

Strategic Procurement Planning – A P3 case-study

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ABSTRACT

Simply put, the procurement process is a mechanism to competitively match an “Owner’s needs for goods or services” to potential suppliers in the marketplace. The complexity of the process is directly related to the types of goods or services anticipated for procurement. The procurement of a transportation system, especially a transit system, is a complex process; the need for transportation corridor improvements or implementation of new corridors is a public policy issue and a high priority at all levels of transportation planning and management. Safe, efficient and effective transportation systems (whether they are roads or transit) is a key factor that affects the desirability, effectiveness/efficiency and economic competitiveness of a given facility, area or region. Demand on the transportation systems is driven by population growth and addressing the needs, both economic and quality of life are high priority public policy issues.

In an environment of limited public funding and a growing need for transportation infrastructure investment to promote and sustain the economic wellbeing of the region, the Redevelopment Authority Allegheny County (RAAC) through the Transportation Action Partnership (TAP), have been evaluating the feasibility of delivering high priority transportation/transit improvement projects in a phased manner, including through a Public Private Partnership (P3) arrangement. Under the P3 premise, the corridors have two primary components: delivery of transportation system improvements and conveyance of development rights to certain parcels along the corridors for ancillary real estate development that can be supported by latent demand from the major economic engines within the region. This paper examines a strategic procurement planning and project delivery approach that can address the economic needs of the region through delivery of an efficient transportation system in an economically viable manner.

BACKGROUND

Safe, efficient and effective transportation systems (whether they are roads or transit) is a key factor that affects the desirability, effectiveness/efficiency and economic competitiveness of a given facility, area or region. Demand on the transportation systems is driven by population growth and addressing the needs, both economic and quality of life are high priority public policy issues. Given the constrained financial environment, public entities are unable to make or establish capital commitments to fund necessary improvements that are essential to provide the foundation for future economic stability and growth within their region. Public-private-partnerships (P3s) provide public entities with an opportunity to strategically devise financing mechanisms for such needs, provided they are able to identify and “monetize” their available assets/needs into “instruments” that can provide a reasonable rate of return to private investors. The assets/needs to be monetized must provide for a reliable revenue stream to service the private investment, and depending on the reliability of the projected revenue streams the public entity must provide certain back-stop guarantees.

The metropolitan Pittsburgh area (part of Allegheny County, Pennsylvania) has seen its economy shift from heavy industrial to a post-industrial knowledge based economy; it includes the second and third largest economic activity centers in Pennsylvania. The three major economic centers are: Downtown Pittsburgh, the Oakland section of the City and Pittsburgh International Airport.

In an environment of limited public funding and a growing need for transportation infrastructure investment to promote and sustain the economic well being of the region, Allegheny County Executive Dan Onorato established and tasked the Transportation Action Partnership (TAP) to study and recommend alternatives for developing priority transportation corridors in a fiscally viable manner. TAP includes representatives from Allegheny County, City of Pittsburgh, Port Authority of Allegheny County (PAAC), UPMC, University of Pittsburgh, CMU, business, labor, community groups, foundations and legal and financial firms. Allegheny County Economic Development (ACED) and Redevelopment Authority of Allegheny County (RAAC) Executive Director Dennis Davin, Allegheny Conference on Community Development Executive Director Dinnis Yablonsky, and Chief of Staff to City of Pittsburgh Mayor Luke Ravenstahl and Urban Redevelopment Authority Chairman Yarone Zober serve as the TAP’s co-chairs. Technical support to the TAP is provided through the ACED and RAAC.

The Heinz Endowments have generously funded each phase of the TAP’s efforts to achieve improved transit in support of regional development.

As part of its work, the TAP focused on the viability of delivering high priority transportation/transit improvement projects in a phased manner, including through a Public Private Partnership (P3) arrangement. Under the P3 premise, the corridors have two primary components: transportation system improvements and conveyance

of development rights to certain parcels along the corridors for ancillary real estate development. The real estate development has a strong potential of being supported by latent demand from the major economic engines within the region. The Oakland area is landlocked, has access level of congestion, is fully developed and is home to the major knowledge based economic engines that have growth needs driven not only by their own institutional growth but also from outside interests desiring to incubate high tech industry, preferably co-located with the research performed in the Oakland institutions. The TAP recognized this latent demand for high value real estate development as being capable of “monetizing” to support a P3 project delivery strategy.

Three high priority corridors were identified; these connect the major economic centers of the region:

- Build a transit connection between Downtown Pittsburgh and the Oakland area of the City (the second and third largest activity centers in Pennsylvania).
- Build a fixed guideway circulator system within the Oakland area to provide a reliable connection between available real estate that can meet the latent needs of the major knowledge base economic engines that include the University of Pittsburgh, University of Pittsburgh Medical Center (UPMC), Carnegie Mellon University (CMU) and the Pittsburgh Technology Center (PTC) along the Monongahela River.
- Provide a connection between Downtown and Pittsburgh International Airport.

STRATEGIC PROCESS

To determine the viability of the P3 approach, especially in light of the strategic monetizing of the available assets/needs, the TAP recommended an industry review process. The intent of the process was to gauge interest in the approach, as well as to determine potential policy issues that could enhance the viability of the approach. The target industry group for the solicitation included transit suppliers, equity investors, contractors, and engineering and architectural firms. The subject areas for which industry input was sought included:

- The viability of the project, or a segment of the project, together with preferred Operating System technology(ies).
- The segment or segments of the corridors found most viable – from a financial, technical and need consideration.

- Appropriate terms and conditions for the potential future P3 Concessionaire contract, given the region specific needs.

Separately, the TAP continued to proactively address the following issues to ensure that an appropriate foundation in support of the anticipated P3 project delivery structure could timely be in place.

- Appropriate legislative action to facilitate the P3 approach,
- Owner structure for the purpose of the concessionaire contract, addressing City, County, Port Authority and other stakeholder participation.

To facilitate the industry review, notices and advertisements were issued announcing the launch of a project website (www.pittsburgh-oaklandconnector.com); the following materials and resources were made available to interested parties to enable their review:

- Project prospectus documents that included a preliminary framework of the potential financing and project structuring approaches under consideration.
- Background materials pertaining to the land use, population and travel characteristics along the transit corridors, the PAAC Transit Development Plan, the Comprehensive Plan for Allegheny County and other transportation plans for the corridors and region.
- Links to various stakeholders - County and City Agencies, PAAC, the Southwestern Pennsylvania Commission (SPC) and the knowledge based economic engines including UPMC, University of Pittsburgh and Carnegie Mellon University.

CORRIDOR OVERVIEW

The highest priority corridors were identified as the Downtown to Oakland, and internal Oakland circulator; these are the two largest economic centers in Southwestern Pennsylvania. The Downtown to Oakland corridor, shown in Figure 1, is currently served by a number of bus routes that connect to other transit services including the existing light rail system in the Downtown area and dedicated busways to the northeast and south. These transit services are operated by the Port Authority of Allegheny County (PAAC). Over the last few decades greater metropolitan Pittsburgh area has been undergoing a shift from an economy dominated by heavy industry to more of a postindustrial knowledge based economy with emphasis on research, finance, technology and health care. This economic shift is most evident in the Downtown and Oakland ends of the corridor and this trend creates opportunities

for further growth redevelopment in the intermediate area otherwise known as the Hill District.

Some of the general features of each of these areas are as follows:

Downtown Pittsburgh

Downtown Pittsburgh is the Central Business District, also referred to as the Golden Triangle. It is generally defined as the area bound by the Monongahela and Allegheny Rivers and the Crosstown Expressway. The area is the major urban center of the metropolitan area and is home to major corporations such as PNC Bank, U.S. Steel, PPG, Mellon Financial, Heinz, Federated Investors and Alcoa.

Hill District

The Hill District is an older urban residential area that is home to almost 17,000 people many of whom work in the Downtown or Oakland area. As noted on the City's website, the neighborhood has a rich cultural history. Real estate is reasonably priced in the Hill, where many old buildings and even large parcels of land are surprisingly inexpensive. Hill District residents have a strong sense of community and history, and work through church and civic organizations to generate pride and redevelopment opportunities.

Oakland

Oakland is considered the cultural, medical, educational, and technological center of Pittsburgh, boasting many world-renowned institutions and attractions and is the third largest activity center in the state. The area is comprised of the region's largest medical and research institutions, four universities, three historic districts, two retail areas, cultural institutions and seven residential neighborhoods. The Oakland area has limited access to the regional highway network and the recent growth has strained the Oakland roadway network which is often operating at capacity. Hence, public transit is viewed as a means to relieve existing congestion and more importantly, accommodate future growth by linking the existing Oakland research and medical care facilities with the Technology Center and other development parcels along the Monongahela River. These research and medical institutions are also regarded as potential tenants for the space that would be developed by a third party concessionaire in conjunction with the transit network within the corridor.

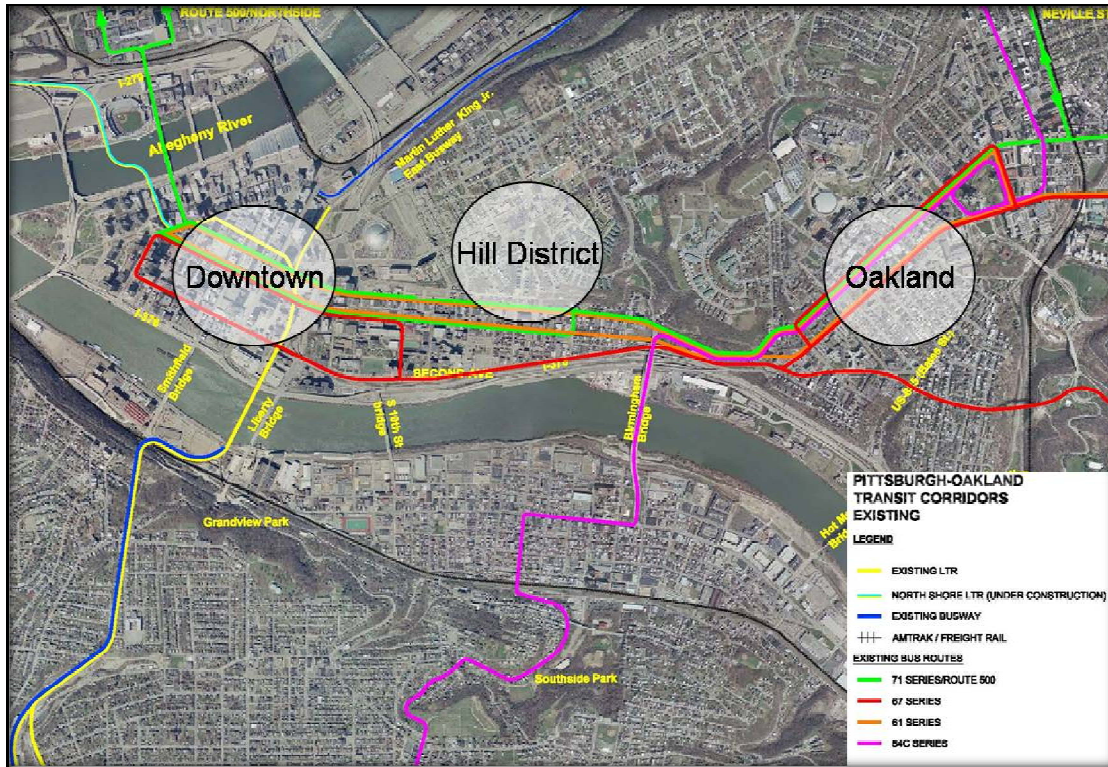


Figure 1: Existing Transit Services in Downtown to Oakland Corridor

In parallel to the TAP's efforts, the Port Authority of Allegheny County (PAAC) conducted an evaluation of its entire route system and services for near term optimization; this included a study of the market characteristics. Some of the noteworthy findings particularly with the respect to the transit market characteristics of the Downtown to Oakland corridor were as follows:

- Downtown to Oakland corridor has very high household and employment densities and would likely support improved and premium transit services.
- Downtown was estimated to be about 48% transit mode share.
- The transit mode share between Oakland and Downtown was between 36% and 45%, with higher mode share achievable with service improvements.
- Transit mode share to Oakland was approximately 30%, with higher mode share possible with appropriate service improvements.

PROJECT DEVELOPMENT OPTIONS

Project development options were broken into two basic components: transit alignments (for transportation system improvements) and real estate development opportunities. These were then viewed together to develop/determine potential phased implementation options that could be fiscally viable and that would attract private sector participation through the P3 project delivery approach.

Transit Alignments

Alignment alternatives for a fixed guideway link between Downtown and Oakland had been identified in previous studies and were presented for industry input with respect to preferred technology, phasing and project structuring considerations and development opportunities along each corridor. The previous studies include:

- *The Spine Line Corridor Study* sponsored by The Port Authority of Allegheny County and the Federal Transit Administration, 1993
- *The Eastern Corridor Transit Study (ECTS)* sponsored by the Port Authority of Allegheny County (PAAC) and the Southwestern Pennsylvania Commission (SPC) and the Westmoreland County Transit Authority (WCTA), 2003
- *Oakland Transit Study Critical Point Analysis* sponsored by the Oakland Investment Committee, 2005
- *The Eastern Corridor Transit Study Transitional Analysis to Locally Preferred Alternatives (ECTS-TA)* sponsored by the Southwestern Pennsylvania Commission (SPC), Westmoreland County Transit Authority (WCTA), Allegheny County and the Pennsylvania Department of Transportation (PennDOT), 2006

Some of the common elements in these earlier studies were as follows:

- Each considered extending the existing 'T' light rail system operated by the PAAC between Downtown and Oakland in one or more of these corridors.
- Subway and at-grade configurations were considered, depending on the specific alignment option.
- While subway options were generally more desirable from an urban landscape perspective, the cost of this approach was the major impediment to any subsequent implementation.

The most viable alternative fixed guideway alignments were considered to be along the Centre Avenue, Cowell Street/Fifth Avenue and Second Avenue corridors and are depicted in Figure 2 along with possible station locations.

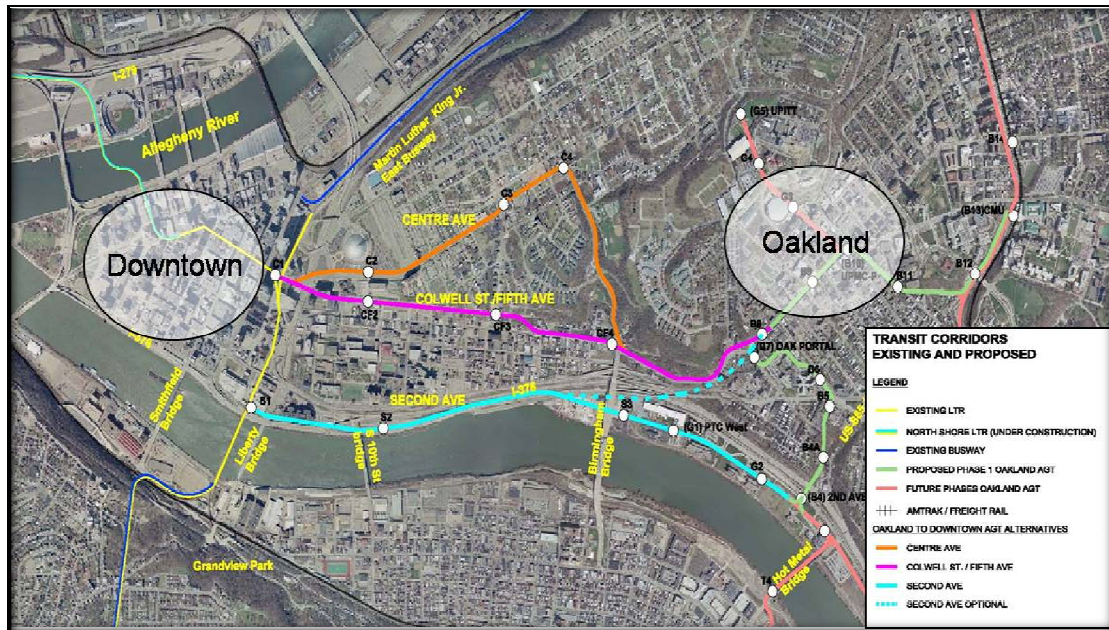


Figure 2: Pittsburgh to Oakland Transit Corridor Existing and Proposed

As part of this process, the City of Pittsburgh Department of City Planning also identified a preferred alignment and station locations for a fixed guideway link between Downtown and Oakland along Fifth Avenue shown in Figure 3. Their proposal would involve extending the existing light rail system starting below grade through the mid section of the link and then proceed at-grade into Oakland.

The factors they noted in establishing station locations were as follows:

- **Stop 1** – Below grade station would serve a new multi-purpose arena, employees and students of Duquesne University and Mercy Hospital and would support the re-birth of the Lower Hill District.
- **Stop 2** – Below grade station would serve residents and businesses of the Uptown and Hill District and foster redevelopment in the area.
- **Stop 3** – At-grade station could be utilized as a major transit hub for passengers heading towards the Southside and Oakland sections of the Pittsburgh.
- **Stop 4** – At-grade station would serve commuters to two large Oakland institutions (Magee Hospital and Carlow University) and alleviate traffic congestion in the West Oakland area.
- **Stop 5** – At-grade station will serve the University of Pittsburgh Medical Center and Central Oakland Business District.

- **Stop 6** – At-grade station would serve the hospitals, the University of Pittsburgh and the Central Oakland Business District.
- **Stop 7** – At-grade station would serve the University of Pittsburgh and facilitate connections to the East Busway.

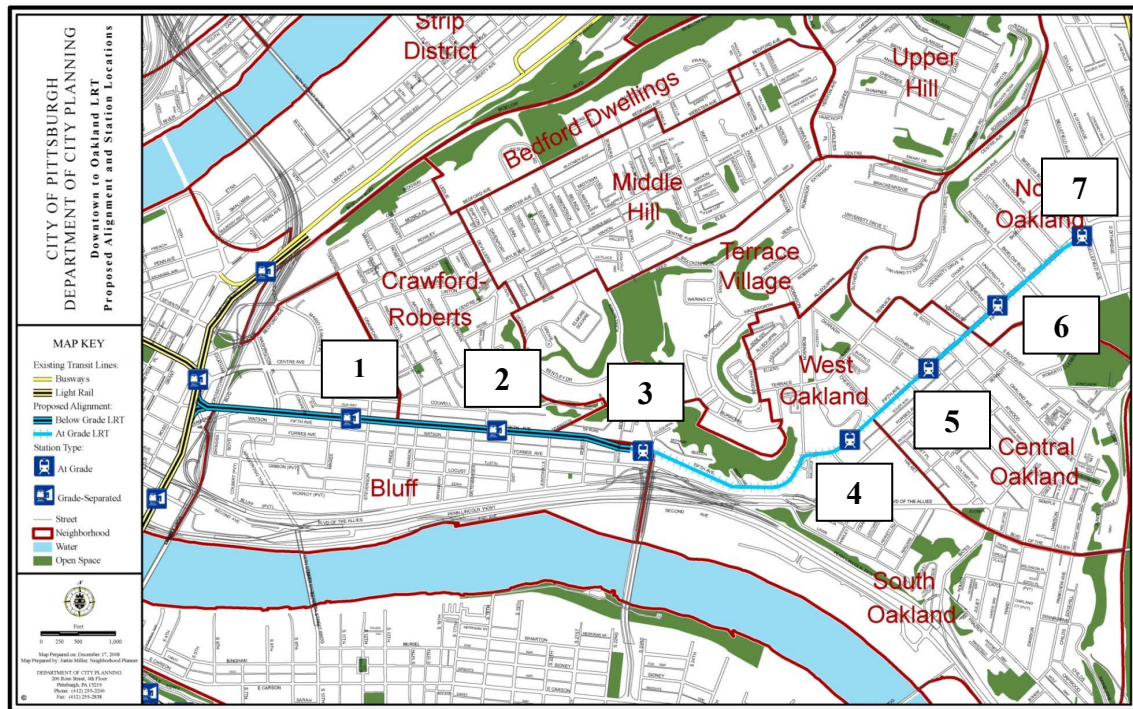


Figure 3: Proposed Downtown to Oakland LRT – Alignment and Stations

Ridership and Trip Times

The forecasts in the aforementioned 1993 Spine Line Study provides the best available indicator of daily ridership that can be anticipated on a fixed guideway link between Downtown and Oakland for each of the alignment alternatives and are summarized in Table 1. As a comparative measure, Table 1 also shows the estimated number of current daily passengers on the PAAC bus services within the corridor.

Table 1
Comparison of Daily Ridership - Downtown to Oakland Corridor
Existing PAAC Bus Service vs. Fixed Guideway Alternatives

Existing PACC Bus (1)	Estimated Ridership by Alternative 1993 Spine Line Study (2)		
	Second Ave	Colwell Street	Centre Ave
18,000	24,220	31,690	30,110

Notes: 1. Ridership data for Downtown to Oakland bus routes from PAAC
2. Forecast year 2005 prepared 1993

Preliminary estimates of one-way trip times between Downtown Pittsburgh and the end of the line in Oakland for each of the three alignment alternatives in Figure 2 were also developed assuming a grade separated APM system with 15 second dwell times at each station. The estimated one-way trip times are as follows: Centre Avenue – 12 minutes, Colwell Street/Fifth Avenue – 11 minutes and Second Avenue – 16 minutes.

Real Estate Development/Land Use along Alternative Transit Corridors

In assessing the potential for a Public-Private Partnership to develop a Downtown to Oakland fixed guideway link, one strategy that is conceptually being considered by TAP is to have adjacent parcels along the corridor made available to the P3 partner for development. Zoning and contractual mechanisms for facilitating such development by the P3 partner are under investigation and could be accommodated by establishing a Transit Revitalization Improvement District and/or a long-term land lease. Whatever the approach, the basic concept is viewed as a potential revenue stream that the P3 partner could generate to support the financing for the overall development of the transit corridor.

With this approach in mind, the City of Pittsburgh Department of City Planning provided land use and zoning information within a three block wide corridor along each of the alternative transit alignments. Table 2 provides a summary of that information and indicates that there is a good supply of vacant and publicly owned property along the midsection of each corridor that could be made available for associated real estate development by a P3 partner.

Table 2
Downtown - Oakland Transit Corridor
Land Use Inventory along Conceptual Transit Alignments

Category	Use Designation	Alternative Transit Corridors		
		Center Ave	Cowell Street	Second Ave
Commercial	Occupied	20.5%	46.0%	7.8%
	Vacant	3.5%	9.6%	2.3%
Government	Federal Government	0.0%	0.0%	0.2%
	State	0.0%	0.0%	0.0%
	County Government	30.5%	1.2%	0.7%
	Municipal Government	11.3%	4.5%	5.7%
	Municipal Urban Renewal	5.7%	3.6%	6.4%
Industrial	Warehouse/Light Manuf/Other	0.4%	3.5%	13.0%
	Vacant	0.0%	0.0%	63.8%
Other	College/Univ/Academy	1.2%	0.0%	0.0%
	Places of Worship	0.5%	3.9%	0.0%
	Hospitals	0.0%	0.0%	0.0%
Residential	Single Family	0.2%	0.9%	0.0%
	Multi-family	0.5%	2.9%	0.0%
	Large Multi-Family	3.5%	2.4%	0.0%
	Housing Authority	20.5%	12.0%	0.0%
	Vacant	1.6%	8.0%	0.0%
Mixed	Retail/Apt Above	0.2%	1.5%	0.0%
Utility	Railroad	0.0%	0.0%	0.0%
TOTALS		100%	100%	100%

Source: City of Pittsburgh Department of City Planning

Phased Development Scenarios

In the event that a mechanism can be established whereby the P3 partner will have the option to develop land along the corridor as part of the transit improvement program between Downtown and Oakland, the following implementation scenarios were offered for industry consideration and are illustrated in Figures 4 and 5.

Near-term (see Figure 4)

- PAAC Optimizes Bus Service into Hub and Spoke Routing between Downtown and Oakland – there are multiple bus routes that travel through the Oakland to Downtown corridor. One approach would be to optimize the bus routing by creating feeder routes in the Downtown and Oakland hubs allowing for reduced bus trips or a BRT type operation between the hubs.
- While PAAC optimizes the bus routing possibly through a BRT type of operation and builds up ridership, the P3 partner could begin land

development along the future Downtown to Oakland transit corridor to realize a revenue stream that could support future transit development.

Long-term (see Figure 5)

- The P3 Partner constructs a fixed guideway transit connector between Downtown and Oakland that interfaces with PAAC system at each hub
- In this scenario, the transit link would complement the land use development already undertaken by the P3 partner, and it would provide the basis for further development by creating a reliable transit link facilitating the “creation” of a “larger, integrated campus” environment.

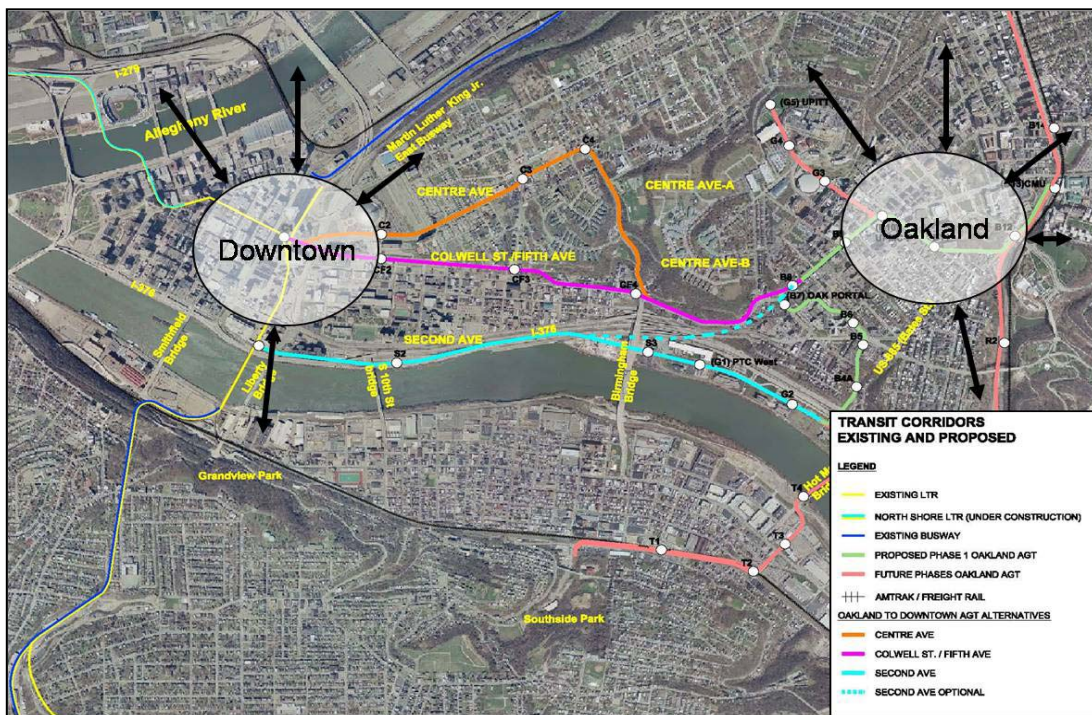


Figure 4: Near-term – Optimize Bus Routing with Feeder Hub and Spoke System

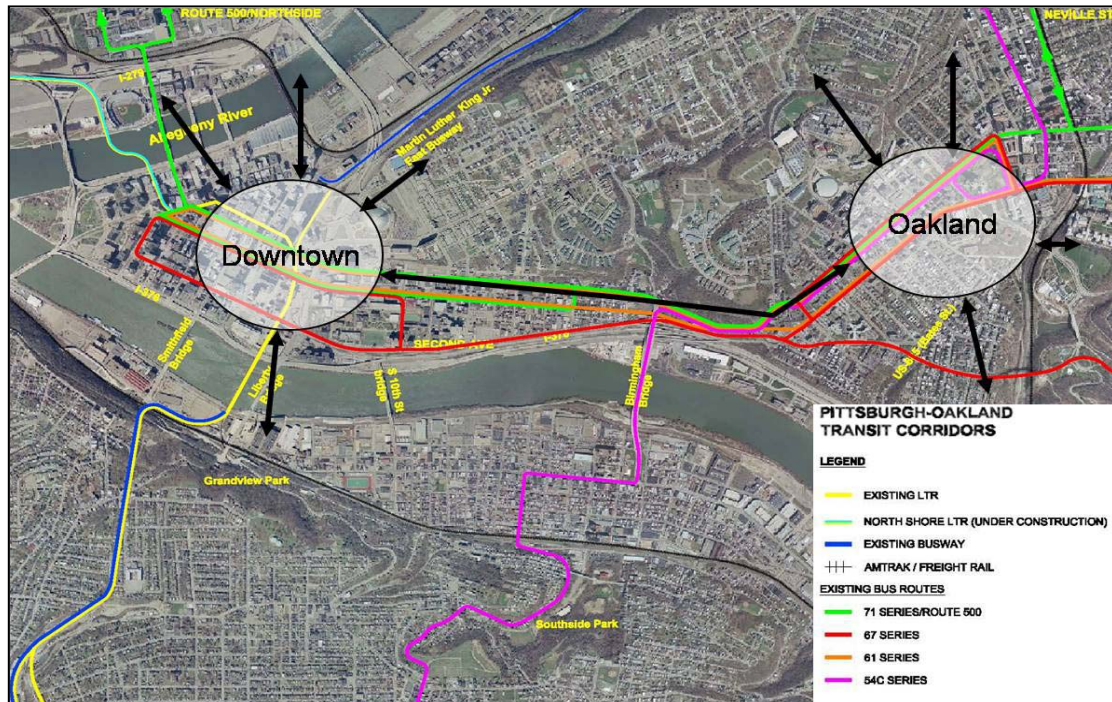


Figure 5: Long-term – Connect Hubs via one of the Fixed Guideway Transit Options

PRELIMINARY PROCURMENT AND FINANCE STRUCTURE

The Owner will address the following elements as part of its structural organization for the anticipated P3 approach:

- Legislative action/authority
- Representative participation (City, County, State, Port Authority, other stakeholders)
- Taxing District, bond issuance and other financial authority

The procurement would package the transportation system and the ancillary real estate development through a single delivery mechanism. An alternative approach would permit the segregation and separate procurement of each of these major components, provided that appropriate mechanisms are established to assure that excess revenue streams captured through one component can be utilized to make the other component fiscally viable.

It is anticipated that the Owner would provide parcels of land adjacent to the anticipated Transportation Corridor to the Concessionaire via a long-term lease as

one of the Owner's financial contributions towards the implementation of the Transportation Project. The lease terms would be flexible and would be a minimum of 30 years, and a maximum of 99 years. Further, the Owner would provide minimum guarantees on the type and volume of real estate development that will be utilized/leased by the regional economic engines if provided at fair market value rates. In essence, the latent real estate development needs would be monetized to support the reasonable investment objectives of the private investments. The major economic engines have unmet needs for development, including outside interests desiring to incubate industry in proximity to the economic engines. The unmet real estate needs include facilities for research, development, office and ancillary development.

Financial participation by the Owner would be at a minimal level, but sufficient level to provide acceptable risk mitigation to private investments. As part of a competitive negotiated procurement process, the potential concessionaires would be required to address, as part of its financial proposal, the following elements:

- Guaranteed annual payments and/or guaranteed ridership requirements for the Transportation System based on proposed phased implementation, if any, and for what duration.
- Long term lease and development rights – implementation plan, together with projected revenues, potential for revenue sharing with the Owner, and any required gap guarantees from the Owner.
- To cover potential back-stop and gap guarantees, the Owner may consider establishing special taxing district encompassing the parcels/lots for which long term lease and development rights are made available, and utilize a portion of these proceeds to provide gap guarantees, and also issue Tax-Exempt Bonds on behalf of the project. It is expected that fares will be subject to the Owner's approval and shall be consistent with the Port Authority fare structure. Fare revenues exceeding the revenues based on "guaranteed ridership" would likely revert to the Owner, or be used shared between the Concessionaire and the Owner.

Further, the Owner would provide minimum guarantees on the type and volume of real estate development that will be utilized/leased by the regional economic engines if provided at fair market value rates.

INDUSTRY INPUT AND NEXT STEPS

At the conclusion of the industry review period, the site recorded 320 registrants from a broad range of enterprises. A breakdown of the registrants' industry affiliations are as follows:

Engineering/Architecture	83	Train System Suppliers	17
Government Agencies	28	Media	17
Private Equity/Financial Services	26	Project Structuring/Strategy	15
Construction Contractors	26	Utilities	7
Real Estate Developers	20	Others	62
Legal Services	19		

Key input from the industry, both formal and informal, recommended that the following items be clearly addressed/finalized before proceeding with a competitive solicitation:

- Clearly define Ownership structure with powers and authority.
- Secure all necessary interagency agreements to ensure access to corridor and associated right-of way.
- Seek out and secure State and Federal funding to support project financing, if possible.
- Have clear commitments from local business and institutions with respect to commitments to participate in project and occupy associated real estate development.
- Designate the preferred transit corridor for initial implementation.
- Prepare Business Plan that addresses concession terms with private partner, sources of revenue and financial plan.

Each of these key areas of input were already under consideration by the TAP. Industry input provided appropriate feedback in support of ongoing policy initiatives to have the foundational bases for the P3 project delivery approach to be implemented. At this time, the PAAC has initiated work on the near term alternative; i.e. optimization of the Downtown to Oakland routes, including potential implementation of a Bus Rapid Transit within the corridor. Efforts related to the Owner structure and appropriate legal considerations are in process. The solicitation will be issued once the foundational legal/enabling authority is in place.

CONCLUSION

Although P3 project delivery approaches have been widely utilized in the world, its application as a viable approach has been recognized in the United States. It is not a “silver bullet” that provides finance out of thin air, but a viable approach provided that the public entity is able to identify public assets/needs that can be monetized in a manner that they can provide a relatively secure and reasonable rate of return on investment. To achieve this, it is essential that the public entity not only look at the technical needs and project capital costs in isolation, but also the project benefits – in terms of direct technical benefits as well as the regional economic benefits that result from stable and sustained growth. This provides for a comprehensive assessment of the cost/benefit analysis of any project investment whether the investment is publicly or privately financed.