

RESPONSE 16

LAND USE ANALYSIS

Temple RDF Permit Amendment

Date: June 3, 2016
Revised November 2016

Prepared By:

A handwritten signature in black ink, appearing to read "Peter Boecher", written over a horizontal line.

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INTRODUCTION and DEFINITION OF TERMS

The Temple Recycling and Disposal Facility (RDF) is an existing Type I landfill partly located in the City of Temple and entirely located within Bell County. The landfill was initially permitted in 1979 and began operation with 215 acres. In 2001 the permit was amended to expand the site to 269 acres. This proposed permit amendment would enlarge the facility site to 443 acres. Two areas within the existing site would be removed, 4.22 acres to the north and 12.96 acres to the south.

This land use analysis includes the following terms:

Area: Surrounding area within a one-mile radius of the total permit boundary

Region: Surrounding region within a five-mile radius of the total permit boundary

Site: Temple RDF

ETJ: Extraterritorial jurisdiction of the City of Temple beyond its corporate limit in accordance with Local Government Code of the State of Texas

Existing permit boundary: Perimeter of the current permitted area

Expansion area: Area of land to be added within the permit boundary

Contraction area(s): Area(s) of land to be removed from within the permit boundary

Expansion permit boundary: Perimeter of the expansion area

Total permit boundary: Perimeter of the entire facility for the permit amendment that includes the expansion area and excludes the contraction areas.

This analysis focuses on land use outward from the total permit boundary with occasional reference to the expansion area or expansion permit boundary.

Surrounding land within one mile of the existing permit boundary, excluding the present facility, is approximately 3,888 acres, or 6.1 square miles. The expansion area will extend the one-mile radius eastward to add approximately 606 acres. The contraction areas to the north and south will delete approximately 17 acres northward and 58 acres southward from the one-mile radius area. Surrounding land within one mile of the total permit boundary, excluding the expanded site, is approximately 4,197 acres, or 6.6 square miles. Permit boundaries and one-mile radii are shown on Drawing 1.

ZONING

The Temple RDF is located at the eastern edge of the City of Temple in north central Bell County. The entire site is within the City's corporate limit. The City of Temple has zoning regulations that control land use within its city corporate limit. The zoning regulations are codified as a *Unified Development Code (UDC)*. Pursuant to State law, the City's zoning regulations do not extend beyond the city corporate limit into their extraterritorial jurisdiction (ETJ). Bell County, like most Texas counties, does not have land use zoning.

Enclosed as Drawing 2 is a zoning map obtained from the City of Temple on which the site and a two-mile radius from the site have been added. The existing site and expansion area are and adjacent lands to the south and west within the City are zoned LI-CUP (Light Industrial-Conditional Use Permit-(LI)) as shown on the map and identified in the legend. Adjacent lands to the south and west of the site are zoned LI. Per the *UDC*, the LI zoning district permits light industrial uses in which residential uses are not allowed except for boarding or rooming houses. In accordance with the *UDC*, the site also includes a conditional use permit (CUP) for a landfill. The CUP for the expansion area, as approved by City Council in June, 2016, includes the following eight conditions:

1. *The development of the property must conform to the Light Industrial District standards.*
2. *The landfill shall comply with all applicable State and Federal regulations.*
3. *The permittee shall work with Planning Staff to develop a fence and tree buffering plan to preserve some of the perimeter canopy trees and mitigate negative visual appearance.*
4. *An expansion beyond the approximately 283.77 acres of the landfill is subject to proper permit processes, including an additional conditional use permit.*
5. *The permittee shall operate in such a manner as to prevent excessive noise, dirt, litter, and odors on the property or in the surrounding area and shall operate in such a manner as to minimize disturbance to surrounding property owners.*
6. *A conditional use permit issued under this section runs with the property and is not affected by a change in the land ownership.*
7. *The City Council may revoke, suspend or modify the conditional use permit after notice to the property owner and hearing before the City Council if the City Council finds evidence of fraud or deception, violation of conditions of the conditional use permit, or as provided in Section 7-609 and 7-610 of the Zoning Ordinance.*

Adjacent land north of the site across Little Flock Road is zoned Agricultural (AG), which is a temporary classification until a permanent zoning district is established by the City. Quoting the *UDC*, the AG zoning district “*consists generally of areas containing rural land uses or undeveloped acreage that is not anticipated to be put to an urban use in the near future.*”

SURROUNDING LAND USE

The character of surrounding land uses within a one-mile radius of the total permit boundary was investigated. Urban planners drove all streets and highways in the area and recorded the use of all properties utilizing a standard land use classification system. Fieldwork was completed in July 2015, using information from the county appraisal district in combination with recent aerial photography. The data collected were used to prepare the land use map required by 30 TAC sec. 330.61(g) and provided herein as Drawing 3.

Majority of the land within the one-mile radius is undeveloped or agricultural. The eastern edge of urban development within the City of Temple coincides with the western edge of the one-mile radius. Current land use includes the following:

1. To the north, scattered residences and businesses, and a rural residential subdivision.
2. To the east and southeast, predominantly undeveloped or agricultural with widely scattered residences.
3. To the southwest, predominantly undeveloped or agricultural with a large industrial use and an electrical power plant under construction.
4. To the west, mostly undeveloped or agricultural, but also the following:
 - Within ½ mile, the City's solid waste services center, public works service center and wastewater treatment plant.
 - Near and along the one-mile radius, three suburban residential subdivisions, two public schools, and a large city park.

The table below provides an approximate percentage breakdown, in descending order, of the existing land uses within one mile of the total permit boundary as shown on the land use map:

Land Use	Percent
Undeveloped/Agricultural	75.0%
Single Family Residential	5.9%
Highways, Streets and Railroad	4.3%
Creeks and Ponds	4.2%
Electrical Substation and Utility Corridors	3.5%
Industrial	2.2%
Parks and Recreational Open Space	1.8%
Municipal Facilities	1.7%
Commercial	0.9%
Educational and Institutional	0.4%
Church and Cemetery	< 0.1%
Multi-Family	< 0.1%
	100%

Three-fourths of the land within one mile of the total permit boundary is undeveloped or used for agricultural purposes, with individual tracts ranging in size from less than one acre to hundreds of acres. Undeveloped land also includes vacant lots within the residential subdivisions identified herein. More than 88% of the land between the existing and expanded one-radius areas is undeveloped or agricultural.

Single family residential includes 288 occupied homes plus three additional homes presently under construction. Of the 291 total homes, 126 are on individual lots and 165 are within the following four subdivisions:

- *Sunrise* – A suburban residential subdivision established in 1956, located 9/10's of a mile to the west.
- *Crestview Heights* – A suburban residential subdivision established in 1973, located 9/10's of a mile to the west.
- *Habitat Subdivision Phase I* – A suburban residential subdivision established in 2000 by Habitat for Humanity, located 9/10's of a mile to the west.
- *Elm Creek* – A rural residential subdivision established in 1972, located ½ to one mile northeast of the site.

Of the 291 total homes, 253 are within one-mile of the existing permit boundary. Only 35 homes are within the expanded one-mile radius area.

One multi-family use is located one mile to the west. The Wayman Manor Apartments were developed in 1971 with 11 buildings housing 160 units. Two of the 11 buildings housing 32 apartments are within the one mile radius.

An electrical substation is located adjacent to the north permit boundary. Multiple high voltage overhead electric lines radiate outward from the substation across the one-mile radius area as shown on Drawing 3.

Seven industrial uses comprise 2.2% within the one-mile radius. The largest use is the Panda Temple Power Plant currently under construction on a 250-acre tract to the south at the one-mile radius. The natural gas-fired electrical generation plant is scheduled for completion by the end of 2015.

The 4.3% of land encumbered by highway, streets and railroad primarily includes Loop 363 (H.K. Dodgen Loop), State Highway 53 (E. Adams Avenue) and E. Avenue H which becomes Little Flock Road upon crossing Loop 363. The Loop is an expressway that encircles the entire city. E. Adams Avenue and E. Avenue H/Little Flock Road are designated as major arterials per the City's 2012 Thoroughfare Plan. The Burlington Northern Santa Fe (BNSF) Railroad is located one mile to the southwest.

Several named creeks traverse the one-mile radius area from northwest to southeast. They include Little Elm Creek, Williamson Creek just north of the site, Big Elm Creek Tributary No. 1 just south of the site, and Knob Creek.

GROWTH TRENDS and DIRECTIONS OF MAJOR DEVELOPMENT

Growth trends and directions of major development for the Temple region can be identified by reviewing the City's Comprehensive Plan and recent subdivision platting within the City and its ETJ. In summary, the major direction of growth and urban development is to the west from the western side of the City which is located 5-10 miles from the Temple RDF on the eastern edge of the City.

In 2008, the City of Temple completed and adopted a new Comprehensive Plan. The Plan addresses the entire City as well as its surrounding ETJ. Quoting Chapter 1 of the Plan:

The Temple Comprehensive Plan is designed as a framework for guiding future development, redevelopment and community enhancement in the City and its surrounding planning area over the next 20 years and beyond. The purpose of the Plan is to establish a vision, along with realistic goals and achievable strategies, that residents, business and land owners, major institutions, civic groups, members of advisory committees, and public officials prefer – and will support with action – in the years ahead.

The City's Plan assesses near and long term needs and desires for key community elements that include land use, mobility, economic development, parks and recreation and utility infrastructure.

Enclosed as Drawing 4 is Figure 3.1 from the Temple Comprehensive Plan which is titled *2030 Future Land Use & Character*. Added to the drawing are the Temple RDF site, and one and five mile radii from the site. Evident on the drawing are the following items:

- The major direction of suburban residential growth in Temple is to the west, more than five miles from the site.
- The site is located within a large area along the City's eastern edge that is intended for industrial use.
- Areas north, east and south of the site, extending beyond the City limit and five-mile radius, are classified as Agricultural/Rural.

Enclosed as Drawing 5 is Figure 4.2 from the City's Plan which is titled *20-Year Growth Planning*. The drawing identifies "developed areas", "growth areas" and "holding areas" for the entire City and ETJ. The Temple RDF site, and one and five mile radii from the site have been added to Drawing 5 similar to Drawing 4. Evident on Drawing 5 are the following items:

- The major direction of the “developed area” beyond the core of the City is to the west far away from the site.
- Developed and growth areas occupy the western 1/3rd of the five mile radius area from northwest to southwest.
- The remaining 2/3rds of the five mile radius area, to the north, east and south of the site, are shown as a holding area where no urban development is planned or anticipated for 20 years.

Enclosed as Drawing 6 is a second copy of Figure 4.2, *20-Year Growth Planning*, on which subdivision platting activity is shown for the past year. Reviewing platting activity within a City and its ETJ is an accurate way to identify where land development activity is occurring and not occurring. In Temple, similar to many other Texas cities, subdivision plats are reviewed and approved by the City’s Planning and Zoning Commission. Agendas and meeting minutes for the Commission have been reviewed for the period from June 2014 through June 2015. During that one-year time period, the Commission reviewed a total of 19 plats. The location of each plat is shown on Drawing 6 in relationship to the Temple RDF site and one and five mile radii from the site. Key information on the drawing includes the following:

- Eleven of the 19 plats are located within the major direction of development identified on Drawings 4 and 5 that is beyond the five mile radius.
- Five plats within the five mile radius are all at least three miles west of the site.
- No platting activity has occurred north, east or south of the site within the holding area shown on Drawing 5.

The information provided on Drawings 4, 5 and 6 clearly show that the direction of major development for the Temple area is westward on the opposite side of the City from the site at the City’s eastern edge. Urban growth is trending away from the site and well beyond the five mile radius to the west. Urban growth is not expected within the five mile radius to the north, east and south of the site.

Current population estimate and population projections for the entirety of Bell County have been prepared by the Texas State Data Center and obtained from the Central Texas Council of Governments. The most recent population estimate for Bell County is 326,917 in the year 2013. Projections for the year 2050 have been estimated per the following three scenarios:

1. 429,668 – This figure is based on zero migration, which assumes that immigration and outmigration are equal resulting in growth only through natural increase.
2. 707,840 – This figure is considered a high-side projection which assumes that the high net migration rates in age, race and ethnicity that trended from 2000 to 2010 will continue forward into the future.

3. 560,252 – This figure is considered a midway projection that is about half of the other two scenarios, and assumes that net migration rates going forward will be about half of the rates from 2000-2010.

PROXIMITY TO RESIDENCES and OTHER USES

As of July 2015, 288 single-family homes (permanent or manufactured) and 32 apartments are within one-mile of the site. An additional three homes are under construction. Two are within the *Elm Creek Subdivision* located ½ mile northeast of the site, and the other one is located along Dairy Road approximately 9/10's of a mile to the north.

One residence adjoins the site to the east on Bob White Road. The rental home is on property owned by the City of Temple which owns the Temple RDF site. Nineteen other nearby residences are scattered north along Little Flock Road, east along Bob White Road, and south on Tower Road. Three homes on the south side of Little Flock Road are approximately 500 feet from the permit boundary. Ten homes along the north side of Little Flock Road range in proximity from approximately 200 feet to 1200 feet. Six homes along the east side of Bob White Road range in proximity from approximately 300 feet to 800 feet. One home on the north side of Tower Road is approximately 1200 feet from the site.

Current population density within the one-mile radius is approximately 140 persons per square mile. This figure is based on data from the U.S. Census Bureau for Tracts 204.02 and 208 that encompass almost the entire one-mile radius as shown on Drawing 7. In 2010, Tract 204.02 had a population of 2,803 and 949 households. Tract 208 had a population of 3,528 and 1,244 households. The population density is calculated as follows:

- Average household size of 2.95 persons for Tract 204.02.
- Average household size of 2.84 persons for Tract 208.
- Overall average household size of 2.89 persons for Tracts 204.02 and 208 combined.
- Total of 320 households within the one-mile radius (288 homes plus 32 apartments as noted above).
- 2.89 persons per household multiplied times 320 households equals a population of 925 within the one-mile radius.
- 6.6 square miles within one-mile radius, as noted in the *Introduction* section.
- Population of 925 divided by 6.6 square miles equals a population density of 140 persons per square mile.

Nineteen commercial and seven industrial businesses are located within the one-mile radius. The nearest industrial business is approximately 1,500 feet to the northwest on Loop 363. Commercial businesses are located north of the site, mostly along State

Highway 53, and range in proximity from approximately 1,700 feet to nearly a mile. Two of the commercial uses are seasonal fireworks stands.

Two public schools are located at the western edge of the one-mile radius, the Meredith Dunbar Early Childhood Academy directly to the west and the Hector P. Garcia Elementary School to the northwest. Both schools are within the Temple Independent School District.

City of Temple municipal facilities and parks within the one-mile radius include the following:

- Solid Waste Services Center immediately adjacent to the west
- Police training facility and firing range located next to the Solid Waste Service Center
- Public Works Service Center, located across Little Flock Road from the Solid Waste Service Center
- City gas station, located about ½ mile to the west
- Wastewater treatment plant and tree farm, located about ½ mile to the west, south of the gas station
- Wilson Park, with athletic fields, community center, playground, swimming pool, and picnic pavilions located ¾ths of a mile to the west/northwest.
- Fire station located one mile to the west, adjacent to Wilson Park.

All residences, businesses, schools, municipal facilities and park noted above are shown on the Land Use Map, Drawing 3.

One cemetery is located within the existing permit boundary, and one church and cemetery are located within the one-mile radius. A small cemetery of approximately 5,330 square feet is within the north central portion of the existing site. The area contains no headstones but is defined and protected by a fence. Within the one-mile radius, the Primitive Baptist Church and Little Flock Cemetery are located approximately 1,300 feet east of the site across Little Elm Creek. The two cemeteries and church are shown on the Land Use Map, Drawing 3. The church and cemetery within the one-mile radius comprise less than one percent of the radius area as shown in the Surrounding Land Use portion of this report. A Texas historical marker for the church and cemetery is located at the cemetery entrance. Enclosed as Drawing 8 is a photograph of the historical marker erected in 1969.

No day care centers, historic structures, archeologically significant sites, or sites having exceptional aesthetic quality are located within the one-mile radius.

CONCLUSIONS

Continued use and expansion of the Temple RDF represents a compatible land use for the following reasons:

1. Approximately 75% of the land within a mile of the site is undeveloped or agricultural.
2. Nearly 90% of the land between the one mile radius of the existing permit boundary and the one mile radius of the expansion permit boundary is undeveloped or agricultural.
3. The church and cemetery located ¼th mile northeast of the site across Williamson Creek are visibly screened from the site by native trees and vegetation along the creek.
4. The direction of major development and residential growth in Temple is far to the west on the opposite side of the City and is trending away from the site.
5. Per the City of Temple Comprehensive Plan, no urban development is expected for many years within most of the five mile radius area.



LEGEND:

City Limit

Existing RDF Permit Area Limit
& 1 Mile Offset

Proposed RDF Permit Area Limit
& 1 Mile Offset

NOTES :

1. Aerial Map Source : Bing Maps - 2012.

Temple RDF
Temple, TX

DRAWING I - EXPANSION EXHIBIT

SCALE : 1" = 2,000'

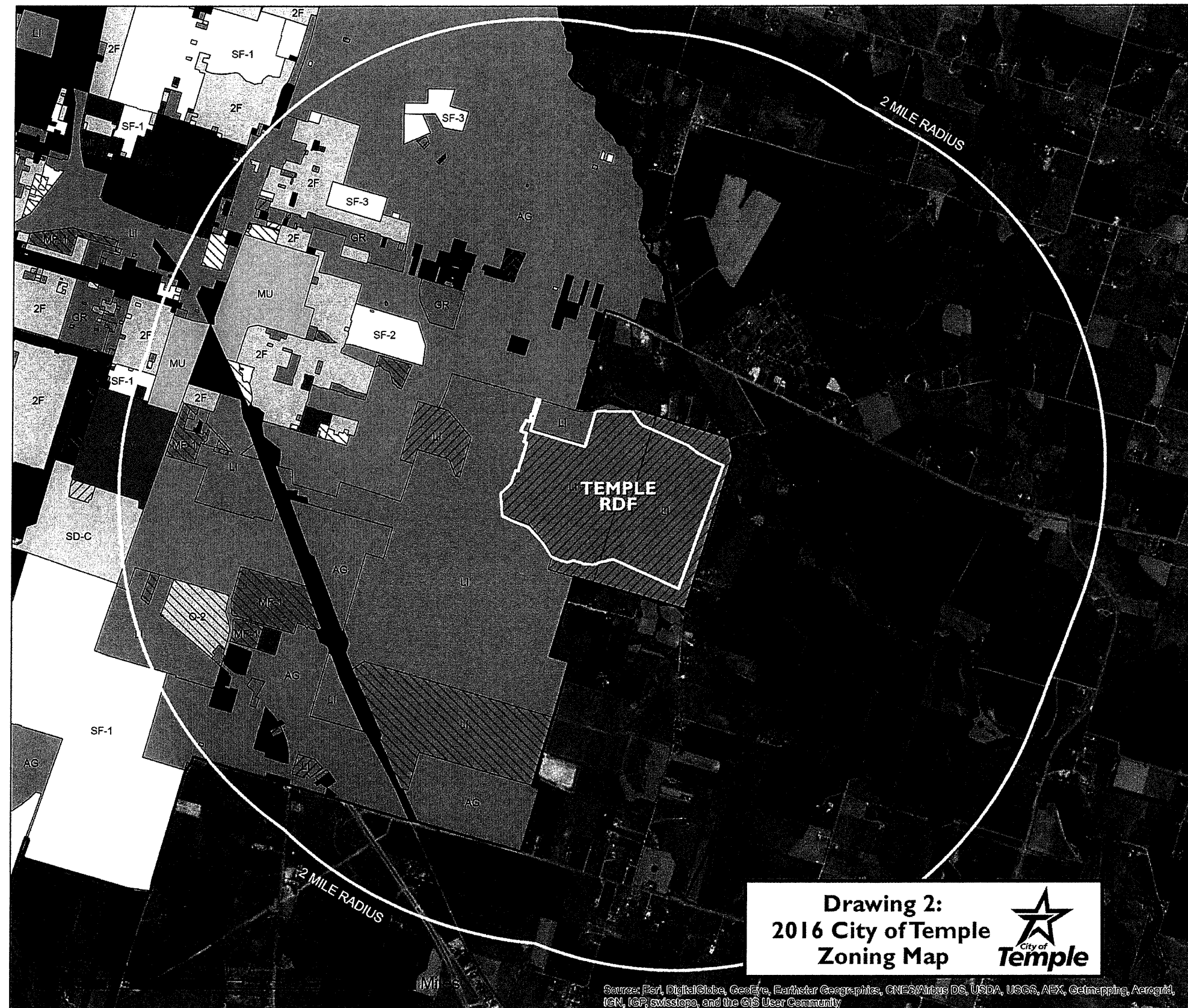
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DATE : 11-02-2016 NORTH



Legend	
Temple Zoning	
BASE, CUP, PD	
HI, CP	GR - PD
UE	GR - CUP, PD
UE - PD	CA
SF-1	CA - CUP
SF-1 - CUP	CA - PD
SF-1 - PD	C
SF-2	C - CUP
SF-2 - PD	C - PD
SF-3	C - CUP, PD
SF-3 - PD	LI
SF-3 - CUP, PD	LI - CUP
SFA	LI - PD
SFA-2	LI - CUP, PD
SFA-2 - PD	HI
SFA-3	HI - PD
SFA-3 - PD	AG
2F	AG - CUP
2F - CUP	MH
2F - PD	MH - CUP
MF-1	MH - PD
MF-1 - CUP	MU
MF-1 - PD	MU - CUP
MF-2	SD-C
MF-2 - CUP	SD-C - CUP
MF-2 - PD	SD-H
MF-3 - PD	SD-H - CUP
O-1	SD-T
O-1 - CUP	SD-V
O-1 - PD	T4
O-2	T4 - CUP
O-2 - CUP	T5-C
O-2 - PD	T5-C - CUP
NS	T5-C - PD
NS - CUP	T5-E
NS - PD	T5-E - CUP
GR	T5-E - PD
GR - CUP	X
	X - CUP
	X - PD
	City Limit Boundary
	Permit Area & 2 Mile Offset



LEGEND:

- Undeveloped / Agricultural Land
- Single Family Residential
- Multi-Family Residential
- Commercial
- Industrial
- Parks & Recreational Open Space
- Educational / Institutional
- Electrical Substation / Utility Corridor
- Creeks / Ponds
- Municipal Facilities
- Church / Cemetery
- Single Family Home
- Manufactured Home
- Business
- Fireworks Stand
- Under Construction
- Vacant Building
- City Limit

NOTES :

1. Base Map Source : Bell County Appraisal District - June, 2015.

Temple RDF
Temple, TX

DRAWING 3: LAND USE MAP

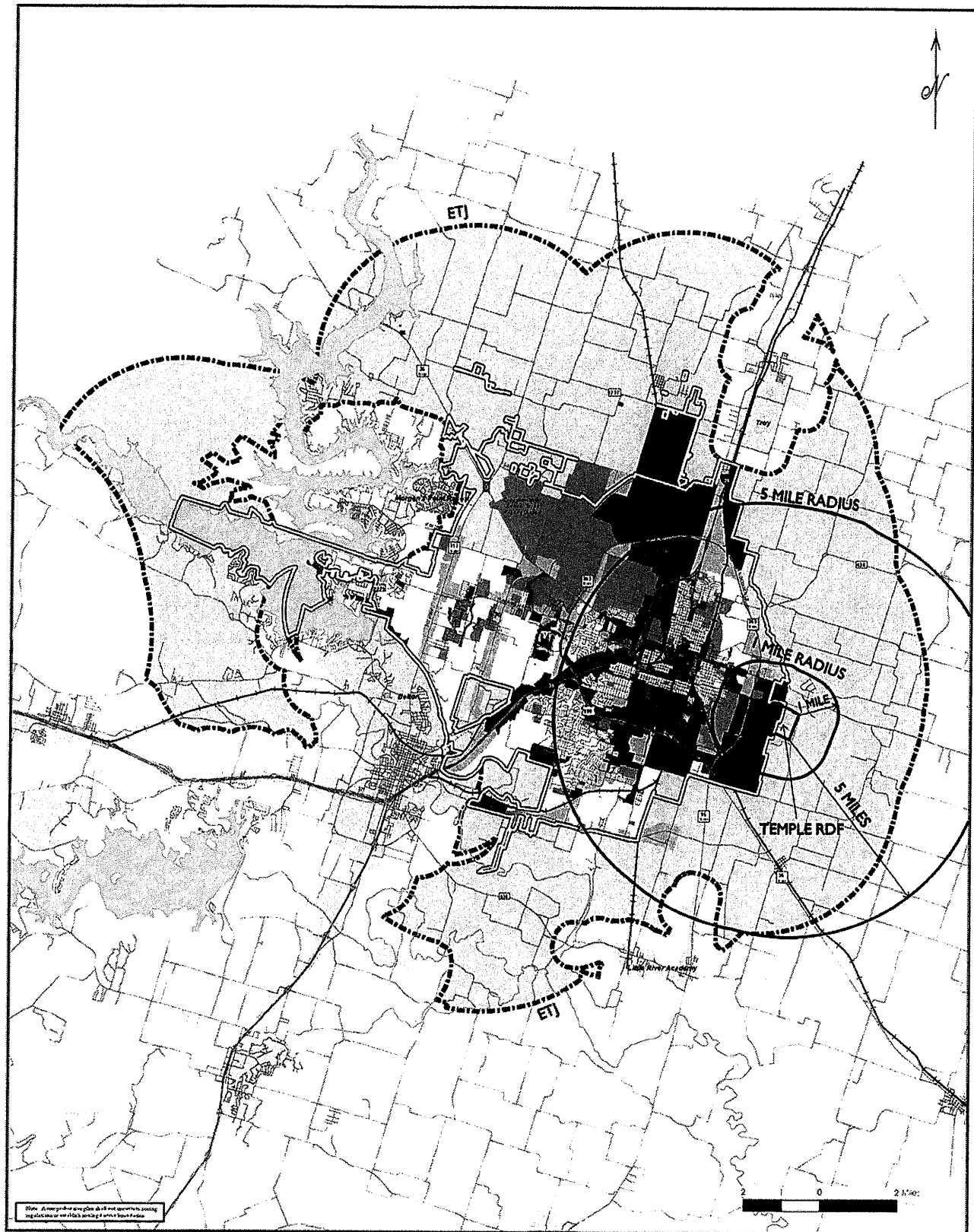
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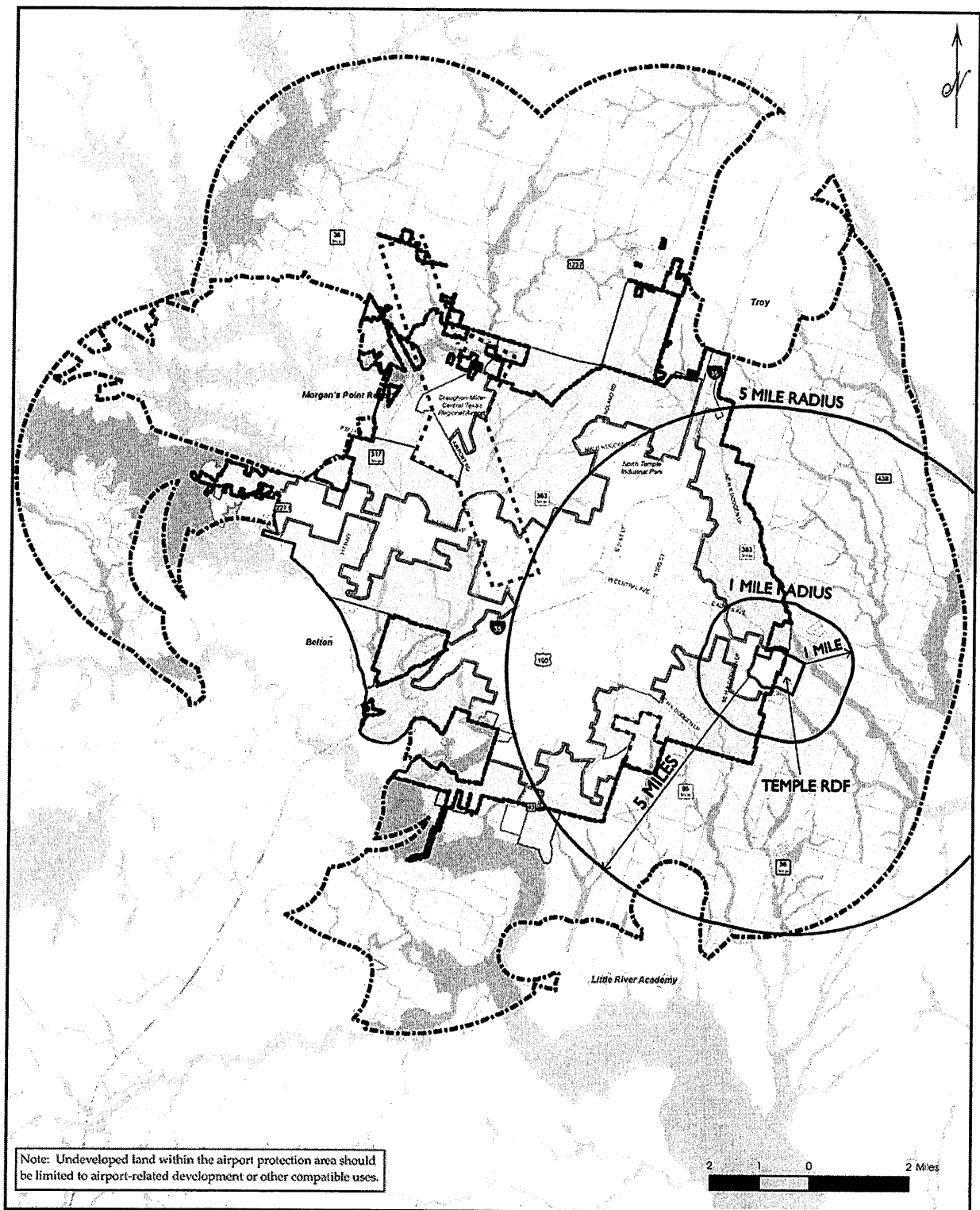
2030 Future Land Use & Character

- | | | |
|-----------------------------|-------------------------------------|----------------------|
| □ Neighborhood Conservation | ■ Urban Center | ○ City Limits |
| □ Estate Residential | ■ Temple Medical Education District | ○ Lake; River |
| □ Suburban Residential | ■ Industrial | ~ Railroad |
| ■ Auto-Urban Residential | ■ Business Park | ○ Extraterritorial |
| ■ Auto-Urban Multi-Family | ■ Public Institutional | ○ Jurisdiction (ETJ) |
| ■ Auto-Urban Mixed Use | ■ Parks & Open Space | ○ Right-of-Way |
| ■ Auto-Urban Commercial | ■ Agricultural/Rural | |
| ■ Suburban Commercial | | |

3.1

FIGURE

02.27.12

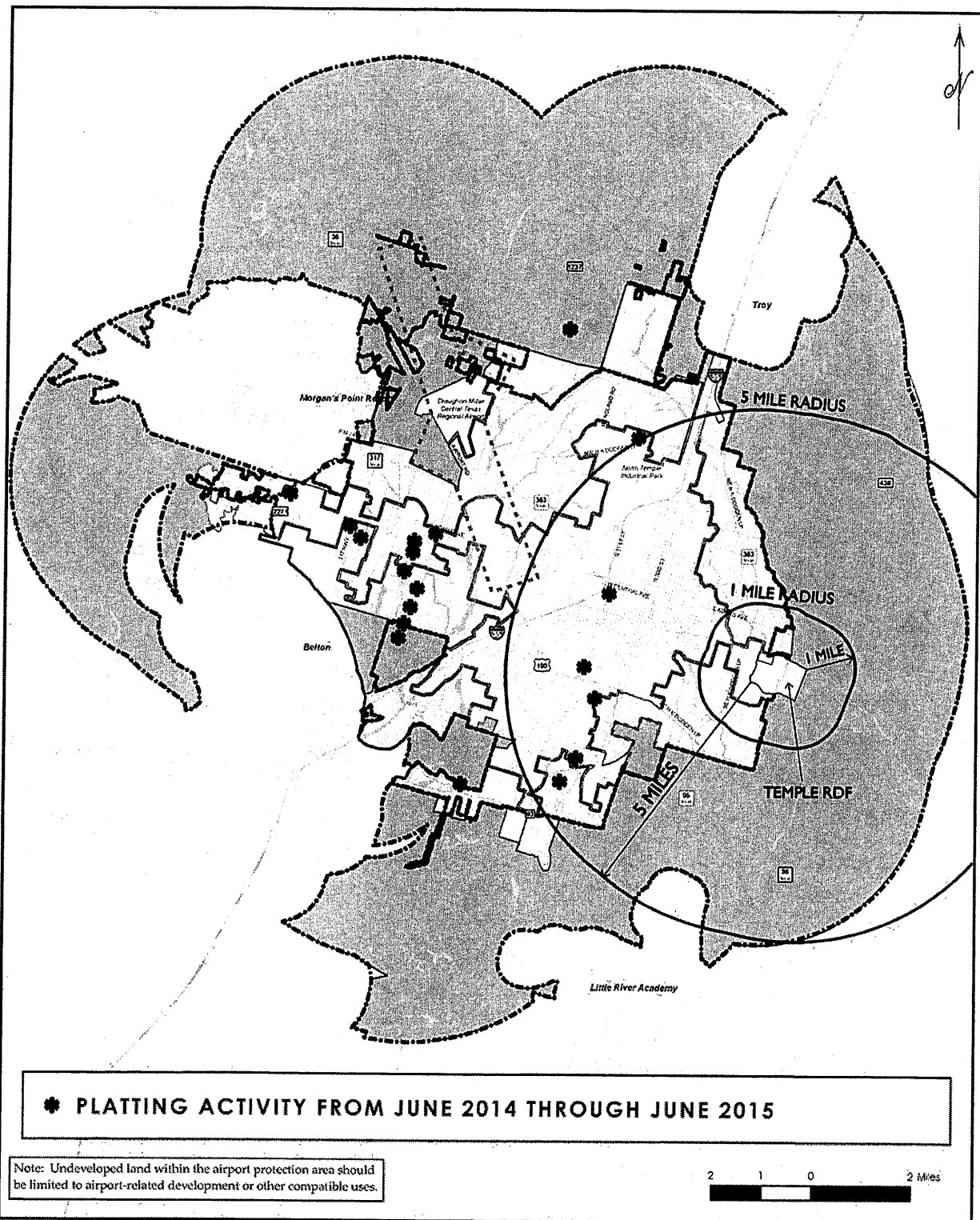


20-Year Growth Planning

- | | | | |
|--|----------------|--|---------------------------|
| | Developed Area | | FEMA 100-Year Flood Plain |
| | Growth Area | | FEMA 500-Year Flood Plain |
| | Protected Area | | City Limits |
| | Holding Area | | |

4.2

FIGURE



20-Year Growth Planning

- Developed Area
- Growth Area
- Protected Area
- Holding Area
- FEMA 100-Year Flood Plain
- FEMA 500-Year Flood Plain
- City Limits

4.2
FIGURE