



# Development Case Studies

Adaptive Reuse & New Build Scenarios  
Strip District, Pittsburgh, PA

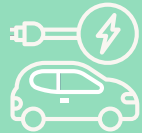




# What If...



Parking was more space-efficient, convenient and future-ready for electric vehicles (EVs).



Developments could reclaim coveted space from vehicle parking for higher uses.



Developers could leverage energy incentives to boost their bottom line and meet sustainability goals.





# Traction

Adding 300+ spaces across 4 sites to our platform.



Retail | Gainesville, FL

26  
Automated Spaces



Mixed Use | Beverly Hills, CA

12  
Automated EV Spaces



Residential | Healdsburg, CA

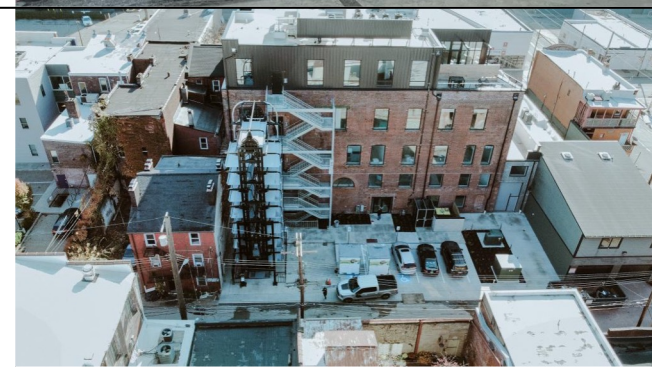
108  
Automated EV Spaces

271  
Total Spaces



Mixed Use | Pittsburgh, PA

30  
Automated EV Spaces





# Pittsburgh, PA – Urban Renewal Development



<https://www.youtube.com/watch?v=5t9b4WZYHco&t=2s>

## Pittsburgh deployment

- ▶ Turned 4 surface spaces into 30 EV + parking spaces.
- ▶ Increased parking unlocked bank financing for project.
- ▶ Improved valuation compared to offsite parking lease.

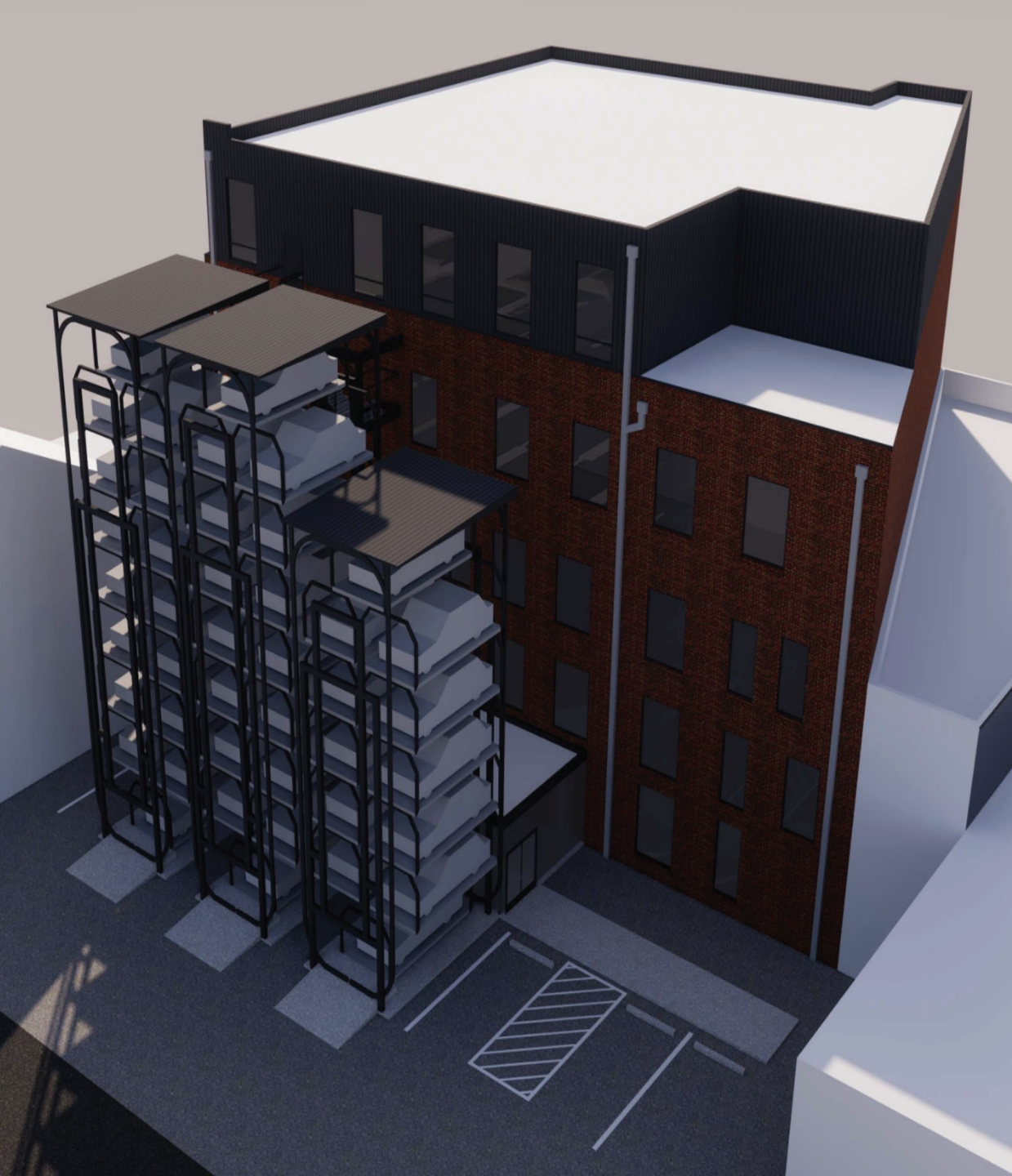


# Adaptive Reuse Summary

2815 Penn Ave is the location of the historic Franklin Savings & Trust building. Penrose aimed to revitalize and preserve a classic building while generating economic returns for investors. The main pressure point was parking. The existing parking area did not provide enough spots to meet local zoning requirements and the capital and opportunity costs associated with parking inside the building were too cumbersome. Stak's EV Carousel solution allowed Penrose to leverage the existing external square footage, maximize internal rentable square footage, and avoid the expensive rental of offsite parking spaces.

The economic considerations are summarized in the table on the following slide. The Penrose analysis determined that Stak's solution was economically superior to the next best alternative. The Penrose design team worked with Stak to tuck the systems behind the building providing the required number of parking spaces without sacrificing valuable ground-level commercial space. Additionally, the opportunity to integrate EV charging into every space provided a future-proof and sought-after amenity.

1. Leveraged limited outdoor space.
2. Provided EV charging.
3. Qualified for accelerated depreciation.
4. Enhanced proforma.





# Parking Lease vs. Stak

## Adaptive Reuse

### Notes:

1. Capital costs include all site prep activities (foundation and electrical costs).
2. Operation & maintenance costs included for both scenarios.
3. Tax benefit assumes 100% write-off upfront and accelerated depreciation status is maintained and that LP investors can utilize the deduction fully.
4. Assuming a conventional multi-family derived cap rate as all parking used to support tenants.
5. See summary of tax incentives on slide 11.

### Parking Lease

Parking Spaces	16
Lease Rate (per space per month)	\$225
Tenant Rate (per space per month)	\$100
Monthly Rent NET	(\$125)
Months in Year	12
Annual Cost	(\$24,000)
Cap Rate	6.5%
Valuation Impact [A]	(\$369,231)

### Stak Purchase

Parking Spaces	16
Capital Cost (per space)	(\$32,000)
Total Capital Cost	(\$512,000)
Tenant Rate (per space per month)	\$100
Annual Rent Revenue	\$19,200
Annual O&M Cost	(\$16,860)
Cap Rate	6.5%
Parking Value	\$36,000
Valuation Impact (pre-tax) [B]	(\$476,000)
Implied Benefit vs. Parking Lease [B] – [A]	(\$106,769)

<b>EV Charging (assuming rebate)</b>	
EV Chargers	16
Tenant Rate (per space per month)	\$50
Annual Rent Revenue	\$9,600
Cap Rate	6.5%
Valuation Impact	\$147,692

### Stak Tax Benefits

<b>Tax Credits</b>	
EV Carousel (30%, \$100k limit)	\$100,000
Battery (30% of cost, no limit)	\$0
Solar PV (30% of cost, no limit)	\$0
<b>Total</b>	<b>\$100,000</b>

<b>Tax Write-off</b>	
Capital Cost Written Off (total cost)	\$512,000
Assumed LP Tax Rate	40%
Tax Benefit	\$204,800
<b>Post-tax benefit</b>	<b>\$198,031</b>



# Key Findings

## Adaptive Reuse

“Parking is the most challenging design component in urban areas, and with Stak’s solution, we were able to successfully move these projects forward.”

- Rob Mullin, Penrose Advisors

### Comparison Summary

Item	Detail
1	The Net Present Value (NPV) of the Stak solution is \$345k greater than the NPV of the parking lease option.
2	Compelling per-space economics and long-term value.
3	Overall EV Carousel net tax benefit is \$298k (EV Carousel tax credit + write-off).
4	Long-term, future-proof solution to accommodate mass EV adoption.
5	Additional revenue opportunity to offer EV charging as an add-on.
6	Opportunity to offer onsite carsharing as urban transportation alternative.
7	Commercial space upgraded from Class B to Class A by providing onsite, covered parking with EV charging.

### NPV Comparison

Implied Stak Benefit vs. Parking Lease	(\$106,769)
EV Carousel Tax Benefit (ITC)	\$100,000
Tax Write-off Benefit Impact	\$204,800
EV Charging Benefit	\$147,692
<b>Stak NPV Benefit</b>	<b>\$345,723</b>





## New Build Summary

2926 Smallman St is a new build development. Penrose's ability to successfully develop the site was impacted by the challenge of providing the required amount of parking. Zoning limited the height of the building, which would force parking to be placed underground. The cost and risk of the underground construction option were economically challenging. Utilizing Stak's EV Carousels created an economical solution. Three units were placed at the rear of the building and the building was shaped around them to meet the minimum parking requirement without sacrificing valuable ground-level commercial space. Key benefits achieved include:

1. Leveraged limited outdoor space and avoided costly underground construction.
2. Provided onsite EV charging.
3. Qualified for accelerated depreciation.
4. Enhanced proforma.

### Additional Considerations:

The ease with which EV charging can be added offers an increasingly important amenity. This was coupled with firm carbon-free power contracts to enhance brand awareness and associate with strong environmental stewardship. Given the forecasted increase in EV production, this flexibility was also critical in protecting parking against obsolescence risk.





# Parking Garage vs. Stak

## New Build

### Notes:

1. Capital costs include all site prep activities (foundation and electrical costs).
2. O&M costs included for both scenarios.
3. Tax benefit assumes 100% write-off upfront and accelerated depreciation status is maintained and that LP investors can utilize the deduction fully.
4. Parking garage does not qualify for accelerated depreciation.
5. Cap rate reduced to account for increased units.
6. See summary of tax incentives on slide 11.

### Parking Garage

<b>Parking Spaces</b>	<b>42</b>
Capital Cost (per space)	(\$45,000)
<b>Total Capital Cost</b>	<b>(\$1,890,000)</b>
Tenant Rate (per space per month)	\$100
Annual Rent Revenue	\$50,400
Annual O&M Cost	(\$12,000)
Cap Rate	6.3%
Parking Value	\$614,400
<b>Valuation Impact (pre-tax) [A]</b>	<b>(\$1,275,600)</b>
<b>Tax Benefits</b>	
Depreciable Life	20
Annual DA from Parking	(\$94,500)
Tax Rate	40%
Annual Tax Benefit	(\$37,800)
<b>DCF Value</b>	<b>\$345,059</b>

### Stak Purchase

<b>Parking Spaces</b>	<b>42</b>
Capital Cost (per space)	(\$32,000)
<b>Total Capital Cost</b>	<b>(\$1,344,000)</b>
Tenant Rate (per space per month)	\$100
Annual Rent Revenue	\$50,400
Annual O&M Cost	(\$26,220)
Cap Rate	6.3%
Parking Value	\$386,880
<b>Valuation Impact (pre-tax) [B]</b>	<b>(\$957,120)</b>
<b>Implied Benefit vs. Parking Garage [B] - [A]</b>	<b>\$318,480</b>

<b>EV Charging (assuming rebate)</b>	
EV Chargers	21
Tenant Rate (per space per month)	\$50
Annual Rent Revenue	\$12,600
Cap Rate	6.3%
<b>Valuation Impact</b>	<b>\$201,600</b>

### Stak Tax Benefits

<b>Tax Credits</b>	
EV Carousel (30%, \$100k limit)	\$100,000
Battery (30% of cost, no limit)	\$0
Solar PV (30% of cost, no limit)	\$0
<b>Total</b>	<b>\$100,000</b>

<b>Tax Write-off</b>	
Capital Cost Written Off (total cost)	\$1,344,000
Assumed LP Tax Rate	40%
Tax Benefit	\$537,600
<b>Post-tax benefit</b>	<b>\$611,021</b>



# Key Findings

## New Build

“Parking is the most challenging design component in urban areas, and with Stak’s solution, we were able to successfully move these projects forward.”

- Rob Mullin, Penrose Advisors

### Comparison Summary

Item	Detail
1	The Net Present Value (NPV) of the Stak solution is \$812k greater than the NPV of the parking garage option.
2	Compelling per-space economics and long-term value.
3	Overall EV Carousel net tax benefit is \$711k (EV Carousel tax credit + write-off).
4	Long-term, future-proof solution to accommodate mass EV adoption.
5	Reclaimed buildable space provided an additional 10,000 sf of commercial space leased at \$22/sf.
6	Opportunity to offer onsite carsharing as urban transportation alternative.
7	Commercial space upgraded from Class B to Class A by providing onsite, covered parking with EV charging.

### NPV Comparison

Implied Stak Benefit vs. Parking Lease	\$318,480
EV Carousel Tax Benefit (ITC)	\$100,000
Tax Write-off Benefit Impact	\$537,600
EV Charging Benefit	\$201,600
Parking Garage Tax Benefit	(\$345,059)
<b>Stak NPV Benefit</b>	<b>\$812,621</b>



# Tax Credits & Incentives

See guidance on incentive programs for which you may be eligible along with examples **for illustrative purposes only**.

**Please confirm eligibility and applicable savings through the following programs with your accountant.**

Federal:

- The core EV Carousel project may be eligible to receive a federal tax credit of up to 30% of your commercial electric vehicle supply equipment, infrastructure, and installation costs, or up to \$100,000. (<https://afdc.energy.gov/laws/10513>)
- The optional solar and battery project may be eligible to receive a federal tax credit of up to 30% of your equipment and installation costs with no maximum amount that can be claimed. (<https://www.energy.gov/eere/solar/homeowners-guide-federal-tax-credit-solar-photovoltaics>)



ITC EV Carousel	
ITC Rate (%)	\$ 30
ITC Qualified Capital Cost	\$ 1,446,600
*ITC Applied (%)	\$ 100,000
Overnight Cost w/ ITC (\$)	\$ 1,346,600
* Up to a max of \$100,000	

ITC Battery Storage	
ITC Rate (%)	\$ 30
ITC Qualified Capital Cost	\$ 344,000
ITC Applied (%)	\$ 103,200
Overnight Cost w/ ITC (\$)	\$ 240,800
* No maximum amount	

ITC Solar	
ITC Rate (%)	\$ 30
ITC Qualified Capital Cost	\$ 175,000
ITC Applied (%)	\$ 52,500
Overnight Cost w/ ITC (\$)	\$ 122,500
* No maximum amount	



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