All persons who have a property interest in this report hereby acknowledge that the Department may publish the full report on the Department’s website, release the report in response to a request for public information, and make other use of the report as authorized by law.

Prepared By:

Vickrey & Associates, Inc.
TBPE Registration #159 / TBPLS Registration #10004100 / TBEA
12940 Country Parkway
San Antonio, Texas 78216-2004
(210) 349-3271

Job No. 2866-001
February 2019
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FEASIBILITY STUDY

EXECUTIVE SUMMARY

Vickrey and Associates, Inc. (V&A) has completed its civil site development due diligence that is standard for an apartment complex development. This report discusses the site investigation performed as it relates to zoning, subdivision platting, site access, utilities, fire prevention, building permit, topography, drainage and detention, and floodplain issues. This report does not address environmental issues related to the site. An environmental site assessment is recommended to be performed on the site and will be reviewed upon receipt. V&A has communicated with the following agencies and their department via phone conversations, emails, web pages, letters, or in person:

- City of San Antonio Development Services Dept.
- San Antonio Water System
- CPS Energy
- AT&T
- Charter Communications (pending)
- Bexar County Appraisal District (BCAD)
- United States Fish & Wildlife Service (USFWS)

Development concerns that have been researched within this due diligence report are that the subject 1.723-acre tract is currently not included in a valid subdivision plat. The current C-2 zoning was previously zoned F under a former City commercial zoning ordinance which entitles the property for multi-family development. This area is not in a mandatory detention area; however, because of the state of current infrastructure in this area, detention will be provided for the increase in impervious cover. The current site plan in Attachment V complies with materially adhere to all applicable zoning, site development, and building code ordinances. Tree Canopy mitigation will be needed to comply with the City of San Antonio 2010 Tree Ordinance due to the lack of existing trees onsite. There will be a required 14-foot G,E,T,CA easement along the north and west sides of the property within our property boundary. We can ask for a variance for this easement from the City of San Antonio since the Right-of-Way for this road is larger than necessary at 100 feet. Since there are power poles located along the rear of the property it is likely that an easement will be required along the alleyway as well. All existing utilities and their respectful easements need to be located. Lastly, a proposed site utility layout will need to be determined so that appropriate easements and associated costs can be established.
SITE SUMMARY

The subject tract is located at 826 E. Highland Blvd. within the City of San Antonio in Bexar County. The proposed 49-unit apartment complex will be contained within the block made up of 10 existing parcels totaling 1.723-acres. The property has approximately 500 linear feet of frontage on E. Highland Blvd., 500 linear feet on an alleyway to the rear, and 150 linear feet of frontage on Piedmont Ave. This site is currently developed as a Moose Lodge and all associated paved parking. This means that there may be existing utilities under the site that need to be demolished. There are existing overhead utility poles located along the alleyway that come into the property on either side of the existing building. There is an underground stormwater curb inlet at the corner of E. Highland Blvd. and Piedmont Ave. There is sidewalk along the front side of the property on E. Highland Blvd. approximately 4 feet in width. The BCAD Property ID Number is 144677 (Attachment B).

The topography of the property has mild slopes, with a high point located in the southeast corner of the property and stormwater flows generally from southeast to northwest towards the curb inlet at E. Highland Blvd and Piedmont Ave. The site currently does not have many existing trees and it is likely that tree mitigation will be required to meet the 15% canopy cover as required by the 2010 tree ordinance in the City’s UDC. Surrounding the property are a commercial development along the east side and a single-family residential subdivision along rear property line.

Millage Rates for all Taxing Jurisdictions

Below is a list of the rates for all taxing entities for this property:

- BEXAR CO RD & FLOOD – 0.012868 %
- SA RIVER AUTH – 0.017290 %
- ALAMO COM COLLEGE – 0.14915 %
- UNIV HEALTH SYSTEM – 0.276235 %
- BEXAR COUNTY – 0.291229 %
- CITY OF SAN ANTONIO – 0.55827 %
- SAN ANTONIO ISD – 1.5326 %

ZONING RESTRICTIONS

This site is currently zoned C-2. This property was previously zoned F in the previous 1938 zoning ordinance (see Attachment N). Although the F zoning was transitioned to the C-2 zoning district under the new ordinance, the C-2 zoned area is grandfathered under the F zoning district which entitles the property to a MF-33 use. The proposed development of a 49-unit apartment complex will be allowed in this zoning district (a density of 33 units per area). In addition, this property is within the Highlands
Community Plan as a neighborhood commercial property. If a zoning change were necessary, the plan would need to be amended.

**Multi-Family-33 Zone-Zoning Restrictions**

There is a 20-ft front setback maximum, a 5-foot side setback, and a 10-foot rear setback associated with the MF-33 zoning classification (Attachment I). Building setbacks and buffers will comply with Sec. 35-310.01 of the current CoSA UDC. Additional setbacks may apply on deed restrictions, restrictive covenants, or additional fire or building code requirements. Owner imposed construction setbacks or construction easements should be considered where a minimal setback is being considered.

**Airport Hazard Overlay District- Zoning Restrictions**

The 1.723-acre tract is included in the Airport Hazard Overlay District (AHOD). The Airport Hazard Overlay District limits the size of structures or trees within the vicinity of an airport to a height of 200 feet or less.

**SUBDIVISION REQUIREMENTS**

The subject property was platted in 1921. The City of San Antonio does not recognize plats before 1928. A subdivision plat will need to be prepared and recorded before the City of San Antonio will issue a building permit. This document must be recorded before the City of San Antonio will issue a Certificate of Occupancy, but the platting process can be done concurrently with the building permit review process. The City’s fees for a one-lot major plat would amount to approximately $1,700.

During the platting process, the City of San Antonio requires a portion of the property to be reserved for parkland dedication in accordance with Section 35-503 of the Unified Development Code. This would require a dedication of 0.43 acres for this 49-unit project. This acreage can be met by various methods outlined in the attachment or a fee-in-lieu-of land dedication may be paid (Attachment L). Based on the current site plan, a fee-in-lieu-of would be required.

**DEVELOPMENT ORDINANCES**

The development ordinances for project in San Antonio can be found in the City of San Antonio Unifies Development Code (UDC): https://municode.com/library/tx/san_antonio/codes/unified_development_code. This includes ordinances on zoning, tree preservation, stormwater management, parking, and transportation.

**BUILDING CODES AND DESIGN REQUIREMENTS**

The city reviewing updates but currently have adopted:

- 2018 International Building Code
- 2018 Chapter 10, Building – Related Codes (COSA)
• 2018 International Residential Code for One and Two-Family Dwellings
• 2018 International Fire Code
• 2018 Chapter 11, International Fire Code with local amendments
• 2018 International Mechanical Code
• 2018 International Plumbing Code
• 2018 International Existing Building Code
• 2018 International Fuel Gas Code
• 2018 International Energy Conservation Code
• 2017 National Electric Code

FIRE CODE REQUIREMENTS

The development is subject to the 2018 International Fire Code (IFC) with local amendments. With the assumption that the apartment building will have an approved automatic sprinkler system, the COSA Code of Ordinance allows for all portions of the building to be a maximum distance of 200 feet away from the fire apparatus road. The maximum distance from hydrants to all exterior portions of all the apartment buildings is 750 feet as the hose lays.

PARKING AND TRAVELWAY REQUIREMENTS

Per the UDC, the minimum number of parking spots shall be 1.5 spaces per unit (73.5) and the maximum shall be 2.0 spaces per unit (98). The total number currently proposed is 91 spots falling within the range of COSA’s requirements. The Americans with Disabilities Act (ADA) will require that 4 of the spaces be handicapped spots with 1 of the being van accessible. The current site plan meets the ADA requirements. Of the other spots, 30% of the total parking spaces can be compact spaces with minimum dimensions of 8’x18’. Bicycle spaces will also be required for this development at a rate of 10% of the number of parking spaces based on the preliminary lot layout or 8 spaces (Attachment O).

TREES/LANDSCAPING

The proposed development will be required to comply with the City of San Antonio’s 2010 Tree Preservation Ordinance. Multi-family developments are required to preserve 40% of the existing total diameter inches excluding the street rights-of-way and easements. A minimum of 25% of the existing diameter inches must be preserved, the remaining 15% can be mitigated to meet the 40% preservation requirements. 100% of the heritage tress within the platted lot must be preserved. Multi-family sites are also required to provide a minimum of 25% final tree canopy cover. However, this site is within the Community Revitalization Action Group (CRAG) area and will be required to provide a minimum of 15% final tree canopy cover (Attachment J). With the limited number of trees on this property, planting additional trees will be required to meet the 15% canopy cover.
UTILITIES

Since there are less than 50 EDUs for this development, a USA will not be required. Since both the water line is located in Highland Blvd., street trenching will be required to tie into the existing mains. Based on preliminary assessment of Highland Boulevard, only the trench will be required to be repaved. A pavement condition index can be requested for COSA to confirm the extent of repaving. There will be a required 14-foot G,E,T,CA easement along the north and west sides of the property within our property boundary. We can ask for a variance for this easement from the City of San Antonio since the Right-of-Way for this road is larger than necessary at 100 feet. Since there are power poles located along the rear of the property it is likely that an easement will be required along the alleyway as well.

Sewer

Based on San Antonio Water System (SAWS) sanitary sewer maps there is an existing 8-inch gravity sewer main line on the southside of the property within the alley. Additionally, the sanitary sewer main in the alley is between 4 and 7 feet in depth. Upon preliminary calculations, the depth of the current sewer and the slope of the existing land should allow for enough slope in the suture sewer layout. The proposed sewer tie-in location for the development will need to be confirmed by SAWS though their cursory review.

The site is located in SAWS lower sewer service area and lies within the Salado Creek-San Antonio River watershed. The impact fees for this area are $1,505 per Equivalent Dwelling Unit (EDU) and SAWS calculates and EDU as 0.5 per unit. This proposed development will have 49 units or 24.5 EDU’s and 1 EDU for the office for a total of 25.5 EDU’s. The SAWS impact fees for the apartment complex will be approximately $38,377.50.

Water

Based on the maps received by SAWS, there is a 12-inch water main located to the north of the property along the south side of Highland Blvd. Water service for the proposed development will likely be for the existing 12-inch line. SAWS will require that a 12-inch or greater sized main be provided to ensure adequate fire flow and domestic demand. There will also be an assumed 1.5-inch irrigation meter equivalent to 5 EDU’s. A landscape architect can determine the appropriate irrigation meter size at the time of design.

Within SAWS pressure zone 3, the impact fees are $4,597 per EDU. Based on the current site plan, there are 49 units or 24.5 EDUs, 1 EDU for the office, and 5 EDUs for the irrigation meter for a total of 30.5 EDUs. The SAWS water impact fees for the apartment complex will be approximately $140,209 (Attachment G).
**Electric, Gas, Telephone**

The electric and gas availability letter has been received from CPS. Based on the CPS letter, the proposed development can be served by CPS Energy’s electric and gas.

AT&T has indicated that the subject property is within the service area and the service arrangement will be subject to later discussions and agreements between the developer and AT&T (Attachment E).

Charter Communications is pending.

**SITE INGRESS AND EGRESS REQUIREMENTS**

The 1.723-acres has approximately 500 linear feet of frontage on Highland Boulevard. Traffic counts have been obtained for Highland Blvd. from the City of San Antonio and has been attached to the end of this report (Attachment Q).

There will be a driveway from Highland Blvd. that will be permitted though the City of San Antonio with a required minimum throat depth of 40 feet, a minimum width of 24 feet and the maximum of 30 feet, and curb return radii of 25 feet. The development will be allowed 1 driveway per 200 feet of frontage and the driveways may not be closer than 50 feet apart (Sec. 35-506 (r)(3) – Attachment P). The current site plan in Attachment V meets the minimum requirements for a driveway from the City of San Antonio.

There will be one driveway access point from Piedmont Ave. that will be permitted through the City of San Antonio and will have to meet the same requirements as above. The current driveway meets the throat depth and radii requirements.

There will also be a driveway that will allow access to the alleyway. The alleyway is in extremely poor condition and any attempt to access this route would require improvement to the alleyway.

**PERMITTING**

The 1.723-acre tract is currently composed of 10 unplatted lots and will be platted to combine all parcels into one lot. This project will need driveway permits from the City of San Antonio. Utility plans will need to be submitted to SAWS for all water and sanitary sewer permitting. A site plan must be submitted by the architect at the time of rezoning and it must include all requirements in UDC Sec 35-343 (m)(2) (Attachment J). The following are the permits needed:

- Address Permit
- Building Permit
- Site Permit
- Electric Permit
- Fire Permit
• MS4 (SWPPP) Permit
• Irrigation Permit
• Landscape Permit
• Plumbing Permit
• SAWS Permit
• Tree Permit

WATER QUALITY/DRAINAGE

According to FEMA Firm Map 48209C0415G, the 1.723-acre tract is not located within the 1% AC (100-year) floodplain. This site is not within the Edwards Aquifer Recharge Zone or Contribution Zone; therefore, a water quality submittal or permanent water quality structure will not be required by the Texas Commission of Environmental Quality (TCEQ).

Since less than five acres will be disturbed during construction, a Storm Water Pollution Prevention Plan (SWPPP) will need to be prepared and implemented as well, the Texas Pollutant Discharge Elimination System (TPDES) General Permit will need to be posted at the site. The purpose of this SWPPP is to identify potential onsite pollutants and specify practices which will minimize the extent of these pollutants being discharged from the site. TCEQ has been given authority to administer and oversee the implementation of this process.

This site has relatively mild slopes with a high point located in the southeast corner of the property and stormwater flows generally from the southeast to northwest towards the curb inlet at the corner of E. Highland Blvd. and Piedmont Ave. This area is not in the mandatory detention area; however, because of the state of current infrastructure in this area, detention will be provided for the increase in impervious cover. The approximate increase in impervious cover is 2000 square yards.

OVERVIEW OF PROCESS, TIMING, AND COSTS

Overview of Entitlement and Site Development Permitting Process and Associated Timing

This site will need a major subdivision plat submitted to the City of San Antonio. The plat review and approval process takes approximately 6 months from initial submittal to final recordation. A building permit will not be issued for the development until the plat is recorded; however, the plat and building permit reviews can occur concurrently.

Building Permitting and Process and Timing

It is recommended that the developer schedule a preliminary plan review meeting with the City prior to beginning the design process to clarify design and permitting requirements. Once the design documents are completed, a complete building permit application will be submitted to the City of San Antonio
Development Services Department and then be distributed internally for review by the required City departments (Address, Building, Drainage, Electric, Fire, Historical, Irrigation, Landscape, Mechanical, Plumbing, SAWS, Sidewalk, TIA, Traffic, Tree, and Zoning). These departments will then issue comments and/or approvals. Once all departments have approved the plans and the plat is recorded, a building permit will be issued. The process typically takes approximately four months.

**Cost Itemization of all Anticipated Fees (Anticipated Impact, Site Development Permit, Building Permit, and Other Required Fees)**

Below is an estimate of the required fees associated with the development of the 49-unit, 1.723-acre apartment complex:

- SAWS Water Impact Fee: $140,209
- SAWS Sewer Impact Fee: $38,377.50
- COSA Major Plat Fee: $1,700
- COSA Preliminary Plan Review Meeting Fee: $500 (assuming one-hour meeting with reviewers from five departments)
- COSA Building Permit Fee: TBD
CONCLUSION

In conclusion, there are several civil related factors that must be addressed in order to develop the project. These items are summarized below and must be taken into consideration to efficiently develop the site as desired:

1. The site will require a subdivision plat.
2. Tree canopy mitigation will need to be performed.
3. Layout of utilities so that easements and estimated costs can be established.
4. Locations of existing utilities easements and easements need to be verified.
5. A 14’ G,E,T,CA easement will be required along the north and west sides of the property. An application for a variance should be submitted.
EXHIBIT A

AERIAL MAP
1.723-ACRES
(75,061 Sq. Ft.)

12940 Country Parkway San Antonio, TX 78216
Telephone: (210) 349-3271
Firm Registration No: F-159

CIVIL ● ENVIRONMENTAL ● SURVEY

1.723-ACRES
(75,061 Sq. Ft.)

LEGACY AT PIEDMONT

AERIAL MAP

ATTACHMENT: EXHIBIT A  DATE: FEB 2019

VICKREY & ASSOCIATES, INC.
CONSULTING ENGINEERS
CIVIL ● ENVIRONMENTAL ● SURVEY
12640 Country Parkway San Antonio, TX 78216
Telephone: (210) 349-3271
Firm Registration No: F-159
EXHIBIT D

WATER BLOCK MAP
SAWS GIS Mapping: A wealth of information at your fingertips
EXHIBIT E

SANITARY SEWER BLOCK MAP
EXHIBIT F

LETTER OF AVAILABILITY FOR
WATER AND SANITARY SEWER SERVICES
Ms. Tracy Freimarck

Re: E. Highland Blvd. and Piedmont Ave. Availability of SAWS’ Infrastructure

Ms. Freimarck:

This is in response to your request for the availability of water and wastewater service to the above referenced property. The location of the tract is within the City of San Antonio city limits, inside SAWS’ Water CCN, and inside SAWS’ Sewer CCN.

The San Antonio Water System (SAWS) strives to provide quality, reliable service to its customers at a reasonable cost. Rates are kept low, in part, by having new customers pay for all costs associated with extending service to them. SAWS Board of Trustees Growth Strategy states “we will work to ensure that growth is self-funding”. Per SAWS Utility Service Regulations Sections 3.1, 5.1, 6.1, 7.1, and 7.3, new customers are expected to pay for the infrastructure needed to serve their property and pay impact fees to SAWS to pay for general benefit facilities such as overall additional storage tanks, water supplies, pump, or treatment facilities required to serve the new customers. Please note that the water supply impact fees increased on June 1, 2015. It is not SAWS’ practice to construct main or service connections to a new customer. Such construction would need to be arranged and paid for by the customer through a professional engineer (if a public main extension is required) and authorized contractor. Costs of surveying, engineering design, materials, construction, and impact fees should be considered before the customer proceeds with construction of their proposed mains or services.

WATER

Water Supply to the tract will be from Pressure Zone 3 which has a static gradient of 828 ft. The approximate maximum elevation of the tract is 648 feet & 78 PSI and the approximate minimum elevation of the tract is 644 feet & 80 PSI. There is an existing 12-inch water main along the south side of E. Highland Blvd. Water mains in the vicinity of the property are shown on the attached location map. If commercial uses are proposed, the San Antonio Water System requires a 12-inch or greater sized main to provide adequate fire flow and domestic demand.

Costs and commitment requirements for providing water service may include additional on-site mains and service connection fees. Payment is required of all applicable fees in effect at the time of plat recordation or the latest date allowable by law. This includes current impact fees based on connection point and number of EDU’s of capacity requested. Presently, one water EDU = 313 gallons per day of average daily flow. Current impact fees are shown in the table below.
## Water Impact Fee Zone (Pressure Zone)

<table>
<thead>
<tr>
<th>Water Impact Fee Zone (Pressure Zone)</th>
<th>Flow</th>
<th>System Development</th>
<th>Water Supply</th>
<th>Total Water Impact Fees (per 1 EDU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PZ 3 Low</td>
<td>$1,182</td>
<td>$619</td>
<td>$2,796</td>
<td>$4,597</td>
</tr>
</tbody>
</table>

## RECYCLE WATER

In some locations it may be feasible to make use of SAWS recycled water. SAWS has established 73 miles of recycled water pipelines through the city of San Antonio. Recycled water is non-potable and ideal for irrigation, commercial, manufacturing and industrial uses. Recycled water is cost-effective, environmentally responsible and not affected by mandatory curtailment during drought conditions. For more information please call (210) 233-3673 or email Pablo.Martinez@saws.org Pablo Martinez at San Antonio Water System.

## WASTEWATER

The Tract is situated within SAWS’ sewer service area and lies within the Salado Creek-San Antonio River Watershed. There is an existing 8-inch gravity sewer main along the south side of the tract. Wastewater mains in the vicinity of the property are shown on the attached location map. If the developer chooses to extend the nearest sewer main to the proposed site, he/she must do so at his cost. Connections to mains require the developer to acquire an easement for the main extension if necessary. All tie-ins into the San Antonio Water System’s collection system must be based on fieldwork and in conformance with the San Antonio Water System Utility Service Regulations, which became effective on August 9, 2016. Current impact fees are shown in the table below.

<table>
<thead>
<tr>
<th>Wastewater Impact Fee Area</th>
<th>Collection</th>
<th>Treatment</th>
<th>Total Wastewater Impact Fees (per 1 EDU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower</td>
<td>$719</td>
<td>$786</td>
<td>$1,505</td>
</tr>
</tbody>
</table>

The Developer will be responsible for any additional sanitary wastewater main extensions (on-site and/or off-site), right-of-way and easement acquisitions (if needed), private wastewater service laterals required to serve the property, lift stations and force main systems, lift station upgrades and lift station maintenance fees (per lift station), along with payment of all applicable fees in effect at time of plat recordation or the latest date allowable by law. This includes current impact fees based on connection point and number of EDU’s of capacity requested. Presently, one wastewater EDU = 240 gallons per day of average daily flow.

This letter does not constitute a commitment to capacity by the SAWS to provide water and/or wastewater service to the subject property. The actual availability of water and/or wastewater service to the property will be dependent upon the site specific requirements such as site elevation, pressure requirements, estimated demand and discharge, and the infrastructure requirements as set
forth in the USR. The consulting engineer should assess the site-specific requirements in accordance with the USR regulations prior to requesting connection to SAWS’ infrastructure. In some cases a Utility Service Agreement may be necessary, for more information please refer to the SAWS Guide to Development [http://www.saws.org/business_center/developer/newdevel/](http://www.saws.org/business_center/developer/newdevel/) for a detailed guideline regarding the process for obtaining water/and or wastewater services.

Should additional information be needed please contact me at email: Richard.McWhirter@saws.org

Sincerely,

Richard McWhirter
San Antonio Water System

Attachments
1. Water Utility Map
2. Wastewater Utility Map
LETTER OF AVAILABILITY FOR
GAS AND ELECTRIC SERVICES
2/8/2019

VICKREY & ASSOCIATES
Attn: Tracy Freimarck
12940 Country Parkway
San Antonio, TX 78216

Re: Letter of Availability (Electric and Gas)

Proposed Development: Legacy at Piedmont 1.723-ACRES

To Whom It May Concern:

Please accept this letter as confirmation that the proposed development listed above can be served by CPS Energy’s electric and gas distribution systems under the provisions of our current Supply Line Extension Policies contingent on the appropriate easements, rights-of-way, and permits being obtained and/or provided.

Since the specific plans indicating how the property will be developed have not yet been submitted, CPS Energy cannot estimate the cost for providing the electric and gas service within the identified tract of property. A cost estimate for the provision of these utility services may be requested once plans depicting the types of development and configurations are submitted to CPS Energy for review.

This letter is not intended as a certification that CPS Energy has reviewed subdivision plans or plats nor approval of any submitted plans or plats. The applicable governmental entity’s procedure for plat approval may require that utility plans be reviewed by CPS Energy prior to submittal to those applicable governmental entities.

If you should have any questions or concerns regarding this Letter of Availability, please contact our office at (210) 353-4050.

Sincerely,

Jenna Keylich

Jenna Keylich
Customer Service Supervisor
Customer Engineering Department
LETTER OF AVAILABILITY FOR
TELECOMMUNICATION SERVICES
February 11, 2019

Tracy Freimarck  
Vickrey & Associates, Inc.  
12940 Country Parkway  
San Antonio, TX 78216

RE: Legacy at Piedmont, E. Highland Blvd and Piedmont Ave, San Antonio, Texas

Dear Tracy Freimarck:

This letter is in response to your request for information on the availability of service at Legacy at Piedmont, E. Highland Blvd and Piedmont Ave, San Antonio, Texas by AT&T. This letter acknowledges that Legacy at Piedmont, E. Highland Blvd and Piedmont Ave, San Antonio, Texas is located in an area served by AT&T. Any service arrangements for Legacy at Piedmont, E. Highland Blvd and Piedmont Ave, San Antonio, Texas will be subject to later discussions and agreements between the developer and AT&T. Please be advised that this letter is not a commitment by AT&T to provide service to Legacy at Piedmont, E. Highland Blvd and Piedmont Ave, San Antonio, Texas.

Please contact the AT&T OSP Design Engineer for this service area, Robert DeHoyos, with any project specific inquiries. He can be reached at (210) 536-4564.

Thank you for contacting AT&T.

Sincerely,

Sandra Mercer
for
Philip Austin
Civic Coordinator
EXHIBIT I

ZONING REQUIREMENTS
The City of San Antonio does not guarantee the accuracy, adequacy, completeness or usefulness of any information. The City does not warrant the completeness, timeliness, or positional, thematic, and attribute accuracy of the GIS data. The GIS data, cartographic products, and associated applications are not legal representations of the depicted data. Information shown on these maps is derived from public records that are constantly undergoing revision. Under no circumstances should GIS-derived products be used for final design purposes. The City provides this information on an "as is" basis without warranty of any kind, express or implied, including but not limited to warranties of merchantability or fitness for a particular purpose, and assumes no responsibility for anyone’s use of the information.
Sec. 35-310.01. - Generally.

(a) No building permit shall be issued unless the proposed development conforms to the design regulations prescribed within the applicable zoning district. Rules for interpreting the design regulations are included in the lot layout, height, and density/intensity standards (article V, division 4 of this chapter (sections 35-515 to 35-517)).

(b) The design regulations for each district are included in Table 310-1 below. The design standards are illustrated graphically for each zoning district in a subsection entitled "Summary of Lot and Building Specifications" in each section 35-310.01 to 35-310.14, below. To the extent that there is any inconsistency between the provisions of Table 310-1 and the illustrations in the summaries of lot and building specifications, below, the provisions of Table 310-1 shall govern. Specific rules of interpretation and exceptions to the zoning district design regulations are as set forth in the lot layout, height, and density/intensity standards (article V, division 4 of this chapter).

<table>
<thead>
<tr>
<th>Table 310-1</th>
<th>Lot and Building Dimensions Table</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LOT DIMENSIONS</strong></td>
<td><strong>BUILDING ON LOT</strong></td>
</tr>
<tr>
<td>Zoning District</td>
<td>Lot Size (min)</td>
</tr>
<tr>
<td>RP</td>
<td>10 acres</td>
</tr>
<tr>
<td>RE</td>
<td>43,560</td>
</tr>
<tr>
<td>R-20</td>
<td>20,000</td>
</tr>
<tr>
<td>R-6</td>
<td>6,000</td>
</tr>
<tr>
<td>R-5</td>
<td>5,000</td>
</tr>
<tr>
<td>R-4</td>
<td>4,000</td>
</tr>
<tr>
<td>R-3</td>
<td>3,000</td>
</tr>
<tr>
<td>RM-6</td>
<td>6,000</td>
</tr>
<tr>
<td>RM-5</td>
<td>5,000</td>
</tr>
<tr>
<td>RM-4</td>
<td>4,000</td>
</tr>
<tr>
<td>MF-18</td>
<td>3,4</td>
</tr>
<tr>
<td>&quot;MF-25&quot;</td>
<td>1,4,8</td>
</tr>
<tr>
<td>&quot;MF-33&quot;</td>
<td>1,4,8</td>
</tr>
<tr>
<td>&quot;MF-40&quot;</td>
<td>1,4,8</td>
</tr>
<tr>
<td>&quot;MF-50&quot;</td>
<td>1,4,8</td>
</tr>
<tr>
<td>&quot;MF-65&quot;</td>
<td>1,4,8</td>
</tr>
<tr>
<td>FR Village Center</td>
<td>2 acres</td>
</tr>
<tr>
<td>------------------</td>
<td>--------</td>
</tr>
<tr>
<td>MI-1</td>
<td>80</td>
</tr>
<tr>
<td>MI-1 Minor Node**</td>
<td>50</td>
</tr>
<tr>
<td>MI-1 Village Center</td>
<td>2 acres</td>
</tr>
<tr>
<td>MI-2</td>
<td>100</td>
</tr>
<tr>
<td>MI-2 Minor Node**</td>
<td>50</td>
</tr>
<tr>
<td>MI-2 Village Center</td>
<td>2 acres</td>
</tr>
</tbody>
</table>

* Exception allowed for pre-existing lots of record.

** See regulations for location standards.

*** See Table 35-310.18-1 and 35-310.19 for minimum setback standards on specific street classifications.

**** Subdivision recreation facilities provided for the primary use of the subdivision's residents and located on property with a single-family zoning category shall be exempt from the front setbacks of Table 310-1.

Rules for Interpretation of Table 310-1:

**Generally.** The requirements for the parameters set forth in columns (B) through (N), above, relate to the zoning district specified in the row under column (A), above. A dash (—) indicates that the requirement does not apply within the particular zoning district. Except for column (B), (C), (D), (M), and (N) or otherwise noted the dimensions specified in columns (B) through (N) are expressed in linear feet. The dimensions specified in columns (B), (C), (D), (M), and (N) are expressed in square feet or acres unless otherwise provided. Rules of interpretation and additional standards for setback and height requirements are set forth in the lot layout, height and density/intensity standards (sections 35-515 to 35-517 of this chapter).

**Column (B) and (C):** Minimum lot size column (B) and maximum lot size column (C) applies only to Conventional Option, single-family detached developments (see section 35-201 of this chapter). The minimum lot size figures are expressed in square feet, unless otherwise indicated. Additional rules of interpretation are set forth in subsection (d) of this section for minimum lot area.

**Column (D):** The maximum density requirements (column (D)) are expressed in dwelling units per gross acre. Additional rules of interpretation are set forth in section 35-515 of this chapter.

**Column (E):** Frontage is defined as the distance where a property line is common with a street right-of-way line. For irregular shaped lots, see subsection 35-515(c)(4).
| Column (F): Minimum lot width is defined as the width of the lot at the front setback line. For irregular shaped lots, lot width shall be measured at the front building line rather than the front setback line. |
| Column (G): Maximum lot widths apply only to detached single-family residential development. |
| Column (J): The side setback requirements in the "RM-4," "RM-5," "RM-6," "R-3," "R-4," "R-5" and "R-6" districts may be reduced in accordance with section 35-373 of this article. Additional setbacks are required for height increases as set forth in subsection 35-517(d). |
| Column (K): Rear setback requirements shall not apply to any use in the "NC," "O-1," "O-1.5," "O-2," "C-1," "C-2," or "C-3" zoning districts which abuts an alley or another structure within any of these districts. Notwithstanding the requirements of Table 310-1, an "MF-18," "MF-25," "MF-33," "MF-40" or "MF-50" zoning district adjoining a platted subdivision zoned single-family residential use shall have a minimum rear setback of forty (40) feet, and parking areas shall be located at least five (5) feet from any fence along the rear property line. |
| Column (L): Height. The vertical dimension measured from the average elevation of the finished lot grade at the front of the building to the highest point of ceiling of the top story in the case of a flat roof; to the deckline of a mansard roof; and to the average height between the plate and ridge of a gable, hip or gambrel roof. All dimensions are in feet provided, however, that for zoning districts "RP" through "RM-4," the first number refers to feet and the second number refers to stories. A "story" is that part of a building between the surface of a floor and the ceiling immediately above. Additional height may be provided pursuant to subsection 35-517(d). |
| Column (M): Dimensions are in square footage. See sections 35-310.17 and 35-310.18 for specific rules of interpretation. Additional square footage may be available if a specific use authorization is approved, in accordance with these provisions. |
| Column (N): The aggregate square footage refers only to nonresidential square footage. Where residential uses are permitted, (1) the square footage of nonresidential uses within the contiguous boundaries of the district may not exceed the aggregate square footage, and (2) the aggregate square footage may be exceeded where the square footage exceeding the maximum aggregate square footage is devoted to residential uses. |

**Note (1) - column (A):** See sections 35-372, 35-373, 35-515, and 35-516 of this chapter for standards applicable to zero lot line dwellings and uses other than detached single-family dwellings.

**Note (2) - columns (J) and (K):** Applies only to the setback area measured from a lot line which abuts a residential use or residential zoning district. The side or rear setback shall be eliminated where the use does not abut a residential use or residential zoning district or the two districts are separated by a public right-of-way. The indicated setback would not apply if the subject property adjoins a residentially zoned property (single-family or multi-family) which is occupied by an existing nonresidential use such as a public or private use school, church, park and/or golf course.

**Note (3) - Public and parochial school facilities and religious institutions whose primary activity is worship shall be exempt from the mandatory maximum front setback provision.**

**Note (4) - Single-family lot development within an "MF" multi-family zoning district shall meet the minimum lot requirements for an "R-4" zoning district.**

**Note (5) - Maximum front setback for "RD" and "UD" commercial uses shall not apply to flag lots or properties with primary frontage on expressways and parkways.**

**Note (6) - For a lot with one hundred (100) feet or more of frontage along a public or private street the maximum front setback of twenty (20) feet in "MF-18," "MF-25," "MF-33," "MF-40," and "MF-50" may be extended to ninety (90) feet provided that no parking or drives other than egress/ingress drives shall be located within twenty (20) feet of the front property line. For a lot with less than fifty (50) feet of frontage on a public street the front setback shall be at least twenty (20) feet and shall be measured from the point at which the lot first becomes wider than fifty (50) feet in width.**

**Note (7) - May vary in accordance with subsection 35-410.05a(b)(3).**
Note (8) - When multi-family units (apartments) are developed in a non-multiplicity zoning district as stand alone apartments the buildings and lot shall conform to the standards of development (setback, yards, buffer, landscaping, etc.) for one of the following "MF-18," "MF-25," "MF-33," "MF-40" or "MF-50" zoning districts. The specific district shall be determined by the density to which the apartments are being developed.

Note (9) - Site planning and architectural criteria for the "D" Downtown Zoning District can be found in the Downtown Design Guide in Appendix G of this chapter.

Note (10) - Buildings shall contain ground level fenestration (transparent windows and openings at street level) of not less than 30%. Parking areas for new buildings or structures shall be located behind the front façade of the principal use or principal building. For "O-1" and "C-1", parking shall be located behind the front facade of the principal use or principal building, provided that up to two (2) rows of parking may be located to the front of the principal use or principal building.
Sec. 35-517. - Building Height Regulations.

(a) **Generally.** Building height shall conform to the requirements of section 35-310, Dimensional Matrix.

(b) **Measurement.** Building height shall be measured as provided in the International Building Code.

(c) **Height Exceptions.** The height limits for the various districts do not apply to church spires, belfries, cupolas, or domes not used for human habitation, nor to chimneys, ventilators, skylights, parapet walls, cornices, solar energy systems, or necessary mechanical appurtenances usually located on the roof level, provided that such features are limited to the height necessary for their proper functioning and do not exceed the limitations of the airport hazard zoning regulations.

(d) **Setbacks for Height Increases.**

(1) With the exception of residential uses located in single-family residential zoning districts, any portion of a structure in any zoning district may be erected to exceed the height limit established in section 35-310.01, Table 310-1, provided that such portion is located back from the side and rear setback lines one (1) foot for each two-foot of height in excess of the height limit prescribed in such section unless otherwise prescribed in subsections (2) and (3), below or through a specific use authorization and further provided the height does not exceed the limitations of the airport hazard zoning regulations. Distance credits shall be allowed for space occupied by structures of conforming height extending from the setback lines, except as specified in Table 310-1(k). The requirements of subsection (2) and (3) shall only apply to permits for new construction submitted after December 31, 2010.

(2) The maximum height of any portion of a commercial, office or multi-family zoning district located within fifty (50) linear feet of the property line of an established single-family residential use shall be limited to the maximum height of the single-family district. The height limit shall not apply where a property is zoned single-family residential but not used for residential purposes, such as a church, school, park or golf course. The measurement of fifty (50) feet shall occur from the property line of the residential use to the structure in the zoning district subject to this subsection.

*For example, where a C-2 zoned property abuts single-family property with R-5 zoning, the C-2 property shall be limited in height to thirty-five (35) feet or two and one-half (2½) stories for that portion of the property within fifty (50) feet of the property line with the R-5 district.*

(3) For portions of a zoning district subject to the height limit of subsection (2) the maximum height limit may be exceeded through the specific use authorization ("S") process.

*Illustration based on rear setback example:*
EXHIBIT J

TREE PRESERVATION
(e) **Final Tree Canopy Cover.** The intent of this subsection is to promote tree canopy coverage in the city and the ETJ. The development of any property shall meet the final canopy percent requirements as described below based on the land use and can be accomplished by maximizing the preservation of trees through a tree survey method or tree stand delineation alternative and by tree planting (if necessary) or payment into the mitigation fund.

1. **Standards.** Developments of all sites must provide a minimum final tree canopy cover as listed below for the entire gross project area outside of the regulatory floodplain.

   A. Minimum final tree canopy coverage shall be provided at the percentages indicated below:
      i. Single-family residential thirty-eight (38) percent;
      ii. Multi-family and nonresidential twenty-five (25) percent;
      iii. CRAG area fifteen (15) percent;

   B. The final tree canopy requirements shall be accomplished after meeting all preservation requirements and other planting requirements as set forth in this chapter;

   C. When the final tree canopy is required at platting, the city arborist may allow the applicant to defer the minimum tree canopy cover requirements as follows:
      a) To the building permit phase of the development if inside of city limits; or
      b) To the building phase in ETJ with plans depicting final canopy cover of preserved trees and newly planted trees and the method to assure that the requirements will be met before the issuance of a building permit (sections 35-8123, 35-8125, 35-8107, 35-477, 35-476) (note: per
subsection 35-523(f)(3) Table 523-1B, when using the tree stand delineation option, tree save areas must be designated as such when the area is platted); or

c) With a guarantee of performance executed and filed with the City of San Antonio.
The city arborist shall determine the probable maximum amount of tree mitigation required (measured in dollars) that may be attributable to the development.

(f) **Minimum Tree Preservation Requirements.** To comply with the minimum final tree canopy cover requirements of subsection (e) an applicant shall elect either to perform a tree survey to identify trees for preservation in accordance with the provisions of this subsection below or to conduct a tree stand delineation as an alternative to the tree survey technique.

(1) **Protected Tree Designations.** The significant or heritage tree designations establish a threshold trunk size, measured in diameter at breast height (DBH), for various tree species for purposes of applying the requirements of this chapter. A significant or heritage tree is defined by DBH as set forth below. Multi-trunk trees are to be measured with the largest trunk counting for full DBH inches plus fifty (50) percent of the DBH sum of the additional trunks, if the tree is classified as significant. (Tree species listed below shall have at least one (1) trunk greater than five (5) inches for small tree species and at least one (1) trunk greater than ten (10) inches for large tree species to be considered significant). The value of the largest trunk is the value given to the small tree species listed below.

A. **Significant Trees.** A significant tree means a tree of six (6) inches or greater DBH for all tree species except the following species are significant with at least one (1) trunk being equal or greater than the respective size (DBH):

i. Ashe Juniper (Juniperus ashei) - ten (10) inch DBH;

ii. Huiscache (Acacia farnesiana) - ten (10) inch DBH;

iii. Mesquite (Prosopis glandulosa) - ten (10) inch DBH;

iv. Arizona Ash (Fraxinus Velutina) - ten (10) inch DBH;

v. Hackberry (Celtis spp.) - ten (10) inch DBH;

vi. Texas persimmon (Diospyros texana) - five (5) inch DBH;

vii. Texas redbud (var. texensis) - five (5) inch DBH;

viii. Texas Mountain laurel (Sophora secundiflora) - five (5) inch DBH;

ix. Condalia (Condalia hookeri) - five (5) inch DBH;

x. Possum haw (Ilex decidua - in floodplain only) - five (5) inch DBH;

xi. Hawthorne (crataegus texana) - five (5) inch.

B. **Heritage Trees.** A heritage tree means a tree of twenty-four (24) inches or greater DBH for all tree species except the following species are heritage with at least one (1) trunk being twelve (12) inches or greater DBH (the value of the twelve (12) inches or greater trunk is the value given to these small tree species):

i. Texas persimmon (Diospyros texana);

ii. Texas redbud (var. texensis);

iii. Texas Mountain laurel (Sophora secundiflora);

iv. Condalia (Condalia hookeri);

v. Possum haw (Ilex decidua - in floodplain only);

vi. Hawthorne (crataegus texana).

C. **Non-native Trees.** Non-native invasive tree species are not protected and will be omitted from the tree survey. Non-native invasive tree species means the following tree species:

i. Chinese Pistache (Pistacia chinesis);
ii. Chinaberry (Melia azedarach);
iii. Chinese Tallow (Sapium sebiferum);
iv. Tree of Heaven (Ailanthus altissima);
v. Salt Cedar (Tamarix species).
vi. Japanese Ligustrum (Ligustrum japonicum).
vi. Japanese Ligustrum (Ligustrum japonicum);
vii. Nandina (Nandina domestica);
viii. Paper Mulberry (Broussonetia papyrifera).

(2) **Tree Survey Methodology.**

A. **Standards.** Table 523-1A establishes the minimum percentage of all diameter inches of significant or heritage trees or tree stand delineation canopy area that must be preserved or mitigated. In environmentally sensitive areas, the minimum percentage shall include the understory of the preserved trees. For all development projects, applicants may elect to preserve trees at the MDP, platting or permitting stage; if an applicant elects to preserve trees at the MDP or platting stage, this method must be used throughout completion of the project.

<table>
<thead>
<tr>
<th>Significant Trees</th>
<th>Single-Family Dwellings</th>
<th>Multi-family and Nonresidential Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot; DBH or greater</td>
<td>35% within each platted lot, excluding street right-of-way and easements. Plus each builder on a single-family dwelling lot shall also be required to plant two (2) one and one-half (1.5) inch caliper new trees, which trees shall generally be native, large canopy trees.</td>
<td>40% within the entire site excluding the street rights-of-way and easements; or for athletic fields, 25% of the entire site to be developed as such.</td>
</tr>
<tr>
<td>Significant Trees under 6&quot; DBH</td>
<td>35% within each platted lot, excluding the street right-of-way and easements or 35% of the number of total count of all such trees.</td>
<td>40% within the entire site, excluding street rights-of-way, and easements; or 40% of the number of total count of all such trees; or for athletic fields, 25% of the entire site to be developed as such.</td>
</tr>
<tr>
<td>Heritage Trees</td>
<td>100% within each platted lot</td>
<td>100% within the entire site.</td>
</tr>
<tr>
<td>100-year floodplain(s)</td>
<td>80% of all the trees within the floodplain, which shall not apply toward preservation requirements on the remainder of the lot.</td>
<td>80% of the trees within the floodplain, which shall not apply toward preservation requirements on the remainder of the site.</td>
</tr>
</tbody>
</table>
Environmentally Sensitive Areas | 80% of all the trees within the environmentally sensitive area including easements and rights-of-way. Such areas shall apply toward preservation on the remainder of the site. | 80% of all the trees within the environmentally sensitive area including easements and rights-of-way. Such areas shall apply toward preservation on the remainder of the site. |
---|---|---|
Mitigation Maximum | Up to 80% of significant and heritage trees may be mitigated rather than preserved. | Up to 80% of significant and heritage trees may be mitigated rather than preserved. |

B. **Calculation of Preservation Ratios.** All percentages relating to preservation stated within this section shall be based on the initial tree survey. Any subsequent redevelopment of property must minimally preserve the applicable percentage of the total diameter inches of protected trees as indicated by the initial tree survey. To receive preservation credit in environmentally sensitive areas when using the tree survey or tree canopy method, the canopy area can be converted into diameter inches utilizing the following formula based on the dominant tree species in the area(s). Canopy area divided by shade value (Appendix E) equals number of trees, times the radius of the shade value area which will equal the diameter inches present in the environmentally sensitive area.

**Formula:**

\[
\text{Diameter (inches)} = \text{Number of Trees} \times \text{Radius}
\]

\[
\text{Number of trees} = \frac{\text{Canopy Area (sq-ft)}}{\text{Shade Value (sq-ft/tree)}}
\]

\[
\text{Radius} = \sqrt{\frac{\text{Shade Value Area}}{\pi}}
\]

*Commentary: the value is based upon the one foot tree canopy radius to one inch trunk diameter relationship.*

(3) **Tree Stand Delineation Alternative.** Mitigation trees will be as set forth in the standards of table 523-2 using the shade value in Appendix E.

A. **Standards.** As an alternative to a tree survey, a tree stand delineation may be used to meet the preservation requirements (see submittal requirements section 35-8125). In order to utilize this provision the site must have area(s) of tree canopy; however, the presence of understory is not required except in environmentally sensitive areas where the minimum percentage shall include the understory of the preserved trees. The application of this provision will be based on the total tree canopy of a site or project outside the 100-year floodplain and environmentally sensitive areas, with no exclusions for rights-of-way or easements. A tree stand delineation shall meet the following standards:

<table>
<thead>
<tr>
<th>Minimum Preservation Requirements</th>
<th>Other Requirements</th>
</tr>
</thead>
</table>
Community Revitalization Action Group (CRAG) Area
(Original 36 Sq. Mi.)

City of San Antonio
EXHIBIT K

AIRPORT HAZARD OVERLAY DISTRICT
Sec. 35-331. - "AHOD" Airport Hazard Overlay District.

STATEMENT OF PURPOSE

This division is adopted pursuant to the authority conferred by V.T.C.A. Local Government Code Ch. 241. It is hereby found that an airport hazard endangers the lives and property of the users of San Antonio International Airport, Stinson Municipal Airport, Kelly Air Force Base, Randolph Air Force Base and of the occupants of land in the vicinity thereof, and also, if of the obstruction type, such hazard reduces the size of the area available for the landing, taking-off and maneuvering of aircraft, thus tending to destroy or impair the utility of these airports and the public investment therein. Accordingly, it is declared:

- That the creation or establishment of an airport hazard is a public nuisance and an injury to the communities served by these airports;

- That it is necessary, in the interest of the public health, public safety and general welfare that the creation or establishment of airport hazards be prevented; and

- That the prevention of these hazards should be accompanied, to the extent legally possible, by the exercise of the police power without compensation.

(a) Development Standards.

(1) Future Uses. Within any airport hazard area which is within, or extends into, the controlled area of these regulations, no material change in the use of land and no structure or tree shall be erected, altered, planted or otherwise established at a height greater than two hundred (200) feet above the ground or above a 100 to 1 (100:1) slope from the nearest point of the nearest runway of any airport unless a permit therefor shall have been applied for and granted. Applications for permits shall be made to the department of planning and development services upon a form supplied for this purpose, and by submitting a map of sufficient accuracy and detail to allow an accurate determination of compliance with this division. No permit for a use inconsistent with this division shall be granted unless a variance has been approved in accordance with subsection (a)(4) of this section. Nothing in the foregoing shall be construed as permitting or intending to permit any construction, alteration or growth of any structure or tree in excess of the height limits established by this division.

(2) Existing Uses. No permit shall be granted that would allow the establishment or creation of an airport hazard or permit a nonconforming use, structure or tree to be made or become higher or become a greater hazard to air navigation than it was on the effective date of the ordinance from which this division is
derived or any amendments thereto, or than it is when the application for a permit is made. Except as indicated, all applications for such a permit shall be granted.

(3) **Nonconforming Structures, Natural Growths and Land Uses.** A permit shall be required before any nonconforming structure, natural growth or land use in the airport hazard area may be altered, repaired, rebuilt, replaced, replanted or relocated. No permit shall be granted that would allow a nonconforming structure, natural growth or land use to be made or become higher, or become a greater hazard to air navigation than it was. Whenever the department of planning and development services or administrative agency outside of the City of San Antonio determines that a nonconforming land use has been abandoned or more than eighty (80) percent torn down, damaged, physically deteriorated or decayed, no permit shall be granted that would allow same to be replaced, repaired or re-established unless in full compliance with the height and use restrictions of this division.

(4) **Variances.** Any person desiring to erect or increase the height of any structure or permit any natural growth or use his property, not in accordance with the regulations prescribed in this division, shall apply to the board of adjustment for a variance from such regulations. Such variances shall be allowed where it is found that a literal application or enforcement of the regulations would result in practical difficulty or unnecessary hardship, and the relief granted would not be contrary to the public interest but will do substantial justice and be in accordance with the spirit of this division. Applications for such action by the board of adjustment shall be made to the director of planning and development services if inside the City of San Antonio, or the director of planning and development services if in the city's extraterritorial jurisdiction.

(5) **Federal Notification.** Within any airport hazard area, any person who proposes any construction, alteration or tree growth meeting the following criteria shall give notice to the regional office of the Federal Aviation Administration if and as required by Part 77 of the Federal Aviation Regulations, titled "Objects Affecting Navigable Airspace":

- Any construction or alteration of more than two hundred (200) feet in height above the ground level at its site.

- Any construction or alteration of greater height than an imaginary surface extending upward and outward at any one (1) of the following slopes: (a) for International and Stinson, a slope of 100 to 1 (100:1) for a horizontal distance of
twenty thousand (20,000) feet from the nearest point of the nearest runway; and (b) for military airports, a slope of 50 to 1 (50:1) for a horizontal distance of ten thousand (10,000) feet from the nearest point of the nearest runway.

Also, any person who proposes to construct, alter, activate or deactivate a civil or joint use, civil/military, airport shall likewise give notice to the Federal Aviation Administration as required by Part 157 of the Federal Aviation Regulations titled "notice of construction, alteration, activation, and deactivation of airports." If a request for a permit or variance is made from any action falling under any of the stated federal notice requirements, final action on the requested permit or variance may, at the discretion of the administrative agency or of the board of adjustment, be deferred until a final determination has been issued by the Federal Aviation Administration. However, in no event shall the requirements of this division be subordinate to a determination of the Federal Aviation Administration.

(6) **Marking and Lighting.** Any permit or variance granted may require the owner of the structure or natural growth in question to install, operate and maintain thereon, at his own expense, such markers and lights as may be necessary to indicate to flyers the presence of an airport hazard. Any lights required under this paragraph shall be engineered and designed for the intended purpose by a recognized manufacturer, and it shall be the responsibility of the owner or any subsequent owner to see that the lights are properly installed and maintained so as to be functioning during darkness and all periods of low visibility, independently of the functioning of other lighting in or on the structure or growth.

(b) **Height-Limiting Imaginary Surfaces, International and Stinson.** The height restrictions for structures and growths in the airport hazard areas are specified by means of imaginary planes or surfaces in the airspace above the airport hazard areas. Within the controlled area of this section, such surfaces are hereby established in the airspace surrounding each airport protected by this division to define the limit above which any projection of a structure or tree would be considered an airport hazard and thus be prohibited except as otherwise provided by this division. The surfaces are illustrated on the airport hazard zoning maps, which are adopted and made a part of this division, by means of elevation contour lines in a manner similar to the use of topographic contour lines to illustrate the variations in the elevation of natural terrain. Their geometric description is as follows:

(1) **Primary Surface.** The primary surface is centered longitudinally and laterally
about the runway, the ends extending two hundred (200) feet beyond the runway ends. The elevation of any point on the primary surface is the same as the nearest point on the runway centerline between the runway ends. The width of the primary surface varies according to the existing or planned classification of usage of the most critical end of the individual runways as follows per Part 77 of the Federal Aviation Regulations:

A. San Antonio International Airport:

<table>
<thead>
<tr>
<th>Runway</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12&quot;R-3&quot;0L,</td>
<td>one thousand (1,000) feet</td>
</tr>
<tr>
<td>12L-30R,</td>
<td>one thousand (1,000) feet</td>
</tr>
<tr>
<td>3-21,</td>
<td>one thousand (1,000) feet</td>
</tr>
</tbody>
</table>

B. Stinson Municipal Airport:

<table>
<thead>
<tr>
<th>Runway</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9-27,</td>
<td>one thousand (1,000) feet</td>
</tr>
<tr>
<td>14-32,</td>
<td>five hundred (500) feet</td>
</tr>
</tbody>
</table>

(2) **Approach Surface.** The approach surface is an inclined plane, longitudinally centered on the extended runway centerline, which begins at the end of the primary surface, at the same width and elevation, and extends outward and upward at a specific horizontal to vertical slope, at a specific uniform rate of increase in width and for a specific distance as follows:

A. San Antonio International Airport:

Runways 3, 12R, 12, 21, and 30L: 50 to 1 (50:1) slope for first ten thousand (10,000) feet, thence to a 40 to 1 (4:1) slope at an ultimate distance of fifty thousand (50,000) feet, at which the width is sixteen thousand (16,000) feet.

Runway 30R: 20 to 1 (20:1) slope for a distance of five thousand (5,000) feet, at which the width is one thousand five hundred (1,500) feet.
B. Stinson Municipal Airport:

Runway 27: 50 to 1 (50:1) slope for first ten thousand (10,000) feet, thence at a 40 to 1 (40:1) slope to an ultimate distance of fifty thousand (50,000) feet, at which the width is sixteen thousand (16,000) feet.

Runway 32: 20 to 1 (20:1) slope for a distance of five thousand (5,000) feet, at which the width is two thousand (2,000) feet.

Runways 9 and 14: 20 to 1 (20:1) slope for a distance of five thousand (5,000) feet, at which the width is one thousand two hundred fifty (1,250) feet.

(3) **Transitional Surface.** These surfaces extend outward and upward to a slope of 7 to 1 (7:1) from the longitudinal edges of the primary surfaces and approach surfaces, measured at right angles to the runway centerline and centerline extended. These surfaces connect the primary and approach surfaces with the other surfaces described in this section, including other transitional surfaces. Beyond the outer periphery of the conical surfaces, the transitional surfaces extend a maximum horizontal distance of five thousand (5,000) feet from the longitudinal edges of the precision approach surfaces, measured at right angles to the extended runway centerline.

(4) **Horizontal Surface.** The horizontal surface is a horizontal plane one hundred fifty (150) feet above the established airport elevation, nine hundred fifty-nine (959) feet above mean sea level for San Antonio International; seven hundred twenty-seven (727) feet above mean sea level for Stinson Airport. The perimeter of the horizontal surface is constructed by swinging arcs of ten thousand (10,000) feet radius from the center of each end of the primary surfaces of Runways 3-21, 12"R-30L and 12L-30R at San Antonio International Airport and Runway 9-27 at Stinson Municipal Airport. The adjacent arcs are then connected by tangent lines.

(5) **Conical Surface.** The conical surface extends outward and upward to a slope of 20 to 1 (20:1) from the periphery of arid at the same elevation as the horizontal surface. It extends for a horizontal distance of four thousand (4,000) feet, to a height of three hundred fifty (350) feet above established airport elevation.

(6) **Kelly Air Force Base and Randolph Air Force Base.** In addition to the above described imaginary surfaces, the imaginary surfaces of Kelly Air Force Base and Randolph Air Force Base described by Section 77.28 of Part 77 of the Federal Aviation Regulations, and which extend into the corporate limits of the city, shall be enforceable under these regulations within the corporate limits.

(c) **Height Restrictions.**
(1) Except as otherwise provided in this article, no structure or natural growth shall be erected, altered, increased in height, allowed to grow or maintained in an airport hazard area in excess of the height of the imaginary surface above the structure or natural growth.

(2) Where more than one (1) imaginary surface or the imaginary surfaces of more than one (1) airport exist in the same area, the more restrictive limitation shall prevail.

(3) In addition to the height restrictions imposed by the imaginary surfaces, no structure or natural growth shall be erected, altered, increased in height, allowed to grow or maintained in an airport hazard area at such height as would result in the alteration of any flight procedure established by federal aviation authorities.

(4) If tall construction cranes or other equipment will be used which are higher than a structure or growth which is being erected under a permit granted pursuant to this article, the operator of the cranes or equipment may be required, at the discretion of the authorities in charge of the airport affected, to maintain coordination with air traffic control personnel to keep them informed of his work schedule, to keep the equipment in a lowered position to the maximum extent possible, and to install appropriate hazard marking and/or lighting on the top extremity of the equipment.

(5) Nothing in this division shall be construed as prohibiting the construction or maintenance of any structure, or growth of any tree to a height up to twenty (20) feet above the surface of the land.

(6) If the imaginary surface boundaries established above are less restrictive for a specific instance than those specified in the Federal Aviation Regulation Part 77, "Objects Affecting Navigable Airspace" as amended, or any subsequent Federal Aviation Agency criteria, then the criteria shall, in effect, be a part of these regulations and shall be the applicable restriction hereunder.

(d) **Use Restrictions.** Notwithstanding any other provisions of this division no use may be made of land within the airport hazard area in such manner as to:

(1) Create electrical or visual interference with any electronic facility or instrumentation, wherever located within the airport hazard area, including but not limited to, radio transmitters and receivers, radar installations, landing and navigational aids and weather instruments where such facilities are used in connection with the landing, taking-off and maneuvering of aircraft;

(2) Make it difficult for flyers to distinguish between airport lights and others;

(3) Result in glare in the eyes of flyers using the airport;
(4) Impair visibility in the vicinity of the airport;

(5) Cause physical objects of any nature to penetrate, however briefly, the air space above the imaginary surfaces established in this article, such objects including, but not limited to kites, balloons, projectiles, rockets, model aircraft, derricks and cranes, unless a special temporary permit be obtained from the authorities in charge of the affected airport;

(6) Establish or alter privately owned flying fields, strips or heliports, unless found not to be objectionable after a special aeronautical study by federal aviation authorities;

(7) Create bird strike hazards;

(8) Otherwise endanger the landing, taking-off, or maneuvering of aircraft.

(e) Nonconforming Uses.

(1) Not Retroactive. The regulations prescribed in this division shall not be construed to require changes in land use or the removal, lowering, or other change or alteration of any structure or natural growth in previous lawful existence, but not conforming to the effective date of the ordinance from which this division is derived, or otherwise interfere with the continuance of any previously lawful nonconforming use. Nothing contained in this division shall require any change in the construction, alteration or intended use of any structure, the construction or alteration of which was begun prior to the effective date of the ordinance from which this division is derived, is diligently prosecuted, and would have otherwise been in legal existence upon completion.

(2) Marking and Lighting. Notwithstanding the preceding provision of this section, the owner of any nonconforming structure or natural growth is hereby required to permit the installation, operation and maintenance thereon of such markers and lights as shall be deemed necessary to indicate to the operators of aircraft in the vicinity of the airport the presence of such flight hazards. Such markers and lights shall be installed, operated and maintained at the expense of the airport desiring such marking and lighting.

(f) Administrative Agency (Inside City Limits). The department of planning and development services of the city is hereby designated as the administrative agency charged with the administration and enforcement of this division. As such, it shall establish administrative procedures for requiring, accepting and subsequently approving or denying applications for airport zoning permits, in accordance with subsection (a) of this section. In this regard, the department of planning and development services will withhold any other permits normally issued under its jurisdiction which would allow construction or erection to proceed on any structure
which would be in violation of these regulations. The administrative agency shall not have, or exercise any of the powers or duties, which are delegated to the board of adjustment under V.T.C.A. Local Government Code Ch. 241.

(g) **Board of Adjustment.** The board of adjustment of the city is hereby designated to be the board of adjustment for this division, to have and exercise the powers set forth in V.T.C.A. Local Government Code Ch. 241.

(h) **Appeals.** Any person aggrieved or taxpayer affected by any decision of the administrative agency made in its administration of this division, or any governing body of a political subdivision, which is of the opinion that a decision of such an administrative agency is an improper application of airport hazard zoning regulations may appeal to the board of adjustment under the provisions of V.T.C.A. Local Government Code Ch. 241.

(i) **Judicial Review (Inside City Limits).** Any person aggrieved or taxpayer affected by any decision of the board of adjustment which is of the opinion that a decision of the board of adjustment is illegal, may present to a court of record a verified petition setting forth that the decision is illegal, in whole or in part, and specifying the grounds of illegality as provided in V.T.C.A. Local Government Code Ch. 241. Such petition shall be presented to the court within ten (10) days after the decision is filed in the office of the board.

(j) **Conflicting Regulations.** In the event of conflict between any airport zoning regulations adopted hereunder and any other regulations applicable to the same area, whether the conflict be with respect to the height of structures or trees, the use of land or any other matter, and whether such other regulations were adopted by the city or by some other political subdivision, the more stringent limitation or requirement shall govern and prevail.

(k) **Imaginary Surfaces (Kelly and Randolph Air Force Bases).** The following airport imaginary surfaces are hereby created and establish the limit above which any projection of a structure, natural growth or object constitutes an airport hazard under these regulations:

1. **Primary Surface.** The primary surface is centered longitudinally and laterally about each runway. It extends two hundred (200) feet beyond each end of the runway in a horizontal plane at the same elevation as the associated runway end, except at military airports, where primary surface length is the same as the runway length. Between the ends of the runway it has a uniform gradient as established by the runway and elevations. The width varies as follows:
   A. Instrument runways, municipally-owned airports, one thousand (1,000) feet.
   B. Non-instrument runways, municipally owned airports, five hundred (500)
feet.
C. Runway 15-22, Kelly Air Force Base: two thousand (2,000) feet.
D. Runway 14-32, Kelly Air Force Base, and all runways, Randolph Air Force
   Base: one thousand five hundred (1,500) feet.

(2) **Approach-Departure Surface.**
A. The approach-departure surface begins at the end of the primary surface,
   except at military airports where it begins two hundred (200) feet beyond
   the primary surface, and is centered about the runway centerline
   extended. From a width equal to that of the primary surface it extends
   outward and upward and increases uniformly in width as follows:
B. For instrument runways at municipally owned airports, the approach-
   departure surface extends outward from the primary surface at a distance
   of fifty thousand (50,000) feet, at which point it is sixteen thousand
   (16,000) feet wide. It extends upward at a slope of 50 to 1 (50:1) to a
   distance of ten thousand (10,000) feet from primary surface, thence at a
   slope of 40 to 1 (40:1) thereafter.
C. For non-instrument runways at municipally-owned airports, the approach
   departure surface extends outward from the primary surface a distance
   of ten thousand (10,000) feet, at which point it is two thousand five
   hundred (2,500) feet wide. It extends upward at a slope of 40 to 1 (40:1).
D. For military airports, the approach-departure surface begins two hundred
   (200) feet beyond the primary surface and thereafter extends outward a
   distance of fifty thousand (50,000) feet, at which point it is sixteen
   thousand (16,000) feet wide. It extends upward at a slope of 50 to 1 (50:1)
   until it reaches an elevation five hundred (500) feet above the established
   airport elevation, then it continues horizontally to its outer end.

(3) **Transitional Surface.** The transitional surface extends outward and upward at
right angles to the runway centerline at a slope of 7 to 1 (7:1) until it intersects
the horizontal or conical surface, except that transitional surfaces for those
portions of ILS approach surfaces that project through and beyond the limits of
the conical surface, extend a distance of five thousand (5,000) feet measured
horizontally from the edges of those portions of the approach surfaces and at
right angles to the runway centerline. For military airports, the transitional
surface does not apply for the horizontal portion of the approach-departure
surface.

(4) **Inner Horizontal Surface.** The inner horizontal surface is a horizontal plane at a
height of one hundred fifty (150) feet above the established airport elevation.
Its outer edge is determined by scribing an arc with a radius of seven thousand
five hundred (7,500) feet above a point on the centerline at the end of all runways and interconnecting these arcs with tangents.

(5) **Conical Surface.** The conical surface extends outward and upward from the outer edge of the inner horizontal surface at a slope of 20 to 1 (20:1) for a horizontal distance of seven thousand (7,000) feet to a height of five hundred (500) feet above the established airport elevation.

(6) **Outer Horizontal Surface.** The outer horizontal surface is a horizontal plane which extends from the outer edge of the conical surface a distance of thirty thousand (30,000) feet at a height five hundred (500) feet above the established airport elevation.

(7) **Airport Zoning Maps.** The attached airport zoning maps are hereby adopted and supersede all prior airport zoning maps. The imaginary surface boundaries are shown on these maps by aerial contours.

(Ord. No. 98697 § 1, 5 and 6)
EXHIBIT L

PARKLAND REQUIREMENTS
(3) The provisions of this section do not apply to:
A. A proposed subdivision located within:
   1. An infill development zone,
   2. Form based zoning district (FBZD), or
   3. In the CRAG area, as defined, for a development that includes a designation and rehabilitation of an eligible historic landmark not previously designated; or
   4. When a non-residential use is proposed (examples include: public or private schools, assisted living facilities, nursing homes, churches, "D" - downtown district, and ROW).
B. A proposed subdivision located within a planning area which has a surplus of improved neighborhood parks/open space, as designated in the parks system plan unless the surplus has been eliminated by the subsequent approval of residential dwelling units within the planning area, as measured by the level of service standard established in Table 503-1, column (B).

(b) Required Parkland.
(1) Required parkland shall be reserved for any development in the development areas set forth in column "A" of Table 503-1, below, based upon the number of dwelling units in the proposed development corresponding to the development areas as set forth in column "B" in Table 503-1 hereto.

<table>
<thead>
<tr>
<th>(A) Type and Location of Development Projects</th>
<th>(B) Required Parkland (Acres per Dwelling)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the city - &quot;RE&quot;, &quot;R-20&quot;, &quot;NP-15&quot;, &quot;NP-10&quot;, &quot;NP-8&quot;, &quot;R-6&quot;, &quot;RM-6&quot;, &quot;R-5&quot;, &quot;RM-5&quot;, &quot;R-4&quot;, &quot;R-3&quot;, &quot;RM-4&quot;, &quot;MH&quot;, TND, &quot;PUD&quot;, &quot;DR&quot;</td>
<td>1 per 70</td>
</tr>
<tr>
<td>In the city - &quot;MF-18&quot;, &quot;MF-25&quot;, &quot;MF-33&quot;, &quot;MF-40&quot;, &quot;MF-50&quot; and &quot;MF-65&quot;</td>
<td>1 per 114</td>
</tr>
<tr>
<td>In the ETJ - Single-family developments</td>
<td>1 per 70</td>
</tr>
<tr>
<td>In the ETJ - Multi-family developments</td>
<td>1 per 114</td>
</tr>
</tbody>
</table>

* The required acreage shall be rounded to the nearest one-tenth (e.g., 150 residential single-family dwelling units x [1/70] = 2.1 acres)

(2) The applicant may dedicate any trail specifically delineated in the parks and recreation system plan (adopted January 1999) to the public. Any trail dedicated pursuant to this subsection will count towards meeting the required active parks and open space requirements of Table 503-1. The trails shall be maintained in accordance with subsection (f) (Preservation Parkland) of this section.

(3) The types of parkland that may be provided to satisfy the requirements of this chapter are described in subsection (c) of this chapter.

(4) If maintained as a private park, the required parkland shall be provided as common area for the use of all residents/occupants of the proposed development.

(5) The following areas shall not be considered parkland pursuant to this subsection:
   A. Areas covered by buildings, parking lots, or other impervious surfaces accessible to automobiles provided, however, that not more than fifty (50) percent of a parking area accessory to, and reserved
miles, then areas within four (4) miles of the periphery of the proposed subdivision or development may be considered for the acquisition and development of public parkland and/or construction of improvements to existing public parkland within such periphery.

(7) There is hereby established a special fund for the deposit of all fees collected under this subsection (g), which fund shall be known as the park acquisition and development fund. Within the fund all fees paid shall be earmarked for expenditure on acquisition of land for a public park and/or park improvements in a public park generally located within the distance described in subsection (6) above. All fees in lieu of parkland dedication paid must be expended within ten (10) years from the date of receipt for park facilities benefiting the residential subdivision or dwelling unit for which the fees are paid. Fees shall be considered expended if they are spent for acquisition or development respectively, of public parks located within the distance described in subsection (6) above for which the fees were paid within the ten-year period. If fees are not expended within such period, the then-current owner shall be entitled to a refund of the principal deposited by the applicant in such fund, together with accrued interest. The owner must request such refund in writing within three hundred sixty-five (365) days of entitlement or such right shall be waived. Interest accruing to the park acquisition or development fund shall be expended on public parkland acquisition and/or for public park improvements, respectively.

(h) Credit for Park Facilities.

(1) Where parkland is provided in a proposed residential subdivision, credit may be given to the applicant where the following requirements are met:

A. The parkland shall be maintained as provided in subsection (f) of this section. The ultimate owner of the parkland shall be responsible for raising all monies required for operations, maintenance, or physical improvements to the parks and/or open space through annual dues, special assessments, or similar arrangements.

B. One (1) copy of the sealed site plan and sealed construction documents for the proposed park shall be submitted to the appropriate plan review personnel within the parks and recreation department during the development review phase.

(2) The acreage required for dedication pursuant to Table 503-1 above may alternately be reduced by providing park facilities as outlined in Table 503-4 below. Credit shall be given toward the minimum land dedication requirement (see subsection (b) of this section) at the rate specified in column (C) of Table 503-4. Improvements for credit must meet all federal, state and local regulations and guidelines and be compliant with the Americans with Disabilities Act.

<table>
<thead>
<tr>
<th>(A) Criteria List</th>
<th>(B) Design Criteria</th>
<th>(C) Credit Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Playground</td>
<td>See subsection (3), below.</td>
<td>1.25</td>
</tr>
<tr>
<td>Picnic Area</td>
<td>Picnic areas shall have a minimum area of 2,500 square feet and contain two (2) picnic units. A picnic unit is defined as a concrete, metal, or approved material picnic table, two (2) benches, and a cooking grill all permanently anchored to the slab. For every three (3) acres of parkland required, credit for one (1) picnic area may be awarded.</td>
<td>0.25</td>
</tr>
<tr>
<td>Athletic Courts</td>
<td>The court slab shall have a slope not exceeding two (2) percent and shall be constructed of concrete or approved substitute. A basketball court must be a minimum of fifty (50) feet by forty (40) feet, with two (2) metal goals, nets, backboards, and poles at each end. A tennis court must be a minimum of sixty (60) feet by one hundred twenty (125) feet, with net and metal posts. A volleyball court must be a minimum of thirty (30) feet by sixty (60) feet, with net and metal posts, and the court must be constructed with either sodded Bermuda grass or a twelve (12) inch course of washed masonry sand or silica sand. If the park dedication requirement exceeds five (5) acres, then an additional three-fourths ¾ acre credit may be awarded for a second athletic court.</td>
<td>.75</td>
</tr>
<tr>
<td>Open Play Areas</td>
<td>An open play area shall include a minimum area of 20,000 square feet. The areas shall be unobstructed by trees, shrubs, or utilities, with a slope not to exceed five (5) percent. Common Bermuda or approved substitute grass shall be established in these areas. Maximum of one (1) open play area for every five (5) acres of parkland dedication.</td>
<td>1.00</td>
</tr>
<tr>
<td>Swimming Pool</td>
<td>Minimum 500 square feet of water surface, with adjacent deck and lawn areas. A maximum of one and one-half (1½) acres credit may be awarded. A swimming pool may not count towards more than fifty (50) percent of the parkland dedication requirement.</td>
<td>0.3 acres per five hundred (500) square feet of surface area</td>
</tr>
<tr>
<td>Recreation Center Building</td>
<td>The building shall be in habitable condition and shall have a minimum one thousand (1,000) square feet of gross floor area. The covenants and restrictions of the homeowners’ association shall restrict the building for use as a recreational and/or meeting area for use by all residents of the subdivision. Architectural design shall conform to the restrictive covenants recorded for the subdivision. Credit shall be awarded for only one (1) building. A recreation building may not count towards more than fifty (50) percent of the parkland dedication requirement.</td>
<td>.50 for 1,000—1,500 square feet; 1.00 for over 1,500 square feet.</td>
</tr>
<tr>
<td>Recreation Community Gardening</td>
<td>Community gardens shall have a minimum area of ten thousand (10,000) square feet with a slope not exceeding two (2) percent. Maximum of one (1) community garden for every five (5) acres of parkland dedication requirement.</td>
<td>0.25</td>
</tr>
<tr>
<td>Facility Type</td>
<td>Requirements</td>
<td>Credit</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------</td>
</tr>
<tr>
<td>Pavillion/Gazebo</td>
<td>Pavilions must be constructed with galvanized metal roofing or, an approved substitute and posts constructed of wood, metal, stone, or an approved substitute, and shall be a minimum of twenty (20) feet in width by twenty (20) feet in length. Gazebos may be constructed of either wood, metal, or approved substitute, and shall be a minimum of one hundred (100) square feet in size. Architectural design for overhead structures shall conform to the restrictive covenants recorded for the subdivision. Maximum of one (1) overhead structure for every five (5) acres of parkland dedication requirement.</td>
<td>0.25</td>
</tr>
<tr>
<td>Outdoor Gymnasium Facilities</td>
<td>Outdoor Gym must meet minimum dimensions of forty (40) feet in width by forty (40) feet in length (or 1,600 square feet), and consist of at least six (6) stations constructed of metal or an approved substitute material. Stations must be secured as recommended by the manufacturer. A maximum of 1.0 acres credit may be awarded.</td>
<td>1.0</td>
</tr>
<tr>
<td>Fitness, Jogging or Walking Trails</td>
<td>Trails shall have a minimum length of one-quarter (¼) mile. Trails shall be constructed of crushed granite, concrete, or asphalt, with a minimum thickness of four (4) inches, a minimum width of eight (8) feet, and shall be sloped to drain. A maximum of two and one-fourth (2¼) acres credit may be awarded for trails.</td>
<td>1.50 for first quarter (¼) mile length; .75 for an additional quarter (¼) mile length</td>
</tr>
</tbody>
</table>

(3) Specifications for playgrounds as set forth in Table 503-4 shall conform to the following minimum requirements:

A. Playground is to be of commercial standards. The parks and recreation department will provide a list of potential vendors.

B. The playground area shall have a slope not exceeding two (2) percent.

C. Playgrounds are to include equipment for two (2) distinct play abilities and may be located in the same or in separate areas,
   i. One (1) area designed for ages two (2) through five (5) years old with a minimum of six (6) activities, and a
   ii. Second area designed for ages five (5) through twelve (12) years old with a minimum of twelve (12) activities.

D. Playgrounds must meet all federal, state, and local regulations and guidelines and be compliant with the Americans with Disabilities Act, as well as guidelines set up by CPAC and NPSI.

E. The following items shall be provided: at least two (2) park benches, one (1) trash receptacle, and an open shelter.

F. Playground equipment shall be located no closer than twenty-five (25) feet from a park boundary.
EXHIBIT M

FIRE REQUIREMENTS
APPENDIX D

FIRE APPARATUS ACCESS ROADS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

SECTION D101
GENERAL

D101.1 Scope. Fire apparatus access roads shall be in accordance with this appendix and all other applicable requirements of the International Fire Code.

SECTION D102
REQUIRED ACCESS

D102.1 Access and loading. Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete or other approved driving surface capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds (34 050 kg).

SECTION D103
MINIMUM SPECIFICATIONS

D103.1 Access road width with a hydrant. Where a fire hydrant is located on a fire apparatus access road, the minimum road width shall be 26 feet (7925 mm), exclusive of shoulders (see Figure D103.1).

D103.2 Grade. Fire apparatus access roads shall not exceed 10 percent in grade.

Exception: Grades steeper than 10 percent as approved by the fire chief.

D103.3 Turning radius. The minimum turning radius shall be determined by the fire code official.

D103.4 Dead ends. Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) shall be provided with width and turnaround provisions in accordance with Table D103.4.

<table>
<thead>
<tr>
<th>LENGTH (feet)</th>
<th>WIDTH (feet)</th>
<th>TURNAROUNDS REQUIRED</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-150</td>
<td>20</td>
<td>None required</td>
</tr>
<tr>
<td>151-500</td>
<td>20</td>
<td>120-foot Hammerhead, 60-foot &quot;Y&quot; or 96-foot diameter cul-de-sac in accordance with Figure D103.1</td>
</tr>
<tr>
<td>501-750</td>
<td>26</td>
<td>120-foot Hammerhead, 60-foot &quot;Y&quot; or 96-foot diameter cul-de-sac in accordance with Figure D103.1</td>
</tr>
<tr>
<td>Over 750</td>
<td>Special approval required</td>
<td></td>
</tr>
</tbody>
</table>

For SI: 1 foot = 304.8 mm.

TABLE D103.4
REQUIREMENTS FOR DEAD-END FIRE APPARATUS ACCESS ROADS

Figure D103.1: Dead-end fire apparatus access road turnaround.

2015 INTERNATIONAL FIRE CODE®
7. Location of all fire hydrants (existing and proposed). This shall include the direction and the distance to all hydrants on the site plan, but within one thousand feet of the building to be protected.

8. Size (diameter and length) and locations of all fire main piping (proposed and existing). The pressure class and type of new pipe to be installed shall be identified.

9. The location, type, and size of backflow prevention devices, where installed.

10. Number of lanes, including turning lanes, of all adjacent streets and the location of medians as applicable.

11. Location of all automatic sprinkler and standpipe risers.

12. Location of Fire Department connection(s).

13. Size, type, and location of valves including post indicator valve (if they are located in a pit), control room automatic sprinkler system shut-off, etc.

14. Other water supplies.

15. Where required, type of protection from collision that may cause physical damage to fire protection equipment.

Section 503.1.1 Buildings and facilities is amended to read as follows:

503.1.1 Buildings and facilities. Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility. In sprinklered Group R-2 apartment houses, the distance may be measured through open breezeways having a minimum clear width of six feet.

Exceptions:

1. The fire code official is authorized to increase the dimension of 150 feet (45 720 mm) where any of the following conditions occur:
   a. The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3. The dimension shall be increased from 150 feet to 200 feet. This increase shall not be applicable to Groups H and I Occupancies, buildings with occupancies having High-Piled Combustible Storage and high-rise buildings.
   b. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.
   c. There are not more than two Group R-3 or Group U occupancies.
   d. The building is a non-combustible Group S-2 open parking garage meeting the requirements of the 2015 International Building Code Section 406.3, with or without a sprinkler system. The increase shall be allowed to be up to 200 feet.

2. Where approved by the fire code official, fire apparatus access roads shall be permitted to be exempted or modified for solar photovoltaic power generation facilities.

Section 503.1.1 Buildings and facilities is amended by adding Section 503.1.1.1 Access from adjacent lot as follows:

503.1.1.1 Access from adjacent lot. Where fire apparatus access roads for a building or buildings are provided from an adjacent lot, a fire lane easement or ingress/egress easement is required to be recorded on the adjacent lot's plat that is providing the common access. The adjacent lot's plat is to clearly show the easement graphically.
Exception: In lieu of the graphical easement, a note may be placed on the plat that, at a minimum, states, the following: “Ingress and egress shall be provided between all adjacent lots for adequate fire department vehicle access per the City of San Antonio Fire Code. The cross access shall not be blocked nor may this note be taken off the plat without written permission from the City of San Antonio Director of Development Services and the San Antonio Fire Department Fire Marshal.”

Section 503.2.1 Dimensions is amended by adding Sections 503.2.1.1 Divided Entrance to Property and 503.2.1.2 Mountable Curbs to read as follows:

503.2.1.1 Divided Entrance to Property. When guard houses, security stations, median, landscape islands or other similar use obstructions are so located as to create a one-way and partially obstruct the entrance(s) to a property or fire lane(s) in any location, such one-way(s) shall be a minimum of fourteen feet clear on each side of the obstruction. This minimum requirement is only applicable at the point(s) of obstruction and is not permitted along required Aerial Apparatus Access Roads, Fire Apparatus Access Roads adjacent to fire hydrants or fire department connections or at any location where a Fire Apparatus Vehicle is expected to be positioned for the duration of the fire event. Turning radii shall be permitted in Section 503.2.4.

503.2.1.2 Mountable Curbs. Mountable curbs are permitted when approved by the Fire Marshal.

Section 503.2.3 Surface is amended by adding a second paragraph to read as follows:

503.2.3 Surface. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities.

Drivable grass surfaces, or other alternative drivable surfaces, are permitted when approved by the Fire Marshal or his designee and in accordance with all of the following conditions:

1. Sealed documents indicating compliance with the provisions of 503.2.3 shall be submitted by a registered design professional for review.
2. The drivable grass surface, or alternative drivable surface, shall not be used as the primary access to the site.
3. The surface shall be capable of supporting the imposed load of fire apparatus weighing at least 75,000 pounds.
4. Blue traffic reflectors shall be provided on each side of the surface every 20 feet to clearly mark its boundaries. Vegetation on and surrounding the surface shall be maintained such that said reflectors are visible at all times.
5. Sod is not permitted to be placed over the drivable base.
6. If the surface proposed is to be used as the aerial apparatus access road for the facility, concrete curbing, or other approved edging, shall be installed along both sides of the portion to be used as such for enhanced lateral stability.
7. If sand or other free-flowing fill is used as a main structural component for the surface, concrete curbing or other approved edging shall be installed along both sides of the surface for material containment.
8. The surface shall be maintained in proper working order at all times when utilized as a required fire lane. Should the surface become damaged or fall into disrepair, the Fire Marshal or his designee shall be authorized to require the repair and re-certification of said surface.

Section 503.2.4 Turning radius is amended by adding a second paragraph to read as follows:

503.2.4 Turning radius. The required turning radius of a fire apparatus access road shall be determined by the fire code official.

The turning radii of a fire apparatus access roadway shall require a minimum of 50 feet outside radius and a minimum of 25 feet clear distance to the inside radius on all turns in excess of 30 degrees.
Section 503.2.5 Dead Ends is amended to read as follows:

503.2.5 Dead Ends. Dead-end fire apparatus access roads in excess of 150 feet in length shall be provided with approved provisions for the turning around of fire apparatus. Turn arounds approved by the Fire Marshal or as permitted by Appendix D are acceptable.

Exception: Where the building is equipped throughout with an approved sprinkler system in accordance with Section 903.3.1.1, 903.3.1.2, or 903.3.1.3, the maximum length of dead-end fire apparatus access roads shall be increased to 200 feet. This increase shall not be applicable to Groups H and I Occupancies, buildings with occupancies having High-Piled Combustible Storage and high-rise buildings. This increase shall apply to all non-combustible Group S-2 open parking garages meeting the requirements of the 2015 International Building Code Section 406.3, with or without a sprinkler system.

Section 503.2.7 Grade is amended to read as follows:

503.2.7 Grade. The gradient for a fire apparatus access road shall not exceed 12%.

Section 503.3 Marking is amended to read as follows:

503.3 Marking. Upon the designation of a fire lane pursuant to this ordinance, the Fire Marshal shall give notice of such designation to the owner of such designated premise, directing the owner to cause signs to be posted at the expense of the owner at designated locations stating: "Fire Lane - No Parking at any Time City Ord. 54547." Such signs shall be of standard size and color, of standard lettering and mounting, conforming to specifications established by the Director of Public Works. In addition to the signs, the owners of such designated premises at their option, or, if so directed by the Fire Marshal, shall paint all fire lane curbs red with white-stenciled letters stating "Fire Lane, No Parking." Lettering for the curbs shall use 4 inch lettering with a distance of not more than 40 feet between wording. It shall be unlawful to park any vehicle other than an authorized emergency vehicle in a designated fire lane when such signs are in place or such red curbing exists. In areas where the fire lane may not be clearly defined, the Fire Marshal may require a four inch red stripe be painted that defines the boundaries of the fire lane.

Section 503.4.1 Traffic calming devices is hereby deleted.

Section 503.6 Security gates is hereby amended by adding the following language and adding a new Section 503.6.1 Direction of Swing to read as follows:

503.6 Security gates. The installation of security gates across a fire apparatus access road shall be approved by the fire chief. Where security gates are installed, they shall have an approved means of emergency operation to include a fire department specific key switch, lock, or box. Upon loss of power to electric gate operators, a secondary power source or clearly marked and identified manual release shall be provided. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200.

503.6.1 Direction of Swing. Security gates installed across a Fire Apparatus Access Road shall swing in the direction of travel towards the building or open horizontally to avoid backing up of Fire Apparatus and to allow for an expedited response.

SECTION 503 FIRE APPARATUS ACCESS ROADS is amended by adding Sections 503.7 Fire Marshal Authority to Designate Fire Lanes, 503.8 Summons to be Issued for Parking Violation, 503.9 Removal of Vehicle by Property Owner, 503.10 Removal of Vehicle by Fire Chief, and 503.11 Abandonment of Fire Lane to read as follows:
507.4 Water supply test. Adequacy of the water supply shall be determined by an approved flow test that is conducted on the fire hydrants nearest the project site unless otherwise approved by the Code Official. The flow test shall be as follows:

1. The flow test shall have been conducted no more than 12 months prior to the date of construction document submittal to the City of San Antonio.
2. The flow test shall be conducted in accordance with the 2010 edition of NFPA 291, Recommended Practice for Fire Flow Testing and Marking of Hydrants, and any other applicable local, state, or national standards and/or requirements.
3. The flow test results shall be submitted with the construction documents in accordance with the COSA standard fire flow test format.
4. If the water supply piping is not yet constructed, hydraulic calculations for the proposed piping design shall be submitted. The calculations shall be based on the flow test conducted on the fire hydrants nearest the project site and shall verify that the piping design provides the minimum required fire flow at no less than 25 psi residual. Upon completion of construction and prior to final certificate of occupancy, a flow test shall be conducted to verify the results of the calculations.

Section 507.5.1 Where Required is amended to read as follows:

507.5.1 Where Required. Public and/or private fire hydrants are required to be installed where one or more of the following conditions exist:

1. Existing fire hydrants do not meet the required fire hydrant location and spacing criteria defined in Section 507.5.1.1, 507.5.1.2, or Appendix C.
2. The complexity of the project justifies their installation as determined by the Fire Marshal.

Section 507.5.1.1 Hydrant for standpipe systems is deleted and replaced with Section 507.5.1.1 Fire Hydrant Location and Spacing for Non-Single Family Developments:

507.5.1.1 Fire Hydrant Location and Spacing for Non-Single Family Developments. Sufficient fire hydrants shall be considered to be provided for a building when:

1. Not more than 500 feet of hose will be required to reach from a fire hydrant to all exterior portions of the first floor of the structures in question; and
   Exception: Where the building is equipped throughout with an approved sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2, or 903.3.1.3, the maximum distance from hydrants to all exterior portions of the building shall be increased to 750 feet as the hose lays. This increase shall not be applicable to Groups H and I Occupancies, buildings with occupancies having High-Piled Combustible Storage and high-rise buildings. This increase shall apply to all non-combustible Group S-2 open parking garages meeting the requirements of the 2012 International Building Code, Section 406.3, with or without a sprinkler system.
2. All fire hydrants required as prescribed by Appendix C shall be within 500 feet of a point on the building being protected and said distance is measured per the hose lay criteria in Section 507.5.1.2.
   Exception: Where the building is equipped throughout with an approved sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2, or 903.3.1.3, the maximum distance from hydrants to a point on the building shall be increased to 750 feet as the hose lays. This increase shall not be applicable to Groups H and I Occupancies, buildings with occupancies having High-Piled Combustible Storage and high-rise buildings. This increase shall apply to all non-combustible Group S-2 open parking garages meeting the requirements of the 2012 International Building Code Section 406.3, with or without a sprinkler system.

Section 507.5.1 Where required is amended by adding Section 507.5.1.2 Fire Hydrant Location and Spacing:

507.5.1.2 Fire Hydrant Location and Spacing. Fire hydrants shall be located and spaced per the following criteria:
EXHIBIT N

ZONING VERIFICATION LETTER
February 13, 2019

Scott Kriebel
161 NW 6th Street, Suite 1020
Miami, Florida 33136

SUBJECT: ZV-2019-13300056: Lot 1-10, Block 70, NCB 3338; 826 East Highland Boulevard, San Antonio TX

To Whom It May Concern:

As of the date of this letter, the above-referenced property is zoned “C-2 AHOD” Commercial Airport Hazard Overlay District. The property was zoned “F” Local Retail District by Ordinance OI-191, dated November 9, 1938. The property converted from “F” Local Retail District to the current “C-2” Commercial District with the adoption of the 2001 Unified Development Code (UDC), established by Ordinance 93881, on May 3, 2001.

Per Section 35-D101.d of the UDC (Unified Development Code), multi-family dwellings developed at 33 units or less per acre are a permitted use for any tract or parcel previously zoned “F” Local Retail District prior to the adoption of the UDC, so long as such tract is not the subject of further rezoning. The “C-2” Commercial District converted from the previous “F” Local Retail District; as of the date of this letter, multi-family dwellings at a maximum density of 33 units or less per acre are a permitted use within the “C-2” zoning district on the subject site. For a list of permitted uses in this zoning district, see Section 35-311 of the City’s Unified Development Code. Multi-Family development on the lot shall conform to the building standards of the multi-family density being developed.

For additional information regarding, lot dimension and building criteria, including outside storage and display standards, height limitations, buffer requirements, building setbacks, and minimum and maximum parking requirements, please reference Articles III and V of San Antonio’s Unified Development Code (UDC). To ensure compliance with the current building code, development standards and other regulations which may require the review of building/site plans, please contact a Development Services Department Engineer at (210) 207-8394 to discuss or to schedule a more in-depth preliminary plan review.

Please contact the Customer Services Section of our Department at (210) 207-1111 for information on the enforcement of building and development code requirements including the issuance of building permits, records of zoning code violations and certificates of occupancy. If we may be of further assistance, please contact Marco Hinojosa, the planner who worked on your verification, at 210-207-8208 or Marco.Hinojosa@sanantonio.gov. Thank you.

Cordially,

[Signature]

Zenon “Zeke” Solis
Principal Planner
EXHIBIT O

PARKING REQUIREMENTS
Any adjustment authorized by the board of adjustment shall apply only to the use in the original certificate of occupancy.

(8) **Bicycle Parking Spaces.** Bicycle spaces shall, at a minimum, equal ten (10) percent of the number of the minimum required vehicle spaces required for a given use, but no more than twenty-four (24) shall be required. Bicycle parking may be short or long term in nature, and shall not create any obstruction to public walkways, bus stops and/or entrances and exits to buildings.

(9) Bicycle spaces shall be provided in the "D" downtown zoning district and all "IDZ" infill development districts at a minimum rate equal to twenty-five (25) percent of the minimum required vehicle spaces for the proposed use as if the proposed use were in a nonresidential zoning district requiring minimum off-street parking. Bicycle spaces shall include bicycle racks or bicycle lockers which shall not obstruct pedestrian traffic in accordance with subsection (l).

(10) **Multi-family recycling facilities.** The minimum parking requirement may be reduced in order to provide adequate space for a recycling facility in accordance with chapter 14 of the City Code. In such cases the recycling facility shall be screened in accordance with subsection 35.511(c).

(c) **Storage in Front and Side Yards.** There shall be no parking or storage of vehicles (other than noncommercial off-street parking), or storage or display of any merchandise or materials of any kind in any front yard as required by this chapter in any residential zoning district and/or property or in any side yard or rear yard which abuts any residential zoning district and/or property unless permitted specifically by Table 311-2 Nonresidential Uses and complies fully with all screening, buffering and landscape provisions of this chapter.

**TABLE 526-3a**

<table>
<thead>
<tr>
<th>Permitted Use</th>
<th>Minimum Vehicle Spaces</th>
<th>Maximum Vehicle Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCESSORY USES (SUPPLEMENTAL TO THE RESIDENTIAL USE)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>ASSISTED LIVING, BOARDING HOME, OR COMMUNITY HOME WITH 6 OR FEWER RESIDENTS</td>
<td>0.3 per resident</td>
<td>1 per resident</td>
</tr>
<tr>
<td>ASSISTED LIVING, BOARDING HOME, OR COMMUNITY HOME WITH 7 OR MORE RESIDENTS</td>
<td>0.3 per resident plus 1 space for each employee</td>
<td>1 per resident plus 1 space for each employee</td>
</tr>
<tr>
<td>ATHLETIC FIELDS (NONCOMMERCIAL AND SUPPLEMENTAL TO THE RESIDENTIAL USE)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>AUTOMOBILE NONCOMMERCIAL PARKING (Board of Adjustment)</td>
<td>1.5 per unit</td>
<td>2 per unit</td>
</tr>
<tr>
<td>BED and BREAKFAST</td>
<td>0.3 per room</td>
<td>1 per room</td>
</tr>
<tr>
<td>Dwelling Type</td>
<td>Minimum Carport/Side Lot Spaces</td>
<td>Maximum Carport/Side Lot Spaces</td>
</tr>
<tr>
<td>--------------------------------------------------------</td>
<td>---------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Dwelling - Multi-Family (25 units maximum)</td>
<td>1.5 per unit</td>
<td>2 per unit</td>
</tr>
<tr>
<td>Dwelling - Multi-Family (30 units maximum)</td>
<td>1.5 per unit</td>
<td>2 per unit</td>
</tr>
<tr>
<td>Dwelling - Multi-Family (40 units maximum)</td>
<td>1.5 per unit</td>
<td>2 per unit</td>
</tr>
<tr>
<td>Dwelling - Multi-Family (50 units maximum)</td>
<td>1.5 per unit</td>
<td>2 per unit</td>
</tr>
<tr>
<td>Dwelling - R.O.W. House, Zero Lot Line (cluster parking allowed)</td>
<td>1 per unit</td>
<td>NA</td>
</tr>
<tr>
<td>Dwelling - Townhouse (cluster parking allowed)</td>
<td>1 per unit</td>
<td>NA</td>
</tr>
<tr>
<td>Foster Family Home</td>
<td>1 per 250 sf GFA</td>
<td>1 per 200 sf GFA</td>
</tr>
<tr>
<td>Foster Group Home</td>
<td>1 per 375 sf GFA</td>
<td>1.5 per 375 sf GFA</td>
</tr>
<tr>
<td>Golf Course (accessory to a residential subdivision)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Greenhouse</td>
<td>N/A</td>
<td>2 spaces</td>
</tr>
<tr>
<td>Group Day Care Home</td>
<td>1 per 375 sf GFA</td>
<td>1.5 per 375 sf GFA</td>
</tr>
<tr>
<td>Museum</td>
<td>1 per 1,000 sf GFA</td>
<td>1.5 per 1,000 sf GFA</td>
</tr>
<tr>
<td>Nursery (1 acre minimum)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Radio/Television Station With Transmitter Tower</td>
<td>1 per employee</td>
<td>N/A</td>
</tr>
<tr>
<td>Recreation Facility (Public and Noncommercial)</td>
<td>1 per 600 sf GFA</td>
<td>1 per 500 sf GFA</td>
</tr>
<tr>
<td>Registered Family Home (12 children maximum)</td>
<td>1 per 375 sf GFA</td>
<td>1.5 per 375 sf GFA</td>
</tr>
<tr>
<td>Residential Market Garden</td>
<td>N/A</td>
<td>2 spaces</td>
</tr>
<tr>
<td>Category</td>
<td>Description</td>
<td>Seating Requirement</td>
</tr>
<tr>
<td>-----------------</td>
<td>--------------------------------------------------</td>
<td>-----------------------------------------------------------</td>
</tr>
<tr>
<td>RECREATION</td>
<td>ATHLETIC FIELDS - noncommercial</td>
<td>1 per 6 seats or 1 per 30 sf GFA if no permanent seats</td>
</tr>
<tr>
<td>RECREATION</td>
<td>ATHLETIC FIELDS - commercial</td>
<td>1 per 6 seats or 1 per 30 sf GFA if no permanent seats</td>
</tr>
<tr>
<td>RECREATION</td>
<td>BOWLING ALLEY</td>
<td>2 per lane</td>
</tr>
<tr>
<td>RECREATION</td>
<td>GOLF COURSE - private (see residential use table)</td>
<td>N/A</td>
</tr>
<tr>
<td>RECREATION</td>
<td>GOLF COURSE - publicly owned</td>
<td>N/A</td>
</tr>
<tr>
<td>RECREATION</td>
<td>GOLF DRIVING RANGE</td>
<td>1 per 6 seats or 1 per 30 sf GFA if no permanent seats</td>
</tr>
<tr>
<td>RECREATION</td>
<td>RECREATIONAL FACILITY - private community wide</td>
<td>1.5 per 1,000 sf GFA</td>
</tr>
<tr>
<td>RECREATION</td>
<td>RECREATIONAL FACILITY - private neighborhood</td>
<td>1.5 per 1,000 sf GFA</td>
</tr>
<tr>
<td>RECREATION</td>
<td>RECREATIONAL FACILITY - public community wide</td>
<td>1.5 per 1,000 sf GFA</td>
</tr>
<tr>
<td>RECREATION</td>
<td>RECREATIONAL FACILITY - public neighborhood</td>
<td>1.5 per 1,000 sf GFA</td>
</tr>
<tr>
<td>RECREATION</td>
<td>RIFLE AND PISTOL RANGE - indoor</td>
<td>1 per 6 seats or 1 per 30 sf GFA if no permanent seats</td>
</tr>
<tr>
<td>RECREATION</td>
<td>RIFLE AND PISTOL RANGE - outdoor permitted</td>
<td>1 per 6 seats or 1 per 30 sf GFA if no permanent seats</td>
</tr>
</tbody>
</table>
and except as provided in subsection (b). Stall depth shall be based upon the angle of parking, as set forth in column (B) of Table 526-1. The minimum width of access aisles internal to a parking lot or structure shall be as prescribed in column (C) of Table 526-1.

(2) **Compact Vehicles.** Up to thirty (30) percent of the required parking spaces may be designated for use by compact vehicles with minimum dimensions of eight (8) feet in width and sixteen (16) feet in length. Compact vehicle parking areas shall be identified by individually marking each parking space surface with lettering a minimum of six (6) inches in size.

**Table 526-1**

Minimum Stall Length and Aisle Width (Feet)

<table>
<thead>
<tr>
<th>(A) Parking Angle</th>
<th>(B) Stall Depth</th>
<th>(C) Aisle Width</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Car-to-Wall Stalls</td>
<td>Interlocking Stalls</td>
</tr>
<tr>
<td>30°</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>45°</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>60°</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td>75°</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>90°</td>
<td>18</td>
<td>18</td>
</tr>
</tbody>
</table>

* Parking Angles permitted by City of San Antonio.

Rules of Interpretation for Table 526-1:

A. The aisle is the traveled path through a parking facility which provides access to one (1) or two (2) parking vehicles.

B. Stall length refers to the length of the parking stall measured perpendicular to the angle of parking. Stall depth is the projected vehicle length from the wall measured perpendicular to the aisle.

[Reference: Weant and Levinson, Parking (Eno Foundation, 1990).]

(3) **Location.** Except as otherwise permitted under a cooperative parking plan, off-street parking facilities shall be located on the lots on which the use or structure for which they are provided is located.

(4) **Turnarounds.** All parking areas containing three (3) or more parking spaces shall include a turnaround which is designed and located so that vehicles can enter and exit the parking area without backing onto a public right-of-way.

(f) **Construction and Maintenance.** Off-street parking facilities shall be constructed, maintained and operated in accordance with the following specifications:

(1) **Drainage and Surfacing.** Areas shall be properly graded for drainage, surfaced with concrete, asphaltic concrete, or asphalt and maintained in good condition free of weeds, dust, trash and debris.
(2) **Wheel Guards.** Boundary or perimeter areas shall be provided with wheel guards, bumper guards or continuations that no part of parked vehicles will extend beyond the property line of the parking area. One (1) wheel stop shall be provided at the end of each parking space.

(3) **Protective Screen Fencing.** Areas shall be provided with protective screen fencing so that occupants of adjacent structures are not unreasonably disturbed by the movement of vehicles either during the day or night.

(4) **Lighting.** Facilities shall be arranged so that the source of light is concealed from public view and from adjacent residential properties and does not interfere with traffic.

(5) **Entrances and Exits.** Facilities shall be provided with entrances and exits consistent with the requirements of subsection 35-506(r) of this chapter.

(6) **Prohibition of Other Uses.** Facilities shall not be used for the sale, repair, dismantling, or servicing of any vehicle, equipment, materials, or supplies.

(7) **Limitation on Size of Vehicles.** In residential districts facilities shall be used only by vehicles up to three-fourths (¾) ton.

(8) **Vehicle Barrier Requirements.** In order to minimize damage to errant vehicles and their occupants, vehicle barrier systems not less than two (2) feet nine (9) inches high shall be placed at the end of parking spaces and along driveways leading to or from surface parking lots where the slope drop off from the end of the parking space or driveway edge meets all of the following conditions:

A. Distance to the edge of the drop off is seven (7) feet or less.
B. The drop off depth exceeds two (2) feet.
C. The slope is steeper than 1:1.

Where the slope is between 1:1 and 1:3, then a concrete wheel stop or six-inch high concrete curb will be required at the end of the parking space or along the driveway edge.

(9) **Vehicle Barrier Design.** Vehicle barrier systems shall be designed to resist a single load of six thousand (6,000) pounds applied horizontally in any direction to the barrier system.

(g) **Sharing Off-Street Parking Facilities - Cooperative Parking Plan.** Pursuant to the following procedure, either part of all of the required off-street parking facilities may be located on a site other than the one (1) occupied by the use or structure requiring such facilities.

(1) **Cooperative Parking Plan.** Two (2) or more uses may share the same off-street parking facilities and each use may be considered as having provided such shared space individually. Such shared parking space, however, shall not be considered as having been provided individually unless the schedules of operation of all such uses are such that none of the uses sharing the facilities require the off-street parking facilities at the same time. This arrangement for sharing of off-street parking facilities shall be known as a cooperative parking plan. Cooperative parking shall be obtained within six hundred (600) feet of the property requiring the additional parking for all permitted uses in Table 526-3b "Parking in Nonresidential Use Districts." This maximum distance shall be measured from the property line to the driveway of the shared parking lot. This shared parking lot shall meet the requirements for a non-commercial parking lot listed in subsection 35-526(f).

(2) **Application For Approval of Cooperative Parking Plan.** An application for approval of a cooperative parking plan shall be filed with the director of planning and development services by the owner of the entire land area to be included within the cooperative parking plan, the owner or owners of all structures then existing on such land area, and all parties having a legal interest in such land area and structures. Sufficient evidence to establish the status of applicants as owners of parties in interest shall be provided. The application shall include plans showing the location of the uses or structures for which off-street parking is desired.
EXHIBIT P

DRIVEWAY REQUIREMENTS
utility layouts are required as part of a plat, the location and extent of sidewalks within the subdivision shall be shown on the utility layout and shall be subject to the approval of the director of development services in consultation with the director of transportation and capital improvements and the utility agencies. In the ETJ, all sidewalk along a publicly maintained street or a street proposed to be publicly maintained must be contained within the ROW.

(8) Drain Crossings. Pedestrian double rails shall be required on both sides of all sidewalk drain crossings.

(9) Alignment. Sidewalks shall be constructed so as to align vertically and horizontally with adjoining sidewalks.

(10) Grade. Sidewalks shall be constructed so as to align vertically and horizontally with adjoining sidewalks.

(11) Sidewalks on Private Streets. Sidewalks on private streets shall meet the same criteria as for public streets.

Sidewalks shall be included in the same lot as the private streets or within an access easement designated on the plat if located on private lots. Deed restrictions shall be required to ensure that sidewalks remain unobstructed.

Access and Driveways.

(1) Applicability. The provisions of this section shall apply to all driveways. A lot which is a part of an approved plat which does not otherwise limit access and which was approved by the city and filed for record as of the effective date of this section, and which does not have sufficient frontage to meet the driveway approach spacing requirements in this section, shall be allowed one (1) driveway approach.

(2) Single-Family Residential Subdivisions.

A. Frontage and Access Off a Collector or Major Thoroughfare. Residential lots having direct access on a collector or major thoroughfare may be platted only if:

1. All lots are greater than one (1) acre in size, have a minimum lot frontage of one hundred (100) feet and provide for permanent vehicular turnaround on the lot to prevent backing onto the roadway. A note shall be on the plat stating a permanent vehicular turnaround shall be provided on each lot to prevent a vehicle from backing onto the roadway.

2. Access points which would permit vehicular access to lots less than one (1) acre in size from the thoroughfare or collector may be allowed if a marginal access street or easement to serve two (2) or more lots spaced a minimum of two hundred (200) feet apart or two hundred (200) feet from an existing driveway or street is constructed. The marginal access street or easement shall be designed to permit entry to the roadway without requiring a motorist to execute a backing maneuver. Marginal access streets or easements shall be included on the subdivision plat and shall be constructed or bonded in accordance with section 35-437 before recordation of the plat.

B. Marginal Access Streets. Where the subdivider furnishes a marginal access street on the subdivision side of an existing, improved primary or secondary arterial, the subdivider shall not be required to furnish any pavement, curbs, or sidewalks for the primary or secondary arterial. (see also: subsection 35-506(q)(5))

C. A residential lot shall be located a minimum of forty (40) feet from an arterial right-of-way.

(3) Commercial, Industrial and Medium or High Density Residential Developments. Lots proposed for commercial, industrial and multi-family residential developments in the ETJ or in the "MF," "NC," "O," "C," "I-1," or "I-2" zoning districts may have vehicular access from a thoroughfare or collector. However, the number of access points permitted will be based on the following criteria and following the driveway spacing requirements in subsection (7) below, if applicable.

A. For lots with less than two hundred (200) feet of unrestricted frontage, one (1) access point may be permitted;

B. For lots with two hundred (200) feet or more of unrestricted frontage, one (1) access point for every two hundred (200) feet of unrestricted frontage may be permitted.

C. All lots proposed for commercial development in the ETJ or in "NC," "O," and "C" zoning districts with less than four hundred (400) feet fronting an arterial street shall provide for shared cross access with adjacent lots fronting the arterial, by means of platted common access easement across the lot or recorded deed covenant providing common access across the lot with adjacent lot(s).

(4) Additional Access Points. The director of development services (or the Texas Department of Transportation, or county authority, if appropriate) is authorized to permit additional access points under the following conditions:

(A) The additional land; and access points are necessary to ensure the property owner beneficial use of the land;
services (or by the Texas Department of Transportation or county authority, if appropriate) at such time as a site plan is reviewed prior to the issuance of a building permit. The location shall be based on the following criteria:

(A) The location shall minimize conflicts with vehicle turning movements;
(B) The location shall be located as far as practicable from intersections; and
(C) The location shall be not less than fifty (50) feet from another driveway location.

If this standard is not possible, based upon the frontage of the property, the location shall be directed as far as practicable from the other driveway locations. Driveways along an arterial within four hundred (400) feet of a major intersection, such as the intersection of two (2) arterial streets or the intersection of a collector and an arterial street, may be restricted to right turn movements.

(D) Not located within an auxiliary lane.

(6) Driveway Throat or Vehicle Storage Length. For purposes of this subsection, "throat length" means the length of extending from the entry into the site at the property line, to the first conflict or intersection with a parking aisle. Vehicle storage length means the length of a driveway, service lane, bay, or other passageway for motor vehicles which is designed to minimize queuing onto surrounding streets. Throat length shall be designed in accordance with the anticipated storage length for entering and exiting vehicles to prevent vehicles from backing into the flow of traffic on the public street or causing unsafe conflicts with on-site circulation. Throat length and vehicle storage length shall not be less than the standards set forth in Table 506-7 unless approved by the director of development services. These measures generally are acceptable for the principal and secondary access to a property and are not intended for minor driveways such as residential driveways serving less than four (4) homes, or a commercial/industrial driveway with less than four hundred (400) ADT, or forty (40) average peak hour volume of vehicles, not located on a major roadway (see note under Table 506-7) or thoroughfare. The throat length may be reduced to no less than twenty (20) feet measured from the outside of the right-of-way by the director of development services by administrative exception. Throat lengths of less than twenty (20) feet from the outside of the right-of-way may be only be approved in accordance with section 35-482.

Table 506-7
Minimum Driveway Throat Lengths for Collectors and Arterials*

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Throat Length or Vehicle Storage Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shopping Centers &gt; 200,000 GLA or nonresidential developments &gt; 400 PHT per driveway</td>
<td>Throat length two hundred (200) feet or as required by the TIA</td>
</tr>
<tr>
<td>Nonresidential development between 200 and 400 PHT per driveway</td>
<td>Throat length seventy-five (75) feet or as required by the TIA</td>
</tr>
<tr>
<td>Nonresidential development less than 200 PHT per driveway or other major driveways not otherwise enumerated in this table</td>
<td>Throat length forty-foot minimum</td>
</tr>
<tr>
<td>Residential subdivision entryway (Private, gated entries)</td>
<td>Poisson distributed probability model at a ninety-five (95) percent confidence level. In addition, the subdivider shall provide for vehicle turnaround capability based on the single unit design vehicle as provided in the AASHTO Green Book, or latest revision thereof. The minimum entryway vehicle storage length shall be forty (40) feet measured from the call box to the public right-of-way. See Figure 506-11</td>
</tr>
</tbody>
</table>
EXHIBIT Q

TRAFFIC COUNTS
<table>
<thead>
<tr>
<th>Major Street</th>
<th>Location</th>
<th>Cross Street</th>
<th>Direction</th>
<th>Date Counted</th>
<th>Volume</th>
<th>85% Speed</th>
<th>Trucks</th>
<th>Street Width</th>
<th>Speed</th>
<th>Lanes</th>
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<tbody>
<tr>
<td>Heritage Farm</td>
<td>W of</td>
<td>Hunt Ln</td>
<td>EB</td>
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<td>Diane</td>
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<td>Copperfield</td>
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</tr>
</tbody>
</table>
EXHIBIT R

EDU CALCULATIONS
San Antonio Water System
Infrastructure Planning Equivalent Dwelling Unit (EDU) Calculation Sheet

Subdivision Name: Legacy of Piedmont  Plat I.D.#

The estimated Average Sewer Flows or Equivalent Dwelling Units that are shown on the SAWS Infrastructure Planning Application for Subdivision Plat Review has been calculated by one of the following methods:

Equivalent Dwelling Units (EDU) Calculation sheet.

Engineering Study using actual consumption data from similar facilities based on twelve month data also submitted for review

Calculate estimated sewer discharge utilizing accepted SAWS referenced material.

Unknown land use will be calculated at four (4) EDU’s per acre.

SAWS has established recommended guidelines to be employed for future discharge calculations which are shown next to the referenced facility. The numbers shown, for each type of development, are based on flow rate table measurements from TNRCC regulations, ASCE Manuals on Engineering Practice, EPA Technology Transfer Manuals, Uniform Plumbing Code fixture unit count and other Wastewater Engineering texts. All applicants will use these guidelines to calculate average daily flows or EDU’s.

SAWS will accept sewage flow calculations for any proposed development which is derived through an engineering study of actual measured sewer flows for similar facilities in lieu of the above criteria to determine the total estimated average daily flow or EDU’s for the proposed development. If this data is not provided or new calculations are not submitted with initial plat package, the undersigned will allow SAWS to calculate the estimated average daily flows or EDU’s at four EDU’s per acre. The undersigned will then also accept SAWS these EDU calculations as final.

Types of Development: Identify all types of development that will be part of the proposed project and complete the related information listed for each to calculate as Estimated Average Daily Flow (EADF) or Equivalent Dwelling Units (EDU’s). Note: One (1) EDU equals 240 gallons per day as average sewage flow and 313 gallons per day for average water flow. (Circle type of units used - EADF or EDU’s)

Single Family Homes (1 EDU/pad) ☐ Manufactured Homes (1 EDU/pad) ☐ Number Lots ☐ Number Pads ☐ EADF or EDU’s

Apartments ☐ Duplexes ☐ Town Homes ☐ Condominiums ☐ (0.5 EDU/Unit) Total Number of Units ☐ 49 ☐ EADF or EDU’s ☐ 24.5

Schools: ☐ Elementary ☐ Middle ☐ High School (10 g/student) ☐ University/College/Other (10g/student)

Number of Students ☐ Number of Faculty & Staff ☐ EADF or EDU’s

Hotel ☐ Motel (100 g/room) Number of Rooms ☐ Number of Staff ☐ EADF or EDU’s

Restaurant ☐ Cafeteria (20 g/seat) Number of Seats ☐ Business Hours ☐ EADF or EDU’s

Commercial ☐ Industrial ☐ TBDBE ☐ Type of Product ☐ Water Consumption ☐ Effluent Discharged

Number of Employees ☐ Number of Fixtures ☐ EADF or EDU’s

Office Building ☐ (0.35 gsf) Building Square Footage ☐ Number of employees ☐ EADF or EDU’s ☐ 1

Medical Building ☐ (1.5 gsf) Building Square Footage ☐ Number of employees ☐ EADF or EDU’s

Restaurant ☐ Cafeteria (20 g/seat) Number of Seats ☐ Business Hours ☐ EADF or EDU’s

Fast Food ☐ (4.4 edu per facility) Type of Food Served ☐ EADF or EDU’s

Number of Employees ☐ Number of Fixtures ☐ EADF or EDU’s

Department Store ☐ Retail Store ☐ (0.75 gsf) Type of Store ☐ Building Sq. Ft. ☐ Number of Customers ☐

Number of Employees ☐ Snack Machines ☐ EADF or EDU’s

Grocery Store ☐ Food Store ☐ Convenience Stores ☐ TBDBE Building Square Footage ☐ Number of Employees

Business Hours ☐ Number of Customer ☐ Fuel Service ☐ EADF or EDU’s

Laundries ☐ 200 g/machine) Number of Machines ☐ Number of Restrooms ☐ EADF or EDU’s

Churches ☐ Auditoriums ☐ (5 G/seat) Seating Capacity ☐ EADF or EDU’s

Car Wash ☐ TBDBE (1.5 gsf per Bay) Number of Bays ☐ Number Cars per Day ☐ EADF or EDU’s

Automated Car Wash ☐ TBDBE Gallons for Premium Wash ☐ Effluent Discharged per Wash ☐ EADF or EDU’s

Other Type of Development ☐ Proposed Land ☐ (Specifications Required)

Satellite Stations ☐ 1 edu Gas Station ☐ EADF or EDU’s

Other Use ☐ Number of Seats ☐ Number of Fixtures ☐ EADF or EDU’s

Number of Customers ☐ Building Square Footage ☐ Number of Employees

Calculation work space: (Please type or print in ink)

Domestic Water

49 x 0.5 = 24.5 EDU’s

Office = 1 EDU

1.5 inch Irrigation Meter = 5 EDU’s

TOTAL EDU’s = 30.5 EDU’s

Sanitary Sewer

49 x 0.5 = 24.5 EDU’s

Office = 1 EDU

TOTAL EDU’s = 25.5 EDU’s

Additional Information:

If additional space is needed add a separate sheet, on letterhead, and attach it to this sheet at time of submittal.

This form must be completely filled out and submitted with an original signature. No other form be accepted.

Applicant or Applicant’s Agent Signature Date

r:\2866-001\Ref\033\feasibility report\edu calculation sheet.docx
EXHIBIT S

FUTURE LAND USE
EXHIBIT T

KARST ZONE MAP
DISCLAIMER: The map does not authoritatively determine the presence or absence of habitat for any threatened or endangered species. On-site habitat assessments and/or surveys by a biologist permitted by the U.S. Fish and Wildlife Service are recommended to determine if suitable habitat exists at a particular location. The entire risk as to the results and performance of any information obtained from the City of San Antonio is entirely assumed by the user of this information.
February 7, 2019

**Wetlands**

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper website.
EXHIBIT V

PRELIMINARY SITE PLAN
This site plan materially adheres to all applicable zoning, site development, and building code ordinances.
EXHIBIT W

SURVEY