

Staff Report Special Exception BOA-23667

Hearing Date: April 9, 2024 **Prepared by:** Dylan Siers

dsiers@cityoftulsa.org 918-596-7584

Owner and Applicant Information

Applicant: Justin DeBruin, Wallace Design Collective

Property Owner: Halona Development LLC

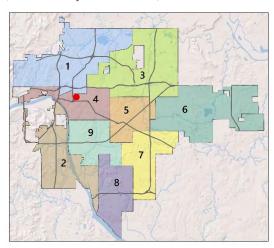
Property Location

SW/c of East 5th Place and South Quaker

Tract Size: ±3.11 acres

Location within the City of Tulsa

(shown with City Council districts)



Elected Representatives

City Council: District 4, Laura Bellis

County Commission: District 2, Karen Keith

Public Notice Required

Newspaper Notice – min. 10 days in advance Mailed Notice to 300' radius – min. 10 days in advance

Request Summary

Variance to allow parking serving a residential use to located in the City of Tulsa Right-of-Way (Sec. 55.080.D, Sec.90.090-A); Special Exception to reduce the required parking ratio for Apartment/ Condo uses in the CH District (Sec. 55.050-K);

<u>Zoning</u>

Zoning District: CH
Zoning Overlays: NIO

Comprehensive Plan Considerations

Land Use

Land Use Plan: Multiple Use, Neighborhood, Employment

<u>Small Area Plans</u>: Pearl District <u>Development Era</u>: Streetcar

Transportation

Major Street & Highway Plan: Commercial/CBD Collector

planitulsa Street Type: Main Street

Transit: TOD Area

Existing Bike/Ped Facilities: Bike Lane

Planned Bike/Ped Facilities: N/A

Environment

Flood Area: N/A

<u>Tree Canopy Coverage</u>: 0-10% <u>Parks & Open Space</u>: N/A

Staff Analysis

The applicant is proposing Variance to allow parking serving a residential use to located in the City of Tulsa Right-of-Way (Sec. 55.080.D, Sec.90.090-A); Special Exception to reduce the required parking ratio for Apartment/ Condo uses in the CH District (Sec. 55.050-K);

Applicant is seeking to have a portion of their required parking in the right of way along E. 5th Pl.

90.090-A Measurement

Required setbacks are measured from the applicable lot line, right-of-way, planned right-of-way or location referred to below. Building setbacks are measured to the nearest exterior building wall. Minimum setbacks that apply to other features (parking areas, fences, storage areas) are measured from the nearest point of the area or feature for which a setback is required. See 90.090-C for information on structures and building features that are allowed to occupy setback and yard areas in R zoning districts. Unless otherwise expressly stated, no part of any structure may be located within the street right-of-way, nor within the planned right-of-way of streets shown on the major street and highway plan, nor within 25 feet of the centerline of the right-of-way on streets not shown on the major street and highway plan. If a variance of the prohibition against location of a structure within the right-of-way or planned right-of-way is granted by the Board of Adjustment, no part of any structure may be located within the street right-of-way, nor within the planned right-of-way of streets shown on the major street and highway plan, nor within 25 feet of the centerline of the right-of-way on streets not shown on the major street and highway plan, unless a license has been granted by the city, in the case of the right-of-way, or a removal agreement has been entered into, in the case of the planned right-of-way.

The applicant is also seeking to reduce their parking requirement to allow 0.83 spaces per dwelling unit for a total of 175 spaces.

55.050-K Alternative Compliance

The motor vehicle parking ratios of this chapter are not intended to prevent development and redevelopment or to make development and redevelopment economically impractical. In order to allow for flexibility in addressing the actual expected parking demand of specific uses, alternative compliance parking ratios may be approved through the special exception procedures of <u>Section 70.120</u> only if:

- The board of adjustment determines that the other allowed parking reduction alternatives of <u>Section 55.050</u> are infeasible or do not apply; and
- The board of adjustment determines that the reduced parking ratios
 proposed are not likely to cause material adverse impacts on traffic
 circulation and safety or on the general welfare of property owners and
 residents in the surrounding area.

Statement of Hardship: Please see attached.

11.2

Relevant Case History

Z-7755, 1/3/2024, Rezone from IM to CH

Comprehensive Plan Considerations

Land Use Plan

The subject property is designated as Multiple Use, Neighborhood, and Employment. The **Employment** designation is intended to accommodate offices, warehousing and storage, manufacturing and assembly, and industrial processes. The "Industrial Site Suitability" map corresponds to the Employment land use designation and indicates where uses that are potentially incompatible with sensitive land uses are best suited to locate. This directs industrial uses to particular areas of the city while discouraging industrial in close proximity to Neighborhood areas. **Multiple Use** areas are "Mostly Commercial or Retail Uses" which include restaurants, shops, services, and smaller format employment uses. This land use designation is most common in areas of the city from earlier development patterns, with Local Centers being more commonplace in newer parts of the city. For single properties that are commercial but surrounded by Neighborhood, Multiple Use is the preferred designation. **Neighborhoods** are "Mostly Residential Uses" which includes detached, missing middle, and multi-dwelling unit housing types. Churches, schools, and other low-intensity uses that support residents' daily needs are often acceptable, particularly for properties abutting Multiple Use, Local Center, or Regional Center land use areas. Multi-dwelling unit housing that takes access off of an arterial is considered Multiple Use, Local Center, or Regional Center. If a multi-dwelling unit housing property takes access off of a lower-order street separated from the arterial, then it would be considered Neighborhood.

Surrounding Properties:

<u>Location</u>	Existing Zoning/Overlay	Existing Land Use Designation	<u>Existing Use</u>
North	IM/NIO	Multiple Use	Commercial
East	CH/NIO	Employment/Neighborhood	Commercial
South	MPD-FBC1	Multiple Use	Commercial
West	CH/NIO	Multiple Use	Commercial

Small Area Plans

The subject properties are within the Pearl District small area plan. In general, the plan is supportive of paring modification in order to support infill development. Additionally the plan would encourage shared parking arrangement among users of mixed use spaces.

Development Era

The subject property is in an area developed during the Streetcar Era (1910s-30s), prior to the proliferation of automobiles, when streetcars facilitated growth beyond downtown. Land uses range from fully integrated to somewhat separated, on a half-mile grid, with a mix of housing options. Priorities in these areas include walkability, bikeability, access to public transit, historic preservation, housing type variety, mixed-use development, transit-oriented development, commercial districts, and well-designed streetscapes.

Transportation

Major Street & Highway Plan: Commercial/CBD Collector

Comprehensive Plan Street Designation: Main Street

Transit: TOD Area

Existing Bike/Ped Facilities: Bike Lane

Planned Bike/Ped Facilities: N/A

City of Tulsa Board of Adjustment

11.3

Arterial Traffic per Lane: N/A

Environmental Considerations

Flood Area: The subject property is not within a flood area.

<u>Tree Canopy Coverage</u>: Tree canopy in the area is 0-10% The area would benefit from additional trees, which also capture and treat runoff before it enters the river.

Parks & Open Space: N/A

Sample Motion

Special Exception:

I move to <u>approve or deny</u> a Special Exception to reduce the required parking ratio for Apartment/ Condo uses in the CH District (Sec. 55.050-K);

- per the conceptual plan(s) shown on page(s) _____ of the agenda packet.

The Board finds that the requested Special Exception will be in harmony with the spirit and intent of the Code and will not be injurious to the neighborhood or otherwise detrimental to the public welfare, that the other allowed parking alternative of Section 55.050 are infeasible or do not apply and the reduced parking ratios proposed are not likely to cause material adverse impacts on traffic circulation and safety or on the general welfare of property owners and residents in the surrounding area.

Variance:

I move to <u>approve or deny</u> a Variance to allow parking serving a residential use to located in the City of	Tulsa
Right-of-Way (Sec. 55.080.D, Sec.90.090-A);	
The board finds the hardship to be	_•

In granting the Variance, the Board finds that the following facts, favorable to the property owner, have been established:

- a. That the physical surroundings, shape, or topographical conditions of the subject property would result in unnecessary hardships or practical difficulties for the property owner, as distinguished from a mere inconvenience, if the strict letter of the regulations were carried out;
- b. That literal enforcement of the subject zoning code provision is not necessary to achieve the provision's intended purpose;
- c. That the conditions leading to the need of the requested variance are unique to the subject property and not applicable, generally, to other property within the same zoning classification;
- d. That the alleged practical difficulty or unnecessary hardship was not created or self-imposed by the current property owner;
- e. That the variance to be granted is the minimum variance that will afford relief;
- f. That the variance to be granted will not alter the essential character of the neighborhood in which the subject property is located, nor substantially or permanently impair use or development of adjacent property; and
- g. That the variance to be granted will not cause substantial detriment to the public good or impair the purposes, spirit, and intent of this zoning code or the comprehensive plan.

City of Tulsa Board of Adjustment

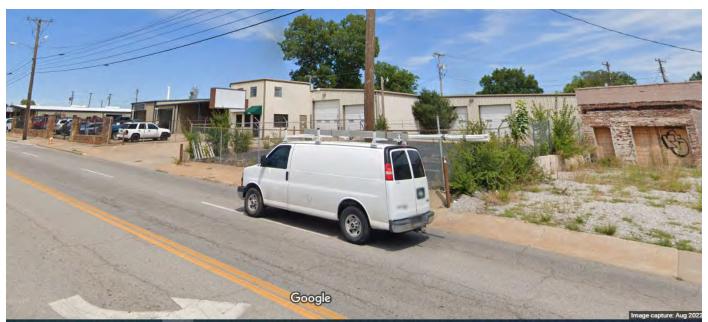
Property Description

A TRACT OF LAND LYING IN GOVERNMENT LOT TEN (10) OF THE SOUTHWEST QUARTER (GL10, SW/4) OF SECTION SIX (6), TOWNSHIP NINETEEN (19) NORTH, RANGE THIRTEEN (13) EAST OF THE INDIAN BASE AND MERIDIAN (I.B.&M.), CITY OF TULSA, TULSA COUNTY, STATE OF OKLAHOMA, ACCORDING TO THE U.S. GOVERNMENT SURVEY THEREOF, AND ALSO BEING A PART OF LOTS ONE (1), TWO (2), THREE (3), AND FOUR (4) OF BLOCK FOUR (4), SUNSET ADDITION, AND LOTS ONE (1), TWO (2), THREE (3), FOUR (4) AND SEVEN (7) OF BLOCK EIGHT (8), FACTORY ADDITION AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS, TO-WIT:

BEGINNING AT THE SOUTHEAST CORNER OF SAID LOT FOUR (4), BLOCK EIGHT (8) FACTORY ADDITION (P.O.B) THENCE S88°56'53"W AND ALONG THE SOUTH LINE OF SAID LOT FOUR (4), BLOCK EIGHT (8), FACTORY ADDITION FOR A DISTANCE OF 146.00 FEET; THENCE S01°12'56"E FOR A DISTANCE OF 36.09 FEET; THENCE S88°56'53"W FOR A DISTANCE OF 130.00 FEET; THENCE N01°12'56"W FOR A DISTANCE OF 475.13 FEET TO THE NORTHWEST CORNER OF SAID LOT FOUR (4) BLOCK FOUR (4) SUNSET ADDITION; THENCE N89°13'22"E AND ALONG THE NORTH LINE OF SAID LOT FOUR (4), BLOCK FOUR (4) AND LOT ONE (1), BLOCK FOUR (4), SUNSET ADDITION, FOR A DISTANCE OF 276.00 FEET TO THE NORTHEAST CORNER OF SAID LOT ONE (1), BLOCK FOUR (4), SUNSET ADDITION; THENCE S01°12'56"E AND ALONG THE EAST LINES OF LOT ONE (1), AND TWO (2), BLOCK FOUR (4), SUNSET ADDITION, AND LOT ONE (1), BLOCK ONE (1) FACTORY ADDITION, AND THE EAST LINE OF CLOSED BIRCH STREET, AND THE EAST LINE OF LOTS ONE (1), TWO (2), THREE (3) AND FOUR (4) OF BLOCK EIGHT (8), FACTORY ADDITION, FOR A DISTANCE OF 437.71 FEET TO THE POINT OF BEGINNING (P.O.B.); SAID TRACT CONTAINING 2.89 ACRES MORE OR LESS. AND

A TRACT OF LAND LYING IN GOVERNMENT LOT TEN (10) OF THE SOUTHWEST QUARTER (GL10, SW/4) OF SECTION SIX (6), TOWNSHIP NINETEEN (19) NORTH, RANGE THIRTEEN (13) EAST OF THE INDIAN BASE AND MERIDIAN (I.B.&M.), CITY OF TULSA, TULSA COUNTY, STATE OF OKLAHOMA, ACCORDING TO THE U.S. GOVERNMENT SURVEY THEREOF, AND ALSO BEING A PART OF LOT SIX (6), BLOCK TWO (2), SUNSET ADDITION, AND A PART OF LOTS ELEVEN (11), TWELVE (12), THIRTEEN (13), FOURTEEN (14), FIFTEEN (15), AND SIXTEEN (16), BLOCK TWO (2) OF FACTORY ADDITION, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS, TO-WIT:

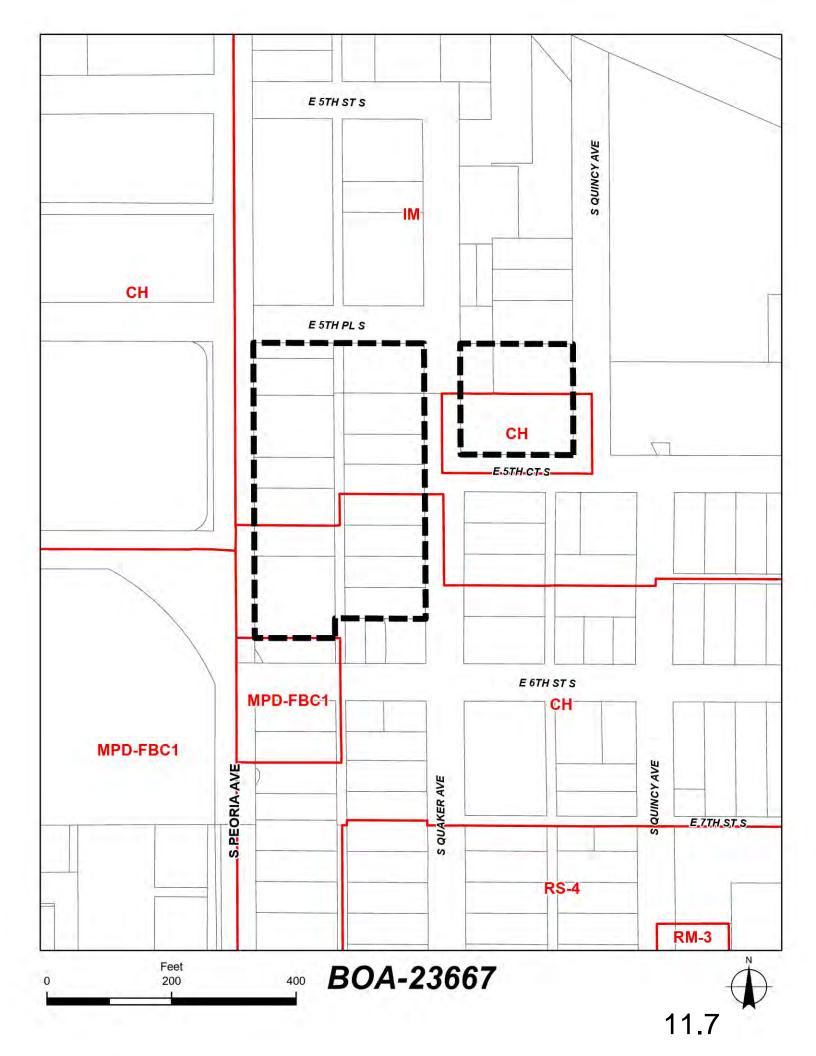
BEGINNING (P.O.B.) AT THE SOUTHEAST CORNER OF SAID LOT THIRTEEN (13) BLOCK TWO (2) OF FACTORY ADDITION; THENCE S89°13′22″W AND ALONG THE SOUTH LINE OF LOTS THIRTEEN (13) FOURTEEN (14), FIFTEEN (15), AND SIXTEEN (16) BLOCK TWO (2), FACTORY ADDITION FOR A DISTANCE OF 180.00 FEET TO THE SOUTHWEST CORNER OF SAID LOT SIXTEEN (16), BLOCK TWO (2); THENCE N01°12′56″W AND ALONG THE WEST LINE OF LOT SIXTEEN (16), FACTORY ADDITION, AND LOT SIX (6), BLOCK TWO (2), SUNSET ADDITION, FOR A DISTANCE OF 178.30 FEET TO A POINT ON THE NORTHWEST CORNER OF SAID LOT SIX (6), BLOCK TWO (2); THENCE N89°13′22″E FOR A DISTANCE OF 180.00 FEET; THENCE S01°12′56″E AND ALONG THE EAST LINES OF LOTS ELEVEN (11), TWELVE (12) AND THIRTEEN (13), BLOCK TWO (2), FACTORY ADDITION FOR A DISTANCE OF 178.30 FEET TO THE SOUTHEAST CORNER OF LOT THIRTEEN (13), BLOCK TWO (2), FACTORY ADDITION AND THE **POINT OF BEGINNING** (P.O.B.); SAID TRACT CONTAINING 0.74 ACRES MORE OR LESS.



Subject property in BOA-23667 (Image used from Google Street view)

Exhibits

Case map Aerial (small scale) Aerial (large scale) Tulsa Comprehensive Plan Land Use Map



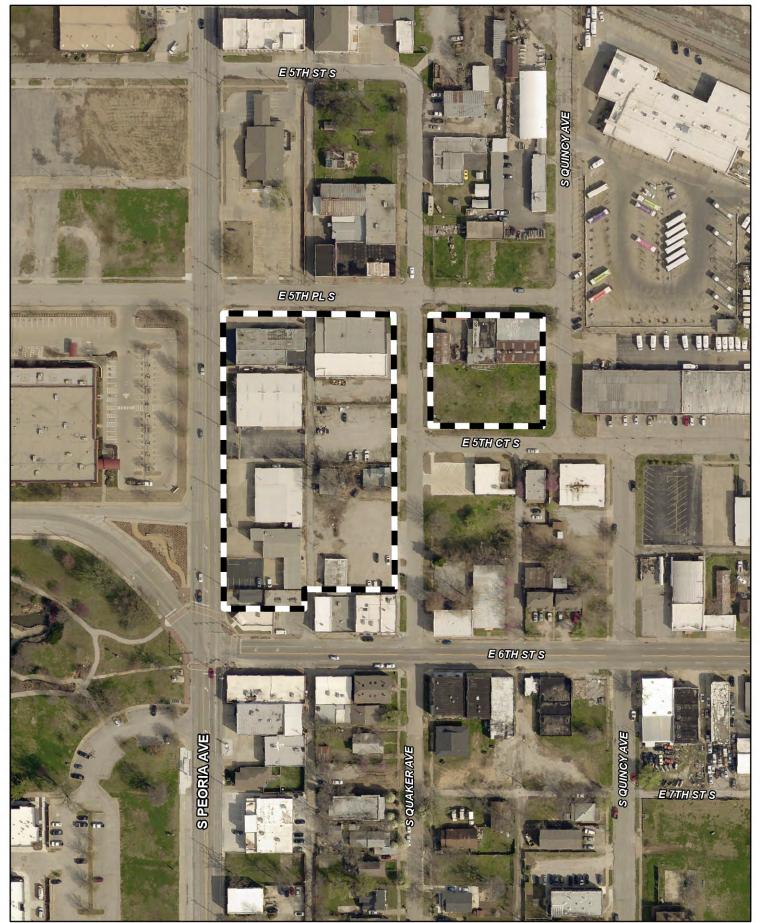


Subject Tract Feet 100 200 **BOA-23667**

Note: Graphic overlays may not precisely align with physical features on the ground.

Aerial Photo Date: 2021





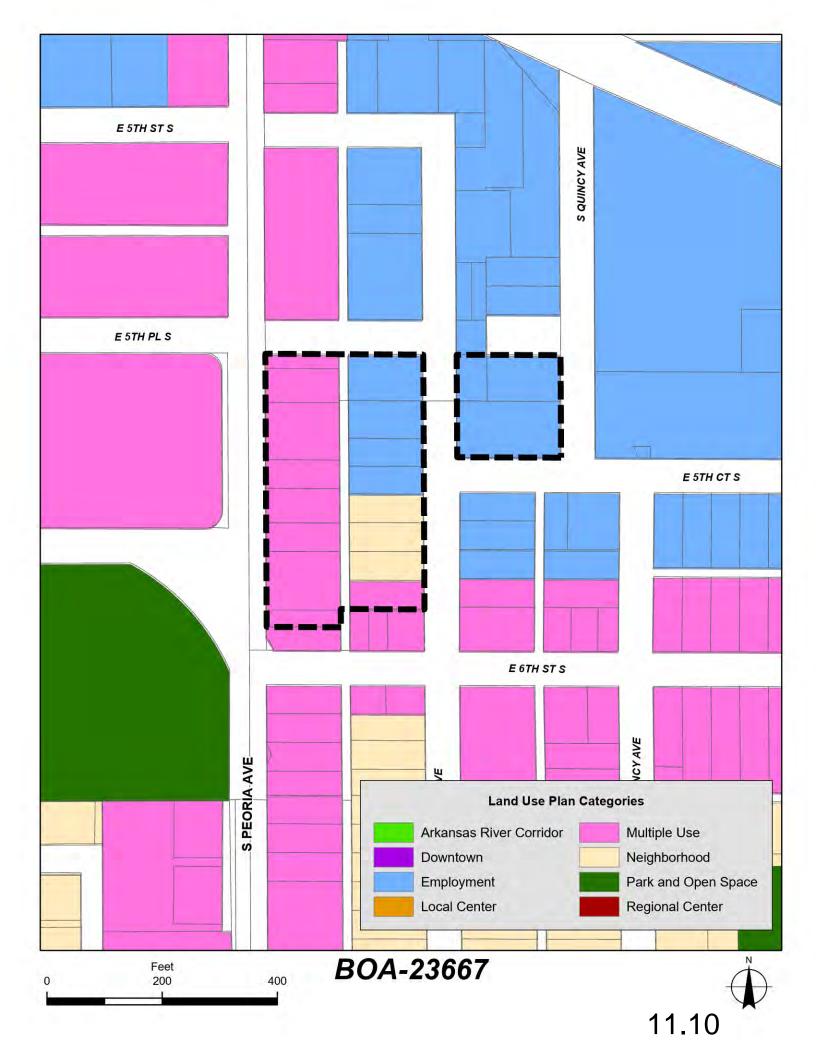
Subject Tract Feet

200

BOA-23667

400

Note: Graphic overlays may not precisely align with physical features on the ground.





Variance Response 6th and Peoria (55.080.D)

1. That the physical surroundings, shape, or topographic conditions of the subject property would result in unnecessary hardships or practical difficulties for the property owner, as distinguished from a mere inconvenience, if the strict letter of the regulations were carried out.

This infill redevelopment is located on a small, urban block which provides no opportunity to add additional surrounding parcels to the property. This is limited by required alleys and existing roadways.

2. That the literal enforcement of the subject zoning code provision is not necessary to achieve the provision's intended purpose.

Though it is not possible to expand the lot proposing development, the parking anticipated directly to the east will satisfy requirement to be within one-thousand foot radius, per Section 55.080.D.1. All accessible parking with be located appropriately on the proposed, western development lot.

3. That the conditions leading to the need of the requested variance are unique to the subject property and not applicable, generally, to other property within the same zoning classification.

As recognized in the Neighborhood Infill Overlay district and Pearl District text, infill development with the desired uses (ex. multi-family) is difficult due to the existing infrastructure in place that may not be conducive. The development site cannot be expanded, so creative solutions are required.

4. That the alleged practical difficulty or unnecessary hardship was not created or self-imposed by the current property owner.

Being an infill development, the hardships on the site are pre-existing.

5. That the variance to be granted is the minimum variance that will afford relief.

The requested variance is necessary and expected to provide necessary parking for the multifamily development.

- 6. That the variance to be granted will not alter the essential character of the neighborhood in which the subject property is location, nor substantially or permanently impair use or development of adjacent property.
 - If the variance is granted, the proposed multi-family apartment is a desired use for the neighborhood and is an opportunity to improve the essential character.
- 7. That the variance to be granted will not cause substantial detriment to the public good or impair the purposes, spirit, and intent of this zoning code or the comprehensive plan.
 - The variance, if granted, would assist in developing a use that is benefit to the public good and in spirit with the intent of the zoning code, comprehensive plan, and other relevant studies for this area.



BOA Narrative 6th and Peoria

The attached application is associated with a five-story, multi-family development to be located northeast of 6th and Peoria. The project site in its current state includes minimal use and vacant land; however, the vision is to provide quality, high-density residential housing in proximity to commercial activity and public amenities in a location encouraging multi-modal transportation options. Multi-family housing is supported and encouraged by the associated Neighborhood Infill Overlay (NIO) and Pearl District Small Area Plan, while also being a permitted use in the CH zoning district. Due to the constrained nature of this urbanized site, requested is one variance and a special exception to the city's parking standards.

Variance Request - Chapter 55, Section 55.080.D - Location of off-street parking

The nature of developing infill on an existing, urbanized block brings insurmountable difficulties. Urban blocks are small and are bounded by streets that do not allow the option to combine with adjacent properties to allow for a larger development footprint. The limited developable space and existing business on the block create a need to provide off-site parking, which is proposed directly to the east and under common ownership. This additional space will allow for more residential parking that also within one-thousand food radius of the use served by the parking, required per Section 55.080.D.1 of the zoning code.

Special Exception - Chapter 55, Section 55.020 - Minimum parking ratios

The development will include 210 residential units containing both one- and two-bedroom units, 89% of which will be one-bedroom units. These units will be broken down into 28 studio apartments, 190 1-bedroom units, and 34 two-bedroom units. Per the parking requirements outlined in Section 55.020 of the Zoning Code, 248 parking spaces would be required. The proposed site plan can provide 175 spaces, leaving a deficit of 73 spaces from the required code. There are currently no public parking spaces on this block, so in addition to 175 spaces, 15 public on-street parking spaces are also proposed.

The concept for this project, including the reduced parking, is based on successful experiences from other communities in U.S. finding creative solutions to provide much needed housing in appropriate areas. Based on the content of related City of Tulsa plans and future goals, this type of development would be a great opportunity to find a creative solution.

Austin, TX is a great example of a community who eliminated parking minimum standards to fight climate change and spur the development of more affordable housing options. The list of cities that have acted similarly include, but are not limited to: Portland, Minneapolis, San Jose, TX, Raleigh, NC, and Auburn, ME. Understanding these are examples of city-wide policy change, we are requesting consideration of these principals to allow for the subject variance and special exception.

The higher density concept on a reduced footprint has proven to compliment multi-modal transportation, which this area is primed for. The site is directly accessible to designated bike lanes along East 6th Street. South, along Veterans Parks, and continuing to the primary, Midland Valley Trail along Highway 75, creating excellent mobility (Graphic 4). This network of trails also provides direct access to downtown Tulsa. Further bike route connectivity is also proposed, per the City of Tulsa GO Plan, serving South Peoria and continuing the connection along East 6th Street South (Graphic 2). South Peoria also serves as a major public transit route, hosting the innovative AERO Peoria Bus Rapid Transit (BRT), as shown on Graphic 3. Lastly, this location is already part of comprehensive sidewalk grid, providing quality, safe pedestrian access and connectivity. Having quality sidewalks, bike routes, and access to public transit support a reduced need for parking.

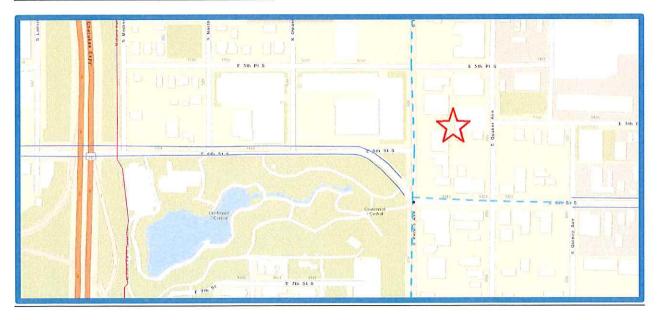
From the perspective of existing Tulsa code and relevant studies, the subject property is located in the NIO zoning district, which came about the 2020 Downtown & Surrounding Neighborhood Housing Study & Strategy that recognized site and zoning barriers to new housing development. It determined that there are zoning related burdens on housing development in and near downtown neighborhoods. This area is also located within the Pearl District Small Area Plan, which states that a primary goal is to support compatible infill and reinvestment and even explore modifying on-site parking requirements in certain cases. These area plans encourage the revitalization and redevelopment of vacant properties, along with higher density development in transit rich areas, which the proposal exemplifies.

In summary, reducing parking requirements for infill development can have multiple benefits for the city and its residents. First, it can encourage more housing diversity and affordability. Second, it can reduce the environmental impact of development by discouraging car dependency and promoting alternative modes of transportation, such as walking, biking, or public transit. Third, it can enhance the urban design and livability of neighborhoods by creating more active and attractive streetscapes, rather than large surface parking lots that disrupt the pedestrian environment. Therefore, reduced parking requirements for infill development can support Tulsa's goals of creating more sustainable, equitable, and vibrant communities. The use is encouraged by the city, which also recognizes the hardships of revitalizing and redeveloping urbanized infill land.

Graphic 1: Tulsa Metropolitan Area: Bicycle & Pedestrian Trails



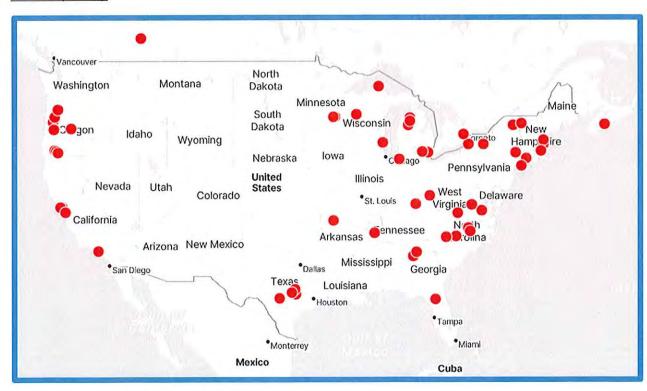
Graphic 2: GO Plan: Proposed Bike Facilities



Graphic 3: Tulsa Transit System – AERO Peoria Route Bus Rapid Transit (BRT)

<u>Graphic 4: Map of cities that reformed or eliminated parking minimum standards – Strong Towns, Advocacy Group</u>

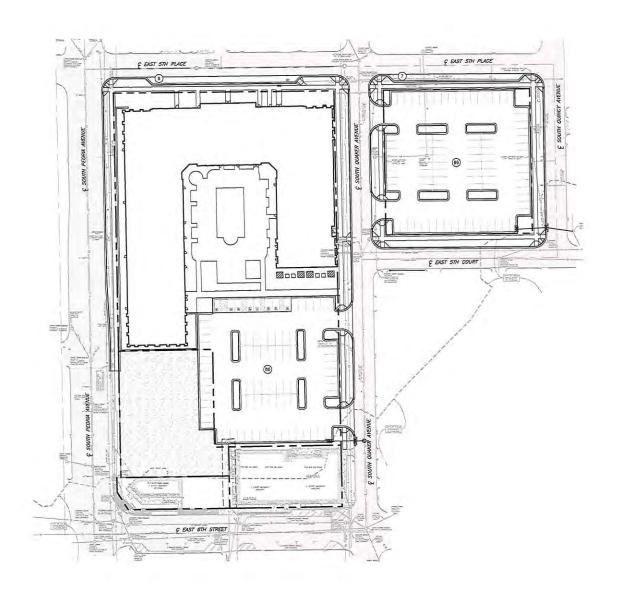
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OVERALL SITE PLAN
SHEET NO.

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OVERALL SITE PLAN

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- ALL WORK AND MATERIALS SHALL COMPLY WITH ALL MUNICIPAL REGULATIONS AND CODES, WHICHEVER IS MORE STRINGENT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAININGE, SIGNS, TRAFFIC SIGNALS A POLES, ET AS REQUIRED, ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING ALL WORK SHALL BE BE ACCORDANCE WITH GOVERNING AND SHALL BE APPROVED BY SUCH, ALL COST SHALL BE ACCURATED IN AGREE BID.
- 6. RADII = 2-00" UNLESS OTHERWISE INDICATED.

PARKING SUMMARY	
REQUIRED PARKING:	
1.10 SPACES PER 1BR UNITS 1.10 x 184 = 1.75 SPACES PER 2+BR UNITS	202
1.75 x 26 =	45
TOTAL REQUIRED PARKING:	24
PROVIDED PARKING:	
STANDARD:	16
ACCESSIBLE:	
VAN ACCESSIBLE:	

- ALL WORK AND MATERIALS SHALL COMPLY WITH O.S.H.A. STANDARDS
- REFER TO LANDSCAPE PLANS FOR GRASS, TREES, AND PLANTED MATERIALS
- ALL DIMENSIONS AND COORDINATES ARE FROM FACE OF CURB UNLESS SHOWN OTHERWISE.

PARKING SUMMARY	
REQUIRED PARKING:	
1.10 SPACES PER 1BR UNITS	
1.10 x 184 = 1.75 SPACES PER 2+BR UNITS	202
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TOTAL REQUIRED PARKING:	24
PROVIDED PARKING:	
STANDARD:	16
ACCESSIBLE:	
VAN ACCESSIBLE:	
TOTAL PROVIDED PARKING:	17

GENERAL PAVING NOTES:

- ALL MATERIALS, EXECUTION, AND TESTING TO CONFORM TO AHJ REQUI LOCAL OR STATE DOT STANDARDS AND SPECIFICATIONS).
- ALL PAVING AND EARTHWORK OPERATIONS SHALL CONFORM TO THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT.
- CONTRACTOR TO PROVIDE PRODUCT DATA SUBMITTALS INCLUDING, BUT NOT LIMITED TO, DESIGN MIXES, MATERIAL CERTIFICATES, AND MATERIAL TEST REPORT FOR MATERIALS AND PRODUCTS ASSOCIATED WITH PAYING AND PAYEMENT
- CONTRACTOR SHALL DEVELOP AND IMPLEMENT PROPER TRAFFIC CONTROL IN CONFORMANCE WITH THE LATEST REVISION OF THE MUTCO. ACCESS FOR EMERGENCY VEHICLES AND LOCAL TRAFFIC SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
- PAVEMENT CONTRACTOR TO INSPECT PAVEMENT SUBGRADE AND CORRECT ANY DEFICIENCIES PRIOR TO PAVING OPERATIONS.
- CONTRACTOR TO COORDINATE CONSTRUCTION TESTING UNLESS OTHERWISE INDICATED IN THE CONTRACT DOCUMENTS.

ASPHALT PAVEMENT:

- CONSTRUCT JOINTS TO ENSURE A CONTINUOUS BOND BETWEEN ADJOINING PAVEMENT SECTIONS. OFFSET LONGITUDINAL JOINTS, IN SUCCESSIVE COURSES, A MINIMUM OF 6 INCHES AND TRANSVERSE JOINTS A MINIMUM OF 24 INCHES.
- WHERE DIFFERENT THICKNESS PAVEMENTS ABUT, PROVIDE A THICKENED EDGE ON THE THINNER PAVEMENT SECTION, WHICH TRANSITIONS TO THE THICKER PAVEMEN DEPTH ACROSS FOUR FEET.

- ACCORDING TO ASTM D 8927 BUJ NUJ LEGO I THW 4TH LINDU.

 11.2. AVERAGE DENSITY: 92 PERCENT OF REFERENCE MAXIMUM THEORETICAL
 DENSITY ACCORDING TO ASTM D 2041 BUT NOT LESS THAN 90 PERCENT OR
 GREATER THAN 96 PERCENT.
- 12. INSTALLATION TOLERANCES:
 12.1. PAVEMENT THICKNESS: BASE COURSE PLUS OR MINUS 1/2 INCH; SURFACE PLUS
 1/4 INCH.
 12.2. PAVEMENT SIMOOTHNESS: BASE COURSE 1/4 INCH IN 10 FEET; SURFACE COURSE
 1/8 INCH IN 10 FEET.

CONCRETE PAVEMENT:

3. CONCRETE PLACEMENT TO CONFORM TO ACI 301 / 306 / 330 REQUIREMENTS

- 14. CONCRETE MATERIAL:
 14.1. 28 DAY COMPRESSIVE STRENGTH: 4000 PSI MINIMUM
 14.2. MAXIMUM WIC RATIO AT POINT OF PLACEMENT: 0.45
 14.3. SLUMP: 4 INCHES PLUS OR IMIUS 1 INCH
 14.4. AIR CONTENT: 6 PERCENT PLUS OR MINUS 1:1/2 PERCENT.

STEEL:
 GRADE 60
 COMPLY WITH CRSIS "MANUAL OF STANDARD PRACTICE" FOR FABRICATION, PLACEMENT, AND SUPPORT.

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- 73. AND THE MEMORY OF THE MORE THE MEMORY OF THE MEMORY AND APPROVAL PRIOR TO COMMENCING PAVING OPERATIONS. CONTRACTOR TO TAKE NITO ACCOUNT REVIEW THE AND CHANGES PER ANY COMMENTS WHEN SCHEDULIN THE SUBMISSION OF THE JOINT LAYOUT PLAN.
- IB. REINFORCEMENT OF RREGULARLY SHAPED PANELS OR MISMATCHED JOINTS
 15.1. ON PANELS WITHFARDLO, IN PANELS THAT TARRET TO A SHAPE ANGLE, ARGOR
 PERCENT STEEL A BORTO MERCITION ACROSS THE BEINE PANEL.
 16.2. WHERE JOINT PATTERIOS OF ABUTTING PAVENERS TO ONOT MATCH AND ARE
 STORY EXPLANEL BY AN EXPLANIOUS JOANT PROVIDE A MIRMAN OF DOS FEDEL
 STEEL SHAPE TO AN EXPLANIOUS JOANT PROVIDE A MIRMAN OF DOS FEDEL
 STEEL SHAPE BACK FROM THE JOINT ACAIGN THE FILL WIDTH OF THE PANEL.
- WHERE DIFFERENT THICKNESS PAVEMENTS ABUT, PROVIDE A THICKENED EDGE ON THE THINNER PAVEMENT SECTION WHICH TRANSITIONS TO THE THICKER PAVEMEN DEPTH ACROSS FOUR FEET.
- PROVIDE MEDIUM TO FINE TEXTURED BROOM FINISH UNLESS OTHERWISE INDICATES ON THE PLANS

21. INSTALLATION TOLERANCES
21.1. ELEVATION: 1/4 INCH
21.2. THICKNESS: PLUS 3/8 INCH, MINUS 1/4 INCH
21.3. SURFACE: 1/4 INCH IN 10 FEET

PAVEMENT MARKINGS: ALLOW PAVING TO AGE A MINIMUM OF 30 DAYS BEFORE STARTING PATMARKING OPERATIONS.

24. COLOR AS INDICATED.

EBS.

CAUTION NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THE LOCATIC AND ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VANIOUS UTILITY COMPANIES AND MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT DE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MIST CALL THE LOCAL UTILITY OF THE PROPERTY OF THE

C4.01

C4.04

C4.07