

**INITIAL STRATEGY ANALYSIS**  
**GOODWIN MARKET SPECIAL USE PERMIT**  
**FRIDAY, JUNE 30, 2017**

This analysis was prepared for those concerned about the proposed convenience store-gas station, known as the Goodwin Market. The site is located at the southwest corner of Goodwin Lane and Conrads Lane in New Braunfels, Texas. The analysis presents the results of research into a number of issues potentially associated with a convenience store-gas station. Collectively, these issues demonstrate that the proposed site is an undesirable location for a convenience store-gas station and fails to meet requirements set forth in the City of New Braunfels Zoning Ordinance. Recommendations are provided as to the issues most likely to persuade the City Council to deny the Special Use Permit the applicant must obtain.

**PROPOSED PROJECT**

The applicant, Chris Crim, of HMT Engineering & Surveying, proposes a convenience store with no more than 4 gas pumps and 2 retail spaces for rent. These uses are proposed for a 2.316-acre site at the southwest corner of Goodwin Lane and Conrads Lane in New Braunfels, Texas. The site is zoned C-1A Neighborhood Business District Commercial. The applicant has stated the following would not be allowed: liquor stores, vape shops, adult stores, pawn shops, payday loan places, etc. It is unclear what – if anything – would prevent the applicant from seeking these uses after the convenience store-gas station is approved. The applicant intends to sell beer and only branded gasoline. The applicant also states that flooding issues would be addressed with a retention pond (installed behind the store) and with improvements to the drainage ditch running along Conrads Lane. A Special Use Permit is required to install the tanks needed for fuel dispensers. Area residents note the site is subject to flooding by Starling Creek, a tributary to Alligator Creek, which flows through the site. Area residents have concerns regarding the following issues:

- Health effects,
- Light trespass,
- Flooding,
- Property value decline, and
- Increased crime.

**ISSUES**

Following is a summary of CEDS research regarding these issues in the context of the proposed Goodwin Market.

**Light Trespass**

Most new convenience stores-gas stations use well-shielded LED illumination that prevents glare and loss of dark-skies.

Zoning Ordinance Section 3.6-3(d)(6) states that an application for a Special Use Permit must comply with the following standard:

**(d) Character and integrity.** The proposed use is compatible with and preserves the character and integrity of adjacent development and neighborhoods and, as required by the particular circumstances. A Type 2 Special Use Permit may include improvements or modifications either on-site or within the public rights-of-way to mitigate development-related adverse impacts, including but not limited to:

(6) Control of signs, if any, and proposed exterior lighting with reference to glare, traffic safety, economic effect, and compatibility and harmony with properties in the district;

To determine how this standard is addressed, prior fuel sales Special Use Permit records were reviewed. Three applications for a fuel sales Special Use Permit had been considered between 2014 and 2016. Records from these cases were searched to determine how the lighting character-integrity standard was addressed. Unfortunately this search was inconclusive.

Ideally the records should have shown that applicants were required to submit a lighting plan demonstrating that illumination would be such as to prevent glare into nearby homes or loss of night-sky views. It appears that such a plan is not routinely required at the Special Use Permit stage. Area residents should consider requesting an illumination plan which demonstrates that the project will not cause light trespass into nearby homes or a loss of dark sky views.

### **Need**

In a document headed “Why take on a project with a large truck stop (TA) nearby?” the applicant stated “It’s obviously risky!” The risk is not just to the applicant and the financial success of Goodwin Market, but to area residents and the City of New Braunfels due to blighting and property value impacts.

### **Blighting**

Failure of the applicant’s project could result in a closed convenience store-gas station at a prominent location in the midst of several residential neighborhoods. This would have a blighting effect on the area.

A 2012 New York Times story documented the problems associated with converting closed gas stations into productive businesses.<sup>1</sup> Because of



<sup>1</sup> See: [http://www.nytimes.com/2012/07/11/reales-stations.html?\\_r=3&pagewanted=all](http://www.nytimes.com/2012/07/11/reales-stations.html?_r=3&pagewanted=all)

contamination issues, the cost of removing buried tanks, and other factors, gas station redevelopment can take years. In the meantime the station sits boarded up, like the abandoned San Antonio station pictured here. This photo was taken in 2011.<sup>2</sup> and the closed station was still present as of April, 2016.<sup>3</sup> Closed stations impart a visual blight to the area which can retard commercial-residential development and depress the value of nearby properties.

### **Property Value**

An abandoned gas station in the midst of a residential area could depress the value of not only homes within view of the site but homes located even more distant. Even flourishing convenience stores with gas pumps can negatively affect development. For example, the U.S. Department of Housing & Urban Development (HUD) will not allow FHA insurance if a property is within 300 feet of a gas station that have storage tanks with a capacity of 1,000 gallons or more of flammable or explosive material.<sup>4</sup> All new gas stations have tanks with a capacity far in excess of 1,000 gallons. Therefore those who own homes within 300 feet of the site will likely experience greater difficulty in selling their homes which, in turn, will reduce property value.

### **Air Quality & Health Effects**

The California Air Resources Board (ARB) [\*Air Quality and Land Use Handbook\*](#) documents an elevated health risk for schools and other sensitive uses located near a gas station. Health effects range from nausea to cancer. The cancer risk posed by gas station emissions stems from benzene and other compounds released to the atmosphere while pumping gas. Following is a sampling of relevant health effects research:

- A 2003-2004 study conducted in France documented a significant relationship between childhood leukemia and living near a gas station,<sup>5</sup>
- A 2010 study conducted in Spain documented elevated air pollution within 100 meters (328 feet) of a gas station, and<sup>6</sup>
- In 2012, Brazilian researchers found that air quality was significantly degraded up to 150 meters (492 feet) from gas stations.<sup>7</sup>

The California ARB Handbook notes that adverse effects extend out as far as 1,000 feet from a high-volume gas station. Most new convenience stores with gas pumps these days sell 2.0- to 3.0-million gallons of fuel per year which puts them in the high-volume category. The Handbook describes those most vulnerable to adverse health effects and sensitive land uses as:

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<sup>2</sup> See: <http://www.roadarch.com/gas/txcan4.html>

<sup>3</sup> See: [https://www.google.com/maps/@29.4342169,-98.486273a,75y,1.86h,84.91t/data=!3m6!1e1!3m4!1sY07fBHUPJ\\_zDWOGRuGa5ww!2e0!7i13312!8i6656?hl=en](https://www.google.com/maps/@29.4342169,-98.486273a,75y,1.86h,84.91t/data=!3m6!1e1!3m4!1sY07fBHUPJ_zDWOGRuGa5ww!2e0!7i13312!8i6656?hl=en)

<sup>4</sup> See: <https://hudgov.prod.parature.com/link/portal/57345/57355/Article/8213/Are-properties-located-next-to-gas-stations-eligible-for-insurance>

<sup>5</sup> See: <https://www.ncbi.nlm.nih.gov/pubmed/19213757>

<sup>6</sup> See: <https://www.ncbi.nlm.nih.gov/pubmed/20810207>

<sup>7</sup> See: <http://www.sciencedirect.com/science/article/pii/S1309104215304384>



“Sensitive individuals refer to those segments of the population most susceptible to poor air quality (i.e., children, the elderly, and those with pre-existing serious health problems affected by air quality). Land uses where sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses).”

The aerial photo to the left shows the site at Goodwin and Conrads Lanes. The red circle defines the area within 1,000 feet of the site. Note that more than a hundred homes are within the potential impact zone.

### **Aquatic Resource Impacts**

Because of the high traffic volume and refueling, convenience stores with gas pumps pose an unusually severe threat to ground and surface waters. One study found that contaminant levels in convenience store-gas station runoff were 5- to 30-times higher when compared to residential runoff.<sup>8</sup> These findings have prompted the USEPA and a number of states to list vehicle fueling locations as stormwater hotspots.<sup>9</sup>

Fuel storage tanks and pipelines pose another source of contamination, though the design of both has improved dramatically over the past couple of decades. Spillage at the pump is a more likely source of fuel release into nearby waterways. Johns Hopkins University researchers found that an average of 40 gallons of gasoline is spilled annually at the pumps of a typical gas station.<sup>10</sup> The JHU researchers also found that a significant portion of the spilled gasoline can migrate through the concrete pads at many fueling stations.

One review of scientific studies indicated that a gasoline plume can travel up to 400 feet underground.<sup>11</sup> Add another 100 feet for installing grout curtains or other containment measures and gas dispensers should be no closer than 500 feet to a well, wetland, spring, stream, river, pond, lake, reservoir or tidal waters.

The Goodwin Market site straddles Starling Creek, a tributary to Alligator Creek. The entire site is within 400 feet of Starling Creek. Allowing a gas station on this site creates a heightened potential

<sup>8</sup> See: [http://owl.cwp.org/mdocs-posts/elc\\_pwp2/](http://owl.cwp.org/mdocs-posts/elc_pwp2/)

<sup>9</sup> See: <https://www.epa.gov/npdes/stormwater-maintenance>

<sup>10</sup> See: <https://www.sciencedaily.com/releases/2014/10/141007103102.htm>

<sup>11</sup> See: <http://www.waterboards.ca.gov/ust/policy/techjust071211.pdf>

for contamination compared to most other sites located much farther than 500 feet from a stream or other aquatic resource.

### **Edwards Aquifer**

According to the Texas Commission on Environmental Quality publication *Complying with the Edwards Aquifer Rules Technical Guidance on Best Management Practices*.<sup>12</sup>:

“The Edwards Aquifer is one of the most valuable resources in the central Texas area. This aquifer provides water for municipal, industrial, and agricultural uses as well as sustaining a number of rare and endangered species. To preserve these beneficial uses, Texans must protect water quality in this aquifer from degradation resulting from human activities.”

The Goodwin Market site is less than a mile from the Edwards Aquifer transition zone. The preceding section of this analysis documented that gas stations pose a very high groundwater contamination potential. Therefore it is unwise to allow gas stations in the vicinity of vulnerable aquifers.

### **Flooding Potential Aggravates Impact Potential**

The photo to the right was taken on October 30, 2015 during an unusually severe storm. The red arrow points to the location of the proposed convenience store-gas station. This photo shows that much of the site was inundated. The fact that the site is subject to periodic flooding increases the potential for contaminants to be washed into Starling Creek, then Alligator Creek.



The applicant has proposed a retention pond to be built between the convenience store-gas station and Starling Creek. Given the topography of the site the retention pond will be inundated as shown in the photo above. Any stormwater pollutants trapped in the pond during lesser runoff events could be resuspended and carried into Starling Creek then Alligator Creek. Also, inundation will negate the flood control benefits of the pond.

To determine how flooding is addressed through the Special Use Permit process, records from prior fuel sales cases were obtained. Three applications for a fuel sales Special Use Permit were considered between 2014 and 2016. Records from these cases were searched for references to flooding. This review showed that the only reference to flooding appeared in the City Council Agenda Item Report, prepared by the Planning & Community Development Director. The report

<sup>12</sup> See: <file:///C:/Users/Richard/Downloads/rg348-plus-errata-and-addendum.pdf>

notes whether any portion of a site was in a 1% (100-year) annual chance flood zone. The Report for both approved applications indicated neither site was in a flood zone. Therefore, there was no further consideration of this question in either case.

### **Traffic Safety**

There does not appear to be a significant traffic congestion<sup>13</sup> or safety issue. Sight distance<sup>14</sup> should be OK based on topography and what is visible from aerial photos.

### **ISSUES & ZONING REGULATION COMPLIANCE**

While many cities and counties have specific requirements for gas stations, the City of New Braunfels Zoning Ordinance does not. The project requires a Special Use Permit (SUP) permit. Section 3.6-3, of the [New Braunfels Zoning Ordinance](#) sets forth the standards an application must meet to qualify for an SUP. Standards 3.6-3(a), (d) and (e) are the most relevant to the issues associated with the Goodwin Market application.

**3.6-3 Standards.** When considering applications for a special use permit, the Planning Commission in making its recommendation and the City Council in rendering its decision on the application shall, on the basis of the site plan, if a Type 2, and other information submitted, evaluate the impact of the special use on, and the compatibility of the use with, surrounding properties and neighborhoods to ensure the appropriateness of the use at a particular location. The Planning Commission and the City Council shall specifically consider the extent to which:

**(a) Comprehensive plan consistency.** The proposed use at the specified location is consistent with the goals, objectives and policies contained in the adopted Comprehensive Plan;

**(d) Character and integrity.** The proposed use is compatible with and preserves the character and integrity of adjacent development and neighborhoods and, as required by the particular circumstances.

**(e) Public health, safety, convenience and welfare.** The proposed use is not materially detrimental to the public health, safety, convenience and welfare, or results in material damage or prejudice to other property in the vicinity.

The application fails to meet these standards based on the following issues documented in the preceding analysis:

- Goal 32 of the *New Braunfels Comprehensive Plan – 2006 Update*<sup>15</sup> states:

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<sup>13</sup> See: <http://ceds.org/traffic.html#Congestion>

<sup>14</sup> See: [http://ceds.org/traffic.html#Sight\\_Distance](http://ceds.org/traffic.html#Sight_Distance)

<sup>15</sup> See: <http://www.nbtexas.org/DocumentCenter/Home/View/207>

“Protect groundwater and surface water sources and prevent pollution in natural drainage channels and structures, i.e. (Comal Creek, Blieders Creek, Alligator Creek, Comal River, and Guadalupe River, Edwards Aquifer, Trinity Aquifer).”

The potential impact to Sterling Creek, Alligator Creek and the Edwards Aquifer due to stormwater pollution and groundwater contamination is inconsistent with this Comprehensive Plan goal.

- The applicant has acknowledged that locating Goodwin Market in the vicinity of the TA truck stop is risky, which creates the potential of blighting if the convenience store-gas station goes out of business. This impact would degrade the character and integrity of the adjacent neighborhoods.
- Locating a gas station in the vicinity of so many homes is likely to lower property value further jeopardizing the character and integrity of adjacent neighborhoods.
- The release of benzene and other air pollutants poses a very serious threat to the health of those who reside in the more than one hundred homes located in the potential impact zone.
- The potential threat to the Edwards Aquifer also poses a threat to public health.

Zoning Ordinance Section 5.18 states:

“A place of business where alcoholic beverages are sold shall be prohibited within 300 feet of a church, private or public school, daycare center or child-care facility or public hospital.”

The applicant has proposed beer sales. I understand that in-home day care services may exist within 300 feet. While the Zoning Ordinance contains a definition of a Child Day Care (business) it does not define “daycare center”, which could include a home where this activity occurs. If any day care is provided in homes within 300 feet of the site then beer sales may be a violation of Section 5.18. This issue should be presented at the City Council hearing.

## **DECISION-MAKING PROCESS & HISTORY**

The Special Use Permit decision-making process begins with an application to the City of New Braunfels. The Planning Commission holds a hearing then makes a recommendation to the City Council. The City Council holds their own hearing and makes a decision to approve, approve with conditions or deny the application. It appears that an appeal of the City Council decision goes to the Zoning Board of Adjustment (ZBA) then the courts, though I suspect that the decision is rarely reversed on appeal.

CEDS reviewed annual planning reports for the past three years to better understand Special Use Permit decision-making history. Of 58 Special Use Permit applications: 64% were approved, 17% were denied, and 19% were withdrawn. The withdrawals were likely prompted by strong signals from the City that the application would be denied.

This is encouraging with regard to the concerns of area residents. It shows that the City is not so applicant-oriented that everything is approved. In fact, the City of New Braunfels appears far more sensitive to resident concerns than what we usually see.

I understand that area residents are seeking to invoke the 20% Rule requiring that a minimum of three-fourths of City Council members must support the project to grant the Special Use Permit. This is a very good move.

In 2016, two Special Use Permit applications for fuel storage tanks had been approved. One was submitted in 2015 then withdrawn. The 82 pages of records for all three applications was converted into a searchable file. In hopes of learning more about how the City views the various issues addressed in this analysis, the file was searched using the following key words relevant to the Goodwin Market Special Use Permit:

- Light
- Glare
- Health
- Air quality
- Air pollution
- Contamination
- Market
- Need
- Property value
- Blight
- Aquifer
- Stream
- Flood

References were found to light, glare and health. The results of the search for light and glare was addressed in the portion of this analysis headed Light Trespass. With regard to health a finding of no adverse public health effects appears in the ordinances granting two of the Permits. These records lacked an analysis as to how the public health determination was reached.

Prepared By Richard Klein  
Community & Environmental Defense Services  
410-654-3021 [Rklein@ceds.org](mailto:Rklein@ceds.org) [ceds.org](http://ceds.org)