice cream, etc.) in public spaces can promote pedestrian traffic and can promote congregation at key areas. By promoting the use of the space, the area does not become desolate and does not allow an aggressor's actions to go unnoticed.
Children Play Areas	Provide children's play areas to encourage family use of some of the public spaces.
Be Clear on Usage	Utilize the Community Group and the security staff in developing the operations of the site in order to avoid conflicts in design and intended use. For example, illuminating a park that closes at sunset may encourage illegal and unintended use.

Activation Strategies

Lighting

Lighting is an important element in site design. What is considered “good lighting” with respect to CPTED, is that which help people feel more comfortable with their surroundings. It should provide clear paths for movement and highlight entryways without creating harsh effects or shadowy hiding places. Lighting can be one of the most economical and effective forms of crime prevention available.

Category	Description
Vehicles	Provide lighting systems that make pedestrians more visible to motorists and can illuminate other vehicles and objects that should be avoided by motorists.
Plaza	Provide lighting throughout the plaza to permit pedestrians to see risks involved with walking at night.
Consistency	Provide lighting that is even, uniform and does not produce dark areas or sharp contrasts for concealment.
Access/Exit	Provide lighting that highlights access and exit points, directing pedestrians and vehicles to defined areas intended for use to enter and exit the site.

Light Strategies

Natural Access Control and Territorial Reinforcement

Access control relies on fences, gates, shrubs, and other physical elements to keep unauthorized persons out of a particular place if they do not have a legitimate reason for being there. Properly located entrances, exits, landscaping and lighting can subtly direct both foot and vehicular traffic in ways that decreases criminal opportunities. In addition to physical measures, there are other techniques for controlling access in these circumstances. Nonphysical, or psychological, barriers can be used to achieve the objective of access control through the use of signage, paving textures, nature strips or anything that defines the integrity and uniqueness of an area. People will naturally protect a territory that they feel a connection with, an ownership of. By developing clear boundaries clearly identifies a territory that people will want to look after, and till also make identifying intruders much easier. Territorial reinforcement can be seen to work when a space, by its clear legibility, transparency, and directness, discourages potential offenders because of the familiarity that is developed between

neighbors and the ability to identify movements and actions by those that are different from that of a typical visitor.

Not being able to define a boundary and focus access/exit to the site to specific areas makes the site too accessible and will greatly reduce the ability to monitor activity and who is entering/exiting the site.

Category	Description
Perimeter Barrier	A perimeter barrier should be provided that restricts access to the site beyond those area specifically identified for authorized entry/exit.
Define Access Point	Provide clearly visible pedestrian and vehicle access point to promote their use.
Wayfinding Maps	Erect maps to provide a sense of where one is and where one can go. These maps should clearly identify public facilities, such as restaurants, stores, trails, gardens, etc.
Site Rules	Post site rules at access or gathering points of the site. Posted rules give the ability to designate acceptable uses and discourage unacceptable uses of the site.

Natural Access Control Strategies