

JUN 28 2017

RECEIVED

Yaupon Trails Tract
C/O Doug French
4090 State Hwy 6, South
College Station, TX, 77845
979.690.1222 Ext. 135

To Whom it May Concern:

The undersigned owners of the 122.79 acre tract of land as shown on the annexation petition request exhibit are requesting the annexation of the 94.11 acre portion that is currently not in the City Limits of Bryan. The owners are requesting this annexation to bring the entire 122.79 acre property within the city limits of Bryan with the intent to re-zone all 122.79 acres to a mixed use planned development (PD-M). This future development would be compatible with the current City of Bryan Comprehensive Land Use Plan.

Please note that the Owners will be submitting a Re-Zoning Application for the entire 122.79 acres shortly following this annexation request.

Signed: _____



MDF

6/28/17

Doug French

Title: Manager, CTX Land
Investments, LLC

PETITION REQUESTING ANNEXATION BY AREA LANDOWNERS
TO THE MAYOR OF THE CITY OF BRYAN, TEXAS:

The Undersigned owners of the hereinafter described tract of land which is vacant and without residents, or on which fewer than three qualified voters reside, hereby waive the requirement to be offered a development agreement pursuant to section 43.035, and petition your honorable Body to extend the present city limits so as to include as part of the City of Bryan, Texas, the following described territory, to wit:

STATE OF TEXAS §
COUNTY OF BRAZOS §

FIELD NOTES
PROPOSED ANNEXATION
94.11 ACRES

Being all that certain tract or parcel of land lying and being situated in the MARIA KEGANS LEAGUE, Abstract No. 28, Brazos County, Texas and being part of the 122.79 acre tract described in the deed from The Estate of Mary Susan Horton, Deceased, by Robert Arthur Horton, Independent Executor, Jack Lindsey Horton and Cindy Brock, f/k/a Cynthia Ann Horton to 1983 Land Investments, LLC recorded in Volume 13892, Page 271 of the Official Records of Brazos County, Texas (O.R.B.C.) and being more particularly described by metes and bounds as follows:

BEGINNING: at a found 1/2-inch iron rod marking the east corner of the said 122.79 acre 1983 Land Investments, LLC tract, the south corner of a 10.00 acre tract being the remainder of the called 133.49 acre Robert Arthur Horton, Trustee of the Jack Lindsey Horton Trust tract recorded in Volume 205, Page 87 of the Brazos County Deed Records (B.C.D.R.), said iron rod also being in the northwest margin of Hardy Weedon Road, from whence a found 3-inch pipe post marking the most easterly corner of the said 133.49 acre Horton Trust tract bears N 45° 39' 54" E at a distance of 79.58 feet for reference;

THENCE: along the northwest margin of said Hardy Weedon Road for the following two (2) calls:

- 1) S 45° 39' 54" W for a distance of 865.42 feet to a found capped 1/2-inch iron rod (RPLS 6410) for an angle point, and
- 2) S 44° 21' 54" W for a distance of 1166.86 feet for corner marking the south corner of this tract, from whence a found capped 1/2-inch iron rod (RPLS 6410) marking an angle point in the southeast line of the said 122.79 acre 1983 Land Investments, LLC tract bears S 44° 21' 54" W at a distance of 266.14 feet for reference;

THENCE: into and through the said 122.79 acre 1983 Land Investments, LLC tract for the following three (3) calls:

- 1) N 53° 42' 02" W for a distance of 298.92 feet for corner,
- 2) 882.47 feet in a counter-clockwise direction along the arc of a curve having a central angle of 13° 19' 27", a radius of 3794.79 feet, a tangent of 443.24 feet and a long chord bearing N 58° 46' 23" W at a distance of 880.49 feet for corner, and
- 3) N 70° 13' 41" W for a distance of 553.04 feet for corner in the west line of the said 122.79 acre 1983 Land Investments, LLC tract and the east line of the called 25.21 acre William F. Minyard and Karen Minyard tract recorded in Volume 12956, Page 161 (O.R.B.C.), from whence a found capped 1/2-inch iron rod (RPLS 6410) marking an angle point in the west line of the said 122.79 acre tract bears S 14° 00' 16" W at a distance of 111.09 feet for reference;

THENCE: along the common line of the said 122.79 acre 1983 Land Investments, LLC tract and the said 25.21 acre Minyard tract for the following three (3) calls:

- 1) N 14° 00' 16" E for a distance of 552.33 feet to a found capped 1/2-inch iron rod (RPLS 6410) for an angle point,
- 2) N 13° 38' 40" E for a distance of 882.70 feet to a found 1/2-inch iron rod for an angle point, and


- 3) N 43° 14' 54" E for a distance of 402.21 feet to a found 1/2-inch iron rod marking the most northerly corner of this tract, the northeast corner of the said 25.21 acre Minyard tract and said iron rod also being in the southwest line of the called 157.96 acre John J. Hall and Yolanda C. Hall tract recorded in Volume 242, Page 581 (B.C.D.R.);

THENCE: along the common line of the said 122.79 acre 1983 Land Investments, LLC tract and the said 157.96 acre Hall tract for the following four (4) calls:

- 1) S 46° 17' 00" E for a distance of 417.69 feet to a found capped 1/2-inch iron rod (RPLS 6410) for an angle point,
- 2) S 49° 47' 14" E for a distance of 512.64 feet to a found capped 1/2-inch iron rod (RPLS 6410) for corner,
- 3) N 55° 45' 21" E for a distance of 352.49 feet to an 18-inch diameter post oak tree for an angle point, and
- 4) N 42° 03' 49" E for a distance of 345.60 feet to a found capped 1/2-inch iron rod (RPLS 6410) marking the most easterly north corner of the said 122.79 acre tract and the west corner of the before-mentioned 10.00 acre remainder tract, from whence a found capped 1/2-inch iron rod (RPLS 6410) marking the most northerly corner of the said 133.49 acre Horton Trust tract bears N 42° 03' 49" E at a distance of 517.55 feet for reference;

THENCE: S 49° 04' 58" E along the northeast line of the said 122.79 acre 1983 Land Investments LLC tract for a distance of 1438.24 feet to the POINT OF BEGINNING and containing 94.11 acres of land, more or less.

We certify that the above described tract of land is contiguous and adjacent to the City of Bryan, Texas and that this petition is signed and duly acknowledged by each and every person having an interest in said land.

Signed:  ^{MS}
6/28/17
Doug French

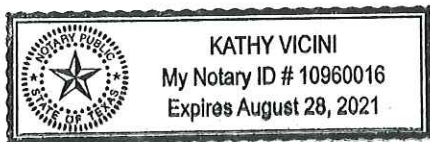
Title: Sole Manager, 1983 Land Investments, LLC

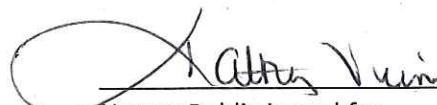
THE STATE OF Texas

COUNTY OF Brazos

BEFORE ME, the undersigned authority, on this day personally appeared Doug French, known to me to be the person whose names are subscribed to the forgoing instrument and each acknowledged to me that he executed the same for the purpose and consideration therein expressed.

Given under my hand and seal of office, this 28th day of June, 2017




Notary Public in and for
Brazos County, Texas

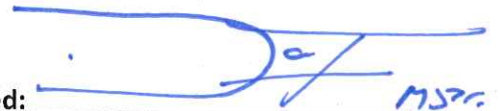
Yaupon Trails Tract
C/O Doug and Randy French
4090 State Hwy 6, South
College Station, TX, 77845
979.690.1222 Ext. 135

To Whom It May Concern:

This letter is meant to describe the need and intent for Stylecraft's annexation request of the 122.79 acre tract.

Stylecraft recently closed on this 122.79 acre tract. Currently 28.68 acres of this property is within city limits and the remaining 94.11 acres are outside of city limits. As you may be familiar, Stylecraft is primarily a single family home builder. As such, our primary objective with purchasing this property is to develop a master planned community to meet the growth needs of the city of Bryan and surrounding areas. We believe this site is in a great location, and possesses many characteristics that make for a successful community. Also, since the tract has +/- 850 feet of frontage on Highway 30, Stylecraft and city staff agreed it would be prudent to allow for a higher use on this frontage. You will notice on the land plan attached herein that there is a 70' overhead electrical line that serves as a natural barrier between this subdivision and other uses. City staff and Stylecraft agree it is best to master plan this property through the zoning of a Mixed Use – Planned Development (PD-M) due to some of the unique characteristics. In short the master plan will allow for approximately 340 home sites, a proposed 7 acre city park, more than 3,000 feet of 10' concrete trails in common areas, and +/- 28 acres in front of the electrical easement as higher density single family, and commercial uses to be determined.

Signed: _____



MSPC
6/28/17

Doug French

Title: Manager, CTX Land
Investments, LLC

Annexation Petition Request Exhibit

FIELD NOTES
PROPOSED ANNEXATION
94.11 ACRES

Being all that certain tract or parcel of land lying and being situated in the MARIA KEGANS LEAGUE, Abstract No. 28, Brazos County, Texas and being part of the 122.79 acre tract described in the deed from The Estate of Mary Susan Horton, Deceased, by Robert Arthur Horton, Independent Executor, Jack Lindsey Horton and Cindy Brock, f/k/a Cynthia Ann Horton to 1983 Land Investments, LLC recorded in Volume 13892, Page 271 of the Official Records of Brazos County, Texas (O.R.B.C.) and being more particularly described by metes and bounds as follows:

BEGINNING: at a found 1/2-inch iron rod marking the east corner of the said 122.79 acre 1983 Land Investments, LLC tract, the south corner of a 10.00 acre tract being the remainder of the called 133.49 acre Robert Arthur Horton, Trustee of the Jack Lindsey Horton Trust tract recorded in Volume 205, Page 87 of the Brazos County Deed Records (B.C.D.R.), said iron rod also being in the northwest margin of Hardy Weedon Road, from whence a found 3-inch pipe post marking the most easterly corner of the said 133.49 acre Horton Trust tract bears N 45° 39' 54" E at a distance of 79.58 feet for reference;

THENCE: along the northwest margin of said Hardy Weedon Road for the following two (2) calls:

- 1) S 45° 39' 54" W for a distance of 865.42 feet to a found capped 1/2-inch iron rod (RPLS 6410) for an angle point, and
- 2) S 44° 21' 54" W for a distance of 1166.86 feet for corner marking the south corner of this tract, from whence a found capped 1/2-inch iron rod (RPLS 6410) marking an angle point in the southeast line of the said 122.79 acre 1983 Land Investments, LLC tract bears S 44° 21' 54" W at a distance of 266.14 feet for reference;

THENCE: into and through the said 122.79 acre 1983 Land Investments, LLC tract for the following three (3) calls:

- 1) N 53° 42' 02" W for a distance of 298.92 feet for corner,
- 2) 882.47 feet in a counter-clockwise direction along the arc of a curve having a central angle of 13° 19' 27", a radius of 3794.79 feet, a tangent of 443.24 feet and a long chord bearing N 58° 46' 23" W at a distance of 880.49 feet for corner, and
- 3) N 70° 13' 41" W for a distance of 553.04 feet for corner in the west line of the said 122.79 acre 1983 Land Investments, LLC tract and the east line of the called 25.21 acre William F. Minyard and Karen Minyard tract recorded in Volume 12956, Page 161 (O.R.B.C.), from whence a found capped 1/2-inch iron rod (RPLS 6410) marking an angle point in the west line of the said 122.79 acre tract bears S 14° 00' 16" W at a distance of 111.09 feet for reference;

THENCE: along the common line of the said 122.79 acre 1983 Land Investments, LLC tract and the said 25.21 acre Minyard tract for the following three (3) calls:

- 1) N 14° 00' 16" E for a distance of 552.33 feet to a found capped 1/2-inch iron rod (RPLS 6410) for an angle point,
- 2) N 13° 38' 40" E for a distance of 882.70 feet to a found 1/2-inch iron rod for an angle point, and

- 3) N 43° 14' 54" E for a distance of 402.21 feet to a found 1/2-inch iron rod marking the most northerly corner of this tract, the northeast corner of the said 25.21 acre Minyard tract and said iron rod also being in the southwest line of the called 157.96 acre John J. Hall and Yolanda C. Hall tract recorded in Volume 242, Page 581 (B.C.D.R.);

THENCE: along the common line of the said 122.79 acre 1983 Land Investments, LLC tract and the said 157.96 acre Hall tract for the following four (4) calls:

- 1) S 46° 17' 00" E for a distance of 417.69 feet to a found capped 1/2-inch iron rod (RPLS 6410) for an angle point,
- 2) S 49° 47' 14" E for a distance of 512.64 feet to a found capped 1/2-inch iron rod (RPLS 6410) for corner,
- 3) N 55° 45' 21" E for a distance of 352.49 feet to an 18-inch diameter post oak tree for an angle point, and
- 4) N 42° 03' 49" E for a distance of 345.60 feet to a found capped 1/2-inch iron rod (RPLS 6410) marking the most easterly north corner of the said 122.79 acre tract and the west corner of the before-mentioned 10.00 acre remainder tract, from whence a found capped 1/2-inch iron rod (RPLS 6410) marking the most northerly corner of the said 133.49 acre Horton Trust tract bears N 42° 03' 49" E at a distance of 517.55 feet for reference;

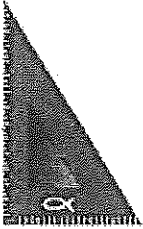
THENCE: S 49° 04' 58" E along the northeast line of the said 122.79 acre 1983 Land Investments LLC tract for a distance of 1438.24 feet to the POINT OF BEGINNING and containing 94.11 acres of land, more or less.

Utility Letter

BLEYL ENGINEERING

PLANNING • DESIGN • MANAGEMENT

1722 Broadmoor, Suite 210
Bryan, Texas 77802
Tex. Reg. No. F-678
www.bleylengineering.com



June 28, 2017

Mr. Martin Zimmerman
City of Bryan
Planning & Development Services
300 S. Texas Ave.
Bryan, Texas 77803

RE: Request for Annexation – Yaupon Trails
Stylecraft Builders, Inc.
A002801, Maria Kegan (ICL), Tract 16, Called 122.47 Acres

Dear Mr. Zimmerman:

The City has requested Bleyl Engineering to provide a projection of water and wastewater demand in support of a petition requesting annexation by area landowners. This letter supports the Petition for Annexation of 94.11 acres of the referenced tract into a Mixed Use-Planned Development (PD-M).

Bleyl Engineering projected the water and sewer demands using BCS Unified Design Guidelines, Domestic Water and Sanitary Sewer Method 2 – Land Use Determination.

Please find the following:

- Water and Sanitary Sewer Demand Calculations: (reference: BCS Unified Design Guidelines, Domestic Water and Sanitary Sewer)
 - A total of 350 Residential lots by Land Plan for Residential.
 - 4 peak factor (Normal Flow)
 - Normal Flow
[350 lots * 2.67 persons/lot * 100 GPD/capita]
= 93,450 GPD
 - Peak Flow
93,450*4
= 373,800 GPD

Sincerely,

Sam J. Vernon, P.E.
Regional Manager/Design Engineer

Conroe
(936) 441-7833

Bryan
(979) 268-1125

Austin
(512) 328-7878

San Angelo
(325) 262-4082

La Porte
(281) 470-0955

Houston
(936) 271-9600

"In city" portion of property

FIELD NOTES
28.68 ACRES

Being all that certain tract or parcel of land lying and being situated in the MARIA KEGANS LEAGUE, Abstract No. 28, Brazos County, Texas and being part of the 122.79 acre tract described in the deed from The Estate of Mary Susan Horton, Deceased, by Robert Arthur Horton, Independent Executor, Jack Lindsey Horton and Cindy Brock, f/k/a Cynthia Ann Horton to 1983 Land Investments, LLC recorded in Volume 13892, Page 271 of the Official Records of Brazos County, Texas (O.R.B.C.) and being more particularly described by metes and bounds as follows:

BEGINNING: at a found 1/2-inch iron rod marking the south corner of the said 122.79 acre 1983 Land Investments, LLC tract, said iron rod also being at the intersection of the northeast right-of-way line of State Highway No. 30 and the northwest margin of Hardy Weedon Road;

THENCE: along the northeasterly right-of-way line of said State Highway No. 30 for the following two (2) calls:

- 1) N 53° 42' 02" W for a distance of 207.20 feet to a found 1/2-inch iron rod marking the Point of Curvature of a curve to the left, and
- 2) 662.53 feet along the arc of said curve having a central angle of 12° 53' 26", a radius of 2944.79 feet, a tangent of 332.67 feet and a long chord bearing N 58° 20' 29" W at a distance of 661.13 feet to a found 1/2-inch iron rod marking an angle point in the said 122.79 acre 1983 Land Investments, LLC tract and the southeast corner of the remainder of the called 36.71 acre Gus Edward Biering, Jr. tract recorded in Volume 10757, Page 274 (O.R.B.C.);

THENCE: along the common line of the said 122.79 acre 1983 Land Investments, LLC tract and the called 36.71 acre Biering tract for the following three (3) calls:

- 1) N 46° 53' 37" W for a distance of 493.37 feet to a found 1/2-inch iron rod for corner,
- 2) N 13° 40' 06" E, at 500.12 feet, pass the southeast corner of the called 25.21 acre William F. Minyard and Karen Minyard tract recorded in Volume 12956, Page 161 (O.R.B.C.), continue along the east line of the said 25.21 acre tract for a total distance of 547.15 feet to a found 1/2-inch iron rod for an angle point, and
- 3) N 14° 00' 16" E for a distance of 111.09 feet for corner;

THENCE: into and through the said 122.79 acre 1983 Land Investments, LLC tract for the following three (3) calls:

- 1) S 70° 13' 41" E for a distance of 560.19 feet for corner,
- 2) 882.47 feet in a clockwise direction along the arc of a curve having a central angle of 13° 19' 27", a radius of 3794.79 feet, a tangent of 443.24 feet and a long chord bearing S 58° 46' 23" E at a distance of 880.49 feet for corner, and
- 3) S 53° 42' 02" E for a distance of 298.92 feet for corner in the northwest margin of said Hardy Weedon Road;

THENCE: along the northwest margin of said Hardy Weedon Road for the following two (2) calls:

- 1) S 44° 21' 54" W for a distance of 266.14 feet to a found 1/2-inch iron rod for an angle point, and
- 2) S 42° 48' 32" W for a distance of 590.30 feet to the POINT OF BEGINNING and containing 28.68 acres of land, more or less.



Entire Tract

METES AND BOUNDS DESCRIPTION

122.79 ACRE TRACT

Maria Kegans League

A - 28

Brazos County, Texas

Being a 122.79 acre tract of land out of Maria Kegans League, Abstract No. 28, Brazos County, Texas and being the remainder of that certain called 133.49 acre tract of land described to Robert Arthur Horton, Trustee of the Jack Lindsey Horton Trust, recorded in Volume 205, Page 87 of the Deed Records of Brazos County, Texas, said 122.79 acres being more particularly described by metes and bounds as follows;

BEGINNING at a 1/2 inch iron rod found at a fence corner at the southeast corner of the above mentioned remainder tract, located at the intersection of the north line of Highway 30 and the west line of Hardy Weedon Road, for the southeast corner of this;

THENCE along the south line of said remainder tract, along the north right of way of said highway, and along a fence line the following courses and distances:

N 53°42'02" W a distance of 207.20 feet to a 1/2 inch iron rod with yellow cap set for an angle point, and

with a curve turning to the left with an arc length of 662.52 feet, with a radius of 2944.79 feet, a chord bearing of N 58°20'29" W, a chord length of 661.13 feet to a 1/2 inch iron rod found at a fence corner at an angle point of said remainder tract, same being the southeast corner of the remainder of a called 36.71 acre tract to Gus Edward Biering, Jr., (10757/274), for an angle point of this;

THENCE departing said highway right of way, continuing along said south line, common boundary with said 36.71 acre remainder tract and along a fence line N 46°53'37" W a distance of 493.37 feet to a 1/2 inch iron rod found at a fence corner post at the southwest corner of said 133.49 acre remainder tract, being an interior corner of said 36.71 acre remainder tract, for the southwest corner of this;

THENCE along the west line of said 133.49 acre remainder tract, common boundary with said 36.71 acre remainder tract and a called 25.21 acre tract to William F. Minyard and Karen Minyard, (12956/161), and along a fence line the following courses and distances:

N 13°40'06" E a distance of 547.15 feet to a 1/2 inch iron rod with yellow cap set for an angle point,

N 14°00'16" E a distance of 663.42 feet to a 1/2 inch iron rod with yellow cap set for an angle point,

N 13°38'40" E a distance of 882.70 feet to a 1/2 inch iron rod found at a fence corner post for an angle point, and

N 43°14'54" E a distance of 402.21 feet to a 1/2 inch iron rod found at a fence cedar corner post at the most westerly northwest corner of said 133.49 acre remainder tract, same being the northeast corner of said 25.21 acre tract, located on the south line of a called 157.96 acre tract to John J. Hall and Yolanda C. Hall, (242/581), for the most westerly northwest corner of this;

THENCE along a northerly line of said 133.49 acre remainder tract, common boundary with said 157.96 acre tract and along a fence line the following courses and distances:

S 46°17'00" E a distance of 417.69 feet to a 1/2 inch iron rod with yellow cap set for an angle point, and

S 49°47'14" E a distance of 512.64 feet to a 1/2 inch iron rod with yellow cap set at a fence corner at an interior corner of said 133.49 acre remainder tract, same being the southeast corner of said 157.96 acre tract, for an interior corner of this;



THENCE along the west line of said 133.49 acre remainder tract, common boundary with said 157.96 acre tract and along a fence line the following courses and distances:

N 55°45'21" E a distance of 352.49 feet to a 18 inch post oak tree for an angle point, and N 42°03'49" E a distance of 345.60 feet to a 1/2 inch iron rod with yellow cap set for the most northerly northwest corner of this;

THENCE crossing said 133.49 acre remainder tract, S 49°04'58" E a distance of 1438.24 feet to a 1/2 inch iron rod with yellow cap set on the southeast line of said 133.49 acre tract, located on the northwest line of said Hardy Weedon Road, for the southeast corner of this;

THENCE along the southeast line of said 133.49 acre remainder tract, common boundary with Hardy Weedon Road the following courses and distances:

S 45°39'54" W a distance of 865.42 feet to a 1/2 inch iron rod with yellow cap set for an angle point,
S 44°21'54" W a distance of 1382.50 feet to a 1/2 inch iron rod with yellow cap set for an angle point, and
S 42°48'32" W a distance of 590.30 feet to the **POINT OF BEGINNING**, in all containing 122.79 acres of land.

All bearings and distances are based on State Plane Coordinate System, Texas Central Zone, Nad 1983.

This description to accompany a plat of like date representing an on the ground survey supervised by me Tyler Tumlinson, Registered Professional Land Surveyor.

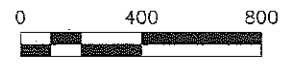
October 7, 2016

A handwritten signature in black ink, appearing to read "Tyler Tumlinson", is written over a horizontal line.

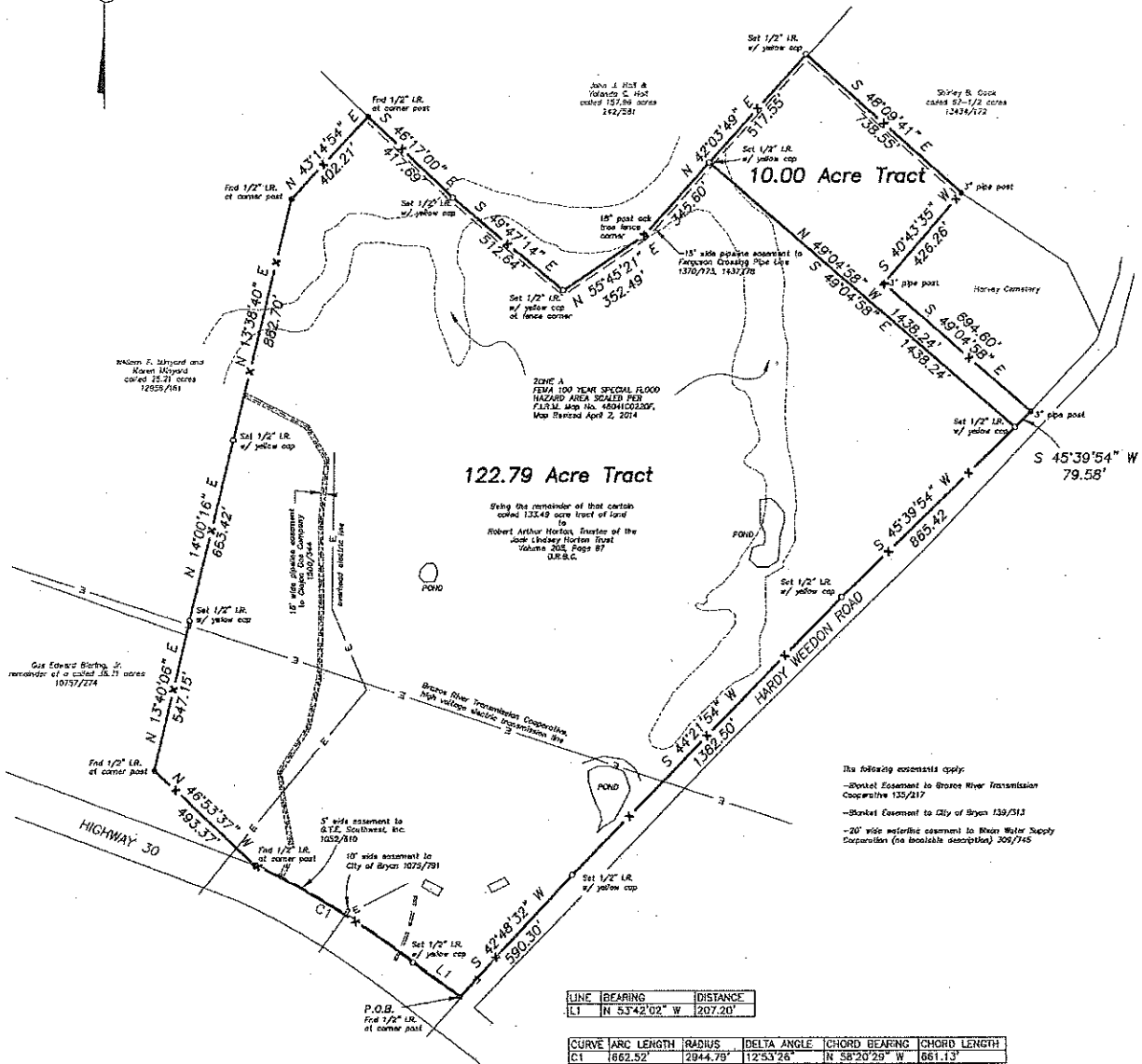
Tyler Tumlinson
RPLS No. 6410
Firm #10193858
00726-DAV



Entire Tract Survey



MARIA KEGANS LEAGUE
A - 28
BRAZOS COUNTY, TEXAS



LINE	BEARING	DISTANCE
L1	N 53°42'02\" W	207.20'

CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	662.52'	2944.79'	12°53'26\"	N 56°20'29\" W	661.13'

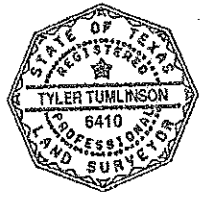
- The following easements apply:
- Easement to Brazos River Transmission Cooperative 135/217
 - Easement to City of Bryan 133/313
 - 20' wide utility easement to Brazos Water Supply Corporation (in beneficial description) 309/745

I, Tyler Tumlinson, Registered Professional Land Surveyor, do hereby certify that this survey was made on the ground of the property, legally described hereon, and is correct; and that there are no discrepancies, conflicts, shortages in area, boundary line conflicts, encroachments at ground level, overlapping of improvements, easements, or apparent rights of way, except as shown hereon, and said property has access to and from a dedicated roadway, except as shown hereon

All bearings and distances are based on State Plane Coordinate System, Texas Central Zone, NAD 1983.

T. Tumlinson
Tyler Tumlinson, R.P.L.S. No 6410

October 7, 2016

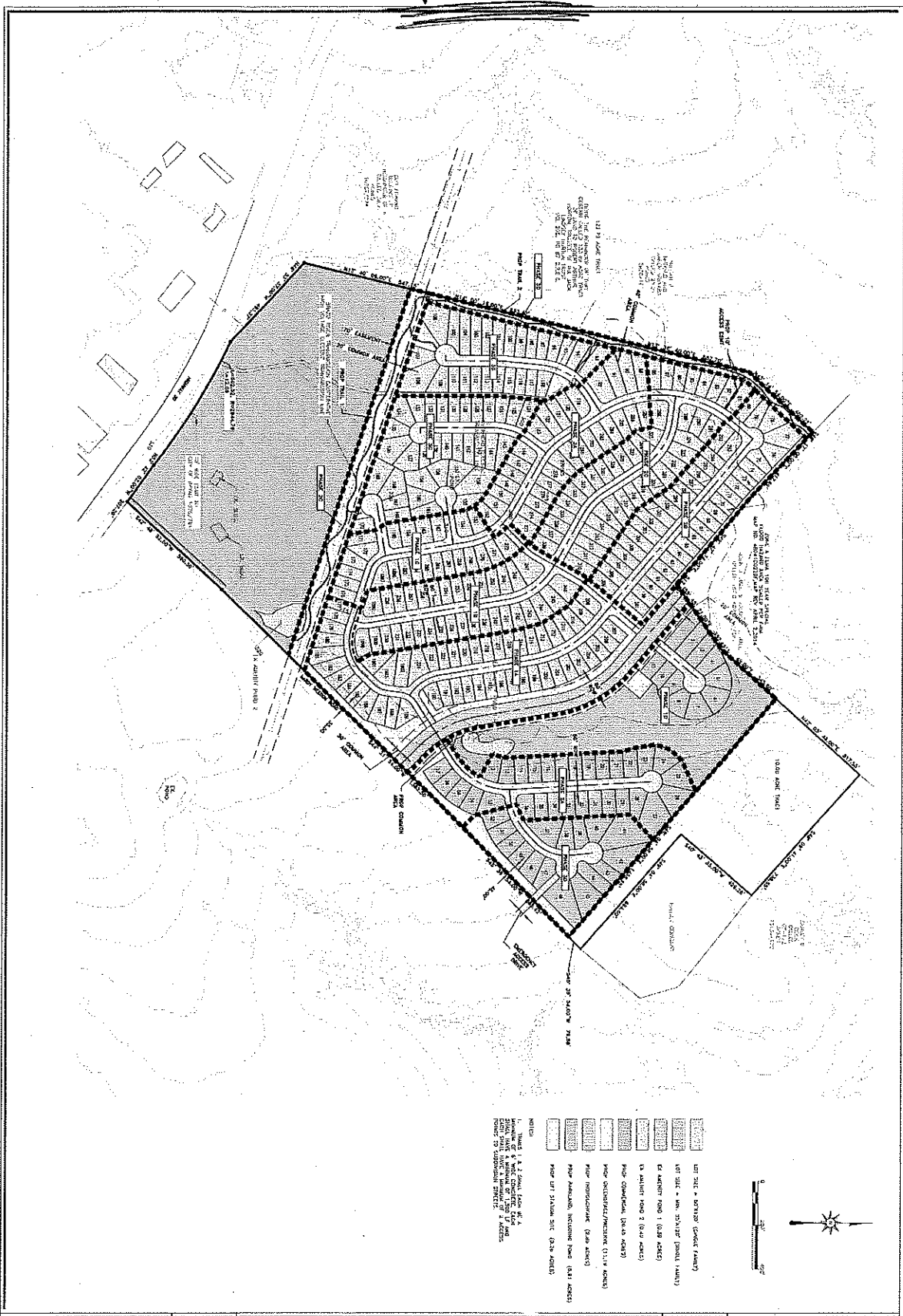


TUMLINSON LAND SURVEYING
2423 Peach Creek Road
College Station, Texas 77845
(254) 931-6707
FRM #10193858

BOUNDARY AND IMPROVEMENT SURVEY
122.79 ACRE TRACT OF LAND AND A 10.00 ACRE TRACT OF
LAND OUT OF THE MARIA KEGANS LEAGUE, A-28,
BRAZOS COUNTY, TEXAS.

PROJECT:	00726-DAV
FIELD DATE:	7-21-2016
SURVEYOR:	T. TUMLINSON
DRAWN BY:	T. TUMLINSON
FIELDBOOK:	see file

"Proposed Land Plan"



- LEGEND
- LOT 1 - 1/2 ACRES (200' x 250')
 - LOT 2 - 1/2 ACRES (200' x 250')
 - LOT 3 - 1/2 ACRES (200' x 250')
 - LOT 4 - 1/2 ACRES (200' x 250')
 - LOT 5 - 1/2 ACRES (200' x 250')
 - LOT 6 - 1/2 ACRES (200' x 250')
 - LOT 7 - 1/2 ACRES (200' x 250')
 - LOT 8 - 1/2 ACRES (200' x 250')
 - LOT 9 - 1/2 ACRES (200' x 250')
 - LOT 10 - 1/2 ACRES (200' x 250')
 - LOT 11 - 1/2 ACRES (200' x 250')
 - LOT 12 - 1/2 ACRES (200' x 250')
 - LOT 13 - 1/2 ACRES (200' x 250')
 - LOT 14 - 1/2 ACRES (200' x 250')
 - LOT 15 - 1/2 ACRES (200' x 250')
 - LOT 16 - 1/2 ACRES (200' x 250')
 - LOT 17 - 1/2 ACRES (200' x 250')
 - LOT 18 - 1/2 ACRES (200' x 250')
 - LOT 19 - 1/2 ACRES (200' x 250')
 - LOT 20 - 1/2 ACRES (200' x 250')
 - LOT 21 - 1/2 ACRES (200' x 250')
 - LOT 22 - 1/2 ACRES (200' x 250')
 - LOT 23 - 1/2 ACRES (200' x 250')
 - LOT 24 - 1/2 ACRES (200' x 250')
 - LOT 25 - 1/2 ACRES (200' x 250')
 - LOT 26 - 1/2 ACRES (200' x 250')
 - LOT 27 - 1/2 ACRES (200' x 250')
 - LOT 28 - 1/2 ACRES (200' x 250')
 - LOT 29 - 1/2 ACRES (200' x 250')
 - LOT 30 - 1/2 ACRES (200' x 250')
 - LOT 31 - 1/2 ACRES (200' x 250')
 - LOT 32 - 1/2 ACRES (200' x 250')
 - LOT 33 - 1/2 ACRES (200' x 250')
 - LOT 34 - 1/2 ACRES (200' x 250')
 - LOT 35 - 1/2 ACRES (200' x 250')
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 - LOT 100 - 1/2 ACRES (200' x 250')



0 20 40 60 80 100

YAUPON TRAILS

LAND PLAN

PROJECT	YAUPON TRAILS
DATE	11/11/11
SHEET	1P
SCALE	1" = 40'
DESIGNED BY	LP
CHECKED BY	
DATE	
PROJECT NO.	
SHEET NO.	
TOTAL SHEETS	

STATE OF TEXAS
COUNTY OF HARRIS

SQUARED ENGINEERING
 15000 W. HIGHTWAY 290, SUITE 100
 HOUSTON, TEXAS 77058
 WWW.SQUAREDENGINEERING.COM
 281.488.8888

RESOLUTION NO. 3716

A RESOLUTION GRANTING A PETITION SEEKING ANNEXATION OF 94.11 ACRES OF LAND OUT OF THE MARIA KEGANS LEAGUE, ABSTRACT NO. 28, ADJOINING THE NORTHWEST SIDE OF HARDY WEEDON ROAD, 845 FEET TO 2,000 FEET NORTH FROM ITS INTERSECTION WITH STATE HIGHWAY 30/FM158 IN BRAZOS COUNTY, TEXAS, LYING ADJACENT AND CONTIGUOUS TO THE PRESENT CORPORATE LIMITS OF THE CITY OF BRYAN; ADOPTING A TIMETABLE FOR COMPLETING ANNEXATION; DIRECTING CITY STAFF TO PERFORM ACTIVITIES NECESSARY FOR THE INITIATION OF ANNEXATION PROCEEDINGS, AS REQUIRED BY STATE LAW AND PROVIDING AN EFFECTIVE DATE;

WHEREAS, the City of Bryan, Texas is a home-rule municipality authorized by State law and the City Charter to annex territory lying adjacent and contiguous to the corporate limits of said City of Bryan, Texas; and

WHEREAS, the owners of 94.11 acres of land out of the Maria Kegans League, Abstract No. 28, adjoining the northwest side of Hardy Weedon Road, 845 feet to 2,000 feet north from its intersection with State Highway 30/FM158 in Brazos County, Texas, have submitted a written petition for annexation of said 94.11 acres of land to the City of Bryan under Section 43.028 of the Texas Local Government Code; and

WHEREAS, the above-described property lies adjacent and contiguous to the present corporate limits of the City of Bryan, is one-half mile or less in width, vacant and without residents or on which fewer than three qualified voters reside, as required by Section 43.028 of the Texas Local Government Code; and

WHEREAS, Section 43.028 of the Texas Local Government Code requires the governing body of a municipality to grant or refuse petitions seeking annexation; and

WHEREAS, Section 43.063 of the Texas Local Government Code requires that before a municipality may institute annexation proceedings, the governing body must conduct two public hearings at which all persons interested in the annexation are given the opportunity to be heard; and

WHEREAS, Section 43.065 of the Texas Local Government Code requires that before the publication of the notice of the first hearing required under Section 43.063 of the Texas Local Government Code, the governing body of the municipality shall direct its planning department or other appropriate municipal department to prepare a service plan that provides for the extension of full municipal services to the area to be annexed;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BRYAN, TEXAS:

1.

That the City of Bryan hereby grants the petition seeking annexation by the owners of 94.11 acres of land out of the Maria Kegans League, Abstract No. 28, adjoining the northwest side of Hardy Weedon Road, 845 feet to 2000 feet north from its intersection with State Highway 30/FM158 in Brazos County, Texas said 94.11 acres being part of the 122.79 acre tract depicted on attached Exhibit "A" and described more particularly by metes-and-bounds on attached Exhibit "B".

2.

That the City of Bryan hereby adopts a timetable for completing annexation of the above-described property, providing for all public hearings to be held within the time required by law, as described on Exhibit "C" attached to this Resolution.

3.

That city staff is hereby directed to prepare a service plan that provides for the extension of full municipal services to the above-described property, publish appropriate notices, and perform other activities necessary for the initiation of annexation proceedings, as required by state law.

4.

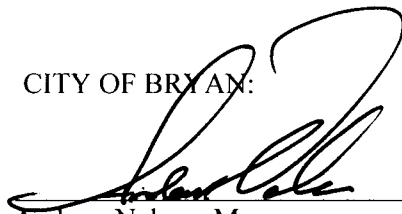
That this Resolution shall be effective immediately upon its passage and approval.

PASSED AND APPROVED this the 25th day of July, 2017.

ATTEST:

CITY OF BRYAN:


Mary Lynne Stratta, City Secretary

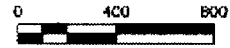

Andrew Nelson, Mayor

APPROVED AS TO FORM:

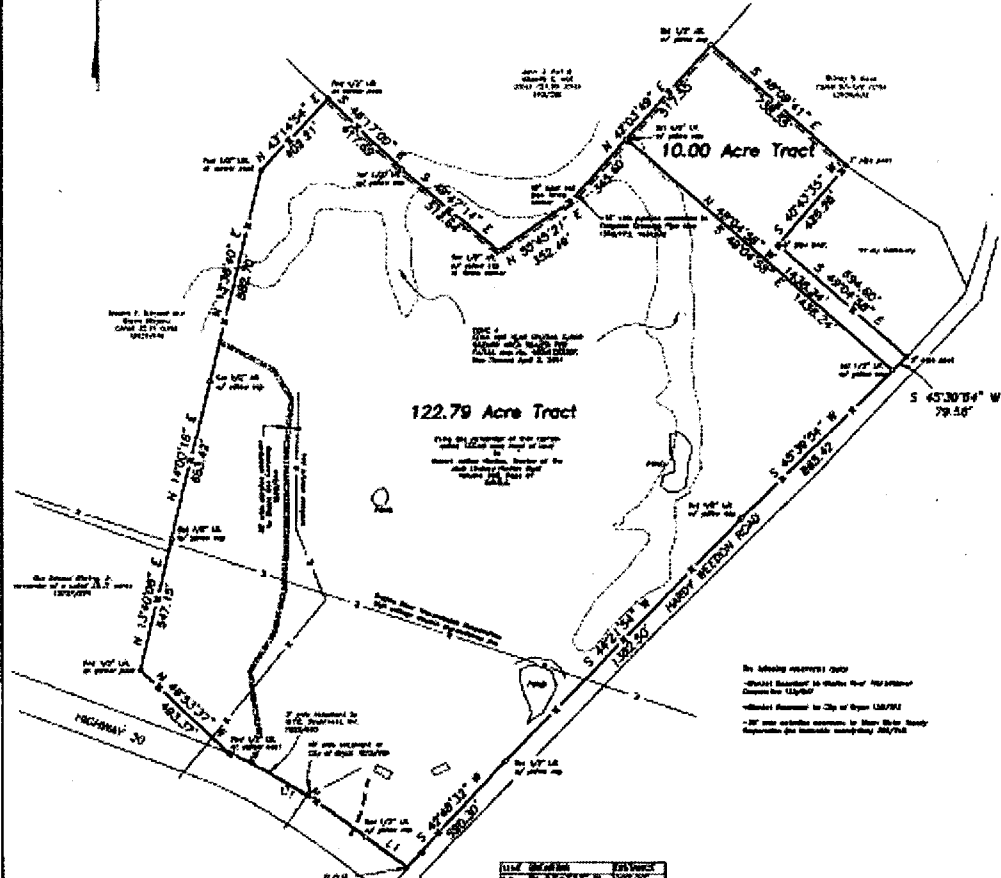

Janis K. Hampton, City Attorney

Exhibit "A":

Entire Tract Survey



MARIA KEGANS LEAGUE
A - 28
BRAZOS COUNTY, TEXAS



DATE	BY
10-07-2018	T. TUMLINSON

I, Tyler Tumlinson, Registered Professional Land Surveyor, do hereby certify that this survey was made on the ground of the property, legally described hereon, and is correct; and that there are no discrepancies, conflicts, shortages in area, boundary line conflicts, encroachments at ground level, overlapping of improvements, easements, or apparent rights of way, except as shown hereon, and said property has access to and from a dedicated roadway, except as shown hereon.

All bearings and distances are based on State Plane Coordinate System, Texas Central Zone, NAD 1983.

T. Tumlinson
Tyler Tumlinson, R.P.L.S. No 8410

October 7, 2018



2423 Peach Creek Road
College Station, Texas 77805
(281) 831-4207
FAX (281) 831-4208

BOUNDARY AND IMPROVEMENT SURVEY
122.79 ACRE TRACT OF LAND AND A 10.00 ACRE TRACT OF
LAND OUT OF THE MARIA KEGANS LEAGUE, A-28,
BRAZOS COUNTY, TEXAS.

PROJECT	00722-027
FIELD DATE	7-21-2018
SURVEYOR	T. TUMLINSON
BOARDS BY	T. TUMLINSON
FILE NO.	000000

Exhibit "B":

FIELD NOTES
PROPOSED ANNEXATION
94.11 ACRES

Being all that certain tract or parcel of land lying and being situated in the MARIA KEGANS LEAGUE, Abstract No. 28, Brazos County, Texas and being part of the 122.79 acre tract described in the deed from The Estate of Mary Susan Horton, Deceased, by Robert Arthur Horton, Independent Executor, Jack Lindsey Horton and Cindy Brock, f/k/a Cynthia Ann Horton to 1983 Land Investments, LLC recorded in Volume 13892, Page 271 of the Official Records of Brazos County, Texas (O.R.B.C.) and being more particularly described by metes and bounds as follows:

BEGINNING: at a found 1/2-inch iron rod marking the east corner of the said 122.79 acre 1983 Land Investments, LLC tract, the south corner of a 10.00 acre tract being the remainder of the called 133.49 acre Robert Arthur Horton, Trustee of the Jack Lindsey Horton Trust tract recorded in Volume 205, Page 87 of the Brazos County Deed Records (B.C.D.R.), said iron rod also being in the northwest margin of Hardy Weedon Road, from whence a found 3-inch pipe post marking the most easterly corner of the said 133.49 acre Horton Trust tract bears N 45° 39' 54" E at a distance of 79.58 feet for reference;

THENCE: along the northwest margin of said Hardy Weedon Road for the following two (2) calls:

- 1) S 45° 39' 54" W for a distance of 865.42 feet to a found capped 1/2-inch iron rod (RPLS 6410) for an angle point, and
- 2) S 44° 21' 54" W for a distance of 1166.86 feet for corner marking the south corner of this tract, from whence a found capped 1/2-inch iron rod (RPLS 6410) marking an angle point in the southeast line of the said 122.79 acre 1983 Land Investments, LLC tract bears S 44° 21' 54" W at a distance of 266.14 feet for reference;

THENCE: into and through the said 122.79 acre 1983 Land Investments, LLC tract for the following three (3) calls:

- 1) N 53° 42' 02" W for a distance of 298.92 feet for corner,
- 2) 882.47 feet in a counter-clockwise direction along the arc of a curve having a central angle of 13° 19' 27", a radius of 3794.79 feet, a tangent of 443.24 feet and a long chord bearing N 58° 46' 23" W at a distance of 880.49 feet for corner, and
- 3) N 70° 13' 41" W for a distance of 553.04 feet for corner in the west line of the said 122.79 acre 1983 Land Investments, LLC tract and the east line of the called 25.21 acre William F. Minyard and Karen Minyard tract recorded in Volume 12956, Page 161 (O.R.B.C.), from whence a found capped 1/2-inch iron rod (RPLS 6410) marking an angle point in the west line of the said 122.79 acre tract bears S 14° 00' 16" W at a distance of 111.09 feet for reference;

THENCE: along the common line of the said 122.79 acre 1983 Land Investments, LLC tract and the said 25.21 acre Minyard tract for the following three (3) calls:

- 1) N 14° 00' 16" E for a distance of 552.33 feet to a found capped 1/2-inch iron rod (RPLS 6410) for an angle point,
- 2) N 13° 38' 40" E for a distance of 882.70 feet to a found 1/2-inch iron rod for an angle point, and

- 3) N 43° 14' 54" E for a distance of 402.21 feet to a found 1/2-inch iron rod marking the most northerly corner of this tract, the northeast corner of the said 25.21 acre Minyard tract and said iron rod also being in the southwest line of the called 157.96 acre John J. Hall and Yolanda C. Hall tract recorded in Volume 242, Page 581 (B.C.D.R.);

THENCE: along the common line of the said 122.79 acre 1983 Land Investments, LLC tract and the said 157.96 acre Hall tract for the following four (4) calls:

- 1) S 46° 17' 00" E for a distance of 417.69 feet to a found capped 1/2-inch iron rod (RPLS 6410) for an angle point,
- 2) S 49° 47' 14" E for a distance of 512.64 feet to a found capped 1/2-inch iron rod (RPLS 6410) for corner,
- 3) N 55° 45' 21" E for a distance of 352.49 feet to an 18-inch diameter post oak tree for an angle point, and
- 4) N 42° 03' 49" E for a distance of 345.60 feet to a found capped 1/2-inch iron rod (RPLS 6410) marking the most easterly north corner of the said 122.79 acre tract and the west corner of the before-mentioned 10.00 acre remainder tract, from whence a found capped 1/2-inch iron rod (RPLS 6410) marking the most northerly corner of the said 133.49 acre Horton Trust tract bears N 42° 03' 49" E at a distance of 517.55 feet for reference;

THENCE: S 49° 04' 58" E along the northeast line of the said 122.79 acre 1983 Land Investments LLC tract for a distance of 1438.24 feet to the POINT OF BEGINNING and containing 94.11 acres of land, more or less.

Exhibit "C":

**TIMETABLE FOR COMPLETING REQUESTED ANNEXATION OF 94.11 ACRES OF LAND
OUT OF THE MARIA KEGANS LEAGUE, ABSTRACT NO. 28, BRAZOS COUNTY, TEXAS**

- September 2017: public hearing at which all persons interested in the annexation are given the opportunity to be heard, to be held during a regular meeting of Bryan's Planning and Zoning Commission (the Planning and Zoning Commission will then make a recommendation concerning the proposed annexation)
- September/October 2017: first and second public hearings at which all persons interested in the annexation are given the opportunity to be heard, to be held during a regular meeting of Bryan's City Council
- October/November 2017: first reading of annexation ordinance during regular meeting of Bryan's City Council
- October/November 2017: second reading/adoption of annexation ordinance during regular meeting of Bryan's City Council

FM 158

City of Bryan Limits

122.79 Acres
1983 Land Investments, LLC
13892/271

Scale:
1"=300'

10.00 Acres
Horton
205/87

Hardy Weedon Road
3.25 Acres

20.13 Acres
James Anderson
314/349

12.31 Acres
Robert Krupa
2045/113

21.86 Acres
Parke-Thompson
1270/41

1.23 Acres
Douglas Magby
9205/135

71.40 Acres
Ilam Grant
249/9

DRAFT
MUNICIPAL SERVICE PLAN FOR TERRITORY
ANNEXED TO THE CITY OF BRYAN, TEXAS ON OCTOBER 24, 2017

A. SERVICES PROVIDED UPON THE EFFECTIVE DATE OF ANNEXATION

1. POLICE PROTECTION

The City of Bryan, Texas and its Police Department will provide police protection to the newly annexed territory at the same or similar service now being provided to other areas of the City of Bryan, Texas which exhibit land use and population densities similar to that of the newly annexed area. The City's adopted ordinances extend to the newly annexed area and are applied equally to all areas of the City based on the policy and wording of such ordinances. The average dispatch and delivery time, equipment dedication to service areas, and staffing requirements are comparable to the average provided to other areas of the City of Bryan, Texas which exhibit land use and population densities similar to that of the newly annexed area.

2. FIRE PROTECTION AND EMERGENCY MEDICAL SERVICE

The City of Bryan, Texas and its Fire Department will provide fire protection and ambulance service to the newly annexed territory at the same or similar level of service now being provided to other areas of the City of Bryan, Texas which exhibit land use and population densities similar to that of the newly annexed area. Furthermore, the City of Bryan Fire Department will respond to all dispatched calls (including emergency medical services) and other requests for service or assistance within the newly annexed area, the same as it would within other areas inside the City limits of Bryan. The City's adopted Fire Code shall extend to the newly annexed area and is equally applicable to all areas of the City.

3. SOLID WASTE COLLECTION

The City of Bryan, Texas and its Environmental Services Department will provide solid waste collection and disposal service to the newly annexed territory at the same or similar level of service now being provided to other areas of the City of Bryan, Texas which exhibit land use and population densities similar to that of the newly annexed area. As a fee-for-service the providing of this service shall be applied to the newly annexed area on an equal basis to that provided to the average and typical comparable area of the City of Bryan, Texas which exhibit land use and population densities similar to that of the newly annexed area.

4. WATER DISTRIBUTION SERVICE

The entirety of the area to be annexed is part of the Wickson Creek Special Utility District's CCN (Certificate of Convenience and Necessity) area, and therefore may not be provided with City water service, under the Texas Water Code. See Water CCN Map, attached as **Exhibit B-1**. The City of Bryan does not possess any authority or control over the policies, practices, and procedures of the Wickson Creek Special Utility District or the CCN. Areas to be annexed which are currently served by the Wickson Creek Special Utility District will continue to receive such service pursuant to the Wickson Special Utility District policies and procedures unless arrangements are made between the City and the Wickson Creek Special Utility District and are approved by the State of Texas, as required by the Texas Water Code. The City is under no obligation to enter into any such arrangements but may if it chooses. Residents and businesses in the newly annexed area will be subject to the same service policies and procedures as apply to other areas of the City of Bryan that are part of another entity's CCN. All water

service facilities under the City of Bryan's direct jurisdiction at any point in the future, including new facilities which may be installed by developers of land within this newly annexed territory, will be operated, maintained, monitored and inspected in accordance with established policies and procedures.

5. WASTEWATER SERVICE

The area to be annexed is within College Station's sanitary sewer CCN, and is provided with sewer services by the City of College Station under both the CCN and an interlocal agreement executed by the cities of Bryan and College Station on December 15, 2011, attached as **Exhibit B-3**. See also Wastewater CCN Map, attached as **Exhibit B-2**.

Any and all wastewater service facilities in the newly annexed area owned or maintained by the City of College Station, Texas at the time of annexation shall continue to be maintained by the City of College Station pursuant to the City of College Station's policies, practices and procedures. Any and all wastewater service facilities which may be acquired subsequent to annexation of the subject territory shall be maintained by the City of College Station, to the extent of its ownership and the interlocal agreement attached as **Exhibit B-3**. Areas which are currently served by the City of College Station will continue to receive such service pursuant to the City of College Station's policies, practices and procedures unless arrangements are made between the City of Bryan and the City of College Station and approved by the State of Texas, as required by the Texas Water Code. The City is under no obligation to enter into any such arrangements but may if it chooses.

The City of Bryan does not possess any authority or control over the policies, practices, and procedures of the City of College Station. Existing City of College Station sewer mains at their present locations shall be available for point-of-use connections, based on applicable utility extension policies and/or ordinances of the City of College Station, now existing or as such policies and/or ordinances may be amended from time to time. The City of College Station is the entity responsible for assessing the adequacy of existing septic systems for accommodating raw sewage in less developed areas and is responsible for determining the need to provide centralized wastewater collection and treatment service to particular areas, along with lift stations or any other necessary capital improvements, pursuant to applicable policies and/or ordinances of the City of College Station, now existing or as such policies and/or ordinances may be amended.

All sewer service facilities that may come under the City of Bryan's direct jurisdiction in the future, including new facilities which may be installed by developers of land within this newly annexed territory, will be operated, maintained, monitored and inspected pursuant to applicable policies and/or ordinances of the City of Bryan, now existing or as such policies and/or ordinances may be amended.

6. STORM WATER MANAGEMENT

City of Bryan regulations concerning storm water management will extend to the newly annexed territory, pursuant to applicable policies and/or ordinances of the City of Bryan, now existing or as such policies and/or ordinances may be amended, and in accordance with similarly situated properties within the City.

7. BUILDING SERVICES

The Development Services Department's responsibility for regulating building construction will extend to the newly annexed territory, pursuant to applicable policies and/or ordinances of the City of Bryan, now existing or as such policies and/or ordinances may be amended. This includes issuing building, electrical and plumbing permits for any new construction and remodeling, and enforcing all other applicable codes which regulate building construction within the City of Bryan.

8. PLANNING AND DEVELOPMENT

The Development Services Department's responsibility for regulating development and land use through the administration of the City of Bryan Zoning Ordinance, Land and Site Development Ordinance and all other development-related ordinances will extend to the newly annexed territory. The newly annexed area will also continue to be regulated under the requirements of the City of Bryan Subdivision Ordinance.

9. ELECTRICITY SERVICE

Bryan Texas Utilities (BTU), a municipal electric utility, will provide electricity service to the newly annexed territory at the same or similar level of service now being provided to other areas of the City of Bryan, Texas which exhibit land use and population densities similar to that of the newly annexed area. As a fee-for-service the providing of this service shall be applied to the newly annexed area on an equal basis to that provided to the average and typical comparable area of the City of Bryan, Texas which exhibit land use and population densities similar to that of the newly annexed area.

10. ROADS, STREETS, ALLEYWAYS AND TRAFFIC ENGINEERING

Any and all roads, streets or alleyways in the newly annexed territory which have been dedicated to the public shall be maintained to the same degree and extent that other roads, streets and alleyways are maintained in areas of the City of Bryan, Texas with similar land use, population density and topography. Construction of new roads and streets is the responsibility of the developer or property owner desiring them and must be designed and built in accordance with applicable City of Bryan codes and standards.

Municipal maintenance of properly dedicated roads, streets and alleyways (which may be installed by developers of land within this newly annexed territory) will be consistent with such maintenance provided by the City of Bryan to other roads, streets and alleyways in areas exhibiting land use, population densities and topography similar to that of the newly annexed area.

The City of Bryan Public Works Department will install traffic signs, street markings and other traffic control devices in the newly annexed area as the need is established by appropriate study, pursuant to applicable policies and/or ordinances of the City of Bryan, now existing or as such policies and/or ordinances may be amended.

The City of Bryan Public Works Department will install street name signs in the newly annexed area. Under current City of Bryan ordinances, developers are responsible for the cost of street name signs for new public and private streets.

Bryan Texas Utilities (BTU), a municipal electric utility, will install streetlights in accordance with the utility standards of BTU, pursuant to applicable policies and/or ordinances of the City of Bryan, now existing or as such policies and/or ordinances may be amended. Under current City of Bryan ordinances, developers are responsible for the cost of streetlights in new subdivisions.

11. PARKS AND RECREATION

The newly annexed territory does not include any known existing public parks, playgrounds or swimming pools which would come under the City of Bryan's jurisdiction as a result of annexation. Residents of the newly annexed territory may use any and all existing City of Bryan parks, playgrounds and recreational facilities and participate in any and all programs, events, activities and services of the City of Bryan Parks and Recreation Department. Expansion of recreational facilities and programs to the newly annexed territory would be governed by applicable policies and/or ordinances of the City of Bryan, now existing or as such policies and/or ordinances may be amended.

12. MAINTAINING OTHER PUBLICLY-OWNED FACILITIES OR BUILDINGS

The City of Bryan, Texas is not aware of the existence of any publicly-owned facility or building now located in the newly annexed territory. In the event any such publicly-owned facility or building does exist and are public facilities or buildings, the City of Bryan shall maintain such facilities or buildings to the same extent and degree that it maintains similar municipal facilities and buildings now incorporated in the City of Bryan, Texas.

13. LIBRARY SERVICES

Library use and privileges will be available to residents of the newly annexed territory, pursuant to applicable policies and/or ordinances of the City of Bryan, now existing or as such policies and/or ordinances may be amended.

B. CONSTRUCTION OF CAPITAL IMPROVEMENTS TO BEGIN WITHIN 2½ YEARS FOLLOWING THE EFFECTIVE DATE OF ANNEXATION

1. POLICE PROTECTION, FIRE PROTECTION AND SOLID WASTE COLLECTION

The City Council of the City of Bryan, Texas finds and determines it to be unnecessary to acquire or construct any capital improvement within 2½ years following the effective date of annexing the subject territory, for the purpose of providing police and fire protection, emergency medical services and solid waste collection. The City Council finds and determines that it has at the present time adequate facilities to provide comparable levels of protection and service to what is presently being provided to other areas already incorporated in the City of Bryan, Texas, having the same or similar land use, population density and topography as that of the newly annexed territory. The City of Bryan finds that the current level of services and facilities can sufficiently provide comparable services to the newly annexed area without reducing the fire, police, and emergency medical services currently provided to areas already within the municipal boundaries of the City of Bryan.

2. WATER AND WASTEWATER FACILITIES

The City Council of the City of Bryan, Texas finds and determines it to be unnecessary to acquire or construct any capital improvement within 2½ years following the effective date of annexing the subject territory, for the purpose of providing water and wastewater service.

During the next 2½ years, the City Council of the City of Bryan, Texas believes that the area to be annexed will not be under the direct jurisdiction of the City of Bryan, Texas for the provision of either water or wastewater services, as the area to be annexed is in the CCNs of Wickson Creek SUD and the City of College Station for water and wastewater, respectively. The development and expansion of

facilities as the City grows are expected to use the City's Master Plan and/or Comprehensive Plan, as they are amended from time to time, as a guide to know when expansion facilities become necessary.

3. ROADS AND STREETS

Developers of land within the newly annexed territory will be required to provide internal streets (and to improve peripheral or boundary streets) in accordance with applicable ordinances of the City of Bryan, and such street improvements shall comply with specifications required by the City of Bryan, for properly dedicated streets.

4. PARKS, PLAYGROUNDS AND SWIMMING POOLS, AS WELL AS OTHER PUBLIC FACILITIES OR BUILDINGS

To the extent that it becomes necessary because of development demands, population growth and bona fide needs, the City Council of the City of Bryan, Texas will undertake to provide any such facility which it deems necessary to adequately provide for the health and safety of citizens in the newly annexed territory, based upon standard considerations of land use, population density and topography.

C. SPECIFIC FINDINGS

The City Council of the City of Bryan, Texas finds and determines that this Municipal Service Plan will not provide any fewer services nor will it provide a lower level of service, in the newly annexed territory, than were in existence at the time immediately preceding this territory's annexation to the City of Bryan, Texas.

As the development and growth of a municipality is not known but only anticipated conditions and subsequent occurrences may change making the current service plan unworkable or obsolete. In such a case, the City Council may amend the service plan to conform to the changed conditions and/or occurrences. Such amendments will be in conformity with state law.

Texas law does not require a uniform level of municipal services to an area if different characteristics of topography, land use, and population density constitute a sufficient basis for providing a different level of services. As a result, the levels of services provided in this plan are all linked to comparable services of areas similar in characteristic, topography, land use, and population density as the newly annexed area. For areas where no comparable location exists, the City Council finds that City staff utilized its best efforts to calculate a comparable level of serviced based on the known characteristics and incorporated such into this plan.

RESOLUTION NO. 3128

A RESOLUTION BY THE CITY COUNCIL OF THE CITY OF BRYAN, TEXAS, ESTABLISHING CRITERIA TO BE USED TO PROVIDE GUIDANCE ON THE ANNEXATION OF AREAS WITHIN BRYAN'S EXTRATERRITORIAL JURISDICTION; PROVIDING AN EFFECTIVE DATE.

WHEREAS, the City of Bryan, Texas is a home-rule municipality authorized by Texas State law and the City Charter to annex territory lying adjacent and contiguous to its corporate limits;

WHEREAS, the City of Bryan may from time to time consider the annexation of territory within its extraterritorial jurisdiction to promote orderly growth by facilitating long-range planning for the provision of municipal services and by applying appropriate land use regulations, development standards, fire codes, construction codes and environmental regulations; and

WHEREAS, it is the expressed desire of the City Council of the City of Bryan to establish criteria which are to be used to provide guidance on annexing such territory;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF BRYAN:

1.

That the City will consider annexation of any area within its extraterritorial jurisdiction if and only if the area meets one or more of the following five criteria:

- A. Enclave: The area is surrounded by the corporate limits of the City of Bryan and/or the corporate limits or extraterritorial jurisdiction of other municipalities and its citizens would benefit from a logical city limit boundary that provides for the orderly and efficient provision of services.
- B. Urban Development: The City is aware of or anticipates development activity of an urban nature in the area.
- C. Revenue Source: The area (1.) has desirable ad valorem values; or (2.) is an area with commercial activities that produce sales tax revenues; or (3.) is an area that produces current or future utility revenues.
- D. Adverse Impact: Without annexation, potential development activity is likely to have an adverse fiscal or environmental impact on the City due to unregulated land uses and the City's inability to enforce development standards, building codes and environmental regulations.
- E. Option to Expand: Without annexation, interested parties may incorporate one or more separate municipalities or take other legal action that might be detrimental to the City's orderly growth.

2.

That the City will consider annexation of any area within its extraterritorial jurisdiction if and only if the City is able to provide municipal services upon annexation in accordance with State law, without negatively impacting service provision within the city.

3.

That an area to be annexed should be contiguous to current city limits, should have regular, logical boundaries, and should include all, not just part, of a subdivision, recognized neighborhood or community area.

4.

That public health and welfare of an area to be annexed and the City as a whole should be enhanced through annexation and provision of city services.

5.

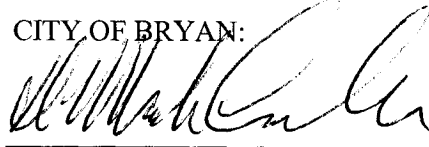
That this resolution shall be effective immediately upon adoption.

PRESENTED AND ADOPTED BY THE CITY COUNCIL OF THE CITY OF BRYAN, TEXAS, at a regular meeting on the 13th day of November, 2007.

ATTEST:


Mary Lynne Stratta, City Secretary

CITY OF BRYAN:


D. Mark Conlee, Mayor

APPROVED AS TO FORM:


Janis Hampton, Interim City Attorney

**Exhibit “B”:
Development requirements for Planned Development – Mixed Use District (PD-M)**

The purpose of the Yaupon Trails Planned Development – Mixed Use (PD-M) District, hereinafter referred to as “Yaupon Trails PD” or “PD-M District,” is to establish alternate development standards for the mutual benefit of both the property owner and the City of Bryan. The Yaupon Trails PD establishes development opportunities for a master-planned mixed use community allowing for both a combination of residential and retail/commercial uses on approximately 122 acres of land located at the Northwest corner of the intersection of State Highway 30/FM 158 and Hardy Weedon Road. This PD-M District is believed to be the best conduit to provide a site-specific layout and design with some variations from ordinary standards, but which in return provides additional standards for trail construction and fire safety, to provide a valuable product that meets the intent of Bryan’s zoning regulations.

SECTION 1: Definitions

1. The following words, terms and phrases shall have the meanings ascribed to them in Bryan Code of Ordinances Chapter 130, Zoning, except where the context clearly indicates a different meaning. Words and terms that are not expressly defined in this chapter or in Chapter 62 have their ordinary dictionary meanings, based on the latest edition of Merriam-Webster’s Unabridged Dictionary. When not inconsistent with the context, words used in the present tense include the future; words used in the singular number include the plural; and words used in the plural number include the singular.

SECTION 2: Land Use

Land uses that are not expressly defined in this PD-M District ordinance or in the Bryan Code of Ordinances have their ordinary dictionary meanings, based on the latest edition of Merriam-Webster’s Unabridged Dictionary.

1. The continued use of land permitted within the Planning Area 1 of this PD-M District shall be limited to the following uses:
 - a. Uses Permitted By Right:
 1. Detached single-family dwellings;
 2. Open space/storm water detention areas;
 3. Public parkland;
 4. Essential municipal uses;
 5. Home occupations;
 6. Private utilities (no storage yards);
 7. Real estate sales offices during the development of residential subdivisions, but not to exceed 6 months past the date of the last home closed by the builder; and
 8. Temporary structures for uses incidental to construction work on the premises, which said buildings shall be removed upon the completion or abandonment of construction work.
 - b. Uses Permitted Only with Prior Approval of a Conditional Use Permit from the Planning and Zoning Commission:
 1. Accessory dwelling unit; and
 2. Professional offices.

2. The continued use of land permitted within Planning Area 2 of this PD-M District shall be limited to the following uses:
 - a. Uses Permitted By Right:
 1. All land uses permitted by right in the Retail District (C-2), as provided for in the City of Bryan Code of Ordinances;
 2. Townhouse;
 3. Multifamily dwelling;
 4. Mini-warehouse or self-storage.
 - b. Uses Permitted Only with Prior Approval of a Conditional Use Permit from the Planning and Zoning Commission:
 1. All land uses permitted with approval of a Conditional Use Permit in the Retail District (C-2), as provided for in the City of Bryan Code of Ordinances, except for those uses listed in Section 2.2.a. above as permitted by right.
3. The continued use of land permitted within Planning Area 3 of this PD-M District shall be limited to the all land uses permitted by right in the Retail District (C-2), as provided for in the City of Bryan Code of Ordinances. Uses permitted only with prior approval of a Conditional Use Permit from the Planning and Zoning Commission shall be limited to all land uses permitted with approval of a Conditional Use Permit in the Retail District (C-2), as provided for in the City of Bryan Code of Ordinances.

SECTION 3: Physical Development

1. Physical development on land included in Planning Area 1 of this PD-M District shall comply with development standards and limitations of the City of Bryan Code of Ordinances that generally apply to properties zoned Residential District – 5000 (RD-5), subject to additions, modifications or exceptions described herein. These development standards and limitations include, but are not limited to, regulations concerning minimum building setback, lot area, lot depth, density, building height, building elevations, coverage, parking, access, screening, landscaping, accessory buildings, and signs.
2. The following additional standards, modifications or exceptions shall be applicable to the physical development and continued use of land in Planning Area 1:
 - a. Minimum lot requirements:
 - a. 10% of the lots in this development shall be a minimum of 55 feet wide.
 - b. 60% of the lots in this development shall be a minimum of 50 feet wide.
 - c. 100% of the lots in this development shall be a minimum of 45 feet wide.
 - d. The minimum lot depth shall be 120 feet, with the exception of lots that adjoin the bulb of a cul-de-sac, which shall have a minimum depth of 100 feet.
 - e. The minimum side building setback adjacent to abutting property shall be 5 feet.
 - b. Additional fire safety regulations:
 - a. Any condenser that is to be installed within a minimum required side building setback area must be located in front of any fence enclosing the back yard of any lot.
 - b. There shall be no more than one (1) condenser within minimum side building setback areas on adjacent lots.

- c. In the event that Condensers are in front of the enclosed rear yard, No fencing shall be allowed between the condenser and the front property line that causes the condenser to be in the enclosed rear yard area. Attractive decorative fencing around condensers shall be allowed.
- d. Condensers are also permitted in the rear yard as long as they are not within the side building setback.
- e. Construction, projections, openings and penetrations of exterior walls of dwellings and accessory buildings shall comply with the table below:

**WAC Table R302.1(1)
 Exterior Walls**

Exterior Wall Element		Minimum Fire-Resistance Rating	Minimum Fire Separation Distance
Walls	(Fire-resistance rated)	1-hour tested in accordance with ASTM E 119 or UL 263 with exposure from both sides	< 5 feet
	(Not fire-resistance rated)	0 hours	≥ 5 feet
Projections	(Fire-resistance rated)	1 hour on the underside ^{a, b}	≥ 2 feet to 5 feet
	(Not fire-resistance rated)	0 hours	5 feet
Openings in Walls	Not allowed	N/A	< 3 feet
	25% maximum of wall area <u>per story</u>	0 hours	3 feet
	Unlimited	0 hours	5 feet
Penetrations	All	Comply with Section R302.4	< 5 feet
		None required	5 feet

For IS: 1 foot = 304.8 mm. N/A = Not Applicable

- a. Roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave if fire blocking is provided from the wall top plate to the underside of the roof sheathing.
- b. Roof eave fire-resistance rating shall be permitted to be reduced to 0 hours on the underside of the eave provided no gable vent openings are installed.

- f. Only fencing and condensers may be permitted within minimum side building setback areas. No other permanent structures shall be allowed.
3. Physical development on land included in Planning Area 2 of this PD-M District shall comply with development standards and limitations of the City of Bryan Code of Ordinances that generally apply to properties zoned Retail District (C-2), subject to additions, modifications or exceptions described herein. These development standards and limitations include, but are not limited to, regulations concerning minimum building setback, lot area, lot depth, density, building height, building elevations, coverage, parking, access, screening, landscaping, accessory buildings, and signs.
 4. The following additional standards, modifications or exceptions shall be applicable to the physical development and continued use of land in Planning Area 2:
 - a. Tracts intended for single-family, patio home/zero lot line and townhouse developments shall comply with development standards and limitations of the City of Bryan Code of Ordinances that generally apply to properties zoned Residential District – 5000 (RD-5), subject to additions, modifications or exceptions described herein.
 - b. Tracts intended for multiple-family residential development shall comply with development standards and limitations of the City of Bryan Code of Ordinances that generally apply to properties

zoned Multiple-Family District (MF), subject to additions, modifications or exceptions described herein.

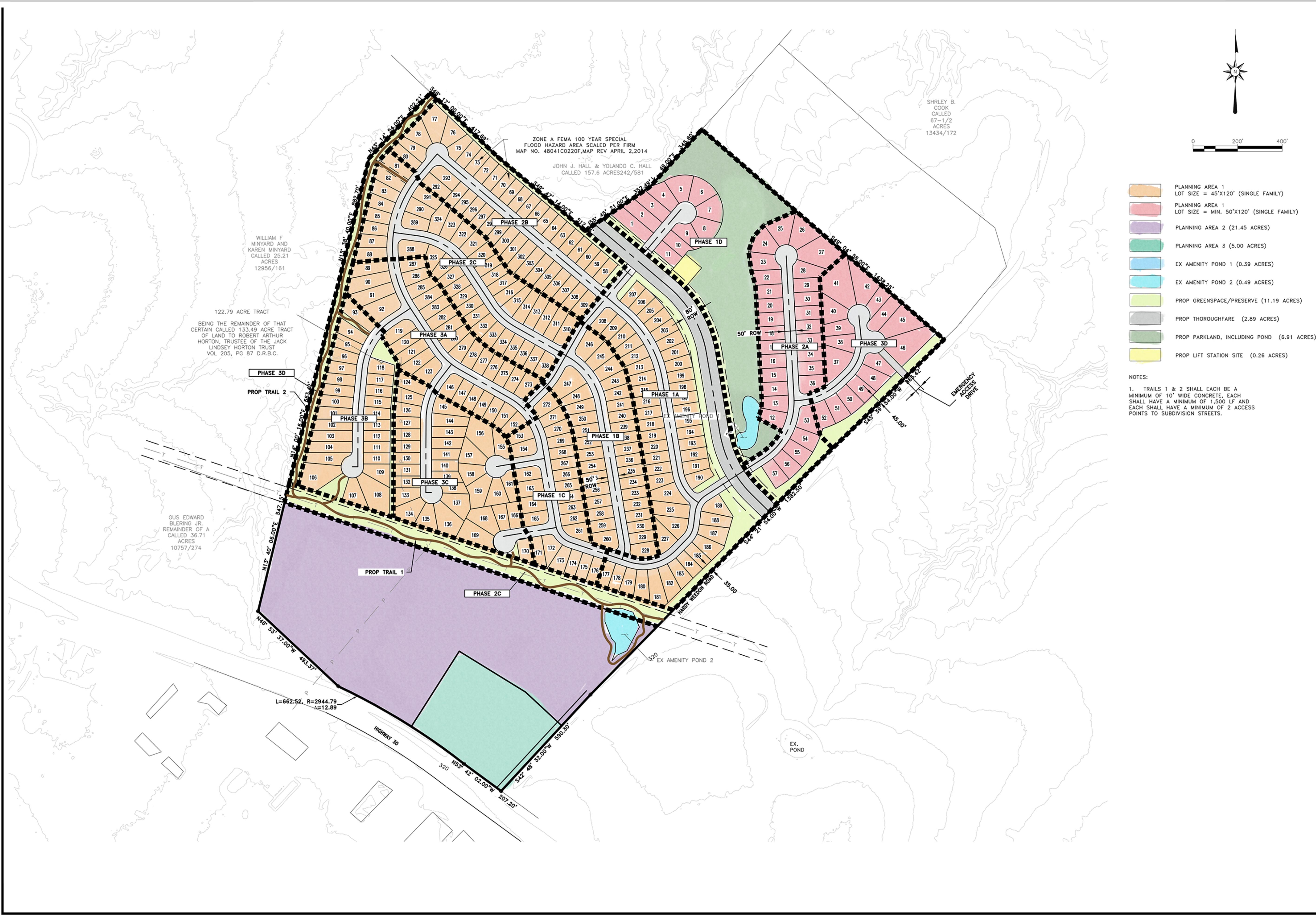
- c. Buffer Area Requirements - In order to help mitigate potential adjacency conflicts between residential, multiple-family, and non-residential uses in Planning Area 2, the following standards shall apply with regard to buffering to help maintain land use compatibility. No development shall be authorized within the buffer area except for required or permitted landscaping and screening, storm water detention facilities, and pedestrian walkways.
 1. If detached single-family residential, patio/zero lot line home or townhouse development is proposed adjacent to existing non-residential development, then a minimum 50-foot buffer area shall be observed by the detached single-family residential, patio/zero lot line home or townhouse development. The depth of the buffer area can be reduced to 30 feet by providing the equivalent area of additional landscaping within the remaining buffer area in the amount of one (1) landscaping point provided for every one (1) square foot in buffer area reduction.
 2. If non-residential development is proposed adjacent to existing detached single-family, patio/zero lot line home, townhouse or multi-family residential development, then a minimum 50-foot buffer area shall be observed by the non-residential development. The depth of the buffer area can be reduced to 30 feet by providing the equivalent area of additional landscaping within the remaining buffer area in the amount of one (1) landscaping point provided for every one (1) square foot in buffer area reduction.
 3. If detached single-family residential, patio/zero lot line home or townhouse development is proposed adjacent to existing multi-family residential development, then a minimum 25-foot buffer area shall be observed by the detached single-family residential, patio/zero lot line home or townhouse development. The depth of the buffer area can be reduced to 15 feet by providing the equivalent area of additional landscaping within the remaining buffer area in the amount of one (1) landscaping point provided for every one (1) square foot in buffer area reduction.
 4. If multi-family residential is proposed adjacent to existing single-family residential, patio/zero lot line home or townhouse development, then a minimum 25-foot buffer area shall be observed by the multi-family residential development. The depth of the buffer area can be reduced to 15 feet by providing the equivalent area of additional landscaping within the remaining buffer area in the amount of one (1) landscaping point provided for every one (1) square foot in buffer area reduction.
5. Physical development on land included in Planning Area 3 of this PD-M District shall comply with development standards and limitations of the City of Bryan Code of Ordinances that generally apply to properties zoned Retail District (C-2). These development standards and limitations include, but are not limited to, regulations concerning minimum building setback, buffers, lot area, lot depth, density, building height, building elevations, coverage, parking, access, screening, landscaping, accessory buildings, and signs.
6. Major Collector street:
 - a. The southeast-northwest major collector street extending between Hardy Weedon Road and the northwestern boundary of this PD-M District shall have a minimum 80-foot wide public right-of-way and 38-foot wide pavement at the time of development.
 - b. Lots intended for residential use shall not have direct access to this major collector street.
 - c. Single Family Lots shall not be permitted direct access to this major collector street.

7. Trails and Open Space:
 - a. Trails shall be installed in the locations shown on the attached “Trail/Sidewalks Exhibit”. The following additional standards shall apply:
 1. Trails shall be of concrete construction of sufficient thickness to ensure long-term durability, and have a minimum width of 10 feet within a common area no less than 40 feet in width.
 2. Trail access points from the adjacent street system shall be a minimum 20 feet in width.
 3. Trail segments shall be installed concurrently with development of the adjacent subdivision phase and prior to recording of the final plat.
 - b. A homeowner's association (HOA) shall be established with direct responsibility to, and controlled by, the property owners involved to provide for operation, repair and maintenance of all open space and storm water detention areas in this PD-M District.

SECTION 4: Subdivision of Land

The subdivision of land in this PD-M District shall be allowed in accordance with Chapter 110, Subdivisions, of the City of Bryan Code of Ordinances, with the following exceptions or additions to ordinary standards:

1. The installation of sidewalks shall be required only in the locations depicted on attached “Trail/Sidewalks Exhibit”. All sidewalks shall meet the City of Bryan’s construction requirements for sidewalks as per the Bryan/College Station Unified Design Guideline Manual, Technical Specifications, and Standard Construction Detail.



- PLANNING AREA 1
LOT SIZE = 45'X120' (SINGLE FAMILY)
- PLANNING AREA 1
LOT SIZE = MIN. 50'X120' (SINGLE FAMILY)
- PLANNING AREA 2 (21.45 ACRES)
- PLANNING AREA 3 (5.00 ACRES)
- EX AMENITY POND 1 (0.39 ACRES)
- EX AMENITY POND 2 (0.49 ACRES)
- PROP GREENSPACE/PRESERVE (11.19 ACRES)
- PROP THOROUGHFARE (2.89 ACRES)
- PROP PARKLAND, INCLUDING POND (6.91 ACRES)
- PROP LIFT STATION SITE (0.26 ACRES)

NOTES:
 1. TRAILS 1 & 2 SHALL EACH BE A MINIMUM OF 10' WIDE CONCRETE. EACH SHALL HAVE A MINIMUM OF 1,500 LF AND EACH SHALL HAVE A MINIMUM OF 2 ACCESS POINTS TO SUBDIVISION STREETS.

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CLIENT INFORMATION
 STYLECRAFT
 PROJECT ADDRESS

YAUPON TRAILS
 PHASING PLAN - COLOR

DRAWING ISSUE			
#	DATE	BY	* COMMENT

DRAWING INFORMATION			
PROJECT	10354	TDLR	**
DRAWN	CBJ	CHECKED	ELL
SCALE	1" = 200' (24x36)	SHEET	LP
	1" = 400' (11x17)		

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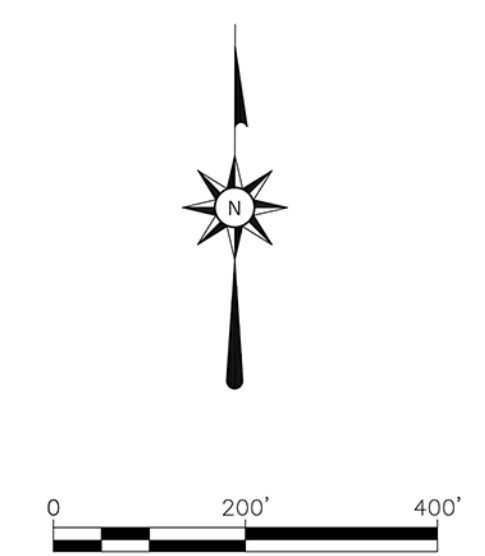


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YAUPON TRAILS
TRAIL EXHIBIT - COLOR



- 5' CONCRETE SIDEWALK
- 6' CONCRETE SIDEWALK
- 10' CONCRETE TRAIL
- PLANNING AREA 1
LOT SIZE = 45'X120' (SINGLE FAMILY)
- PLANNING AREA 1
LOT SIZE = MIN. 50'X120' (SINGLE FAMILY)
- PLANNING AREA 2 (21.45 ACRES)
- PLANNING AREA 3 (5.00 ACRES)
- EX AMENITY POND 1 (0.39 ACRES)
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Yaupon Trails

Zoning Traffic Impact Analysis

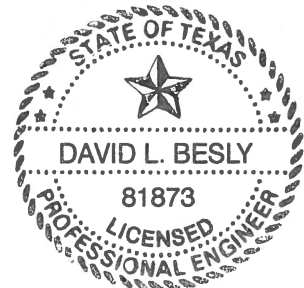
Project #REZ2017-000009

Submitted: August 22, 2017

Prepared by:

Bleyl Engineering
1722 Broadmoor, Suite 210
Bryan, Texas 77802
Tel. (979) 268-1125

Bleyl Engineering Job Number: 12103
Firm No. 678



David L. Besly
8/22/2017

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AUTHORIZATION

Bleyl Engineering has prepared this report under the terms of a private agreement executed between Stylecraft Builders and Bleyl Engineering.

PURPOSE OF STUDY

The purpose of the study is to determine the effect of the proposed zoning changes on existing and proposed roadways pursuant to the requirements of the City of Bryan.

Scope of Work

The project scope of work included the following tasks:

- 1) Study Area
- 2) Existing Zoning
- 3) Proposed Zoning
- 4) Roadway Network
- 5) Impact Determination
 - a) Proposed Trip Generation
 - b) Existing Trip Generation
 - c) Net Increased Trip Distribution and Assignment
 - d) Level of Service Analysis
 - e) Conclusions
- 6) Mitigation

STUDY AREA

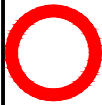

The proposed Yaupon Trails development is located on Hardy Weedon Road north of State Highway 30, as shown in **Exhibit 1**. The Study Area Map indicates the one existing and one proposed intersection that will be analyzed for traffic impacts per the discussions with the City of Bryan on July 20, 2017.

EXISTING ZONING

The Yaupon Trails site is zoned Agricultural-Open (A-O) within the Bryan City Limits, and is unzoned outside of the Bryan City Limits.

PROPOSED ZONING

Stylecraft Builders is requesting the property to be annexed into the City and rezoned to Planned Development – Multi-use (PD-M) with ±97 Acres of residential area and two Commercial areas of ±21 Acres and ±5 Acres. The proposed zoning is shown on **Exhibit 2**.

- LEGEND**
-  EXISTING INTERSECTIONS
 -  PROPOSED INTERSECTIONS

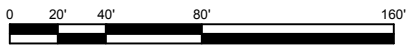
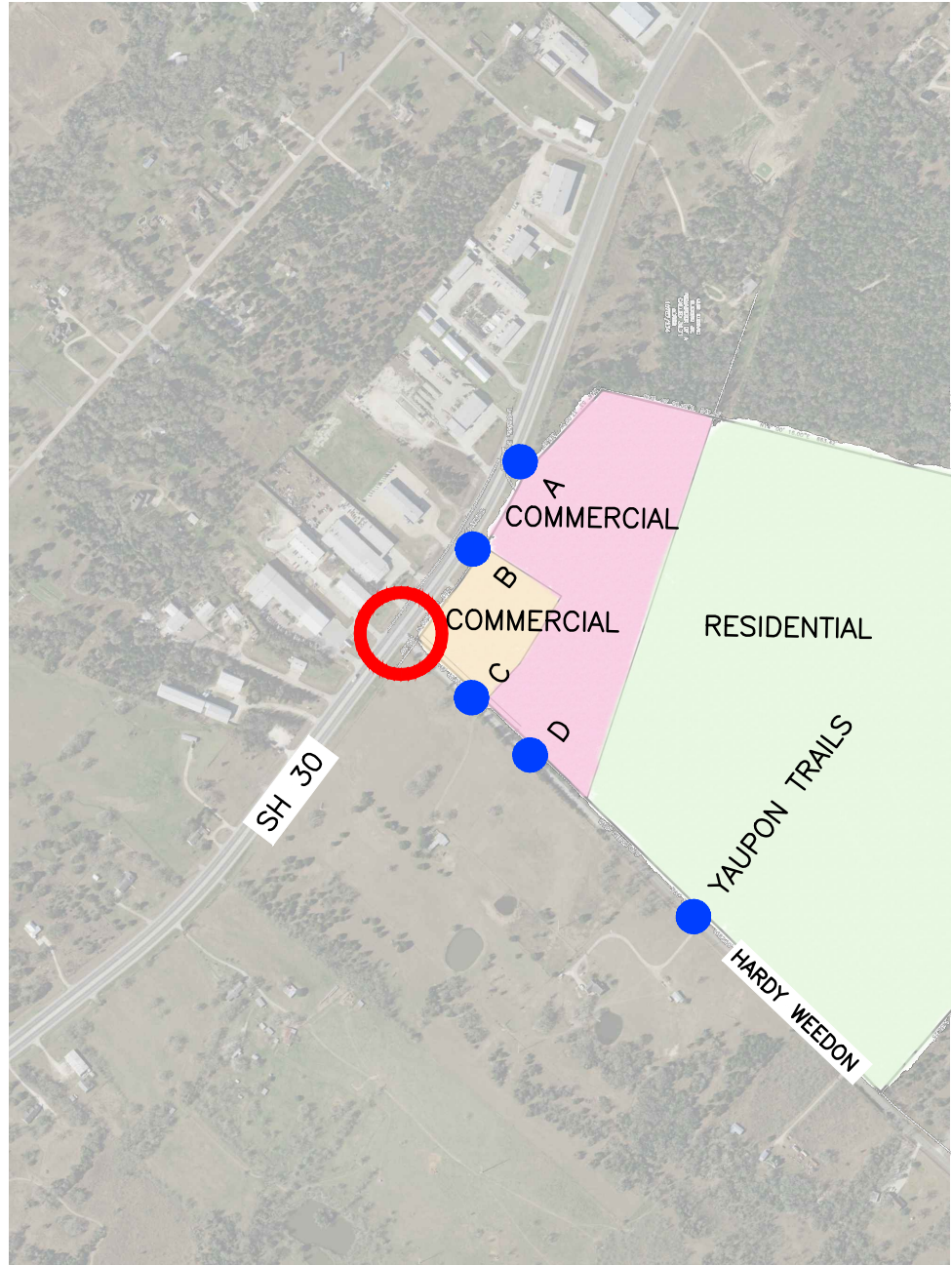


EXHIBIT 1
ZONING TIA STUDY AREA

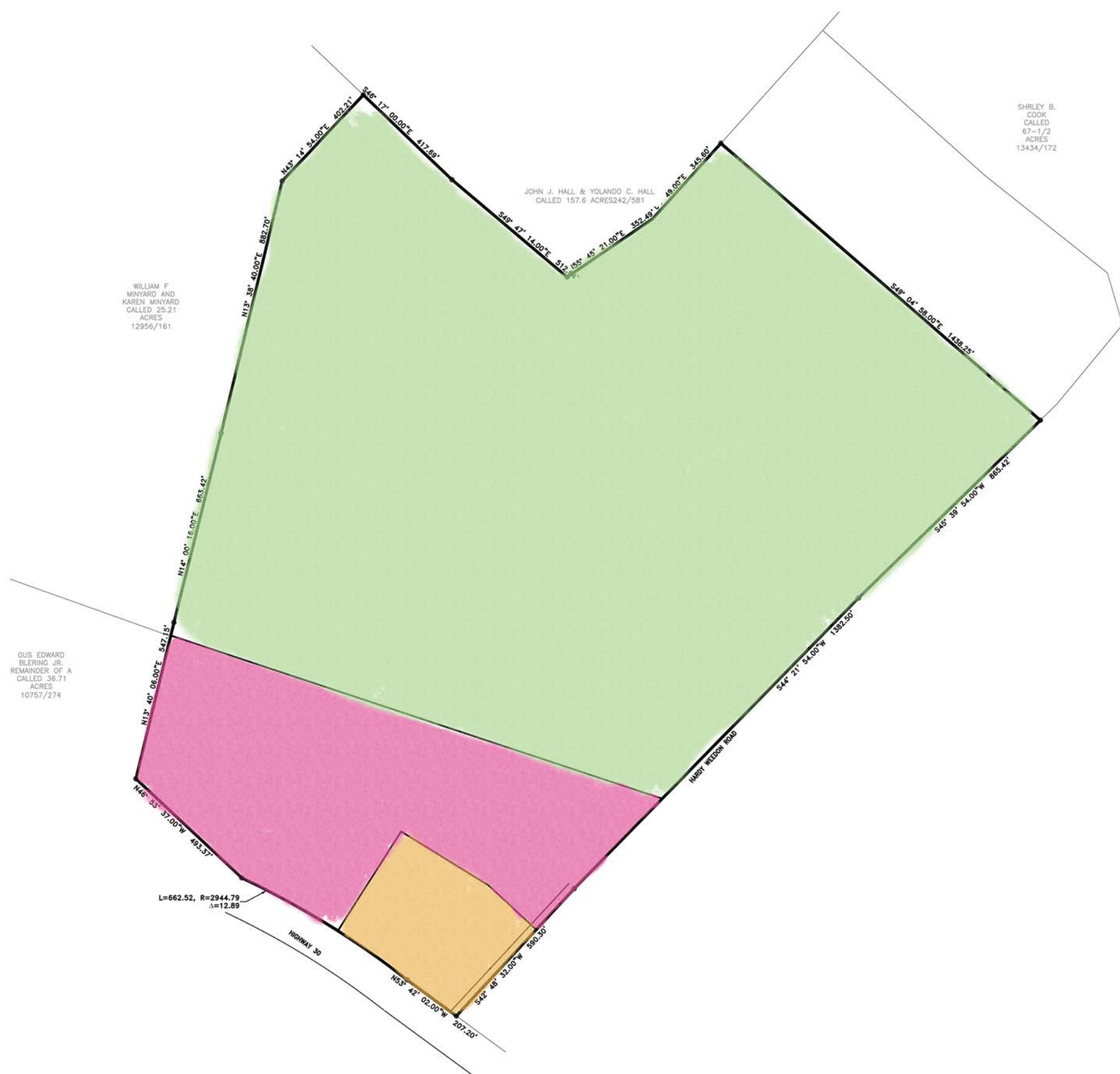


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SCALE:
AS SHOWN



- PLANNING AREA 1* (±97 AC)
- PLANNING AREA 2** (±21 AC)
- PLANNING AREA 3*** (±5 AC)

* PLANNING AREA 1
WITH THE EXCEPTION OF MODIFICATIONS NOTED IN THE PD-M THIS REGION WILL USE "RD-5" AS ITS BASE ZONING DISTRICT

*** PLANNING AREA 2
WITH THE EXCEPTION OF MODIFICATIONS NOTED IN THE PD-M THIS REGION WILL USE "C-2" AS ITS BASE ZONING DISTRICT

*** PLANNING AREA 3
WITH THE EXCEPTION OF MODIFICATIONS NOTED IN THE PD-M THIS REGION WILL USE "C-2" AS ITS BASE ZONING DISTRICT

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LAND USE EXHIBIT - COLOR

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ROADWAY NETWORK

The proposed site will be served by the following roadways as shown in **Exhibit 1**.

State Highway 30 – SH 30 is currently a five lane major arterial roadway providing east/west access south of the subject property. SH 30 is a high speed, open ditch roadway with a 65 MPH speed limit, 2-12’ through lanes in each direction, 10’ outside shoulders, and a 14’ wide painted two way left turn lane.

Hardy Weedon Road – Hardy Weedon is a major collector running roughly north south on the east side of the development. The existing street section is 2-12’ lanes with open ditch drainage, and a 45 MPH speed limit in a 60’ ROW. Approximately 1,150’ north of SH 30 the street leaves City control and Brazos County maintenance begins. Hardy Weedon serves as a collector for several rural subdivisions as well as numerous individual rural homes. City guidelines indicate that a major collector should be a 3 or 4 lane section with curb & gutter drainage, and sidewalk within an 80’ ROW. **Exhibit 3** shows typical local and collector street sections for the City of Bryan.

IMPACT DETERMINATION

PROPOSED TRIP GENERATION

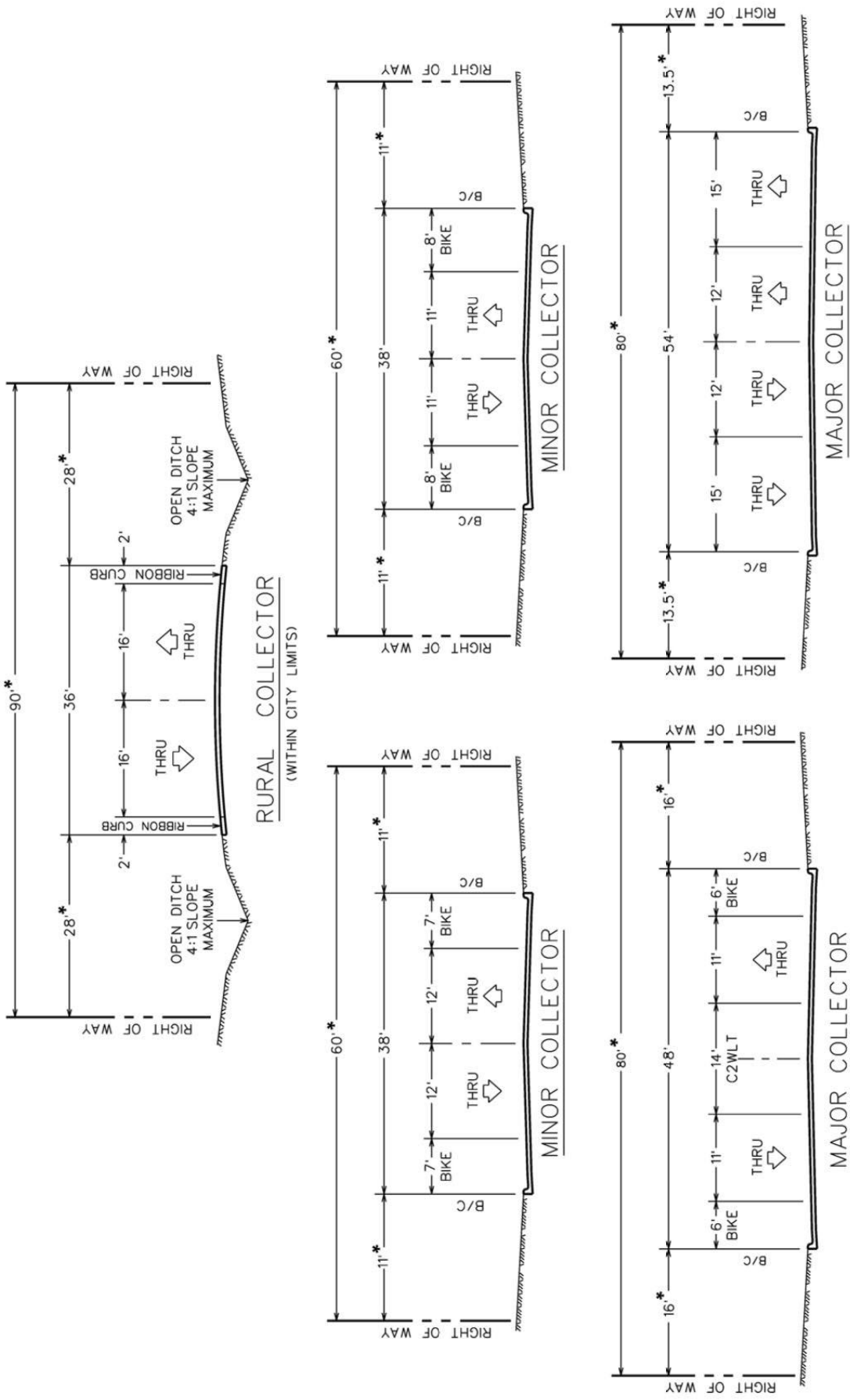
Trip generation for the proposed development was prepared based in accordance with both Ordinance Section 12-7.13.B.1 and the ITE Trip Generation Manual, 9th Edition as shown in **Table 1** below. **Exhibit 4** shows the proposed site plan used to determine the trip generation. Phase 1 Residential is anticipated to be complete by 2020, with phase 2 and 3 being completed by 2025. There is currently no plan for developing the commercial areas fronting SH 30, so the impact was estimated assuming Land use 820 Shopping Center, with 25% of the area being assumed to be Gross Leasable area.

Table 1: Proposed Trip Generation

Phase 1 Residential			
ITE Trip Generation 9 th Edition	210 Single-Family Detached Housing		
Dwelling Units	119		
Period	Trips	Entering	Exiting
Weekday	1230	615	615
AM Peak	90	23	67
PM Peak	120	76	44
Phase 1, 2 & 3 Residential			
ITE Trip Generation 9 th Edition	210 Single-Family Detached Housing		
Dwelling Units	338		
Period	Trips	Entering	Exiting
Weekday	3220	1610	1610
AM Peak	250	63	187
PM Peak	340	214	126
Future Commercial			
ITE Trip Generation 9 th Edition	820 Shopping Center		
1000’s SF Gross Leasable Area	283		
Period	Trips	Entering	Exiting
Weekday	13350	6675	6675
AM Peak	290	180	110
PM Peak	1200	576	624

Streets and Alleys

FIGURE 2
COLLECTOR STREET SECTIONS



* Right-of-Way widths for the City of College Station are provided in Table V – City of College Station Required Right-Of-Way. Width of areas from the curb to the limit of the right-of-way in College Station, likewise, varies from above figure accordingly.



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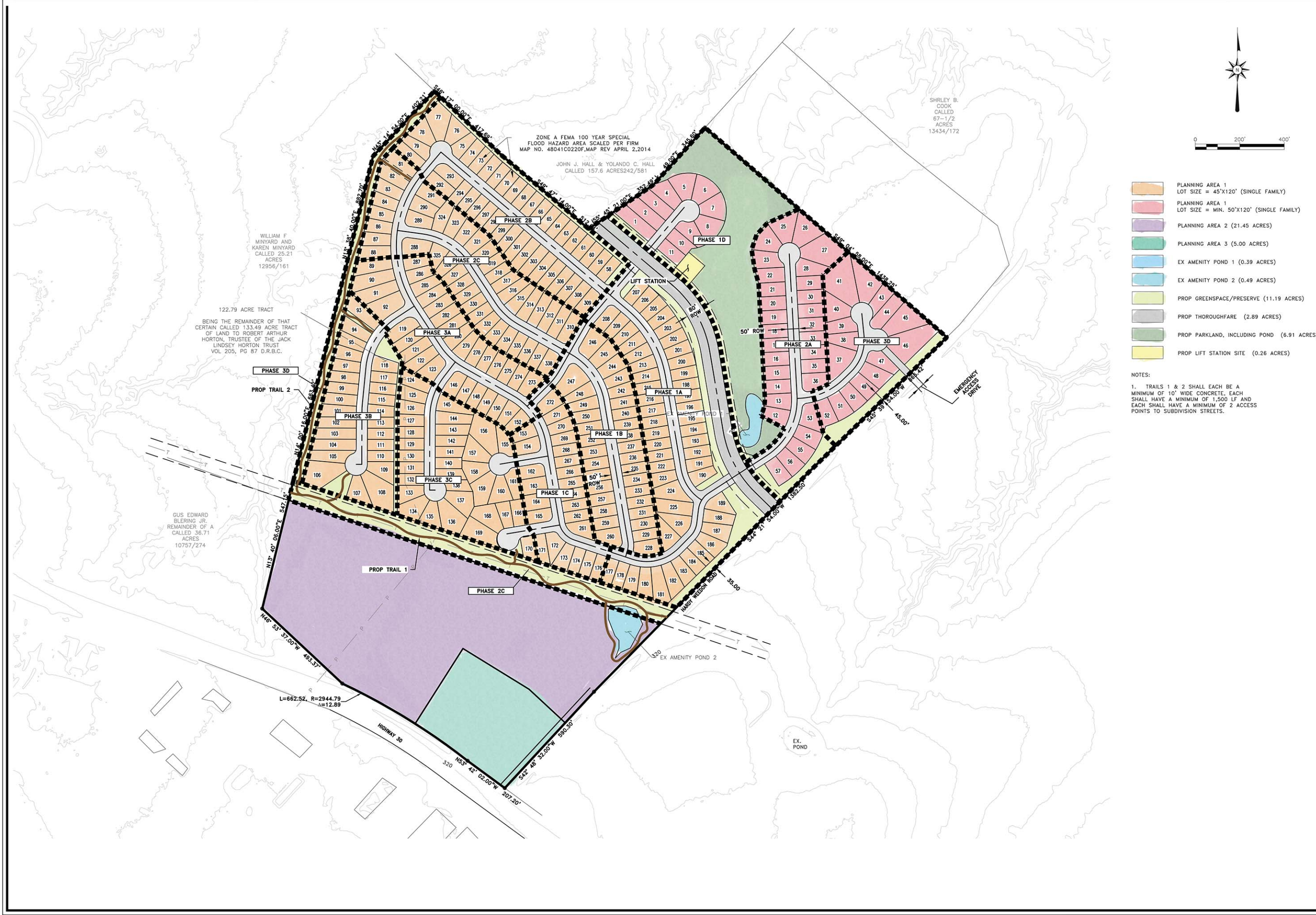
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PHASING PLAN - COLOR

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NOT FOR CONSTRUCTION

*PLANS NOT RELEASED FOR CONSTRUCTION UNLESS INDICATED ABOVE



EXISTING TRIP GENERATION

The property currently has two unoccupied homes on it, one with access to Hardy Weedon and one with access to SH 30. For the purpose of this analysis, the existing property has zero existing trips.

NET INCREASED TRIP DISTRIBUTION AND ASSIGNMENT

Proposed trip generation is shown in **Table 1**. These trips were distributed to the existing and proposed street network based on the traffic counts conducted in the field in 2017 and engineering judgment.

The residential property proposed for rezoning is currently anticipated to develop in three phases. There are no plans to develop the two commercial areas at this time. The C-2 base zoning for these parcels allows a wide variety of uses. For the purpose of this analysis, ITE Land Use 820 Shopping Center was assumed, with 25% of the land area being developed as Gross Leasable Area.

Detailed trip generation and distribution calculations are shown in **Appendix B: Trip Generation**.

LEVEL OF SERVICE ANALYSIS

TRAFFIC DATA COLLECTION

Turning movement counts were collected during the AM and PM peak hours at Hardy Weedon and State Highway 30 on July 25, 2017. A summary of the counts is included in **Appendix A: Intersection Turning Movement Counts**. The counts were taken in the summer due to the need to address City questions about traffic prior to the September 7, 2017 Planning and Zoning Meeting. The traffic counts were compared to Projected TxDOT AADT values for 2017 and based on this comparison, the turning movements were increased by 12% to account for the lower traffic volumes during summer months.

BACKGROUND TRAFFIC VOLUMES

The property proposed for rezoning is currently anticipated to develop in three phases. Phase 1 will be developed as single family residential with an anticipated completion in 2020. Phases 2 and 3 will be developed as single family residential and are anticipated to be built out by 2025. Existing traffic volumes at the study intersections are projected to both 2020 and 2025 (the design year for each phase of the development. The traffic projection is based on the overall increase in traffic throughout the region. Background traffic growth was calculated using available TxDOT traffic data from 2015 and projected 2035 traffic data available on the TxDOT Statewide Planning Map. TxDOT information for SH 30 used an annual growth rate of 3.04%, which was used to project the 2015 TxDOT ADT's to 2017 for comparison to the counted traffic volumes, which were then projected to 2020 and 2025.

INTERSECTION ANALYSIS

Bleyl Engineering used HCS 7.0 traffic software to analyze both signal and stop controlled intersections in the study area. The software calculates the anticipated delay per vehicle on a (n) movement, approach and intersection basis. The software also assigns a Level of Service (LOS) grade for each movement, approach and for the overall intersection. The LOS is a qualitative measure of the operating conditions experienced at an intersection or along a roadway when it is subject to varying traffic volumes. The six levels of service, LOS A through LOS F; describe the traffic operating conditions from best to worst, respectively. LOS E is considered the maximum capacity of an intersection.

For signalized and un-signalized intersections, LOS can be calculated using the methodology from the Highway Capacity Manual, Sixth Edition: A Guide for Multimodal Mobility Analysis, Transportation Research Board, 2016. Each LOS corresponds to a range of delay. LOS worsens as delay increases. Corresponding LOS and ranges of delay for un-signalized and signalized intersections is listed in **Table 2** and **Table 3**, respectively.

Table 2: Level of Service Criteria for Un-signalized Intersections.

Level of Service	Control Delay Range (seconds)
A	≤ 10
B	>10 and ≤ 15
C	>15 and ≤ 25
D	>25 and ≤ 35
E	>35 and ≤ 50
F	> 50

Table 3: Level of Service Criteria for Signalized Intersections.

Level of Service	Control Delay Range (seconds)
A	≤ 10
B	>10 and ≤ 20
C	>20 and ≤ 35
D	>35 and ≤ 55
E	>55 and ≤ 80
F	> 80

Data from the TxDOT Statewide Planning Map for the study area, and observation of the study intersections was used to select a 3% heavy vehicle percentage for use in the analysis of most of the intersections in the study area. There is no adjustment for grade as the grades near the intersections are less than 3%.

The intersection analysis of the study intersections includes six scenarios:

- The 2017 Existing analysis uses the collected traffic volumes with a 12% growth factor to account for summer counts at the existing intersection to determine existing conditions.
- The 2020 No Build analysis assumes 3.04% annual growth of existing traffic and no improvements to the study intersections.
- The 2020 Build analysis adds the trips generated by phase 1 of the proposed development to the 2020 forecasted traffic, and assumes the construction of the connection from Yaupon Trails to Hardy Weedon.

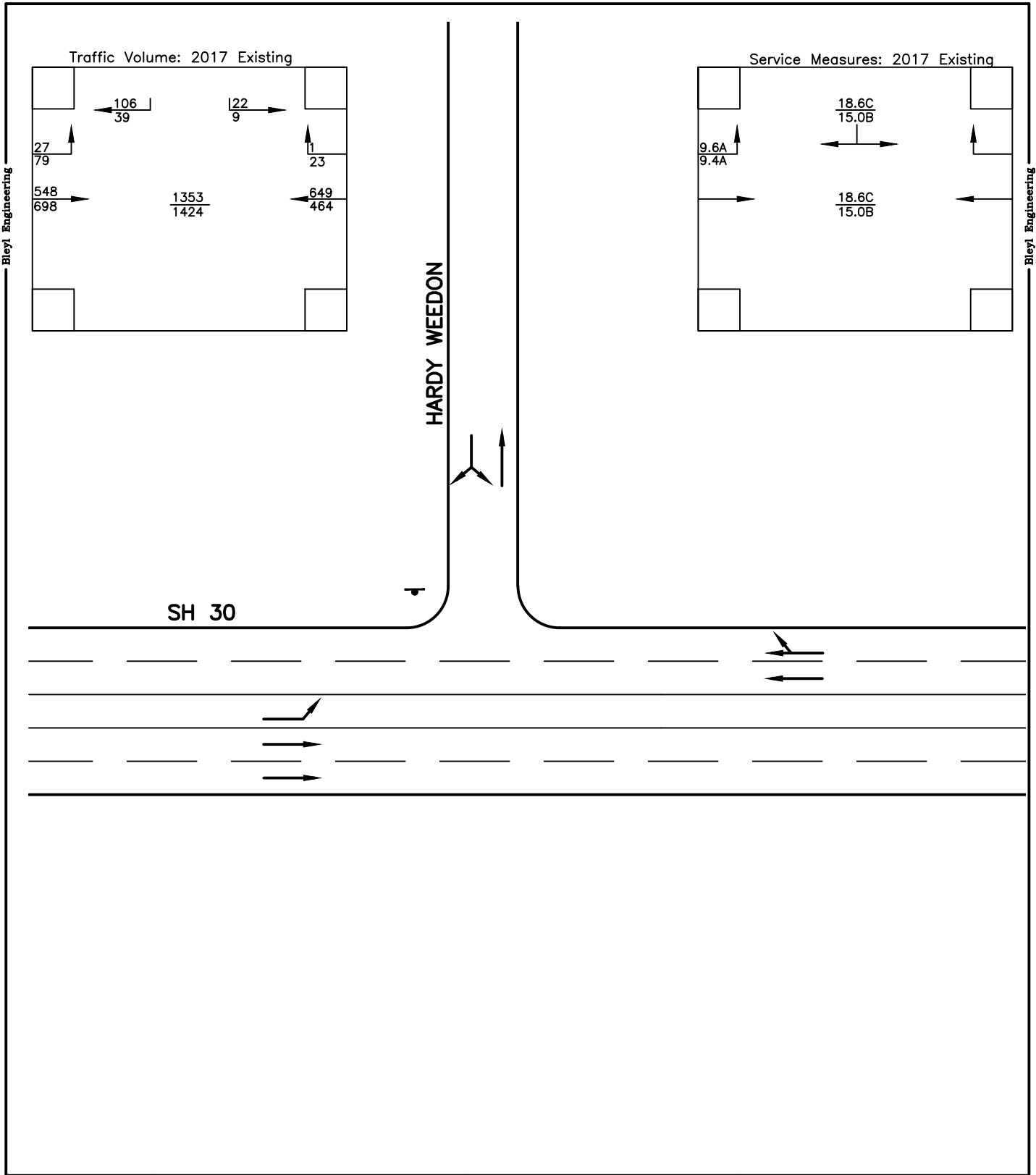
- The 2025 No Build analysis assumes 3.04% annual growth of existing traffic and no changes to the study intersections.
- The 2025 Build analysis adds the trips generated by the proposed development to the 2025 forecasted traffic.
- The 2025 Build Widening analysis assumes that Hardy Weedon is widened to provide a separate right and left turning lanes, but still stop controlled.
- The 2025 Build Signal analysis assumes that Hardy Weedon is widened to provide a separate right and left turning lanes and a traffic signal is constructed. The signal analysis did not take into account the modifications needed to the driveways on the south side of SH 30. **Exhibit 13** shows one potential method for dealing with the existing driveways.
- The 2025 Build Signal with Commercial analysis adds the trips generated by the commercial tracts to the 2025 Build signal scenario. This scenario also includes analysis of the 4 commercial driveways as stop controlled intersections.

INTERSECTION DESCRIPTIONS

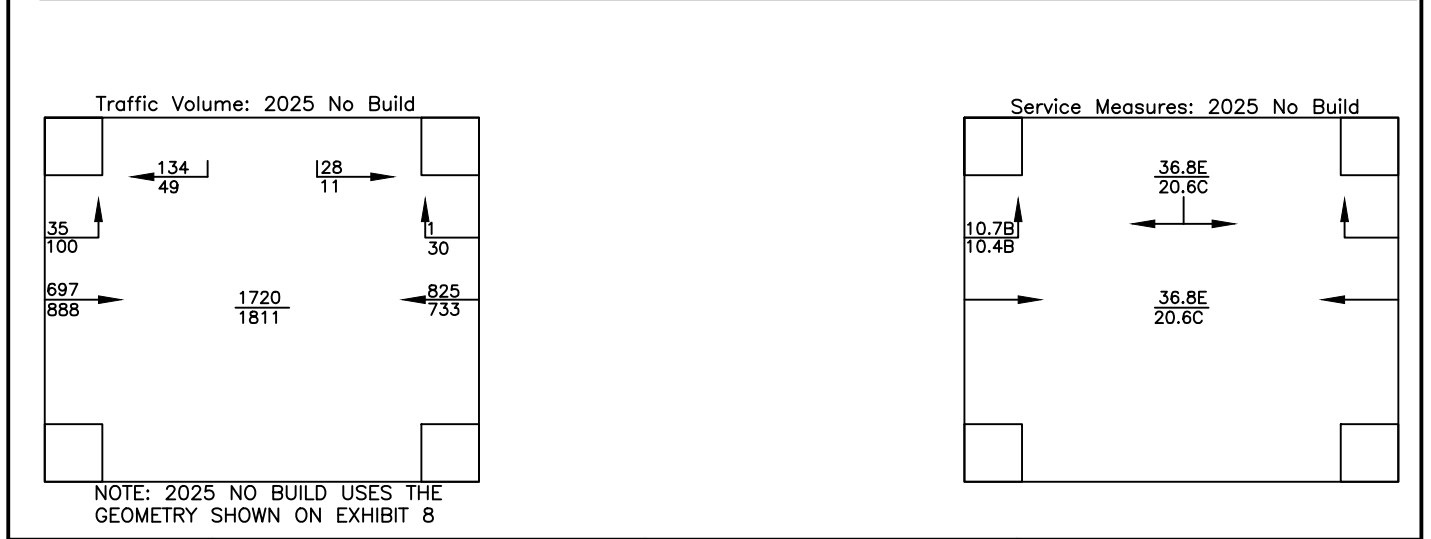
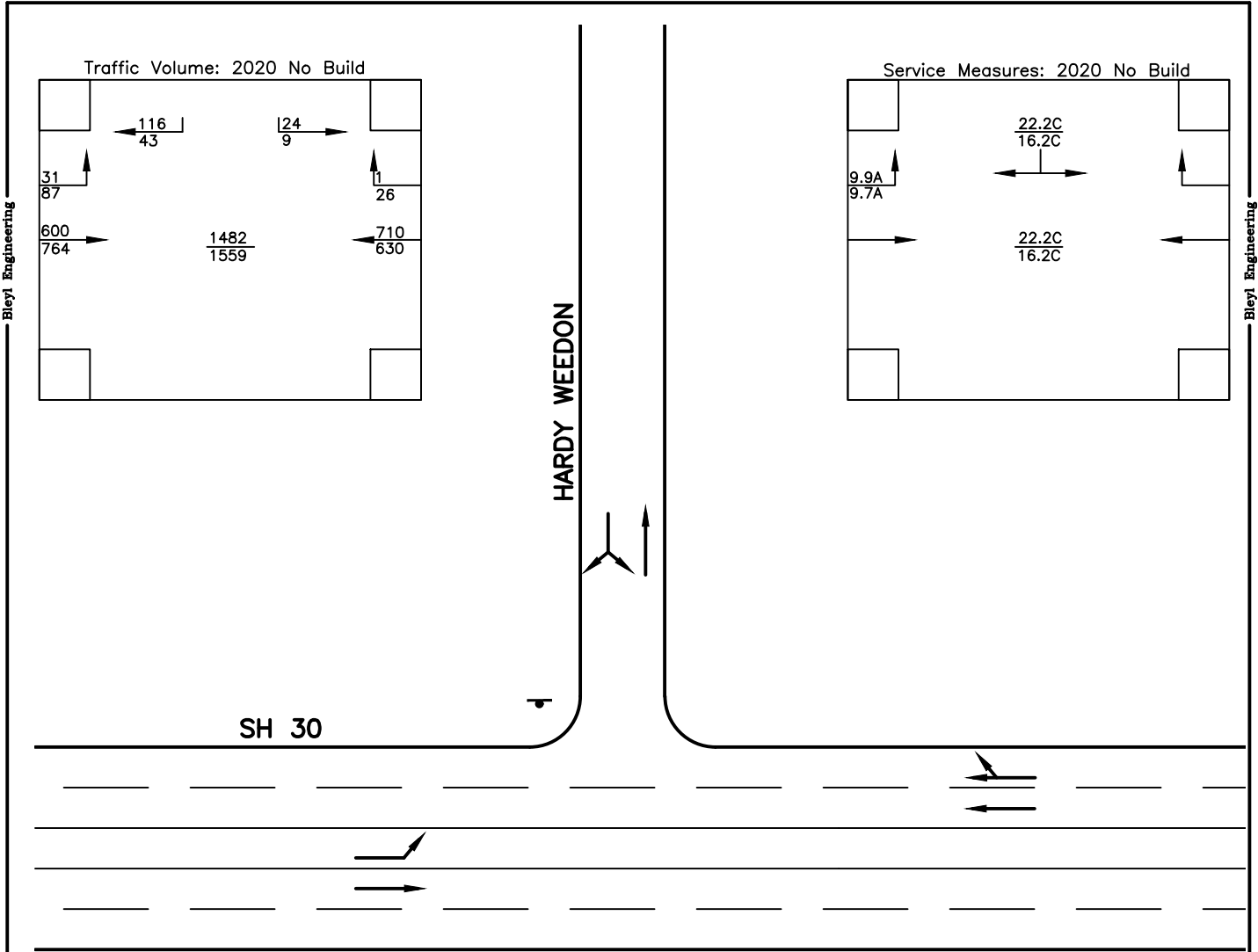
The intersection of State Highway 30 and Hardy Weedon is a stop controlled T intersection on the Hardy Weedon south bound approach. Existing and No Build alternates are analyzed using the Two Way Stop Control (TWSC) procedures, while build alternates are analyzed as both TWSC and an isolated signalized intersection. The intersection geometry is shown in **Exhibits 5-8** along with existing and forecast traffic volumes and LOS. 2025 Peak hour volumes on State Highway 30 cause stop controlled left turning traffic to exceed 50 seconds of delay, even for a single left turning vehicle. Analysis in 2025 includes widening Hardy Weedon to a collector at the intersection with both a right turn lane and a left turn lane, however stop control still fails. Further analysis is done of the widened intersection with an isolated traffic signal.

The intersection of Yaupon Estates with Hardy Weedon is a proposed intersection of major collectors. Hardy Weedon at this location was analyzed assuming a two lane stop approach from the development and no further improvements to Hardy Weedon. Existing Hardy Weedon in this vicinity is straight with good sight distance in both directions. **Exhibit 9** shows the intersection geometry along with existing and forecast traffic volumes and LOS

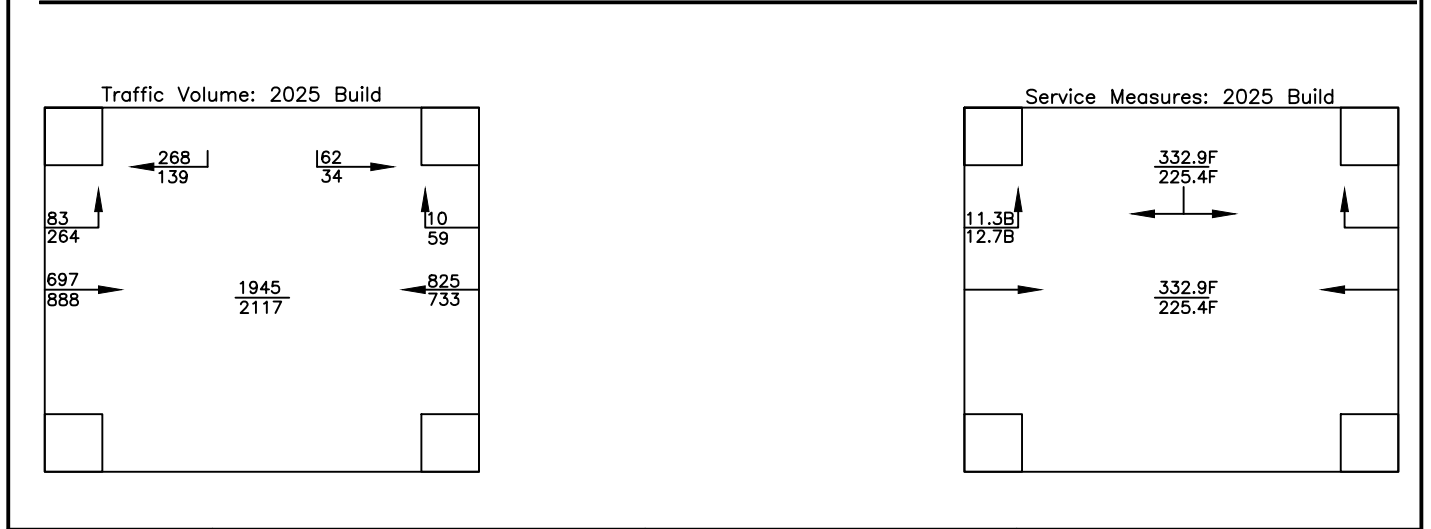
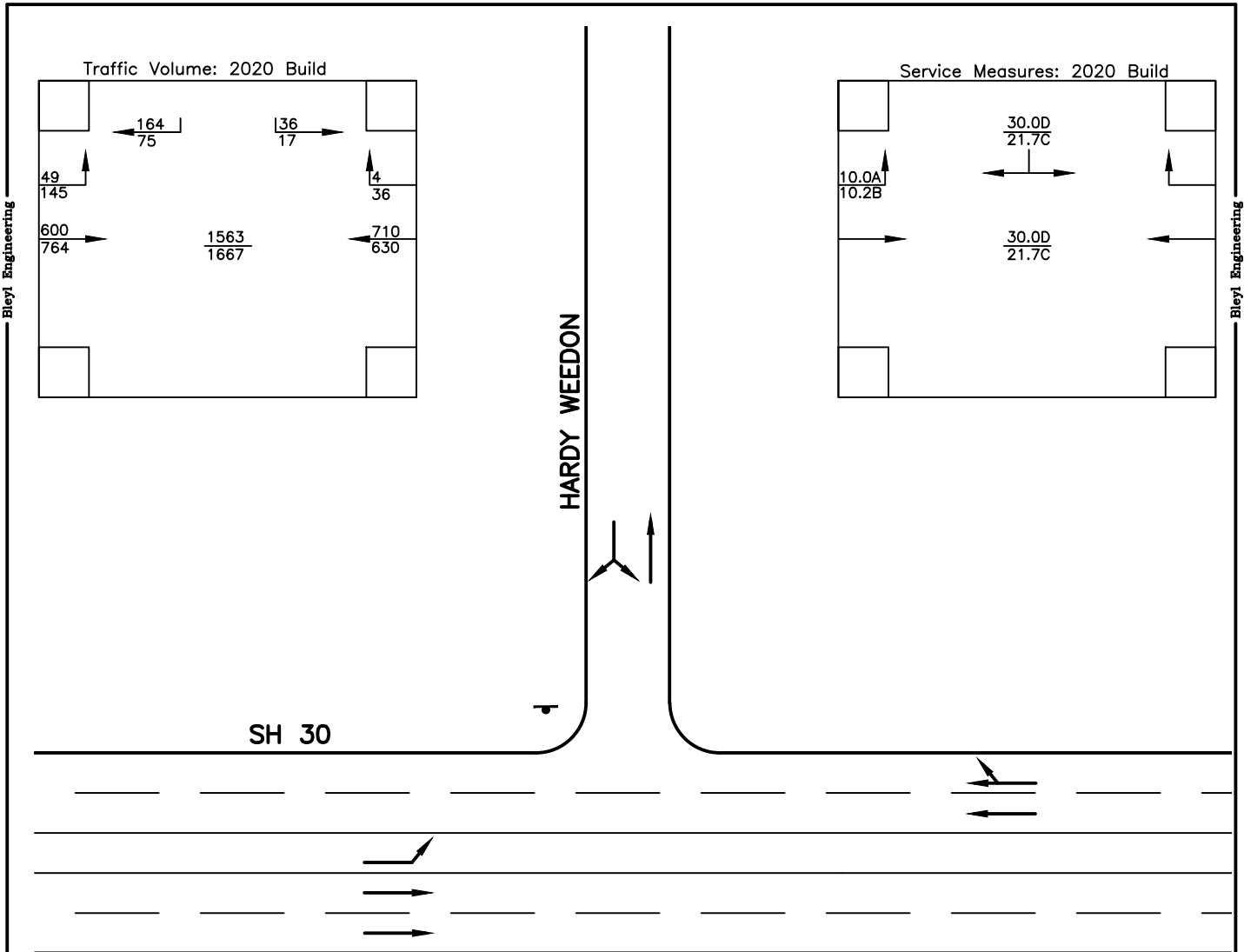
There is not a proposed plan for the commercial tracts at this time; however it is assumed that four commercial driveways will be proposed for access to Hardy Weedon and State Highway 30. The SH 30 driveways assume a TxDOT minimum spacing of 425' from Hardy Weedon and each other, although there is sufficient frontage (870') to allow for larger spacing depending on the site plan. The Hardy Weedon driveways assume the small parcel has access at the existing residential driveway approximately 330' from SH 36, while the larger parcel has access approximately 350' from the first driveway. These distances exceed the City required 185' for spacing on a collector, so driveway location could be modified at Site Plan approval. Each commercial driveway assumes a 36' driveway allowing for right-out, left out, and a single inbound lane. Each driveway was analyzed using the two way stop control procedure. **Exhibits 10-11** show the intersection geometry along with forecast traffic volumes and LOS for these commercial driveway intersections. **Exhibit 12** shows the forecast traffic volumes and LOS for Hardy Weedon at State Highway 30 with both the proposed residential and commercial development.



	<p>LEGEND</p> <p>$\frac{000}{000} = \frac{AM}{PM}$ Peak Hour Volume</p> <p>$\frac{X}{X} = \frac{AM}{PM}$ Service Measures (LOS)</p> <p> = Stop Sign</p>	<p>Unsignalized Intersection LEVEL OF SERVICE (LOS)</p> <table border="1"> <thead> <tr> <th>LOS</th> <th>Control Delay Per Vehicle (sec)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>< 10</td> </tr> <tr> <td>B</td> <td>> 10 and < 15</td> </tr> <tr> <td>C</td> <td>> 15 and < 25</td> </tr> <tr> <td>D</td> <td>> 25 and < 35</td> </tr> <tr> <td>E</td> <td>> 35 and < 50</td> </tr> <tr> <td>F</td> <td>> 50</td> </tr> </tbody> </table>	LOS	Control Delay Per Vehicle (sec)	A	< 10	B	> 10 and < 15	C	> 15 and < 25	D	> 25 and < 35	E	> 35 and < 50	F	> 50	<p align="center">EXHIBIT 5</p> <p align="center">HARDY WEEDON AT SH 30</p> <p align="center">2017 EXISTING</p>
	LOS	Control Delay Per Vehicle (sec)															
A	< 10																
B	> 10 and < 15																
C	> 15 and < 25																
D	> 25 and < 35																
E	> 35 and < 50																
F	> 50																



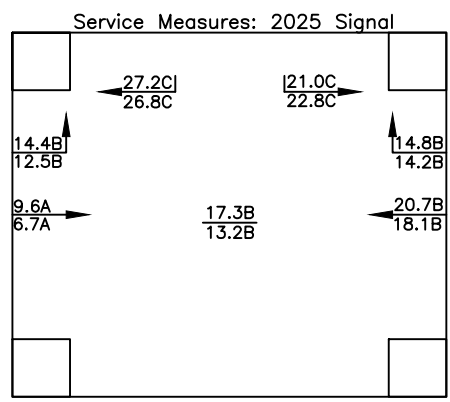
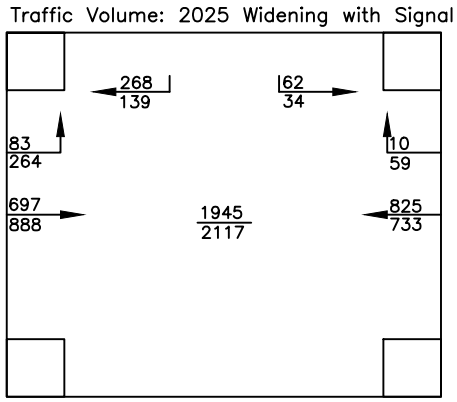
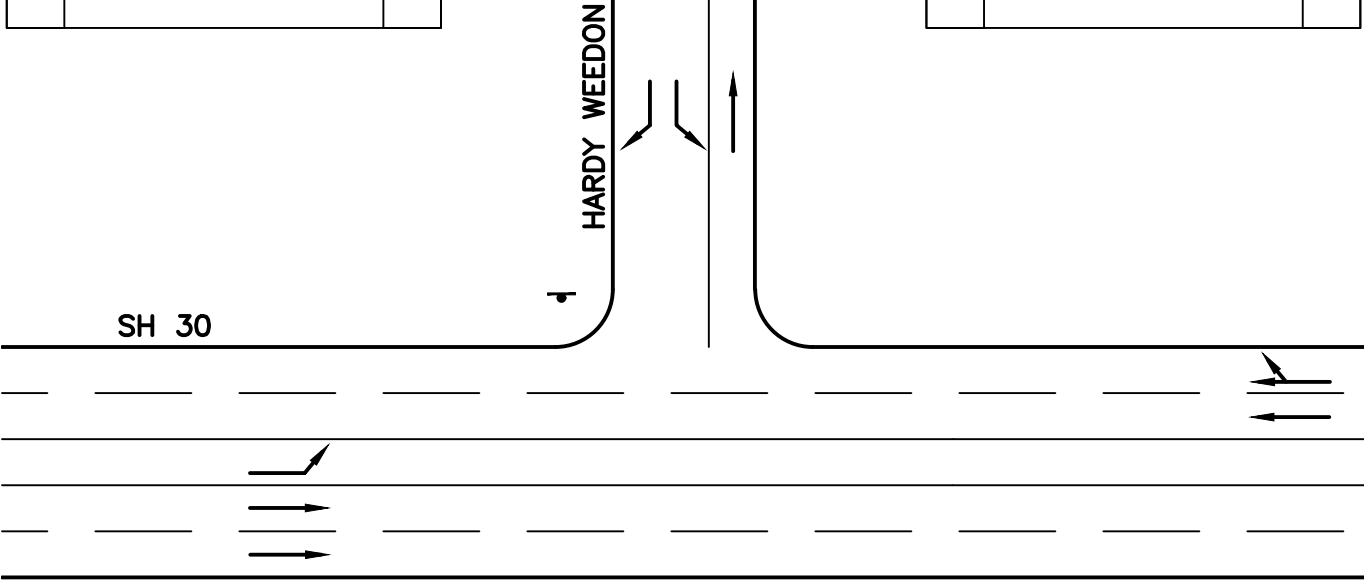
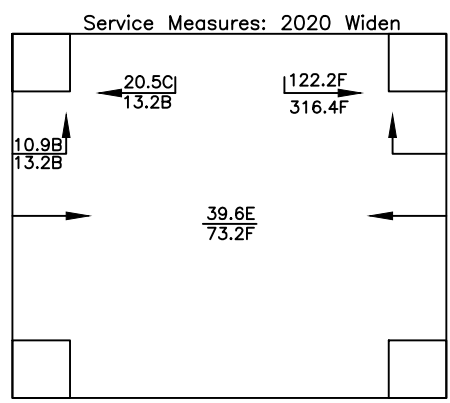
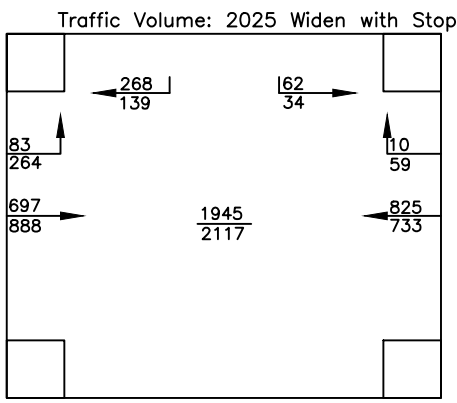
	<p>LEGEND</p> <p>$\frac{000}{000}$ = AM / PM Peak Hour Volume</p> <p>$\frac{X}{X}$ = AM / PM Service Measures (LOS)</p> <p>— = Stop Sign</p>	<p>Unsignalized Intersection LEVEL OF SERVICE (LOS)</p> <table border="1"> <tr> <th>LOS</th> <th>Control Delay Per Vehicle (sec)</th> </tr> <tr> <td>A</td> <td>< 10</td> </tr> <tr> <td>B</td> <td>> 10 and < 15</td> </tr> <tr> <td>C</td> <td>> 15 and < 25</td> </tr> <tr> <td>D</td> <td>> 25 and < 35</td> </tr> <tr> <td>E</td> <td>> 35 and < 50</td> </tr> <tr> <td>F</td> <td>> 50</td> </tr> </table>	LOS	Control Delay Per Vehicle (sec)	A	< 10	B	> 10 and < 15	C	> 15 and < 25	D	> 25 and < 35	E	> 35 and < 50	F	> 50	<p>EXHIBIT 6</p> <p>HARDY WEEDON AT SH 30</p> <p>2020 NO BUILD/ 2025 NO BUILD</p>
LOS	Control Delay Per Vehicle (sec)																
A	< 10																
B	> 10 and < 15																
C	> 15 and < 25																
D	> 25 and < 35																
E	> 35 and < 50																
F	> 50																



<p>N</p>	<p>LEGEND</p> <p>$\frac{000}{000}$ = $\frac{AM}{PM}$ Peak Hour Volume</p> <p>$\frac{X}{X}$ = $\frac{AM}{PM}$ Service Measures (LOS)</p> <p> = Stop Sign</p>	<p>Unsignalized Intersection LEVEL OF SERVICE (LOS)</p> <table border="1"> <thead> <tr> <th>LOS</th> <th>Control Delay Per Vehicle (sec)</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>< 10</td> </tr> <tr> <td>B</td> <td>> 10 and < 15</td> </tr> <tr> <td>C</td> <td>> 15 and < 25</td> </tr> <tr> <td>D</td> <td>> 25 and < 35</td> </tr> <tr> <td>E</td> <td>> 35 and < 50</td> </tr> <tr> <td>F</td> <td>> 50</td> </tr> </tbody> </table>	LOS	Control Delay Per Vehicle (sec)	A	< 10	B	> 10 and < 15	C	> 15 and < 25	D	> 25 and < 35	E	> 35 and < 50	F	> 50	<p>EXHIBIT 7</p> <p>HARDY WEEDON AT SH 30</p> <p>2020 BUILD</p> <p>2025 BUILD</p>
LOS	Control Delay Per Vehicle (sec)																
A	< 10																
B	> 10 and < 15																
C	> 15 and < 25																
D	> 25 and < 35																
E	> 35 and < 50																
F	> 50																

Bleyl Engineering

Bleyl Engineering



LEGEND

$\frac{000}{000}$ = AM / PM Peak Hour Volume

$\frac{X}{X}$ = AM / PM Service Measures (LOS)

— = Stop Sign

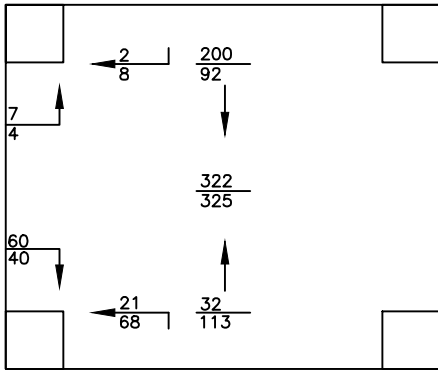
Unsignalized Intersection LEVEL OF SERVICE (LOS)

LOS	Control Delay Per Vehicle (sec)
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B	> 10 and < 15
C	> 15 and < 25
D	> 25 and < 35
E	> 35 and < 50
F	> 50

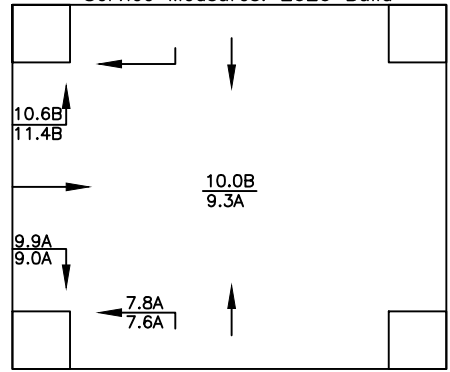
EXHIBIT 8
HARDY WEEDON AT SH 30

2020 WIDEN
2025 SIGNAL

Traffic Volume: 2020 Build



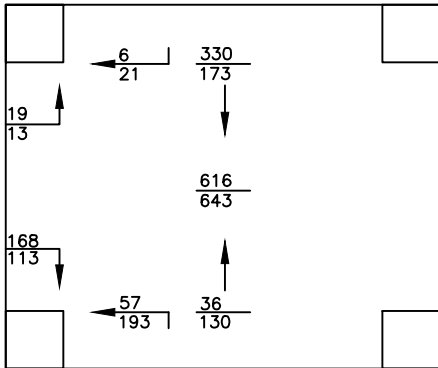
Service Measures: 2020 Build



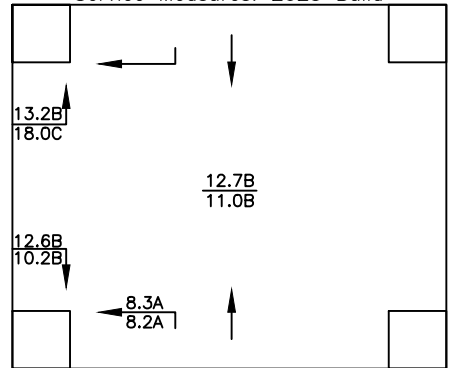
HARDY WEEDON

YAUPON TRAILS

Traffic Volume: 2025 Build



Service Measures: 2025 Build



LEGEND

$\frac{000}{000}$ = AM / PM Peak Hour Volume

$\frac{X}{X}$ = AM / PM Service Measures (LOS)

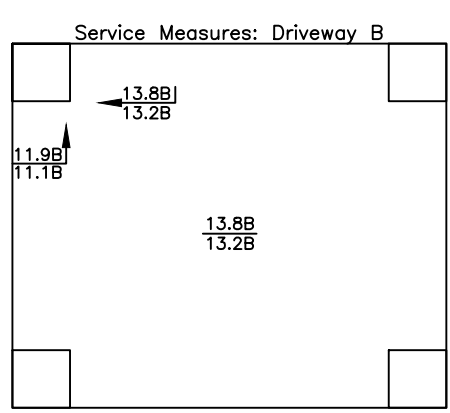
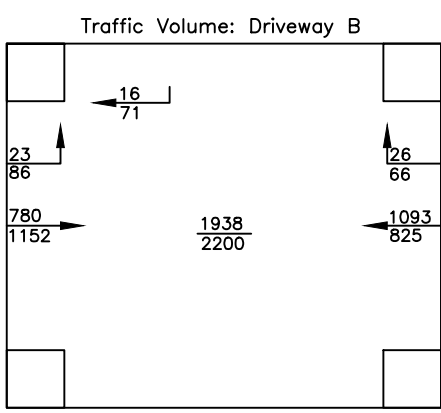
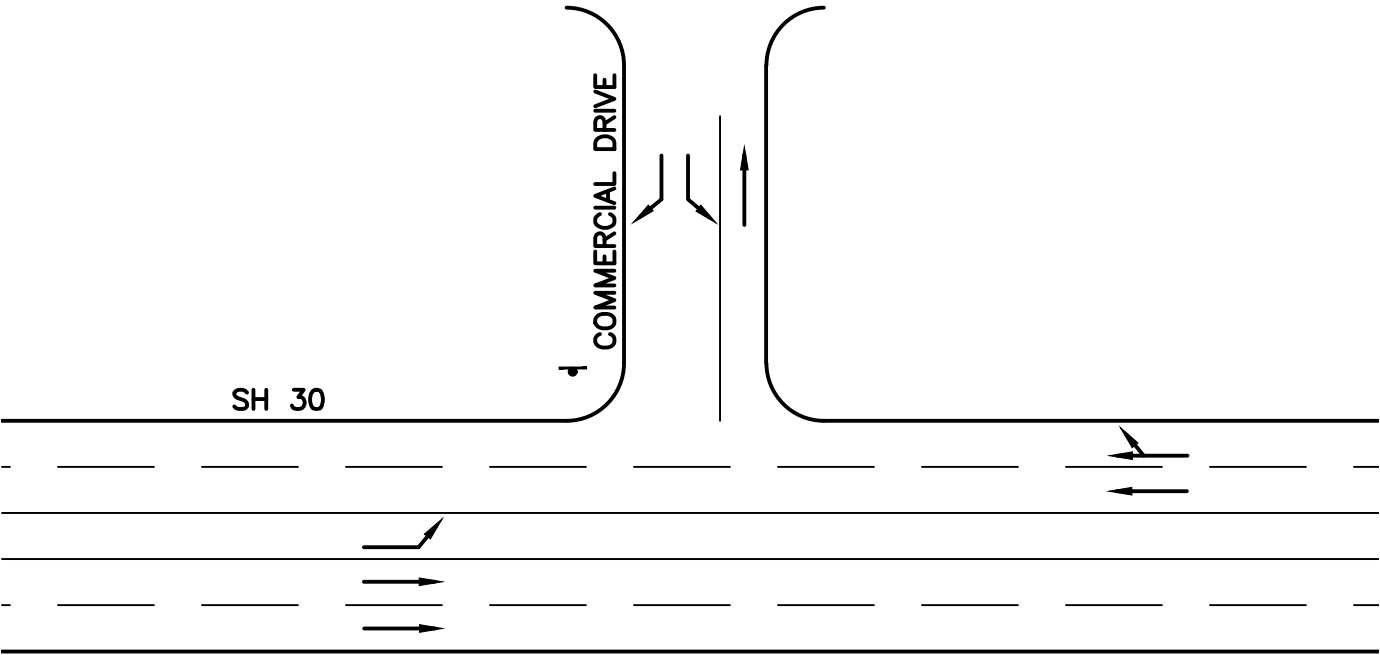
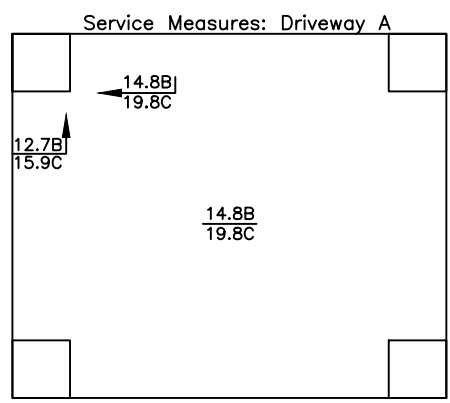
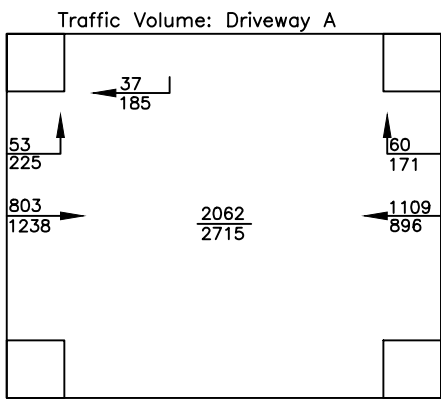
— = Stop Sign

Unsignalized Intersection LEVEL OF SERVICE (LOS)

LOS	Control Delay Per Vehicle (sec)
A	< 10
B	> 10 and < 15
C	> 15 and < 25
D	> 25 and < 35
E	> 35 and < 50
F	> 50

**EXHIBIT 9
YAUPON TRAILS
AT HARDY WEEDON**

**2020 BUILD
2025 BUILD**



LEGEND

$\frac{000}{000} = \frac{AM}{PM}$ Peak Hour Volume

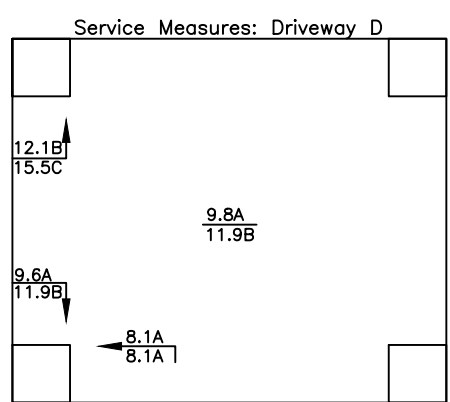
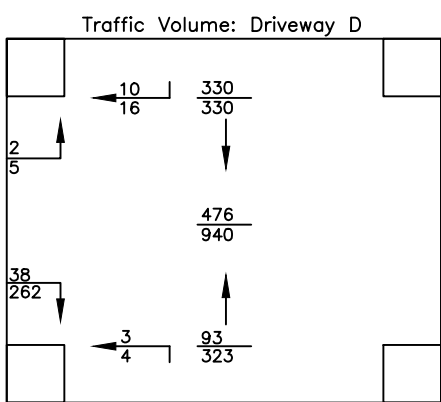
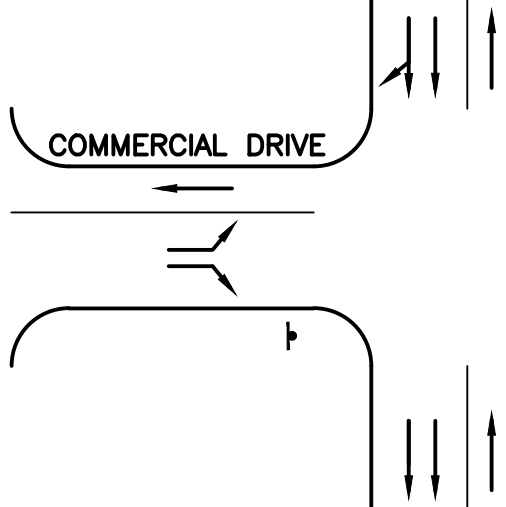
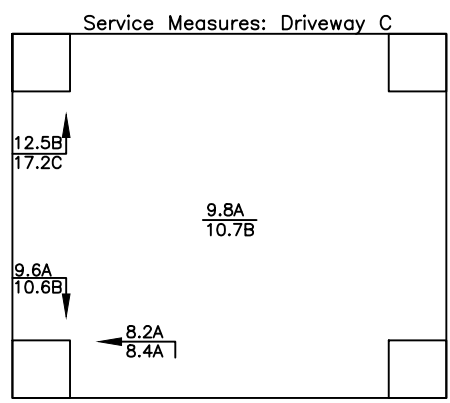
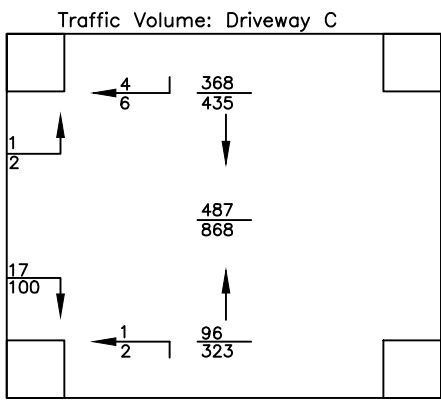
$\frac{X}{X} = \frac{AM}{PM}$ Service Measures (LOS)

— = Stop Sign

Unsignalized Intersection LEVEL OF SERVICE (LOS)

LOS	Control Delay Per Vehicle (sec)
A	< 10
B	> 10 and < 15
C	> 15 and < 25
D	> 25 and < 35
E	> 35 and < 50
F	> 50

EXHIBIT 10
COMMERCIAL DRIVE
AT SH 30
2025 BUILD



LEGEND

$\frac{000}{000}$ = AM / PM Peak Hour Volume

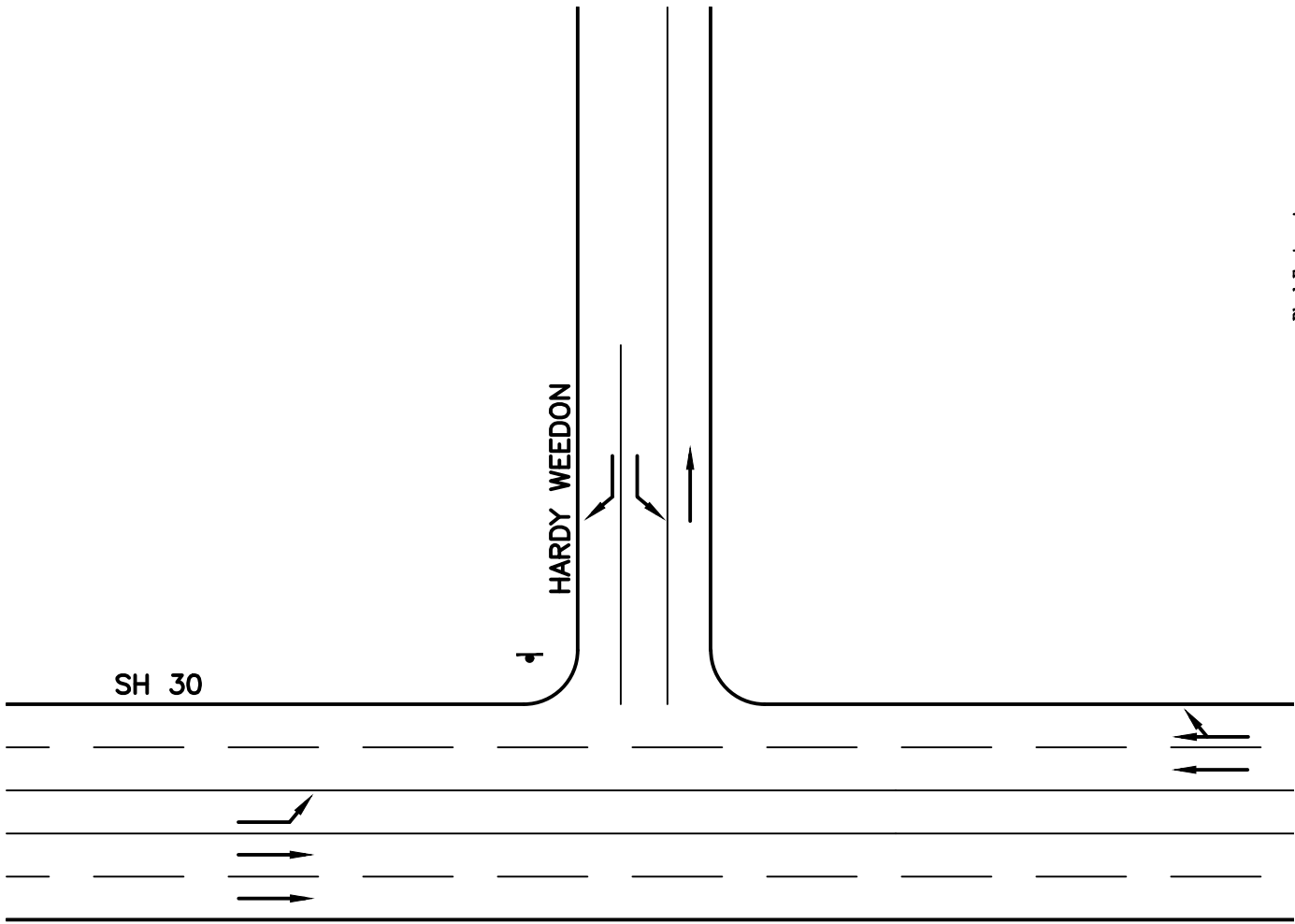
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— = Stop Sign

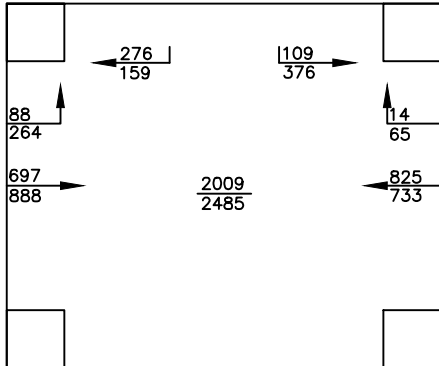
Unsignalized Intersection LEVEL OF SERVICE (LOS)

LOS	Control Delay Per Vehicle (sec)
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B	> 10 and < 15
C	> 15 and < 25
D	> 25 and < 35
E	> 35 and < 50
F	> 50

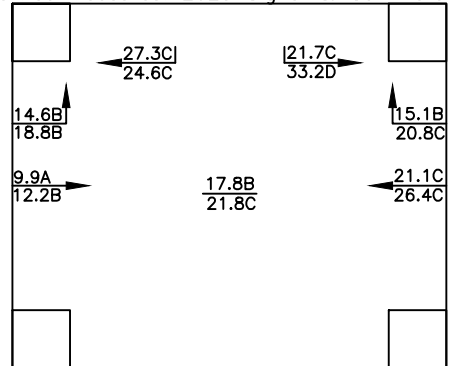
EXHIBIT 11
COMMERCIAL DRIVE
AT HARDY WEEDON
2025 BUILD



Traffic Volume: 2025 Signal & Commercial



Service Measures: 2025 Signal & Commercial



LEGEND

$\frac{000}{000}$ = AM Peak Hour Volume
PM

$\frac{X}{X}$ = AM Service Measures (LOS)
PM

— = Stop Sign

Unsignalized Intersection LEVEL OF SERVICE (LOS)

LOS	Control Delay Per Vehicle (sec)
A	< 10
B	> 10 and < 15
C	> 15 and < 25
D	> 25 and < 35
E	> 35 and < 50
F	> 50

**EXHIBIT 12
HARDY WEEDON AT SH 30**

**2025 SIGNAL
WITH COMMERCIAL**

A summary of the Level of Service at each of the study intersection for scenarios is shown in **Tables 4 & 5**.

Table 4: Residential Development Intersection LOS Summary

Intersection	Peak Hour	SH 30 @ Hardy Weedon		Widen Hardy Weedon		Signal @ Hardy Weedon		Hardy Weedon @ Yaupon Trail	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
2017 Existing	AM	18.1	C	-	-	-	-	-	-
	PM	15.0	B	-	-	-	-	-	-
2020 No Build	AM	22.2	C	-	-	-	-	-	-
	PM	16.2	C	-	-	-	-	-	-
2020 Build	AM	30.0	D	-	-	-	-	10.0	B
	PM	21.7	C	-	-	-	-	9.3	A
2025 No Build	AM	36.8	E	-	-	-	-	-	-
	PM	20.6	C	-	-	-	-	-	-
2025 Build	AM	216.8	F	39.6	E	17.3	B	12.7	B
	PM	225.4	F	73.2	F	13.2	B	11.0	B

Table 5 Commercial & Residential Development Intersection LOS Summary

Intersection	Peak Hour	Signal @ Hardy Weedon		Driveway A @ SH 30		Driveway B @ SH 30		Driveway C @ Hardy Weedon		Driveway D @ Hardy Weedon	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
2025 Build	AM	17.8	B	14.8	B	13.8	B	9.8	A	9.8	A
	PM	21.8	C	19.8	C	13.2	B	10.7	B	11.9	B

Detailed intersection analysis can be found in **Appendix C: Intersection Analyses**.

CONCLUSIONS

The analysis of the intersections indicates that no capacity improvements are needed for Hardy Weedon through Phase 1 of the residential development (2020 design year).

Analysis of the 2025 No Build scenario shows that increasing traffic on SH 30 is degrading the LOS for left turning traffic even without the proposed development. Development of Phase 2 or 3 of the residential development and/or either of the commercial tracts would need to evaluate specific development plans to determine impacts. Proposed mitigation should include the widening of Hardy Weedon in the vicinity of the SH 30 intersection as well as preparation for signalizing the Hardy Weedon @ SH 30 intersection.

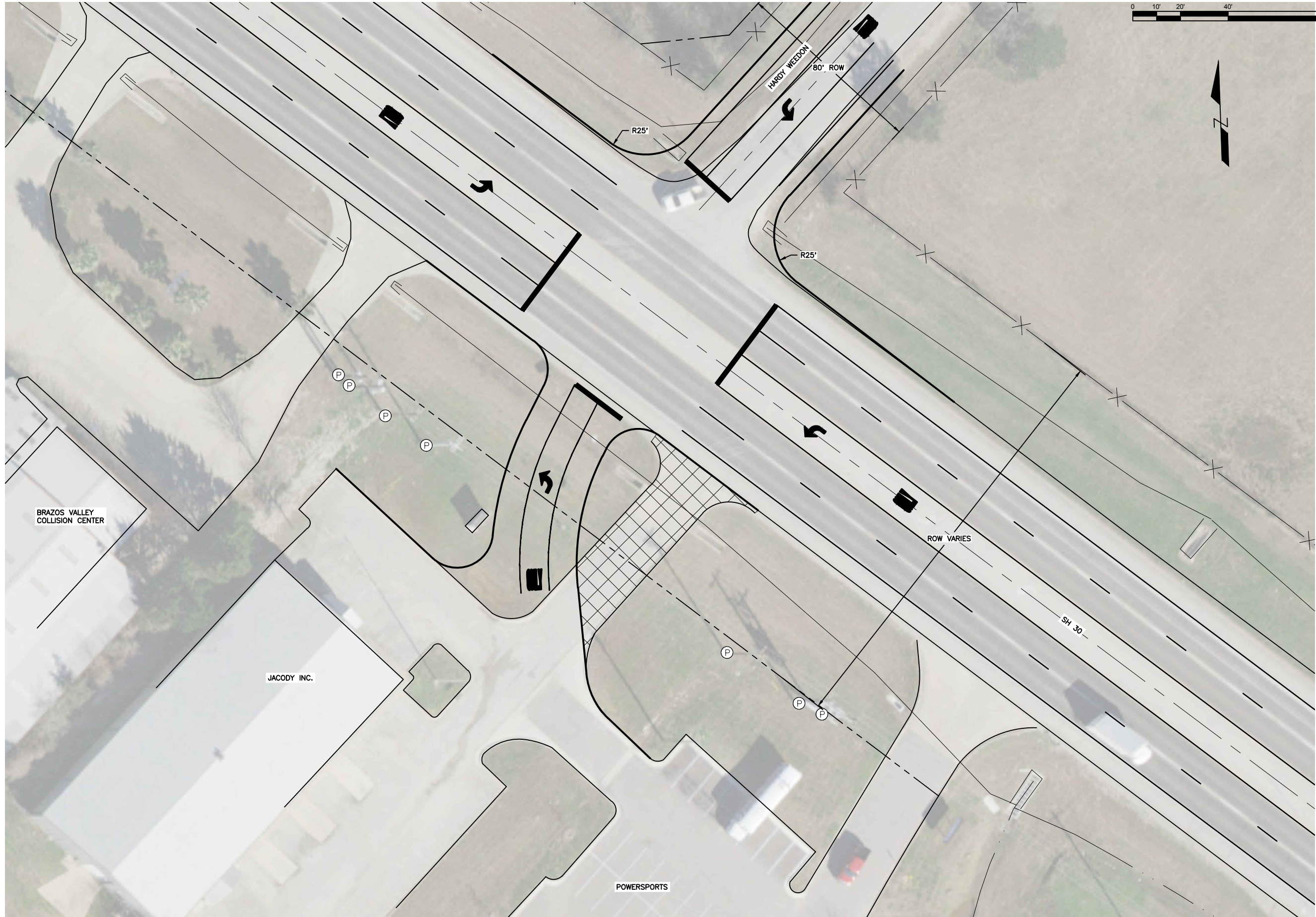
Exhibit 13 illustrates the complications for signalization posed by the existing commercial developments on the south side of State Highway 30. There are 4 existing commercial driveway intersections in the vicinity of the proposed signal. Of these, the Powersports Gymnetics development has the greatest traffic flow in the PM Peak hour, however specific counts should be done during the school year to accurately gauge the impact of the facility's after-school, recreation, and competition programs.

Previous improvements in this vicinity included the addition of a joint access easement for Powersports and the adjacent development; however the driveway is still not well aligned with the Hardy Weedon intersection. **Exhibit 13** shows a potential driveway realignment that could improve the geometry of the intersection for signalization. The City, the Developer and the adjacent businesses should begin now developing an agreement on how to handle the increasing traffic at this intersection.

Development of the Commercial tracts will be undertaken in the future, the proposed tracts have adequate frontage to provide access that meets TxDOT and City of Bryan requirements.

Coordination between the developer, the City of Bryan and Brazos County will be required to design improvements on Hardy Weedon Rd. Traffic analysis of the intersections along Hardy Weedon, demonstrates adequate capacity for the currently planned development once the right turn lane and signal at the SH 30 intersection is completed. However, as a designated major collector and access to numerous undeveloped tracts, the roadway should be improved to meet City of Bryan major collector standards as soon as is practical. At a minimum, developments along Hardy Weedon should dedicate ROW at platting to allow for future improvements to the roadway.

The major collector through the Yaupon Trails development will be designed and built to City of Bryan major collector standards. The proposed intersections on the current phasing plan provide approximately 200' between the proposed edge of pavement and the future Hardy Weedon built to the widest major collector standard. The City's minimum requirement is 185', and analysis of the 2025 Build scenario shows a 95% Queue Length of less than two vehicles.



Z:\12100\12103 YAUPON ESTATES\CD-12103\Y-12103\LA\011_8/17/2017 9:44 AM KYLE FOSTER

REV	DATE	BY	APP	COMMENT
1				
2				
3				
4				

PREPARED FOR:
 YAU PON ESTATES
 4000 STATE HIGHWAY 6, SOUTH
 COLLEGE STATION, TX 77648
 PROJECT MANAGER: DLB

SCALE: AS SHOWN
 DATE: August 17, 2017
 DRAWN BY: IAF

BLEYL ENGINEERING
 PLANNING • DESIGN • MANAGEMENT

TEXAS FIRM REGISTRATION NO. 678

WWW.BLEYLENGINEERING.COM

ASTILL OFFICE: 1715 OPTIM. OF TEXAS HWY. 5, AUSTIN, TEXAS 78746 (512) 338-7878 PHONE (512) 338-1884 FAX
 HOUSTON OFFICE: 400 SPRING, TX 77388 (281) 771-8600 PHONE (281) 778-3553 FAX
 BRYAN OFFICE: 1723 BRYAN, TEXAS 77802 (979) 268-1125 PHONE (979) 268-3447 FAX
 CORPUS OFFICE: 10300 CORPUS, TEXAS 77401 (936) 441-9833 PHONE (936) 788-3553 FAX

EXHIBIT 13
POTENTIAL SIGNAL
MODIFICATIONS
YAUPON ESTATES

YAUPON TRAILS
 A002801, MARIA KEGAN (ICL)
 TRACT 16.1 122.79 ACRES
 BRYAN, BRAZOS COUNTY, TEXAS

PROJECT NUMBER
12103

FILE NAME:
 Y-12103.DWG

SHEET:

OF:

REFERENCES

1. Planning and Zoning Map, City of Bryan, Bryan, Texas. <https://gis.bryantx.gov/plan/>, accessed July 28, 2017.
2. Statewide Planning Map: Texas Department of Transportation, Austin, Texas, 2017. http://www.txdot.gov/apps/statewide_mapping/StatewidePlanningMap.html accessed July 28, 2017
3. *Highway Capacity Manual 2010*, Transportation Research Board, Washington, DC, 2010.
4. *HCS 7*, Version 7.1, McTrans Center, University of Florida, Gainesville FL 32611.
5. *Trip Generation Manual*, 9th Edition, Institute of Transportation Engineers, Washington, DC, 2012.

Appendix A:
Intersection Turning Movement Counts

Count Location: SH 30 at Hardy Weedon
 Count Date: Tuesday, July 25, 2017

Weather Conditions: Slight Overcast
 Names of counters: D. Besly, K. Foster, C. Salazar

A.M. PEAK PERIOD																	
Time	Eastbound SH 30				Westbound SH 30				Northbound				Southbound Hardy Weedon				Vehicle Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
6:00	4	23				29									5		61
6:15	1	60				55							3		10		129
6:30	3	69				82	1						6		13		174
6:45	1	95				90	1						2		11		200
7:00	2	86				84	1						3		12		188
7:15	7	97				131							3		27		265
7:30	5	138				151	1						4		20		319
7:45	5	154				171							8		30		368
8:00	6	100				126							5		18		255
8:15	7	115				114							5		17		258
8:30	1	76				102							3		7		189
8:45																	

P.M. PEAK PERIOD																	
Time	Eastbound SH 30				Westbound SH 30				Northbound				Southbound Hardy Weedon				Vehicle Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
16:00	15	118				112	7						4		9		265
16:15	11	122				74	2						2		8		219
16:30	15	134				98	2						3		8		260
16:45	13	141				116	3						4		4		281
17:00	8	180				154	5						1		7		355
17:15	25	173				111	5						4		8		326
17:30	24	129				134	7								16		310
17:45	26	126				99	3								6		260

A.M. Peak Hour
7:15 - 8:15

P.M. Peak Hour
16:45 - 17:45

A.M. Peak Hour	Eastbound SH 30				Westbound SH 30				Northbound				Southbound Hardy Weedon				Vehicle Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
7:15	7	97				131							3		27		265
7:30	5	138				151	1						4		20		319
7:45	5	154				171							8		30		368
8:00	6	100				126							5		18		255
TOTAL	23	489				579	1						20		95		1207

P.M. Peak Hour	Eastbound SH 30				Westbound SH 30				Northbound				Southbound Hardy Weedon				Vehicle Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
16:45	13	141				116	3						4		4		281
17:00	8	180				154	5						1		7		355
17:15	25	173				111	5						4		8		326
17:30	24	129				134	7								16		310
TOTAL	70	623				515	20						9		35		1272

Count Location: SH 30 at Hardy Weedon

Weather Conditions

Count Date: Tuesday, September 26, 2017

Names of counters:

Count increased by 12% to account for summer traffic

A.M. PEAK PERIOD																	
Time	Eastbound				Westbound				Northbound				Southbound				Vehicle Total
	SH 30				SH 30								Hardy Weedon				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
6:00	4	26				32									6		68
6:15	1	67				62							3		11		144
6:30	3	77				92	1						7		15		195
6:45	1	106				101	1						2		12		223
7:00	2	96				94	1						3		13		209
7:15	8	109				147							3		30		297
7:30	6	155				169	1						4		22		357
7:45	6	172				192							9		34		413
8:00	7	112				141							6		20		286
8:15	8	129				128							6		19		290
8:30	1	85				114							3		8		211
8:45	1	71				100							2		6		180

P.M. PEAK PERIOD																	
Time	Eastbound				Westbound				Northbound				Southbound				Vehicle Total
	SH 30				SH 30								Hardy Weedon				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
16:00	17	132				125	8						4		10		296
16:15	12	137				83	2						2		9		245
16:30	17	150				110	2						3		9		291
16:45	15	158				130	3						4		4		314
17:00	9	202				172	6						1		8		398
17:15	28	194				124	6						4		9		365
17:30	27	144				150	8								18		347
17:45	29	141				111	3								7		291

A.M. Peak Hour
7:15 - 8:15

P.M. Peak Hour
16:45 - 17:45

A.M. Peak Hour	Eastbound				Westbound				Northbound				Southbound				Vehicle Total
	SH 30				SH 30								Hardy Weedon				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
7:15	8	109				147							3		30		297
7:30	6	155				169	1						4		22		357
7:45	6	172				192							9		34		413
8:00	7	112				141							6		20		286
TOTAL	27	548				649	1						22		106		1353

P.M. Peak Hour	Eastbound				Westbound				Northbound				Southbound				Vehicle Total
	SH 30				SH 30								Hardy Weedon				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
16:45	15	158				130	3						4		4		314
17:00	9	202				172	6						1		8		398
17:15	28	194				124	6						4		9		365
17:30	27	144				150	8								18		347
TOTAL	79	698				576	23						9		39		1424

Location: SH 30 at Hardy Weedon
 Projection Year: 2020

Projected Growth Rate 3.04%

A.M. PEAK PERIOD																	
Time	Eastbound SH 30				Westbound SH 30				Northbound				Southbound Hardy Weedon				Vehicle Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
7:00	2	105				103	1						3		14		228
7:15	9	119				161							3		33		325
7:30	7	170				185	1						4		24		391
7:45	7	188				210							10		37		452
8:00	8	123				154							7		22		314
8:15	9	141				140							7		21		318
8:30	1	93				125							3		9		231
8:45	1	78				109							2		7		197

P.M. PEAK PERIOD																	
Time	Eastbound SH 30				Westbound SH 30				Northbound				Southbound Hardy Weedon				Vehicle Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
16:00	19	144				137	9						4		11		324
16:15	13	150				91	2						2		10		268
16:30	19	164				120	2						3		10		318
16:45	16	173				142	3						4		4		342
17:00	10	221				188	7						1		9		436
17:15	31	212				136	7						4		10		400
17:30	30	158				164	9								20		381
17:45	32	154				121	3								8		318

A.M. Peak Hour
7:15 - 8:15

P.M. Peak Hour
16:45 - 17:45

A.M. Peak Hour	Eastbound SH 30				Westbound SH 30				Northbound				Southbound Hardy Weedon				Vehicle Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
7:15	9	119				161							3		33		325
7:30	7	170				185	1						4		24		391
7:45	7	188				210							10		37		452
8:00	8	123				154							7		22		314
TOTAL	31	600				710	1						24		116		1482

P.M. Peak Hour	Eastbound SH 30				Westbound SH 30				Northbound				Southbound Hardy Weedon				Vehicle Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
16:45	16	173				142	3						4		4		342
17:00	10	221				188	7						1		9		436
17:15	31	212				136	7						4		10		400
17:30	30	158				164	9								20		381
TOTAL	87	764				630	26						9		43		1559

Location: SH 30 at Hardy Weedon
 Projection Year: 2025

Projected Growth Rate 3.04%

A.M. PEAK PERIOD																	
Time	Eastbound SH 30				Westbound SH 30				Northbound				Southbound Hardy Weedon				Vehicle Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
7:00	3	122				119	1						4		17		266
7:15	10	139				187							4		38		378
7:30	8	197				215	1						5		28		454
7:45	8	219				244							11		43		525
8:00	9	142				179							8		25		363
8:15	10	164				163							8		24		369
8:30	1	108				145							4		10		268
8:45	1	90				127							3		8		229

P.M. PEAK PERIOD																	
Time	Eastbound SH 30				Westbound SH 30				Northbound				Southbound Hardy Weedon				Vehicle Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
16:00	22	168				159	10						5		13		377
16:15	15	174				105	3						3		11		311
16:30	22	191				140	3						4		11		371
16:45	19	201				165	4						5		5		399
17:00	11	257				219	8						1		10		506
17:15	36	247				158	8						5		11		465
17:30	34	183				191	10								23		441
17:45	37	179				141	4								9		370

A.M. Peak Hour
7:15 - 8:15

P.M. Peak Hour
16:45 - 17:45

A.M. Peak Hour	Eastbound SH 30				Westbound SH 30				Northbound				Southbound Hardy Weedon				Vehicle Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
7:15	10	139				187							4		38		378
7:30	8	197				215	1						5		28		454
7:45	8	219				244							11		43		525
8:00	9	142				179							8		25		363
TOTAL	35	697				825	1						28		134		1720

P.M. Peak Hour	Eastbound SH 30				Westbound SH 30				Northbound				Southbound Hardy Weedon				Vehicle Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
16:45	19	201				165	4						5		5		399
17:00	11	257				219	8						1		10		506
17:15	36	247				158	8						5		11		465
17:30	34	183				191	10								23		441
TOTAL	100	888				733	30						11		49		1811

Appendix B:
Trip Generation

Yaupon Trails

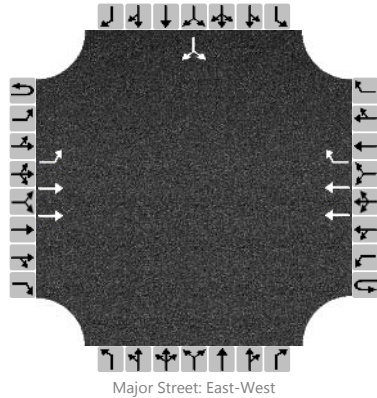
Proposed Trip Generation					
PHASE 1 - Residential					
Land Use 210 - Single-Family Detached Housing	ITE Trip Generation, 9th Edition				
Number of Dwelling Units	119	Trips			
Period	Average Rate	Average	Fitted	Entering	Exiting
Avg Weekday Trips	9.52	1130	1230	615	615
AM Peak Hour	0.75	90	90	23	67
PM Peak Hour	1.00	120	120	76	44
Saturday	9.91	1180	1190	595	595
Sunday	8.62	1030	1030	515	515
PHASE 1, 2 & 3 - Residential					
Land Use 210 - Single-Family Detached Housing	ITE Trip Generation, 9th Edition				
Number of Dwelling Units	338	Trips			
Period	Average Rate	Average	Fitted	Entering	Exiting
Avg Weekday Trips	9.52	3220	3220	1610	1610
AM Peak Hour	0.75	250	250	63	187
PM Peak Hour	1.00	340	310	214	126
Saturday	9.91	3350	3150	1675	1675
Sunday	8.62	2910	2920	1460	1460
Commercial					
Land Use 820 - Shopping Center	ITE Trip Generation, 9th Edition				
1000's SF of Gross Leasable Area	283	Trips			
Period	161*0.4	Average	Fitted	Entering	Exiting
Avg Weekday Trips	42.7	12080	13350	6675	6675
AM Peak Hour	0.96	270	290	180	110
PM Peak Hour	3.71	1050	1200	576	624
Saturday	49.97	14140	17790	8895	8895
Sunday	25.24	7140	8640	4320	4320

Appendix C:
Intersection Analyses

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	D. Besly	Intersection	SH 30 @ Hardy Weedon
Agency/Co.	Bleyl Engineering	Jurisdiction	City of Bryan
Date Performed	8/2/2017	East/West Street	SH 30
Analysis Year	2017	North/South Street	Hardy Weedon
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.82
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Existing Conditions		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	1		0	0	0		0	0	0
Configuration		L	T				T	R							LR	
Volume, V (veh/h)		27	548				649	1						22		106
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

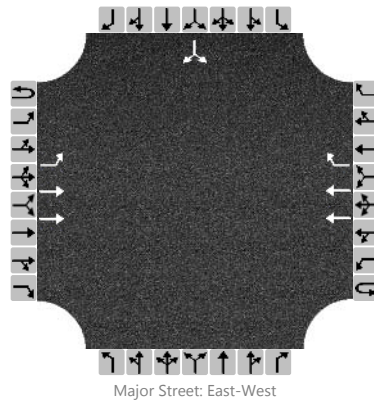
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		33														156
Capacity, c (veh/h)		818														419
v/c Ratio		0.04														0.37
95% Queue Length, Q ₉₅ (veh)		0.1														1.7
Control Delay (s/veh)		9.6														18.6
Level of Service, LOS		A														C
Approach Delay (s/veh)	0.5												18.6			
Approach LOS													C			

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	D. Besly			Intersection	SH 30 @ Hardy Weedon		
Agency/Co.	Bleyl Engineering			Jurisdiction	City of Bryan		
Date Performed	8/2/2017			East/West Street	SH 30		
Analysis Year	2017			North/South Street	Hardy Weedon		
Time Analyzed	PM Peak Hour			Peak Hour Factor	0.89		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Existing Conditions						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	1		0	0	0		0	0	0
Configuration		L	T				T	R							LR	
Volume, V (veh/h)		79	698				576	23						9		39
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

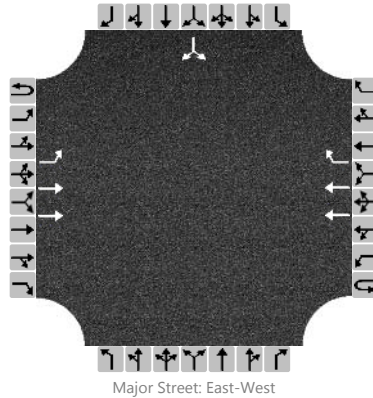
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		89														54
Capacity, c (veh/h)		907														414
v/c Ratio		0.10														0.13
95% Queue Length, Q ₉₅ (veh)		0.3														0.4
Control Delay (s/veh)		9.4														15.0
Level of Service, LOS		A														B
Approach Delay (s/veh)	1.0								15.0							
Approach LOS	A								B							

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	D. Besly			Intersection	SH 30 @ Hardy Weedon		
Agency/Co.	Bleyl Engineering			Jurisdiction	City of Bryan		
Date Performed	8/2/2017			East/West Street	SH 30		
Analysis Year	2020			North/South Street	Hardy Weedon		
Time Analyzed	AM Peak Hour			Peak Hour Factor	0.82		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	No Build						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	1		0	0	0		0	0	0
Configuration		L	T				T	R							LR	
Volume, V (veh/h)		31	600				710	1						24		116
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

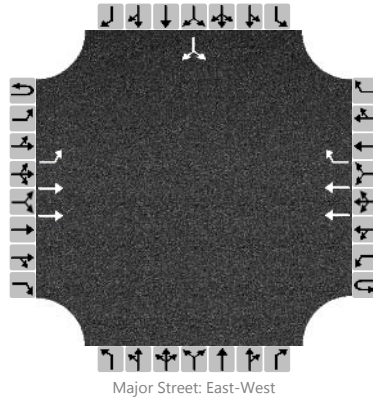
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		38														170
Capacity, c (veh/h)		766														376
v/c Ratio		0.05														0.45
95% Queue Length, Q ₉₅ (veh)		0.2														2.3
Control Delay (s/veh)		9.9														22.2
Level of Service, LOS		A														C
Approach Delay (s/veh)	0.5												22.2			
Approach LOS													C			

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	D. Besly	Intersection	SH 30 @ Hardy Weedon
Agency/Co.	Bleyl Engineering	Jurisdiction	City of Bryan
Date Performed	8/2/2017	East/West Street	SH 30
Analysis Year	2020	North/South Street	Hardy Weedon
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.85
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Yaupon Estates Phase 1		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	1	2	0	0	0	2	1		0	0	0		0	0	0	
Configuration		L	T				T	R								LR	
Volume, V (veh/h)		49	600				710	4						36		164	
Percent Heavy Vehicles (%)		3												3		3	
Proportion Time Blocked																	
Percent Grade (%)																0	
Right Turn Channelized		No			No				No				No				
Median Type/Storage		Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

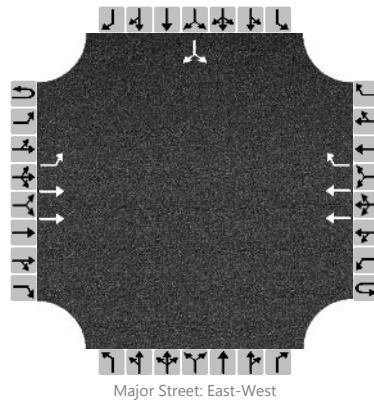
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		58														235	
Capacity, c (veh/h)		785														371	
v/c Ratio		0.07														0.63	
95% Queue Length, Q ₉₅ (veh)		0.2														4.2	
Control Delay (s/veh)		10.0														30.0	
Level of Service, LOS		A														D	
Approach Delay (s/veh)		0.8												30.0			
Approach LOS														D			

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	D. Besly			Intersection	SH 30 @ Hardy Weedon		
Agency/Co.	Bleyl Engineering			Jurisdiction	City of Bryan		
Date Performed	8/2/2017			East/West Street	SH 30		
Analysis Year	2020			North/South Street	Hardy Weedon		
Time Analyzed	PM Peak Hour			Peak Hour Factor	0.89		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	No Build						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	1		0	0	0		0	0	0
Configuration		L	T				T	R							LR	
Volume, V (veh/h)		87	764				630	26						9		43
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

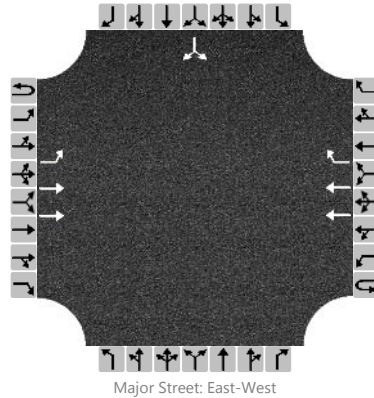
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		98														58
Capacity, c (veh/h)		858														378
v/c Ratio		0.11														0.15
95% Queue Length, Q ₉₅ (veh)		0.4														0.5
Control Delay (s/veh)		9.7														16.2
Level of Service, LOS		A														C
Approach Delay (s/veh)	1.0												16.2			
Approach LOS													C			

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	D. Besly	Intersection	SH 30 @ Hardy Weedon
Agency/Co.	Bleyl Engineering	Jurisdiction	City of Bryan
Date Performed	8/2/2017	East/West Street	SH 30
Analysis Year	2020	North/South Street	Hardy Weedon
Time Analyzed	PM Peak Hour	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Yaupon Estates Phase 1		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	1		0	0	0		0	0	0
Configuration		L	T				T	R								LR
Volume, V (veh/h)		145	764				630	36						17		75
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

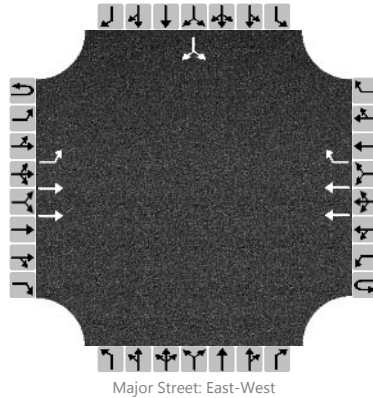
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		161														102
Capacity, c (veh/h)		856														317
v/c Ratio		0.19														0.32
95% Queue Length, Q ₉₅ (veh)		0.7														1.4
Control Delay (s/veh)		10.2														21.7
Level of Service, LOS		B														C
Approach Delay (s/veh)	1.6												21.7			
Approach LOS													C			

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	D. Besly			Intersection	SH 30 @ Hardy Weedon		
Agency/Co.	Bleyl Engineering			Jurisdiction	City of Bryan		
Date Performed	8/2/2017			East/West Street	SH 30		
Analysis Year	2025			North/South Street	Hardy Weedon		
Time Analyzed	AM Peak Hour			Peak Hour Factor	0.82		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	No Build						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	1	2	0	0	0	2	1		0	0	0		0	0	0	
Configuration		L	T				T	R							LR		
Volume, V (veh/h)		35	697				825	1						28		134	
Percent Heavy Vehicles (%)		3												3		3	
Proportion Time Blocked																	
Percent Grade (%)																0	
Right Turn Channelized		No			No				No				No				
Median Type/Storage		Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

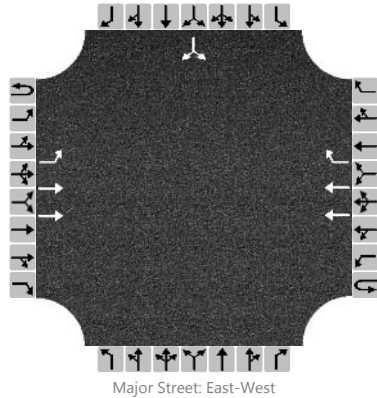
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		43														197	
Capacity, c (veh/h)		678														302	
v/c Ratio		0.06														0.65	
95% Queue Length, Q ₉₅ (veh)		0.2														4.3	
Control Delay (s/veh)		10.7														36.8	
Level of Service, LOS		B														E	
Approach Delay (s/veh)		0.5												36.8			
Approach LOS														E			

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	D. Besly			Intersection	SH 30 @ Hardy Weedon		
Agency/Co.	Bleyl Engineering			Jurisdiction	City of Bryan		
Date Performed	8/2/2017			East/West Street	SH 30		
Analysis Year	2025			North/South Street	Hardy Weedon		
Time Analyzed	AM Peak Hour			Peak Hour Factor	0.87		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Yaupon Estates Phases 1-3						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	1	2	0	0	0	2	1		0	0	0		0	0	0	
Configuration		L	T				T	R								LR	
Volume, V (veh/h)		83	697				825	10						62		268	
Percent Heavy Vehicles (%)		3												3		3	
Proportion Time Blocked																	
Percent Grade (%)																0	
Right Turn Channelized		No			No				No				No				
Median Type/Storage		Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

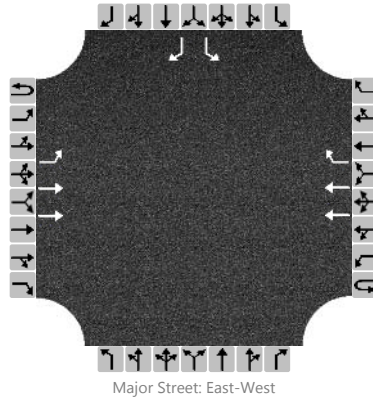
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		95														379	
Capacity, c (veh/h)		707														280	
v/c Ratio		0.13														1.35	
95% Queue Length, Q ₉₅ (veh)		0.5														19.6	
Control Delay (s/veh)		10.9														216.8	
Level of Service, LOS		B														F	
Approach Delay (s/veh)		1.2												216.8			
Approach LOS		F															

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	D. Besly			Intersection	SH 30 @ Hardy Weedon		
Agency/Co.	Bleyl Engineering			Jurisdiction	City of Bryan		
Date Performed	8/2/2017			East/West Street	SH 30		
Analysis Year	2025			North/South Street	Widened Hardy Weedon		
Time Analyzed	AM Peak Hour			Peak Hour Factor	0.87		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Yaupon Estates Phases 1-3						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	1		0	0	0		1	0	1
Configuration		L	T				T	R						L		R
Volume, V (veh/h)		83	697				825	10						62		268
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

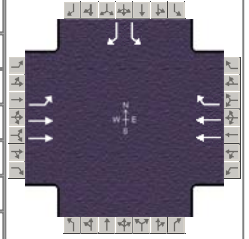
Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		95												71		308	
Capacity, c (veh/h)		707												91		534	
v/c Ratio		0.13												0.78		0.58	
95% Queue Length, Q ₉₅ (veh)		0.5												4.0		3.6	
Control Delay (s/veh)		10.9												122.2		20.5	
Level of Service, LOS		B												F		C	
Approach Delay (s/veh)		1.2												39.6			
Approach LOS		E															

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Bleyl Engineering			Duration, h	0.25
Analyst	D. Besly	Analysis Date	8/3/2017	Area Type	Other
Jurisdiction	City of Bryan	Time Period	AM Peak	PHF	0.87
Urban Street	SH 30	Analysis Year	2025	Analysis Period	1 > 7:00
Intersection	Hardy Weedon	File Name	SH 30 @ Hardy Weedon 2025 AM.xus		
Project Description	Yaupon Trails Phases 1-3				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	83	697			825	10					62	268

Signal Information													
Cycle, s	67.3	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	Yes	Simult. Gap E/W	On	Green	5.0	22.9	15.4	0.0	0.0	0.0			
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	6.0	6.0	6.0	0.0	0.0	0.0			
				Red	2.0	2.0	2.0	0.0	0.0	0.0			

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6				4
Case Number	1.0	4.0		7.3				9.0
Phase Duration, s	13.0	43.9		30.9				23.4
Change Period, ($Y+R_c$), s	8.0	8.0		8.0				8.0
Max Allow Headway (MAH), s	2.9	2.8		2.8				3.2
Queue Clearance Time (g_s), s	4.1	11.5		18.8				14.7
Green Extension Time (g_e), s	0.1	4.0		4.0				0.7
Phase Call Probability	0.83	1.00		1.00				1.00
Max Out Probability	0.00	0.00		0.00				0.00

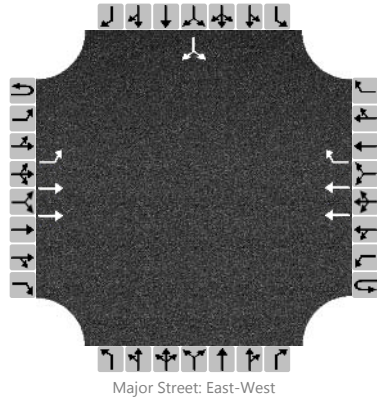
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2			6	16				7		14
Adjusted Flow Rate (v), veh/h	95	801			948	11				71		308
Adjusted Saturation Flow Rate (s), veh/h/ln	1767	1724			1724	1572				1767		1572
Queue Service Time (g_s), s	2.1	9.5			16.8	0.3				2.2		12.7
Cycle Queue Clearance Time (g_c), s	2.1	9.5			16.8	0.3				2.2		12.7
Green Ratio (g/C)	0.45	0.53			0.34	0.34				0.23		0.23
Capacity (c), veh/h	292	1840			1175	536				404		360
Volume-to-Capacity Ratio (X)	0.327	0.435			0.807	0.021				0.176		0.856
Back of Queue (Q), ft/ln (50 th percentile)	15.6	58.4			136.8	2.4				20.8		112.3
Back of Queue (Q), veh/ln (50 th percentile)	0.6	2.2			5.2	0.1				0.8		4.4
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00			0.00	0.00				0.00		0.00
Uniform Delay (d_1), s/veh	14.1	9.5			20.2	14.8				20.9		24.9
Incremental Delay (d_2), s/veh	0.2	0.1			0.5	0.0				0.1		2.3
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0	0.0				0.0		0.0
Control Delay (d), s/veh	14.4	9.6			20.7	14.8				21.0		27.2
Level of Service (LOS)	B	A			C	B				C		C
Approach Delay, s/veh / LOS	10.1	B		20.6	C		0.0			26.0		C
Intersection Delay, s/veh / LOS	17.3						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	0.7	A	2.3	B	2.9	C	2.9	C
Bicycle LOS Score / LOS	1.2	A	1.3	A				F

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	D. Besly			Intersection	SH 30 @ Hardy Weedon		
Agency/Co.	Bleyl Engineering			Jurisdiction	City of Bryan		
Date Performed	8/2/2017			East/West Street	SH 30		
Analysis Year	2025			North/South Street	Hardy Weedon		
Time Analyzed	PM Peak Hour			Peak Hour Factor	0.90		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	No Build						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	1		0	0	0		0	0	0
Configuration		L	T				T	R							LR	
Volume, V (veh/h)		100	888				733	30						11		49
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

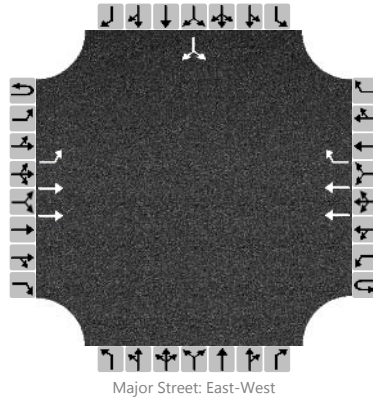
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		111														66
Capacity, c (veh/h)		780														297
v/c Ratio		0.14														0.22
95% Queue Length, Q ₉₅ (veh)		0.5														0.8
Control Delay (s/veh)		10.4														20.6
Level of Service, LOS		B														C
Approach Delay (s/veh)	1.0												20.6			
Approach LOS													C			

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	D. Besly			Intersection	SH 30 @ Hardy Weedon		
Agency/Co.	Bleyl Engineering			Jurisdiction	City of Bryan		
Date Performed	8/2/2017			East/West Street	SH 30		
Analysis Year	2025			North/South Street	Hardy Weedon		
Time Analyzed	PM Peak Hour			Peak Hour Factor	0.90		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Yaupon Estates Phases 1-3						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	1		0	0	0		0	0	0
Configuration		L	T				T	R							LR	
Volume, V (veh/h)		264	888				733	59						34		139
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)																0
Right Turn Channelized		No			No				No				No			
Median Type/Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

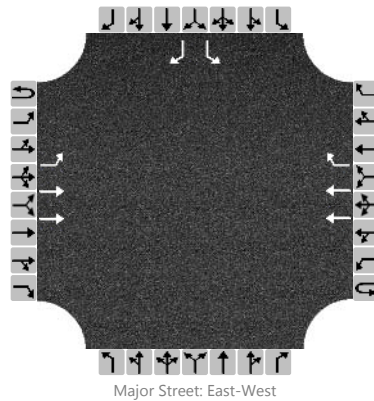
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		293														192	
Capacity, c (veh/h)		758														150	
v/c Ratio		0.39														1.28	
95% Queue Length, Q ₉₅ (veh)		1.8														11.5	
Control Delay (s/veh)		12.7														225.4	
Level of Service, LOS		B														F	
Approach Delay (s/veh)		2.9												225.4			
Approach LOS														F			

HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	D. Besly			Intersection	SH 30 @ Hardy Weedon		
Agency/Co.	Bleyl Engineering			Jurisdiction	City of Bryan		
Date Performed	8/2/2017			East/West Street	SH 30		
Analysis Year	2025			North/South Street	Widened Hardy Weedon		
Time Analyzed	PM Peak Hour			Peak Hour Factor	0.90		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Yaupon Estates Phases 1-3						

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6	7	8	9		10	11	12	
Priority																
Number of Lanes	0	1	2	0	0	0	2	1	0	0	0		1	0	1	
Configuration		L	T				T	R						L		R
Volume, V (veh/h)		264	888				733	59						34		139
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

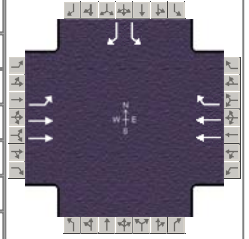
Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		293												38		154
Capacity, c (veh/h)		758												37		591
v/c Ratio		0.39												1.02		0.26
95% Queue Length, Q ₉₅ (veh)		1.8												3.8		1.0
Control Delay (s/veh)		12.7												316.4		13.2
Level of Service, LOS		B												F		B
Approach Delay (s/veh)	2.9												73.2			
Approach LOS													F			

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Bleyl Engineering			Duration, h	0.25
Analyst	D. Besly	Analysis Date	8/3/2017	Area Type	Other
Jurisdiction	City of Bryan	Time Period	PM Peak	PHF	0.90
Urban Street	SH 30	Analysis Year	2025	Analysis Period	1 > 7:00
Intersection	Hardy Weedon	File Name	SH 30 @ Hardy Weedon 2025 PM.xus		
Project Description	Yaupon Trails Phases 1-3				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	264	888			733	59					34	139

Signal Information				Signal Timing (s)																				
Cycle, s	58.5	Reference Phase	2	Green	8.2	18.7	7.6	0.0	0.0	0.0	Yellow	6.0	6.0	6.0	0.0	0.0	0.0	Red	2.0	2.0	2.0	0.0	0.0	0.0
Offset, s	0	Reference Point	End																					
Uncoordinated	Yes	Simult. Gap E/W	On																					
Force Mode	Fixed	Simult. Gap N/S	On																					

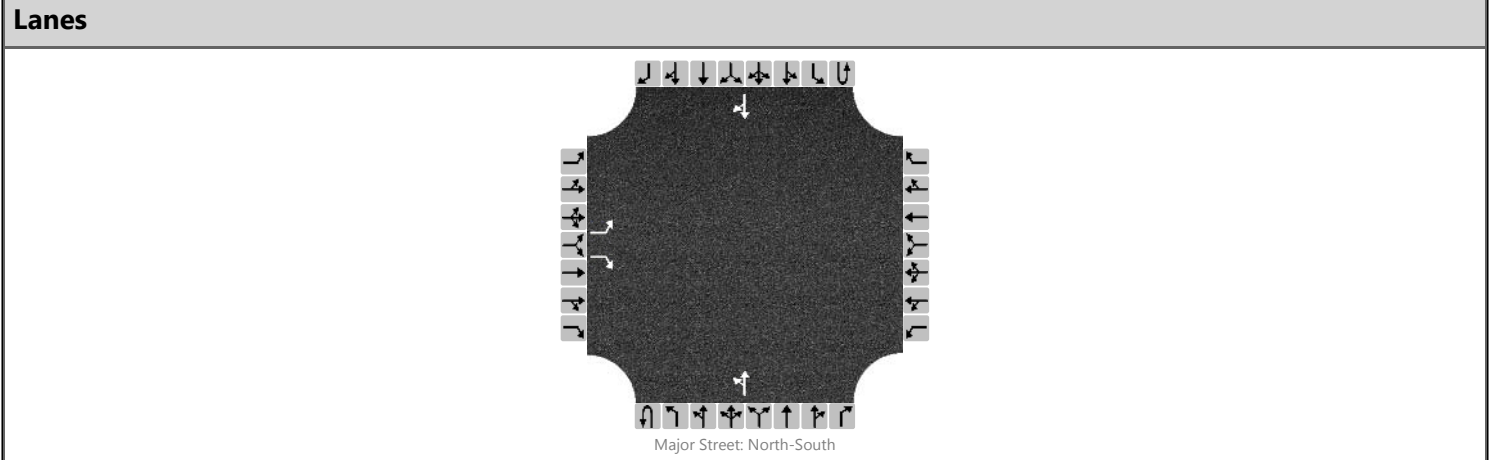
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6				4
Case Number	1.0	4.0		7.3				9.0
Phase Duration, s	16.2	42.9		26.7				15.6
Change Period, ($Y+R_c$), s	8.0	8.0		8.0				8.0
Max Allow Headway (MAH), s	2.9	2.8		2.8				3.2
Queue Clearance Time (g_s), s	7.9	11.5		14.3				7.6
Green Extension Time (g_e), s	0.4	4.4		4.4				0.3
Phase Call Probability	0.99	1.00		1.00				0.96
Max Out Probability	0.00	0.00		0.00				0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2			6	16				7		14
Adjusted Flow Rate (v), veh/h	293	987			814	66				38		154
Adjusted Saturation Flow Rate (s), veh/h/ln	1767	1724			1724	1572				1767		1572
Queue Service Time (g_s), s	5.9	9.5			12.3	1.7				1.1		5.6
Cycle Queue Clearance Time (g_c), s	5.9	9.5			12.3	1.7				1.1		5.6
Green Ratio (g/C)	0.49	0.60			0.32	0.32				0.13		0.13
Capacity (c), veh/h	444	2059			1104	503				229		204
Volume-to-Capacity Ratio (X)	0.660	0.479			0.738	0.130				0.165		0.757
Back of Queue (Q), ft/ln (50 th percentile)	35.2	37.5			93.3	11.7				10.7		49.5
Back of Queue (Q), veh/ln (50 th percentile)	1.4	1.4			3.6	0.5				0.4		1.9
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00			0.00	0.00				0.00		0.00
Uniform Delay (d_1), s/veh	11.8	6.7			17.7	14.1				22.7		24.6
Incremental Delay (d_2), s/veh	0.6	0.1			0.4	0.0				0.1		2.2
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0	0.0				0.0		0.0
Control Delay (d), s/veh	12.5	6.7			18.1	14.2				22.8		26.8
Level of Service (LOS)	B	A			B	B				C		C
Approach Delay, s/veh / LOS	8.0	A		17.8	B		0.0			26.0		C
Intersection Delay, s/veh / LOS	13.2						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	0.7	A	2.3	B	2.8	C	2.9	C
Bicycle LOS Score / LOS	1.5	B	1.2	A				F

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	D. Besly	Intersection	Yaupon Est @ Hardy Weedon
Agency/Co.	Bleyl Engineering	Jurisdiction	City of Bryan
Date Performed	8/2/2017	East/West Street	Yaupon Estates
Analysis Year	2020	North/South Street	Hardy Weedon
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.85
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Yaupon Estates Phase 1		



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0		0	1	0		0	1	0
Configuration		L		R						LT						TR
Volume, V (veh/h)		7		60						21	32				200	2
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

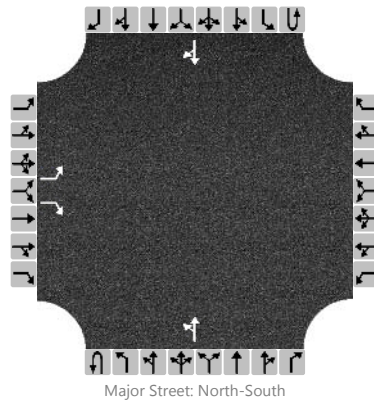
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		8		71						25						
Capacity, c (veh/h)		655		800						1323						
v/c Ratio		0.01		0.09						0.02						
95% Queue Length, Q ₉₅ (veh)		0.0		0.3						0.1						
Control Delay (s/veh)		10.6		9.9						7.8						
Level of Service, LOS		B		A						A						
Approach Delay (s/veh)	10.0								3.2							
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	D. Besly	Intersection	Yaupon Est @ Hardy Weedon
Agency/Co.	Bleyl Engineering	Jurisdiction	City of Bryan
Date Performed	8/2/2017	East/West Street	Yaupon Estates
Analysis Year	2020	North/South Street	Hardy Weedon
Time Analyzed	PM Peak Hour	Peak Hour Factor	0.85
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Yaupon Estates Phase 1		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0		0	1	0		0	1	0
Configuration		L		R						LT						TR
Volume, V (veh/h)		4		40						68	113				92	8
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

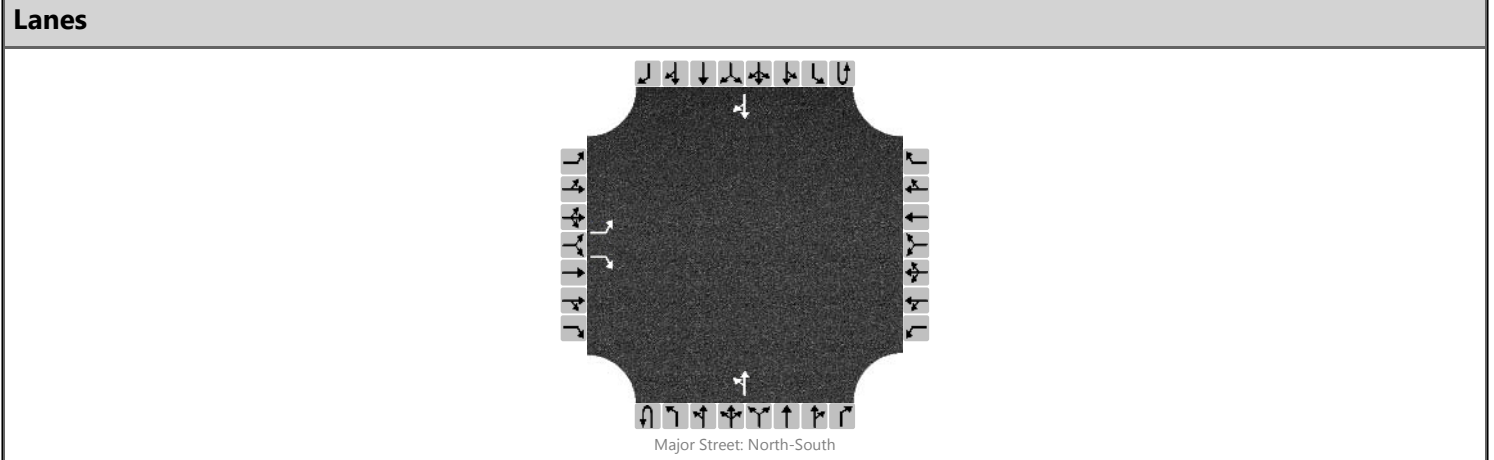
Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		5		47						80						
Capacity, c (veh/h)		566		938						1464						
v/c Ratio		0.01		0.05						0.05						
95% Queue Length, Q ₉₅ (veh)		0.0		0.2						0.2						
Control Delay (s/veh)		11.4		9.0						7.6						
Level of Service, LOS		B		A						A						
Approach Delay (s/veh)	9.3								3.1							
Approach LOS	A															

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	D. Besly	Intersection	Yaupon Est @ Hardy Weedon
Agency/Co.	Bleyl Engineering	Jurisdiction	City of Bryan
Date Performed	8/2/2017	East/West Street	Yaupon Estates
Analysis Year	2025	North/South Street	Hardy Weedon
Time Analyzed	AM Peak Hour	Peak Hour Factor	0.87
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Yaupon Estates Phases 1-3		



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0		0	1	0		0	1	0
Configuration		L		R						LT						TR
Volume, V (veh/h)		19		168						57	36				330	6
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

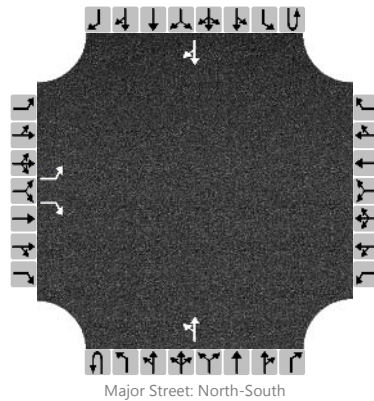
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		22		193						66						
Capacity, c (veh/h)		462		663						1166						
v/c Ratio		0.05		0.29						0.06						
95% Queue Length, Q ₉₅ (veh)		0.1		1.2						0.2						
Control Delay (s/veh)		13.2		12.6						8.3						
Level of Service, LOS		B		B						A						
Approach Delay (s/veh)	12.7								5.3							
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	D. Besly	Intersection	Yaupon Est @ Hardy Weedon
Agency/Co.	Bleyl Engineering	Jurisdiction	City of Bryan
Date Performed	8/2/2017	East/West Street	Yaupon Estates
Analysis Year	2025	North/South Street	Hardy Weedon
Time Analyzed	PM Peak Hour	Peak Hour Factor	0.87
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Yaupon Estates Phases 1-3		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0		0	1	0		0	1	0
Configuration		L		R						LT						TR
Volume, V (veh/h)		13		113						193	130				173	21
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

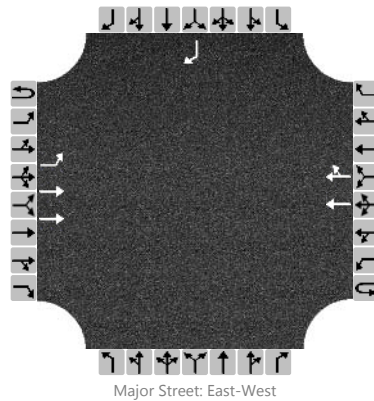
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		15		130						222						
Capacity, c (veh/h)		293		826						1338						
v/c Ratio		0.05		0.16						0.17						
95% Queue Length, Q ₉₅ (veh)		0.2		0.6						0.6						
Control Delay (s/veh)		18.0		10.2						8.2						
Level of Service, LOS		C		B						A						
Approach Delay (s/veh)	11.0								5.5							
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	D. Besly	Intersection	A
Agency/Co.	Bleyl Engineering	Jurisdiction	City of Bryan
Date Performed	8/16/2017	East/West Street	State Highway 30
Analysis Year	2025	North/South Street	Commercial Driveway A
Time Analyzed	AM	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Yaupon Trails Commercial		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	0		0	0	0		0	0	1
Configuration		L	T				T	TR								R
Volume, V (veh/h)		53	803				1109	60								37
Percent Heavy Vehicles (%)		3														3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1														6.9
Critical Headway (sec)		4.16														6.96
Base Follow-Up Headway (sec)		2.2														3.3
Follow-Up Headway (sec)		2.23														3.33

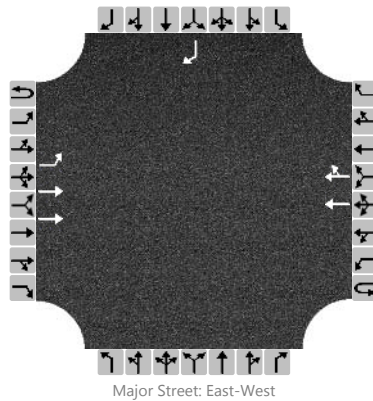
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		59														41
Capacity, c (veh/h)		524														409
v/c Ratio		0.11														0.10
95% Queue Length, Q ₉₅ (veh)		0.4														0.3
Control Delay (s/veh)		12.7														14.8
Level of Service, LOS		B														B
Approach Delay (s/veh)	0.8												14.8			
Approach LOS													B			

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	D. Besly	Intersection	A
Agency/Co.	Bleyl Engineering	Jurisdiction	City of Bryan
Date Performed	8/16/2017	East/West Street	State Highway 30
Analysis Year	2025	North/South Street	Commercial Driveway A
Time Analyzed	PM	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Yaupon Trails Commercial		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	1	2	0	0	0	2	0		0	0	0		0	0	1	
Configuration		L	T				T	TR								R	
Volume, V (veh/h)		225	1238				896	171								185	
Percent Heavy Vehicles (%)		3														3	
Proportion Time Blocked																	
Percent Grade (%)																0	
Right Turn Channelized		No			No				No				No				
Median Type/Storage		Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1														6.9
Critical Headway (sec)		4.16														6.96
Base Follow-Up Headway (sec)		2.2														3.3
Follow-Up Headway (sec)		2.23														3.33

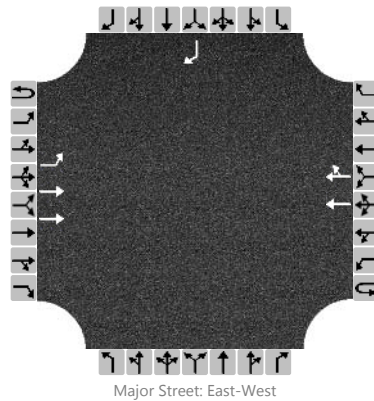
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		250														206	
Capacity, c (veh/h)		579														446	
v/c Ratio		0.43														0.46	
95% Queue Length, Q ₉₅ (veh)		2.2														2.4	
Control Delay (s/veh)		15.9														19.8	
Level of Service, LOS		C														C	
Approach Delay (s/veh)		2.4												19.8			
Approach LOS														C			

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	D. Besly	Intersection	A
Agency/Co.	Bleyl Engineering	Jurisdiction	City of Bryan
Date Performed	8/16/2017	East/West Street	State Highway 30
Analysis Year	2025	North/South Street	Commercial Driveway B
Time Analyzed	AM	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Yaupon Trails Commercial		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	0		0	0	0		0	0	1
Configuration		L	T				T	TR								R
Volume, V (veh/h)		23	780				1093	26								16
Percent Heavy Vehicles (%)		3														3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

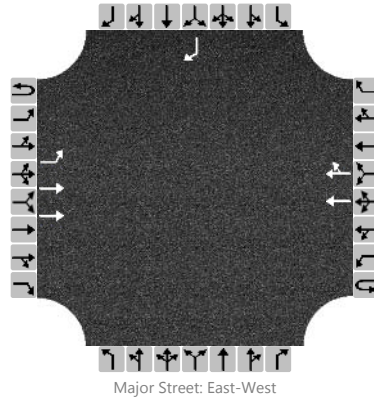
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		26														18
Capacity, c (veh/h)		551														427
v/c Ratio		0.05														0.04
95% Queue Length, Q ₉₅ (veh)		0.1														0.1
Control Delay (s/veh)		11.9														13.8
Level of Service, LOS		B														B
Approach Delay (s/veh)	0.3												13.8			
Approach LOS													B			

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	D. Besly	Intersection	A
Agency/Co.	Bleyl Engineering	Jurisdiction	City of Bryan
Date Performed	8/16/2017	East/West Street	State Highway 30
Analysis Year	2025	North/South Street	Commercial Driveway B
Time Analyzed	PM	Peak Hour Factor	0.90
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Yaupon Trails Commercial		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	1	2	0	0	0	2	0		0	0	0		0	0	1
Configuration		L	T				T	TR								R
Volume, V (veh/h)		86	1152				825	66								71
Percent Heavy Vehicles (%)		3														3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

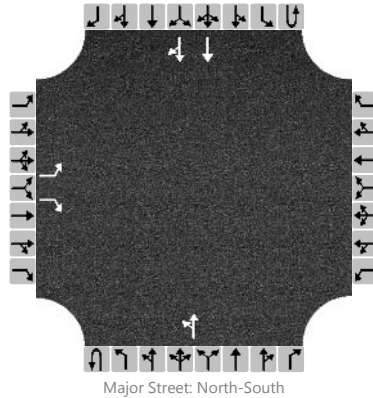
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		96														79
Capacity, c (veh/h)		688														518
v/c Ratio		0.14														0.15
95% Queue Length, Q ₉₅ (veh)		0.5														0.5
Control Delay (s/veh)		11.1														13.2
Level of Service, LOS		B														B
Approach Delay (s/veh)	0.8												13.2			
Approach LOS													B			

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	D. Besly	Intersection	C
Agency/Co.	Bleyl Engineering	Jurisdiction	City of Bryan
Date Performed	8/16/2017	East/West Street	Commercial Driveway C
Analysis Year	2025	North/South Street	Hardy Weedon
Time Analyzed	AM	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Yaupon Trails Commercial		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0		0	1	0		0	2	0
Configuration		L		R						LT					T	TR
Volume, V (veh/h)		1		17						1	96				368	4
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1						
Critical Headway (sec)		6.86		6.96						4.16						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

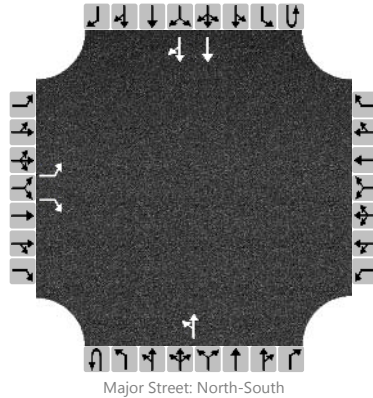
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		1		19						1						
Capacity, c (veh/h)		483		797						1135						
v/c Ratio		0.00		0.02						0.00						
95% Queue Length, Q ₉₅ (veh)		0.0		0.1						0.0						
Control Delay (s/veh)		12.5		9.6						8.2						
Level of Service, LOS		B		A						A						
Approach Delay (s/veh)	9.8								0.1							
Approach LOS	A															

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	D. Besly	Intersection	C
Agency/Co.	Bleyl Engineering	Jurisdiction	City of Bryan
Date Performed	8/16/2017	East/West Street	Commercial Driveway C
Analysis Year	2025	North/South Street	Hardy Weedon
Time Analyzed	PM	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Yaupon Trails Commercial		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0		0	1	0		0	2	0
Configuration		L		R						LT					T	TR
Volume, V (veh/h)		2		100						2	323				435	6
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

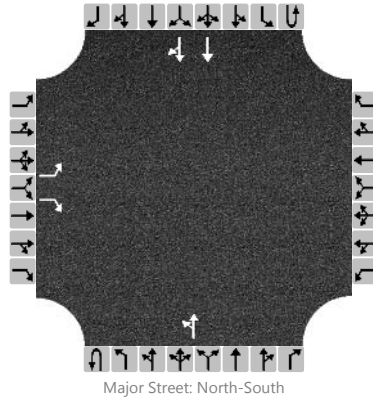
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		2		111						2						
Capacity, c (veh/h)		297		752						1063						
v/c Ratio		0.01		0.15						0.00						
95% Queue Length, Q ₉₅ (veh)		0.0		0.5						0.0						
Control Delay (s/veh)		17.2		10.6						8.4						
Level of Service, LOS		C		B						A						
Approach Delay (s/veh)	10.7								0.1							
Approach LOS	B															

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	D. Besly	Intersection	C
Agency/Co.	Bleyl Engineering	Jurisdiction	City of Bryan
Date Performed	8/16/2017	East/West Street	Commercial Driveway C
Analysis Year	2025	North/South Street	Hardy Weedon
Time Analyzed	AM	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Yaupon Trails Commercial		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0		0	1	0		0	2	0
Configuration		L		R						LT					T	TR
Volume, V (veh/h)		2		38						3	93				330	10
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5		6.9						4.1						
Critical Headway (sec)		6.86		6.96						4.16						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

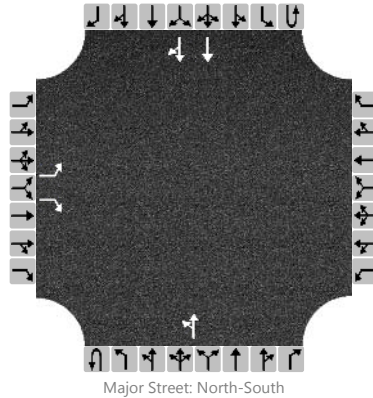
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		2		42						3						
Capacity, c (veh/h)		510		818						1170						
v/c Ratio		0.00		0.05						0.00						
95% Queue Length, Q ₉₅ (veh)		0.0		0.2						0.0						
Control Delay (s/veh)		12.1		9.6						8.1						
Level of Service, LOS		B		A						A						
Approach Delay (s/veh)	9.8								0.3							
Approach LOS	A															

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	D. Besly	Intersection	C
Agency/Co.	Bleyl Engineering	Jurisdiction	City of Bryan
Date Performed	8/16/2017	East/West Street	Commercial Driveway C
Analysis Year	2025	North/South Street	Hardy Weedon
Time Analyzed	PM	Peak Hour Factor	0.90
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	Yaupon Trails Commercial		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		1	0	1		0	0	0		0	1	0		0	2	0
Configuration		L		R						LT					T	TR
Volume, V (veh/h)		5		262						4	323				330	16
Percent Heavy Vehicles (%)		3		3						3						
Proportion Time Blocked																
Percent Grade (%)	0															
Right Turn Channelized	No				No				No				No			
Median Type/Storage	Undivided															

Critical and Follow-up Headways

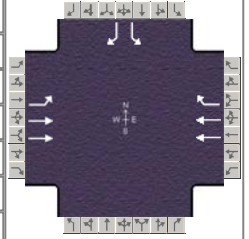
Base Critical Headway (sec)																
Critical Headway (sec)																
Base Follow-Up Headway (sec)																
Follow-Up Headway (sec)																

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		6		291						4						
Capacity, c (veh/h)		347		814						1163						
v/c Ratio		0.02		0.36						0.00						
95% Queue Length, Q ₉₅ (veh)		0.1		1.6						0.0						
Control Delay (s/veh)		15.5		11.9						8.1						
Level of Service, LOS		C		B						A						
Approach Delay (s/veh)	11.9								0.1							
Approach LOS	B															

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information	
Agency	Bleyl Engineering			Duration, h	0.25
Analyst	D. Besly	Analysis Date	8/3/2017	Area Type	Other
Jurisdiction	City of Bryan	Time Period	AM Peak	PHF	0.87
Urban Street	SH 30	Analysis Year	2025	Analysis Period	1 > 7:00
Intersection	Hardy Weedon	File Name	SH 30 @ Hardy Weedon 2025 AM with Commerci...		
Project Description	Yaupon Trails with Commercial				



Demand Information	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Approach Movement												
Demand (v), veh/h	83	697			825	14				109		276

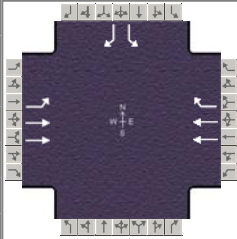
Signal Information				Phase Diagram								
Cycle, s	68.3	Reference Phase	2									
Offset, s	0	Reference Point	End									
Uncoordinated	Yes	Simult. Gap E/W	On									
Force Mode	Fixed	Simult. Gap N/S	On									
		Green	5.0	23.2	16.0	0.0	0.0	0.0				
		Yellow	6.0	6.0	6.0	0.0	0.0	0.0				
		Red	2.0	2.0	2.0	0.0	0.0	0.0				

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6				4
Case Number	1.0	4.0		7.3				9.0
Phase Duration, s	13.0	44.2		31.2				24.0
Change Period, ($Y+R_c$), s	8.0	8.0		8.0				8.0
Max Allow Headway (MAH), s	2.9	2.8		2.8				3.2
Queue Clearance Time (g_s), s	4.2	11.7		19.1				15.2
Green Extension Time (g_e), s	0.1	4.1		4.0				0.8
Phase Call Probability	0.84	1.00		1.00				1.00
Max Out Probability	0.00	0.00		0.00				0.00

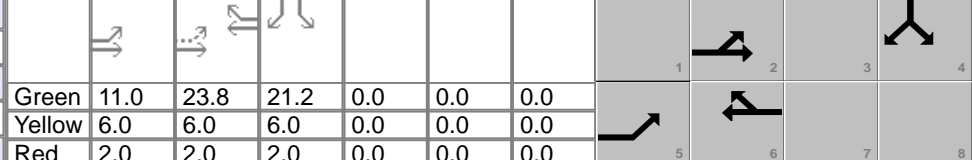
Movement Group Results	EB			WB			NB			SB		
	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2			6	16				7		14
Adjusted Flow Rate (v), veh/h	95	801			948	16				125		317
Adjusted Saturation Flow Rate (s), veh/h/ln	1767	1724			1724	1572				1767		1572
Queue Service Time (g_s), s	2.2	9.7			17.1	0.5				4.0		13.2
Cycle Queue Clearance Time (g_c), s	2.2	9.7			17.1	0.5				4.0		13.2
Green Ratio (g/C)	0.44	0.53			0.34	0.34				0.24		0.24
Capacity (c), veh/h	288	1829			1172	534				416		370
Volume-to-Capacity Ratio (X)	0.331	0.438			0.809	0.030				0.301		0.857
Back of Queue (Q), ft/ln (50 th percentile)	16.1	60.8			140.2	3.4				38.2		117.2
Back of Queue (Q), veh/ln (50 th percentile)	0.6	2.3			5.4	0.1				1.5		4.6
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00			0.00	0.00				0.00		0.00
Uniform Delay (d_1), s/veh	14.4	9.8			20.5	15.0				21.5		25.0
Incremental Delay (d_2), s/veh	0.2	0.1			0.5	0.0				0.1		2.3
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0	0.0				0.0		0.0
Control Delay (d), s/veh	14.6	9.9			21.1	15.1				21.7		27.3
Level of Service (LOS)	B	A			C	B				C		C
Approach Delay, s/veh / LOS	10.4	B		21.0	C		0.0			25.7		C
Intersection Delay, s/veh / LOS	17.8						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	0.7	A	2.3	B	2.9	C	2.9	C
Bicycle LOS Score / LOS	1.2	A	1.3	A				F

HCS7 Signalized Intersection Results Summary

General Information				Intersection Information		
Agency	Bleyl Engineering			Duration, h	0.25	
Analyst	D. Besly	Analysis Date	8/3/2017	Area Type	Other	
Jurisdiction	City of Bryan	Time Period	PM Peak	PHF	0.90	
Urban Street	SH 30	Analysis Year	2025	Analysis Period	1 > 7:00	
Intersection	Hardy Weedon	File Name	SH 30 @ Hardy Weedon 2025 PM with Commerc...			
Project Description	Yaupon Trails Commercial					

Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h	264	888			733	65					376	159

Signal Information													
Cycle, s	80.0	Reference Phase	2	Green	11.0	23.8	21.2	0.0	0.0	0.0	0.0	0.0	0.0
Offset, s	0	Reference Point	End	Yellow	6.0	6.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
Uncoordinated	Yes	Simult. Gap E/W	On	Red	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
Force Mode	Fixed	Simult. Gap N/S	On										

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6				4
Case Number	1.0	4.0		7.3				9.0
Phase Duration, s	19.0	50.8		31.8				29.2
Change Period, ($Y+R_c$), s	8.0	8.0		8.0				8.0
Max Allow Headway (MAH), s	2.9	2.8		2.8				3.1
Queue Clearance Time (g_s), s	10.6	16.9		19.4				20.2
Green Extension Time (g_e), s	0.3	4.4		4.3				0.9
Phase Call Probability	1.00	1.00		1.00				1.00
Max Out Probability	0.00	0.00		0.00				0.03

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2			6	16				7		14
Adjusted Flow Rate (v), veh/h	293	987			814	72				418		177
Adjusted Saturation Flow Rate (s), veh/h/ln	1767	1724			1724	1572				1767		1572
Queue Service Time (g_s), s	8.6	14.9			17.4	2.7				18.2		7.4
Cycle Queue Clearance Time (g_c), s	8.6	14.9			17.4	2.7				18.2		7.4
Green Ratio (g/C)	0.46	0.53			0.30	0.30				0.27		0.27
Capacity (c), veh/h	386	1844			1027	468				469		417
Volume-to-Capacity Ratio (X)	0.760	0.535			0.793	0.154				0.891		0.423
Back of Queue (Q), ft/ln (50 th percentile)	70.7	106.5			157.6	21.8				207.4		65.8
Back of Queue (Q), veh/ln (50 th percentile)	2.8	4.1			6.0	0.8				8.1		2.6
Queue Storage Ratio (RQ) (50 th percentile)	0.00	0.00			0.00	0.00				0.00		0.00
Uniform Delay (d_1), s/veh	17.6	12.1			25.9	20.7				28.3		24.3
Incremental Delay (d_2), s/veh	1.2	0.1			0.5	0.1				8.6		0.3
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0	0.0				0.0		0.0
Control Delay (d), s/veh	18.8	12.2			26.4	20.8				36.9		24.6
Level of Service (LOS)	B	B			C	C				D		C
Approach Delay, s/veh / LOS	13.7		B	25.9		C	0.0			33.2		C
Intersection Delay, s/veh / LOS	21.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	0.7	A	2.3	B	2.9	C	2.9	C
Bicycle LOS Score / LOS	1.5	B	1.2	A				F