Parking Consulting Services

East Liberty Parking Study

Pittsburgh, PA

Final Report
March 24, 2009

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March 24, 2009

Ms. Susheela Nemani-Stanger
Project Development Specialist
Urban Redevelopment Authority
200 Ross Street, 12th Floor
Pittsburgh, Pennsylvania 15219

RE: *East Liberty District-Wide Parking Study*
Pittsburgh, PA

Dear Susheela:

We are pleased to submit the final report of our parking study. This report addresses the following tasks for East Liberty:

- Current and Future Parking Supply, Demand, and Adequacy
- Proposed Site Analysis
- Financial Assessment

We appreciate the opportunity to be of service to the Urban Redevelopment Authority, the Pittsburgh Parking Authority, and East Liberty Development, Inc. and look forward to working with you again in the future.

Sincerely,

Chris Walls, CPP
Parking Specialist

Vicky Gagliano, MBA
Parking Specialist

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Executive Summary

As part of the aggressive revitalization plan for East Liberty, the parking system will undergo dramatic changes in both supply and demand in the coming years. While parking is currently adequate to serve the existing needs of the district, the anticipated changes require careful planning where parking is concerned. Fortunately the URA, PPA, and ELDI have employed a proactive approach and foresight to study these changes.

The parking supply in our study area contains parking for both private and public uses. The entire supply including the nearby Home Depot includes 2,162 parking spaces. However, the highly critical public supply contains only 1,500 spaces. We conducted nine (9) parking occupancy counts and the peak occupancy in the public spaces occurred at 12:00pm on Tuesday, September 21, 2008 when 1,023 (68%) cars were present.

As a result of the planned developments, a total of 646 surface lot spaces will be eliminated. However, a total of 1,632 new spaces will be built to serve the various uses. These changes coupled with the current supply create a future parking supply of 2,511 spaces. Some of these spaces will be intended for specific uses. For example, the Target project will add 500 spaces specifically for its customers and employees and, therefore, will not serve the needs of the public resulting in a future parking supply of only 2,011 spaces.

Future demand was projected at 3, 5, and 10-year horizons. The consolidated demand for these time horizons (excluding Target) was as follows: 3-year demand (2,701), 5-year demand (3,312), and 10-year demand (3,651). Based on future supply and demand projections, East Liberty will experience a significant parking shortage. The following table summarizes these projected deficits.

Table 1: Projected Parking Deficits

Horizon	Peak Demand	Parking Supply	Surplus/Deficit
3-Year	2,701	1,866	(835)
5-Year	3,312	2,011	(1,301)
10-Year	3,651	2,011	(1,640)

The future parking deficits facing East Liberty, once all of the planned developments come to fruition, will not likely be met through the construction of one singular parking facility as the size of such a structure would seem out of place in East Liberty. In addition, the demand is spread across a large enough area that one centralized facility to serve all of the demand is not possible or practical. We recommend first constructing a parking facility south of Penn Avenue (Option 1C). This facility could serve a significant number of future developments as well as existing uses such as the Presbyterian Church and the surrounding restaurants both along Centre Avenue and Highland Avenue. As the area continues to mature a second parking facility may need to be constructed to serve demand north of Penn Avenue. This should be completed within five years to serve the growing parking demand if all of the developments are completed as planned. Any future parking facilities should also include ground floor retail to help activate the sidewalks with pedestrian activity and added visual interest.

Based on the financial assessment, none of the proposed structures will be financially viable based on our revenues, expense, and debt service projections and will ultimately need additional financial support from sources other than parking revenue alone.

Introduction

The Urban Redevelopment Authority (URA), in cooperation with East Liberty Development, Inc. (ELDI) and the Pittsburgh Parking Authority (PPA) retained Timothy Haahs and Associates, Inc. (TimHaahs) to perform a district-wide parking study of the neighborhood of East Liberty, Pennsylvania.

East Liberty is in the midst of a large-scale revitalization process already evident by the boom in retail, restaurant and housing development. The area is already home to national retailers such as Home Depot, Whole Foods Market, Starbucks, Trader Joe's, Border Bookstores, and Trek Bicycles. The success of these retailers has helped fuel the interest of other development initiatives to include over 300,000 square feet of retail, 250,000 square feet of office space, 50,000 square feet of restaurant space, three new hotels, and over 300 new housing units. This massive swell in development will not only displace and eliminate much of the surface parking in the area; it will also create the need to provide clean, safe, and cost effective parking in close proximity to these demand generators.

Scope of Services

Tim Haahs was retained by URA to perform a parking study for East Liberty to include an assessment of the current and future parking supply; identify and analyze potential sites on which to provide additional parking; and to create a pro forma operating statement for the proposed structure(s). Below is a brief description of our scope of services completed for this study.

1. Met with URA, ELDI, PPA, and all other pertinent Agencies and/or Authorities to confirm study objectives, boundaries, procedures, and concerns about parking in the area.

2. Obtained and reviewed any existing reports (such as the ERA report) or studies pertinent to the parking study, as well as obtained local zoning ordinances that pertain to parking.

3. Analyzed and inventoried the current parking supply (both public and private) including type, location, and price of all existing parking facilities within each study area. Confirmed the existing parking supply, its users, and any unique issues associated with various facilities with the URA.

4. Performed occupancy counts for all spaces within the target area throughout a typical busy day. Parking occupancy counts were performed for available on-street spaces, parking lots, and all structure parking facilities. Determined the pattern of parking utilization throughout the day and identified/documented any unusual patterns.

5. Received information from the Authority concerning key activity levels for the actual survey day. This allowed us to adjust our model and graphically map out the fluctuations throughout the year, or seasonality impact.

6. Identified the area of existing parking shortages and the number of new parking spaces required to meet any existing shortages.

7. Conducted a preliminary site analysis for potential sites on which to provide additional parking to meet existing shortages (if necessary). The preliminary site analysis included:

    a. Parking garages
    b. Surface parking
    c. Metered parking
    d. Recommendations for location and type of future parking

8. Identified all existing, proposed, approved, on-going, and future development plans within the study area in order to better understand the impact on parking needs. This included the projected park and ride.

9. Determined the future parking demand based on planned-parking adequacy of the parking supply and comparing the demand projections to the parking supply. Projected future parking needs in three years, five years, and ten years.

10. Identified the areas where the greatest parking supply deficiencies will exist and identified potential locations for a new surface parking lot, additional on-street spaces, or sites which may be suitable for structured parking.

11. With URA, ELDI, and PPA input, evaluated each of the potential sites (four or fewer) based on criteria such as proximity, size of the facility, cost (order of magnitude), number of spaces, types of patrons, aesthetics, traffic and circulation, pedestrian safety, and the potential to incorporate mixed-use with retail on the ground floor.

12. Created a pro forma operating statement for the proposed structure(s) including cost projections and working budget.

13. Suggested parking rates appropriate for the neighborhood (with the consideration that some public parking in the area is free).

14. Scheduled and conducted meetings with the stakeholders and citizen advisory boards to help us identify strengths, weaknesses, and opportunities for improvement with regards to the present and future parking environment.

Study Area

The study area was comprised of 34 blocks. The following streets were the primary boundaries:

- To the North: Rural Street (Penn Circle North)
- To the West: Euclid Avenue (Penn Circle West)
- To the South: Centre Avenue (Penn Circle South)
- To the East: Centre Avenue (Penn Circle East)

In addition to these boundaries we included all of the businesses south of Centre Avenue, especially those contained in the Eastside development to include Whole Foods, Starbuck's, etc. Additional observations were performed at Home Depot, as well as the retail and restaurant corridor along Highland Avenue east of Centre Avenue. An aerial map outlining the study area is shown in Figure 1 on the following page.

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Figure 1: Study Area

Source: Google Maps and Timothy Haahs and Associates, 2009

Parking Conditions

Current Parking Supply

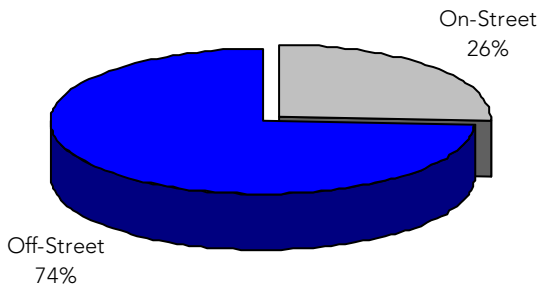
The parking supply is the total number of available parking spaces, including both off-street and on-street spaces in the study area. The off-street supply consists of numerous parking lots and one structured facility. The total supply available for public use is derived from taking the entire inventory and deducting the privately controlled parking (i.e. AAA lots, CVS lot). This results in a total public supply of 1,500 spaces. The entire parking supply was documented and is summarized in the following tables and graphs.

Note: A detailed breakdown by block and lot is contained in the attached Appendix. We did document the supply contained in the Home Depot lot and below we have shown it both with and without the inclusion of it. However, since this lot in not intended to provide parking for public use we feel it is best to not include it or deem it as "usable" for public purposes.

Table 2: Parking Inventory

Type	Supply	Percentage
Surface Lot	758	57%
On-Street	388	26%
Parking Deck	354	24%
Total Supply	**1,500**	**100%**

Type	Supply	Percentage
Surface Lot	758	39%
On-Street	388	20%
Parking Deck	354	18%
Home Depot	422	22%
Total Spaces	**1,922**	**100%**



Source: Timothy Haahs & Associates, 2009

Current Parking Demand

With URA, ELDI, and PPA input, we felt it was important to capture occupancy statistics on a Friday as this would allow us the opportunity to observe the demand not only during a weekday but also on Friday evening. We performed four counts on Friday, September 12th (10am, 12pm, 3pm, and 7pm). In addition, we performed a single count Saturday morning (8am). However, during each of these counts, intermittent rain was present. Since rain may potentially impose a negative impact on overall parking and driving conditions, additional counts were performed on Monday, October 20th (10am) and Tuesday, October 21st (10am, 12pm, and 3pm) under clear weather conditions.

Several private lots, not included in the above supply, were included in the occupancy counts. Even though we recognize they are private, their occupancy level provides a larger pool to observe and this helps ascertain the demand in the area. Based on these additional lots, our occupancy counts are based on 1,740 spaces.

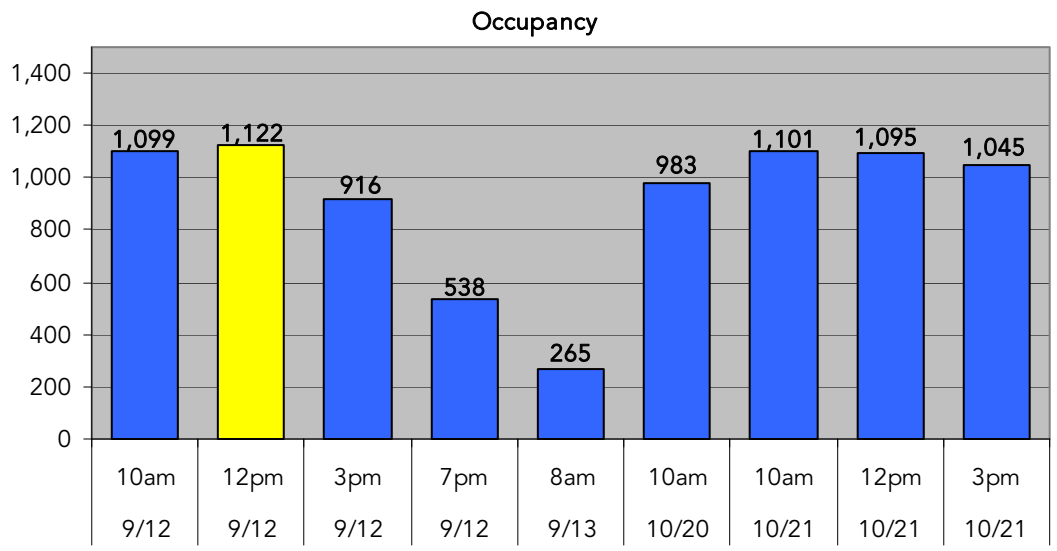
The peak observed demand during these counts occurred at 12pm on Friday, September 12th with 1,122 spaces occupied. This correlates to 64%. The following tables and graphs summarize the occupancy statistics. (*Note: Detailed occupancy statistics are contained in the attached appendix.)*

Table 3: Parking Inventory

Day	Date	Time	On-Street		Off-Street		Totals	Percent
Friday	9/12	10am	751	75%	348	90%	1,099	63%
Friday	**9/12**	**12pm**	**791**	**79%**	**331**	**85%**	**1,122**	**64%**
Friday	9/12	3pm	665	67%	251	65%	916	53%
Friday	9/12	7pm	339	34%	199	51%	538	31%
Saturday	9/13	8am	186	19%	79	20%	265	15%
Monday	10/20	10am	704	71%	279	72%	983	56%
Tuesday	10/21	10am	773	77%	328	85%	1,101	63%
Tuesday	10/21	12pm	766	77%	329	85%	1,095	63%
Tuesday	10/21	3pm	738	74%	307	79%	1,045	60%

Source: Timothy Haahs & Associates, 2009

Figure 2: Parking Occupancy



Source: Timothy Haahs & Associates, 2009

The graph above shows that the weekday parking demand is relatively consistent throughout the day, while a serious decline in parking demand occurred on Saturday. As a whole, the on-street spaces saw the highest percentage of occupancy (peaking at 90%). This is expected as the on-street spaces are closer in proximity to businesses, and therefore, the most convenient.

The highest off-street demand existed in the Whole Foods parking lot and the Library lot. These lots had an average occupancy rate of 83% and 65% respectively. It's important to note that when a facility reaches an 85%-90% occupancy it is perceived to be full. When occupancy exceeds this level, patrons may experience delays and frustration while searching for a space. Based on our conversations with Whole Foods, this is the precise issue they are now facing. Since they averaged 83% during our observations it is evident that they are experiencing high demand levels. There are more spaces available in the adjacent Eastside structure, but this requires a longer walking distance – something that also causes frustration and delays among patrons.

The average occupancy at the Home Depot lot was 148 vehicles. This represents 35% of their 422 spaces being occupied (on average).

Parking Adequacy

The study area contains 1,500 public parking spaces. The peak demand in these spaces was determined to be 1,023. The current parking adequacy results in a surplus of 477 spaces. This information is summarized in the following table.

Table 4: Parking Adequacy

	Total Supply	Peak Occupany	Surplus/ Deficit
On-Street	388	331	57
Surface Lots	758	476	282
Parking Deck	354	216	138
Totals	1,500	1,023	477

Source: Timothy Haahs & Associates, 2009

Even though the current parking supply is adequate to serve the demand, pockets of heightened demand do impact certain areas. As we learned during the developer/public meeting[1] held October 20th, the restaurants and businesses located along Penn Circle South and Highland Avenue complain about the lack of safe and convenient parking. This issue is further exacerbated by the Eastside parking structure being available only for patrons of the shops located in Eastside. The combination of these issues has led to the request for a short-term solution.

One short-term solution discussed was a valet service for the area restaurants. One of the biggest challenges facing valet is the simple need for the space to store the vehicles. Fortunately, Mark Minnerly (The Mosites Co.) has the land to possibly facilitate this option. In discussions with Mark, he indicated four potential short-term sites. Each site would likely only be available until such time as development occurs. The four sites mentioned are:

1. The Mosites Co. owns the Stevenson Place lot (operated by PPA). This lot is currently configured to accommodate 48 vehicles but could potentially hold more as a valet operation. This lot is centrally located adjacent to the Highland Avenue Bridge near the greatest concentration of restaurants.
2. Mosites also owns a lot on the far side of the Tennis Center.
3. During the construction and development of the Target site, a lot could be made available for valet. This site is slightly further away and would require crossing busy Penn Avenue.
4. Prior to development, the Eastside III site is also a possibility.

One additional site, not related to Mosites, is the Sheridan & Kirkwood PPA lot. This lot contains 114 spaces and is not heavily utilized. As the area continues to develop, especially along Penn Avenue, this would be an excellent area to house valet operations during evening hours.

We believe a valet operation and shared parking strategies would provide an immediate and desirable solution to some of the parking congestion in this area.

[1] The attached appendix contains the summary notes from these meetings.

Future Parking Conditions

The recent growth and revitalization in and around East Liberty is only the beginning of a long-term plan to bring multiple hotels, office space, retail space, restaurants, and new housing opportunities throughout the District. The planned growth will have a dramatic impact on the parking system. In this section we will outline the planned developments and how both the parking supply and demand will be dramatically impacted.

The table on the following pages provides a detailed description on each planned development including:

- Planned Development Name
- Primary Use (Retail/Office/Restaurant/Hotel/Housing)
- Specific Development Data (i.e. Amount of SF)
- Projected Opening Date
- Planned Parking

The development plan included in the parking analysis has been reviewed and approved by URA, ELDI, and PPA representatives. The location of these developments discussed in the plan is included in Figure 3 (page 11).

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Table 5: Future Developments

	Name of Use	Primary Use	Retail SF	Office SF	Restaurant SF	Residential Units	Hotel Rooms	Projected Opening	Dedicated Parking
1	Target	Retail	160,000	n/a	n/a	n/a	n/a	Summer 2011	500 Spaces
2	Eastside III	Retail/Office	20,000	40,000		n/a	n/a	Fall 2011	n/a
3	Eastside IV	Retail	75,000	155,000	10,000	n/a	n/a	Fall 2011	750 Spaces
5	Indigo Hotel	Hotel	n/a	n/a	7,500	n/a	140	Spring 2010	n/a
6	Restaurant/Nat City	Restaurant / Office	n/a	38,000	20,000	n/a	n/a	Fall 2009	n/a
7	Penn Avenue Shops	Office/Retail/Rest	4,000	6,000	6,000	n/a	n/a	Summer 2010	n/a
8	Hampton Inn	Hotel	n/a	n/a	n/a	n/a	113	Spring 2011	197
9	Homewood Suites	Hotel	n/a	n/a	6,000	n/a	105	Spring 2011	See Hampton
10	Mellon Orchard South	Residential	n/a	n/a	n/a	84	n/a	Summer 2012	84
11	YMCA/E. Liberty Lofts	Residential/Retail	10,000	n/a	n/a	40	n/a	2010	40
12	6000 Penn Avenue	Retail/Office/Rest	5,000	30,000	5,000	n/a	n/a	Fall 2011	n/a
13	East Liberty Place South	Residential/Retail	36,000	n/a	n/a	100	n/a	2012	n/a
14	East Liberty Place North	Residential/Retail	11,000	n/a	n/a	54	n/a	2012	61
14	Carnegie Library	Library	n/a	n/a	n/a	n/a	n/a	Summer 2010	n/a
15	EECM Community House	Housing/Office	n/a	60,000	n/a	50	n/a	Summer 2011	n/a
16	Eastside Beatty	Retail	50,000	n/a	0	24	n/a	Summer 2011	TBD
	Totals		**371,000**	**329,000**	**54,500**	**352**	**358**		

Figure 3: Development Plan Map

Source: Google Maps and Timothy Haahs& Associates, 2009

Future Parking Supply

The future supply of parking will be changing as planned developments are built. Based on the developmental plans previously listed, we estimate 646 parking spaces will be eliminated from various parking lots within the next three (3) years. The following table illustrates the projected parking losses and where they will occur.

Table 6: Eliminated Parking

Map Label	Block Number	Information	Number of Spaces	Use: Public/Private
L-1	1	Metered Lot	46	Public
L-2	1	PPA - Lease Only	79	Public
L-3	5	PPA Metered	36	Public
L-4	5	East Minster	70	Private
L-10	21	PPA Eva & Beatty	134	Public
L-11	24	ELDI Controlled	8	Private
L-13	26	Permit Only	18	Private
L-15	28	PPA Carnegie Library Lot	75	Public
L-21	34	PPA Stevenson Place	48	Public
L-18	31	AAA Lot	132	Private
Number of Spaces Lost From Development			646	

Source: Timothy Haahs & Associates, 2009

The 646-spaces listed above only represents displaced spaces within surface parking lots. Development will also impact the on-street parking supply, particularly around the circle conversion area. Current plans show 24 new spaces being created along Penn Circle South. However, along the east side of Highland Avenue, 6 spaces will be lost. It is not expected for the on-street supply to change significantly as a result of the conversion.

New parking facilities will be built in conjunction with several of the new developments. It is important to note that the majority of the new parking spaces will not serve the entire district and the public demand, but rather the specific development. The following table provides a breakdown of the anticipated new supply.

Table 7: New Supply

Development	Number of Spaces	Intended Use
Target	500	Target Only
Eastside IV	750	Serves Eastside
Hampton Inn/Homewood Suites	197	Only 61 Public
Mellon Orchard South	84	Mellon Orchard
YMCA/East Liberty Lofts	40	Loft Only
East Liberty Place North	61	Private
EECM Community House	25	Private
Number of New Spaces	1,657	

Source: Timothy Haahs & Associates, 2009

As noted, only a fraction of these 1,657 new spaces will be intended to serve the general public.

A combination of current and future changes allows us to formulate the future parking supply. This supply considers: current public supply (1,500) plus the new supply (1,657) minus the lost supply (646). This provides a total future parking supply of 2,511 spaces.

One key concern is the parking supply currently serving the largest single employer in East Liberty; Novum Pharmaceuticals. They specifically stated during telephone interviews with TimHaahs that should the Eva Beatty parking lot be eliminated, they would be forced to move out of the area. The parking structure proposed on site 1 could be a potential solution to this issue. However, the walking distance is much greater then they are currently accustomed.

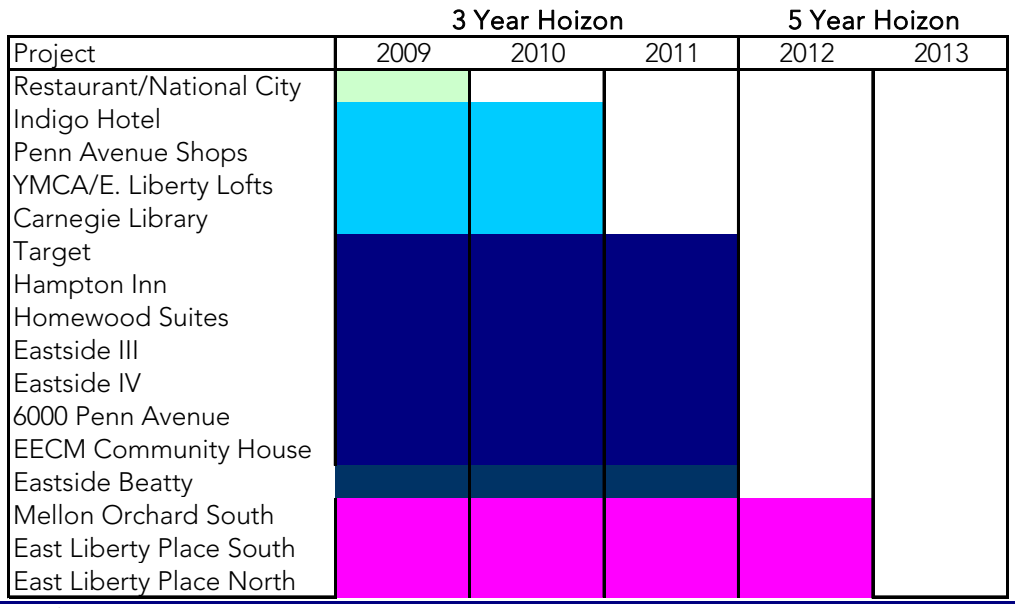
An additional concern is the lack of parking serving the areas of East Liberty north of Penn Avenue. This is a key issue facing the planned Indigo Hotel which currently has no plans for dedicated parking to serve its customer base. The best short-term solution (and possible long-term solution) is the use of valet operations with the likely vehicle storage area being the Sheridan/Kirkwood PPA lot which is currently underutilized.

Future Parking Demand

Each of these new projects will create additional demand. This section will quantify this new demand and add it to the existing conditions to develop demand statistics at 3, 5, and 10 year horizons. Based on these key horizon indicators, the following table illustrates the time period under which these developments will come on line.

Please note the different colors represent the presumed opening year: those shaded with light green for projects opening in 2009; light blue represent projects opening in 2010; dark blue represents projects opening in 2011; and pink represents projects opening in 2012.

Table 8: New Development Timelines



Source: Timothy Haahs & Associates, 2009

Please note all but three of these developments are anticipated to be open within a three-year window. All are assumed to be on-line within four years.

In determining the demand associated with the new projects we made the following key assumptions and demand characteristics:

- All three hotels to open at 70% occupancy and maintain this occupancy level until year 5. In Year 5 we assumed an increase to 72% and finally 75% in year 10.

- The remaining peak parking demands for all developments have been adjusted to account for vacancies upon opening. It is assumed they will open at 80% occupied/leased. This would increase to 90% in year 5 and 100% in year 10.
- Target is the exception as it opens at 100% upon completion.
- Hotel demand assumes 1 vehicle per room on weekdays and weekends. This is inclusive of both employees and guests.
- Retail demand assumes a demand ratio of 3.50/KSF (weekday) and 4.00/KSF (weekend). This is inclusive of both employees and customers.
- Restaurant demand is 10.50/KSF (weekday) and 15.00/KSF (weekend). This includes employees and customers and assumes a family-style restaurant.
- Office demand for developments under 33,000SF is 3.80/KSF (weekday) and 0.38/KSF (weekend).
- Office demand for development between 33,000 and 100,000 is 3.55/KSF (weekday) and 0.37/KSF (weekend).
- If either office building is heavily occupied by data processing or telemarketing entities this demand ratio would be significantly higher
- Residential demand currently assumes all are 1 bedroom units generating a demand weekday and weekend peak demand of 1.5 vehicles/unit. If these developments include a mix of 2-3 bedroom options this ratio would be higher.
- In multi-use developments where more than one demand generator is present, we utilized the benefits of shared parking calculations to reduce the total demand (i.e. office peaks during the day while restaurant peaks in the evening). Shared parking considers the peak parking times for each use and then adjusts the total required parking needs accordingly. This greatly reduces the parking needs for developments such as Eastside III & IV. The proposed developments offer a wide array of day and evening uses. However, the highest demand levels will occur during the day when office use (the highest SF among the proposed developments) peaks. We did utilize shared parking reductions where they were possible.
- EECM Community has a significantly lower demand based on their specialized use. Many of the visitors to this facility will utilize mass transit.
- Eastside Beatty assumes Whole Foods will move into the new larger retail space (50ksf) and a new tenant will move into the vacated space. Based on the unknown tenant type, we have made a conservative reduction in the parking demand of 15% over current conditions experienced by Whole Foods.
- The current parking demand has been adjusted to increase at 2% per year.

The following pages contain the 3, 5, & 10 year demand projections for both the new developments and the consolidated demand (which includes the adjusted baseline demand).

Table 9: New Development 3-Year Parking Demand Projections

Planned Development	Peak Weekday	Peak Weekend
Target	524	597
Eastside III	134	35
Eastside IV	535	225
Indigo Hotel	108	115
Restaurant/National City	218	192
Penn Avenue Shops	56	58
Hampton Inn	85	91
Homewood Suites	79	84
Mellon Orchard South	0*	0*
YMCA/E. Liberty Lofts	57	62
6000 Penn Avenue	131	66
East Liberty Place South	0*	0*
East Liberty Place North	0*	0*
EECM Community House	80	14
Eastside Beatty	146	162
Totals	2,154	1,701

Source: Timothy Haahs & Associates, 2009

Table 10: 3-Year Parking Demand Projections

Projected Baseline Peak	1,072
Planned Development	2,154
Total	3,225

Source: Timothy Haahs & Associates, 2009

We project a 3-year parking demand of 3,225 vehicles. This projection does assume all but three planned developments are open as planned[2].

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[2] Mellon Orchard South, East Liberty Place North and South are included in Year 5 projections.

Table 11: New Development 5-Year Parking Demand Projections

Planned Development	Peak Weekday	Peak Weekend
Target	524	597
Eastside III	151	40
Eastside IV	602	253
Indigo Hotel	111	118
Restaurant/National City	246	216
Penn Avenue Shops	63	65
Hampton Inn	87	93
Homewood Suites	81	85
Mellon Orchard South	113	113
YMCA/E. Liberty Lofts	64	69
6000 Penn Avenue	148	75
East Liberty Place South	193	203
East Liberty Place North	85	92
EECM Community House	90	16
Eastside Beatty	164	182
Totals	2,721	2,217

Source: Timothy Haahs & Associates, 2009

Table 12: 5-Year Parking Demand Projections

Projected Baseline Peak	1,115
Planned Development	2,721
Total	3,836

Source: Timothy Haahs & Associates, 2009

We project a 5-year peak parking demand of 3,836 vehicles. This includes the demand with all developments open as planned.

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Table 13: New Development 10-Year Parking Demand Projections

Planned Development	Peak Weekday	Peak Weekend
Target	524	597
Eastside III	168	44
Eastside IV	669	281
Indigo Hotel	115	121
Restaurant/National City	273	240
Penn Avenue Shops	70	72
Hampton Inn	90	96
Homewood Suites	84	88
Mellon Orchard South	126	126
YMCA/E. Liberty Lofts	71	77
6000 Penn Avenue	164	83
East Liberty Place South	214	226
East Liberty Place North	94	102
EECM Community House	100	18
Eastside Beatty	182	202
Totals	2,944	2,373

Source: Timothy Haahs & Associates, 2009

Table 14: 10-Year Parking Demand Projections

Projected Baseline Peak	1,231
Planned Development	2,944
Total	4,175

Source: Timothy Haahs & Associates, 2009

We project a 10-year demand of 4,175 vehicles assuming the attached list of projects come to fruition and normal area growth.

Future Parking Strategies – Shared Parking

In projecting the peak parking demand and subsequent adequacy, we employed the benefits of shared parking when and where possible. Several of the planned projects allow the use of shared parking to reduce the overall parking demand. Shared parking means that a parking facility serves multiple destinations. This requires multiple destinations within walking distance of the same parking facility, and is most effective when those destinations either share patrons, so that people park once and visit multiple destinations, or have different periods when parking demand is highest. Shared parking is usually an intrinsic part of small, dense developments and districts where the same parking facility serves many different destinations within walking distance. Shared parking is highly effective in mixed use developments, either when there is a mix of uses on a single site or when sites with different uses are located suitably close together. One example of this is a development where office and retail or restaurant space occupies the same building. Most of the office workers (and their cars) will be gone in the evenings when there is the most demand for parking from the restaurant and/or retail. By allowing for and encouraging shared parking, planners in communities with minimum parking requirements can reduce the required number of parking spaces for mixed use developments or single-use developments in mixed-use areas.

Shared parking doesn't impact the function and design of a given parking facility because, generally speaking, parking should always be designed to allow for the safest, most intuitive, and efficient design possible.

Certain design characteristics may be employed if only one specific user group is the intended customer. For example, a garage designed solely for monthly office workers can have a slightly less intuitive design, and fewer wayfinding and signage markers because of their familiarity with the garage. When a larger transient base is utilizing a given parking asset, such as in a shared parking environment, you have to make it more "user friendly" and functional for all users groups associated with mixed-use developments.

East Liberty is seeking to create a dense, pedestrian friendly environment and shared parking can help achieve this goal by encouraging mixed-use developments without an excess of empty and unnecessary parking spaces.

Metered Parking

Metered parking in East Liberty suffers from the normal issues facing these devices; inadequate levels of enforcement and pricing, and inconsistency in areas where meters are present. Metered parking can contribute significantly to East Liberty's desire to focus on creating a pedestrian-friendly environment with an appropriate supply of available parking. When metered parking is enforced appropriately it increases the availability of spaces by creating a higher turnover rate. A higher turnover rate will create more street level activity and will help businesses who need those curbside spaces for their customer base. Enforcement can also greatly improve the revenue stream, and it helps create a more positive public sentiment towards an area by providing more vacant spaces for short-term parking.

Pricing should also be consistent throughout the area. East Liberty is a small enough district that the pricing for a specified period of time should be the same regardless of the meter location. Along with a consistent price structure, an increase in on-street rates will increase the availability of spaces and help decrease misuse by employees parking throughout the day in short-term spaces. Long-term parkers should be utilizing off-street parking assets. Since structured parking is being considered for the area, this strategy may help to increase revenues to help off-set the debt service associated with a new garage.

The core streets of East Liberty (which could be defined as those streets included in our study area) should all be metered. This creates a consistent parking environment & expectation for all user groups.

Future Parking Adequacy

The future parking adequacy can be determined by comparing the future parking supply against the future parking demand. One of the key projects (Target) has dedicated parking to serve their respective demand and is slightly removed geographically so we have analyzed them separately.

Target – Target anticipates construction of 500 parking spaces to serve its customers and employees. We project their peak demand of 597 to occur during the month of December when retail sales increase from holiday traffic. Other than during this short-time period, we anticipate the 500 spaces will provide adequate parking to meet their demand. *(Since Target has been considered separately we have removed both its supply and demand from the future adequacy calculations.)*

The three (3), five (5), and ten (10) year adequacy projections are included in the following table.

Table 15: Future Parking Adequacy Projections

3-Year Adequacy Projections	Peak Demand	Parking Supply	Surplus/Deficit
Projected Baseline Peak	1,072	--	--
Planned Development	1,630	--	--
Total	2,701	1,866	(835)

5-Year Adequacy Projections	Peak Demand	Parking Supply	Surplus/Deficit
Projected Baseline Peak	1,115	--	--
Planned Development	2,197	--	--
Total	3,312	2,011	(1,301)

10-Year Adequacy Projections	Peak Demand	Parking Supply	Surplus/Deficit
Projected Baseline Peak	1,231	--	--
Planned Development	2,420	--	--
Total	3,651	2,011	(1,640)

Source: Timothy Haahs and Associates, 2009

Based on the adequacy calculations shown here, East Liberty will have a significant parking deficit even with the addition of the planned development parking facilities. The deficits will be spread relatively evenly throughout the area with significant parking deficits both north and south of Penn Avenue. In an urban area where vacant land is limited and expensive, significant parking shortages must be met through structured parking options. The following section will analyze potential parcels for adding additional parking supply through structured options.

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Site Selection

Safe and convenient parking will be essential to the on-going success of East Liberty. As stated earlier, the only way to meet the level of projected deficits will be to identify areas able to accommodate structured parking. The critical elements we considered when selecting sites included key elements such as: proximity to demand generators, size of the facility, cost (order or magnitude), number of spaces, aesthetics, traffic and circulation, efficiency, visibility, and the potential to incorporate mixed-use with retail on the ground floor. The ability to incorporate a mixed-use retail element will help East Liberty create a dynamic streetscape with a more urban, dense design while alleviating the plain façade many people associate with "unattractive" parking garages. Pedestrians tend to walk right past garages if they don't have retail or other commercial elements so we have tried to provide options that present this opportunity.

Based on the above criteria we identified nine (9) different sites and sixteen (16) different layouts in which structured parking could potentially be constructed. The following information summarizes the key points for each option.

Option 1A - Located in the heart of the district and in close proximity to major demand generators including restaurants, East Liberty Presbyterian Church, the Carnegie Library, among others. This site would require cooperation from the City of Pittsburgh for the removal of Trade Street where it connects Penn Circle South and Baum Boulevard (based on conversations with Ernie Hogan the city would be open to this option). In addition, this option includes acquiring use of the existing AAA lot, the PNC drive thru and the Big Brothers Big Sisters parking lot. This layout provides a large ground floor area for potential ground floor retail.

- Dimensions: 280'-0" x 120'-0" = 33, 600 SF/level
- Approximately 100 parking stalls on a typical level (excluding the first floor where spaces are lost to make the retail component possible).
- Per level cost: $2,100,000[3]
- Retail components can easily be incorporated into this option.

Option 1B – This layout includes a more dramatic change to the existing area that would require several buildings to be removed. Some or all of the existing businesses that would be displaced may be able to relocate to the ground floor of this structure which has a large footprint to incorporate multiple uses.

- Dimensions: 280'-0" x 185'-0 = 51,800 SF/level
- Approximately 155 parking stalls on a typical level.
- Per level cost: $3,237,500
- Large retail component

Option 1C – This layout includes the same dimension as Option 1B, however, more of the surrounding buildings remain. The AAA lot would need to be acquired. This option has a smaller retail component but it would create an excellent pedestrian corridor with street side retail while allowing more parking on the ground floor.

- Dimensions: 280'-0" x 185'-0 = 51,800 SF/level
- Approximately 155 parking stalls on a typical level.
- Per level cost: $3,237,500
- Smaller retail component

Option 2A – Located along the western side of the study area and built on the existing PPA surface lot. This option isn't located in the heart of the district but would provide parking for Novum, the Library, and East Liberty Place South and North developments.

[3] All costs are based on $62.50/sf. This is a construction cost only and does not include other factors such as land acquisition cost.

- Dimensions: 385'-0" x 120'-0" = 46,200 SF/level
- Approximately 140 parking stalls on a typical level
- Per level cost: $2,887,500
- Garage length requires expansion joint
- Retail/mixed-use component not efficient in this option.

Option 2B – Located on the same parcel as option 2A. This option has a shorter overall dimension to allow a free standing retail component.

- Dimensions: 315'-0" x 120'-0" = 37,800 SF/level
- Approximately 115 parking stalls on a typical level
- Per level cost: $2,362,500/level
- Shorter garage in this orientation leaves extra room for other potential development to activate the sidewalks and streetscape.

Option 2C – Also located on the same block as the two previous options. This is configured slightly different to allow a larger parcel for potential development in place of the existing surface lot.

- Dimensions: 255'-0" x 120'-0" = 30.600 SF/level
- Approximately 90 parking stalls on a typical level
- Per level cost: $1,912,500/level
- Shorter garage has an increased slope for parking ramp.
- Garage in this orientation leaves extra room for a large potential development.

Option 3 – Located on the block currently occupied by the Duquesne Lighting warehouse and adjacent surface lot. This option assumes the acquisition of these assets. This lot would be ideally situated to provide parking for the Indigo Hotel and other new demand generators along Penn Avenue.

- Dimensions: 280'-0" x 120'-0" = 33,600 SF/level
- Approximately 100 parking stalls on a typical level
- Per level cost: $2,100,000/level
- Retail/mixed-use component not ideal in this option because pedestrian traffic is lower in this area. In addition, it is not visible from major streets.

Option 4A – Located on the existing Library lot. This odd shape does not allow for an efficient parking facility.

- Dimensions: 220'-0" x 120'-0" = 24,600 SF/level
- Approximately 70 parking stalls on a typical level
- Garage is too short to create one ramp floor to floor. Two ramps are required side by side.
- Integrated retail/mixed-use not possible in this option.

Option 4B – This option in situated on the existing Library lot and requires the relocation of Novum Pharmaceuticals (perhaps to neighboring building).

- Dimensions: 385'-0" x 120'-0" = 46,200 SF/level
- Approximately 140 parking stalls on a typical level
- Per level cost: $2,887,500/level
- Garage length requires expansion joint
- This option could be configured to provide retail on the ground floor along Penn Avenue to help create a pedestrian friendly area in this area.

Option 5 – This option shows structured parking built on the existing Whole Foods parking lot.

- Dimensions: 280'-0" x 120'-0" = 33,600 SF/level
- Approximately 100 parking stalls on a typical level
- Per level cost: $2,100,000/level
- Based on the surrounding retail uses already operating in the Eastside development, additional retail would not be necessary in this garage.

Option 6A – This option shows a potential parking solution for the proposed Eastside Beatty (Whole Foods) development. Rooftop parking would be extremely inefficient, costly, and would be difficult to configure ramping and ingress/egress. This option eliminates the need for the rooftop parking.

- Dimensions: 385'-0" x 120'-0" = 46,200 SF/level
- Approximately 140 parking stalls on a typical level
- Per level cost: $2,887,500/level
- This option allows room for Whole Foods and proposed housing units

Option 6B - This option is configured differently than Option 6A to provide a larger parcel for Whole Foods and potential housing.

- Dimensions: 280'-0" x 120'-0" = 33,600 SF/level
- Approximately 100 parking stalls on a typical level
- Per level cost: $2,100,000/level
- Large area for Whole Foods (Eastside Beatty)

Option 7 – This option would be constructed on the existing PPA lot located between Broad and Kirkwood. Though this is not a highly visible area and may not be a prime spot for ground floor retail, however, it is located near many uses including the EECM Community house, the new development proposed along Penn Avenue, and could house valet or self-park facilities for the Indigo Hotel and area restaurants. This would become a more attractive option as the area continues to mature.

- Dimensions: 255'-0" x 120'-0" = 30,600 SF/level
- Approximately 90 parking stalls on a typical level
- Per level cost: $1,912,500/level
- Shorter garage has an increase slope for parking ramp

Option 8 – This option would be constructed on the corner currently occupied by CVS and its small parking surface parking lot. This option would provide a small area for potential development to increase pedestrian flow at this important and highly visible corner where Penn Avenue and Penn Circle intersect.

- Dimensions: 220'-0" x 120'-0" = 24,600 SF/level
- Approximately 70 parking stalls on a typical level
- Per level cost: $1,537,500/level
- Odd shape of garage does not create an efficient parking facility
- Garage is too short to create one ramp floor to floor. Two ramps are required side by side.
- Room on site for potential development.

Option 9A – This option could be incorporated with the TOD/bus station initiative.

- Dimensions: 280'-0" x 185'-0" = 51,800 SF/level
- Approximately 155 parking stalls on a typical level
- Per level cost: $3,237,500/level
- Room for potential bus station or TOD

Option 9B – This is a smaller version of Option 9A.

- Dimensions: 280'-0" x 120'-0" = 33,600 SF/level
- Approximately 100 parking stalls on a typical level
- Per level cost: $2,100,000/level
- Room for potential bus station of TOD

The nine overall sites are identified on the site map in the attached appendix. Additional pages are also provided to allow for a closer examination of the individual options including the proposed placement of retail (or similar) development, general orientation, etc. While any final decisions could significantly change many of the options shown, they show approximate characteristics based on available resources.

It is important to reiterate the desirable traits associated with the long-term development strategy of East Liberty. The area has undergone successful revitalization and this resurgence can continue for years to come. They are seeking a continuation of smart growth that promotes sustainability and pedestrian friendly destinations. A perfect example is the success of the Eastside development that includes major tenants like Whole Foods, Starbucks, Walgreen's, and the coming retail anchor, Target. Parking is a vital ingredient that is necessary to promote this future vision. It is also important to reiterate that optimal sites allow the ability to incorporate some form of mixed-use or retail development on the ground floor to help active the sidewalks and create a more dynamic streetscape while adding to the visual appeal and vibrancy of East Liberty.

The demand both now and in the future will be best served by one or more of the following options discussed below.

All of the options were provided to URA, PPA, and ELDI for review. Several thorough discussions took place to gain a clear understanding of both the pro's and con's of each site and to better ascertain the criteria(s) most important to each individual/organization. These discussions successfully and unanimously identified the top locations in which structured parking could be constructed. These sites (as shown in the attached appendix), in order, include:

1. Site 1
2. Site 8
3. Site 4
4. Site 7

Once these four locations were agreed upon, we then discussed which specific options in those areas were considered the most desirable. Ultimately four options were chosen. Two of the final four selected options were part of the original submission and therefore, remained unchanged from their sketches shown in the appendices of this report. The other two were variations of the originals and were requested by the URA. The top four options include:

1. Option 1C (unchanged from original option shown in the appendix)
2. Option 1D (new option)
3. Option 8A (site enlarged from the original option 8)
4. Option 4B (unchanged from original option shown in the appendix)

Option 1D – This option would be constructed to face Baum and would require the acquisition of the drive thru bank building currently located here. Also, to reach the appropriate minimum width of 120 feet, it would need to encroach on Commerce Street.

- Dimensions: 240'-0" x 120'-0" = 28,800 SF/level
- Approximately 85 parking stalls on a typical level
- Per level cost: $1,800,000/level
- Site, as shown by URA, does not include ground floor retail.

Option 8A – This option is a larger version of the original option 8 providing more square footage per level. However, this option is extremely inefficient to build. If the desire it to create a larger parking facility, a more uniform size should be considered. As stated earlier, this is a highly visible corner where Penn Avenue and Penn Circle intersect making it attractive for parking considerations.

- Dimensions: approximately 33,000SF/level
- Approximately 90 parking stalls on a typical level (or 20 more care per level than Option 8)
- Per level cost: $2,062,500/level
- Odd shape does not create an efficient parking facility.
- Garage is too short to create one ramp floor-to-floor. Two ramps are required side by side.
- Site still includes ground floor retail.

The URA provided sketches of Option 1D and Option 8A. These revised sketches are contained on the following page.

Since the time of the last report, one additional option was presented by the URA that we will designate as:

Option 10 - This option is situated just north of the intersection of Highland Avenue and Penn Circle South. The conceptual design (page 26) shows a multi-level facility fitting between the Stadterman and Highland Buildings. However, since this drawing was produced by the URA we do not have the dimensions or typical stall per level information to convey. If this Option becomes strongly considered, we would need to gain a better understanding of the site prior to making a recommendation.

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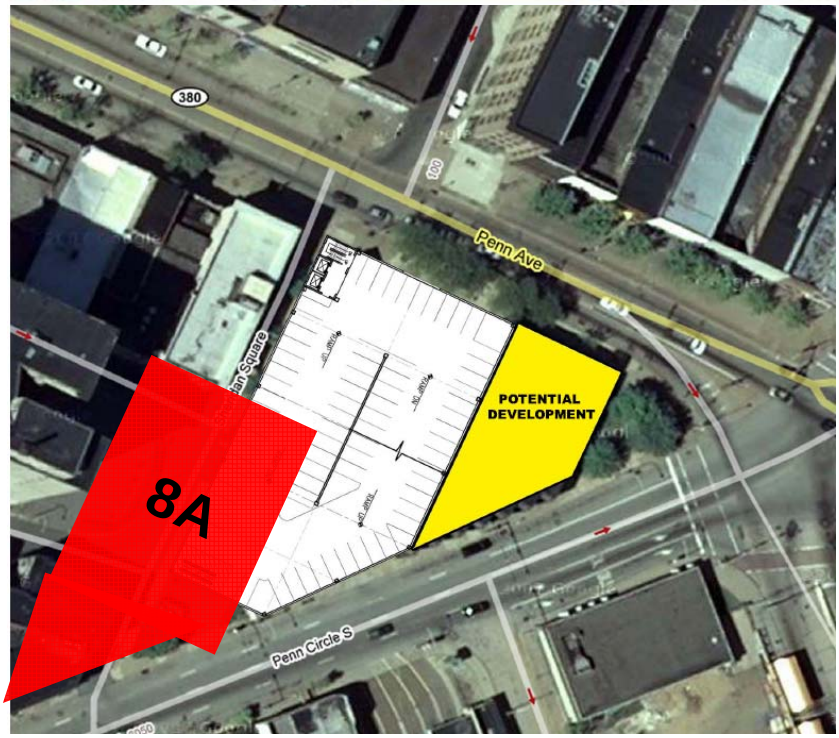
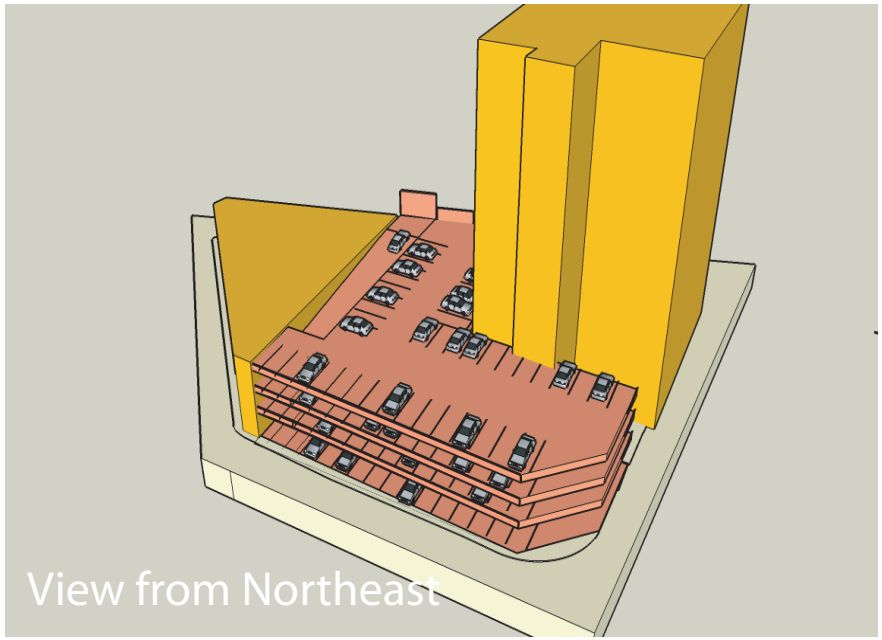
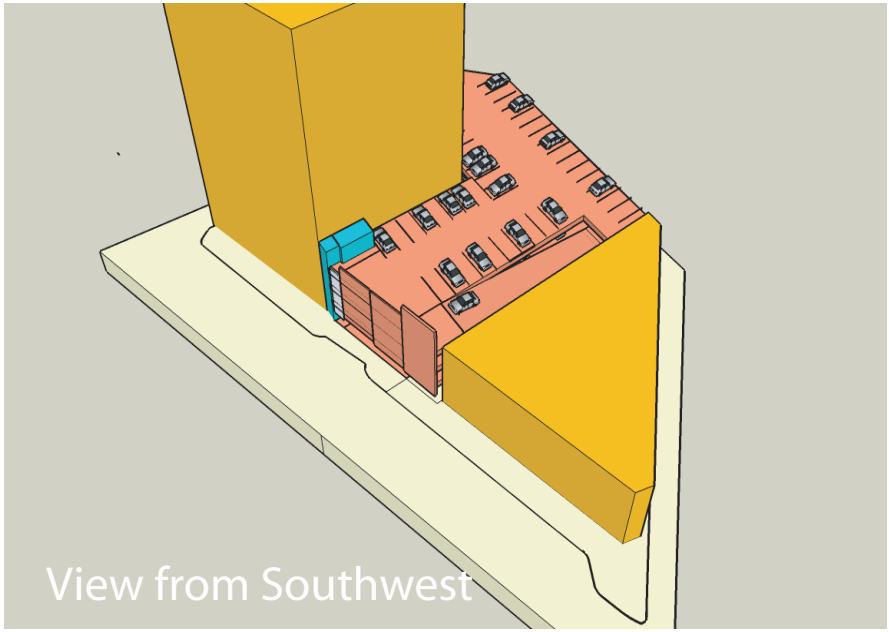
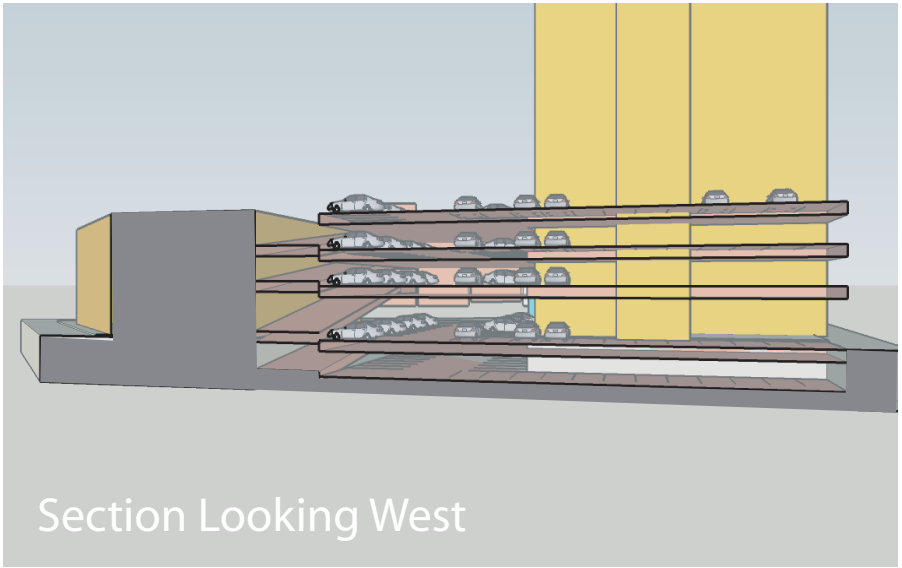
OPTION 1A
1D
POTENTIAL DEVELOPMENT
Baum Blvd


380
Penn Ave
8A
POTENTIAL DEVELOPMENT
Penn Circle S







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Preliminary Financial Assessment

We will analyze the potential financial performance of the three top ranked sites. Included will be revenue, expense, and debt service projections. For the purposes of this exercise we will only include construction costs when projecting debt service as we do not know land acquisition or other costs that may be incurred to construct these parking facilities. The pro forma operating assumptions are outlined in the following section.

General

1. This facility would be a fully automated facility open 24/7.
2. City of Pittsburgh parking tax calculations are based on 35%.
3. Annual inflation rate of 3%. Inflation has been applied to both revenues and expenses after Year 1.
4. All calculations are based on a specific number of spaces for each option:
   - Option 1C – 620 spaces in four levels[4] for a total construction cost of: $15,295,000
   - Option 1D – 340 spaces in four levels for a total construction cost of: $ 8,682,500
   - Option 8A – 270 spaces in three levels for a total construction cost of: $ 7,518,125

Revenue Assumptions

1. Monthly permit holders will pay $90/month for monthly access and increase at 3% annually.
2. Monthly parkers will primarily be driven by office demand in the surrounding planned developments. Monthly office demand for the new developments was based on 3.8/KSF.
3. Based on proximity to the proposed garage(s) we assume to capture the following for Options 1C & 1D:
   a. 75% of the office demand from 6000 Penn Avenue.
   b. 75% of the office demand from Penn Avenue Shops.
   c. 10% of the office demand from the National City development.
   d. 10 miscellaneous monthlies will derive from full-time employees (i.e. restaurant, retail managers).
   e. Novum Pharmaceuticals currently has 60 monthly parkers in the EVA/Beatty PPA lot. We assume to capture 75% or 45 of these parkers.
   f. 20 AAA monthly parkers displaced from the lot along Trade Street.
4. Based on proximity to the proposed garage(s) we assume to capture the following for Option 8A:
   a. 85% of the office demand from 6000 Penn Avenue.
   b. 85% of the office demand from Penn Avenue Shops.
   c. 35% of the office demand from the National City development.
   d. 10 miscellaneous monthlies will derive from full-time employees (i.e. restaurant, retail managers).
   e. Novum Pharmaceuticals currently has 60 monthly parkers in the EVA/Beatty PPA lot. We assume to capture 50% or 30 of these parkers.
5. Hourly parking rates will be as follows:
   a. 0 – 1 Hours $2.00
   b. 1 – 2 Hours $4.00
   c. 2 – 3 Hours $6.00
   d. 3 – 4 Hours $8.00
   e. 4 – 5 Hours $10.00
   f. Daily Max $12.00
   g. Charging for the first hour may limit the opportunity for the new structure to remain competitive. Projects such as the Eastside development have traditionally provided free customer parking.

[4] The number of levels has been limited to maintain the architectural character, integrity, and feel of the East Liberty community.

We have assumed that area merchants/businesses will subsidize parking fees as necessary to support the demand assumptions listed with a validation program.

6. The Presbyterian Church will have to pay the normal parking rates. We anticipate 40 vehicles per Sunday service at $2.00/per.

Expense Assumptions

1. We have not verified or reviewed the construction cost estimates included in the proforma as part of our financial analysis. This pro forma assumes construction costs at $62.50/sf.
2. Acquisition costs are not included and will be determined locally.
3. Soft costs are estimated at 15% of the total construction costs.
4. Debt service is based on a 25-year term (based on URA's request to limit the term to 25 years).
5. Labor is estimated at $115 per space annually. This assumption is based on a fully automated parking facility (automated pay equipment) with limited labor. A cashier could be present during peak parking hours only. A full-time cashier operation would greatly increase labor costs to as much as triple the current labor estimation of $115/space.
6. Utilities are estimated at $75 per space annually.
7. Daily maintenance is estimated as $60 per space annually.
8. Equipment maintenance is estimated as $75 per space annually.
9. Supply cost is estimated as $18 per space annually.
10. Lighting cost is estimated as $25 per space annually.
11. Security is estimated as $100 per space annually.
12. Insurance is estimated as $60 per space annually.
13. Miscellaneous expense is estimated as $17 per space annually.
14. Reserves are estimated at $50 per space annually.

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Table 16: Pro Forma Option 1C

Parking Spaces	620						Monthly Ramp Up Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Inflation	3%						Inflation Factor	1	1.03	1.06	1.09	1.13	1.16	1.19	1.23	1.27	1.30
								1	2	3	4	5	6	7	8	9	10
							Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Operating Revenue	Rate		Term	Ratio	Users	Times/Yr	Duration										
Monthly	$	90.00	/mo	3.8/1000	192	12	1.0	$ 207,403	$ 213,625	$ 220,034	$ 226,635	$ 233,434	$ 240,437	$ 247,650	$ 255,080	$ 262,732	$ 270,614
Restaurant Customers	$	2.00	1.5/hours	0.0007	68	365	1.5	$ 74,186	$ 76,412	$ 78,704	$ 81,065	$ 83,497	$ 86,002	$ 88,582	$ 91,240	$ 93,977	$ 96,796
Retail Customers	$	2.00	1/hours	0.0004	32	365	1.0	$ 23,360	$ 24,061	$ 24,783	$ 25,526	$ 26,292	$ 27,081	$ 27,893	$ 28,730	$ 29,592	$ 30,480
Misc. Transient	$	2.00	1/hours		15	365	1.0	$ 10,950	$ 11,279	$ 11,617	$ 11,965	$ 12,324	$ 12,694	$ 13,075	$ 13,467	$ 13,871	$ 14,287
Gross Operating Revenue								$ 315,899	$ 325,376	$ 335,138	$ 345,192	$ 355,548	$ 366,214	$ 377,200	$ 388,516	$ 400,172	$ 412,177
City of Pittsburgh Parking Tax (35%)								$ (81,900)	$ (84,357)	$ (86,888)	$ (89,494)	$ (92,179)	$ (94,944)	$ (97,793)	$ (100,726)	$ (103,748)	$ (106,861)
Net Operating Revenue								$ 234,000	$ 241,020	$ 248,250	$ 255,698	$ 263,369	$ 271,270	$ 279,408	$ 287,790	$ 296,424	$ 305,316
Operating Expense	*per space*																
Labor	$	115						$ 71,300	$ 73,439	$ 75,642	$ 77,911	$ 80,249	$ 82,656	$ 85,136	$ 87,690	$ 90,321	$ 93,030
Utilities	$	75						$ 46,500	$ 47,895	$ 49,332	$ 50,812	$ 52,336	$ 53,906	$ 55,523	$ 57,189	$ 58,905	$ 60,672
Daily Maintenance	$	60						$ 37,200	$ 38,316	$ 39,465	$ 40,649	$ 41,869	$ 43,125	$ 44,419	$ 45,751	$ 47,124	$ 48,538
Equipment Maintenance	$	75						$ 46,500	$ 47,895	$ 49,332	$ 50,812	$ 52,336	$ 53,906	$ 55,523	$ 57,189	$ 58,905	$ 60,672
Lighting	$	25						$ 15,500	$ 15,965	$ 16,444	$ 16,937	$ 17,445	$ 17,969	$ 18,508	$ 19,063	$ 19,635	$ 20,224
Supplies	$	18						$ 11,160	$ 11,495	$ 11,840	$ 12,195	$ 12,561	$ 12,937	$ 13,326	$ 13,725	$ 14,137	$ 14,561
Security	$	100						$ 62,000	$ 63,860	$ 65,776	$ 67,749	$ 69,782	$ 71,875	$ 74,031	$ 76,252	$ 78,540	$ 80,896
Insurance	$	60						$ 37,200	$ 38,316	$ 39,465	$ 40,649	$ 41,869	$ 43,125	$ 44,419	$ 45,751	$ 47,124	$ 48,538
Miscellaneous Expenses	$	17						$ 10,540	$ 10,856	$ 11,182	$ 11,517	$ 11,863	$ 12,219	$ 12,585	$ 12,963	$ 13,352	$ 13,752
Total Operating Expenses [1]	$	545						$ 337,900	$ 348,037	$ 358,478	$ 369,232	$ 380,309	$ 391,719	$ 403,470	$ 415,574	$ 428,042	$ 440,883
Net Operating Income								$ (22,001)	$ (22,661)	$ (23,340)	$ (24,041)	$ (24,762)	$ (25,505)	$ (26,270)	$ (27,058)	$ (27,870)	$ (28,706)
Structural Maintenance - Reserves	$	50.00						$ 31,000	$ 31,930	$ 32,888	$ 33,875	$ 34,891	$ 35,937	$ 37,016	$ 38,126	$ 39,270	$ 40,448
NOI plus Reserves								$ (53,001)	$ (54,591)	$ (56,228)	$ (57,915)	$ (59,653)	$ (61,442)	$ (63,285)	$ (65,184)	$ (67,140)	$ (69,154)

Notes:

1: Property Tax is not included

Debt Service

Parking Hard Cost	$ 12,950,000	
Equipment Cost	$ 350,000	$ 564.52
Soft Costs (15%)	$ 1,995,000	
Total Construction Costs	$ 15,295,000	
Term	25	Years
Rate	5.00%	
Annual P&I	$1,085,218	

Net Income	$ (1,138,218) $ (1,139,808) $ (1,141,446) $ (1,143,133) $ (1,144,870) $ (1,146,660) $ (1,148,503) $ (1,150,402) $ (1,152,357) $ (1,154,372)

Source: Timothy Haahs and Associates, 2009

Table 17: Pro Forma Option 1D

Parking Spaces	340						Ramp Up Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Inflation	3%						Inflation Factor	1	1.03	1.06	1.09	1.13	1.16	1.19	1.23	1.27	1.30
								1	2	3	4	5	6	7	8	9	10
							Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Operating Revenue	Rate			Users	Times/Yr	Duration											
Monthly	$ 90.00	/mo	3.8/1000	192	12	1.0		$ 207,403	$ 213,625	$ 220,034	$ 226,635	$ 233,434	$ 240,437	$ 247,650	$ 255,080	$ 262,732	$ 270,614
Restaurant Customers	$ 2.00	1.5/hours	0.0007	68	365	2.0		$ 24,729	$ 50,941	$ 78,704	$ 108,087	$ 111,330	$ 114,670	$ 118,110	$ 121,653	$ 125,303	$ 129,062
Retail Customers	$ 2.00	1/hours	0.0004	32	365	1.0		$ 23,360	$ 24,061	$ 24,783	$ 25,526	$ 26,292	$ 27,081	$ 27,893	$ 28,730	$ 29,592	$ 30,480
Misc. Transient	$ 2.00	1/hours		15	365	1.0		$ 10,950	$ 11,279	$ 11,617	$ 11,965	$ 12,324	$ 12,694	$ 13,075	$ 13,467	$ 13,871	$ 14,287
Net Operating Revenue								$ 266,442	$ 299,906	$ 335,138	$ 372,214	$ 383,380	$ 394,881	$ 406,728	$ 418,930	$ 431,498	$ 444,443
City of Pittsburgh Parking Tax (35%)								$ (69,078)	$ (77,753)	$ (86,888)	$ (96,500)	$ (99,395)	$ (102,377)	$ (105,448)	$ (108,611)	$ (111,870)	$ (115,226)
Net Operating Revenue								$ 197,364	$ 222,152	$ 248,250	$ 275,714	$ 283,985	$ 292,505	$ 301,280	$ 310,318	$ 319,628	$ 329,217
Operating Expense	*per space*																
Labor	$ 115							$ 39,100	$ 40,273	$ 41,481	$ 42,726	$ 44,007	$ 45,328	$ 46,687	$ 48,088	$ 49,531	$ 51,017
Utilities	$ 75							$ 25,500	$ 26,265	$ 27,053	$ 27,865	$ 28,700	$ 29,561	$ 30,448	$ 31,362	$ 32,303	$ 33,272
Daily Maintenance	$ 60							$ 20,400	$ 21,012	$ 21,642	$ 22,292	$ 22,960	$ 23,649	$ 24,359	$ 25,089	$ 25,842	$ 26,617
Equipment Maintenance	$ 75							$ 25,500	$ 26,265	$ 27,053	$ 27,865	$ 28,700	$ 29,561	$ 30,448	$ 31,362	$ 32,303	$ 33,272
Lighting	$ 25							$ 8,500	$ 8,755	$ 9,018	$ 9,288	$ 9,567	$ 9,854	$ 10,149	$ 10,454	$ 10,768	$ 11,091
Supplies	$ 18							$ 6,120	$ 6,304	$ 6,493	$ 6,687	$ 6,888	$ 7,095	$ 7,308	$ 7,527	$ 7,753	$ 7,985
Security	$ 100							$ 34,000	$ 35,020	$ 36,071	$ 37,153	$ 38,267	$ 39,415	$ 40,598	$ 41,816	$ 43,070	$ 44,362
Insurance	$ 60							$ 20,400	$ 21,012	$ 21,642	$ 22,292	$ 22,960	$ 23,649	$ 24,359	$ 25,089	$ 25,842	$ 26,617
Miscellaneous Expenses	$ 17							$ 5,780	$ 5,953	$ 6,132	$ 6,316	$ 6,505	$ 6,701	$ 6,902	$ 7,109	$ 7,322	$ 7,542
Total Operating Expenses [1]	$ 545							$ 185,300	$ 190,859	$ 196,585	$ 202,482	$ 208,557	$ 214,813	$ 221,258	$ 227,896	$ 234,732	$ 241,774
Net Operating Income								$ 81,142	$ 109,047	$ 138,553	$ 169,731	$ 174,823	$ 180,068	$ 185,470	$ 191,034	$ 196,765	$ 202,668
Structural Maintenance - Reserves	$ 50							$ 17,000	$ 17,510	$ 18,035	$ 18,576	$ 19,134	$ 19,708	$ 20,299	$ 20,908	$ 21,535	$ 22,181
NOI plus Reserves								$ 64,142	$ 91,537	$ 120,518	$ 151,155	$ 155,690	$ 160,360	$ 165,171	$ 170,126	$ 175,230	$ 180,487

Notes:

1: Property Tax is not included

Debt Service

Parking Hard Cost		$ 7,200,000
Equipment Cost	1,029.41	$ 350,000
Soft Costs (15%)		$ 1,132,500
Total Consturction Cost		$ 8,682,500
Term	25	Years
Rate	5.0%	
Annual P&I	$616,045	

Net Income	$ (551,903)	$ (524,508)	$ (495,527)	$ (464,890)	$ (460,355)	$ (455,684)	$ (450,874)	$ (445,918)	$ (440,815)	$ (435,558)

Source: Timothy Haahs and Associates, 2009

Table 18: Pro Forma Option 8A

Parking Spaces	270					Ramp Up Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Inflation	3%					Inflation Factor	1	1.03	1.06	1.09	1.13	1.16	1.19	1.23	1.27	1.30
							1	2	3	4	5	6	7	8	9	10
						Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Operating Revenue	Rate		Ratios	Users	Times/Yr	Duration										
Monthly	$ 90.00	/mo	3.8/1000	207	12	1.0	$ 223,366	$ 230,067	$ 236,969	$ 244,078	$ 251,400	$ 258,942	$ 266,710	$ 274,712	$ 282,953	$ 291,441
Restaurant Customers	$ 2.00	1.5/hours	0.0007	68	365	1.5	$ 18,547	$ 38,206	$ 59,028	$ 81,065	$ 83,497	$ 86,002	$ 88,582	$ 91,240	$ 93,977	$ 96,796
Retail Customers	$ 2.00	1/hours	0.0004	32	365	1.0	$ 23,360	$ 24,061	$ 24,783	$ 25,526	$ 26,292	$ 27,081	$ 27,893	$ 28,730	$ 29,592	$ 30,480
Misc. Transient	$ 2.00	1/hours		15	365	1.0	$ 10,950	$ 11,279	$ 11,617	$ 11,965	$ 12,324	$ 12,694	$ 13,075	$ 13,467	$ 13,871	$ 14,287
Gross Operating Revenue							$ 265,272	$ 292,333	$ 320,779	$ 350,669	$ 361,189	$ 372,025	$ 383,186	$ 394,681	$ 406,522	$ 418,717
City of Pittsburgh Parking Tax (35%)							$ (68,774)	$ (75,790)	$ (83,165)	$ (90,914)	$ (93,642)	$ (96,451)	$ (99,344)	$ (102,325)	$ (105,394)	$ (108,556)
Net Operating Revenue							$ 196,498	$ 216,543	$ 237,614	$ 259,755	$ 267,547	$ 275,574	$ 283,841	$ 292,356	$ 301,127	$ 310,161
Operating Expense	*per space*															
Labor	$ 115						$ 31,050	$ 31,982	$ 32,941	$ 33,929	$ 34,947	$ 35,995	$ 37,075	$ 38,188	$ 39,333	$ 40,513
Utilities	$ 75						$ 20,250	$ 20,858	$ 21,483	$ 22,128	$ 22,792	$ 23,475	$ 24,180	$ 24,905	$ 25,652	$ 26,422
Daily Maintenance	$ 60						$ 16,200	$ 16,686	$ 17,187	$ 17,702	$ 18,233	$ 18,780	$ 19,344	$ 19,924	$ 20,522	$ 21,137
Equipment Maintenance	$ 75						$ 20,250	$ 20,858	$ 21,483	$ 22,128	$ 22,792	$ 23,475	$ 24,180	$ 24,905	$ 25,652	$ 26,422
Lighting	$ 25						$ 6,750	$ 6,953	$ 7,161	$ 7,376	$ 7,597	$ 7,825	$ 8,060	$ 8,302	$ 8,551	$ 8,807
Supplies	$ 18						$ 4,860	$ 5,006	$ 5,156	$ 5,311	$ 5,470	$ 5,634	$ 5,803	$ 5,977	$ 6,157	$ 6,341
Security	$ 100						$ 27,000	$ 27,810	$ 28,644	$ 29,504	$ 30,389	$ 31,300	$ 32,239	$ 33,207	$ 34,203	$ 35,229
Insurance	$ 60						$ 16,200	$ 16,686	$ 17,187	$ 17,702	$ 18,233	$ 18,780	$ 19,344	$ 19,924	$ 20,522	$ 21,137
Miscellaneous Expenses	$ 17						$ 4,590	$ 4,728	$ 4,870	$ 5,016	$ 5,166	$ 5,321	$ 5,481	$ 5,645	$ 5,814	$ 5,989
Total Operating Expenses [1]	$ 545						$ 147,150	$ 151,565	$ 156,111	$ 160,795	$ 165,619	$ 170,587	$ 175,705	$ 180,976	$ 186,405	$ 191,997
Net Operating Income							$ 118,122	$ 140,769	$ 164,668	$ 189,874	$ 195,570	$ 201,438	$ 207,481	$ 213,705	$ 220,116	$ 226,720
Structural Maintenance - Reserves	$ 50.00						$ 13,500	$ 13,905	$ 14,322	$ 14,752	$ 15,194	$ 15,650	$ 16,120	$ 16,603	$ 17,101	$ 17,614
NOI plus Reserves							$ 104,622	$ 126,864	$ 150,346	$ 175,122	$ 180,376	$ 185,787	$ 191,361	$ 197,102	$ 203,015	$ 209,105

Notes:

1: Property Tax is not included

Debt Service

Parking Hard Cost		$ 6,187,500
Equipment Cost	1,296.30	$ 350,000
Soft Costs (15%)		$ 980,625
Total Construction Cost		$ 7,518,125
Term	25	Years
Rate	5.0%	
Annual P&I	$533,429	

Net Income	$ (428,807)	$ (406,566)	$ (383,084)	$ (358,307)	$ (353,053)	$ (347,642)	$ (342,068)	$ (336,328)	$ (330,415)	$ (324,324)

Source: Timothy Haahs and Associates, 2009

Pro Forma Summary

The estimated operating revenues for each of the options studied are not sufficient to support the debt service and reserves. For Option 1C, we estimate a shortage of approximately $1.1 MM during Years 1 through 10. Option 1D has an estimated shortage ranging from approximately $550k - $430k each year. Finally, Option 8A, is also estimated to experience a shortage of approximately $400k each year. In order to "break-even" at the current demand levels, the monthly and hourly parking rates would need to be increased to an unrealistic level that wouldn't be supported in East Liberty. Furthermore, parking meter rates in the area would have to be raised to make the garage more attractive for all user groups. Raising rates would increase garage demand while also encouraging the true intent of on-street spaces to serve short-term, transient users.

It will be necessary for the City to subsidize a parking facility in East Liberty on a yearly basis. Some possible options to offset the negative financial impact include:

- Pledge all revenue generated by on-street parking meters to the public parking garages. (The meter rates should be increased in conjunction with any new structured parking alternatives.)

- Consider public/private partnerships or sponsorships to off-set some of the construction and/or operational expenses.

- Consider advertising opportunities. For example, some advertisers will provide free parking tickets (received when entering a garage) in exchange for advertising their name on the parking tickets. Or aesthetically appropriate advertising could be placed on the side of the parking facility.

- Consider the approval of a local sales tax to fund the public parking facilities.

- Explore federal grants for public parking facilities which serve as a transportation hub. This would be possible as the development could be linked to both the local bus and/or train routes.

- If the URA is currently renting space, they could potentially move all or a portion of their office to the mixed-spaces component in the new garage and continue to pay rent to helps support the structure.

Appendix

During data collection we numbered the blocks numerically as a way to identify and track the parking supply and occupancy statistics. The block numbers correspond to data contained in this appendix. The aerial picture on the following page has been labeled for clarification.

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Figure 4: Blocks as Numbered for Supply & Occupancy

Source: Google Maps and Timothy Haahs & Associates, 2009

In addition, the off-street parking lots were labeled for easy identification. This aerial photo on the following page corresponds to the following table.

Off-Street Parking Assets				
Map Label	Block Number	Information	Number of Spaces	Use: Public/Private
L-1	1	Metered Lot	46	Public
L-2	1	PPA - Lease Only	79	Public
L-3	5	PPA Metered	36	Public
L-4	5	East Minster	70	Private
L-5	7	PPA Sheridan & Harvard	41	Public
L-6	9	PPA Harvard Beatty	61	Public
L-7	11	Metered Lot (next to McD's)	23	Public
L-8	12	Duquesne Light	45	Private
L-9	15	PPA Sheridan Kirkwood	114	Public
L-10	21	PPA Eva & Beatty	134	Public
L-11	24	ELDI Controlled	8	Private
L-12	25	CVS Lot	13	Private
L-13	26	Permit Only	18	Private
L-14	27	Big Brothers/Plastic Surgery	36	Private
L-15	28	PPA Carnegie Library Lot	75	Public
L-16	29	AAA Reserved & Gated	88	Private
L-17	29	Unsigned Gravel Lot	50	Private
L-18	31	AAA Reserved & Gated	132	Private
L-19	32	AAA Reserved & Gated	43	Private
L-20	33	Eastside Structure:	--	Private
L-20	33	Upper Level	197	Private
L-20	33	Lower Level	157	Private
L-20	33	Whole Foods/Starbuck's	101	Private
L-21	34	PPA Stevenson Place	48	Public
Total Off- Street Parking Supply			1,615	

Figure 5: Parking Lot Labels for Identification

Source: Google Maps and Timothy Haahs & Associates, 2009

The following table depicts the block-by-block parking supply. Please note the appendix may contain raw data that may vary slightly from the report due to such factors as identifying private vs. public supply, etc.

Area Block No.	Parking Inventory Off-Street Areas A	B	C	Total Off-Street	Total On-Street	Total Parking
1	46	79	0	125	0	125
2				0	0	0
3				0	11	11
4				0	13	13
5	36	70		106	0	106
6				0	0	0
7	41			41	10	51
8				0	32	32
9	61			61	2	63
10				0	0	0
11	23			23	4	27
12	45			45	5	50
13				0	25	25
14				0	40	40
15	114			114	0	114
16				0	3	3
17				0	12	12
18				0	6	6
19				0	18	18
20				0	9	9
21	134			134	8	142
22				0	21	21
23				0	21	21
24	8			8	18	26
25	13			13	5	18
26	18			18	11	29
27	36			36	10	46
28	75			75	10	85
29		50		50	9	59
30				0	17	17
31				0	27	27
32				0	17	17
33	101	157	197	455	0	455
34	48			48	24	72
Home Depot	Large surface lot			422		422
Total				1,774	388	2,162

The following two tables show the occupancy counts at each observation day and time.

Area Block No.	Total Parking Supply	Occupany Friday 10am	Friday 12pm	Friday 3pm	Friday 7pm	Saturday 8am
1	125	69	66	52	4	2
2	0	0	0	0	0	0
3	11	5	6	4	1	2
4	13	8	9	0	9	1
5	106	44	48	42	18	5
6	0	0	0	0	0	0
7	51	41	42	22	6	15
8	32	26	28	22	13	8
9	63	31	33	24	2	0
10	0	0	0	0	0	0
11	27	19	18	11	2	1
12	50	34	34	35	1	0
13	25	23	20	18	12	9
14	40	38	37	37	16	18
15	114	39	44	50	11	4
16	3	2	3	2	2	1
17	12	11	7	12	2	2
18	6	5	7	7	6	0
19	18	21	21	17	12	8
20	9	9	9	3	2	2
21	142	84	81	76	19	23
22	21	25	28	18	11	6
23	21	21	19	13	20	1
24	26	25	19	19	7	2
25	18	8	8	13	11	5
26	29	21	21	16	13	3
27	46	24	20	23	13	2
28	85	72	60	46	7	8
29	59	24	26	1	0	1
30	17	17	16	5	3	0
31	27	18	21	9	2	1
32	17	14	8	3	15	2
33	455	272	315	275	270	125
34	72	49	48	41	28	8
Home Depot	422	176	191	167	45	66
Total	2,162	1,099	1,122	916	538	265

Source: Timothy Haahs & Associates, 2009

Area Block No.	Total Parking Supply	Occupancy Monday 10am	Tuesday 10am	Tuesday 12pm	Tuesday 3pm
1	125	54	61	57	50
2	0	0	0	0	0
3	11	4	7	3	6
4	13	8	12	11	9
5	106	61	66	63	61
6	0	5	11	12	10
7	51	34	40	37	26
8	32	20	26	21	22
9	63	27	38	34	36
10	0	0	0	0	0
11	27	11	12	11	16
12	50	35	38	32	28
13	25	22	24	23	21
14	40	31	30	36	36
15	114	40	42	46	41
16	3	2	2	4	3
17	12	12	10	6	8
18	6	5	5	5	6
19	18	16	19	21	21
20	9	9	11	10	10
21	142	87	85	75	72
22	21	16	21	19	17
23	21	18	19	22	20
24	26	24	26	22	17
25	18	7	8	7	8
26	29	15	18	24	28
27	46	29	30	32	29
28	85	75	73	72	75
29	59	37	24	19	14
30	17	5	6	7	7
31	27	10	18	11	8
32	17	4	3	5	7
33	455	224	270	300	291
34	72	36	46	48	42
Home Depot	422	179	172	188	150
Total	2,162	983	1,101	1,095	1,045

Source: Timothy Haahs & Associates, 2008

Meetings with the developers and the public were held on October 20th. The following is the recap.

RE: East Liberty Parking Study Stakeholder Meetings
Date: Monday, October 20th, 2008

The meetings were facilitated by Chris Walls and Todd Helmer of TimHaahs. Robert Rubenstein and Susheela Nemani-Stanger from the URA were present. Anthony Boule (PPA) and Ernie Hogan (ELDI) were also in attendance.

The first meeting was intended to clarify all related information for the planned projects in East Liberty. Specifically, we were hoping to confirm key program data to include: type of development (restaurant, hotel, housing, retail, office) and the related data such as planned sf, number of rooms, opening date, locations, construction timelines, etc. The majority of the primary developers were in attendance.

The second meeting was planned for interested business owners/operators/managers and residents to attend. Specifically, we were hoping to gain insight into both positive and negative issues related to parking from the viewpoint of the people living and working there on a daily basis. While only a couple of business owners came, they did provide important information we will consider in the study.

The following were some of the items discussed:

- Lack of safe and convenient parking was mentioned frequently.
- By 2010, most (if not all) surface parking lots will be eliminated as new development continues.
- Structured parking that is centralized will be a likely solution. TimHaahs to explore this in the study. A centralized parking facility could help parking demand on both sides of the Highland Avenue Bridge.
- Signage - We will look at the signage in the district to see if they need to be improved to direct patrons to the lots. This will also be important in the future. Assuming new parking supply is created, proper signage directing motorists to parking assets will be essential to reduce "drive around traffic". The idea is to encourage more pedestrian activity as this is a key vision of the district.
- Eastside parking and enforcement is a major issue. This is a high demand parking area (especially for Whole Foods). However, they have installed cameras and have begun ticketing and towing when people park at Eastside and then walk to nearby attractions. This enforcement discourages pedestrian activity and we need to implement a short/long term fix to encourage it and promote some vitality.
- One business owner mentioned that when they signed off on the development of Eastside they were told the parking supply would serve surrounding businesses – this however, hasn't been the case.
- The Highland Avenue Bridge is an issue as it poses a physical and perhaps mental barrier to parking. Some patrons don't want to walk across the bridge to find parking. Other issues include parking on the bridge. This creates congestion especially for bus traffic.
- The Mosites-owned surface lot located west of the bridge off Highland (Stevenson Place) isn't highly utilized because of the poor lighting conditions and location.
- Cars are frequently broken into with a history of "smash & grab" incidents. This activity is more frequent during the holiday season. In the past, some of the perpetrators were believed to have used the nearby bus transit center as a means for quick escape.
- There is currently a lack of appropriate bike storage outside of businesses throughout the district. This issue was considered. If storage is on private property it is up to the individual business to make the decision and incur the cost. If they are desired on city sidewalks, generally an ordinance variance needs to be secured from the city. We were informed by Whole Foods that they will be adding more bicycle racks in the spring to serve both employees and customers.
- Several comments were mentioned for a valet parking service to be added as a service to address the lack of close parking primarily for restaurant patrons. The Mosites Company offered a possible location for valet storage – this proposed location would most likely be available for the next few years. However, the site is slated for future development. This should be considered as a short-term solution.

- Cab access is a problem and waits as long as 90 minutes are the norm. Cab companies frequent areas where consistently high passenger demand is present. As East Liberty becomes a more popular destination this may be more appealing for cab companies.
- Questions were raised as to whether Parking Authority lots were available for lease.
- One problem for new developments moving into rehabilitated buildings is that parking was not planned when initially built.
- Farmers market is every Monday night – not a problem for parkers.
- Customer Service Issue – not lenient on patrons in the district with towing an issue. Need to look at this towing issue with the enforcement and help them understand how they are impacting the growth and sustainability of the businesses.
- 200 block of Shady used as a impromptu park 'n ride.
- Consider "Shadyside Solution" – this area developed parking alleys behind the retail fronts.
- Some statistics:
    - Kelly Strayhorn Theatre – 16,000 attended events last year
    - Library – 50,000 visits per year
    - Church – 2,000 visits per year
    - Bus trips in the district – 33,000 per week

SITE MAP

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OPTION 1A

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OPTION 1B

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OPTION 1C

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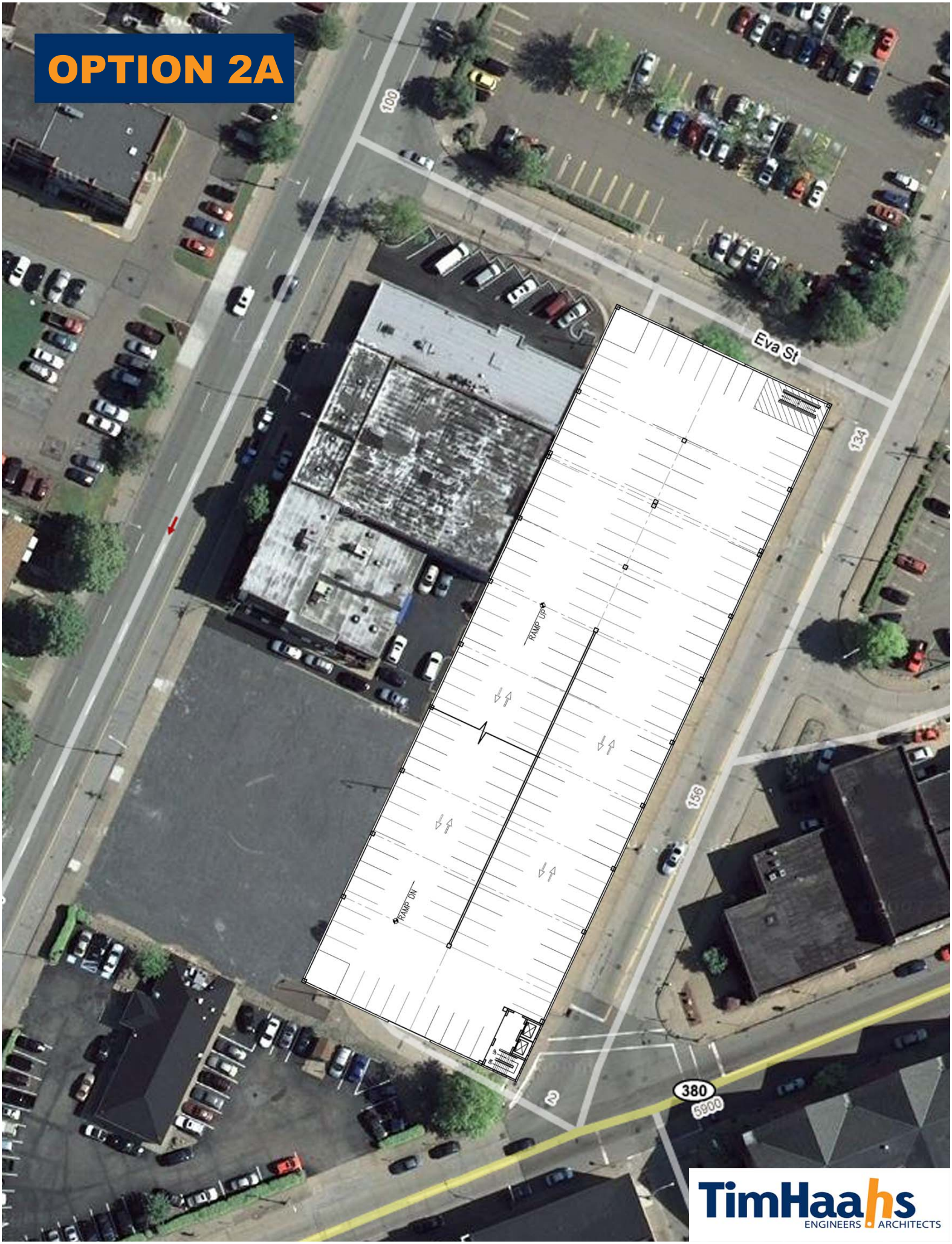
OPTION 2A



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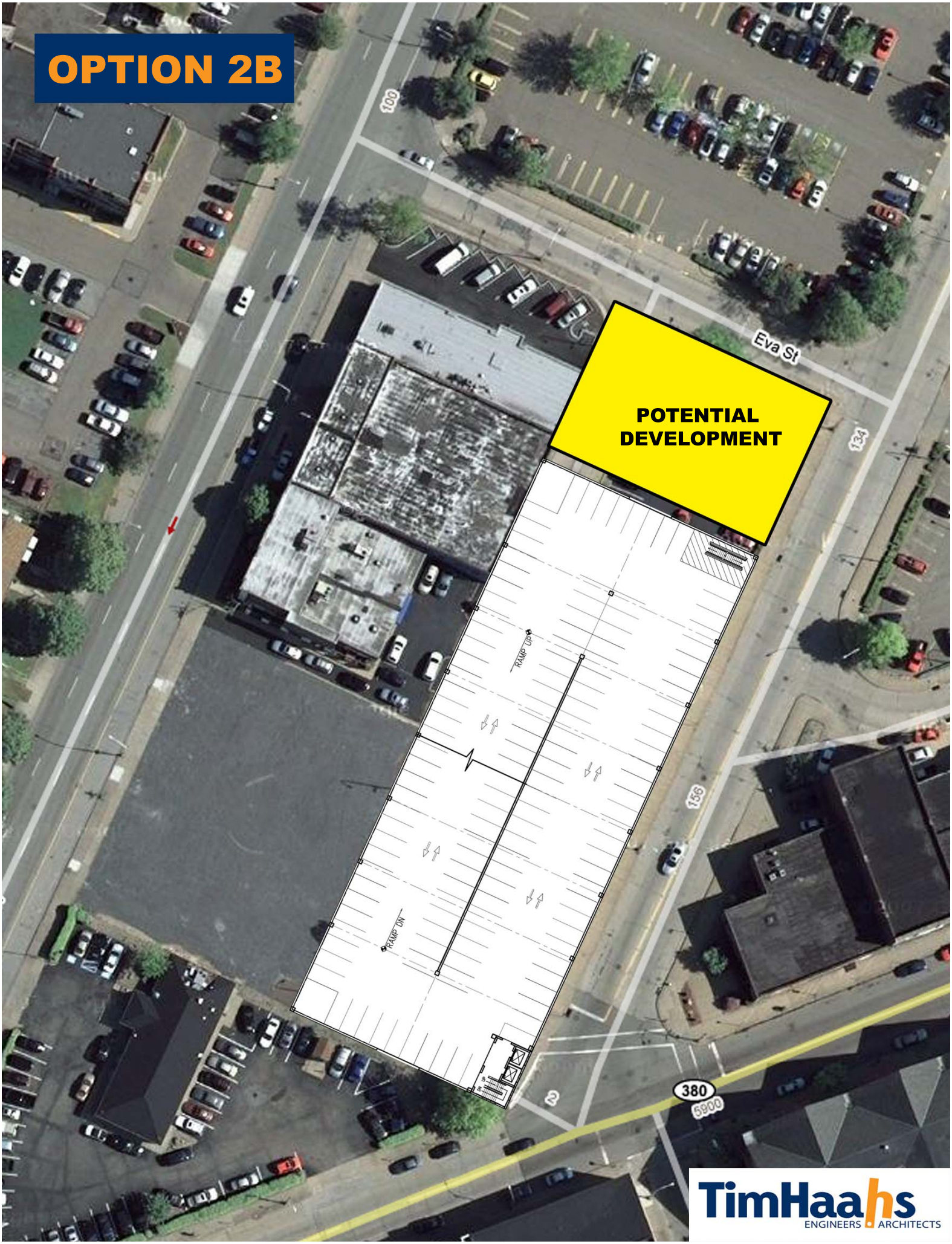
OPTION 2B



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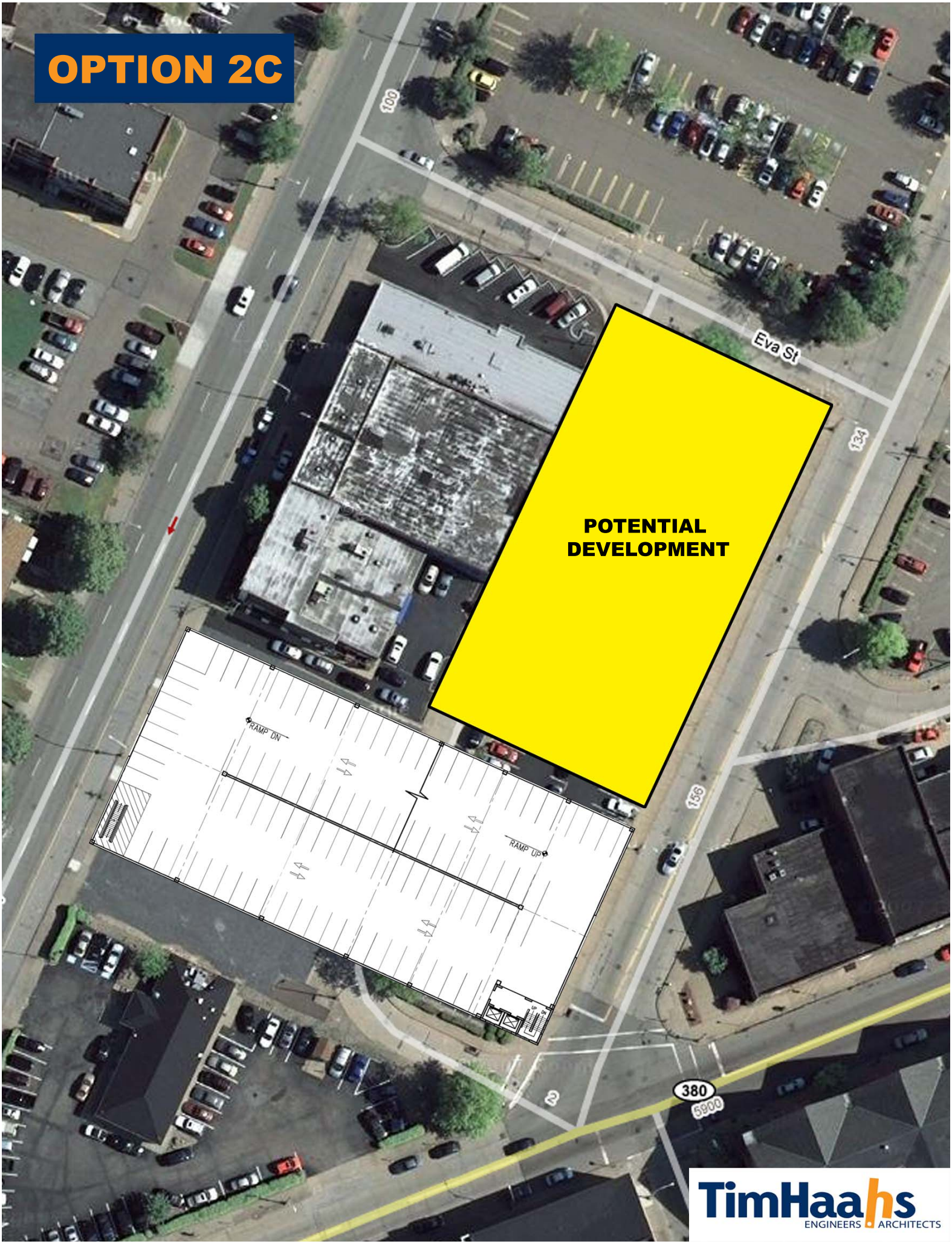
OPTION 2C



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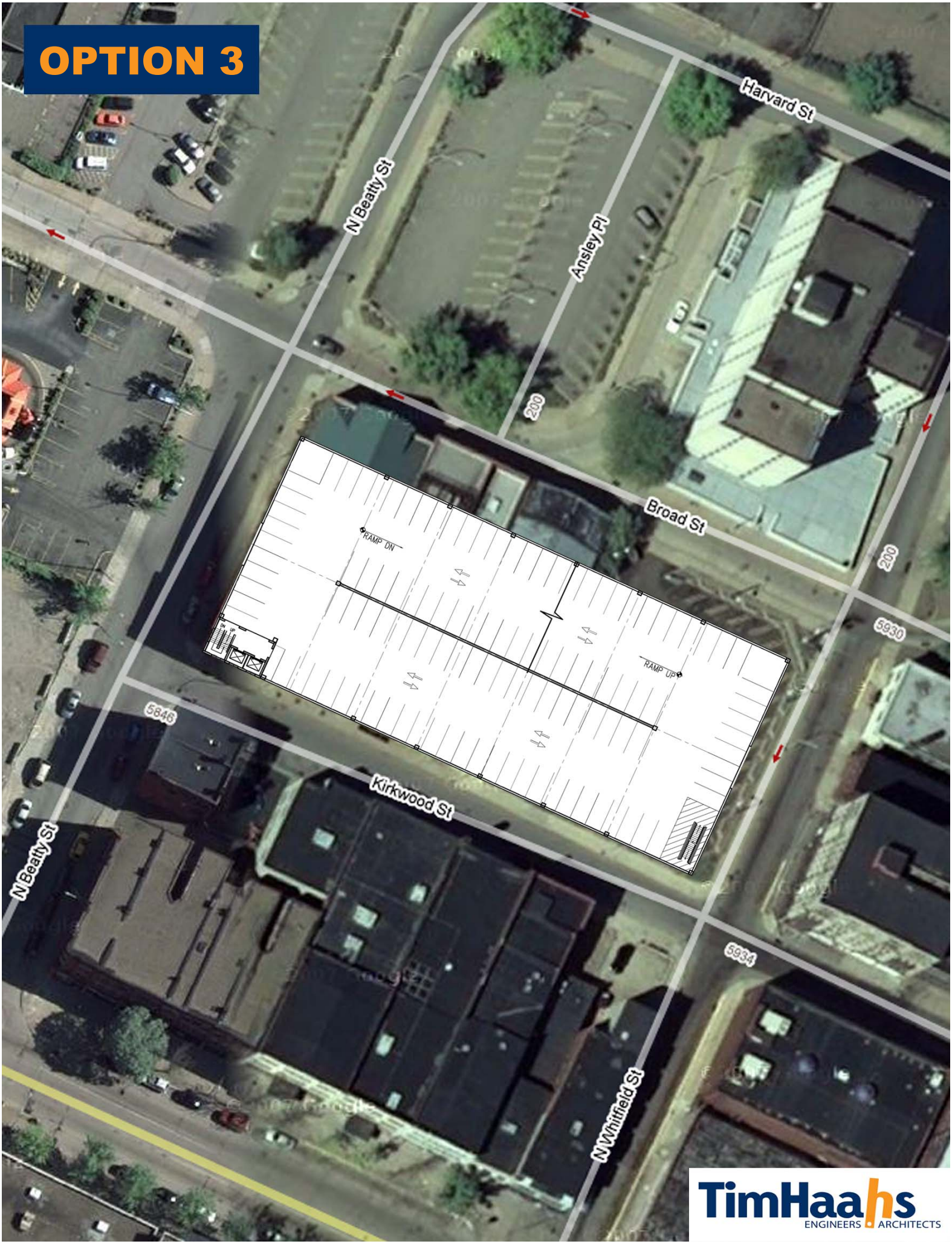
OPTION 3



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OPTION 4A

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OPTION 4B

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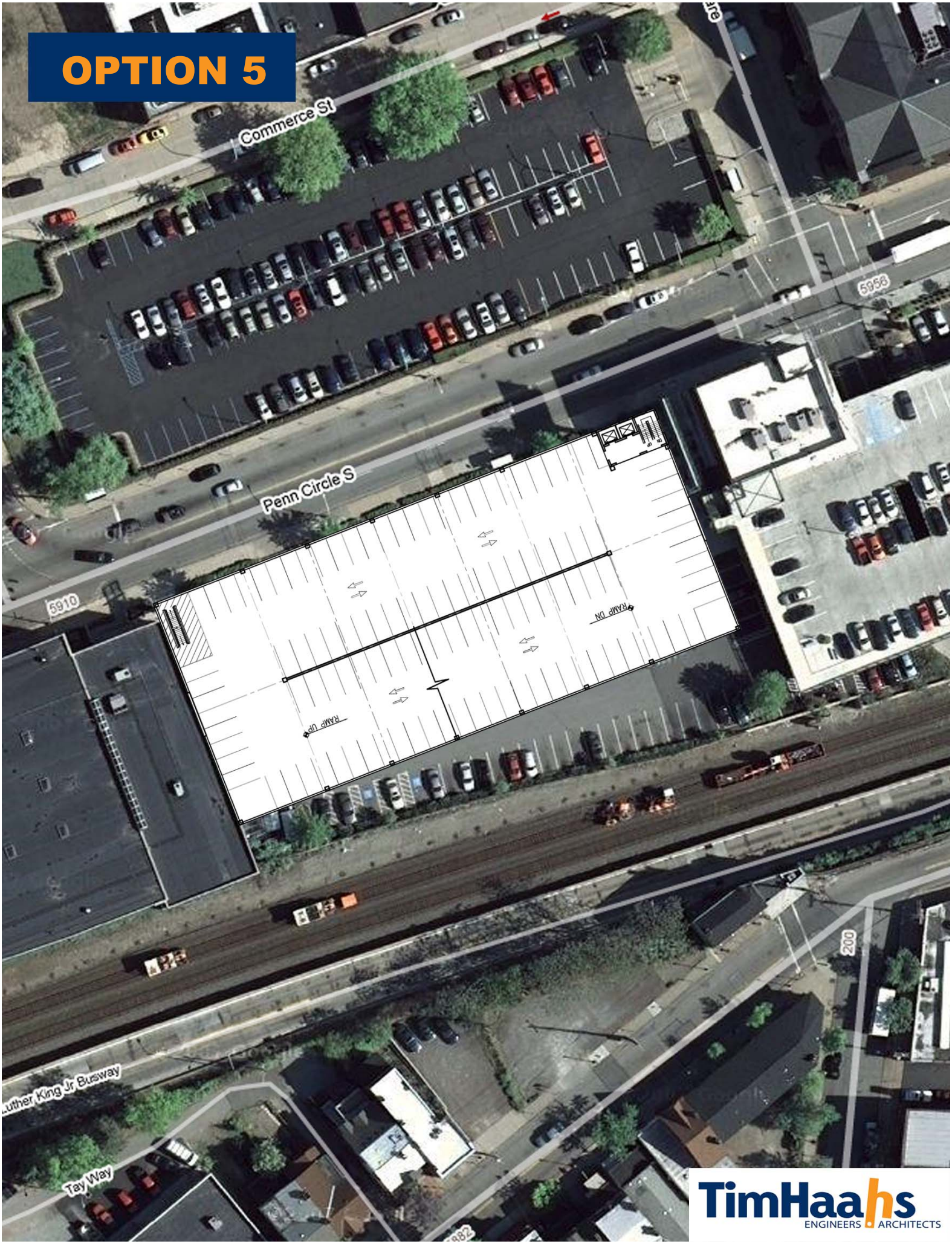
OPTION 5



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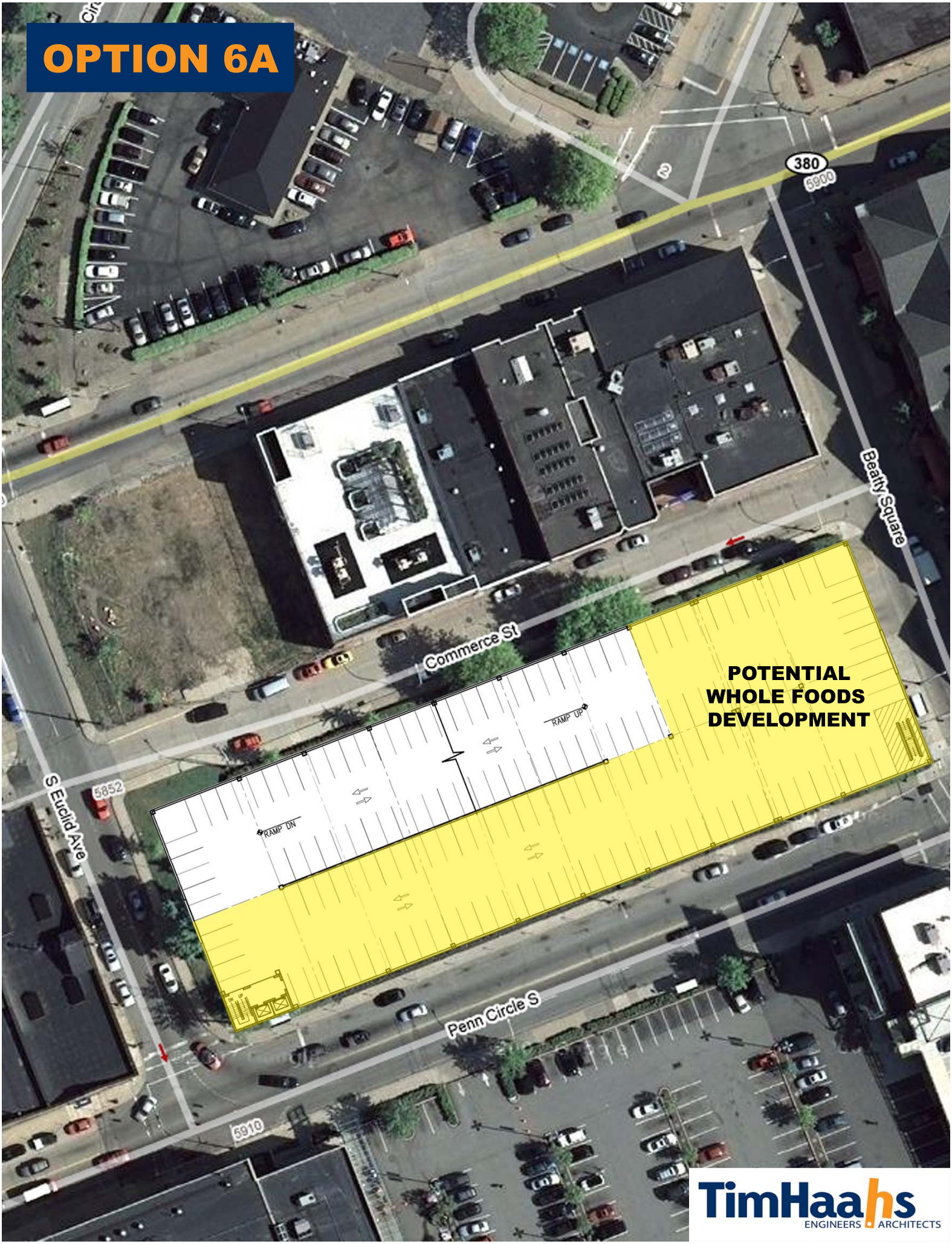
OPTION 6A



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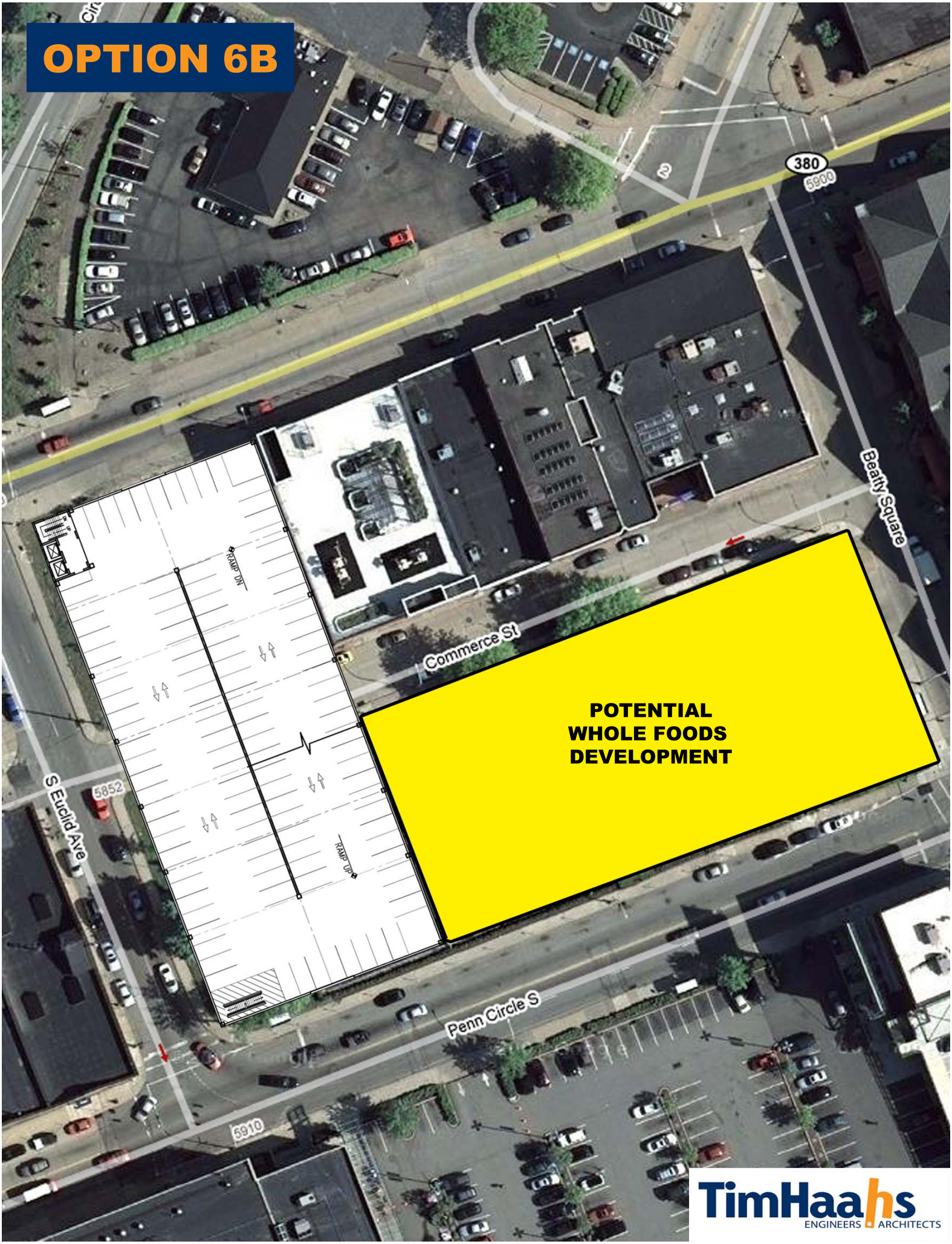
OPTION 6B



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OPTION 7

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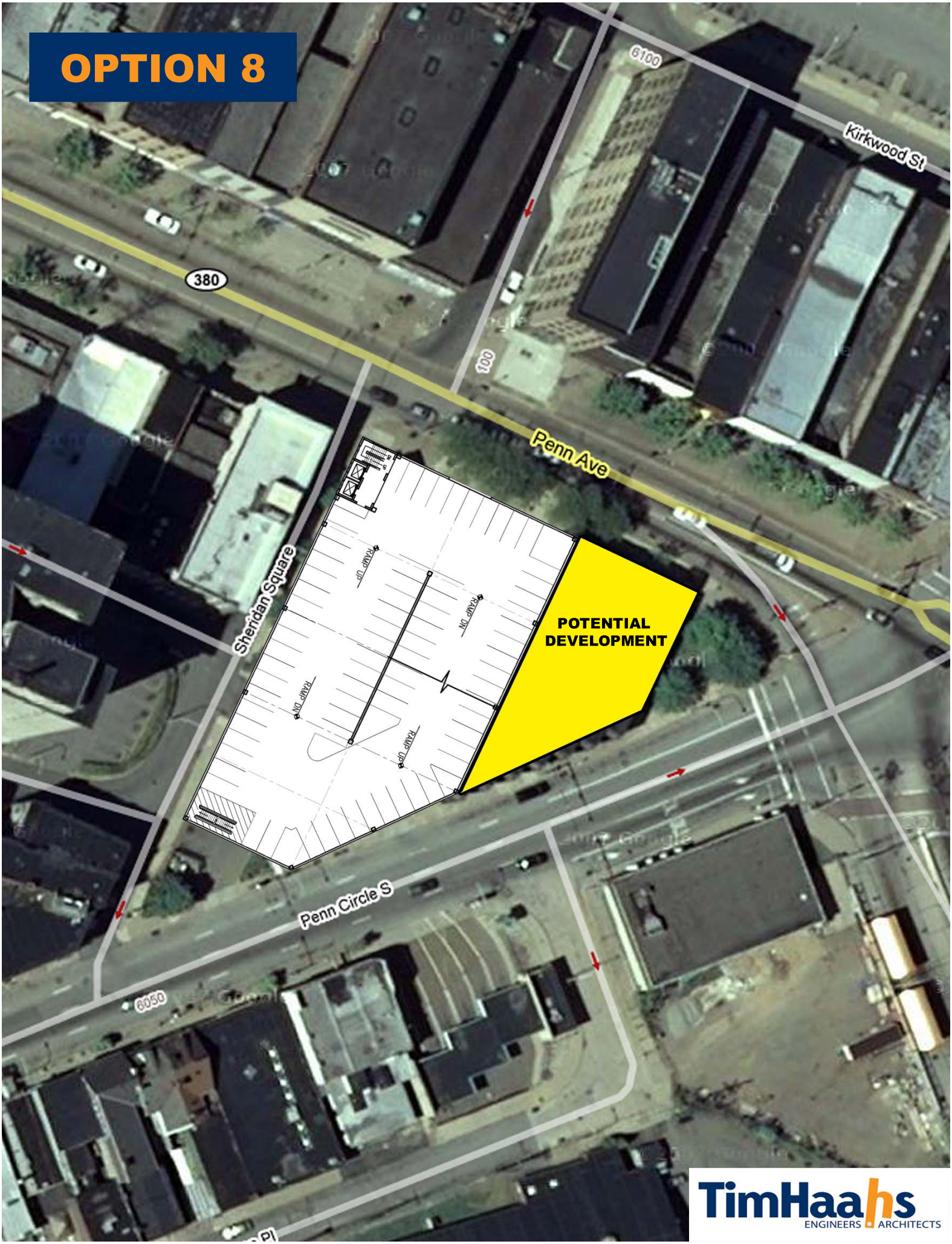
OPTION 8



TimHaahs
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OPTION 9A

TimHaahs
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OPTION 9B

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