ZONING REPORT
Case # ZN8330

Applicant & Subject Property

District: 2
Owner: Patel Real Estate Holdings, LLC.
Applicant: Patel Real Estate Holdings, LLC.
Address: 5858 South Padre Island Drive (SPID), located along the north side of SPID, south of McArdle Road, east of Staples Street, and west of Airline Road.
Legal Description: 6.83 acres out of Sunrise Mall Subdivision Lot 5, Block 1 (See Attachment - Metes and Bounds)
Acreage of Subject Property: 6.83 acres
Pre-Submission Meeting: November 30, 2022

Zoning Request

From: "CG-2" General Commercial District
To: "CG-2/SP" General Commercial District with a Special Permit
Purpose of Request: To allow for an increase in density to accommodate a 6-story apartment complex.

Land Development & Surrounding Land Uses

	Zoning District	Existing Land Use	Future Land Use
Site	"CG-2" General Commercial	Commercial	Mixed Use
North	"CN-1" Neighborhood Commercial	Commercial/Medium-Density Residential	Commercial/Medium-Density Residential
South	"CG-2" General Commercial	Commercial	Commercial
East	"CG-2" General Commercial	Commercial	Mixed Use
West	"CG-2" General Commercial	Commercial	Mixed Use

Plat Status: The subject property is platted per MRNCT (Map Records of Nueces County, Texas), but will require a replat.
Military Compatibility Area Overlay District (MCAOD, Effective August 22, 2022): The subject property is not within an MCAOD District.
Code Violations: Over the past two years, there have been approximately 25 active cases. The majority of these cases, more than half, involved graffiti. In two instances, no violations were found, and four cases originated from the city's customer call center. These cases have been resolved through owner compliance and/or intervention by the city's graffiti team (See Attachment B)

Utilities

Gas: 12-inch coated steel line exists along SPID
Stormwater: 27-inch RCP line exists along McArdle Road.
Wastewater: Treatment Plant: Oso, several 8-inch PVC lines and 8-inch VCP lines exist within the property.
Water: Several 8-inch PVC lines and 8-inch ACP lines exist within the property.

Corpus Christi Comprehensive Plan (Plan CC)
Plan CC: Provides a vision, goals, and strategies to guide, regulate, and manage future development and redevelopment within the corporate limits and extraterritorial jurisdiction (ETJ), which was adopted in 2016. **ADP (Area Development Plan):** According to Plan CC, the subject property is located within the Bayside Area Development Plan (Adopted on December 10, 2024). **Stormwater Master Plan (Service Area 12-A):** No improvements have been proposed. **Wastewater Master Plan (Treatment Plant: Oso):** FY 25-FY31—Capital Improvement Project #20084A—Process Upgrade and BPC Facility Decom, goal to expand Oso Plant rating from 16.2 to 18 Million Gallons Per Day (MGD), no site-specific or site-adjacent improvements. **Water Master Plan:** No improvements have been proposed.

Public Notification	
Number of Notices Mailed	4 within the 200-foot notification area 4 outside the 200-foot notification area
In Opposition	0 inside the notification area 0 outside the notification area 0% in opposition within the 200-foot notification area (0 individual property owner)

Public Hearing Schedule
Planning Commission Hearing Date: April 2, 2025 **City Council 1st Reading/Public Hearing Date:** May 13, 2025 **City Council 2nd Reading Date:** June 10, 2025

Background:
The subject property is a vacant 6.83-acre tract in District 2, out of a larger tract, north of South Padre Island Drive, south of McArdle Road, east of Staples Street, and west of Airline Road. The subject property used to be the home of the Sunrise Mall, originally built in the early 1980s. The subject property is bound by properties zoned as "CG-2" General Commercial. Many of these neighboring properties are used for commercial retail sales, services, and restaurants.

Subject Property		
6.83 ac	Current	Proposed
Zoning	CG-2	CG-2/SP
Density	37	50
Units	253	343*
*Increase in Density 35%		

The applicant is requesting an amendment to the current zoning district to secure a Special Permit for a proposed 6-story apartment building with 343 units. The "CG-2" district allows a maximum density of 37 dwelling units per acre (du/ac). The proposed 343 units result in a density of 50 du/acre, representing an approximate 35% increase in density, thus necessitating a special permit, see site plan (See Attachment C).

The "CG-2" General Commercial District permits restaurants, apartments, townhouses, overnight accommodation uses, educational facilities, medical facilities, commercial parking, offices, retail sales and services (including bars and nightclubs), vehicle sales and services, and water-oriented uses.

Plan CC (City of Corpus Christi Comprehensive Plan) Consistency:
The proposed rezoning is consistent with the following Elements, Goals and Strategies for Decision Makers:

- Resilience & Resource Efficiency
    - Reinvestment in existing communities conserves resources and sensitive environments.
        - Encourage the preservation and adaptive reuse of existing structures to reduce construction waste and conserve energy and materials
- Housing and Neighborhoods
    - Neighborhoods are enhanced by investments in “urban villages” to improve quality of life.
        - Support public investments – physical, environmental, functional, and social – to be built in areas to support walkable neighborhood commercial and mixed-use districts, including compact centers along major roads.
    - The design of new developments promotes a broader sense of neighborhood and community rather than creating isolated subdivisions or apartment complexes developments with a lack of interconnection.
        - Encourage appropriate transitions between commercial and residential developments and between high and low-density residential developments.
- Future Land Use, Zoning, and Urban Design
    - Corpus Christi development patterns support efficient and cost-effective use of resources and high quality of life.
        - Encourage orderly growth of new residential, commercial, and industrial areas.
        - Promote a balanced mix of land uses to accommodate continuous growth and promote the proper location of land uses based on compatibility, locational needs, and characteristics of each use.
    - Downtown and mixed-use urban and neighborhood villages provide walkable environments and new housing options.
        - Support planning to explore the idea of creating urban and neighborhood villages at major intersections as identified by the mixed-use category in the Future Land Use Map.

Bayside ADP (Area Development Plan) and FLUM (Future Land Use Map) Consistency:
The proposed rezoning is consistent with the Bayside ADP and FLUM designation of mixed use with the following policies:

Policy Initiative: Enhance local business vitality and connectivity to surrounding neighborhoods.
Vision Theme: (1.4) Implement the Future Land Use Map’s recommendations for mixed-use development.

- (1.4.1) Support the development of the following areas as “Urban Villages,” as described in the City’s Comprehensive Plan future land use definitions: Six Points, the former Sunrise Mall, and Port-Ayers intersection.

- (1.4.3) Develop specific plans for identified Urban Villages, Neighborhood Villages, and College towns.

Vision Theme: (1.5) Support destination, recreation, and entertainment options that encourage visitors and locals to visit Corpus Christi and Oso Bays

- (1.5.4) Continue to work with Sunrise Mall owners and potential partners through economic development mechanisms, such as Tax Increment Reinvestment Zone or a Chapter 380 Agreement, or a zoning mechanism such as a Planned Unit Development.

Vision Theme: Sunrise Mall Concept (Page 34-35)

- Previous area plans and Bayside communities have expressed interest and have identified potential opportunities for site revitalization featuring mixed uses, which could include multifamily housing, retail, restaurants, and more.

Transportation and Land Use Coordination:

- The following tables describe existing conditions of roads relevant to the subject property. South Padre Island Drive is under the purview of the Texas Department of Transportation (TxDOT) while McArdle is part of the City's Roadway Master Plan (RMP). South Padre Island Drive (SPID) is designated as an "F1" Expressway/Freeway with 6 lanes and 100 feet of ROW while McArdle Road is designated as a "A1" with 4 lanes, a center turning lane and 70 feet of ROW. McArdle Road has a Daily Roadway Volume (ADT-Average Daily Trips) of 1882.

Roadway Master Plan - Existing Roadway Inventory						
McArdle Road	**Designation**	**Peak Hour Volume**	**Existing Lanes**			
	"A1" Minor Arterial Divided	1,882	2 Eastbound Lanes, 2 Westbound Lanes, Center Turn Lane, 70 Feet ROW			
	Peak Hour Volume	**Veh-Mi Capacity Pk-Hr Per Lane**	**Veh-Mi Supply Pk-Hr Total**	**Veh-Mi Total Demand Pk-Hr**	**Excess Capacity Pk-hr Veh-Mi**	**Existing Deficiencies Pk-HR Veh-Mi5**
	1,882	540	1,035	902	133	0

Texas Department of Transportation		
South Padre Island Drive (SPID)	Designation	6 Lanes, 100 feet
	"F1" Expressway/Freeway	

- According to the Roadway Master Plan, the following improvements are planned:
  - Roadway Master Plan (Service Area 10): Intersection improvements are proposed at Staples/McArdle and Airline/McArdle.

- Bicycle Mobility Plan: 0.41 miles to the nearest proposed improvements, which include a one-way cycle track on both sides (McArdle) and a multi-use side path on one side of Shopping Way.

- Traffic Impact Analysis (§UDC 3.29):
    - Both the City and the land developer share the responsibility to consider all reasonable solutions to identified transportation problems (UDC §3.29.1) After reviewing the Peak Hour Trip form submitted with the rezoning application, the Traffic Division of Public Works determined that, according to UDC Section §3.29, a Transportation Impact Analysis (TIA) was required (See Attachment D).
    - TrTTraffic engineering confirmed approval of the TIA, see Attachment E.
    - According to UDC §3.29.6:
        - The Planning Commission (PC) shall make a report to the City Council on all TIAs it considers in conjunction with requests for rezoning.
        - Additionally, the PC may make a recommendation for approval, modification, or denial of the zoning case based on other planning factors in review of the TIA.
        - And PC may recommend that a study of the Roadway Master Plan, formerly the Transportation Plan, be made to determine amendments required to ensure adequate long-term capacity.

Staff Analysis:
Staff reviewed the subject property's background information and the applicant's rezoning request purpose and researched the property's land development history to include platting, zoning, existing surrounding land uses, and potential code violations. Staff compared the proposed zoning's consistency with the applicable elements of the comprehensive plan. As a result of the above analysis, staff notes the following:

- The proposed rezoning is consistent with the comprehensive plan as follows:
    - Is consistent with the Future Land Use Map Designation of "Mixed Use".
    - Is consistent with many elements, goals, and strategies of both PlanCC and the ADP.
- The proposed rezoning is compatible with the present zoning and conforming uses of nearby property and to the character of the surrounding area.
- The property to be rezoned is suitable for uses permitted in the base zoning district.
- The proposed zoning map amendment does not have a negative impact upon the surrounding neighborhood.
- Technical Review Committee comments have been resolved or acknowledged (See Attachment G).
- Staff defers any roadway-related review to the Traffic Division of Public Works.

Permitting Process:
During the permitting process, zoning reviews are conducted to ensure that development compatibility is achieved; through the prescription of Unified Development Code required buffer yard width and points (UDC §7.9.5, 7.9.6), increased setbacks due to height (UDC §4.2.8.D), limitations on hours of operations with certain site features (UDC §7.2.7.B.1.a), and visual barriers such as landscaping (UDC §7.3.10) and walls to buffer noise generators (UDC §7.9.8.B).

Staff Recommendation:
Deferring roadway related review and after evaluation of case materials provided and subsequent staff analysis including land development, surrounding uses and zoning, analysis, Comprehensive Plan consistency, and considering public input, staff recommends approval of the change of zoning from the “CG-2” General Commercial District to the “CG-2/SP” General Commercial District with a Special Permit.

Attachments:
(A) Metes & Bounds Description and Exhibit
(B) Code Enforcements Violations
(C) Site Plan
(D) Traffic Impact Analysis
(E) Traffic Division TIA Approval
(F) Existing Zoning and Notice Area Map
(G) Technical Review Committee Comments

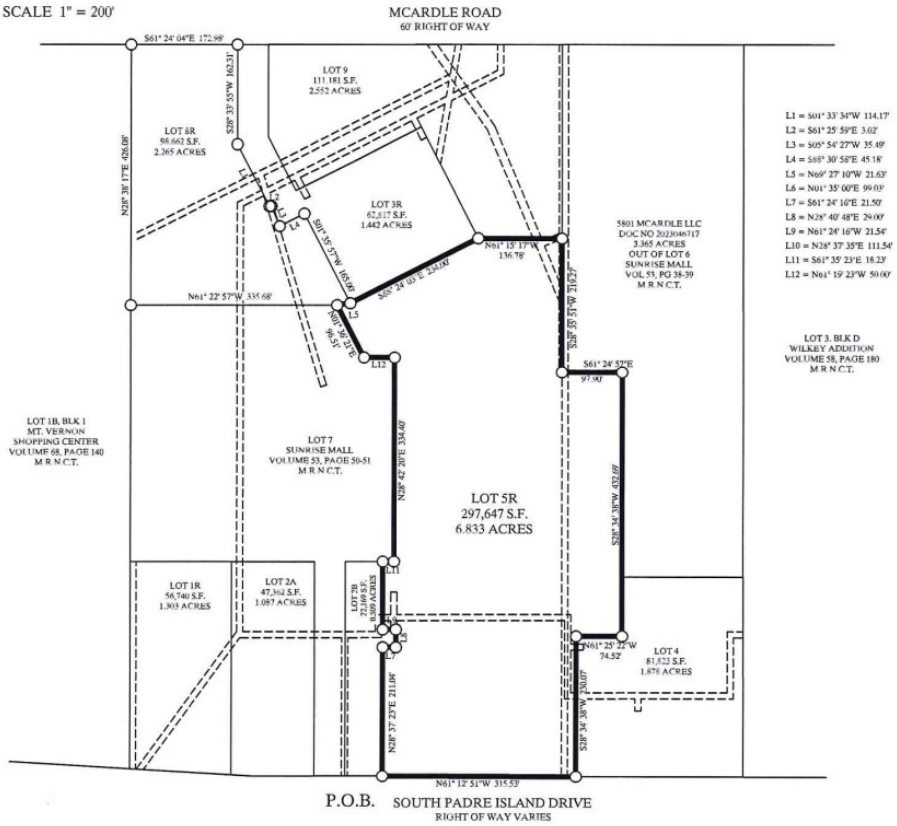
(A) Metes & Bounds Description and Exhibit

EXHIBIT OF

A 6.833 ACRE TRACT BEING A PORTION OF LOT 5, BLOCK 1,"SUNRISE MALL SUBDIVISION", AS SHOWN BY THE PLAT RECORDED IN VOLUME 53, PAGE 39, MAP RECORDS NUECES COUNTY, TEXAS. SAID 6.833 ACRE TRACT ALSO BEING KNOWN AS "LOT 5R", AS PER THE PROPOSED "REPLAT OF SUNRISE MALL" BY BRISTER SURVEYING.

EXHIBIT _____

SCALE 1" = 200'



◯ = EXHIBIT CORNER

PAGE 2 OF 2

Brister Surveying
5506 Cain Drive
Corpus Christi, Texas 78411
Off 361-850-1800
Fax 361-850-1802
Bristersurveying@corpus.twcbc.com
Firm Registration No. 10072800

STATE OF TEXAS
REGISTERED
RONALD E. BRISTER
5407
PROFESSIONAL
LAND SURVEYOR

NOTES:
1.) TOTAL AREA OF EXHIBIT IS 6.833 ACRES.
2.) MEASURED BEARINGS ARE BASED ON GLOBAL POSITIONING SYSTEM NAD 83 (93) 4205 DATUM.
3.) SET 5/8" RE-BAR = STEEL RE-BAR SET WITH YELLOW PLASTIC CAP LABELED BRISTER SURVEYING.
4.) A METES AND BOUNDS DESCRIPTION OF EQUAL DATE ACCOMPANIES THIS EXHIBIT.

THIS EXHIBIT DOES NOT INCLUDE THE RESEARCH, INVESTIGATION, OR LOCATIONS OF ALL SERVITUDES, EASEMENTS, RIGHT OF WAYS, OR UTILITIES ON THIS PROPERTY.

I, RONALD E. BRISTER DO HEREBY CERTIFY THAT THIS EXHIBIT OF THE PROPERTY LEGALLY DESCRIBED HEREIN WAS MADE ON THE GROUND THIS DAY MAY 20, 2024 AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

SURVEY DATE MAY 28, 2024

JOB NO. 240883-E5

RONALD E. BRISTER R.P.L.S. NO. 5407

(B) Code Enforcement Violations

+ New Case | Search | Edit | Map | Add Document | Export | Print | Delete

Displaying records 1 to 54 of 54

Ref No	Create Date	Address	Status	Case Type	Current Task	Due Date	Internal Notes	Potential Violation
SWC031700-042423	4/24/2023	5858 PADRE ISLAND DR 001 STE	Owner Compliance	Graffiti Site				DUMPSTER TAGGED AGAIN
V204659-042823	4/28/2023	5858 S PADRE ISLAND DR	Compliant	Vacant Building			Section 23-70 TALL WEEDS, BRUSH, AND DISEASED TREES PROHIBITED ON LOTS Section 22-6 LITTER AND SOLID WASTE Section 49-10 KEEP SIDEWALKS, CURBS, AND GUTTERS CLEAN UPON ARRIVAL I OBSERVED HIGH GRASS TALLER THAN 12 INCHES, OVERGROWN GRASS, AND OR DIRT ONTO THE SIDEWALKS, CURBS, AND GUTTERS. I ALSO OBSERVED LITTER AND SOLID WASTE TO INCLUDE, DISCARDED DISEASED PALM TREE BRANCHES, DISCARDED CLOTHING, DISCARDED PLASTIC BOTTLES, BROKEN GLASS, SHOPPING CARTS, AND DISCARDED CAR PARTS.	
V204664-042823	4/28/2023	5858 S PADRE ISLAND DR	Compliant	Unsecured Vacant Building			Section 13-3008 DUTY TO SECURE VACANT BUILDING UPON ARRIVAL I OBSERVED 7 UNSECURE OPENINS 3 DOORS AND 4 WINDOWS.	

(B) Code Enforcement Violations

☑	V204774-050223	5/2/2023	5858 S. PADRE ISLAND DR	Closed	Substandard Structure				
☑	V205169-050523	5/5/2023	5858 S PADRE ISLAND DR	Closed	PMC Standards				
☑	SWC032218-051223	5/12/2023	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Graffiti on side wall of parking garage	Graffiti on Sunrise mall parking lot
☑	SWC032472-053023	5/30/2023	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti on sign post.	Graffiti on sign post.
☑	SWC032644-060723	6/7/2023	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Graffiti found under parking garage and on various pillars including door to stair well in black, red, and white	Graffiti found under parking garage and on door to stair well including some Pilar's
☑	SWC032963-062623	6/26/2023	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Graffiti found under parking garage on sun rise mall on going up ramp in big black lettering & white, painted over in beige	Graffiti found on side of parking garage ramp
☑	SWC033447-072023	7/20/2023	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti on light pole in parking lot.	Graffiti on light pole on McArdle side of Parkin.

(B) Code Enforcement Violations

☑	CC213400-090523	9/5/2023	5858 PADRE ISLAND DR 001 STE	Duplicate Case	Call Center Input				online detail: ? library.municode.com Code of Ordinances () The owner or the operator of the business or commercial establishment shall clean the premises and remove all litter therefrom and from any street or other premises to which said litter has traveled, and place same in receptacles within thirty (30) minutes after daily closing time of such business or commercial establishment. (k) If the business or commercial establishment operates continuously without closing, then the owner or operator shall clean the premises and remove all litter therefrom and from any street or other premises to which said litter has traveled, and place it in receptacles at 11:00 a.m. and 11:00 p.m. of each day. (h) It shall further be the duty of said owner or operator to prevent any litter on the premises from being blown upon or being permitted to come to rest upon the streets of the city or upon any private property in the city. (Ord. No. 030108, § 1, 2-25-2014) Sec. 22-6. - Litter and solid waste prohibited on lots. (a) No person who owns or occupies any lot or parcel of land in the city may permit or allow litter, solid waste, inoperative or abandoned
☑	SWC034286-090523	9/5/2023	5858 PADRE ISLAND DR 001 STE	Owner Compliance	Graffiti Site			Graffiti on dumpster. Info has been sent.	ON DUMPSTER
☑	SWC034299-090523	9/5/2023	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti on light pole in parking lot.	Graffiti on light pole.

(B) Code Enforcement Violations

☑	CC213463-090523	9/5/2023	5858 PADRE ISLAND DR 001 STE	Duplicate Case	Call Center Input				Online Detail: We're in water restriction but this building has leaks all over...the Ace Adventures video states, "there are lakes of water throughout." This guy and his viewers see the obvious, this building needs to be demolished. What's the holdup?!? This place is dangerous, and people are going to get hurt and possibly die in here. Not only is it ugly but it's dangerous. I'm going to look for a face book group concerned about this eyesore. WELCOME TO THE SPARKLING CITY BY THE SEA?????????
☑	SWC034611-092023	9/20/2023	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti on lower parking area next to freedom fitness. also stop sign and light pole at the mcardle entrance	Graffiti on sunrise mall parking lot
☑	SWC035998-110723	11/7/2023	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti on traffic boc on mcardle side of Sunrise Mall	Graffiti on traffic box in front of Save Space Storage
☑	SWC036372-111523	11/15/2023	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			found graffiti on back wall of New Life Church and AEP box.	Graffiti on back wall of Church at sunrise mall
☑	SWC036436-112023	11/20/2023	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti on mall entrance sign.	Graffiti on mall entrance sign.

(B) Code Enforcement Violations

☑	V220279-120423	12/4/2023	5858 PADRE ISLAND DR 001 STE	Expired	Vacant Building			Section 23-70 TALL WEEDS, BRUSH, AND DISEASED TREES PROHIBITED ON LOTS, Section 22-6 LITTER AND SOLID WASTE. UPON INSPECTION OF THE PROPERTY, I OBSERVED VIOLATIONS OF HIGH WEEDS OVER 12" / LITTER AND SOLID WASTE TO INCLUDE BUT NOT LIMITED TO SHOPPING CARTS, PALM FRAWNS, WOOD PIECES, TIRES, TRASH BAGS, ETC.	
☑	SWC037623-010424	1/4/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti on parking wall.	Graffiti on parking garage wall.
☑	SWC038605-021424	2/14/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found yellow graffiti on brick wall	Graffiti on brick wall next to Bel Furniture
☑	V225777-022924	2/29/2024	5858 PADRE ISLAND DR 001 STE	Removed by City	Signage			Unified Development Code 7.5.10.A.9 Signs Erected Within the Right-of-Way Prohibited Upon arrival of the right-of-way area, I observed signage and removed from the right of way.	
☑	SWC039038-030424	3/4/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			All graffiti painted over with grey	Graffiti found on stair case and parking garage

(B) Code Enforcement Violations

☑	CC226929-031424	3/14/2024	5858 S PADRE ISLAND DR	No Violation Found	Call Center Input			UPON ARRIVAL, NO LITTER AND SOLID WASTE OR TALL WEEDS OBSERVED / NVF	LITTER AND SOLID WASTE INCLUDING TALL WEEDS
☑	CC226930-031424	3/14/2024	5858 S PADRE ISLAND DR	No Violation Found	Call Center Input			UPON ARRIVAL, NO UNSECURED OPENINGS WERE DISCOVERED / NVF	UNSECURED VACANT BUILDING
☑	SWC040307-041124	4/11/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			graffiti on curb retaining wall	Graffiti on sidewalk curb in front of Safe Space
☑	CC229722-041524	4/15/2024	5858 PADRE ISLAND DR 001 STE	Duplicate Case	Call Center Input			CLOSING CASE AS DUPLICATE. ALREADY HAVE A CASE IN PROGRESS FOR THIS PROPERTY. PLEASE SEE REFERENCE #V220279-120423.	came in as 5834 S PADRE ISLAND DR WB, CORPUS CHRISTI, 78412----states: This is for the Sunrise mall eye sore and huge sign out front that has metal hanging from it that could fall and kill someone! Why does nobody see this? Nobody cares at all?

(B) Code Enforcement Violations

☑	V231849-051124	5/11/2024	5858 S PADRE ISLAND DR 001 STE	Compliant	Unsecured Vacant Building			Section 13-3008 DUTY TO SECURE VACANT BUILDING. UPON INVESTIGATION I OBSERVED THE PROPERTY TO HAVE 6 UNSECURED OPENINGS THROUGHOUT THE BUILDING. 1 DOOR UPPER LEVEL PARKING GARAGE BY STORAGE FACILITY, 2 DOOR LOADING DOCK BEHIND BELL FURNITURE, 1 DOOR TO LOWER LEVEL LOADING DOCK UNDER MOVIE THEATER, 1 UPPER LOADING DOCK BETWEEN THE CHURCH BUILDING AND STORAGE BUILDING, 1 TO STORAGE AREA UNDER LOADING DOCK BETWEEN CHURCH BUILDING AND STORAGE BUILDING.	
☑	SWC041081-051324	5/13/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti on sign pillar.	Graffiti on sign pillar.
☑	SWC041082-051324	5/13/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti on parking garage.	Graffiti on parking garage.
☑	SWC041134-051424	5/14/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti on parking garage.	Graffiti on parking garage.

(B) Code Enforcement Violations

☑	SWC041136-051424	5/14/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti on vacant mall.	Graffiti on vacant mall.
☑	SWC041377-052124	5/21/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti on light pole.	Graffiti on light pole.
☑	SWC041685-060324	6/3/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti on several light poles in back parking area.	Graffiti on several light poles inMcArdle side parking area.
☑	SWC041779-060524	6/5/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti on light pole base.	Graffiti on light pole base.
☑	SWC041780-060524	6/5/2024	5858 PADRE ISLAND DR 021 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti it's on parking garage area and stairwell.	Graffiti on parking garage stair well.
☑	SWC041855-060624	6/6/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Purple graffiit on brick wall wall behind Safe Storage	Graffiti on sunrise mall docking area
☑	SWC042070-061324	6/13/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Graffiit on side of ramp for paring garage	Graffiti in Sunrise Mall Parking lot
☑	SWC042131-061424	6/14/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Painted over graffiti with beige paint	Graffiti found on parking garage faceing freeway

(B) Code Enforcement Violations

☑	SWC042262-061824	6/18/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti on parking garage.	Graffiti on parking garage.
☑	SWC042263-061824	6/18/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti on light pole.	Graffiti on light pole.
☑	V236183-062524	6/25/2024	5858 PADRE ISLAND DR FEE STR	Removed by City	Signage			Unified Development Code 7.5.10.A.9 Signs Erected Within the Right-of-Way Prohibited OBSERVED SIGN ON RIGHT OF WAY.	
☑	SWC042486-062624	6/26/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti on back of stop sign and light poles	Graffiti on sunrise mall parking lot signs and poles
☑	V237458-070924	7/9/2024	5858 PADRE ISLAND DR 001 STE	Removed by City	Signage			Unified Development Code 7.5.10.A.9 Signs Erected Within the Right-of-Way Prohibited OBSERVED SIGN ON RIGHT OF WAY.	
☑	V239784-073024	7/30/2024	5858 PADRE ISLAND DR 001 STE	Removed by City	Signage			OBSERVED 20 SIGNS ON RIGHT OF WAY.	
☑	SWC043637-080124	8/1/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Found graffiti on light pole.	Graffiti on light pole.

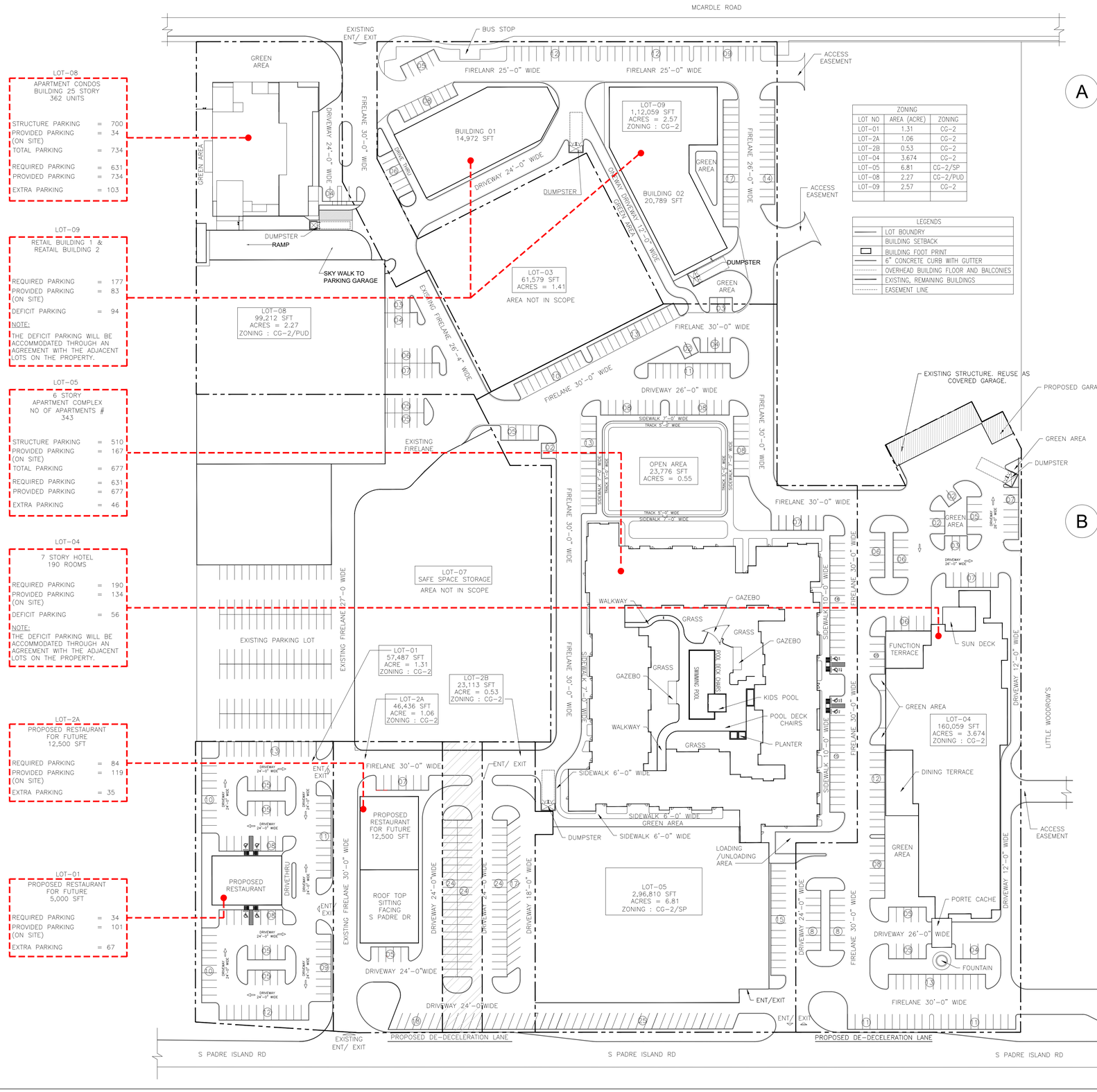
(B) Code Enforcement Violations

☑	SWC043747-080624	8/6/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Graffiti on sunrise mall sign	Graffiti on Sunrise mall sign
☑	V241393-081324	8/13/2024	5858 PADRE ISLAND DR 001 STE	Removed by City	Signage			UPON ARRIVAL I OBSERVED SIGN ON RIGHT OF WAY.	
☑	SWC044178-082724	8/27/2024	5858 PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Graffiti reported by Code Enforcement on sunrise mall parking garage	Graffiti on Sunrise Mall parking garages
☑	SWC044734-091724	9/17/2024	5858 south padre island drive	Removed by Graffiti Team	Graffiti Site			Painted over all graffiti found at site	Graffiti found on business sign
☑	V248318-112224	11/22/2024	5858 S PADRE ISLAND DR 001 STE	Compliant	Zoning			Unified Development Code 7.6.5 Excessive Illumination UPON ARRIVAL I OBSERVED THE LIGHTING USED BY BEL FURNITURE STORE TO BE IN VIOLATION DUE TO LIGHT BEING ORIENTED SO AS TO DIRECT GLARE OR EXCESSIVE ILLUMINATION ONTO STREETS IN A MANNER THAT MAY DISTRACT OR INTERFERE WITH THE VISION OF DRIVERS.	

(B) Code Enforcement Violations

☑	V248913-121124	12/11/2024	5858 S PADRE ISLAND DR 001 STE	In Progress	Vacant Building	Maintenance Inspection	3/26/2025	Section 23-70 TALL WEEDS, BRUSH, AND DISEASED TREES PROHIBITED ON LOTS Section 22-6 LITTER AND SOLID WASTE Section 49-11 KEEP RIGHT OF WAY CLEAN UPON ARRIVAL THE PROPERTY WAS FOUND IN VIOLATION OF LITTER, TO INCLUDE A PILE OF FURNITURE OTHER ITEMS AND DISEASED TREE BRANCHES IN THE REAR PARKING LOT ON THE SIDE OF MC ARDLE.	
☑	SWC046397-010725	1/7/2025	5858 S PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Painted over graffiti with beige paint	Found graffiti on parking garage at the old sunrise mall, graffiti facing freeway directly
☑	SWC047126-021225	2/12/2025	5858 S PADRE ISLAND DR 001 STE	Removed by Graffiti Team	Graffiti Site			Painted over graffiti with beige paint	Graffiti found on parking garage at the old sunrise mall, large tag 25ft x 3ft letters seen from freeway.

(C) Site Plan



ZONING		
LOT NO	AREA (ACRE)	ZONING
LOT-01	1.31	CG-2
LOT-2A	1.06	CG-2
LOT-2B	0.53	CG-2
LOT-04	3.674	CG-2
LOT-05	6.81	CG-2/SP
LOT-08	2.27	CG-2/PUD
LOT-09	2.57	CG-2

LEGENDS	
	LOT BOUNDRY
	BUILDING SETBACK
	BUILDING FOOT PRINT
	6" CONCRETE CURB WITH GUTTER
	OVERHEAD BUILDING FLOOR AND BALCONIES
	EXISTING, REMAINING BUILDINGS
	EASEMENT LINE

LOT-08
APARTMENT CONDOS
BUILDING 25 STORY
362 UNITS

STRUCTURE PARKING	=	700
PROVIDED PARKING (ON SITE)	=	34
TOTAL PARKING	=	734
REQUIRED PARKING	=	631
PROVIDED PARKING	=	734
EXTRA PARKING	=	103

LOT-09
RETAIL BUILDING 1 &
REATAIL BUILDING 2

REQUIRED PARKING	=	177
PROVIDED PARKING (ON SITE)	=	83
DEFICIT PARKING	=	94

NOTE:
THE DEFICIT PARKING WILL BE ACCOMMODATED THROUGH AN AGREEMENT WITH THE ADJACENT LOTS ON THE PROPERTY.

LOT-05
6 STORY
APARTMENT COMPLEX
NO OF APARTMENTS # 343

STRUCTURE PARKING	=	510
PROVIDED PARKING (ON SITE)	=	167
TOTAL PARKING	=	677
REQUIRED PARKING	=	631
PROVIDED PARKING	=	677
EXTRA PARKING	=	46

LOT-04
7 STORY HOTEL
190 ROOMS

REQUIRED PARKING	=	190
PROVIDED PARKING (ON SITE)	=	134
DEFICIT PARKING	=	56

NOTE:
THE DEFICIT PARKING WILL BE ACCOMMODATED THROUGH AN AGREEMENT WITH THE ADJACENT LOTS ON THE PROPERTY.

LOT-2A
PROPOSED RESTAURANT
FOR FUTURE
12,500 SFT

REQUIRED PARKING	=	84
PROVIDED PARKING (ON SITE)	=	119
EXTRA PARKING	=	35

LOT-01
PROPOSED RESTAURANT
FOR FUTURE
5,000 SFT

REQUIRED PARKING	=	34
PROVIDED PARKING (ON SITE)	=	101
EXTRA PARKING	=	67

A LOT 5 (6 STORY APARTMENT BUILDING)

SCALE:N/A

BREAK DOWN OF UNITS.

FLOOR	NO. OF APARTMENT	STUDIO	1 BED	2 BED	3 BED
1ST FLOOR	54	01	44	07	02
2ND FLOOR	57	01	46	08	02
3RD FLOOR	58	01	46	09	02
4RTH FLOOR	58	01	46	09	02
5TH FLOOR	58	01	46	09	02
6TH FLOOR	58	01	46	09	02
TOTAL APARTMENTS	341	06	274	51	12

PARKING

APARTMENTS	NO. OF APARTMENT	PARKING RATIO	PARKING REQUIRED	GUEST PARKING RATIO	GUEST PARKING	TOTAL PARKING
STUDIO	06	1/APARTMENT	06	5/APARTMENT	02	08
1 BED	274	1.5/APARTMENT	411	5/APARTMENT	55	466
2 BED	51	2/APARTMENT	102	5/APARTMENT	11	113
3 BED	12	2/APARTMENT	24	5/APARTMENT	03	27
TOTAL APARTMENTS	343		543		71	
GRAND TOTAL					REQUIRED PARKING	614

PARKING
ADA STANDARDS CALL FOR 13 HANDICAP SPACES IF THE TOTAL NUMBER OF PARKING SPACES IS BETWEEN 500 TO 1000 PARKING SPACES
NUMBER OF PARKING SPACES PROVIDED:
167 PARKING SPACES ALONG WITH THE APARTMENT BUILDING.
510 PARKING SPACES IN PARKING GARAGE.
14 ADA PARKING SPACES (10 PARKING STRUCTURE, 4 AT FRONT).
07 SHARED PARKING WITH LOT-04.
614 TOTAL REQUIRED PARKING SPACES
677 TOTAL PROVIDED PARKING SPACES

B LOT 8 (25 STORY APARTMENT BUILDING)

SCALE:N/A

PARKING

APARTMENTS	NO. OF APARTMENT	PARKING RATIO	PARKING REQUIRED	GUEST PARKING RATIO	GUEST PARKING	TOTAL PARKING
STUDIO	39	1/APARTMENT	39	5/APARTMENT	08	47
1 BED	266	1.5/APARTMENT	399	5/APARTMENT	54	453
2 BED	40	2/APARTMENT	80	5/APARTMENT	08	88
3 BED	17	2/APARTMENT	34	5/APARTMENT	04	38
PENT HOUSE	02	2/APARTMENT	04	5/APARTMENT	01	05
TOTAL APARTMENTS	362		556	5/APARTMENT	75	
GRAND TOTAL					REQUIRED PARKING	631

PARKING
ADA STANDARDS CALL FOR 13 HANDICAP SPACES IF THE TOTAL NUMBER OF PARKING SPACES IS BETWEEN 500 TO 1000 PARKING SPACES
NUMBER OF PARKING SPACES PROVIDED:
34 PARKING SPACES ALONG WITH THE APARTMENT BUILDING.
700 PARKING SPACES IN PARKING GARAGE.
14 ADA PARKING SPACES (10 PARKING STRUCTURE, 4 AT FRONT).
631 TOTAL RECQUIRED PARKING SPACES
734 TOTAL PROVIDED PARKING SPACES

BREAK DOWN OF UNITS.

FLOOR	NO. OF APARTMENT	STUDIO	1 BED	2 BED	3 BED	PENT HOUSE
3RD FLOOR	18	02	13	02	01	00
4RTH FLOOR	18	02	13	02	01	00
5TH FLOOR	18	02	13	02	01	00
6TH FLOOR	18	02	13	02	01	00
7TH FLOOR	18	02	13	02	01	00
8TH FLOOR	18	02	13	02	01	00
9TH FLOOR	18	02	13	02	01	00
10TH FLOOR	18	02	13	02	01	00
11TH FLOOR	18	02	13	02	01	00
12TH FLOOR	18	02	13	02	01	00
13TH FLOOR	17	01	13	02	01	00
14TH FLOOR	17	01	13	02	01	00
15TH FLOOR	13	01	11	00	01	00
16TH FLOOR	14	02	11	00	01	00
17TH FLOOR	14	02	11	00	01	00
18TH FLOOR	17	02	13	02	00	00
19TH FLOOR	17	02	13	02	00	00
20TH FLOOR	18	02	13	02	01	00
21ST FLOOR	18	02	13	02	01	00
22ND FLOOR	10	01	07	02	00	01
23RD FLOOR	09	01	06	02	00	00
24TH FLOOR	09	01	06	02	00	01
25TH FLOOR	09	01	06	02	00	00
TOTAL APARTMENTS	362	39	266	40	17	02

01 SITE PLAN

SCALE:1"= 60'

GRAPHIC SCALE: 1"=60'

ARK ARCHITECTS INC

ARCHITECT

ARK Architects, Inc.
| ARCHITECTURE |
| PLANNING | INTERIORS |
ONE LEGACY WEST TOWER
7950 S. LEGACY DRIVE SUITE 240,
PLANO, TEXAS 75034
PHONE: (469) 592-7370

OWNER

CIVIL & STRUCTURE

LANDSCAPE / IRRIGATION

ELECTRICAL

MECH. & PLUMBING

STAMP

REGISTERED ARCHITECT SCOTT M JONES 19996 STATE OF TEXAS

ISSUED: 10/29/2024

REVISIONS

Revision No.	Revision Date

CHECKED BY : W.K
DRAWN BY : S.H

PROJECT NO.

SHEET TITLE

SITE PLAN

SHEET NO.

SP-01

5858 S PADRE ISLAND DR, CORPUS CHRISTI, TX 78412, USA

SUNRISE DEVELOPMENT

Traffic Impact Analysis for Sunrise Development in Corpus Christi, Texas

MONDAY, DECEMBER 23, 2024

Prepared By

PROMET ENGINEERS
TRANSPORTATION ENGINEERING & PLANNING

12/23/2024

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

SUPPORTING DOCUMENTATION

(D) Traffic Impact Analysis

I. INTRODUCTION

This report documents the methodology and results of a traffic impact analysis (TIA) study conducted by Promet Engineers, LLC (Promet) in connection with the proposed development, Sunrise Development (referred to from hereon as the Project), at 5858 S Padre Island Drive, Corpus Christi, Texas 78412. The proposed project is a redevelopment of the closed Sunrise Mall. The overall site is approximately 24 acres. **Exhibit 2**, Preliminary Site Plan, shows that the proposed redevelopment will use the existing driveways as the main access points to the public streets in the future. As a part of the overall development, the initial rezoning application is being submitted to the City of Corpus Christi for lots 5 and 8. Lot 5 is expected to be developed by 2025, and a full project buildout will occur by 2028.

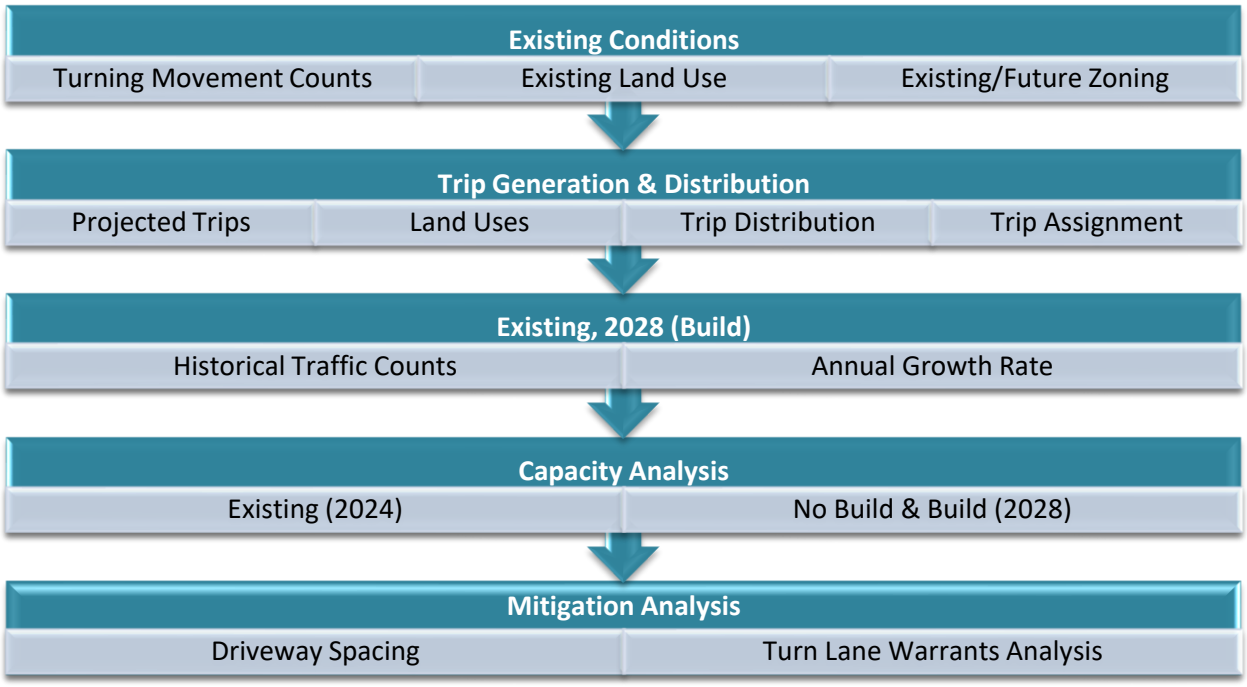
A. PURPOSE

This study aims to determine the project's traffic impacts on the adjacent roadway system and the study intersections near the project site, including site driveways. The City of Corpus Christi requires a TIA to be prepared for the proposed project as the number of trips the project is expected to generate meets the TIA requirement as per the city guidelines. As the project proposes to use the existing driveways on the TX-358 WB Frontage Road, this traffic impact analysis will be reviewed by TxDOT for approval of the site plan and site driveway operations.

B. METHODOLOGY

The traffic impact analysis evaluates existing and projected traffic operations within the study area for weekday morning and afternoon peak hour traffic conditions when the combination of the adjacent street volumes and projected project trips is expected to be most significant. The TIA study follows the five broad steps shown in **Figure 1**.

Figure 1. TIA Methodology



Analysis Periods

Based on the proposed land uses, the City of Corpus Christi and TxDOT approved the scope of work, and two peak periods—every two hours in duration—were analyzed for the study. The turning movement counts were collected during these periods on a typical weekday; a standard study peak hour was selected for the morning and afternoon peak periods based on the peak hours at the critical intersections for the intersection capacity analysis. The TIA scoping document is provided in **Appendix F**.

Peak Hours	**Time Period Collected & Analyzed**
AM Peak	7:00 AM – 9:00 AM
PM Peak	4:00 PM – 6:00 PM

Analysis Scenarios

The study analyzed the following scenarios:

- Existing Year (2024)
- No-Build Year (2028)
- Build Year (2028)

II. EXISTING AND PROPOSED LAND USE

This report section provides current and proposed land uses at the project site.

A. SITE LOCATION AND STUDY AREA

The site is at 5858 S Padre Island Drive, Corpus Christi, Texas. The site location map is shown in **Exhibit 1** following the report.

The following are the existing and proposed intersections analyzed in the study:

Signalized:

1. Staples Street at McArdle Road
2. TX-358 WB Frontage Road at Staples Street
3. TX-358 EB Frontage Road at Stapes Street
4. TX-358 WB Frontage Road at Airline Road
5. TX-358 EB Frontage Road at Airline Road
6. McArdle Road at Airline Road

Unsignalized:

7. TX-358 WB Frontage Road at Driveway 1
8. TX-358 WB Frontage Road at Driveway 2
9. TX-358 WB Frontage Road at Driveway 3
10. McArdle Road at Driveway 4
11. McArdle Road at Driveway 5

B. EXISTING ZONING

The existing zoning within the study area is CG—2 (General Commercial 2 District). The developer is pursuing a special use permit for lots 5 and 8.

C. EXISTING AND PROPOSED DEVELOPMENT

The site currently consists of existing buildings. A few of these buildings are occupied and operational. Bel Furniture Business occupies Lot 07, and Safe Space Storage occupies Lot 03. The site currently accesses the TX-358 WB Frontage Road and McArdle Road with five driveways: three (3) driveways on TX-358 WB Frontage Road and two (2) driveways on McArdle Road. The future redevelopment will also utilize the existing driveways. The inbound and outbound operations at the driveways will remain the same.

III. EXISTING AND PROPOSED TRANSPORTATION SYSTEM

This section of the report provides information about the existing and proposed thoroughfare system and existing and projected traffic volumes.

A. THOROUGHFARE SYSTEM

1. TX-358 WB Frontage Road [Adjacent to the site]

    - Existing operation and cross-section: two lanes, one-way, undivided
    - Proposed operation and cross-section: two lanes, one-way, undivided
    - Speed Limit: 45 mph (posted)
    - TxDOT Functional Classification: Major Collector

2. McArdle Road [Adjacent to the site]

    - Existing operation and cross-section: four lanes, two-way, TWLTL
    - Proposed operation and cross-section: four lanes, two-way, TWLTL
    - Speed Limit: 35 mph (posted)
    - TxDOT Functional Classification: Minor Arterial

3. S Staples Street [Between McArdle Road and TX-358 WB Frontage Road]

    - Existing operation and cross-section: four lanes, two-way, TWLTL
    - Proposed operation and cross-section: four lanes, two-way, TWLTL
    - Speed Limit: 35 mph (posted)
    - City of Dallas Functional Classification: Principal Arterial – Other

4. Airline Road [Between McArdle Road and TX-358 WB Frontage Road]

    - Existing operation and cross-section: four lanes, two-way, TWLTL
    - Proposed operation and cross-section: four lanes, two-way, TWLTL
    - Speed Limit: 35 mph (posted)
    - City of Dallas Functional Classification: Minor Arterial

The existing and proposed roadway lane geometry and traffic control are shown in **Exhibits 3** and **4**.

B. EXISTING TRAFFIC VOLUMES

Existing traffic volumes were collected in the field to establish the existing traffic conditions. The following sections describe the deriving of the peak hour turning movements for the two time periods analyzed.

Traffic counts were collected on Tuesday, November 19, 2024. The study peak hour volumes are shown in **Appendix A,** and the 15-minute count during the peak hours collected is shown in tabular form in **Appendix B**.

C. PROJECTED TRAFFIC VOLUMES

The projected turning movement volumes were developed for the full buildout year (2028). Based on the historical traffic counts, the traffic on adjacent roadways did not consistently increase or decrease, as shown in **Table 1**. A conservative 3.0% growth rate was applied to all critical movements from existing to buildout conditions.

Table 1. Historical Traffic Data

Roadway Segment	Historical Daily Volume (Date)	Annual Growth Rate
1. TX-358 WB Frontage Road (Adjacent to the site)	23,145 (2023)A 24,514 (2022)A	-6.0%
2. TX-358 On Ramp (Adjacent to the site)	12,817 (2023)A 12,313 (2022)A	4.0%
3. Airline Road (Between TX-358 WB Frontage Road and McArdle Road)	25,128 (2023)A 22,921 (2022)A	10.0%
	Average:	**3.0%**

**A – Source: TxDOT*

The future background volumes calculated for the no-build and build conditions are based on the assumed growth rate for the study intersections. The volumes are shown in **Appendix A**.

IV. SITE TRAFFIC CHARACTERISTICS

This section of the report provides information regarding the projected number of trips generated by the proposed project. It also discusses traffic distribution and assignment.

A. PROPOSED SITE TRIP GENERATION

The Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition) determined the number of projected trips entering and exiting the site. The land use codes considered for the proposed land uses are 932 (High-Turnover Sit-Down Restaurant), 310 (Hotel), 221 (Mid-Rise Apartments), 222 (High-Rise Apartments), and 822 (Strip Retail Plaza). **Table 2** shows the projected trip generation for the proposed project.

Table 2. Projected Trip Generation – Proposed Project

Land Use	Proposed Gross Floor Area/Number of Units	AM Peak-Hour Trip Ends (Adjacent Street Peak)	PM Peak-Hour Trip Ends (Adjacent Street Peak)
		Total (In/Out)	**Total** (In/Out)
Lot 1 – High-Turnover Sit-Down Restaurant (ITE#932)	16,503 SF	**158** (87/71)	**149** (91/58)
Lots 2A, 2B – High-Turnover Sit-Down Restaurant (ITE#932)	12,500 SF	**120** (66/54)	**113** (69/44)
Lots 4 & 10 – Hotel (ITE#310)	190 Rooms	**88** (49/39)	**113** (57/56)
Lot 5 – Mid-Rise Apartments (ITE#221)	341 DU	**138** (32/106)	**133** (81/52)
Lot 8 – High-Rise Apartments (ITE#222)	250 DU	**74** (19/55)	**88** (55/33)
Lot 9 – Strip Retail Plaza (<40k) (ITE#822)	35,761 SF	**84** (51/33)	**236** (118/118)
TOTAL		**662** (304/358)	**832** (471/361)

Due to the nature of the proposed land uses, no internal or pass-by trip reduction was applied. Additionally, no pedestrian or transit reduction was applied for a conservative analysis of the projected conditions.

B. TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT

The general trip distribution for the proposed site was considered to be as follows:

- 10% from north on Airline Road
- 20% from east on TX-358
- 40% from west (TX-358 and Staples Street)
- 30% from south

The trip distribution was based on the project's location, general traffic flow, office locations, residential communities, and professional judgment.

Appendix C provides the traffic distribution and assignments, and **Appendix A** provides the site trip-assigned traffic volumes.

V. TRAFFIC ANALYSIS

This section describes the overall quality of the traffic flow at the study area intersections during the AM and PM peak hours and notes the necessary assumptions made in the study.

A. LEVEL OF SERVICE EVALUATION

The analysis is based on Synchro capacity analysis methodologies and procedures in the Highway Capacity Manual, 6th Edition (HCM). This section presents the evaluation criteria and summarizes the results of the capacity analyses.

A.1. Level of Service

The intersection level of service (LOS) analyses were performed following the procedures recommended by the Highway Capacity Manual, 6th Edition (HCM) Level of Service methodologies to evaluate signalized and unsignalized intersections. Traffic analysis software Synchro Version 11 was used to evaluate the operations of the study intersections—the LOS criteria for signalized and unsignalized intersections below in **Table 3.** LOS 'A' is considered a free-flow condition, and LOS 'F' is a failing condition. LOS 'D' is generally considered an acceptable level of service.

Table 3 Level of Service (LOS) Criteria for Intersections

LOS	Signalized Intersection	Unsignalized Intersections
	Delay (sec/veh)	Delay (sec/veh)
A	0-10	0-10
B	>10-20	>10-15
C	>20-35	>15-25
D	>35-55	>25-35
E	>55-80	>35-50
F	>80	>50

Source: Highway Capacity Manual 6th Edition, Transportation Research Board

A.2. Results

Tables 4 and 5 summarize the capacity analysis for AM and PM peak hours. The performance measure is based on the average delay in seconds per vehicle by intersection for signalized intersections, unsignalized intersections, and roundabouts. The traffic signal timings for the TX-358 Frontage Road/Staples Street and TX-358 Frontage Road/Airline Road intersections for the analysis were based on the traffic signal timing plans provided by TxDOT through an open records request. The timings for the other two signalized intersections were determined based on the videos collected at the intersections during traffic data collection. The timings for all the signalized intersections were input to match the conditions for the existing 2028 no-build scenarios. The timings for the signalized intersections in the 2028 build scenario were optimized to achieve an acceptable level of service where applicable. Detailed Synchro reports can be found in **Appendix D**.

For the study intersections, the results in **Tables 4 and 5** indicate that:

- Under the existing conditions, all the signalized intersections are currently operating at acceptable conditions except:
  - TX-358 EB Frontage Road at Staples Street: The eastbound and northbound movements are

currently operating at LOS E or F.
    - TX-358 EB Frontage Road at Airline Road: The eastbound movement is currently operating at LOS E or F during the AM and PM peak hours.
- At project buildout conditions, all the intersections are expected to operate acceptably with optimized signal timings as shown in the analysis report in Appendix D.
- Under the existing conditions, all the unsignalized intersections operate at acceptable conditions.
- At project buildout conditions, all the unsignalized intersections are expected to operate at acceptable conditions except:
    - TX-358 WB Frontage Road at Driveway 2: The SB right-turn movement is expected to operate at LOS F at both AM and PM peak hour conditions.

Table 4 Level of Service – Signalized Intersections

		Existing		2025 No-Build		2025 Build*	
		AM	PM	AM	PM	AM	PM
Staples Street							
at McArdle Road		B (17.1)	C (26.7)	B (18.0)	C (29.3)	B (18.9)	C (31.4)
	EB	D (45.3)	D (48.4)	D (47.4)	D (48.9)	D (47.4)	D (48.9)
	WB	D (37.8)	D (36.3)	D (38.0)	D (41.6)	D (38.8)	D (49.2)
	NB	A (9.3)	B (16.3)	B (10.5)	B (18.0)	B (11.0)	B (17.8)
	SB	A (7.8)	B (17.0)	A (8.5)	B (19.1)	A (9.3)	C (20.3)
TX-358 WB Frontage Road							
at Staples Street		C (20.6)	C (33.5)	D (38.3)	D (44.2)	C (24.6)	D (39.7)
	EB	- -	- -	- -	- -	- -	- -
	WB	C (26.5)	D (39.1)	C (31.3)	D (41.5)	C (32.8)	D (53.6)
	NB	B (14.4)	C (30.8)	D (45.5)	D (51.8)	B (10.5)	C (25.5)
	SB	C (28.6)	C (32.8)	C (29.2)	D (35.6)	D (45.0)	D (47.5)
TX-358 EB Frontage Road							
at Staples Street		D (49.8)	D (46.1)	D (52.5)	E (68.4)	C (30.9)	D (38.7)
	EB	C (22.8)	E (77.7)	C (33.3)	F (>100)	C (34.5)	D (54.6)
	WB	- -	- -	- -	- -	- -	- -
	NB	F (93.3)	E (55.7)	F (92.4)	F (93.1)	D (43.4)	D (51.9)
	SB	A (4.4)	A (4.5)	A (4.6)	A (5.0)	A (6.5)	A (9.6)
TX-358 EB Frontage Road							
at Airline Road		C (26.1)	E (61.0)	C (31.9)	F (80.4)	C (27.0)	D (36.3)
	EB	E (61.5)	F (>100)	E (76.0)	F (>100)	D (41.4)	D (45.7)
	WB	- -	- -	- -	- -	- -	- -
	NB	B (11.0)	B (11.7)	B (13.3)	B (14.2)	C (26.4)	D (46.6)
	SB	A (5.7)	A (5.8)	A (6.0)	A (6.4)	A (6.4)	A (9.1)
TX-358 WB Frontage Road							
at Airline Road		C (31.4)	D (37.6)	D (37.3)	D (48.7)	D (50.6)	E (56.5)
	EB	- -	- -	- -	- -	- -	- -
	WB	D (49.4)	D (49.5)	D (50.1)	D (47.9)	D (49.6)	E (60.5)
	NB	C (21.3)	C (28.0)	C (29.8)	D (51.5)	D (50.9)	E (55.9)
	SB	D (35.2)	D (42.0)	D (40.6)	D (44.8)	D (50.9)	D (53.6)
McArdle Road							
at Airline Road		B (18.3)	D (37.8)	C (20.6)	D (42.6)	C (21.8)	D (45.3)
	EB	D (40.9)	E (57.5)	D (44.2)	E (56.2)	D (44.9)	E (56.4)
	WB	C (32.7)	E (60.8)	D (36.0)	E (60.0)	D (38.6)	E (60.0)
	NB	B (11.8)	C (27.2)	B (14.3)	D (36.1)	B (14.4)	D (38.5)
	SB	B (12.2)	C (24.4)	B (13.6)	C (31.9)	B (14.7)	D (37.7)

*All the signalized intersection timings were optimized in future conditions to achieve an acceptable level of service where necessary.

Table 5 Level of Service – Unsignalized Intersections

	Traffic Movement	Existing AM	Existing PM	2025 No-Build AM	2025 No-Build PM	2025 Build AM	2025 Build PM
TX-358 WB Frontage Road at Driveway 1	SBR	B (11.0)	B (12.2)	B (11.4)	B (12.9)	C (16.2)	C (21.1)
TX-358 WB Frontage Road at Driveway 2	SBR	C (21.9)	C (20.1)	D (25.8)	C (23.3)	F (87.3)	F (61.6)
TX-358 WB Frontage Road at Driveway 3		- -	- -	- -	- -	- -	- -
McArdle Road at Driveway 4	NBLR	B (11.1)	B (13.6)	B (11.5)	B (14.6)	B (13.0)	C (21.8)
	WBL	- -	A (9.0)	- -	A (9.3)	A (8.2)	A (9.9)
McArdle Road at Driveway 5	NBLR	A (7.9)	B (13.4)	B (10.9)	B (14.5)	B (10.3)	B (14.5)
	WBL	B (10.5)	A (9.0)	A (8.0)	A (9.3)	A (8.1)	A (9.6)

KEY:

A, B, C, D, E, F = Level-of-Service for each intersection approach
NB, SB, EB, WB = North-, South-, East-, Westbound approach
L, T, R = Left, Through, Right Approach turning movement
AM = AM Peak Hour of Adjacent Street
PM = AM Peak Hour of Adjacent Street

VI. SITE ACCESS

Driveway spacing and auxiliary lanes were reviewed in the study.

A. DRIVEWAY SPACING

The proposed redevelopment will use the existing driveways for inbound and outbound operations. As TxDOT previously approved the three driveways on TX-358 WB Frontage Road, a review of the driveway spacing is unnecessary. Similarly, the City of Corpus Christi previously approved the two site driveway locations on McArdle Road. Therefore, no driveway spacing review is necessary for the project.

B. AUXILIARY LANE ANALYSIS

Based on Table 2-3, Auxiliary Lane Thresholds from the TxDOT Access Management Manual, the right-turn lane requirement for a roadway with a posted speed limit of 45 mph, such as TX-358 WB Frontage Road, is 50 vehicles per hour. **Table 6** provides the right-turn deceleration lane summary. The projected peak hour right-turn volume is at full-build conditions.

Table 6. Right-Turn Deceleration Lane Summary

Intersection	Projected peak Right-Turn Volume (VPH)	Meets the Threshold? (50 VPH)
Driveway 1 at TX-358 WB Frontage Road	170	**Yes**
Driveway 3 at TX-358 Frontage Road	144	**Yes**

**The PM peak hour generates the highest peak hour volume, while the AM peak hour volumes also meet the requirements.*

Based on the projected volumes, the WB right-turn volumes at Driveways 1 and 3 meet the TxDOT requirement for considering a right-turn lane.

The site traffic has left-turn inbound opportunities at Driveways 4 and 5 on McArdle Road. Under existing conditions, McArdle operates as a four-lane roadway with a two-way left-turn lane in both directions. Therefore, no additional left-turn auxiliary lanes are required at these site driveways. The two-way left-turn lane has sufficient storage to accommodate the future left-turn volume entering the site.

VII. CONCLUSIONS AND RECOMMENDATIONS

The analysis of the traffic conditions, both existing and future, considering the proposed site's traffic's annual growth, indicates a minor impact on the local roadway system.

- At project buildout, the proposed redevelopment is projected to generate approximately 662 trips during the AM peak hour and 832 trips during the PM peak hour.

- Based on the analysis results, under the existing conditions, all the signalized intersections operate at an acceptable level of service except:

  - TX-358 EB Frontage Road at Staples Street: The eastbound and northbound movements are currently operating at LOS E or F.
  - TX-358 EB Frontage Road at Airline Road: The eastbound movement operates at LOS E or F during peak AM and PM hours.

- Based on the analysis results, all the unsignalized intersections operate at an acceptable level of service.

- At project buildout conditions, with optimized traffic signal timings, all the signalized intersections are expected to operate acceptably. No additional geometric improvements are necessary to accommodate the future site traffic and the additional background traffic growth.

- At project buildout conditions, the southbound movement on Driveway 2 at TX-358 WB Frontage Road is expected to operate at LOS F during the AM and PM peak hours. The highest 95th percentile queue for the movement is approximately six vehicles. However, this queue occurs in the property and not on a public street. It is not uncommon for a minor-street stop-controlled intersection to have longer delays for the stop-controlled movements. Therefore, no mitigation measures are recommended.

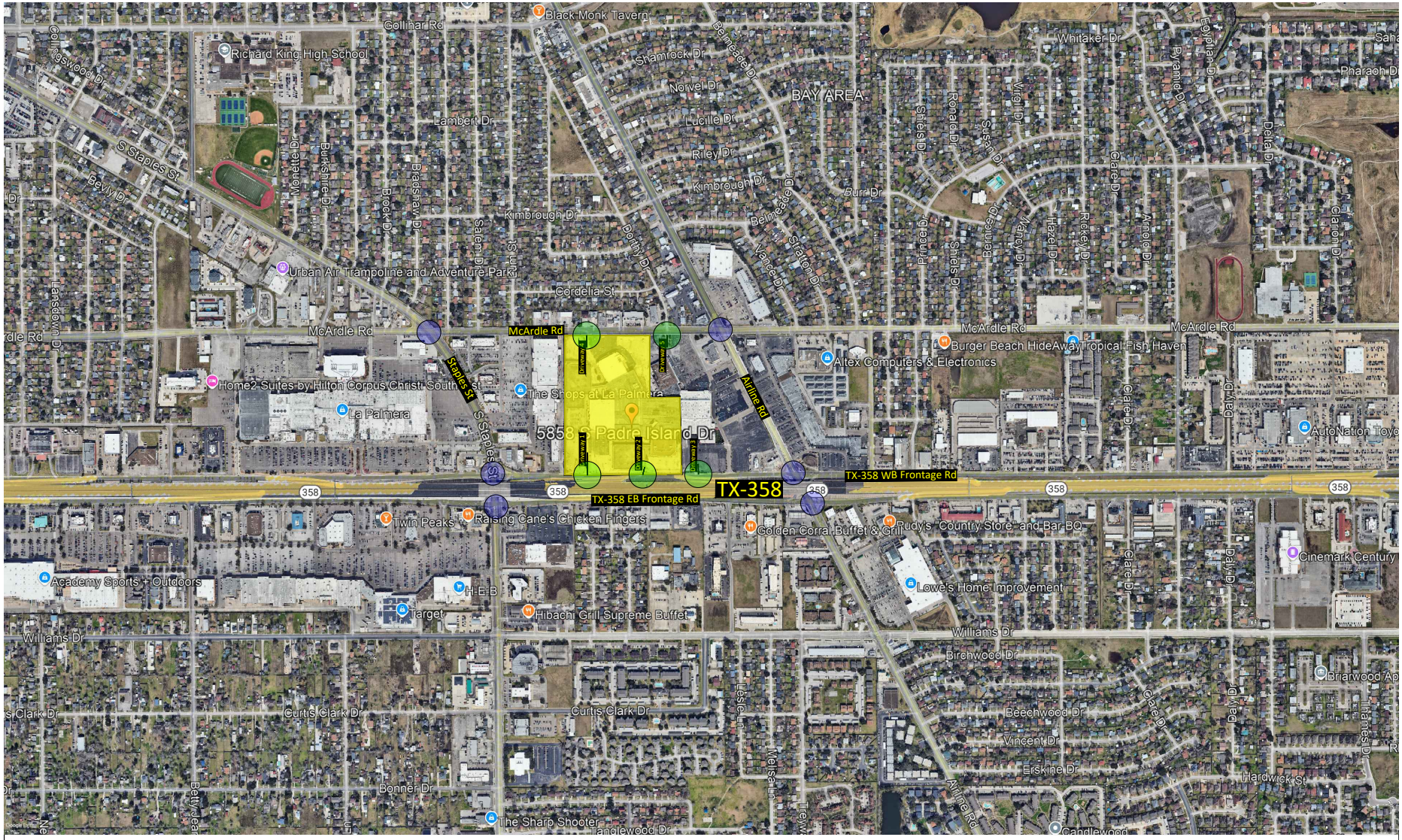
(D) Traffic Impact Analysis

- Based on the projected volumes, the westbound right-turn volumes at Driveway 1 and Driveway 3 meet the TxDOT requirement for a right-turn lane. Therefore, a WB right-turn lane is recommended on TX-358 WB Frontage Road at the two driveways. Minimum storage of 150 feet with a 75 feet taper is recommended for the two right-turn lanes.

- The site traffic has left-turn inbound opportunities at Driveways 4 and 5 on McArdle Road. Under existing conditions, McArdle operates as a four-lane roadway with a two-way left-turn lane in both directions. Therefore, no additional left-turn auxiliary lanes are required at these site driveways. The two-way left-turn lane has sufficient storage to accommodate the future left-turn volume entering the site.

Promet recommends approving the proposed development with the land uses shown in the site plan, subject to TxDOT's approval of the westbound right-turn lanes at Driveways 1 and 3.

(D) Traffic Impact Analysis



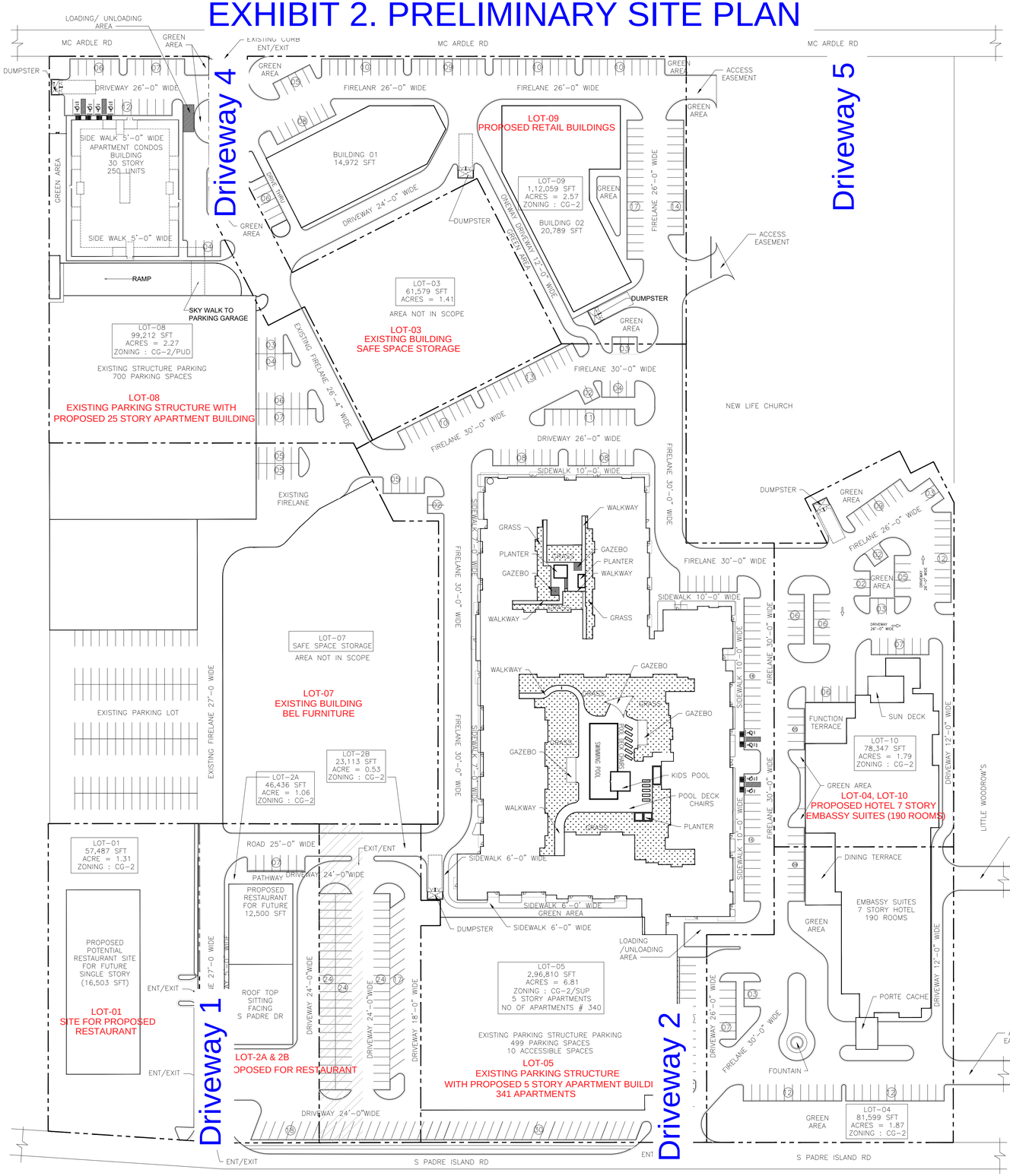
LEGEND:

- Project Site
- Study Intersection (Stop-Controlled)
- Study Intersection (Signalized)

PROMET ENGINEERS
TRANSPORTATION ENGINEERING & PLANNING
TBPE Firm Registration No.: F-25044
Phone 469-640-7708 Web www.prometengineers.com
9550 Forest Lane, Suite 342, Dallas, Texas 75243

EXHIBIT:	1
TITLE:	Site Location Map
DATE:	November 15, 2024
TRAFFIC IMPACT ANALYSIS FOR SUNRISE MALL REDEVELOPMENT IN CORPUS CHRISTI , TEXAS	

EXHIBIT 2. PRELIMINARY SITE PLAN



ZONING		
LOT NO	AREA (ACRE)	ZONING
LOT-01	1.31	CG-2
LOT-2A	1.06	CG-2
LOT-2B	0.53	CG-2
LOT-04	1.87	CG-2
LOT-05	6.81	CG-2/SUP
LOT-08	2.27	CG-2/PUD
LOT-09	2.57	CG-2
LOT-10	1.79	CG-2

LEGENDS	
	LOT BOUNDRY
	BUILDING SETBACK
	BUILDING FOOT PRINT
	6" CONCRETE CURB WITH GUTTER
	OVERHEAD BUILDING FLOOR AND BALCONIES
	EXISTING, REMAINING BUILDINGS
	EASEMENT LINE

01 SITE PLAN
SCALE:1"= 60'

GRAPHIC SCALE: 1"=60'

ARK ARCHITECTS INC

ARCHITECT

ARK Architects, Inc.
| ARCHITECTURE |
| PLANNING | INTERIORS |
ONE LEGACY WEST TOWER
7950 S. LEGACY DRIVE SUITE 240,
PLANO, TEXAS 75034
PHONE: (469) 592-7370

OWNER

CIVIL & STRUCTURE

LANDSCAPE / IRRIGATION

ELECTRICAL

MECH. & PLUMBING

STAMP

REGISTERED ARCHITECT SCOTT M JOHNS 19996 STATE OF TEXAS

ISSUED: 09/16/2024

REVISIONS

Revision No.	Revision Date

CHECKED BY : W.K
DRAWN BY : S.H

PROJECT NO.

SHEET TITLE

SITE PLAN

SHEET NO.

SP-01

5858 S PADRE ISLAND DR, CORPUS CHRISTI, TX 78412, USA

SUNRISE DEVELOPMENT

Exhibit 3. Existing Roadway Geometry and Traffic Control

^North

12/23/2024

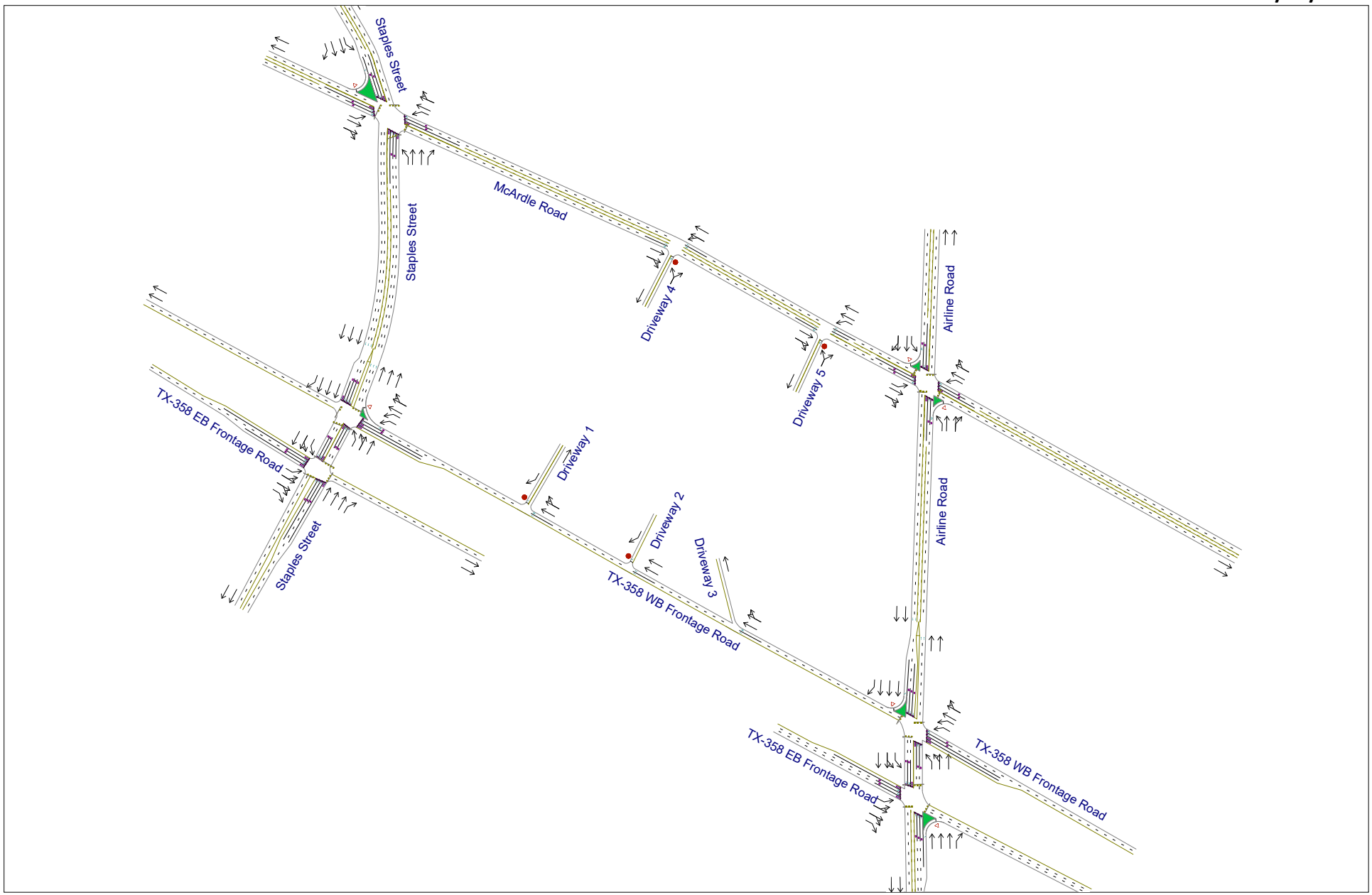
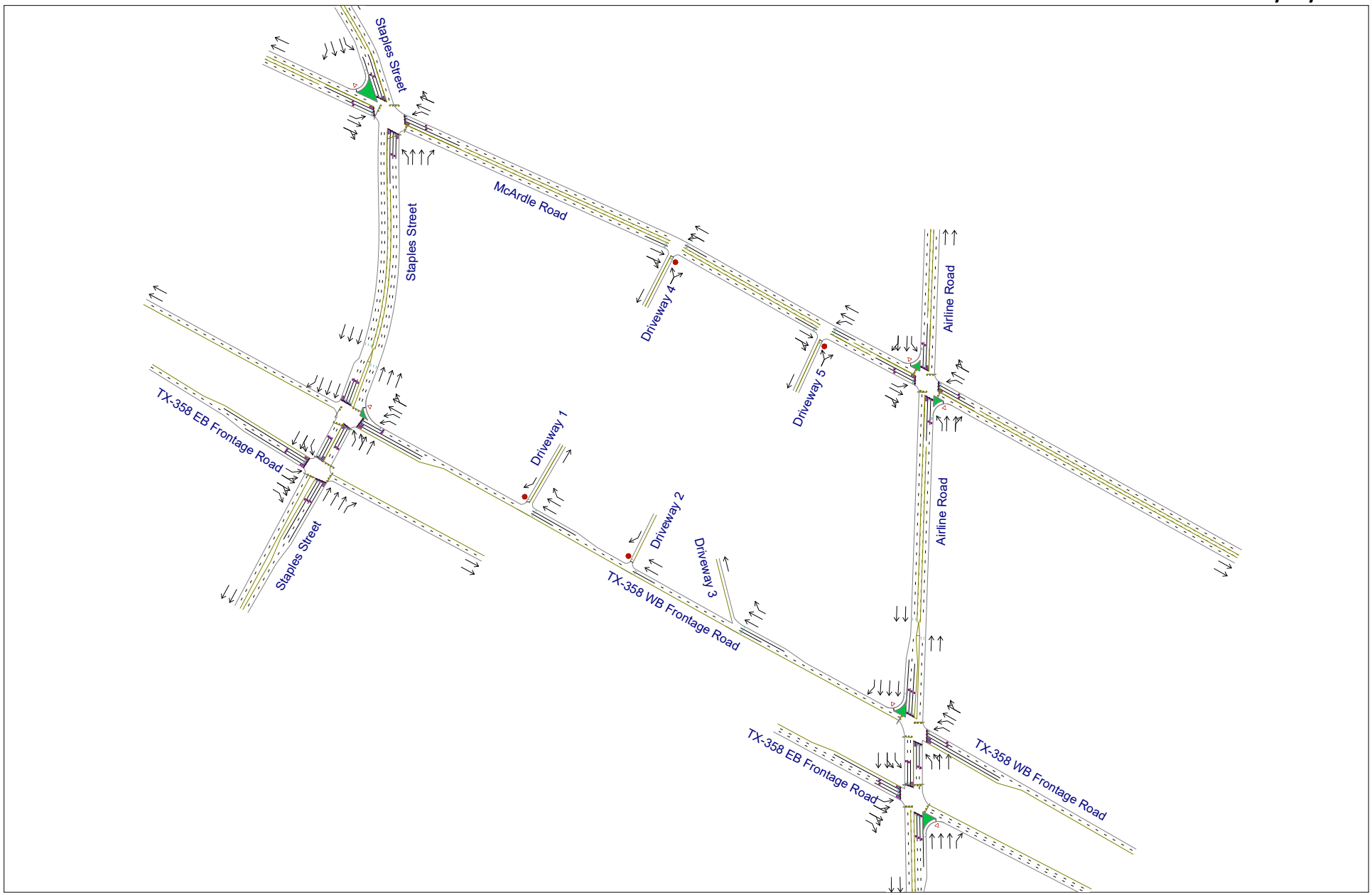


Exhibit 4. Proposed Roadway Geometry and Traffic Control

^North

12/23/2024



(D) Traffic Impact Analysis

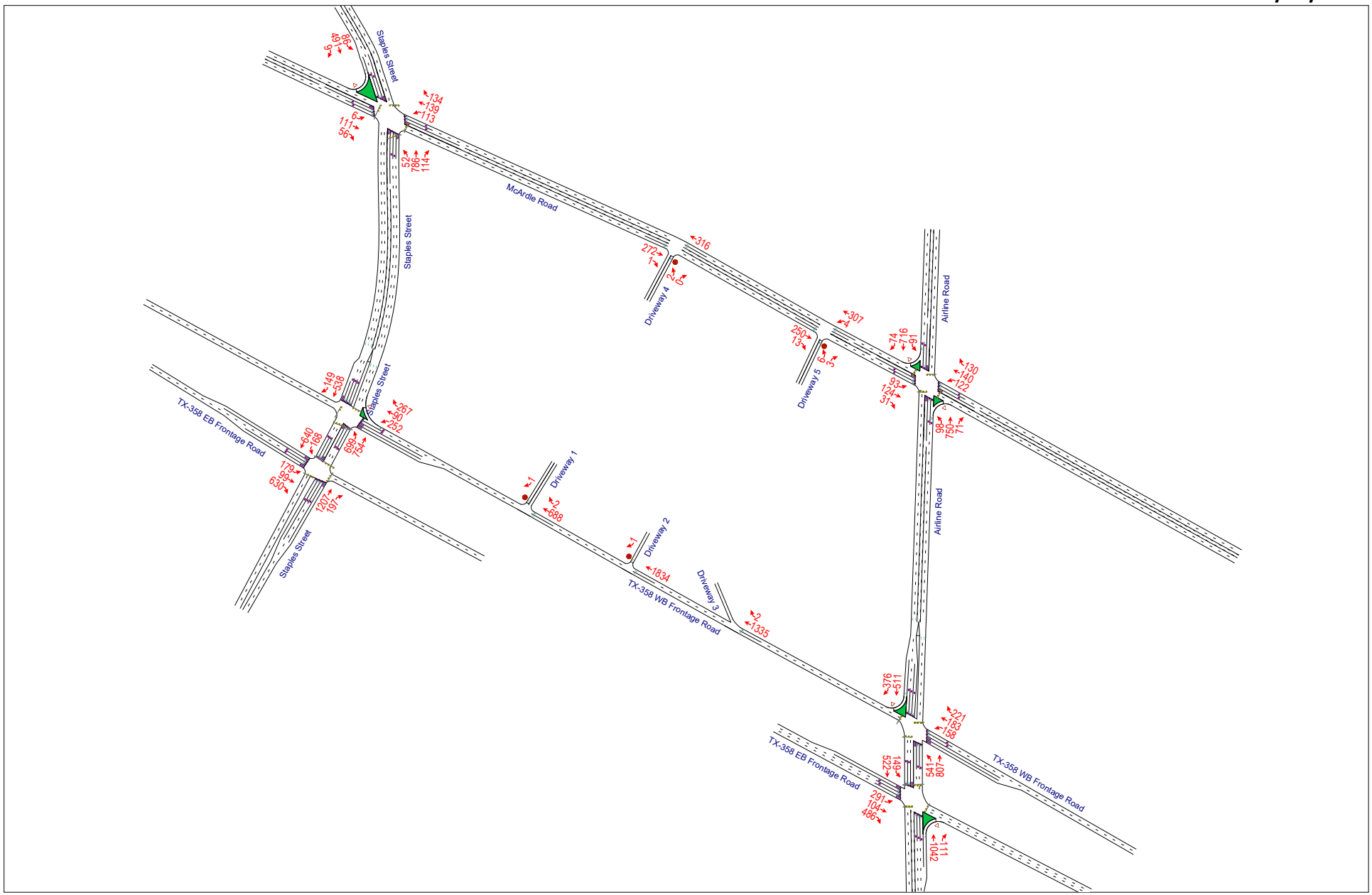
APPENDIX A. Traffic Volumes

(D) Traffic Impact Analysis

A1. 2024 Existing AM Peak Hour Traffic Volumes

^North

12/23/2024



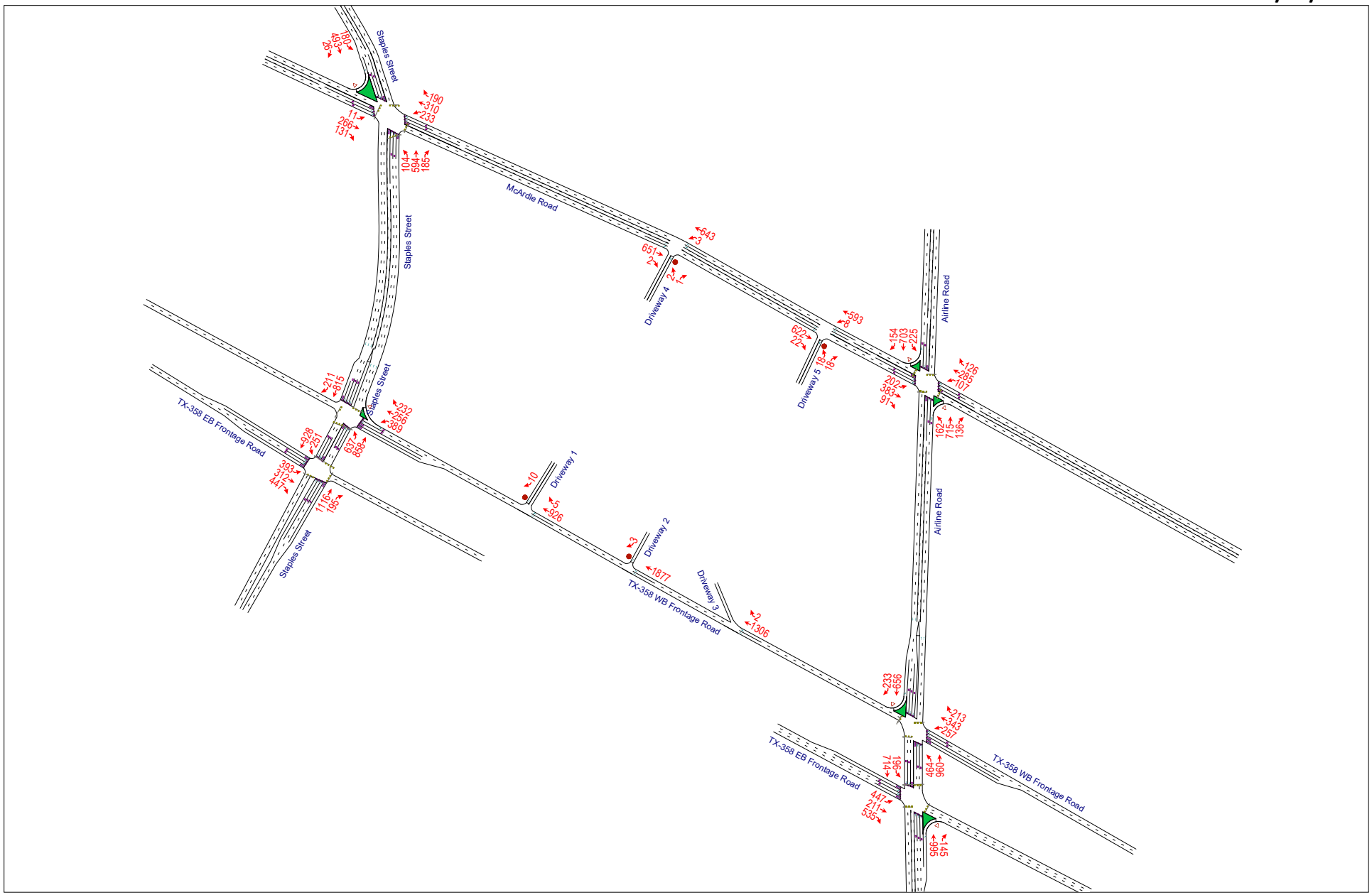
TIA for Sunrise Development in Corpus Christi, Texas

(D) Traffic Impact Analysis

A2. 2024 Existing PM Peak Hour Traffic Volumes

^North

12/23/2024



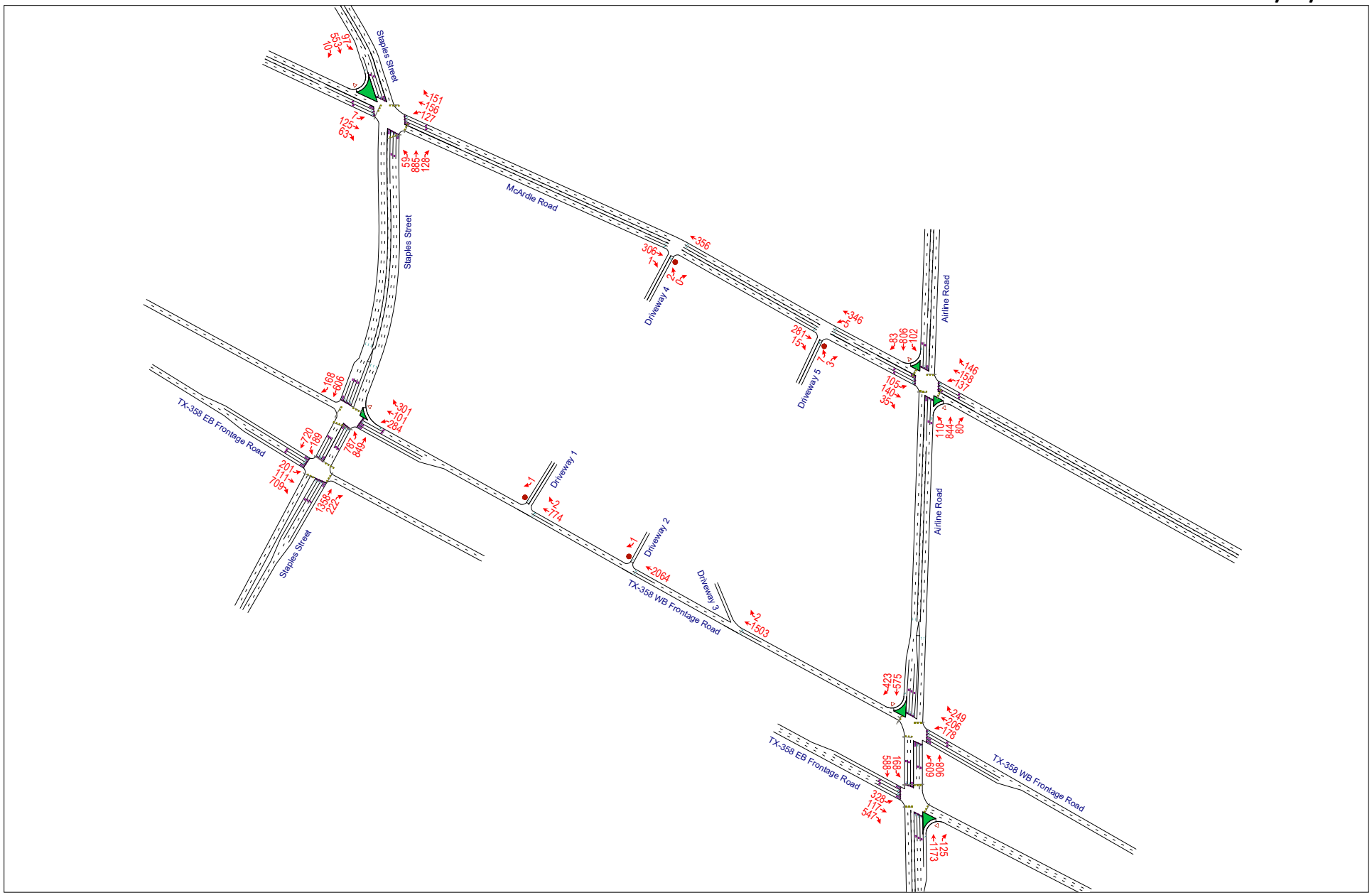
TIA for Sunrise Development in Corpus Christi, Texas

(D) Traffic Impact Analysis

A3. 2028 No Build AM Peak Hour Traffic Volumes

^North

12/23/2024

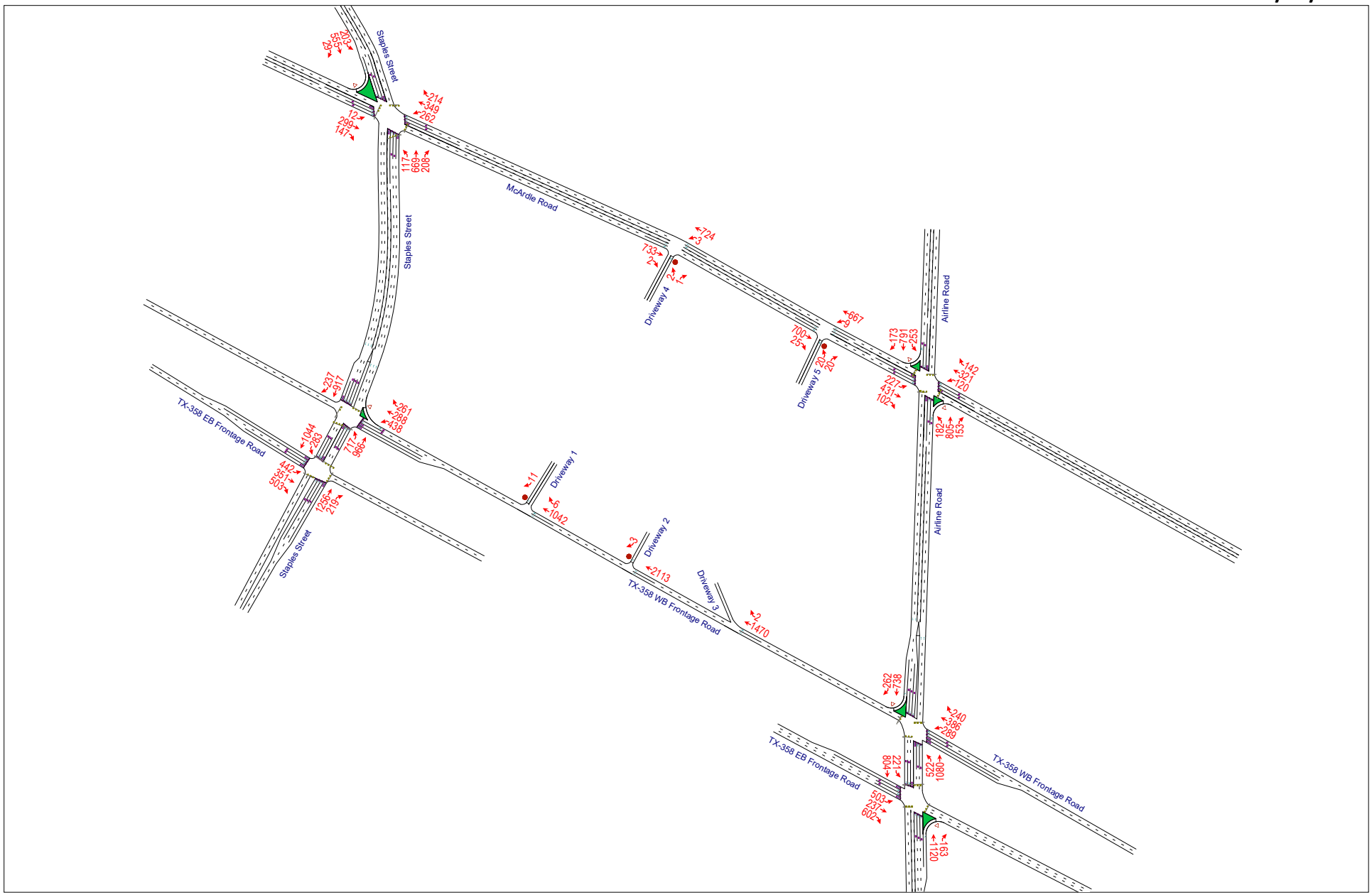


(D) Traffic Impact Analysis

A4. 2028 No Build PM Peak Hour Traffic Volumes

^North

12/23/2024

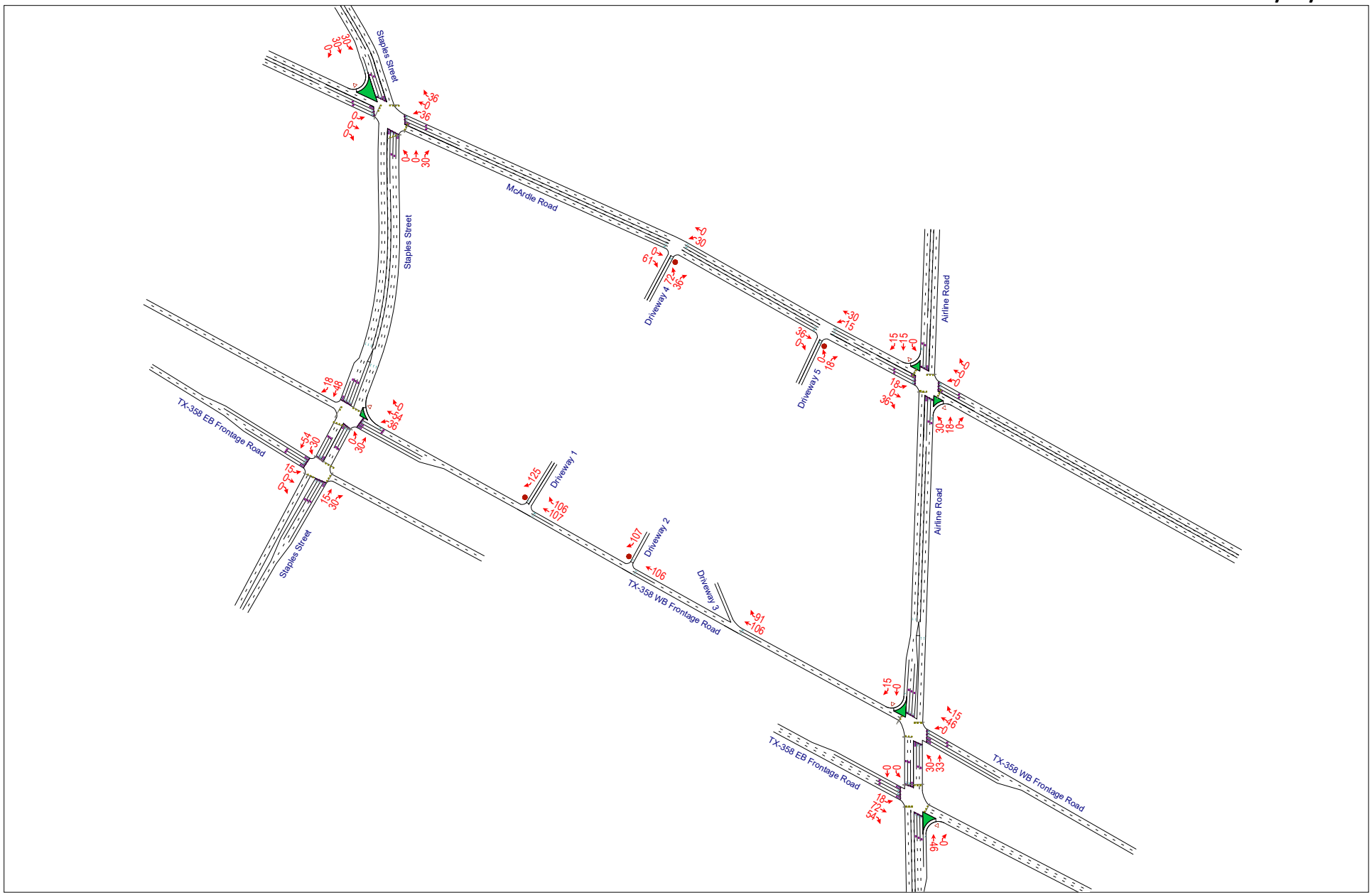


(D) Traffic Impact Analysis

A5. Site-Generated AM Peak Hour Traffic Volumes

^North

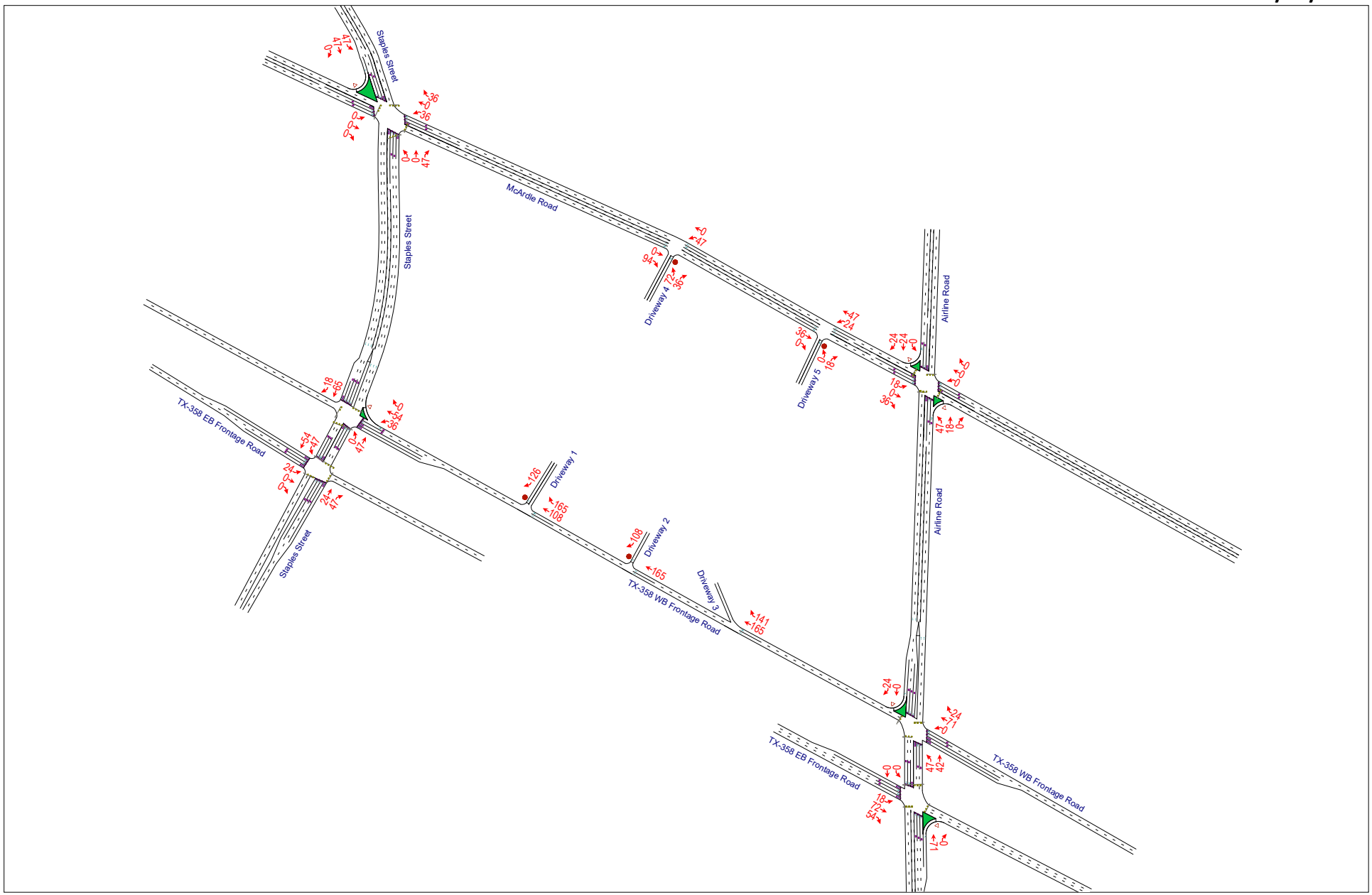
12/23/2024



A6. Site-Generated PM Peak Hour Traffic Volumes

^North

12/23/2024

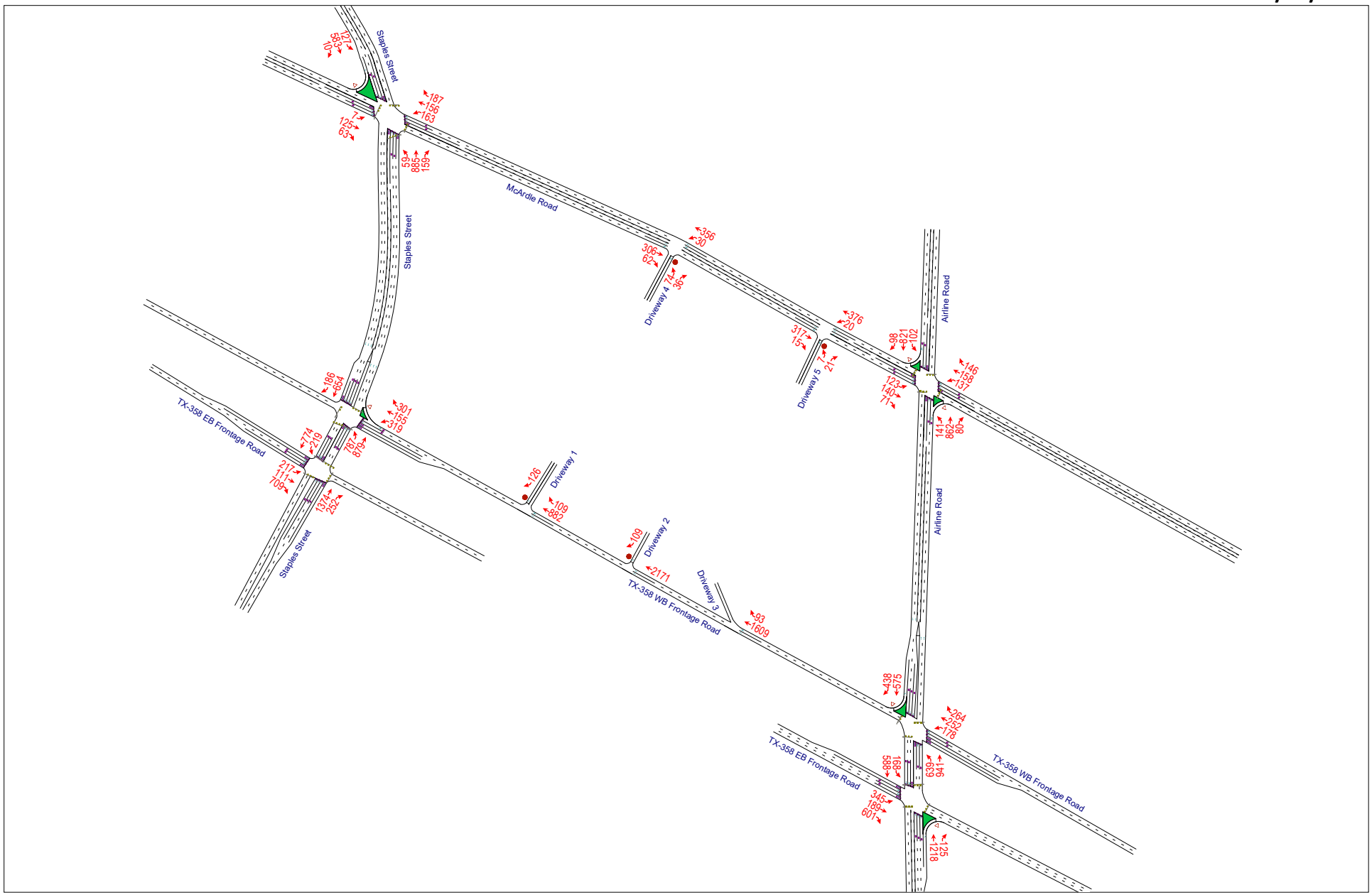


(D) Traffic Impact Analysis

A7. 2028 Build AM Peak Hour Traffic Volumes

^North

12/23/2024

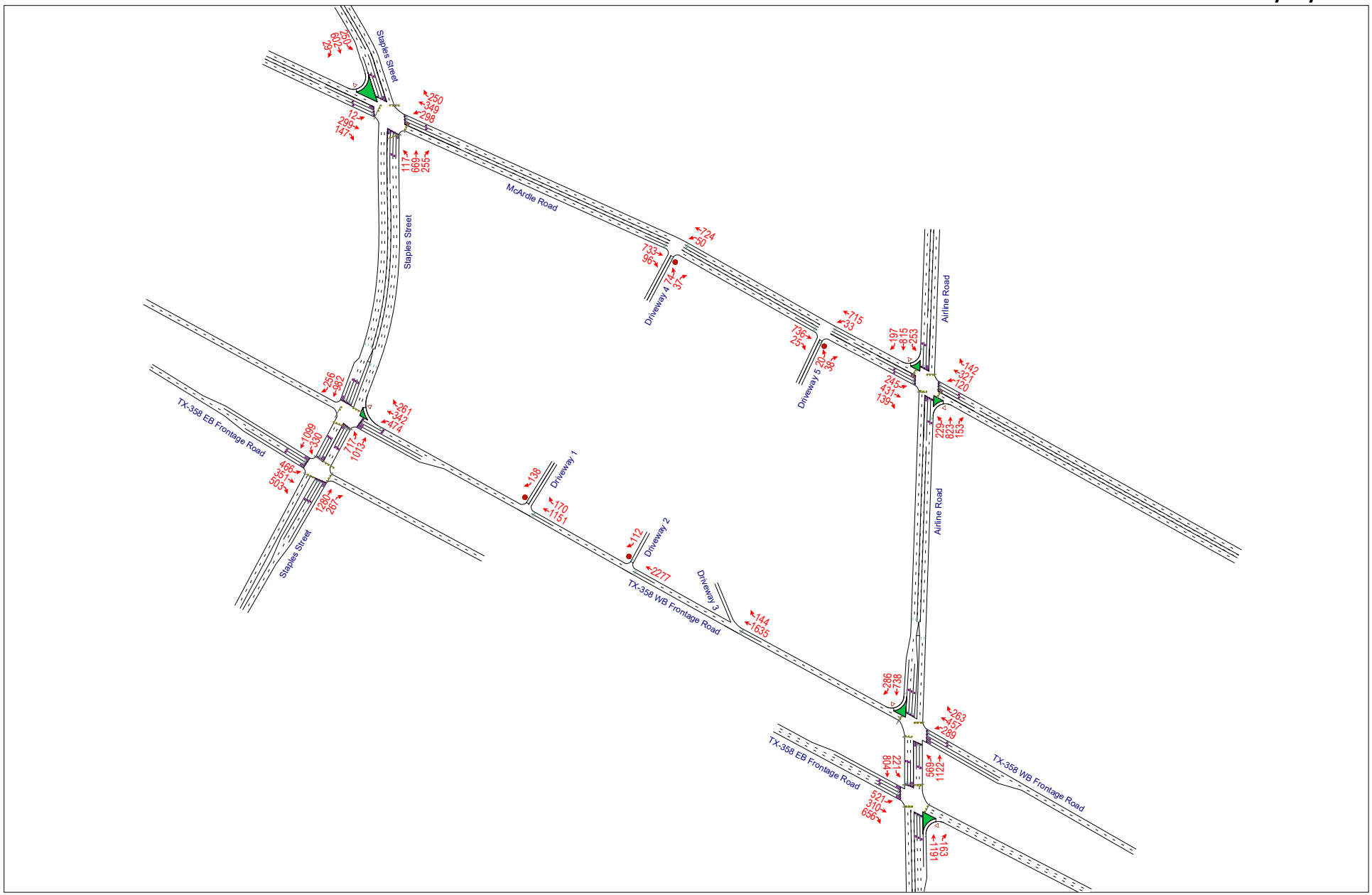


(D) Traffic Impact Analysis

A8. 2028 Build PM Peak Hour Traffic Volumes

^North

12/23/2024



(D) Traffic Impact Analysis

APPENDIX B. Collected Traffic Data

(D) Traffic Impact Analysis

Intersection Traffic Movements

Intersection: Staples Street at McArdle Road — **Data Collected by: CJ Hensch**

Traffic Data Collection Date: Tuesday, November 19, 2024

Time of Count		Northbound on *Staples Street*				Southbound on *Staples Street*				Eastbound on *Mcardle Road*				Westbound on *Mcardle Road*			
Begin	**End**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**
7:00 AM	7:15 AM	0	7	78	17	0	26	53	4	0	1	19	15	0	17	23	23
7:15 AM	7:30 AM	0	11	142	21	0	14	72	1	0	0	23	20	0	21	21	24
7:30 AM	**7:45 AM**	**0**	**9**	**209**	**20**	**0**	**16**	**124**	**3**	**0**	**1**	**28**	**20**	**0**	**27**	**38**	**36**
7:45 AM	**8:00 AM**	**0**	**21**	**184**	**31**	**0**	**21**	**124**	**1**	**0**	**2**	**33**	**16**	**0**	**27**	**43**	**30**
8:00 AM	***8:15 AM***	***0***	***13***	***199***	***35***	***0***	***19***	***116***	***3***	***0***	***1***	***24***	***10***	***0***	***34***	***31***	***32***
8:15 AM	***8:30 AM***	***0***	***9***	***194***	***28***	***0***	***30***	***127***	***2***	***0***	***2***	***26***	***10***	***0***	***25***	***27***	***36***
8:30 AM	*8:45 AM*	*0*	*24*	*227*	*31*	*0*	*27*	*115*	*0*	*0*	*1*	*27*	*16*	*0*	*20*	*24*	*67*
8:45 AM	*9:00 AM*	*0*	*16*	*186*	*32*	*0*	*38*	*142*	*2*	*0*	*0*	*24*	*18*	*0*	*19*	*37*	*46*
	Intersection PHV:	*0*	*62*	*806*	*126*	*0*	*114*	*500*	*7*	*0*	*4*	*101*	*54*	*0*	*98*	*119*	*181*
	PHF:	*0.00*	*0.65*	*0.89*	*0.90*	*0.00*	*0.75*	*0.88*	*0.58*	*0.00*	*0.50*	*0.94*	*0.75*	*0.00*	*0.72*	*0.80*	*0.68*
Intersection Peak Hour: 8:00 AM - 9:00 AM														*Intersection PHF: 0.94*			
	Study Area PHV:	**0**	**52**	**786**	**114**	**0**	**86**	**491**	**9**	**0**	**6**	**111**	**56**	**0**	**113**	**139**	**134**
	PHF:	**0.00**	**0.62**	**0.94**	**0.81**	**0.00**	**0.72**	**0.97**	**0.75**	**0.00**	**0.75**	**0.84**	**0.70**	**0.00**	**0.83**	**0.81**	**0.93**
Study Peak Hour: 7:30 AM - 8:30 AM														**Study Area PHF: 0.98**			
4:00 PM	4:15 PM	0	22	132	40	0	53	125	2	0	4	58	26	0	28	38	55
4:15 PM	4:30 PM	0	28	169	34	0	54	187	11	0	1	59	29	0	35	60	50
4:30 PM	4:45 PM	0	26	152	59	0	55	140	8	0	1	54	28	0	44	63	43
4:45 PM	***5:00 PM***	***0***	***32***	***149***	***46***	***0***	***59***	***114***	***3***	***0***	***4***	***63***	***27***	***0***	***44***	***77***	***32***
5:00 PM	***5:15 PM***	***0***	***21***	***160***	***47***	***0***	***38***	***136***	***9***	***0***	***3***	***52***	***30***	***0***	***55***	***64***	***60***
5:15 PM	***5:30 PM***	***0***	***27***	***151***	***51***	***0***	***39***	***116***	***6***	***0***	***2***	***69***	***42***	***0***	***56***	***87***	***46***
5:30 PM	***5:45 PM***	***0***	***24***	***134***	***41***	***0***	***44***	***127***	***8***	***0***	***2***	***82***	***32***	***0***	***78***	***82***	***52***
5:45 PM	6:00 PM	0	35	140	41	0	45	113	9	0	6	84	27	0	42	63	39
	Intersection PHV:	*0*	*104*	*594*	*185*	*0*	*180*	*493*	*26*	*0*	*11*	*266*	*131*	*0*	*233*	*310*	*190*
	PHF:	*0.00*	*0.81*	*0.93*	*0.91*	*0.00*	*0.76*	*0.91*	*0.72*	*0.00*	*0.69*	*0.81*	*0.78*	*0.00*	*0.75*	*0.89*	*0.79*
Intersection Peak Hour: 4:45 PM - 5:45 PM														*Intersection PHF: 0.96*			
	Study Area PHV:	**0**	**104**	**594**	**185**	**0**	**180**	**493**	**26**	**0**	**11**	**266**	**131**	**0**	**233**	**310**	**190**
	PHF:	**0.00**	**0.81**	**0.93**	**0.91**	**0.00**	**0.76**	**0.91**	**0.72**	**0.00**	**0.69**	**0.81**	**0.78**	**0.00**	**0.75**	**0.89**	**0.79**
Study Peak Hour: 4:45 PM - 5:45 PM														**Study Area PHF: 0.96**			

Intersection Traffic Movements

Intersection: Texas 358 WBFR at Staples Street — **Data Collected by: CJ Hensch**

Traffic Data Collection Date: Tuesday, November 19, 2024

Time of Count		Northbound on *Staples Street*				Southbound on *Staples Street*				Eastbound on *TX 358 WBFR*				Westbound on *TX 358 WBFR*			
Begin	**End**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**
7:00 AM	7:15 AM	0	142	85	0	0	0	64	25	-	-	-	-	0	27	14	32
7:15 AM	7:30 AM	0	178	134	0	0	0	76	30	-	-	-	-	0	34	9	47
7:30 AM	**7:45 AM**	**0**	**190**	**198**	**0**	**0**	**0**	**132**	**37**	**-**	**-**	**-**	**-**	**0**	**39**	**16**	**56**
7:45 AM	**8:00 AM**	**0**	**180**	**187**	**0**	**0**	**0**	**123**	**42**	**-**	**-**	**-**	**-**	**0**	**78**	**28**	**68**
8:00 AM	***8:15 AM***	***0***	***179***	***188***	***0***	***0***	***0***	***154***	***38***	**-**	**-**	**-**	**-**	***0***	***67***	***22***	***71***
8:15 AM	***8:30 AM***	***0***	***150***	***181***	***0***	***0***	***0***	***129***	***32***	**-**	**-**	**-**	**-**	***0***	***68***	***24***	***72***
8:30 AM	*8:45 AM*	*0*	*140*	*195*	*0*	*0*	*0*	*143*	*34*	-	-	-	-	*0*	*48*	*24*	*98*
8:45 AM	*9:00 AM*	*0*	*153*	*204*	*0*	*0*	*0*	*156*	*34*	-	-	-	-	*0*	*83*	*37*	*78*
Intersection PHV:		*0*	*622*	*768*	*0*	*0*	*0*	*582*	*138*	*0*	*0*	*0*	*0*	*0*	*266*	*107*	*319*
PHF:		*0.00*	*0.87*	*0.94*	*0.00*	*0.00*	*0.00*	*0.93*	*0.91*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.80*	*0.72*	*0.81*
Intersection Peak Hour: 8:00 AM - 9:00 AM																*Intersection PHF: 0.94*	
Study Area PHV:		**0**	**699**	**754**	**0**	**0**	**0**	**538**	**149**	**0**	**0**	**0**	**0**	**0**	**252**	**90**	**267**
PHF:		**0.00**	**0.92**	**0.95**	**0.00**	**0.00**	**0.00**	**0.87**	**0.89**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.81**	**0.80**	**0.93**
Study Peak Hour: 7:30 AM - 8:30 AM																**Study Area PHF: 0.96**	
4:00 PM	4:15 PM	0	142	212	0	0	0	109	67	-	-	-	-	0	87	60	60
4:15 PM	*4:30 PM*	*0*	*145*	*213*	*0*	*0*	*0*	*204*	*49*	-	-	-	-	*0*	*111*	*67*	*68*
4:30 PM	*4:45 PM*	*0*	*143*	*235*	*0*	*0*	*0*	*209*	*55*	-	-	-	-	*0*	*103*	*50*	*52*
4:45 PM	***5:00 PM***	***0***	***142***	***229***	***0***	***0***	***0***	***183***	***50***	**-**	**-**	**-**	**-**	***0***	***88***	***63***	***63***
5:00 PM	***5:15 PM***	***0***	***160***	***223***	***0***	***0***	***0***	***236***	***62***	**-**	**-**	**-**	**-**	***0***	***108***	***73***	***63***
5:15 PM	**5:30 PM**	**0**	**171**	**190**	**0**	**0**	**0**	**192**	**46**	**-**	**-**	**-**	**-**	**0**	**103**	**60**	**60**
5:30 PM	**5:45 PM**	**0**	**164**	**216**	**0**	**0**	**0**	**204**	**53**	**-**	**-**	**-**	**-**	**0**	**90**	**60**	**46**
5:45 PM	6:00 PM	0	151	210	0	0	0	187	59	-	-	-	-	0	84	62	43
Intersection PHV:		*0*	*590*	*900*	*0*	*0*	*0*	*832*	*216*	*0*	*0*	*0*	*0*	*0*	*410*	*253*	*246*
PHF:		*0.00*	*0.92*	*0.96*	*0.00*	*0.00*	*0.00*	*0.88*	*0.87*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.92*	*0.87*	*0.90*
Intersection Peak Hour: 4:15 PM - 5:15 PM																*Intersection PHF: 0.93*	
Study Area PHV:		**0**	**637**	**858**	**0**	**0**	**0**	**815**	**211**	**0**	**0**	**0**	**0**	**0**	**389**	**256**	**232**
PHF:		**0.00**	**0.93**	**0.94**	**0.00**	**0.00**	**0.00**	**0.86**	**0.85**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.90**	**0.88**	**0.92**
Study Peak Hour: 4:45 PM - 5:45 PM																**Study Area PHF: 0.92**	

Intersection Traffic Movements

Intersection: Texas 358 EBFR at Staples Street — **Data Collected by: CJ Hensch**

Traffic Data Collection Date: Tuesday, November 19, 2024

Time of Count		Northbound on *Staples Street*				Southbound on *Staples Street*				Eastbound on *TX 358 EBFR*				Westbound on *TX 358 EBFR*			
Begin	**End**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**
7:00 AM	7:15 AM	0	-	218	42	0	21	72	-	19	14	20	63	9	-	-	-
7:15 AM	7:30 AM	0	-	297	47	0	25	84	-	18	27	19	94	5	-	-	-
7:30 AM	***7:45 AM***	***0***	***-***	***342***	***47***	***0***	***37***	***137***	***-***	***34***	***42***	***20***	***157***	***16***	***-***	***-***	***-***
7:45 AM	***8:00 AM***	***0***	***-***	***296***	***67***	***0***	***45***	***175***	***-***	***46***	***50***	***19***	***168***	***18***	***-***	***-***	***-***
8:00 AM	***8:15 AM***	***0***	***-***	***328***	***41***	***0***	***38***	***169***	***-***	***31***	***50***	***36***	***148***	***15***	***-***	***-***	***-***
8:15 AM	***8:30 AM***	***0***	***-***	***241***	***42***	***0***	***48***	***159***	***-***	***27***	***37***	***24***	***157***	***14***	***-***	***-***	***-***
8:30 AM	8:45 AM	0	-	280	67	0	41	144	-	35	65	32	119	15	-	-	-
8:45 AM	9:00 AM	0	-	216	59	0	56	187	-	49	66	27	147	14	-	-	-
Intersection PHV:		*0*	*0*	*1,207*	*197*	*0*	*168*	*640*	*0*	*138*	*179*	*99*	*630*	*63*	*0*	*0*	*0*
PHF:		*0.00*	*0.00*	*0.88*	*0.74*	*0.00*	*0.88*	*0.91*	*0.00*	*0.75*	*0.90*	*0.69*	*0.94*	*0.88*	*0.00*	*0.00*	*0.00*
Intersection Peak Hour: 7:30 AM - 8:30 AM																*Intersection PHF: 0.94*	
Study Area PHV:		**0**	**0**	**1,207**	**197**	**0**	**168**	**640**	**0**	**138**	**179**	**99**	**630**	**63**	**0**	**0**	**0**
PHF:		**0.00**	**0.00**	**0.88**	**0.74**	**0.00**	**0.88**	**0.91**	**0.00**	**0.75**	**0.90**	**0.69**	**0.94**	**0.88**	**0.00**	**0.00**	**0.00**
Study Peak Hour: 7:30 AM - 8:30 AM																**Study Area PHF: 0.94**	
4:00 PM	4:15 PM	0	-	300	39	0	44	211	-	137	98	68	97	22	-	-	-
4:15 PM	4:30 PM	0	-	249	45	0	66	258	-	106	85	57	88	32	-	-	-
4:30 PM	4:45 PM	0	-	266	47	0	81	239	-	138	88	72	105	24	-	-	-
4:45 PM	***5:00 PM***	***0***	***-***	***258***	***50***	***0***	***66***	***207***	***-***	***134***	***115***	***87***	***124***	***24***	***-***	***-***	***-***
5:00 PM	***5:15 PM***	***0***	***-***	***288***	***46***	***0***	***72***	***255***	***-***	***131***	***97***	***83***	***109***	***32***	***-***	***-***	***-***
5:15 PM	***5:30 PM***	***0***	***-***	***290***	***55***	***0***	***55***	***237***	***-***	***137***	***85***	***81***	***95***	***27***	***-***	***-***	***-***
5:30 PM	***5:45 PM***	***0***	***-***	***280***	***44***	***0***	***58***	***229***	***-***	***166***	***96***	***61***	***119***	***33***	***-***	***-***	***-***
5:45 PM	6:00 PM	0	-	265	60	0	62	217	-	140	90	81	112	36	-	-	-
Intersection PHV:		*0*	*0*	*1,116*	*195*	*0*	*251*	*928*	*0*	*568*	*393*	*312*	*447*	*116*	*0*	*0*	*0*
PHF:		*0.00*	*0.00*	*0.96*	*0.89*	*0.00*	*0.87*	*0.91*	*0.00*	*0.86*	*0.85*	*0.90*	*0.90*	*0.88*	*0.00*	*0.00*	*0.00*
Intersection Peak Hour: 4:45 PM - 5:45 PM																*Intersection PHF: 0.97*	
Study Area PHV:		**0**	**0**	**1,116**	**195**	**0**	**251**	**928**	**0**	**568**	**393**	**312**	**447**	**116**	**0**	**0**	**0**
PHF:		**0.00**	**0.00**	**0.96**	**0.89**	**0.00**	**0.87**	**0.91**	**0.00**	**0.86**	**0.85**	**0.90**	**0.90**	**0.88**	**0.00**	**0.00**	**0.00**
Study Peak Hour: 4:45 PM - 5:45 PM																**Study Area PHF: 0.97**	

Intersection Traffic Movements

Intersection: Texas 358 EBFR at Airline Road — **Data Collected by: CJ Hensch**

Traffic Data Collection Date: Tuesday, November 19, 2024

Time of Count		Northbound on *Airline Road*				Southbound on *Airline Road*				Eastbound on *TX 358 EBFR*				Westbound on *TX 358 EBFR*			
Begin	**End**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**
7:00 AM	7:15 AM	0	-	223	26	0	32	110	-	28	54	18	75	27	-	-	-
7:15 AM	7:30 AM	0	-	284	27	0	38	104	-	34	52	13	114	23	-	-	-
7:30 AM	***7:45 AM***	***0***	***-***	***276***	***22***	***0***	***28***	***102***	***-***	***51***	***78***	***26***	***122***	***39***	***-***	***-***	***-***
7:45 AM	***8:00 AM***	***0***	***-***	***261***	***24***	***0***	***49***	***162***	***-***	***74***	***77***	***18***	***129***	***46***	***-***	***-***	***-***
8:00 AM	***8:15 AM***	***0***	***-***	***255***	***29***	***0***	***37***	***121***	***-***	***45***	***66***	***29***	***110***	***30***	***-***	***-***	***-***
8:15 AM	***8:30 AM***	***0***	***-***	***250***	***36***	***0***	***35***	***137***	***-***	***30***	***70***	***31***	***125***	***35***	***-***	***-***	***-***
8:30 AM	8:45 AM	0	-	226	39	0	32	146	-	34	59	27	110	39	-	-	-
8:45 AM	9:00 AM	0	-	253	33	0	51	126	-	36	78	38	115	33	-	-	-
Intersection PHV:		*0*	*0*	*1,042*	*111*	*0*	*149*	*522*	*0*	*200*	*291*	*104*	*486*	*150*	*0*	*0*	*0*
PHF:		*0.00*	*0.00*	*0.94*	*0.77*	*0.00*	*0.76*	*0.81*	*0.00*	*0.68*	*0.93*	*0.84*	*0.94*	*0.82*	*0.00*	*0.00*	*0.00*
Intersection Peak Hour: 7:30 AM - 8:30 AM																*Intersection PHF: 0.91*	
Study Area PHV:		**0**	**0**	**1,042**	**111**	**0**	**149**	**522**	**0**	**200**	**291**	**104**	**486**	**150**	**0**	**0**	**0**
PHF:		**0.00**	**0.00**	**0.94**	**0.77**	**0.00**	**0.76**	**0.81**	**0.00**	**0.68**	**0.93**	**0.84**	**0.94**	**0.82**	**0.00**	**0.00**	**0.00**
Study Peak Hour: 7:30 AM - 8:30 AM																**Study Area PHF: 0.91**	
4:00 PM	4:15 PM	0	-	243	27	0	48	143	-	48	123	52	136	57	-	-	-
4:15 PM	4:30 PM	0	-	231	27	0	65	206	-	46	92	42	141	74	-	-	-
4:30 PM	4:45 PM	0	-	245	26	0	48	162	-	60	85	47	126	72	-	-	-
4:45 PM	***5:00 PM***	***0***	***-***	***237***	***49***	***0***	***50***	***177***	***-***	***57***	***120***	***51***	***142***	***71***	***-***	***-***	***-***
5:00 PM	***5:15 PM***	***0***	***-***	***242***	***36***	***0***	***55***	***209***	***-***	***83***	***103***	***51***	***126***	***77***	***-***	***-***	***-***
5:15 PM	***5:30 PM***	***0***	***-***	***268***	***27***	***0***	***47***	***157***	***-***	***61***	***105***	***50***	***121***	***67***	***-***	***-***	***-***
5:30 PM	***5:45 PM***	***0***	***-***	***248***	***33***	***0***	***44***	***171***	***-***	***48***	***119***	***59***	***146***	***89***	***-***	***-***	***-***
5:45 PM	6:00 PM	0	-	214	25	0	62	207	-	66	104	57	133	66	-	-	-
Intersection PHV:		*0*	*0*	*995*	*145*	*0*	*196*	*714*	*0*	*249*	*447*	*211*	*535*	*304*	*0*	*0*	*0*
PHF:		*0.00*	*0.00*	*0.93*	*0.74*	*0.00*	*0.89*	*0.85*	*0.00*	*0.75*	*0.93*	*0.89*	*0.92*	*0.85*	*0.00*	*0.00*	*0.00*
Intersection Peak Hour: 4:45 PM - 5:45 PM																*Intersection PHF: 0.97*	
Study Area PHV:		**0**	**0**	**995**	**145**	**0**	**196**	**714**	**0**	**249**	**447**	**211**	**535**	**304**	**0**	**0**	**0**
PHF:		**0.00**	**0.00**	**0.93**	**0.74**	**0.00**	**0.89**	**0.85**	**0.00**	**0.75**	**0.93**	**0.89**	**0.92**	**0.85**	**0.00**	**0.00**	**0.00**
Study Peak Hour: 4:45 PM - 5:45 PM																**Study Area PHF: 0.97**	

Intersection Traffic Movements

Intersection: Texas 358 WBFR at Airline Road — **Data Collected by: CJ Hensch**

Traffic Data Collection Date: Tuesday, November 19, 2024

Time of Count		Northbound on *Airline Road*				Southbound on *Airline Road*				Eastbound on *TX 358 WBFR*				Westbound on *TX 358 WBFR*			
Begin	**End**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**
7:00 AM	7:15 AM	0	129	150	-	0	-	99	72	31	-	-	-	0	31	34	32
7:15 AM	*7:30 AM*	*0*	*152*	*207*	*-*	*0*	*-*	*99*	*77*	*38*	*-*	*-*	*-*	*0*	*29*	*42*	*45*
7:30 AM	***7:45 AM***	***0***	***136***	***211***	***-***	***0***	***-***	***107***	***117***	***59***	***-***	***-***	***-***	***0***	***24***	***57***	***70***
7:45 AM	***8:00 AM***	***0***	***120***	***214***	***-***	***0***	***-***	***149***	***117***	***85***	***-***	***-***	***-***	***0***	***58***	***41***	***59***
8:00 AM	***8:15 AM***	***0***	***137***	***214***	***-***	***0***	***-***	***123***	***77***	***46***	***-***	***-***	***-***	***0***	***31***	***40***	***39***
8:15 AM	**8:30 AM**	**0**	**148**	**168**	**-**	**0**	**-**	**132**	**65**	**29**	**-**	**-**	**-**	**0**	**45**	**45**	**53**
8:30 AM	8:45 AM	0	118	168	-	0	-	134	59	36	-	-	-	0	49	60	48
8:45 AM	9:00 AM	0	140	223	-	0	-	134	68	36	-	-	-	0	33	47	45
Intersection PHV:		*0*	*545*	*846*	*0*	*0*	*0*	*478*	*388*	*228*	*0*	*0*	*0*	*0*	*142*	*180*	*213*
PHF:		*0.00*	*0.90*	*0.99*	*0.00*	*0.00*	*0.00*	*0.80*	*0.83*	*0.67*	*0.00*	*0.00*	*0.00*	*0.00*	*0.61*	*0.79*	*0.76*
Intersection Peak Hour: 7:15 AM - 8:15 AM																*Intersection PHF: 0.90*	
Study Area PHV:		**0**	**541**	**807**	**0**	**0**	**0**	**511**	**376**	**219**	**0**	**0**	**0**	**0**	**158**	**183**	**221**
PHF:		**0.00**	**0.91**	**0.94**	**0.00**	**0.00**	**0.00**	**0.86**	**0.80**	**0.64**	**0.00**	**0.00**	**0.00**	**0.00**	**0.68**	**0.80**	**0.79**
Study Peak Hour: 7:30 AM - 8:30 AM																**Study Area PHF: 0.89**	
4:00 PM	4:15 PM	0	112	226	-	0	-	163	68	51	-	-	-	0	51	78	37
4:15 PM	4:30 PM	0	120	197	-	0	-	165	46	48	-	-	-	0	84	81	65
4:30 PM	4:45 PM	0	131	200	-	0	-	146	60	57	-	-	-	0	57	81	46
4:45 PM	**5:00 PM**	**0**	**102**	**232**	**-**	**0**	**-**	**180**	**41**	**57**	**-**	**-**	**-**	**0**	**63**	**86**	**41**
5:00 PM	***5:15 PM***	***0***	***115***	***236***	***-***	***0***	***-***	***162***	***60***	***69***	***-***	***-***	***-***	***0***	***76***	***87***	***59***
5:15 PM	***5:30 PM***	***0***	***141***	***260***	***-***	***0***	***-***	***146***	***70***	***62***	***-***	***-***	***-***	***0***	***54***	***90***	***56***
5:30 PM	***5:45 PM***	***0***	***106***	***232***	***-***	***0***	***-***	***168***	***62***	***50***	***-***	***-***	***-***	***0***	***64***	***80***	***57***
5:45 PM	*6:00 PM*	*0*	*109*	*217*	*-*	*0*	*-*	*165*	*58*	*64*	*-*	*-*	*-*	*0*	*84*	*71*	*46*
Intersection PHV:		*0*	*471*	*945*	*0*	*0*	*0*	*641*	*250*	*245*	*0*	*0*	*0*	*0*	*278*	*328*	*218*
PHF:		*0.00*	*0.84*	*0.91*	*0.00*	*0.00*	*0.00*	*0.95*	*0.89*	*0.89*	*0.00*	*0.00*	*0.00*	*0.00*	*0.83*	*0.91*	*0.92*
Intersection Peak Hour: 5:00 PM - 6:00 PM																*Intersection PHF: 0.96*	
Study Area PHV:		**0**	**464**	**960**	**0**	**0**	**0**	**656**	**233**	**238**	**0**	**0**	**0**	**0**	**257**	**343**	**213**
PHF:		**0.00**	**0.82**	**0.92**	**0.00**	**0.00**	**0.00**	**0.91**	**0.83**	**0.86**	**0.00**	**0.00**	**0.00**	**0.00**	**0.85**	**0.95**	**0.90**
Study Peak Hour: 4:45 PM - 5:45 PM																**Study Area PHF: 0.96**	

(D) Traffic Impact Analysis

Intersection Traffic Movements

Intersection: McArdle Road at Airline Road — **Data Collected by: CJ Hensch**

Traffic Data Collection Date: Tuesday, November 19, 2024

Time of Count		Northbound on *Airline Road*				Southbound on *Airline Road*				Eastbound on *McArdle Road*				Westbound on *McArdle Road*			
Begin	**End**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**
7:00 AM	7:15 AM	0	21	126	14	0	13	138	10	0	18	18	14	0	19	16	16
7:15 AM	*7:30 AM*	*0*	*17*	*184*	*17*	*0*	*12*	*135*	*13*	*0*	*25*	*18*	*11*	*0*	*27*	*29*	*38*
7:30 AM	***7:45 AM***	***0***	***22***	***241***	***8***	***0***	***17***	***185***	***23***	***0***	***27***	***26***	***7***	***0***	***36***	***37***	***30***
7:45 AM	***8:00 AM***	***0***	***21***	***200***	***20***	***0***	***33***	***210***	***25***	***0***	***29***	***36***	***8***	***0***	***31***	***37***	***37***
8:00 AM	***8:15 AM***	***0***	***28***	***173***	***20***	***0***	***17***	***175***	***15***	***0***	***15***	***30***	***5***	***0***	***28***	***32***	***33***
8:15 AM	**8:30 AM**	**0**	**27**	**136**	**23**	**0**	**24**	**146**	**11**	**0**	**22**	**32**	**11**	**0**	**27**	**34**	**30**
8:30 AM	8:45 AM	0	31	154	19	0	44	142	16	0	17	47	13	0	27	57	31
8:45 AM	9:00 AM	0	30	125	30	0	47	137	14	0	22	38	15	0	32	51	35
Intersection PHV:		*0*	*88*	*798*	*65*	*0*	*79*	*705*	*76*	*0*	*96*	*110*	*31*	*0*	*122*	*135*	*138*
PHF:		*0.00*	*0.79*	*0.83*	*0.81*	*0.00*	*0.60*	*0.84*	*0.76*	*0.00*	*0.83*	*0.76*	*0.70*	*0.00*	*0.85*	*0.91*	*0.91*
Intersection Peak Hour: 7:15 AM - 8:15 AM																*Intersection PHF: 0.89*	
Study Area PHV:		**0**	**98**	**750**	**71**	**0**	**91**	**716**	**74**	**0**	**93**	**124**	**31**	**0**	**122**	**140**	**130**
PHF:		**0.00**	**0.88**	**0.78**	**0.77**	**0.00**	**0.69**	**0.85**	**0.74**	**0.00**	**0.80**	**0.86**	**0.70**	**0.00**	**0.85**	**0.95**	**0.88**
Study Peak Hour: 7:30 AM - 8:30 AM																**Study Area PHF: 0.89**	
4:00 PM	4:15 PM	0	40	156	35	0	41	153	24	0	46	78	30	0	27	51	18
4:15 PM	4:30 PM	0	29	182	30	0	69	198	37	0	33	81	30	0	37	70	49
4:30 PM	4:45 PM	0	46	176	34	0	63	172	31	0	38	97	16	0	34	62	25
4:45 PM	***5:00 PM***	***0***	***47***	***178***	***38***	***0***	***59***	***162***	***38***	***0***	***54***	***97***	***31***	***0***	***24***	***45***	***24***
5:00 PM	***5:15 PM***	***0***	***33***	***181***	***40***	***0***	***48***	***180***	***37***	***0***	***43***	***86***	***23***	***0***	***24***	***72***	***38***
5:15 PM	***5:30 PM***	***0***	***47***	***173***	***26***	***0***	***62***	***191***	***35***	***0***	***53***	***98***	***22***	***0***	***28***	***84***	***30***
5:30 PM	***5:45 PM***	***0***	***35***	***183***	***32***	***0***	***56***	***170***	***44***	***0***	***52***	***102***	***15***	***0***	***31***	***84***	***34***
5:45 PM	6:00 PM	0	40	163	32	0	44	181	27	0	42	92	35	0	27	55	35
Intersection PHV:		*0*	*162*	*715*	*136*	*0*	*225*	*703*	*154*	*0*	*202*	*383*	*91*	*0*	*107*	*285*	*126*
PHF:		*0.00*	*0.86*	*0.98*	*0.85*	*0.00*	*0.91*	*0.92*	*0.88*	*0.00*	*0.94*	*0.94*	*0.73*	*0.00*	*0.86*	*0.85*	*0.83*
Intersection Peak Hour: 4:45 PM - 5:45 PM																*Intersection PHF: 0.97*	
Study Area PHV:		**0**	**162**	**715**	**136**	**0**	**225**	**703**	**154**	**0**	**202**	**383**	**91**	**0**	**107**	**285**	**126**
PHF:		**0.00**	**0.86**	**0.98**	**0.85**	**0.00**	**0.91**	**0.92**	**0.88**	**0.00**	**0.94**	**0.94**	**0.73**	**0.00**	**0.86**	**0.85**	**0.83**
Study Peak Hour: 4:45 PM - 5:45 PM																**Study Area PHF: 0.97**	

Intersection Traffic Movements

Intersection: Texas 358 WBFR at Driveway 1 — **Data Collected by: CJ Hensch**

Traffic Data Collection Date: Tuesday, November 19, 2024

Time of Count		Northbound on *South*				Southbound on *Driveway 1*				Eastbound on *West*				Westbound on *Tx 358 WBFR*			
Begin	**End**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**
7:00 AM	7:15 AM	-	-	-	-	0	-	-	0	-	-	-	-	0	-	89	0
7:15 AM	7:30 AM	-	-	-	-	0	-	-	0	-	-	-	-	0	-	102	0
7:30 AM	**7:45 AM**	**-**	**-**	**-**	**-**	**0**	**-**	**-**	**0**	**-**	**-**	**-**	**-**	**0**	**-**	**138**	**1**
7:45 AM	**8:00 AM**	**-**	**-**	**-**	**-**	**0**	**-**	**-**	**0**	**-**	**-**	**-**	**-**	**0**	**-**	**198**	**0**
8:00 AM	***8:15 AM***	**-**	**-**	**-**	**-**	***0***	**-**	**-**	***0***	**-**	**-**	**-**	**-**	***0***	**-**	***165***	***1***
8:15 AM	***8:30 AM***	**-**	**-**	**-**	**-**	***0***	**-**	**-**	***1***	**-**	**-**	**-**	**-**	***0***	**-**	***187***	***0***
8:30 AM	*8:45 AM*	-	-	-	-	*0*	-	-	*2*	-	-	-	-	*0*	-	*190*	*1*
8:45 AM	*9:00 AM*	-	-	-	-	*0*	-	-	*3*	-	-	-	-	*0*	-	*206*	*5*
Intersection PHV:		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*6*	*0*	*0*	*0*	*0*	*0*	*0*	*748*	*7*
PHF:		*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.50*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.91*	*0.35*
Intersection Peak Hour: 8:00 AM - 9:00 AM																*Intersection PHF: 0.89*	
Study Area PHV:		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**688**	**2**
PHF:		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.87**	**0.50**
Study Peak Hour: 7:30 AM - 8:30 AM																**Study Area PHF: 0.87**	
4:00 PM	4:15 PM	-	-	-	-	0	-	-	0	-	-	-	-	0	-	250	5
4:15 PM	*4:30 PM*	-	-	-	-	*0*	-	-	*3*	-	-	-	-	*0*	-	*237*	*4*
4:30 PM	*4:45 PM*	-	-	-	-	*0*	-	-	*1*	-	-	-	-	*0*	-	*228*	*0*
4:45 PM	***5:00 PM***	**-**	**-**	**-**	**-**	***0***	**-**	**-**	***1***	**-**	**-**	**-**	**-**	***0***	**-**	***230***	***3***
5:00 PM	***5:15 PM***	**-**	**-**	**-**	**-**	***0***	**-**	**-**	***1***	**-**	**-**	**-**	**-**	***0***	**-**	***254***	***1***
5:15 PM	**5:30 PM**	**-**	**-**	**-**	**-**	**0**	**-**	**-**	**5**	**-**	**-**	**-**	**-**	**0**	**-**	**238**	**0**
5:30 PM	**5:45 PM**	**-**	**-**	**-**	**-**	**0**	**-**	**-**	**3**	**-**	**-**	**-**	**-**	**0**	**-**	**204**	**1**
5:45 PM	6:00 PM	-	-	-	-	0	-	-	6	-	-	-	-	0	-	207	1
Intersection PHV:		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*6*	*0*	*0*	*0*	*0*	*0*	*0*	*949*	*8*
PHF:		*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.50*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.93*	*0.50*
Intersection Peak Hour: 4:15 PM - 5:15 PM																*Intersection PHF: 0.94*	
Study Area PHV:		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**926**	**5**
PHF:		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.91**	**0.42**
Study Peak Hour: 4:45 PM - 5:45 PM																**Study Area PHF: 0.92**	

Intersection Traffic Movements

Intersection: Texas 358 WBFR at Driveway 2 — **Data Collected by: CJ Hensch**

Traffic Data Collection Date: Tuesday, November 19, 2024

Time of Count		Northbound on *South*				Southbound on *Driveway 2*				Eastbound on *West*				Westbound on *TX 358 WBFR*			
Begin	**End**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**
7:00 AM	7:15 AM	-	-	-	-	-	-	-	0	-	-	-	-	-	-	324	-
7:15 AM	7:30 AM	-	-	-	-	-	-	-	0	-	-	-	-	-	-	369	-
7:30 AM	***7:45 AM***	-	-	-	-	-	-	-	***1***	-	-	-	-	-	-	***469***	-
7:45 AM	***8:00 AM***	-	-	-	-	-	-	-	***0***	-	-	-	-	-	-	***537***	-
8:00 AM	***8:15 AM***	-	-	-	-	-	-	-	***0***	-	-	-	-	-	-	***414***	-
8:15 AM	***8:30 AM***	-	-	-	-	-	-	-	***0***	-	-	-	-	-	-	***414***	-
8:30 AM	8:45 AM	-	-	-	-	-	-	-	0	-	-	-	-	-	-	408	-
8:45 AM	9:00 AM	-	-	-	-	-	-	-	0	-	-	-	-	-	-	408	-
Intersection PHV:		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*1,834*	*0*
PHF:		*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.25*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.85*	*0.00*

Intersection Peak Hour: 7:30 AM - 8:30 AM — *Intersection PHF: 0.85*

Study Area PHV:		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1,834**	**0**
PHF:		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.85**	**0.00**

Study Peak Hour: 7:30 AM - 8:30 AM — **Study Area PHF: 0.85**

4:00 PM	4:15 PM	-	-	-	-	-	-	-	1	-	-	-	-	-	-	470	-
4:15 PM	4:30 PM	-	-	-	-	-	-	-	1	-	-	-	-	-	-	430	-
4:30 PM	*4:45 PM*	-	-	-	-	-	-	-	*1*	-	-	-	-	-	-	*451*	-
4:45 PM	***5:00 PM***	-	-	-	-	-	-	-	***3***	-	-	-	-	-	-	***444***	-
5:00 PM	***5:15 PM***	-	-	-	-	-	-	-	***0***	-	-	-	-	-	-	***494***	-
5:15 PM	***5:30 PM***	-	-	-	-	-	-	-	***0***	-	-	-	-	-	-	***502***	-
5:30 PM	**5:45 PM**	-	-	-	-	-	-	-	**0**	-	-	-	-	-	-	**437**	-
5:45 PM	6:00 PM	-	-	-	-	-	-	-	1	-	-	-	-	-	-	403	-
Intersection PHV:		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*4*	*0*	*0*	*0*	*0*	*0*	*0*	*1,891*	*0*
PHF:		*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.33*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.94*	*0.00*

Intersection Peak Hour: 4:30 PM - 5:30 PM — *Intersection PHF: 0.94*

Study Area PHV:		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**1,877**	**0**
PHF:		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.25**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.93**	**0.00**

Study Peak Hour: 4:45 PM - 5:45 PM — **Study Area PHF: 0.94**

Intersection Traffic Movements

Intersection: Texas 358 WBFR at Driveway 3 — **Data Collected by: CJ Hensch**

Traffic Data Collection Date: Tuesday, November 19, 2024

Time of Count		Northbound on *South*				Southbound on *Driveway 3*				Eastbound on *West*				Westbound on *TX 358 WBFR*			
Begin	**End**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**
7:00 AM	7:15 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	262	0
7:15 AM	*7:30 AM*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*297*	*1*
7:30 AM	***7:45 AM***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	***374***	***2***
7:45 AM	***8:00 AM***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	***378***	***0***
8:00 AM	***8:15 AM***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	***293***	***0***
8:15 AM	**8:30 AM**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**290**	**0**
8:30 AM	8:45 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	266	0
8:45 AM	9:00 AM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	283	1
Intersection PHV:		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,342*	*3*
PHF:		*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.89*	*0.38*
Intersection Peak Hour: 7:15 AM - 8:15 AM																*Intersection PHF: 0.89*	
Study Area PHV:		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,335**	**2**
PHF:		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.88**	**0.25**
Study Peak Hour: 7:30 AM - 8:30 AM																**Study Area PHF: 0.88**	
4:00 PM	4:15 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	322	2
4:15 PM	4:30 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	290	1
4:30 PM	*4:45 PM*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	*313*	*4*
4:45 PM	***5:00 PM***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	***310***	***1***
5:00 PM	***5:15 PM***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	***332***	***0***
5:15 PM	***5:30 PM***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	***353***	***0***
5:30 PM	**5:45 PM**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**311**	**1**
5:45 PM	6:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	-	294	2
Intersection PHV:		*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,308*	*5*
PHF:		*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.93*	*0.31*
Intersection Peak Hour: 4:30 PM - 5:30 PM																*Intersection PHF: 0.93*	
Study Area PHV:		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,306**	**2**
PHF:		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.92**	**0.50**
Study Peak Hour: 4:45 PM - 5:45 PM																**Study Area PHF: 0.93**	

Intersection Traffic Movements

Intersection: McArdle Road at Driveway 4 — **Data Collected by: CJ Hensch**

Traffic Data Collection Date: Tuesday, November 19, 2024

Time of Count		Northbound on *Driveway 4*				Southbound on *Unnamed*				Eastbound on *McArdle Road*				Westbound on *McArdle Road*			
Begin	**End**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**
7:00 AM	7:15 AM	0	1	-	0	0	0	-	0	0	0	53	0	0	1	48	0
7:15 AM	7:30 AM	0	0	-	0	0	0	-	0	0	0	53	0	0	0	60	0
7:30 AM	**7:45 AM**	**0**	**1**	**-**	**0**	**0**	**0**	**-**	**0**	**0**	**0**	**59**	**0**	**0**	**0**	**83**	**0**
7:45 AM	**8:00 AM**	**0**	**1**	**-**	**0**	**0**	**0**	**-**	**0**	**0**	**0**	**77**	**0**	**0**	**0**	**84**	**0**
8:00 AM	***8:15 AM***	***0***	***0***	***-***	***0***	***0***	***0***	***-***	***0***	***0***	***0***	***64***	***0***	***0***	***0***	***78***	***0***
8:15 AM	***8:30 AM***	***0***	***0***	***-***	***0***	***0***	***0***	***-***	***0***	***0***	***0***	***72***	***1***	***0***	***0***	***71***	***0***
8:30 AM	*8:45 AM*	*0*	*0*	*-*	*0*	*0*	*0*	*-*	*0*	*0*	*0*	*85*	*0*	*0*	*0*	*108*	*0*
8:45 AM	*9:00 AM*	*0*	*0*	*-*	*2*	*0*	*0*	*-*	*0*	*0*	*0*	*84*	*1*	*0*	*0*	*95*	*0*
Intersection PHV:		*0*	*0*	*0*	*2*	*0*	*0*	*0*	*0*	*0*	*0*	*305*	*2*	*0*	*0*	*352*	*0*
PHF:		*0.00*	*0.00*	*0.00*	*0.25*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.90*	*0.50*	*0.00*	*0.00*	*0.81*	*0.00*
Intersection Peak Hour: 8:00 AM - 9:00 AM																*Intersection PHF: 0.86*	
Study Area PHV:		**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**272**	**1**	**0**	**0**	**316**	**0**
PHF:		**0.00**	**0.50**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.88**	**0.25**	**0.00**	**0.00**	**0.94**	**0.00**
Study Peak Hour: 7:30 AM - 8:30 AM																**Study Area PHF: 0.91**	
4:00 PM	4:15 PM	0	0	-	0	0	0	-	2	0	2	148	0	0	0	121	0
4:15 PM	4:30 PM	0	2	-	1	0	0	-	0	0	1	146	0	0	0	135	1
4:30 PM	4:45 PM	0	1	-	0	0	2	-	1	0	2	159	1	0	1	134	0
4:45 PM	***5:00 PM***	***0***	***0***	***-***	***1***	***0***	***1***	***-***	***1***	***0***	***1***	***179***	***0***	***0***	***1***	***139***	***0***
5:00 PM	***5:15 PM***	***0***	***0***	***-***	***0***	***0***	***1***	***-***	***0***	***0***	***0***	***164***	***0***	***0***	***1***	***154***	***2***
5:15 PM	***5:30 PM***	***0***	***1***	***-***	***0***	***0***	***1***	***-***	***0***	***0***	***1***	***162***	***1***	***0***	***0***	***173***	***2***
5:30 PM	***5:45 PM***	***0***	***1***	***-***	***0***	***0***	***0***	***-***	***4***	***0***	***1***	***146***	***1***	***0***	***1***	***177***	***0***
5:45 PM	6:00 PM	0	0	-	1	0	0	-	1	0	1	173	1	0	0	128	0
Intersection PHV:		*0*	*2*	*0*	*1*	*0*	*3*	*0*	*5*	*0*	*3*	*651*	*2*	*0*	*3*	*643*	*4*
PHF:		*0.00*	*0.50*	*0.00*	*0.25*	*0.00*	*0.75*	*0.00*	*0.31*	*0.00*	*0.75*	*0.91*	*0.50*	*0.00*	*0.75*	*0.91*	*0.50*
Intersection Peak Hour: 4:45 PM - 5:45 PM																*Intersection PHF: 0.97*	
Study Area PHV:		**0**	**2**	**0**	**1**	**0**	**3**	**0**	**5**	**0**	**3**	**651**	**2**	**0**	**3**	**643**	**4**
PHF:		**0.00**	**0.50**	**0.00**	**0.25**	**0.00**	**0.75**	**0.00**	**0.31**	**0.00**	**0.75**	**0.91**	**0.50**	**0.00**	**0.75**	**0.91**	**0.50**
Study Peak Hour: 4:45 PM - 5:45 PM																**Study Area PHF: 0.97**	

Intersection Traffic Movements

Intersection: McArdle Road at Driveway 5 — **Data Collected by: CJ Hensch**

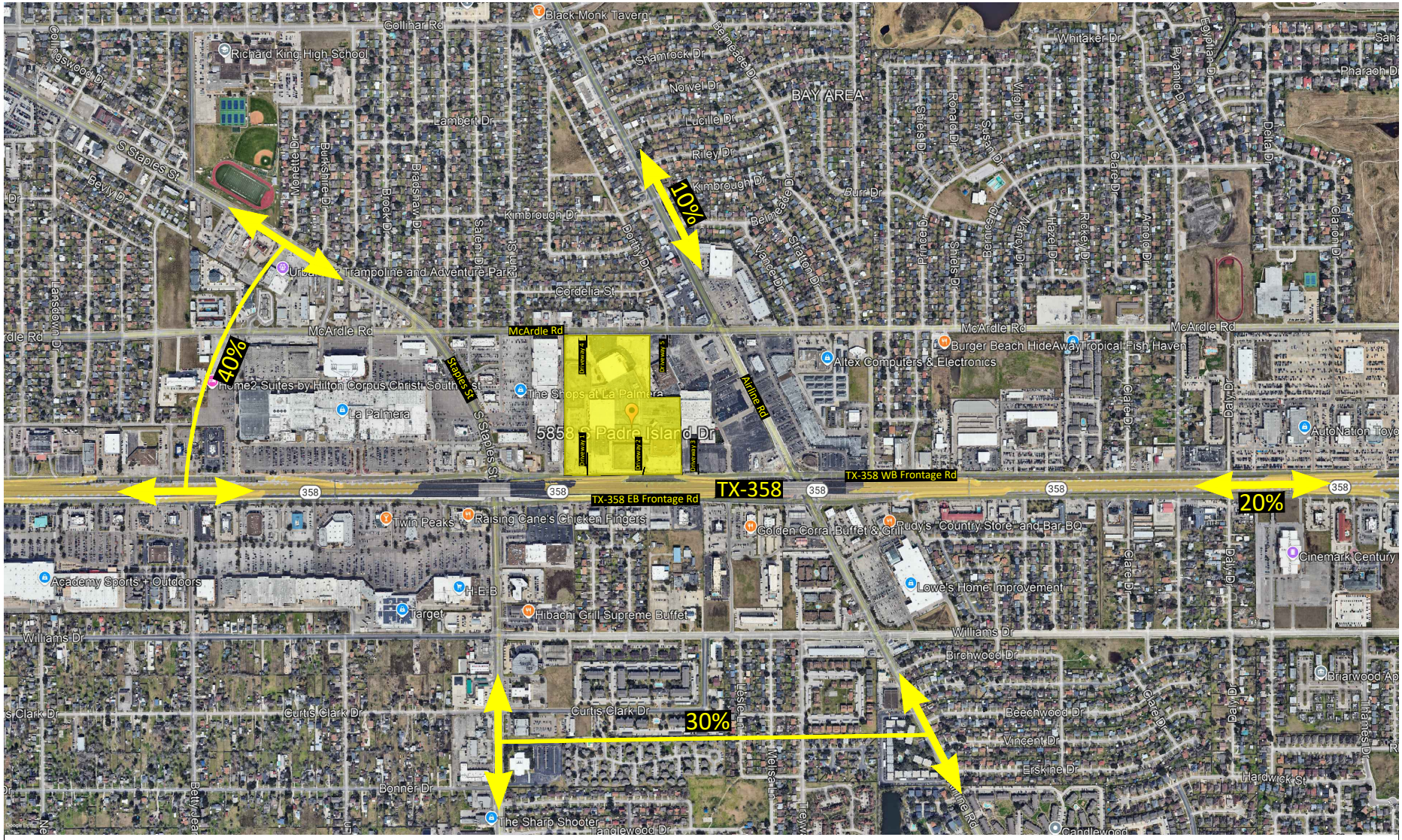
Traffic Data Collection Date: Tuesday, November 19, 2024

Time of Count		Northbound on *Driveway 5*				Southbound on *Dorothy Drive*				Eastbound on *McArdle Road*				Westbound on *McArdle Road*			
Begin	**End**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**	**U**	**L**	**T**	**R**
7:00 AM	7:15 AM	0	2	0	0	0	4	0	1	0	0	51	3	0	0	47	0
7:15 AM	7:30 AM	0	0	0	0	0	4	0	2	0	0	50	2	0	1	58	1
7:30 AM	**7:45 AM**	**0**	**0**	**0**	**2**	**0**	**3**	**0**	**3**	**0**	**0**	**56**	**1**	**0**	**1**	**81**	**3**
7:45 AM	**8:00 AM**	**0**	**1**	**1**	**0**	**0**	**3**	**1**	**3**	**0**	**2**	**75**	**2**	**0**	**2**	**84**	**0**
8:00 AM	***8:15 AM***	***0***	***3***	***0***	***1***	***0***	***1***	***0***	***2***	***0***	***3***	***52***	***5***	***0***	***0***	***71***	***1***
8:15 AM	***8:30 AM***	***0***	***2***	***2***	***0***	***0***	***4***	***1***	***2***	***0***	***2***	***67***	***5***	***0***	***1***	***71***	***1***
8:30 AM	*8:45 AM*	*0*	*2*	*0*	*1*	*0*	*1*	*0*	*2*	*0*	*3*	*72*	*4*	*0*	*0*	*106*	*0*
8:45 AM	*9:00 AM*	*0*	*0*	*0*	*1*	*0*	*0*	*1*	*0*	*0*	*1*	*75*	*5*	*0*	*2*	*92*	*4*
Intersection PHV:		*0*	*7*	*2*	*3*	*0*	*6*	*2*	*6*	*0*	*9*	*266*	*19*	*0*	*3*	*340*	*6*
PHF:		*0.00*	*0.58*	*0.25*	*0.75*	*0.00*	*0.38*	*0.50*	*0.75*	*0.00*	*0.75*	*0.89*	*0.95*	*0.00*	*0.38*	*0.80*	*0.38*
Intersection Peak Hour: 8:00 AM - 9:00 AM																*Intersection PHF: 0.88*	
Study Area PHV:		**0**	**6**	**3**	**3**	**0**	**11**	**2**	**10**	**0**	**7**	**250**	**13**	**0**	**4**	**307**	**5**
PHF:		**0.00**	**0.50**	**0.38**	**0.38**	**0.00**	**0.69**	**0.50**	**0.83**	**0.00**	**0.58**	**0.83**	**0.65**	**0.00**	**0.50**	**0.91**	**0.42**
Study Peak Hour: 7:30 AM - 8:30 AM																**Study Area PHF: 0.89**	
4:00 PM	4:15 PM	0	7	0	0	0	4	0	4	0	3	138	4	0	1	110	2
4:15 PM	4:30 PM	0	5	1	2	0	1	0	7	0	3	141	5	0	2	128	4
4:30 PM	4:45 PM	0	1	0	3	0	3	0	4	0	2	158	1	0	3	126	5
4:45 PM	***5:00 PM***	***0***	***4***	***1***	***7***	***0***	***1***	***0***	***7***	***0***	***2***	***160***	***10***	***0***	***0***	***125***	***6***
5:00 PM	***5:15 PM***	***0***	***5***	***4***	***2***	***0***	***4***	***1***	***3***	***0***	***4***	***154***	***7***	***0***	***0***	***145***	***5***
5:15 PM	***5:30 PM***	***0***	***4***	***1***	***5***	***0***	***4***	***3***	***4***	***0***	***0***	***162***	***1***	***0***	***2***	***164***	***5***
5:30 PM	***5:45 PM***	***0***	***5***	***1***	***4***	***0***	***1***	***0***	***2***	***0***	***2***	***146***	***4***	***0***	***6***	***159***	***0***
5:45 PM	6:00 PM	0	7	1	1	0	3	0	1	0	4	159	5	0	1	121	3
Intersection PHV:		*0*	*18*	*7*	*18*	*0*	*10*	*4*	*16*	*0*	*8*	*622*	*22*	*0*	*8*	*593*	*16*
PHF:		*0.00*	*0.90*	*0.44*	*0.64*	*0.00*	*0.63*	*0.33*	*0.57*	*0.00*	*0.50*	*0.96*	*0.55*	*0.00*	*0.33*	*0.90*	*0.67*
Intersection Peak Hour: 4:45 PM - 5:45 PM																*Intersection PHF: 0.95*	
Study Area PHV:		**0**	**18**	**7**	**18**	**0**	**10**	**4**	**16**	**0**	**8**	**622**	**22**	**0**	**8**	**593**	**16**
PHF:		**0.00**	**0.90**	**0.44**	**0.64**	**0.00**	**0.63**	**0.33**	**0.57**	**0.00**	**0.50**	**0.96**	**0.55**	**0.00**	**0.33**	**0.90**	**0.67**
Study Peak Hour: 4:45 PM - 5:45 PM																**Study Area PHF: 0.95**	

(D) Traffic Impact Analysis

APPENDIX C. Site-Traffic Distribution & Assignments

(D) Traffic Impact Analysis

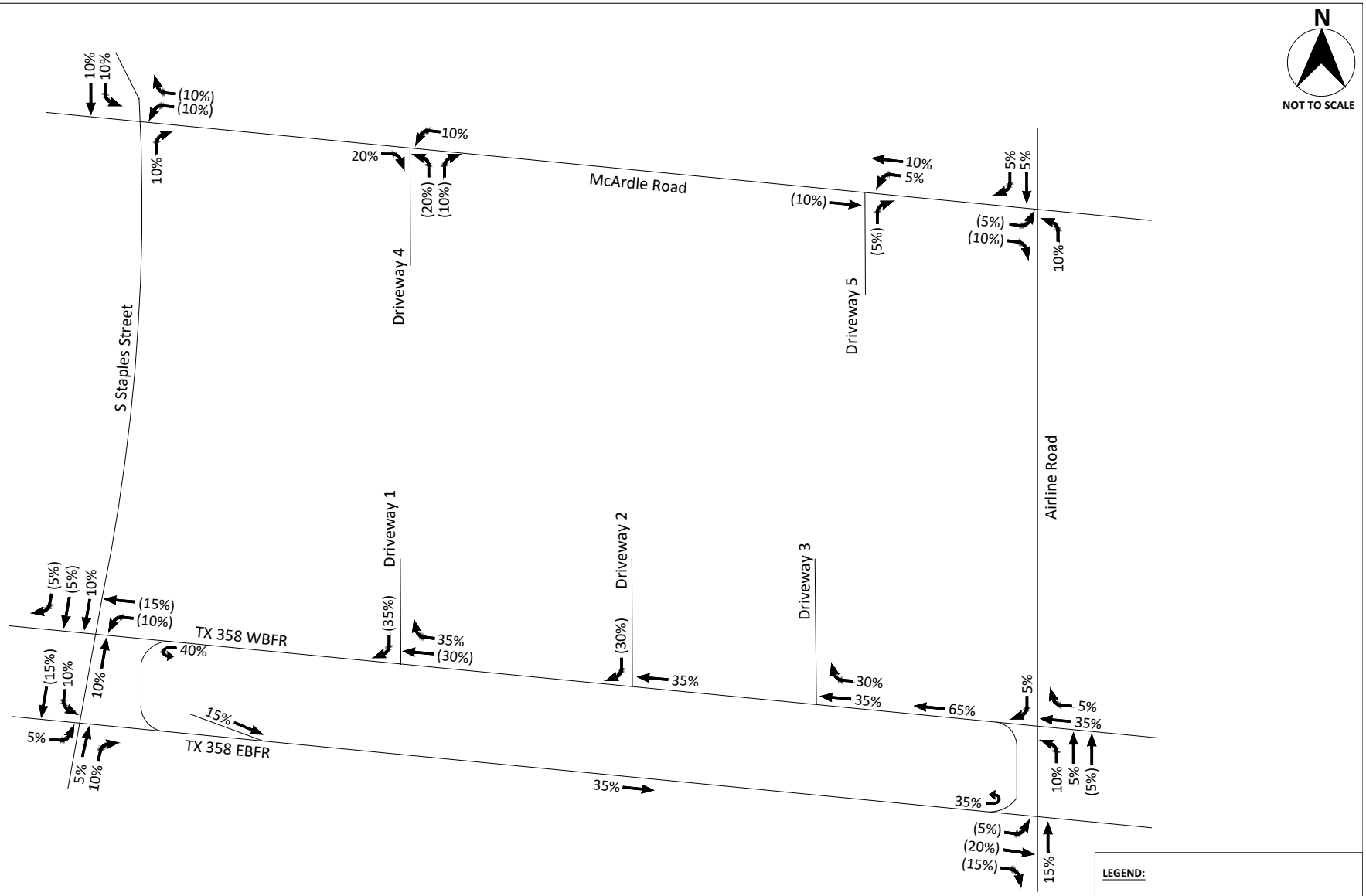


LEGEND:

- Project Site
- XX% - Traffic Distribution

PROMET ENGINEERS TRANSPORTATION ENGINEERING & PLANNING TBPE Firm Registration No.: F-25044 Phone 469-640-7708 Web www.prometengineers.com 9550 Forest Lane, Suite 342, Dallas, Texas 75243	**EXHIBIT:** C1
	TITLE: Global Traffic Distribution
	DATE: November 15, 2024
	TRAFFIC IMPACT ANALYSIS FOR SUNRISE DEVELOPMENT IN CORPUS CHRISTI , TEXAS

(D) Traffic Impact Analysis



PROMET ENGINEERS
TRANSPORTATION ENGINEERING & PLANNING
TBPE Firm Registration No.: F-25044
Phone 469-640-7708 Web www.prometengineers.com
9550 Forest Lane, Suite 342, Dallas, Texas 75243

EXHIBIT: Appendix C3

TITLE: Traffic Assignment

DATE: December 23, 2024

TRAFFIC IMPACT ANALYSIS FOR SUNRISE DEVELOPMENT IN CORPUS CHRISTI, TEXAS

(D) Traffic Impact Analysis

APPENDIX D. Synchro Reports

Timings
1: Staples Street & McArdle Road

2024 Existing
Timing Plan: AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	111	56	113	139	134	52	786	114	86	491	9
Future Volume (vph)	6	111	56	113	139	134	52	786	114	86	491	9
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.950			0.926				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3362	0	1770	3277	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.476			0.644			0.468			0.286		
Satd. Flow (perm)	887	3362	0	1200	3277	0	872	3539	1583	533	3539	1583
Satd. Flow (RTOR)		57			137				126			126
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	6	170	0	115	279	0	53	802	116	88	501	9
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	15.0	25.0		15.0	25.0		10.0	75.0	75.0	15.0	80.0	80.0
Total Split (%)	11.5%	19.2%		11.5%	19.2%		7.7%	57.7%	57.7%	11.5%	61.5%	61.5%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.8	9.8		19.2	19.2		87.3	87.3	87.3	91.5	91.5	91.5
Actuated g/C Ratio	0.08	0.08		0.15	0.15		0.67	0.67	0.67	0.70	0.70	0.70
v/c Ratio	0.06	0.56		0.55	0.46		0.09	0.34	0.11	0.20	0.20	0.01
Control Delay	55.0	45.0		62.3	27.7		9.7	10.4	1.8	8.6	7.8	0.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.0	45.0		62.3	27.7		9.7	10.4	1.8	8.6	7.8	0.0
LOS	D	D		E	C		A	B	A	A	A	A
Approach Delay		45.3			37.8			9.3			7.8	
Approach LOS		D			D			A			A	
Queue Length 50th (ft)	5	48		89	56		13	132	0	21	70	0
Queue Length 95th (ft)	19	85		151	101		38	232	22	52	124	0
Internal Link Dist (ft)		703			1295			1042			587	
Turn Bay Length (ft)	200			225			200			175		175
Base Capacity (vph)	147	578		263	635		623	2376	1104	474	2490	1151
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.29		0.44	0.44		0.09	0.34	0.11	0.19	0.20	0.01

Intersection Summary

Timings
1: Staples Street & McArdle Road

2024 Existing
Timing Plan: AM

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.56
Intersection Signal Delay: 17.1 Intersection LOS: B
Intersection Capacity Utilization 53.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 1: Staples Street & McArdle Road

Timings
2: TX-358 WB Frontage Road & Staples Street

2024 Existing
Timing Plan: AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	252	90	267	699	754	0	0	538	149
Future Volume (vph)	0	0	0	252	90	267	699	754	0	0	538	149
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	0.95	0.91	0.91	1.00	1.00	0.91	1.00
Frt					0.888							0.850
Flt Protected				0.950			0.950	0.986				
Satd. Flow (prot)	0	0	0	3433	3143	0	1610	3343	0	0	5085	1583
Flt Permitted				0.950			0.358	0.619				
Satd. Flow (perm)	0	0	0	3433	3143	0	607	2099	0	0	5085	1583
Satd. Flow (RTOR)					249							155
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)							43%					
Lane Group Flow (vph)	0	0	0	263	372	0	415	1098	0	0	560	155
Turn Type				Perm	NA		pm+pt	NA			NA	Perm
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12			1 2					2
Detector Phase				4 12	4 12		1	1 2			2	2
Switch Phase												
Minimum Initial (s)							5.0				5.0	5.0
Minimum Split (s)							9.5				30.0	30.0
Total Split (s)							50.0				48.0	48.0
Total Split (%)							37.0%				35.6%	35.6%
Yellow Time (s)							3.0				3.0	3.0
All-Red Time (s)							1.0				1.0	1.0
Lost Time Adjust (s)							0.0				0.0	0.0
Total Lost Time (s)							4.0				4.0	4.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode							None				Max	Max
Act Effct Green (s)				33.0	33.0		90.0	90.0			44.7	44.7
Actuated g/C Ratio				0.24	0.24		0.67	0.67			0.33	0.33
v/c Ratio				0.31	0.39		0.56	0.60			0.33	0.25
Control Delay				43.0	14.9		5.9	8.8			34.8	5.8
Queue Delay				0.0	0.0		3.0	7.6			0.1	0.0
Total Delay				43.0	14.9		8.9	16.4			34.9	5.8
LOS				D	B		A	B			C	A
Approach Delay					26.5			14.4			28.6	
Approach LOS					C			B			C	
Queue Length 50th (ft)				97	44		13	491			136	0
Queue Length 95th (ft)				138	90		m15	m526			171	50
Internal Link Dist (ft)		866			726			141			195	
Turn Bay Length (ft)				285								500
Base Capacity (vph)				839	956		749	1834			1683	627
Starvation Cap Reductn				0	0		229	692			0	0
Spillback Cap Reductn				0	0		0	0			197	0
Storage Cap Reductn				0	0		0	0			0	0
Reduced v/c Ratio				0.31	0.39		0.80	0.96			0.38	0.25

Intersection Summary

Timings
2: TX-358 WB Frontage Road & Staples Street

2024 Existing
Timing Plan: AM

Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	30.0	22.5	30.0	30.0	22.5	22.5
Total Split (s)	27.0	65.0	40.0	20.0	10.0	10.0
Total Split (%)	20%	48%	30%	15%	7%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	C-Max	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

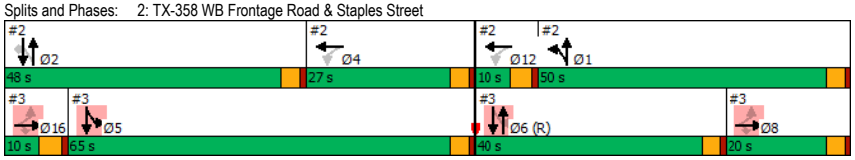
Intersection Summary

Timings
2: TX-358 WB Frontage Road & Staples Street

2024 Existing
Timing Plan: AM

Cycle Length: 135	
Actuated Cycle Length: 135	
Offset: 24 (18%), Referenced to phase 6:NBSB, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.95	
Intersection Signal Delay: 20.6	Intersection LOS: C
Intersection Capacity Utilization 77.0%	ICU Level of Service D
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 2: TX-358 WB Frontage Road & Staples Street



Timings
3: Staples Street & TX-358 EB Frontage Road

2024 Existing
Timing Plan: AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	179	99	630	0	0	0	0	1207	197	168	640	0
Future Volume (vph)	179	99	630	0	0	0	0	1207	197	168	640	0
Lane Util. Factor	0.91	0.86	0.91	1.00	1.00	1.00	1.00	0.91	1.00	0.91	0.91	1.00
Frt		0.891	0.850						0.850			
Flt Protected	0.950	0.998								0.950	0.999	
Satd. Flow (prot)	1610	2849	1441	0	0	0	0	5085	1583	1610	3387	0
Flt Permitted	0.950	0.998								0.111	0.955	
Satd. Flow (perm)	1610	2849	1441	0	0	0	0	5085	1583	188	3238	0
Satd. Flow (RTOR)		319	319						195			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Shared Lane Traffic (%)	10%		50%							10%		
Lane Group Flow (vph)	171	459	335	0	0	0	0	1284	210	161	699	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8 16						6		5	6 5	
Permitted Phases	8 16		8 16						6	5 6		
Detector Phase	8 16	8 16	8 16					6	6	5	6 5	
Switch Phase												
Minimum Initial (s)								5.0	5.0	5.0		
Minimum Split (s)								30.0	30.0	22.5		
Total Split (s)								40.0	40.0	65.0		
Total Split (%)								29.6%	29.6%	48.1%		
Yellow Time (s)								3.0	3.0	3.0		
All-Red Time (s)								1.0	1.0	1.0		
Lost Time Adjust (s)								0.0	0.0	0.0		
Total Lost Time (s)								4.0	4.0	4.0		
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode								C-Max	C-Max	Max		
Act Effct Green (s)	25.6	25.6	25.6					36.0	36.0	97.4	97.4	
Actuated g/C Ratio	0.19	0.19	0.19					0.27	0.27	0.72	0.72	
v/c Ratio	0.56	0.58	0.63					0.95	0.37	0.21	0.29	
Control Delay	57.5	17.7	12.0					63.3	8.5	2.7	4.4	
Queue Delay	0.0	0.0	0.0					43.9	0.0	0.4	0.3	
Total Delay	57.5	17.7	12.0					107.2	8.5	3.0	4.8	
LOS	E	B	B					F	A	A	A	
Approach Delay		22.8						93.3			4.4	
Approach LOS		C						F			A	
Queue Length 50th (ft)	150	61	13					406	10	1	187	
Queue Length 95th (ft)	237	125	117					#500	74	2	231	
Internal Link Dist (ft)		710			680			1093			141	
Turn Bay Length (ft)	400		285						275			
Base Capacity (vph)	303	795	530					1356	565	782	2404	
Starvation Cap Reductn	0	0	0					0	0	297	1041	
Spillback Cap Reductn	0	8	0					190	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.56	0.58	0.63					1.10	0.37	0.33	0.51	

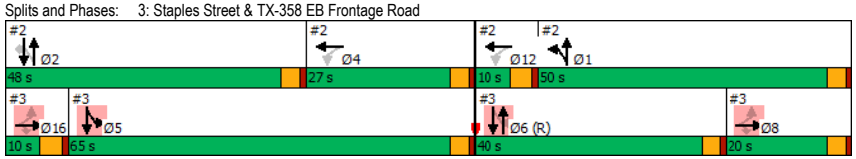
Intersection Summary

Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	30.0	30.0	30.0	22.5	22.5
Total Split (s)	50.0	48.0	27.0	20.0	10.0	10.0
Total Split (%)	37%	36%	20%	15%	7%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Cycle Length: 135
Actuated Cycle Length: 135
Offset: 24 (18%), Referenced to phase 6:NBSB, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 49.8 Intersection LOS: D
Intersection Capacity Utilization 77.0% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Staples Street & TX-358 EB Frontage Road



Timings
4: Airline Road & TX-358 EB Frontage Road

2024 Existing
Timing Plan: AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	291	104	486	0	0	0	0	1042	111	149	522	0
Future Volume (vph)	291	104	486	0	0	0	0	1042	111	149	522	0
Lane Util. Factor	0.91	0.86	0.91	1.00	1.00	1.00	1.00	0.91	1.00	0.91	0.91	1.00
Frt		0.913	0.850						0.850			
Flt Protected	0.950	0.992								0.950	0.999	
Satd. Flow (prot)	1610	2902	1441	0	0	0	0	5085	1583	1610	3387	0
Flt Permitted	0.950	0.992								0.211	0.905	
Satd. Flow (perm)	1610	2902	1441	0	0	0	0	5085	1583	358	3068	0
Satd. Flow (RTOR)		175	267						110			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)	24%		50%							10%		
Lane Group Flow (vph)	243	458	267	0	0	0	0	1145	122	148	590	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16						6	5 6		
Detector Phase	8 16	8 16	8 16					6	6	5	5 6	
Switch Phase												
Minimum Initial (s)								5.0	5.0	5.0		
Minimum Split (s)								22.5	22.5	9.5		
Total Split (s)								70.0	70.0	70.0		
Total Split (%)								41.2%	41.2%	41.2%		
Yellow Time (s)								3.5	3.5	3.5		
All-Red Time (s)								1.0	1.0	1.0		
Lost Time Adjust (s)								0.0	0.0	0.0		
Total Lost Time (s)								4.5	4.5	4.5		
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode								C-Max	C-Max	None		
Act Effct Green (s)	25.5	25.5	25.5					115.5	115.5	131.0	131.0	
Actuated g/C Ratio	0.15	0.15	0.15					0.68	0.68	0.77	0.77	
v/c Ratio	1.01	0.78	0.60					0.33	0.11	0.38	0.25	
Control Delay	129.5	53.0	12.6					11.8	2.4	4.9	5.4	
Queue Delay	0.0	0.9	0.0					0.1	0.0	0.1	0.5	
Total Delay	129.5	53.8	12.6					11.9	2.4	5.0	5.8	
LOS	F	D	B					B	A	A	A	
Approach Delay		61.5						11.0			5.7	
Approach LOS		E						B			A	
Queue Length 50th (ft)	~304	183	0					179	4	4	245	
Queue Length 95th (ft)	#517	259	103					234	30	13	297	
Internal Link Dist (ft)		533			740			601			171	
Turn Bay Length (ft)	300								250			
Base Capacity (vph)	241	584	443					3455	1111	767	2568	
Starvation Cap Reductn	0	0	0					0	0	126	1449	
Spillback Cap Reductn	0	24	0					930	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	1.01	0.82	0.60					0.45	0.11	0.23	0.53	

Intersection Summary

Timings
4: Airline Road & TX-358 EB Frontage Road

2024 Existing
Timing Plan: AM

Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	50.0	50.0	60.0	20.0	10.0	10.0
Total Split (%)	29%	29%	35%	12%	6%	6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

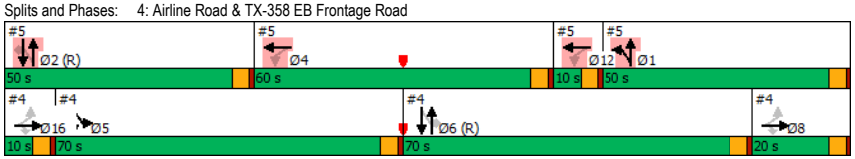
Intersection Summary

Timings
4: Airline Road & TX-358 EB Frontage Road

2024 Existing
Timing Plan: AM

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 26.1 Intersection LOS: C
Intersection Capacity Utilization 82.5% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Airline Road & TX-358 EB Frontage Road



Timings
5: TX-358 WB Frontage Road & Airline Road

2024 Existing
Timing Plan: AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	158	183	221	541	807	0	0	511	376
Future Volume (vph)	0	0	0	158	183	221	541	807	0	0	511	376
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	0.95	0.91	0.91	1.00	1.00	0.91	1.00
Frt					0.918							0.850
Flt Protected				0.950			0.950	0.991				
Satd. Flow (prot)	0	0	0	3433	3249	0	1610	3360	0	0	5085	1583
Flt Permitted				0.950			0.314	0.630				
Satd. Flow (perm)	0	0	0	3433	3249	0	532	2136	0	0	5085	1583
Satd. Flow (RTOR)					131							374
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)							34%					
Lane Group Flow (vph)	0	0	0	178	454	0	401	1114	0	0	574	422
Turn Type				Perm	NA		pm+pt	NA			NA	Perm
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12			1 2					2
Detector Phase				4 12	4 12		1	1 2			2	2
Switch Phase												
Minimum Initial (s)							5.0				5.0	5.0
Minimum Split (s)							9.5				22.5	22.5
Total Split (s)							50.0				50.0	50.0
Total Split (%)							29.4%				29.4%	29.4%
Yellow Time (s)							3.5				3.5	3.5
All-Red Time (s)							1.0				1.0	1.0
Lost Time Adjust (s)							0.0				0.0	0.0
Total Lost Time (s)							4.5				4.5	4.5
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode							None				C-Max	C-Max
Act Effct Green (s)				33.8	33.8		122.7	122.7			45.5	45.5
Actuated g/C Ratio				0.20	0.20		0.72	0.72			0.27	0.27
v/c Ratio				0.26	0.61		0.46	0.53			0.42	0.61
Control Delay				57.3	46.3		21.8	19.8			52.5	11.5
Queue Delay				0.0	0.0		1.4	0.8			0.1	0.0
Total Delay				57.3	46.3		23.2	20.6			52.6	11.5
LOS				E	D		C	C			D	B
Approach Delay					49.4			21.3			35.2	
Approach LOS					D			C			D	
Queue Length 50th (ft)				87	174		248	337			194	41
Queue Length 95th (ft)				116	218		m389	m504			233	148
Internal Link Dist (ft)		757			931			171			340	
Turn Bay Length (ft)				330								220
Base Capacity (vph)				1120	1148		873	2097			1360	697
Starvation Cap Reductn				0	0		283	615			0	0
Spillback Cap Reductn				0	0		0	0			141	0
Storage Cap Reductn				0	0		0	0			0	0
Reduced v/c Ratio				0.16	0.40		0.68	0.75			0.47	0.61

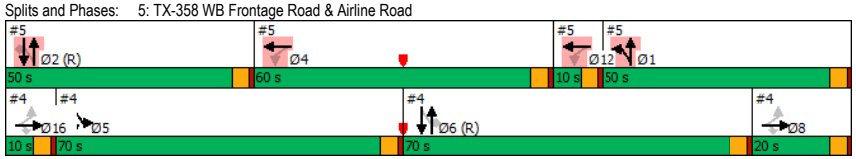
Intersection Summary

Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5	22.5
Total Split (s)	60.0	70.0	70.0	20.0	10.0	10.0
Total Split (%)	35%	41%	41%	12%	6%	6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Max	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 31.4 Intersection LOS: C
Intersection Capacity Utilization 82.5% ICU Level of Service E
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: TX-358 WB Frontage Road & Airline Road



Timings
6: Airline Road & McArdle Road

2024 Existing
Timing Plan: AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	124	31	122	140	130	98	750	71	91	716	74
Future Volume (vph)	93	124	31	122	140	130	98	750	71	91	716	74
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.970			0.928			0.987			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3433	0	1770	3284	0	1770	3493	0	1770	3490	0
Flt Permitted	0.423			0.573			0.258			0.257		
Satd. Flow (perm)	788	3433	0	1067	3284	0	481	3493	0	479	3490	0
Satd. Flow (RTOR)		32			146			11			12	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	104	174	0	137	303	0	110	923	0	102	887	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	10.0	35.0		10.0	35.0		15.0	40.0		15.0	40.0	
Total Split (%)	10.0%	35.0%		10.0%	35.0%		15.0%	40.0%		15.0%	40.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	16.0	10.5		16.9	12.5		66.9	60.6		66.0	58.5	
Actuated g/C Ratio	0.16	0.10		0.17	0.12		0.67	0.61		0.66	0.58	
v/c Ratio	0.58	0.45		0.63	0.57		0.26	0.44		0.25	0.43	
Control Delay	47.0	37.2		48.5	25.6		6.9	12.4		6.8	12.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	47.0	37.2		48.5	25.6		6.9	12.4		6.8	12.8	
LOS	D	D		D	C		A	B		A	B	
Approach Delay		40.9			32.7			11.8			12.2	
Approach LOS		D			C			B			B	
Queue Length 50th (ft)	56	45		76	50		19	158		18	151	
Queue Length 95th (ft)	98	74		124	88		41	240		38	225	
Internal Link Dist (ft)		382			1361			915			705	
Turn Bay Length (ft)	165			150			165			175		
Base Capacity (vph)	179	1069		218	1103		467	2120		465	2046	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.58	0.16		0.63	0.27		0.24	0.44		0.22	0.43	

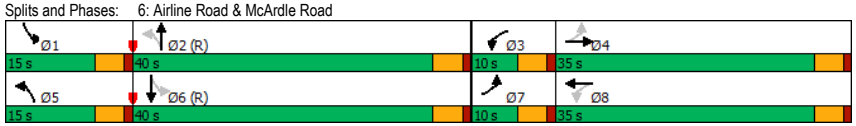
Intersection Summary

Timings
6: Airline Road & McArdle Road

2024 Existing
Timing Plan: AM

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.63
Intersection Signal Delay: 18.3 — Intersection LOS: B
Intersection Capacity Utilization 56.2% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 6: Airline Road & McArdle Road



HCM 6th TWSC
7: TX-358 WB Frontage Road & Driveway 1

2024 Existing
Timing Plan: AM

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑↱			↱
Traffic Vol, veh/h	0	0	688	2	0	1
Future Vol, veh/h	0	0	688	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	791	2	0	1

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	397
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	602
Stage 1	-	-	0	-
Stage 2	-	-	0	-
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	-	602
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	11
HCM LOS		B

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	602
HCM Lane V/C Ratio	-	-	0.002
HCM Control Delay (s)	-	-	11
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0

HCM 6th TWSC
8: TX-358 WB Frontage Road & Driveway 2

2024 Existing
Timing Plan: AM

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1834	0	0	1
Future Vol, veh/h	0	0	1834	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	2158	0	0	1

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	1079
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.32
Pot Cap-1 Maneuver	-	0	0	214
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	214
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	21.9
HCM LOS		C

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	214
HCM Lane V/C Ratio	-	0.005
HCM Control Delay (s)	-	21.9
HCM Lane LOS	-	C
HCM 95th %tile Q(veh)	-	0

10: Driveway 4 & McArdle Road

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	272	1	0	316	2	0
Future Vol, veh/h	272	1	0	316	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	299	1	0	347	2	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	474	150
Stage 1	-	-	-	-	300	-
Stage 2	-	-	-	-	174	-
Critical Hdwy	-	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	0	-	519	870
Stage 1	-	-	0	-	725	-
Stage 2	-	-	0	-	839	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	519	870
Mov Cap-2 Maneuver	-	-	-	-	588	-
Stage 1	-	-	-	-	725	-
Stage 2	-	-	-	-	839	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	588	-	-	-
HCM Lane V/C Ratio	0.004	-	-	-
HCM Control Delay (s)	11.1	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

11: Driveway 5 & McArdle Road

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	250	13	4	307	6	3
Future Vol, veh/h	250	13	4	307	6	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	75	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	281	15	4	345	7	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	296	0	470	148
Stage 1	-	-	-	-	289	-
Stage 2	-	-	-	-	181	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1262	-	522	872
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	832	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1262	-	520	872
Mov Cap-2 Maneuver	-	-	-	-	591	-
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	830	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	662	-	-	1262	-
HCM Lane V/C Ratio	0.015	-	-	0.004	-
HCM Control Delay (s)	10.5	-	-	7.9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

(D) Traffic Impact Analysis

Timings
1: Staples Street & McArdle Road

2024 Existing
Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	266	131	233	310	190	104	594	185	180	493	26
Future Volume (vph)	11	266	131	233	310	190	104	594	185	180	493	26
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.951			0.943				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3366	0	1770	3337	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.459			0.247			0.422			0.330		
Satd. Flow (perm)	855	3366	0	460	3337	0	786	3539	1583	615	3539	1583
Satd. Flow (RTOR)		63			104				193			136
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	413	0	243	521	0	108	619	193	188	514	27
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	15.0	29.0		20.0	34.0		16.0	55.0	55.0	16.0	55.0	55.0
Total Split (%)	12.5%	24.2%		16.7%	28.3%		13.3%	45.8%	45.8%	13.3%	45.8%	45.8%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	24.1	18.1		37.6	35.3		67.0	58.3	58.3	70.9	60.3	60.3
Actuated g/C Ratio	0.20	0.15		0.31	0.29		0.56	0.49	0.49	0.59	0.50	0.50
v/c Ratio	0.05	0.74		0.79	0.49		0.21	0.36	0.22	0.40	0.29	0.03
Control Delay	27.3	49.0		51.3	29.3		11.9	21.1	3.6	13.8	19.0	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.3	49.0		51.3	29.3		11.9	21.1	3.6	13.8	19.0	0.1
LOS	C	D		D	C		B	C	A	B	B	A
Approach Delay		48.4			36.3			16.3			17.0	
Approach LOS		D			D			B			B	
Queue Length 50th (ft)	6	138		149	134		33	154	0	60	118	0
Queue Length 95th (ft)	18	183		#217	201		66	224	44	109	181	0
Internal Link Dist (ft)		703			1295			1042			587	
Turn Bay Length (ft)	200			225			200			175		175
Base Capacity (vph)	283	737		313	1055		551	1719	868	483	1777	862
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.56		0.78	0.49		0.20	0.36	0.22	0.39	0.29	0.03

Intersection Summary

Timings
1: Staples Street & McArdle Road

2024 Existing
Timing Plan: PM

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 26.7 Intersection LOS: C
Intersection Capacity Utilization 65.8% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Staples Street & McArdle Road

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SR

Timings
2: TX-358 WB Frontage Road & Staples Street

2024 Existing
Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	389	256	232	637	858	0	0	815	211
Future Volume (vph)	0	0	0	389	256	232	637	858	0	0	815	211
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	0.95	0.91	0.91	1.00	1.00	0.91	1.00
Frt					0.929							0.850
Flt Protected				0.950			0.950	0.988				
Satd. Flow (prot)	0	0	0	3433	3288	0	1610	3350	0	0	5085	1583
Flt Permitted				0.950			0.196	0.536				
Satd. Flow (perm)	0	0	0	3433	3288	0	332	1817	0	0	5085	1583
Satd. Flow (RTOR)					162							185
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)							42%					
Lane Group Flow (vph)	0	0	0	423	530	0	401	1224	0	0	886	229
Turn Type				Perm	NA		pm+pt	NA			NA	Perm
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12			1 2					2
Detector Phase				4 12	4 12		1	1 2			2	2
Switch Phase												
Minimum Initial (s)							5.0				5.0	5.0
Minimum Split (s)							9.5				30.0	30.0
Total Split (s)							50.0				48.0	48.0
Total Split (%)							37.0%				35.6%	35.6%
Yellow Time (s)							3.0				3.0	3.0
All-Red Time (s)							1.0				1.0	1.0
Lost Time Adjust (s)							0.0				0.0	0.0
Total Lost Time (s)							4.0				4.0	4.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode							None				Max	Max
Act Effct Green (s)				33.0	33.0		90.0	90.0			44.0	44.0
Actuated g/C Ratio				0.24	0.24		0.67	0.67			0.33	0.33
v/c Ratio				0.50	0.57		0.61	0.71			0.53	0.36
Control Delay				46.4	33.2		6.0	8.8			38.6	9.6
Queue Delay				0.0	0.0		4.4	28.7			0.2	0.0
Total Delay				46.4	33.2		10.4	37.5			38.8	9.6
LOS				D	C		B	D			D	A
Approach Delay					39.1			30.8			32.8	
Approach LOS					D			C			C	
Queue Length 50th (ft)				165	150		26	461			231	27
Queue Length 95th (ft)				219	210		m32	m504			277	92
Internal Link Dist (ft)		866			726			141			195	
Turn Bay Length (ft)				285								500
Base Capacity (vph)				839	926		656	1733			1657	640
Starvation Cap Reductn				0	0		181	566			0	0
Spillback Cap Reductn				0	0		0	0			172	0
Storage Cap Reductn				0	0		0	0			0	0
Reduced v/c Ratio				0.50	0.57		0.84	1.05			0.60	0.36

Intersection Summary

Timings
2: TX-358 WB Frontage Road & Staples Street

2024 Existing
Timing Plan: PM

Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	30.0	22.5	30.0	30.0	22.5	22.5
Total Split (s)	27.0	65.0	40.0	20.0	10.0	10.0
Total Split (%)	20%	48%	30%	15%	7%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	C-Max	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

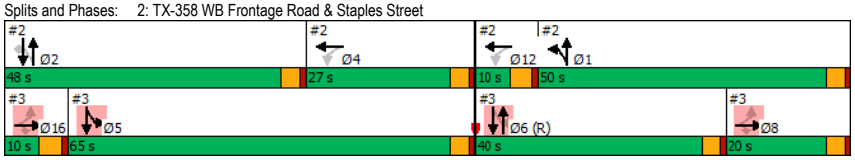
Intersection Summary

Timings
2: TX-358 WB Frontage Road & Staples Street

2024 Existing
Timing Plan: PM

Cycle Length: 135	
Actuated Cycle Length: 135	
Offset: 24 (18%), Referenced to phase 6:NBSB, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 33.5	Intersection LOS: C
Intersection Capacity Utilization 76.5%	ICU Level of Service D
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 2: TX-358 WB Frontage Road & Staples Street



Timings
3: Staples Street & TX-358 EB Frontage Road

2024 Existing
Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	393	312	447	0	0	0	0	1116	195	251	928	0
Future Volume (vph)	393	312	447	0	0	0	0	1116	195	251	928	0
Lane Util. Factor	0.91	0.86	0.91	1.00	1.00	1.00	1.00	0.91	1.00	0.91	0.91	1.00
Frt		0.953	0.850						0.850			
Flt Protected	0.950	0.992								0.950	0.999	
Satd. Flow (prot)	1610	3029	1441	0	0	0	0	5085	1583	1610	3387	0
Flt Permitted	0.950	0.992								0.111	0.955	
Satd. Flow (perm)	1610	3029	1441	0	0	0	0	5085	1583	188	3238	0
Satd. Flow (RTOR)		38	190						201			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)	24%		41%							10%		
Lane Group Flow (vph)	308	608	272	0	0	0	0	1151	201	233	983	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8 16						6		5	6 5	
Permitted Phases	8 16		8 16						6	5 6		
Detector Phase	8 16	8 16	8 16					6	6	5	6 5	
Switch Phase												
Minimum Initial (s)								5.0	5.0	5.0		
Minimum Split (s)								30.0	30.0	22.5		
Total Split (s)								40.0	40.0	65.0		
Total Split (%)								29.6%	29.6%	48.1%		
Yellow Time (s)								3.0	3.0	3.0		
All-Red Time (s)								1.0	1.0	1.0		
Lost Time Adjust (s)								0.0	0.0	0.0		
Total Lost Time (s)								4.0	4.0	4.0		
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode								C-Max	C-Max	Max		
Act Effct Green (s)	26.0	26.0	26.0					36.0	36.0	97.0	97.0	
Actuated g/C Ratio	0.19	0.19	0.19					0.27	0.27	0.72	0.72	
v/c Ratio	0.99	0.99	0.63					0.85	0.35	0.30	0.41	
Control Delay	103.6	84.7	22.9					54.0	6.8	2.0	4.6	
Queue Delay	3.3	2.7	0.0					10.3	0.0	0.5	0.4	
Total Delay	106.9	87.4	22.9					64.2	6.8	2.5	5.0	
LOS	F	F	C					E	A	A	A	
Approach Delay		77.7						55.7			4.5	
Approach LOS		E						E			A	
Queue Length 50th (ft)	298	295	69					352	0	0	286	
Queue Length 95th (ft)	#512	#438	180					411	60	0	340	
Internal Link Dist (ft)		710			680			1093			141	
Turn Bay Length (ft)	400		285						275			
Base Capacity (vph)	310	614	430					1356	569	777	2393	
Starvation Cap Reductn	0	0	0					0	0	244	819	
Spillback Cap Reductn	4	7	0					194	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	1.01	1.00	0.63					0.99	0.35	0.44	0.62	

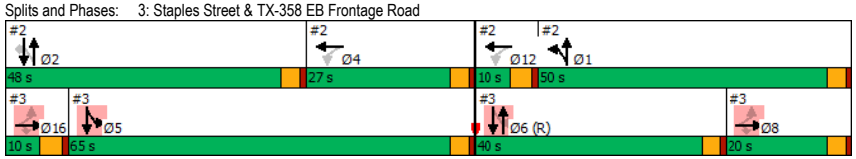
Intersection Summary

Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	30.0	30.0	30.0	22.5	22.5
Total Split (s)	50.0	48.0	27.0	20.0	10.0	10.0
Total Split (%)	37%	36%	20%	15%	7%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Cycle Length: 135
Actuated Cycle Length: 135
Offset: 24 (18%), Referenced to phase 6:NBSB, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 46.1 Intersection LOS: D
Intersection Capacity Utilization 76.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Staples Street & TX-358 EB Frontage Road



Timings
4: Airline Road & TX-358 EB Frontage Road

2024 Existing
Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	447	211	535	0	0	0	0	995	145	196	714	0
Future Volume (vph)	447	211	535	0	0	0	0	995	145	196	714	0
Lane Util. Factor	0.91	0.86	0.91	1.00	1.00	1.00	1.00	0.91	1.00	0.91	0.91	1.00
Frt		0.936	0.850						0.850			
Flt Protected	0.950	0.989								0.950	0.999	
Satd. Flow (prot)	1610	2966	1441	0	0	0	0	5085	1583	1610	3387	0
Flt Permitted	0.950	0.989								0.241	0.906	
Satd. Flow (perm)	1610	2966	1441	0	0	0	0	5085	1583	409	3072	0
Satd. Flow (RTOR)		69	287						149			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)	30%		48%							10%		
Lane Group Flow (vph)	323	621	287	0	0	0	0	1026	149	182	756	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16						6	5 6		
Detector Phase	8 16	8 16	8 16					6	6	5	5 6	
Switch Phase												
Minimum Initial (s)								5.0	5.0	5.0		
Minimum Split (s)								22.5	22.5	9.5		
Total Split (s)								70.0	70.0	70.0		
Total Split (%)								41.2%	41.2%	41.2%		
Yellow Time (s)								3.5	3.5	3.5		
All-Red Time (s)								1.0	1.0	1.0		
Lost Time Adjust (s)								0.0	0.0	0.0		
Total Lost Time (s)								4.5	4.5	4.5		
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode								C-Max	C-Max	None		
Act Effct Green (s)	25.5	25.5	25.5					112.0	112.0	131.0	131.0	
Actuated g/C Ratio	0.15	0.15	0.15					0.66	0.66	0.77	0.77	
v/c Ratio	1.34	1.23	0.62					0.31	0.14	0.41	0.31	
Control Delay	229.7	171.8	12.8					13.0	1.9	4.5	5.6	
Queue Delay	0.0	0.2	0.0					0.1	0.0	0.1	0.5	
Total Delay	229.7	172.0	12.8					13.1	1.9	4.6	6.1	
LOS	F	F	B					B	A	A	A	
Approach Delay		150.0						11.7			5.8	
Approach LOS		F						B			A	
Queue Length 50th (ft)	~512	~456	0					168	0	10	305	
Queue Length 95th (ft)	#740	#603	106					217	29	19	360	
Internal Link Dist (ft)		533			740			601			171	
Turn Bay Length (ft)	300								250			
Base Capacity (vph)	241	503	460					3348	1093	788	2569	
Starvation Cap Reductn	0	0	0					0	0	131	1287	
Spillback Cap Reductn	0	10	0					1146	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	1.34	1.26	0.62					0.47	0.14	0.28	0.59	

Intersection Summary

Timings
4: Airline Road & TX-358 EB Frontage Road

2024 Existing
Timing Plan: PM

Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	50.0	50.0	60.0	20.0	10.0	10.0
Total Split (%)	29%	29%	35%	12%	6%	6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

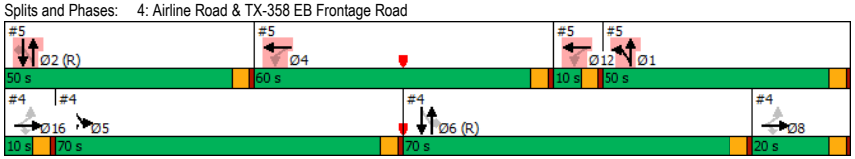
(D) Traffic Impact Analysis

Timings
4: Airline Road & TX-358 EB Frontage Road

2024 Existing
Timing Plan: PM

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.34
Intersection Signal Delay: 61.0 Intersection LOS: E
Intersection Capacity Utilization 78.9% ICU Level of Service D
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Airline Road & TX-358 EB Frontage Road



Timings
5: TX-358 WB Frontage Road & Airline Road

2024 Existing
Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	257	343	213	464	960	0	0	656	233
Future Volume (vph)	0	0	0	257	343	213	464	960	0	0	656	233
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	0.95	0.91	0.91	1.00	1.00	0.91	1.00
Frt					0.942							0.850
Flt Protected				0.950			0.950	0.994				
Satd. Flow (prot)	0	0	0	3433	3334	0	1610	3370	0	0	5085	1583
Flt Permitted				0.950			0.250	0.632				
Satd. Flow (perm)	0	0	0	3433	3334	0	424	2143	0	0	5085	1583
Satd. Flow (RTOR)					92							243
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)							26%					
Lane Group Flow (vph)	0	0	0	268	579	0	357	1126	0	0	683	243
Turn Type				Perm	NA		pm+pt	NA			NA	Perm
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12			1 2					2
Detector Phase				4 12	4 12		1	1 2			2	2
Switch Phase												
Minimum Initial (s)							5.0				5.0	5.0
Minimum Split (s)							9.5				22.5	22.5
Total Split (s)							50.0				50.0	50.0
Total Split (%)							29.4%				29.4%	29.4%
Yellow Time (s)							3.5				3.5	3.5
All-Red Time (s)							1.0				1.0	1.0
Lost Time Adjust (s)							0.0				0.0	0.0
Total Lost Time (s)							4.5				4.5	4.5
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode							None				C-Max	C-Max
Act Effct Green (s)				43.8	43.8		112.7	112.7			45.5	45.5
Actuated g/C Ratio				0.26	0.26		0.66	0.66			0.27	0.27
v/c Ratio				0.30	0.63		0.48	0.59			0.50	0.40
Control Delay				50.7	48.9		26.0	24.6			54.2	7.2
Queue Delay				0.0	0.0		2.9	3.1			0.2	0.0
Total Delay				50.7	48.9		28.9	27.7			54.4	7.2
LOS				D	D		C	C			D	A
Approach Delay					49.5			28.0			42.0	
Approach LOS					D			C			D	
Queue Length 50th (ft)				125	257		221	354			238	0
Queue Length 95th (ft)				155	298		m306	m465			283	72
Internal Link Dist (ft)		757			931			171			340	
Turn Bay Length (ft)				330								220
Base Capacity (vph)				1120	1150		750	1906			1360	601
Starvation Cap Reductn				0	0		282	652			0	0
Spillback Cap Reductn				0	0		0	0			142	0
Storage Cap Reductn				0	0		0	0			0	0
Reduced v/c Ratio				0.24	0.50		0.76	0.90			0.56	0.40

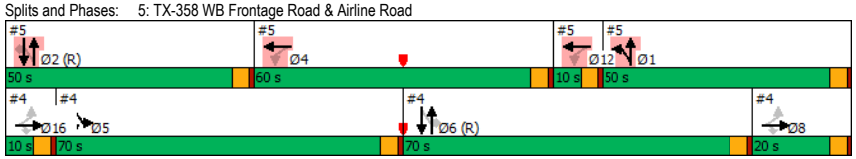
Intersection Summary

Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5	22.5
Total Split (s)	60.0	70.0	70.0	20.0	10.0	10.0
Total Split (%)	35%	41%	41%	12%	6%	6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Max	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.34
Intersection Signal Delay: 37.6 Intersection LOS: D
Intersection Capacity Utilization 78.9% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: TX-358 WB Frontage Road & Airline Road



Timings
6: Airline Road & McArdle Road

2024 Existing
Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	202	383	91	107	285	126	162	715	136	225	703	154
Future Volume (vph)	202	383	91	107	285	126	162	715	136	225	703	154
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.971			0.954			0.976			0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3437	0	1770	3376	0	1770	3454	0	1770	3444	0
Flt Permitted	0.169			0.299			0.251			0.215		
Satd. Flow (perm)	315	3437	0	557	3376	0	468	3454	0	400	3444	0
Satd. Flow (RTOR)		17			42			17			20	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	208	489	0	110	424	0	167	877	0	232	884	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	35.0	35.0		35.0	35.0		20.0	60.0		20.0	60.0	
Total Split (%)	23.3%	23.3%		23.3%	23.3%		13.3%	40.0%		13.3%	40.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	46.7	29.8		35.0	22.6		85.4	73.7		93.6	78.1	
Actuated g/C Ratio	0.31	0.20		0.23	0.15		0.57	0.49		0.62	0.52	
v/c Ratio	0.72	0.70		0.48	0.78		0.46	0.51		0.59	0.49	
Control Delay	53.6	59.2		43.7	65.2		17.5	29.0		19.7	25.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	53.6	59.2		43.7	65.2		17.5	29.0		19.7	25.6	
LOS	D	E		D	E		B	C		B	C	
Approach Delay		57.5			60.8			27.2			24.4	
Approach LOS		E			E			C			C	
Queue Length 50th (ft)	159	230		79	193		64	295		92	276	
Queue Length 95th (ft)	207	272		116	243		121	449		167	426	
Internal Link Dist (ft)		382			1361			915			705	
Turn Bay Length (ft)	165			150			165			175		
Base Capacity (vph)	394	757		419	719		415	1706		413	1803	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.53	0.65		0.26	0.59		0.40	0.51		0.56	0.49	

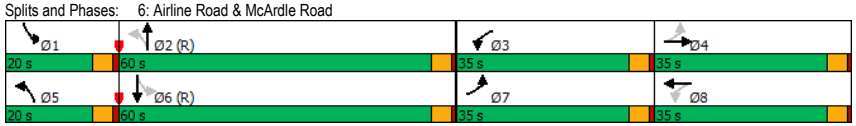
Intersection Summary

Timings
6: Airline Road & McArdle Road

2024 Existing
Timing Plan: PM

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 37.8 — Intersection LOS: D
Intersection Capacity Utilization 74.7% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 6: Airline Road & McArdle Road



HCM 6th TWSC
7: TX-358 WB Frontage Road & Driveway 1

2024 Existing
Timing Plan: PM

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑↱			↱
Traffic Vol, veh/h	0	0	926	5	0	10
Future Vol, veh/h	0	0	926	5	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1007	5	0	11

Major/Minor		Major2		Minor2	
Conflicting Flow All		-	0	-	506
Stage 1		-	-	-	-
Stage 2		-	-	-	-
Critical Hdwy		-	-	-	6.94
Critical Hdwy Stg 1		-	-	-	-
Critical Hdwy Stg 2		-	-	-	-
Follow-up Hdwy		-	-	-	3.32
Pot Cap-1 Maneuver		-	-	0	512
Stage 1		-	-	0	-
Stage 2		-	-	0	-
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver		-	-	-	512
Mov Cap-2 Maneuver		-	-	-	-
Stage 1		-	-	-	-
Stage 2		-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	12.2
HCM LOS		B

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	512
HCM Lane V/C Ratio	-	-	0.021
HCM Control Delay (s)	-	-	12.2
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.1

HCM 6th TWSC
8: TX-358 WB Frontage Road & Driveway 2

2024 Existing
Timing Plan: PM

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1877	0	0	3
Future Vol, veh/h	0	0	1877	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1997	0	0	3

Major/Minor		Major2		Minor2	
Conflicting Flow All		-	0	-	999
Stage 1		-	-	-	-
Stage 2		-	-	-	-
Critical Hdwy		-	-	-	6.94
Critical Hdwy Stg 1		-	-	-	-
Critical Hdwy Stg 2		-	-	-	-
Follow-up Hdwy		-	-	-	3.32
Pot Cap-1 Maneuver		-	0	0	242
Stage 1		-	0	0	-
Stage 2		-	0	0	-
Platoon blocked, %		-			
Mov Cap-1 Maneuver		-	-	-	242
Mov Cap-2 Maneuver		-	-	-	-
Stage 1		-	-	-	-
Stage 2		-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	20.1
HCM LOS		C

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	242
HCM Lane V/C Ratio	-	0.013
HCM Control Delay (s)	-	20.1
HCM Lane LOS	-	C
HCM 95th %tile Q(veh)	-	0

10: Driveway 4 & McArdle Road

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	651	2	3	643	2	1
Future Vol, veh/h	651	2	3	643	2	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	671	2	3	663	2	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	673	0	1010	337
Stage 1	-	-	-	-	672	-
Stage 2	-	-	-	-	338	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	914	-	236	659
Stage 1	-	-	-	-	469	-
Stage 2	-	-	-	-	694	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	914	-	235	659
Mov Cap-2 Maneuver	-	-	-	-	356	-
Stage 1	-	-	-	-	469	-
Stage 2	-	-	-	-	691	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	420	-	-	914	-
HCM Lane V/C Ratio	0.007	-	-	0.003	-
HCM Control Delay (s)	13.6	-	-	9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

11: Driveway 5 & McArdle Road

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	622	22	8	593	18	18
Future Vol, veh/h	622	22	8	593	18	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	75	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	655	23	8	624	19	19

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	678	0	995	339
Stage 1	-	-	-	-	667	-
Stage 2	-	-	-	-	328	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	910	-	242	657
Stage 1	-	-	-	-	472	-
Stage 2	-	-	-	-	702	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	910	-	240	657
Mov Cap-2 Maneuver	-	-	-	-	359	-
Stage 1	-	-	-	-	472	-
Stage 2	-	-	-	-	696	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	13.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	464	-	-	910	-
HCM Lane V/C Ratio	0.082	-	-	0.009	-
HCM Control Delay (s)	13.4	-	-	9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Timings
1: Staples Street & McArdle Road

2028 No Build
Timing Plan: AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	125	63	127	156	151	59	885	128	97	553	10
Future Volume (vph)	7	125	63	127	156	151	59	885	128	97	553	10
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.950			0.926				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3362	0	1770	3277	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.430			0.631			0.440			0.246		
Satd. Flow (perm)	801	3362	0	1175	3277	0	820	3539	1583	458	3539	1583
Satd. Flow (RTOR)		57			154				131			126
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	7	192	0	130	313	0	60	903	131	99	564	10
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	15.0	25.0		15.0	25.0		10.0	75.0	75.0	15.0	80.0	80.0
Total Split (%)	11.5%	19.2%		11.5%	19.2%		7.7%	57.7%	57.7%	11.5%	61.5%	61.5%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.7	10.7		20.3	20.3		85.9	85.9	85.9	90.4	90.4	90.4
Actuated g/C Ratio	0.08	0.08		0.16	0.16		0.66	0.66	0.66	0.70	0.70	0.70
v/c Ratio	0.06	0.59		0.60	0.49		0.10	0.39	0.12	0.25	0.23	0.01
Control Delay	54.1	47.2		63.7	27.4		10.7	11.6	2.2	9.5	8.5	0.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.1	47.2		63.7	27.4		10.7	11.6	2.2	9.5	8.5	0.0
LOS	D	D		E	C		B	B	A	A	A	A
Approach Delay		47.4			38.0			10.5			8.5	
Approach LOS		D			D			B			A	
Queue Length 50th (ft)	6	58		101	63		16	159	0	25	82	0
Queue Length 95th (ft)	21	96		165	108		44	283	29	60	147	0
Internal Link Dist (ft)		703			1295			1042			587	
Turn Bay Length (ft)	200			225			200			175		175
Base Capacity (vph)	149	578		271	663		581	2337	1089	425	2461	1139
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.33		0.48	0.47		0.10	0.39	0.12	0.23	0.23	0.01

Intersection Summary

Timings
1: Staples Street & McArdle Road

2028 No Build
Timing Plan: AM

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.60
Intersection Signal Delay: 18.0 — Intersection LOS: B
Intersection Capacity Utilization 58.2% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Staples Street & McArdle Road

Timings
2: TX-358 WB Frontage Road & Staples Street

2028 No Build
Timing Plan: AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	284	101	301	787	849	0	0	606	168
Future Volume (vph)	0	0	0	284	101	301	787	849	0	0	606	168
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	0.95	0.91	0.91	1.00	1.00	0.91	1.00
Frt					0.888							0.850
Flt Protected				0.950			0.950	0.986				
Satd. Flow (prot)	0	0	0	3433	3143	0	1610	3343	0	0	5085	1583
Flt Permitted				0.950			0.317	0.592				
Satd. Flow (perm)	0	0	0	3433	3143	0	537	2007	0	0	5085	1583
Satd. Flow (RTOR)					210							175
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)							44%					
Lane Group Flow (vph)	0	0	0	296	419	0	459	1245	0	0	631	175
Turn Type				Perm	NA		pm+pt	NA			NA	Perm
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12			1 2					2
Detector Phase				4 12	4 12		1	1 2			2	2
Switch Phase												
Minimum Initial (s)							5.0				5.0	5.0
Minimum Split (s)							9.5				30.0	30.0
Total Split (s)							50.0				48.0	48.0
Total Split (%)							37.0%				35.6%	35.6%
Yellow Time (s)							3.0				3.0	3.0
All-Red Time (s)							1.0				1.0	1.0
Lost Time Adjust (s)							0.0				0.0	0.0
Total Lost Time (s)							4.0				4.0	4.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode							None				Max	Max
Act Effct Green (s)				33.0	33.0		90.0	90.0			44.4	44.4
Actuated g/C Ratio				0.24	0.24		0.67	0.67			0.33	0.33
v/c Ratio				0.35	0.45		0.64	0.70			0.38	0.27
Control Delay				43.6	22.6		6.4	11.1			35.6	5.6
Queue Delay				0.0	0.0		6.3	46.6			0.1	0.0
Total Delay				43.6	22.6		12.7	57.6			35.7	5.6
LOS				D	C		B	E			D	A
Approach Delay					31.3			45.5			29.2	
Approach LOS					C			D			C	
Queue Length 50th (ft)				111	79		17	582			155	0
Queue Length 95th (ft)				154	131		m13	m544			193	52
Internal Link Dist (ft)		866			726			141			195	
Turn Bay Length (ft)				285								500
Base Capacity (vph)				839	926		725	1799			1674	638
Starvation Cap Reductn				0	0		211	661			0	0
Spillback Cap Reductn				0	0		0	0			197	0
Storage Cap Reductn				0	0		0	0			0	0
Reduced v/c Ratio				0.35	0.45		0.89	1.09			0.43	0.27

Intersection Summary

Timings
2: TX-358 WB Frontage Road & Staples Street

2028 No Build
Timing Plan: AM

Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	30.0	22.5	30.0	30.0	22.5	22.5
Total Split (s)	27.0	65.0	40.0	20.0	10.0	10.0
Total Split (%)	20%	48%	30%	15%	7%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	C-Max	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

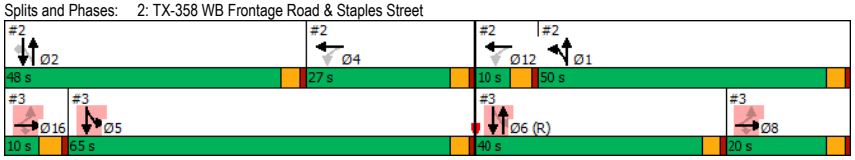
Intersection Summary

Timings
2: TX-358 WB Frontage Road & Staples Street

2028 No Build
Timing Plan: AM

Cycle Length: 135	
Actuated Cycle Length: 135	
Offset: 24 (18%), Referenced to phase 6:NBSB, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 38.3	Intersection LOS: D
Intersection Capacity Utilization 85.9%	ICU Level of Service E
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 2: TX-358 WB Frontage Road & Staples Street



Timings
3: Staples Street & TX-358 EB Frontage Road

2028 No Build
Timing Plan: AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	201	111	709	0	0	0	0	1358	222	189	720	0
Future Volume (vph)	201	111	709	0	0	0	0	1358	222	189	720	0
Lane Util. Factor	0.91	0.86	0.91	1.00	1.00	1.00	1.00	0.91	1.00	0.91	0.91	1.00
Frt		0.890	0.850						0.850			
Flt Protected	0.950	0.998								0.950	0.999	
Satd. Flow (prot)	1610	2846	1441	0	0	0	0	5085	1583	1610	3387	0
Flt Permitted	0.950	0.998								0.111	0.955	
Satd. Flow (perm)	1610	2846	1441	0	0	0	0	5085	1583	188	3238	0
Satd. Flow (RTOR)		272	272						195			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Shared Lane Traffic (%)	10%		50%							10%		
Lane Group Flow (vph)	193	516	377	0	0	0	0	1445	236	181	786	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8 16						6		5	6 5	
Permitted Phases	8 16		8 16						6	5 6		
Detector Phase	8 16	8 16	8 16					6	6	5	6 5	
Switch Phase												
Minimum Initial (s)								5.0	5.0	5.0		
Minimum Split (s)								30.0	30.0	22.5		
Total Split (s)								40.0	40.0	65.0		
Total Split (%)								29.6%	29.6%	48.1%		
Yellow Time (s)								3.0	3.0	3.0		
All-Red Time (s)								1.0	1.0	1.0		
Lost Time Adjust (s)								0.0	0.0	0.0		
Total Lost Time (s)								4.0	4.0	4.0		
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode								C-Max	C-Max	Max		
Act Effct Green (s)	25.8	25.8	25.8					36.0	36.0	97.2	97.2	
Actuated g/C Ratio	0.19	0.19	0.19					0.27	0.27	0.72	0.72	
v/c Ratio	0.63	0.68	0.76					1.07	0.42	0.23	0.33	
Control Delay	60.2	28.3	25.6					90.9	11.2	2.6	4.7	
Queue Delay	0.8	0.3	0.0					14.7	0.0	0.4	0.3	
Total Delay	61.0	28.6	25.6					105.6	11.2	3.0	5.0	
LOS	E	C	C					F	B	A	A	
Approach Delay		33.3						92.4			4.6	
Approach LOS		C						F			A	
Queue Length 50th (ft)	172	116	94					~511	27	1	215	
Queue Length 95th (ft)	267	187	238					#608	99	2	262	
Internal Link Dist (ft)		710			680			1093			141	
Turn Bay Length (ft)	400		285						275			
Base Capacity (vph)	303	756	492					1356	565	779	2398	
Starvation Cap Reductn	0	0	0					0	0	282	937	
Spillback Cap Reductn	18	32	0					209	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.68	0.71	0.77					1.26	0.42	0.36	0.54	

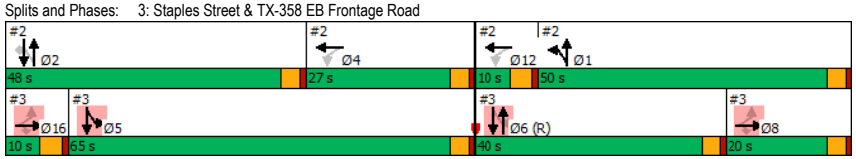
Intersection Summary

Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	30.0	30.0	30.0	22.5	22.5
Total Split (s)	50.0	48.0	27.0	20.0	10.0	10.0
Total Split (%)	37%	36%	20%	15%	7%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Cycle Length: 135
Actuated Cycle Length: 135
Offset: 24 (18%), Referenced to phase 6:NBSB, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 52.5 Intersection LOS: D
Intersection Capacity Utilization 85.9% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Staples Street & TX-358 EB Frontage Road



Timings
4: Airline Road & TX-358 WB Frontage Road

2028 No Build
Timing Plan: AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	328	117	547	0	0	0	0	1173	125	168	588	0
Future Volume (vph)	328	117	547	0	0	0	0	1173	125	168	588	0
Lane Util. Factor	0.91	0.86	0.91	1.00	1.00	1.00	1.00	0.91	1.00	0.91	0.91	1.00
Frt		0.912	0.850						0.850			
Flt Protected	0.950	0.992								0.950	0.999	
Satd. Flow (prot)	1610	2899	1441	0	0	0	0	5085	1583	1610	3387	0
Flt Permitted	0.950	0.992								0.174	0.888	
Satd. Flow (perm)	1610	2899	1441	0	0	0	0	5085	1583	295	3010	0
Satd. Flow (RTOR)		174	300						110			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)	24%		50%							10%		
Lane Group Flow (vph)	274	516	300	0	0	0	0	1289	137	166	665	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16						6	5 6		
Detector Phase	8 16	8 16	8 16					6	6	5	5 6	
Switch Phase												
Minimum Initial (s)								5.0	5.0	5.0		
Minimum Split (s)								22.5	22.5	9.5		
Total Split (s)								70.0	70.0	70.0		
Total Split (%)								41.2%	41.2%	41.2%		
Yellow Time (s)								3.5	3.5	3.5		
All-Red Time (s)								1.0	1.0	1.0		
Lost Time Adjust (s)								0.0	0.0	0.0		
Total Lost Time (s)								4.5	4.5	4.5		
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode								C-Max	C-Max	None		
Act Effct Green (s)	25.5	25.5	25.5					112.0	112.0	131.0	131.0	
Actuated g/C Ratio	0.15	0.15	0.15					0.66	0.66	0.77	0.77	
v/c Ratio	1.14	0.89	0.64					0.39	0.13	0.44	0.28	
Control Delay	161.1	64.3	12.8					14.2	3.5	6.1	5.5	
Queue Delay	0.0	3.4	0.0					0.2	0.0	0.1	0.5	
Total Delay	161.1	67.6	12.8					14.4	3.5	6.1	6.0	
LOS	F	E	B					B	A	A	A	
Approach Delay		76.0						13.3			6.0	
Approach LOS		E						B			A	
Queue Length 50th (ft)	~387	227	0					222	10	7	281	
Queue Length 95th (ft)	#603	#338	108					301	42	19	337	
Internal Link Dist (ft)		533			740			601			171	
Turn Bay Length (ft)	300								250			
Base Capacity (vph)	241	582	471					3348	1079	741	2544	
Starvation Cap Reductn	0	0	0					0	0	88	1347	
Spillback Cap Reductn	0	27	0					1086	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	1.14	0.93	0.64					0.57	0.13	0.25	0.56	

Intersection Summary

Timings
4: Airline Road & TX-358 WB Frontage Road

2028 No Build
Timing Plan: AM

Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	50.0	50.0	60.0	20.0	10.0	10.0
Total Split (%)	29%	29%	35%	12%	6%	6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

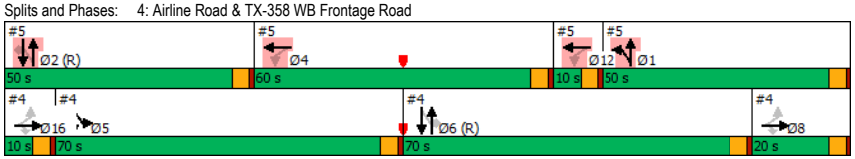
Intersection Summary

Timings
4: Airline Road & TX-358 WB Frontage Road

2028 No Build
Timing Plan: AM

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.14
Intersection Signal Delay: 31.9 — Intersection LOS: C
Intersection Capacity Utilization 92.0% — ICU Level of Service F
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Airline Road & TX-358 WB Frontage Road



Timings
5: TX-358 WB Frontage Road & Airline Road

2028 No Build
Timing Plan: AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	178	206	249	609	908	0	0	575	423
Future Volume (vph)	0	0	0	178	206	249	609	908	0	0	575	423
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	0.95	0.91	0.91	1.00	1.00	0.91	1.00
Frt					0.918							0.850
Flt Protected				0.950			0.950	0.990				
Satd. Flow (prot)	0	0	0	3433	3249	0	1610	3356	0	0	5085	1583
Flt Permitted				0.950			0.271	0.597				
Satd. Flow (perm)	0	0	0	3433	3249	0	459	2024	0	0	5085	1583
Satd. Flow (RTOR)					105							332
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)							36%					
Lane Group Flow (vph)	0	0	0	200	511	0	438	1266	0	0	646	475
Turn Type				Perm	NA		pm+pt	NA			NA	Perm
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12			1 2					2
Detector Phase				4 12	4 12		1	1 2			2	2
Switch Phase												
Minimum Initial (s)							5.0				5.0	5.0
Minimum Split (s)							9.5				22.5	22.5
Total Split (s)							50.0				50.0	50.0
Total Split (%)							29.4%				29.4%	29.4%
Yellow Time (s)							3.5				3.5	3.5
All-Red Time (s)							1.0				1.0	1.0
Lost Time Adjust (s)							0.0				0.0	0.0
Total Lost Time (s)							4.5				4.5	4.5
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode							None				C-Max	C-Max
Act Effct Green (s)				39.0	39.0		117.5	117.5			45.5	45.5
Actuated g/C Ratio				0.23	0.23		0.69	0.69			0.27	0.27
v/c Ratio				0.25	0.62		0.54	0.64			0.47	0.71
Control Delay				53.2	48.8		27.6	28.0			53.6	22.8
Queue Delay				0.0	0.0		2.3	1.7			0.1	0.0
Total Delay				53.2	48.8		29.9	29.7			53.8	22.8
LOS				D	D		C	C			D	C
Approach Delay					50.1			29.8			40.6	
Approach LOS					D			C			D	
Queue Length 50th (ft)				95	218		317	482			223	148
Queue Length 95th (ft)				122	257		m468	m673			263	285
Internal Link Dist (ft)		757			931			171			340	
Turn Bay Length (ft)				330								220
Base Capacity (vph)				1120	1131		804	1963			1360	666
Starvation Cap Reductn				0	0		236	495			0	0
Spillback Cap Reductn				0	0		0	0			141	0
Storage Cap Reductn				0	0		0	0			0	0
Reduced v/c Ratio				0.18	0.45		0.77	0.86			0.53	0.71

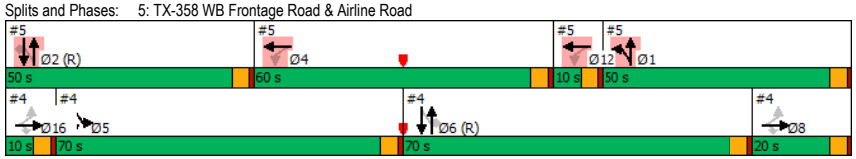
Intersection Summary

Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5	22.5
Total Split (s)	60.0	70.0	70.0	20.0	10.0	10.0
Total Split (%)	35%	41%	41%	12%	6%	6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Max	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.14
Intersection Signal Delay: 37.3 Intersection LOS: D
Intersection Capacity Utilization 92.0% ICU Level of Service F
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: TX-358 WB Frontage Road & Airline Road



Timings
6: Airline Road & McArdle Road

2028 No Build
Timing Plan: AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	105	140	35	137	158	146	110	844	80	102	806	83
Future Volume (vph)	105	140	35	137	158	146	110	844	80	102	806	83
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.970			0.928			0.987			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3433	0	1770	3284	0	1770	3493	0	1770	3490	0
Flt Permitted	0.357			0.578			0.223			0.206		
Satd. Flow (perm)	665	3433	0	1077	3284	0	415	3493	0	384	3490	0
Satd. Flow (RTOR)		32			164			11			12	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	118	196	0	154	342	0	124	1038	0	115	999	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	10.0	35.0		10.0	35.0		15.0	40.0		15.0	40.0	
Total Split (%)	10.0%	35.0%		10.0%	35.0%		15.0%	40.0%		15.0%	40.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	16.7	11.2		16.7	11.2		64.9	57.0		65.8	57.5	
Actuated g/C Ratio	0.17	0.11		0.17	0.11		0.65	0.57		0.66	0.58	
v/c Ratio	0.69	0.48		0.71	0.67		0.33	0.52		0.31	0.50	
Control Delay	54.7	37.9		53.4	28.1		8.1	15.1		7.8	14.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	54.7	37.9		53.4	28.1		8.1	15.1		7.8	14.3	
LOS	D	D		D	C		A	B		A	B	
Approach Delay		44.2			36.0			14.3			13.6	
Approach LOS		D			D			B			B	
Queue Length 50th (ft)	64	52		85	56		22	192		21	183	
Queue Length 95th (ft)	107	82		136	96		47	301		44	273	
Internal Link Dist (ft)		382			1361			915			705	
Turn Bay Length (ft)	165			150			165			175		
Base Capacity (vph)	171	1069		217	1115		422	1995		411	2010	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.69	0.18		0.71	0.31		0.29	0.52		0.28	0.50	

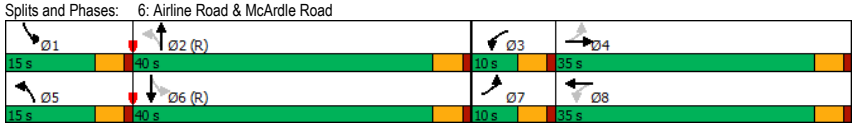
Intersection Summary

Timings
6: Airline Road & McArdle Road

2028 No Build
Timing Plan: AM

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 20.6 Intersection LOS: C
Intersection Capacity Utilization 61.4% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 6: Airline Road & McArdle Road



HCM 6th TWSC
7: TX-358 WB Frontage Road & Driveway 1

2028 No Build
Timing Plan: AM

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑↱			↱
Traffic Vol, veh/h	0	0	774	2	0	1
Future Vol, veh/h	0	0	774	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	890	2	0	1

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	446
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	560
Stage 1	-	-	0	-
Stage 2	-	-	0	-
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	-	560
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	11.4
HCM LOS		B

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	560
HCM Lane V/C Ratio	-	-	0.002
HCM Control Delay (s)	-	-	11.4
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0

HCM 6th TWSC
8: TX-358 WB Frontage Road & Driveway 2

2028 No Build
Timing Plan: AM

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	2064	0	0	1
Future Vol, veh/h	0	0	2064	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	2428	0	0	1

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	1214
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.32
Pot Cap-1 Maneuver	-	0	0	174
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	174
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	25.8
HCM LOS		D

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	174
HCM Lane V/C Ratio	-	0.007
HCM Control Delay (s)	-	25.8
HCM Lane LOS	-	D
HCM 95th %tile Q(veh)	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	306	1	0	356	2	0
Future Vol, veh/h	306	1	0	356	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	336	1	0	391	2	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	533	169
Stage 1	-	-	-	-	337	-
Stage 2	-	-	-	-	196	-
Critical Hdwy	-	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	0	-	477	845
Stage 1	-	-	0	-	695	-
Stage 2	-	-	0	-	818	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	477	845
Mov Cap-2 Maneuver	-	-	-	-	557	-
Stage 1	-	-	-	-	695	-
Stage 2	-	-	-	-	818	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	557	-	-	-
HCM Lane V/C Ratio	0.004	-	-	-
HCM Control Delay (s)	11.5	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	281	15	5	346	7	3
Future Vol, veh/h	281	15	5	346	7	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	75	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	316	17	6	389	8	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	333	0	532	167
Stage 1	-	-	-	-	325	-
Stage 2	-	-	-	-	207	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1223	-	477	848
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	807	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1223	-	475	848
Mov Cap-2 Maneuver	-	-	-	-	557	-
Stage 1	-	-	-	-	705	-
Stage 2	-	-	-	-	803	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	621	-	-	1223	-
HCM Lane V/C Ratio	0.018	-	-	0.005	-
HCM Control Delay (s)	10.9	-	-	8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

(D) Traffic Impact Analysis

Timings
1: Staples Street & McArdle Road

2028 No Build
Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	299	147	262	349	214	117	669	208	203	555	29
Future Volume (vph)	12	299	147	262	349	214	117	669	208	203	555	29
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.951			0.943				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3366	0	1770	3337	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.423			0.210			0.379			0.284		
Satd. Flow (perm)	788	3366	0	391	3337	0	706	3539	1583	529	3539	1583
Satd. Flow (RTOR)		63			103				217			136
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	464	0	273	587	0	122	697	217	211	578	30
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	15.0	29.0		20.0	34.0		16.0	55.0	55.0	16.0	55.0	55.0
Total Split (%)	12.5%	24.2%		16.7%	28.3%		13.3%	45.8%	45.8%	13.3%	45.8%	45.8%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	26.0	19.8		39.7	35.2		64.7	55.7	55.7	68.8	57.7	57.7
Actuated g/C Ratio	0.22	0.16		0.33	0.29		0.54	0.46	0.46	0.57	0.48	0.48
v/c Ratio	0.06	0.76		0.89	0.56		0.26	0.42	0.26	0.50	0.34	0.04
Control Delay	26.4	49.5		62.8	31.8		13.2	23.4	3.6	16.5	21.0	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.4	49.5		62.8	31.8		13.2	23.4	3.6	16.5	21.0	0.1
LOS	C	D		E	C		B	C	A	B	C	A
Approach Delay		48.9			41.6			18.0			19.1	
Approach LOS		D			D			B			B	
Queue Length 50th (ft)	7	158		166	156		39	188	0	71	142	0
Queue Length 95th (ft)	20	208		#273	232		74	256	46	123	208	0
Internal Link Dist (ft)		703			1295			1042			587	
Turn Bay Length (ft)	200			225			200			175		175
Base Capacity (vph)	284	737		307	1052		496	1641	850	430	1700	831
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.63		0.89	0.56		0.25	0.42	0.26	0.49	0.34	0.04

Intersection Summary

Timings
1: Staples Street & McArdle Road

2028 No Build
Timing Plan: PM

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 29.3 Intersection LOS: C
Intersection Capacity Utilization 72.2% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Staples Street & McArdle Road

Timings
2: TX-358 WB Frontage Road & Staples Street

2028 No Build
Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	438	288	261	717	966	0	0	917	237
Future Volume (vph)	0	0	0	438	288	261	717	966	0	0	917	237
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	0.95	0.91	0.91	1.00	1.00	0.91	1.00
Frt					0.929							0.850
Flt Protected				0.950			0.950	0.988				
Satd. Flow (prot)	0	0	0	3433	3288	0	1610	3350	0	0	5085	1583
Flt Permitted				0.950			0.155	0.513				
Satd. Flow (perm)	0	0	0	3433	3288	0	263	1739	0	0	5085	1583
Satd. Flow (RTOR)					162							143
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)							42%					
Lane Group Flow (vph)	0	0	0	476	597	0	452	1377	0	0	997	258
Turn Type				Perm	NA		pm+pt	NA			NA	Perm
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12			1 2					2
Detector Phase				4 12	4 12		1	1 2			2	2
Switch Phase												
Minimum Initial (s)							5.0				5.0	5.0
Minimum Split (s)							9.5				30.0	30.0
Total Split (s)							50.0				48.0	48.0
Total Split (%)							37.0%				35.6%	35.6%
Yellow Time (s)							3.0				3.0	3.0
All-Red Time (s)							1.0				1.0	1.0
Lost Time Adjust (s)							0.0				0.0	0.0
Total Lost Time (s)							4.0				4.0	4.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode							None				Max	Max
Act Effct Green (s)				33.0	33.0		90.0	90.0			44.0	44.0
Actuated g/C Ratio				0.24	0.24		0.67	0.67			0.33	0.33
v/c Ratio				0.57	0.64		0.71	0.81			0.60	0.42
Control Delay				47.9	36.4		7.2	11.3			40.0	17.5
Queue Delay				0.0	0.0		20.6	48.3			0.2	0.0
Total Delay				47.9	36.4		27.8	59.6			40.2	17.5
LOS				D	D		C	E			D	B
Approach Delay					41.5			51.8			35.6	
Approach LOS					D			D			D	
Queue Length 50th (ft)				189	182		36	528			268	74
Queue Length 95th (ft)				247	248		m38	m541			317	154
Internal Link Dist (ft)		866			726			141			195	
Turn Bay Length (ft)				285								500
Base Capacity (vph)				839	926		634	1708			1657	612
Starvation Cap Reductn				0	0		181	540			0	0
Spillback Cap Reductn				0	0		0	0			172	0
Storage Cap Reductn				0	0		0	0			0	0
Reduced v/c Ratio				0.57	0.64		1.00	1.18			0.67	0.42

Intersection Summary

Timings
2: TX-358 WB Frontage Road & Staples Street

2028 No Build
Timing Plan: PM

Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	30.0	22.5	30.0	30.0	22.5	22.5
Total Split (s)	27.0	65.0	40.0	20.0	10.0	10.0
Total Split (%)	20%	48%	30%	15%	7%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	C-Max	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

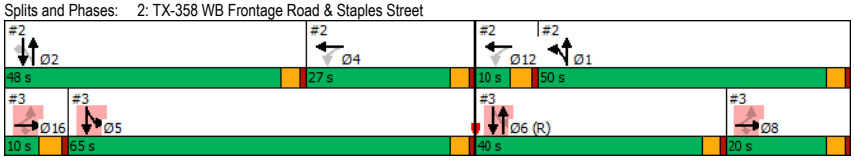
Intersection Summary

Timings
2: TX-358 WB Frontage Road & Staples Street

2028 No Build
Timing Plan: PM

Cycle Length: 135	
Actuated Cycle Length: 135	
Offset: 24 (18%), Referenced to phase 6:NBSB, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.12	
Intersection Signal Delay: 44.2	Intersection LOS: D
Intersection Capacity Utilization 85.3%	ICU Level of Service E
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 2: TX-358 WB Frontage Road & Staples Street



Timings
3: Staples Street & TX-358 EB Frontage Road

2028 No Build
Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	442	351	503	0	0	0	0	1256	219	283	1044	0
Future Volume (vph)	442	351	503	0	0	0	0	1256	219	283	1044	0
Lane Util. Factor	0.91	0.86	0.91	1.00	1.00	1.00	1.00	0.91	1.00	0.91	0.91	1.00
Frt		0.953	0.850						0.850			
Flt Protected	0.950	0.992								0.950	0.999	
Satd. Flow (prot)	1610	3029	1441	0	0	0	0	5085	1583	1610	3387	0
Flt Permitted	0.950	0.992								0.111	0.950	
Satd. Flow (perm)	1610	3029	1441	0	0	0	0	5085	1583	188	3221	0
Satd. Flow (RTOR)		38	152						208			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)	24%		41%							10%		
Lane Group Flow (vph)	347	684	306	0	0	0	0	1295	226	263	1105	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8 16						6		5	6 5	
Permitted Phases	8 16		8 16						6	5 6		
Detector Phase	8 16	8 16	8 16					6	6	5	6 5	
Switch Phase												
Minimum Initial (s)								5.0	5.0	5.0		
Minimum Split (s)								30.0	30.0	22.5		
Total Split (s)								40.0	40.0	65.0		
Total Split (%)								29.6%	29.6%	48.1%		
Yellow Time (s)								3.0	3.0	3.0		
All-Red Time (s)								1.0	1.0	1.0		
Lost Time Adjust (s)								0.0	0.0	0.0		
Total Lost Time (s)								4.0	4.0	4.0		
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode								C-Max	C-Max	Max		
Act Effct Green (s)	26.0	26.0	26.0					36.0	36.0	97.0	97.0	
Actuated g/C Ratio	0.19	0.19	0.19					0.27	0.27	0.72	0.72	
v/c Ratio	1.12	1.11	0.77					0.96	0.39	0.34	0.46	
Control Delay	136.2	118.3	39.1					64.5	8.7	2.1	4.9	
Queue Delay	0.6	0.3	0.0					43.2	0.0	0.6	0.6	
Total Delay	136.9	118.6	39.1					107.8	8.7	2.8	5.5	
LOS	F	F	D					F	A	A	A	
Approach Delay		105.1						93.1			5.0	
Approach LOS		F						F			A	
Queue Length 50th (ft)	~383	~383	145					411	12	0	332	
Queue Length 95th (ft)	#600	#523	#293					#508	79	0	389	
Internal Link Dist (ft)		710			680			1093			141	
Turn Bay Length (ft)	400		285						275			
Base Capacity (vph)	310	614	400					1356	574	777	2389	
Starvation Cap Reductn	0	0	0					0	0	244	814	
Spillback Cap Reductn	16	23	0					202	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	1.18	1.16	0.77					1.12	0.39	0.49	0.70	

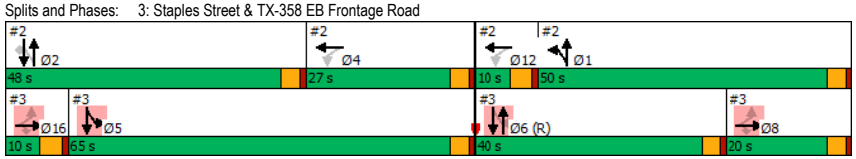
Intersection Summary

Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	30.0	30.0	30.0	22.5	22.5
Total Split (s)	50.0	48.0	27.0	20.0	10.0	10.0
Total Split (%)	37%	36%	20%	15%	7%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Cycle Length: 135
Actuated Cycle Length: 135
Offset: 24 (18%), Referenced to phase 6:NBSB, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.12
Intersection Signal Delay: 68.4 Intersection LOS: E
Intersection Capacity Utilization 85.3% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Staples Street & TX-358 EB Frontage Road



Timings
4: Airline Road & TX-358 EB Frontage Road

2028 No Build
Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	503	237	602	0	0	0	0	1120	163	221	804	0
Future Volume (vph)	503	237	602	0	0	0	0	1120	163	221	804	0
Lane Util. Factor	0.91	0.86	0.91	1.00	1.00	1.00	1.00	0.91	1.00	0.91	0.91	1.00
Frt		0.936	0.850						0.850			
Flt Protected	0.950	0.989								0.950	0.999	
Satd. Flow (prot)	1610	2966	1441	0	0	0	0	5085	1583	1610	3387	0
Flt Permitted	0.950	0.989								0.202	0.893	
Satd. Flow (perm)	1610	2966	1441	0	0	0	0	5085	1583	342	3027	0
Satd. Flow (RTOR)		67	269						151			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)	31%		48%							10%		
Lane Group Flow (vph)	358	703	323	0	0	0	0	1155	168	205	852	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16						6	5 6		
Detector Phase	8 16	8 16	8 16					6	6	5	5 6	
Switch Phase												
Minimum Initial (s)								5.0	5.0	5.0		
Minimum Split (s)								22.5	22.5	9.5		
Total Split (s)								70.0	70.0	70.0		
Total Split (%)								41.2%	41.2%	41.2%		
Yellow Time (s)								3.5	3.5	3.5		
All-Red Time (s)								1.0	1.0	1.0		
Lost Time Adjust (s)								0.0	0.0	0.0		
Total Lost Time (s)								4.5	4.5	4.5		
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode								C-Max	C-Max	None		
Act Effct Green (s)	25.5	25.5	25.5					108.1	108.1	131.0	131.0	
Actuated g/C Ratio	0.15	0.15	0.15					0.64	0.64	0.77	0.77	
v/c Ratio	1.49	1.40	0.73					0.36	0.16	0.47	0.36	
Control Delay	285.3	237.2	23.6					15.5	3.1	5.7	5.9	
Queue Delay	0.8	0.5	0.0					0.3	0.0	0.1	0.5	
Total Delay	286.1	237.8	23.6					15.8	3.1	5.8	6.5	
LOS	F	F	C					B	A	A	A	
Approach Delay		200.3						14.2			6.4	
Approach LOS		F						B			A	
Queue Length 50th (ft)	~601	~570	59					205	7	16	352	
Queue Length 95th (ft)	#837	#720	196					283	43	28	412	
Internal Link Dist (ft)		533			740			601			171	
Turn Bay Length (ft)	300								250			
Base Capacity (vph)	241	501	444					3234	1061	761	2551	
Starvation Cap Reductn	0	0	0					0	0	114	1180	
Spillback Cap Reductn	14	31	0					1249	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	1.58	1.50	0.73					0.58	0.16	0.32	0.62	

Intersection Summary

Timings
4: Airline Road & TX-358 EB Frontage Road

2028 No Build
Timing Plan: PM

Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	50.0	50.0	60.0	20.0	10.0	10.0
Total Split (%)	29%	29%	35%	12%	6%	6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

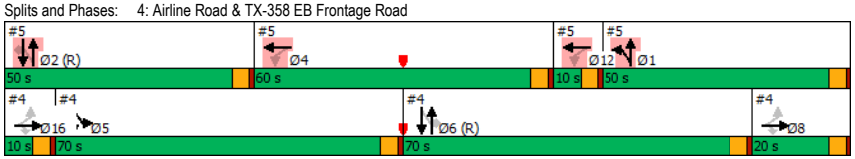
(D) Traffic Impact Analysis

Timings
4: Airline Road & TX-358 EB Frontage Road

2028 No Build
Timing Plan: PM

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.49
Intersection Signal Delay: 80.4 — Intersection LOS: F
Intersection Capacity Utilization 87.9% — ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 4: Airline Road & TX-358 EB Frontage Road



Timings
5: TX-358 WB Frontage Road & Airline Road

2028 No Build
Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	289	386	240	522	1080	0	0	738	262
Future Volume (vph)	0	0	0	289	386	240	522	1080	0	0	738	262
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	0.95	0.91	0.91	1.00	1.00	0.91	1.00
Frt					0.942							0.850
Flt Protected				0.950			0.950	0.994				
Satd. Flow (prot)	0	0	0	3433	3334	0	1610	3370	0	0	5085	1583
Flt Permitted				0.950			0.206	0.586				
Satd. Flow (perm)	0	0	0	3433	3334	0	349	1987	0	0	5085	1583
Satd. Flow (RTOR)					85							222
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)							29%					
Lane Group Flow (vph)	0	0	0	301	652	0	386	1283	0	0	769	273
Turn Type				Perm	NA		pm+pt	NA			NA	Perm
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12			1 2					2
Detector Phase				4 12	4 12		1	1 2			2	2
Switch Phase												
Minimum Initial (s)							5.0				5.0	5.0
Minimum Split (s)							9.5				22.5	22.5
Total Split (s)							50.0				50.0	50.0
Total Split (%)							29.4%				29.4%	29.4%
Yellow Time (s)							3.5				3.5	3.5
All-Red Time (s)							1.0				1.0	1.0
Lost Time Adjust (s)							0.0				0.0	0.0
Total Lost Time (s)							4.5				4.5	4.5
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode							None				C-Max	C-Max
Act Effct Green (s)				48.6	48.6		107.9	107.9			45.5	45.5
Actuated g/C Ratio				0.29	0.29		0.63	0.63			0.27	0.27
v/c Ratio				0.31	0.64		0.56	0.73			0.57	0.47
Control Delay				47.3	48.2		30.9	32.9			55.6	13.6
Queue Delay				0.0	0.0		6.1	22.9			0.2	0.0
Total Delay				47.3	48.2		36.9	55.9			55.9	13.6
LOS				D	D		D	E			E	B
Approach Delay					47.9			51.5			44.8	
Approach LOS					D			D			D	
Queue Length 50th (ft)				135	293		273	492			272	43
Queue Length 95th (ft)				164	333		m342	m560			321	133
Internal Link Dist (ft)		757			931			171			340	
Turn Bay Length (ft)				330								220
Base Capacity (vph)				1135	1159		684	1768			1360	586
Starvation Cap Reductn				0	0		239	527			0	0
Spillback Cap Reductn				0	0		0	0			144	0
Storage Cap Reductn				0	0		0	0			0	0
Reduced v/c Ratio				0.27	0.56		0.87	1.03			0.63	0.47

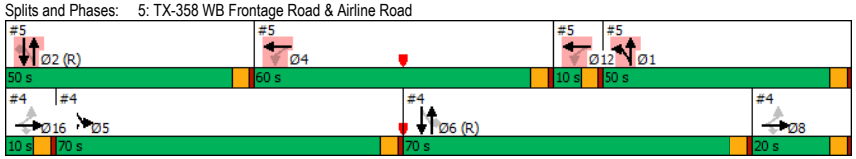
Intersection Summary

Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5	22.5
Total Split (s)	60.0	70.0	70.0	20.0	10.0	10.0
Total Split (%)	35%	41%	41%	12%	6%	6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Max	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.49
Intersection Signal Delay: 48.7 Intersection LOS: D
Intersection Capacity Utilization 87.9% ICU Level of Service E
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: TX-358 WB Frontage Road & Airline Road



Timings
6: Airline Road & McArdle Road

2028 No Build
Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	227	431	102	120	321	142	182	805	153	253	791	173
Future Volume (vph)	227	431	102	120	321	142	182	805	153	253	791	173
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.971			0.954			0.976			0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3437	0	1770	3376	0	1770	3454	0	1770	3444	0
Flt Permitted	0.151			0.276			0.202			0.140		
Satd. Flow (perm)	281	3437	0	514	3376	0	376	3454	0	261	3444	0
Satd. Flow (RTOR)		17			42			17			20	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	234	549	0	124	477	0	188	988	0	261	993	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	35.0	35.0		35.0	35.0		20.0	60.0		20.0	60.0	
Total Split (%)	23.3%	23.3%		23.3%	23.3%		13.3%	40.0%		13.3%	40.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	50.7	33.3		38.0	25.1		77.4	63.5		89.4	71.8	
Actuated g/C Ratio	0.34	0.22		0.25	0.17		0.52	0.42		0.60	0.48	
v/c Ratio	0.77	0.71		0.52	0.80		0.58	0.67		0.69	0.60	
Control Delay	54.6	56.9		42.2	64.7		23.5	38.4		30.9	32.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	54.6	56.9		42.2	64.7		23.5	38.4		30.9	32.1	
LOS	D	E		D	E		C	D		C	C	
Approach Delay		56.2			60.0			36.1			31.9	
Approach LOS		E			E			D			C	
Queue Length 50th (ft)	175	256		87	219		78	409		114	360	
Queue Length 95th (ft)	233	298		122	270		145	525		#301	527	
Internal Link Dist (ft)		382			1361			915			705	
Turn Bay Length (ft)	165			150			165			175		
Base Capacity (vph)	397	805		428	724		353	1471		379	1659	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.59	0.68		0.29	0.66		0.53	0.67		0.69	0.60	

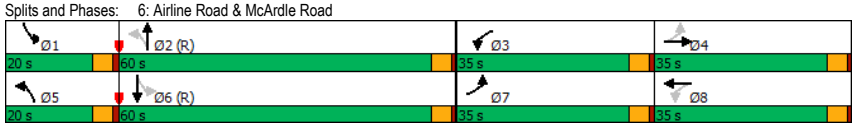
Intersection Summary

Timings
6: Airline Road & McArdle Road

2028 No Build
Timing Plan: PM

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 42.6 Intersection LOS: D
Intersection Capacity Utilization 82.1% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Airline Road & McArdle Road



HCM 6th TWSC
7: TX-358 WB Frontage Road & Driveway 1

2028 No Build
Timing Plan: PM

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑↱			↱
Traffic Vol, veh/h	0	0	1042	6	0	11
Future Vol, veh/h	0	0	1042	6	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1133	7	0	12

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	570
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	465
Stage 1	-	-	0	-
Stage 2	-	-	0	-
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	-	465
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	12.9
HCM LOS		B

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	465
HCM Lane V/C Ratio	-	-	0.026
HCM Control Delay (s)	-	-	12.9
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.1

HCM 6th TWSC
8: TX-358 WB Frontage Road & Driveway 2

2028 No Build
Timing Plan: PM

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	2113	0	0	3
Future Vol, veh/h	0	0	2113	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	2248	0	0	3

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	1124
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.32
Pot Cap-1 Maneuver	-	0	0	200
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	200
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	23.3
HCM LOS		C

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	200
HCM Lane V/C Ratio	-	0.016
HCM Control Delay (s)	-	23.3
HCM Lane LOS	-	C
HCM 95th %tile Q(veh)	-	0

Intersection	
Int Delay, s/veh	0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	733	2	3	724	2	1
Future Vol, veh/h	733	2	3	724	2	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	756	2	3	746	2	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	758	0	1136	379
Stage 1	-	-	-	-	757	-
Stage 2	-	-	-	-	379	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	849	-	196	619
Stage 1	-	-	-	-	424	-
Stage 2	-	-	-	-	662	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	849	-	195	619
Mov Cap-2 Maneuver	-	-	-	-	318	-
Stage 1	-	-	-	-	424	-
Stage 2	-	-	-	-	658	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	14.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	380	-	-	849	-
HCM Lane V/C Ratio	0.008	-	-	0.004	-
HCM Control Delay (s)	14.6	-	-	9.3	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	700	25	9	667	20	20
Future Vol, veh/h	700	25	9	667	20	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	75	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	737	26	9	702	21	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	763	0	1119	382
Stage 1	-	-	-	-	750	-
Stage 2	-	-	-	-	369	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	845	-	201	616
Stage 1	-	-	-	-	427	-
Stage 2	-	-	-	-	670	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	845	-	199	616
Mov Cap-2 Maneuver	-	-	-	-	321	-
Stage 1	-	-	-	-	427	-
Stage 2	-	-	-	-	663	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	422	-	-	845	-
HCM Lane V/C Ratio	0.1	-	-	0.011	-
HCM Control Delay (s)	14.5	-	-	9.3	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Timings
1: Staples Street & McArdle Road

2028 Build
Timing Plan: AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	125	63	163	156	187	59	885	159	127	583	10
Future Volume (vph)	7	125	63	163	156	187	59	885	159	127	583	10
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.950			0.918				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3362	0	1770	3249	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.430			0.631			0.427			0.242		
Satd. Flow (perm)	801	3362	0	1175	3249	0	795	3539	1583	451	3539	1583
Satd. Flow (RTOR)		57			191				162			126
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Shared Lane Traffic (%)												
Lane Group Flow (vph)	7	192	0	166	350	0	60	903	162	130	595	10
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	15.0	25.0		15.0	25.0		10.0	75.0	75.0	15.0	80.0	80.0
Total Split (%)	11.5%	19.2%		11.5%	19.2%		7.7%	57.7%	57.7%	11.5%	61.5%	61.5%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.7	10.7		21.4	21.4		84.2	84.2	84.2	89.3	89.3	89.3
Actuated g/C Ratio	0.08	0.08		0.16	0.16		0.65	0.65	0.65	0.69	0.69	0.69
v/c Ratio	0.06	0.59		0.72	0.51		0.11	0.39	0.15	0.33	0.24	0.01
Control Delay	54.1	47.2		69.7	24.2		11.5	12.5	2.2	10.8	9.1	0.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.1	47.2		69.7	24.2		11.5	12.5	2.2	10.8	9.1	0.0
LOS	D	D		E	C		B	B	A	B	A	A
Approach Delay		47.4			38.8			11.0			9.3	
Approach LOS		D			D			B			A	
Queue Length 50th (ft)	6	58		130	62		16	167	0	34	90	0
Queue Length 95th (ft)	21	96		202	110		45	290	33	78	161	0
Internal Link Dist (ft)		703			1295			1042			587	
Turn Bay Length (ft)	200			225			200			175		175
Base Capacity (vph)	149	578		276	712		556	2292	1082	416	2431	1127
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.33		0.60	0.49		0.11	0.39	0.15	0.31	0.24	0.01

Intersection Summary

Timings
1: Staples Street & McArdle Road

2028 Build
Timing Plan: AM

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 18.9 Intersection LOS: B
Intersection Capacity Utilization 61.0% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: Staples Street & McArdle Road

Timings
2: TX-358 WB Frontage Road & Staples Street

2028 Build
Timing Plan: AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	319	155	301	787	879	0	0	654	186
Future Volume (vph)	0	0	0	319	155	301	787	879	0	0	654	186
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	0.95	0.91	0.91	1.00	1.00	0.91	1.00
Frt					0.901							0.850
Flt Protected				0.950			0.950	0.986				
Satd. Flow (prot)	0	0	0	3433	3189	0	1610	3343	0	0	5085	1583
Flt Permitted				0.950			0.195	0.534				
Satd. Flow (perm)	0	0	0	3433	3189	0	331	1810	0	0	5085	1583
Satd. Flow (RTOR)					184							194
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)							45%					
Lane Group Flow (vph)	0	0	0	332	475	0	451	1285	0	0	681	194
Turn Type				Perm	NA		pm+pt	NA			NA	Perm
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12			1 2					2
Detector Phase				4 12	4 12		1	1 2			2	2
Switch Phase												
Minimum Initial (s)							5.0				5.0	5.0
Minimum Split (s)							9.5				30.0	30.0
Total Split (s)							65.0				30.0	30.0
Total Split (%)							48.1%				22.2%	22.2%
Yellow Time (s)							3.0				3.0	3.0
All-Red Time (s)							1.0				1.0	1.0
Lost Time Adjust (s)							0.0				0.0	0.0
Total Lost Time (s)							4.0				4.0	4.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode							None				Max	Max
Act Effct Green (s)				36.0	36.0		87.0	87.0			27.3	27.3
Actuated g/C Ratio				0.27	0.27		0.64	0.64			0.20	0.20
v/c Ratio				0.36	0.48		0.58	0.70			0.66	0.41
Control Delay				41.6	26.6		4.8	9.0			53.5	8.8
Queue Delay				0.0	0.0		3.1	2.4			1.7	0.0
Total Delay				41.6	26.6		8.0	11.4			55.3	8.8
LOS				D	C		A	B			E	A
Approach Delay					32.8			10.5			45.0	
Approach LOS					C			B			D	
Queue Length 50th (ft)				122	111		10	559			206	0
Queue Length 95th (ft)				167	166		m10	634			253	66
Internal Link Dist (ft)		866			726			141			195	
Turn Bay Length (ft)				285								500
Base Capacity (vph)				915	985		793	1871			1029	475
Starvation Cap Reductn				0	0		238	437			0	0
Spillback Cap Reductn				0	0		0	0			194	0
Storage Cap Reductn				0	0		0	0			0	0
Reduced v/c Ratio				0.36	0.48		0.81	0.90			0.82	0.41

Intersection Summary

Timings
2: TX-358 WB Frontage Road & Staples Street

2028 Build
Timing Plan: AM

Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	30.0	22.5	30.0	30.0	22.5	22.5
Total Split (s)	30.0	50.0	50.0	25.0	10.0	10.0
Total Split (%)	22%	37%	37%	19%	7%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	C-Max	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

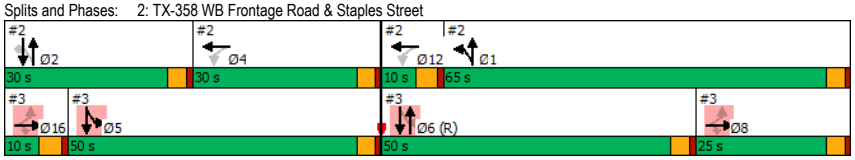
(D) Traffic Impact Analysis

Timings
2: TX-358 WB Frontage Road & Staples Street

2028 Build
Timing Plan: AM

Cycle Length: 135	
Actuated Cycle Length: 135	
Offset: 24 (18%), Referenced to phase 6:NBSB, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 24.6	Intersection LOS: C
Intersection Capacity Utilization 88.6%	ICU Level of Service E
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 2: TX-358 WB Frontage Road & Staples Street



Timings
3: Staples Street & TX-358 EB Frontage Road

2028 Build
Timing Plan: AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	217	111	709	0	0	0	0	1374	252	219	774	0
Future Volume (vph)	217	111	709	0	0	0	0	1374	252	219	774	0
Lane Util. Factor	0.91	0.86	0.91	1.00	1.00	1.00	1.00	0.91	1.00	0.91	0.91	1.00
Frt		0.891	0.850						0.850			
Flt Protected	0.950	0.998								0.950	0.999	
Satd. Flow (prot)	1610	2849	1441	0	0	0	0	5085	1583	1610	3387	0
Flt Permitted	0.950	0.998								0.087	0.934	
Satd. Flow (perm)	1610	2849	1441	0	0	0	0	5085	1583	147	3166	0
Satd. Flow (RTOR)		226	226						243			
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Shared Lane Traffic (%)	10%		50%							10%		
Lane Group Flow (vph)	208	518	377	0	0	0	0	1462	268	210	846	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8 16						6		5	6 5	
Permitted Phases	8 16		8 16						6	5 6		
Detector Phase	8 16	8 16	8 16					6	6	5	6 5	
Switch Phase												
Minimum Initial (s)								5.0	5.0	5.0		
Minimum Split (s)								30.0	30.0	22.5		
Total Split (s)								50.0	50.0	50.0		
Total Split (%)								37.0%	37.0%	37.0%		
Yellow Time (s)								3.0	3.0	3.0		
All-Red Time (s)								1.0	1.0	1.0		
Lost Time Adjust (s)								0.0	0.0	0.0		
Total Lost Time (s)								4.0	4.0	4.0		
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode								C-Max	C-Max	Max		
Act Effct Green (s)	30.0	30.0	30.0					46.0	46.0	93.0	93.0	
Actuated g/C Ratio	0.22	0.22	0.22					0.34	0.34	0.69	0.69	
v/c Ratio	0.58	0.64	0.76					0.84	0.38	0.34	0.37	
Control Delay	54.0	30.0	29.9					46.7	7.0	3.5	5.9	
Queue Delay	0.0	0.0	0.0					3.4	0.0	0.2	1.3	
Total Delay	54.0	30.0	29.9					50.1	7.0	3.6	7.2	
LOS	D	C	C					D	A	A	A	
Approach Delay		34.5						43.4			6.5	
Approach LOS		C						D			A	
Queue Length 50th (ft)	179	134	138					433	15	2	278	
Queue Length 95th (ft)	273	204	281					496	79	3	335	
Internal Link Dist (ft)		710			680			1093			141	
Turn Bay Length (ft)	400		285						275			
Base Capacity (vph)	349	795	489					1732	699	610	2257	
Starvation Cap Reductn	0	0	0					0	0	69	1129	
Spillback Cap Reductn	0	6	0					186	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.60	0.66	0.77					0.95	0.38	0.39	0.75	

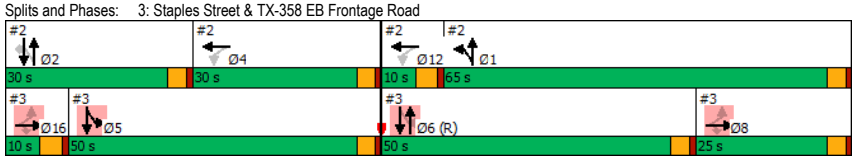
Intersection Summary

Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	30.0	30.0	30.0	22.5	22.5
Total Split (s)	65.0	30.0	30.0	25.0	10.0	10.0
Total Split (%)	48%	22%	22%	19%	7%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Cycle Length: 135
Actuated Cycle Length: 135
Offset: 24 (18%), Referenced to phase 6:NBSB, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 30.9 Intersection LOS: C
Intersection Capacity Utilization 88.6% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Staples Street & TX-358 EB Frontage Road



Timings
4: Airline Road & TX-358 EB Frontage Road

2028 Build
Timing Plan: AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	345	189	601	0	0	0	0	1218	125	168	588	0
Future Volume (vph)	345	189	601	0	0	0	0	1218	125	168	588	0
Lane Util. Factor	0.91	0.86	0.91	1.00	1.00	1.00	1.00	0.91	1.00	0.91	0.91	1.00
Frt		0.918	0.850						0.850			
Flt Protected	0.950	0.995								0.950	0.999	
Satd. Flow (prot)	1610	2926	1441	0	0	0	0	5085	1583	1610	3387	0
Flt Permitted	0.950	0.995								0.138	0.889	
Satd. Flow (perm)	1610	2926	1441	0	0	0	0	5085	1583	234	3014	0
Satd. Flow (RTOR)		177	301						96			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)	17%		50%							10%		
Lane Group Flow (vph)	315	602	330	0	0	0	0	1338	137	166	665	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16						6	5 6		
Detector Phase	8 16	8 16	8 16					6	6	5	5 6	
Switch Phase												
Minimum Initial (s)								5.0	5.0	5.0		
Minimum Split (s)								22.5	22.5	9.5		
Total Split (s)								50.0	50.0	70.0		
Total Split (%)								29.4%	29.4%	41.2%		
Yellow Time (s)								3.5	3.5	3.5		
All-Red Time (s)								1.0	1.0	1.0		
Lost Time Adjust (s)								0.0	0.0	0.0		
Total Lost Time (s)								4.5	4.5	4.5		
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode								C-Max	C-Max	None		
Act Effct Green (s)	44.4	44.4	44.4					90.1	90.1	112.1	112.1	
Actuated g/C Ratio	0.26	0.26	0.26					0.53	0.53	0.66	0.66	
v/c Ratio	0.75	0.67	0.55					0.50	0.15	0.50	0.33	
Control Delay	70.0	43.0	10.9					27.1	8.1	8.4	5.5	
Queue Delay	0.0	0.2	0.0					1.2	0.0	0.0	0.4	
Total Delay	70.0	43.2	10.9					28.2	8.1	8.4	5.9	
LOS	E	D	B					C	A	A	A	
Approach Delay		41.4						26.4			6.4	
Approach LOS		D						C			A	
Queue Length 50th (ft)	353	250	26					341	22	8	281	
Queue Length 95th (ft)	487	330	134					431	66	26	337	
Internal Link Dist (ft)		533			740			601			171	
Turn Bay Length (ft)	300								250			
Base Capacity (vph)	412	881	593					2695	884	690	2211	
Starvation Cap Reductn	0	0	0					0	0	35	988	
Spillback Cap Reductn	0	26	0					1039	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.76	0.70	0.56					0.81	0.15	0.25	0.54	

Intersection Summary

Timings
4: Airline Road & TX-358 EB Frontage Road

2028 Build
Timing Plan: AM

Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	74.0	50.0	36.0	40.0	10.0	10.0
Total Split (%)	44%	29%	21%	24%	6%	6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

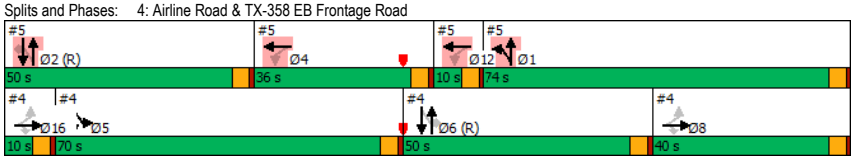
(D) Traffic Impact Analysis

Timings
4: Airline Road & TX-358 EB Frontage Road

2028 Build
Timing Plan: AM

Cycle Length: 170	
Actuated Cycle Length: 170	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 27.0	Intersection LOS: C
Intersection Capacity Utilization 97.7%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 4: Airline Road & TX-358 EB Frontage Road



Timings
5: TX-358 WB Frontage Road & Airline Road

2028 Build
Timing Plan: AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	178	252	264	639	941	0	0	575	438
Future Volume (vph)	0	0	0	178	252	264	639	941	0	0	575	438
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	0.95	0.91	0.91	1.00	1.00	0.91	1.00
Frt					0.923							0.850
Flt Protected				0.950			0.950	0.990				
Satd. Flow (prot)	0	0	0	3433	3267	0	1610	3356	0	0	5085	1583
Flt Permitted				0.950			0.278	0.598				
Satd. Flow (perm)	0	0	0	3433	3267	0	471	2027	0	0	5085	1583
Satd. Flow (RTOR)					149							197
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)							37%					
Lane Group Flow (vph)	0	0	0	200	580	0	452	1323	0	0	646	492
Turn Type				Perm	NA		pm+pt	NA			NA	Perm
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12			1 2					2
Detector Phase				4 12	4 12		1	1 2			2	2
Switch Phase												
Minimum Initial (s)							5.0				5.0	5.0
Minimum Split (s)							9.5				22.5	22.5
Total Split (s)							74.0				50.0	50.0
Total Split (%)							43.5%				29.4%	29.4%
Yellow Time (s)							3.5				3.5	3.5
All-Red Time (s)							1.0				1.0	1.0
Lost Time Adjust (s)							0.0				0.0	0.0
Total Lost Time (s)							4.5				4.5	4.5
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode							None				C-Max	C-Max
Act Effct Green (s)				38.5	38.5		118.0	118.0			47.3	47.3
Actuated g/C Ratio				0.23	0.23		0.69	0.69			0.28	0.28
v/c Ratio				0.26	0.68		0.56	0.68			0.46	0.85
Control Delay				54.3	48.0		31.2	34.4			52.4	48.7
Queue Delay				0.0	0.0		4.9	21.5			0.1	0.0
Total Delay				54.3	48.0		36.0	56.0			52.5	48.7
LOS				D	D		D	E			D	D
Approach Delay					49.6			50.9			50.9	
Approach LOS					D			D			D	
Queue Length 50th (ft)				93	231		417	663			223	340
Queue Length 95th (ft)				129	294		550	794			263	#529
Internal Link Dist (ft)		757			931			171			340	
Turn Bay Length (ft)				330								220
Base Capacity (vph)				754	834		800	1959			1414	582
Starvation Cap Reductn				0	0		274	674			0	0
Spillback Cap Reductn				0	0		0	0			140	0
Storage Cap Reductn				0	0		0	0			0	0
Reduced v/c Ratio				0.27	0.70		0.86	1.03			0.51	0.85

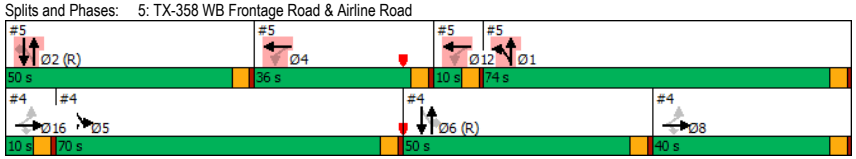
Intersection Summary

Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5	22.5
Total Split (s)	36.0	70.0	50.0	40.0	10.0	10.0
Total Split (%)	21%	41%	29%	24%	6%	6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Max	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 50.6 Intersection LOS: D
Intersection Capacity Utilization 97.7% ICU Level of Service F
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: TX-358 WB Frontage Road & Airline Road



Timings
6: Airline Road & McArdle Road

2028 Build
Timing Plan: AM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	140	71	137	158	146	141	862	80	102	821	98
Future Volume (vph)	123	140	71	137	158	146	141	862	80	102	821	98
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.949			0.928			0.987			0.984	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3359	0	1770	3284	0	1770	3493	0	1770	3483	0
Flt Permitted	0.360			0.489			0.204			0.203		
Satd. Flow (perm)	671	3359	0	911	3284	0	380	3493	0	378	3483	0
Satd. Flow (RTOR)		80			164			11			14	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	138	237	0	154	342	0	158	1059	0	115	1032	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	10.0	35.0		10.0	35.0		15.0	40.0		15.0	40.0	
Total Split (%)	10.0%	35.0%		10.0%	35.0%		15.0%	40.0%		15.0%	40.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	16.6	11.1		16.6	11.1		66.1	57.1		64.7	56.4	
Actuated g/C Ratio	0.17	0.11		0.17	0.11		0.66	0.57		0.65	0.56	
v/c Ratio	0.81	0.53		0.78	0.67		0.42	0.53		0.32	0.52	
Control Delay	68.0	31.5		61.6	28.3		9.2	15.2		8.0	15.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	68.0	31.5		61.6	28.3		9.2	15.2		8.0	15.5	
LOS	E	C		E	C		A	B		A	B	
Approach Delay		44.9			38.6			14.4			14.7	
Approach LOS		D			D			B			B	
Queue Length 50th (ft)	76	50		85	56		29	198		21	195	
Queue Length 95th (ft)	#141	83		#141	96		58	309		44	306	
Internal Link Dist (ft)		382			1361			915			705	
Turn Bay Length (ft)	165			150			165			175		
Base Capacity (vph)	171	1080		198	1115		412	1999		404	1970	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.81	0.22		0.78	0.31		0.38	0.53		0.28	0.52	

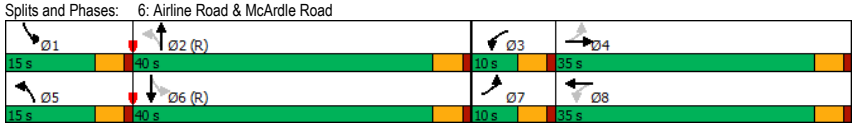
Intersection Summary

Timings
6: Airline Road & McArdle Road

2028 Build
Timing Plan: AM

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 21.8 Intersection LOS: C
Intersection Capacity Utilization 64.5% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Airline Road & McArdle Road



HCM 6th TWSC
7: TX-358 WB Frontage Road & Driveway 1

2028 Build
Timing Plan: AM

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	882	109	0	126
Future Vol, veh/h	0	0	882	109	0	126
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1014	125	0	145

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	570
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	465
Stage 1	-	-	0	-
Stage 2	-	-	0	-
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	-	465
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	16.2
HCM LOS		C

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	465
HCM Lane V/C Ratio	-	-	0.311
HCM Control Delay (s)	-	-	16.2
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	1.3

HCM 6th TWSC
8: TX-358 WB Frontage Road & Driveway 2

2028 Build
Timing Plan: AM

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	2171	0	0	109
Future Vol, veh/h	0	0	2171	0	0	109
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	2554	0	0	128

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	1277
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.32
Pot Cap-1 Maneuver	-	0	0	157
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	157
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	87.3
HCM LOS		F

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	157
HCM Lane V/C Ratio	-	0.817
HCM Control Delay (s)	-	87.3
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	5.4

HCM 6th TWSC
10: Driveway 4 & McArdle Road

2028 Build
Timing Plan: AM

Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	306	62	30	356	74	36
Future Vol, veh/h	306	62	30	356	74	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	336	68	33	391	81	40

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	404	0	632	202
Stage 1	-	-	-	-	370	-
Stage 2	-	-	-	-	262	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1151	-	413	805
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	758	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1151	-	398	805
Mov Cap-2 Maneuver	-	-	-	-	499	-
Stage 1	-	-	-	-	669	-
Stage 2	-	-	-	-	730	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	13
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	570	-	-	1151	-
HCM Lane V/C Ratio	0.212	-	-	0.029	-
HCM Control Delay (s)	13	-	-	8.2	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-

HCM 6th TWSC
11: Driveway 5 & McArdle Road

2028 Build
Timing Plan: AM

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	317	15	20	376	7	21
Future Vol, veh/h	317	15	20	376	7	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	75	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	356	17	22	422	8	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	373	0	620	187
Stage 1	-	-	-	-	365	-
Stage 2	-	-	-	-	255	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1182	-	420	823
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	764	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1182	-	412	823
Mov Cap-2 Maneuver	-	-	-	-	510	-
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	749	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	714	-	-	1182	-
HCM Lane V/C Ratio	0.044	-	-	0.019	-
HCM Control Delay (s)	10.3	-	-	8.1	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Timings
1: Staples Street & McArdle Road

2028 Build
Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	299	147	298	349	250	117	669	255	250	602	29
Future Volume (vph)	12	299	147	298	349	250	117	669	255	250	602	29
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.951			0.937				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3366	0	1770	3316	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.386			0.210			0.357			0.275		
Satd. Flow (perm)	719	3366	0	391	3316	0	665	3539	1583	512	3539	1583
Satd. Flow (RTOR)		63			144				266			136
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	464	0	310	624	0	122	697	266	260	627	30
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	7	4		3	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5	22.5	9.5	22.5	22.5
Total Split (s)	15.0	29.0		20.0	34.0		16.0	55.0	55.0	16.0	55.0	55.0
Total Split (%)	12.5%	24.2%		16.7%	28.3%		13.3%	45.8%	45.8%	13.3%	45.8%	45.8%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None		None	None		None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	26.0	19.8		39.8	35.3		63.8	54.7	54.7	69.5	57.6	57.6
Actuated g/C Ratio	0.22	0.16		0.33	0.29		0.53	0.46	0.46	0.58	0.48	0.48
v/c Ratio	0.06	0.76		1.01	0.58		0.28	0.43	0.31	0.62	0.37	0.04
Control Delay	26.5	49.5		88.0	30.0		13.5	23.9	3.6	19.9	21.5	0.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.5	49.5		88.0	30.0		13.5	23.9	3.6	19.9	21.5	0.1
LOS	C	D		F	C		B	C	A	B	C	A
Approach Delay		48.9			49.2			17.8			20.3	
Approach LOS		D			D			B			C	
Queue Length 50th (ft)	7	158		~196	156		39	194	0	91	157	0
Queue Length 95th (ft)	20	208		#344	234		74	256	50	152	227	0
Internal Link Dist (ft)		703			1295			1042			587	
Turn Bay Length (ft)	200			225			200			175		175
Base Capacity (vph)	273	737		307	1077		472	1613	866	428	1697	830
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.63		1.01	0.58		0.26	0.43	0.31	0.61	0.37	0.04

Intersection Summary

Timings
1: Staples Street & McArdle Road

2028 Build
Timing Plan: PM

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 31.4 Intersection LOS: C
Intersection Capacity Utilization 76.8% ICU Level of Service D
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Staples Street & McArdle Road

Timings
2: TX-358 WB Frontage Road & Staples Street

2028 Build
Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	474	342	261	717	1013	0	0	982	256
Future Volume (vph)	0	0	0	474	342	261	717	1013	0	0	982	256
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	0.95	0.91	0.91	1.00	1.00	0.91	1.00
Frt					0.935							0.850
Flt Protected				0.950			0.950	0.989				
Satd. Flow (prot)	0	0	0	3433	3309	0	1610	3353	0	0	5085	1583
Flt Permitted				0.950			0.111	0.521				
Satd. Flow (perm)	0	0	0	3433	3309	0	188	1766	0	0	5085	1583
Satd. Flow (RTOR)					129							131
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)							41%					
Lane Group Flow (vph)	0	0	0	515	656	0	460	1420	0	0	1067	278
Turn Type				Perm	NA		pm+pt	NA			NA	Perm
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12			1 2					2
Detector Phase				4 12	4 12		1	1 2			2	2
Switch Phase												
Minimum Initial (s)							5.0				5.0	5.0
Minimum Split (s)							9.5				30.0	30.0
Total Split (s)							63.0				40.0	40.0
Total Split (%)							46.7%				29.6%	29.6%
Yellow Time (s)							3.0				3.0	3.0
All-Red Time (s)							1.0				1.0	1.0
Lost Time Adjust (s)							0.0				0.0	0.0
Total Lost Time (s)							4.0				4.0	4.0
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode							None				Max	Max
Act Effct Green (s)				28.0	28.0		95.0	95.0			36.0	36.0
Actuated g/C Ratio				0.21	0.21		0.70	0.70			0.27	0.27
v/c Ratio				0.72	0.83		0.61	0.73			0.79	0.54
Control Delay				56.6	51.2		7.0	9.4			50.9	26.0
Queue Delay				0.0	0.0		5.8	20.2			2.2	0.0
Total Delay				56.6	51.2		12.7	29.6			53.1	26.0
LOS				E	D		B	C			D	C
Approach Delay					53.6			25.5			47.5	
Approach LOS					D			C			D	
Queue Length 50th (ft)				219	238		58	531			319	109
Queue Length 95th (ft)				282	315		m128	606			375	202
Internal Link Dist (ft)		866			726			141			195	
Turn Bay Length (ft)				285								500
Base Capacity (vph)				712	788		753	1936			1356	518
Starvation Cap Reductn				0	0		232	554			0	0
Spillback Cap Reductn				0	0		0	0			167	0
Storage Cap Reductn				0	0		0	0			0	0
Reduced v/c Ratio				0.72	0.83		0.88	1.03			0.90	0.54

Intersection Summary

Timings
2: TX-358 WB Frontage Road & Staples Street

2028 Build
Timing Plan: PM

Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	30.0	22.5	30.0	30.0	22.5	22.5
Total Split (s)	21.0	51.0	45.0	29.0	11.0	10.0
Total Split (%)	16%	38%	33%	21%	8%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	C-Max	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

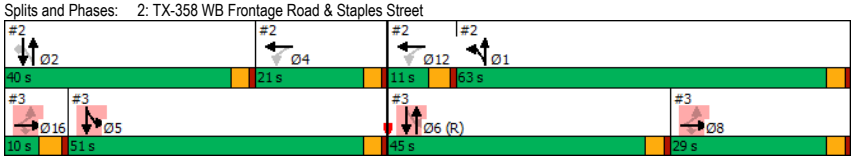
(D) Traffic Impact Analysis

Timings
2: TX-358 WB Frontage Road & Staples Street

2028 Build
Timing Plan: PM

Cycle Length: 135
Actuated Cycle Length: 135
Offset: 24 (18%), Referenced to phase 6:NBSB, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 39.7 Intersection LOS: D
Intersection Capacity Utilization 88.5% ICU Level of Service E
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: TX-358 WB Frontage Road & Staples Street



Timings
3: Staples Street & TX-358 EB Frontage Road

2028 Build
Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	466	351	503	0	0	0	0	1280	267	330	1099	0
Future Volume (vph)	466	351	503	0	0	0	0	1280	267	330	1099	0
Lane Util. Factor	0.91	0.86	0.91	1.00	1.00	1.00	1.00	0.91	1.00	0.91	0.91	1.00
Frt		0.956	0.850						0.850			
Flt Protected	0.950	0.991								0.950	0.999	
Satd. Flow (prot)	1610	3035	1441	0	0	0	0	5085	1583	1610	3387	0
Flt Permitted	0.950	0.991								0.098	0.879	
Satd. Flow (perm)	1610	3035	1441	0	0	0	0	5085	1583	166	2980	0
Satd. Flow (RTOR)		36	110						261			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)	27%		39%							10%		
Lane Group Flow (vph)	350	694	317	0	0	0	0	1320	275	306	1167	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8 16						6		5	6 5	
Permitted Phases	8 16		8 16						6	5 6		
Detector Phase	8 16	8 16	8 16					6	6	5	6 5	
Switch Phase												
Minimum Initial (s)								5.0	5.0	5.0		
Minimum Split (s)								30.0	30.0	22.5		
Total Split (s)								45.0	45.0	51.0		
Total Split (%)								33.3%	33.3%	37.8%		
Yellow Time (s)								3.0	3.0	3.0		
All-Red Time (s)								1.0	1.0	1.0		
Lost Time Adjust (s)								0.0	0.0	0.0		
Total Lost Time (s)								4.0	4.0	4.0		
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode								C-Max	C-Max	Max		
Act Effct Green (s)	35.0	35.0	35.0					41.0	41.0	88.0	88.0	
Actuated g/C Ratio	0.26	0.26	0.26					0.30	0.30	0.65	0.65	
v/c Ratio	0.84	0.85	0.70					0.85	0.42	0.50	0.56	
Control Delay	66.0	56.4	38.1					50.8	7.0	5.9	5.8	
Queue Delay	0.0	0.0	0.0					10.5	0.0	1.6	4.4	
Total Delay	66.0	56.4	38.1					61.3	7.0	7.5	10.2	
LOS	E	E	D					E	A	A	B	
Approach Delay		54.6						51.9			9.6	
Approach LOS		D						D			A	
Queue Length 50th (ft)	320	322	183					399	9	1	386	
Queue Length 95th (ft)	#498	#420	307					461	76	m46	451	
Internal Link Dist (ft)		710			680			1093			141	
Turn Bay Length (ft)	400		285						275			
Base Capacity (vph)	417	813	455					1544	662	610	2084	
Starvation Cap Reductn	0	0	0					0	0	160	825	
Spillback Cap Reductn	0	1	0					218	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.84	0.85	0.70					1.00	0.42	0.68	0.93	

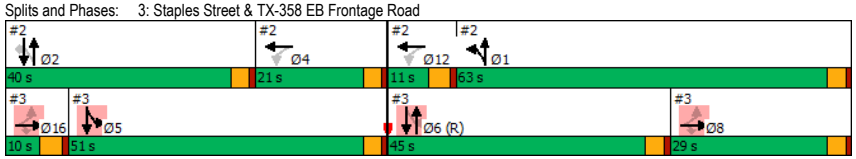
Intersection Summary

Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	30.0	30.0	30.0	22.5	22.5
Total Split (s)	63.0	40.0	21.0	29.0	11.0	10.0
Total Split (%)	47%	30%	16%	21%	8%	7%
Yellow Time (s)	3.0	3.0	3.0	3.0	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	None	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Cycle Length: 135
Actuated Cycle Length: 135
Offset: 24 (18%), Referenced to phase 6:NBSB, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 38.7 Intersection LOS: D
Intersection Capacity Utilization 88.5% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Staples Street & TX-358 EB Frontage Road



Timings
4: Airline Road & TX-358 EB Frontage Road

2028 Build
Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	521	310	656	0	0	0	0	1191	163	221	804	0
Future Volume (vph)	521	310	656	0	0	0	0	1191	163	221	804	0
Lane Util. Factor	0.91	0.86	0.91	1.00	1.00	1.00	1.00	0.91	1.00	0.91	0.91	1.00
Frt		0.939	0.850						0.850			
Flt Protected	0.950	0.991								0.950	0.999	
Satd. Flow (prot)	1610	2981	1441	0	0	0	0	5085	1583	1610	3387	0
Flt Permitted	0.950	0.991								0.116	0.902	
Satd. Flow (perm)	1610	2981	1441	0	0	0	0	5085	1583	197	3058	0
Satd. Flow (RTOR)		78	160						128			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)	26%		47%							10%		
Lane Group Flow (vph)	397	778	358	0	0	0	0	1228	168	205	852	0
Turn Type	Perm	NA	Perm					NA	Perm	pm+pt	NA	
Protected Phases		8 16						6		5	5 6	
Permitted Phases	8 16		8 16						6	5 6		
Detector Phase	8 16	8 16	8 16					6	6	5	5 6	
Switch Phase												
Minimum Initial (s)								5.0	5.0	5.0		
Minimum Split (s)								22.5	22.5	9.5		
Total Split (s)								58.6	58.6	46.9		
Total Split (%)								34.5%	34.5%	27.6%		
Yellow Time (s)								3.5	3.5	3.5		
All-Red Time (s)								1.0	1.0	1.0		
Lost Time Adjust (s)								0.0	0.0	0.0		
Total Lost Time (s)								4.5	4.5	4.5		
Lead/Lag								Lead	Lead	Lag		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode								C-Max	C-Max	None		
Act Effct Green (s)	58.4	58.4	58.4					65.5	65.5	98.1	98.1	
Actuated g/C Ratio	0.34	0.34	0.34					0.39	0.39	0.58	0.58	
v/c Ratio	0.72	0.72	0.60					0.63	0.24	0.53	0.47	
Control Delay	56.9	47.8	28.7					45.5	11.9	9.9	7.9	
Queue Delay	0.0	0.0	0.0					5.9	0.0	1.0	0.8	
Total Delay	56.9	47.9	28.7					51.4	11.9	10.9	8.7	
LOS	E	D	C					D	B	B	A	
Approach Delay		45.7						46.6			9.1	
Approach LOS		D						D			A	
Queue Length 50th (ft)	418	395	200					412	29	37	384	
Queue Length 95th (ft)	563	483	325					510	94	20	449	
Internal Link Dist (ft)		533			740			601			171	
Turn Bay Length (ft)	300								250			
Base Capacity (vph)	545	1060	593					1959	688	470	1911	
Starvation Cap Reductn	0	0	0					0	0	108	691	
Spillback Cap Reductn	0	7	0					668	0	0	0	
Storage Cap Reductn	0	0	0					0	0	0	0	
Reduced v/c Ratio	0.73	0.74	0.60					0.95	0.24	0.57	0.70	

Intersection Summary

Timings
4: Airline Road & TX-358 EB Frontage Road

2028 Build
Timing Plan: PM

Lane Group	Ø1	Ø2	Ø4	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	1	2	4	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	83.0	39.0	38.0	54.5	10.0	10.0
Total Split (%)	49%	23%	22%	32%	6%	6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

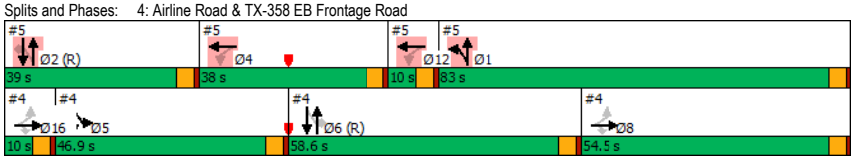
(D) Traffic Impact Analysis

Timings
4: Airline Road & TX-358 EB Frontage Road

2028 Build
Timing Plan: PM

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 36.3 — Intersection LOS: D
Intersection Capacity Utilization 95.7% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 4: Airline Road & TX-358 EB Frontage Road



Timings
5: TX-358 WB Frontage Road & Airline Road

2028 Build
Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	289	457	263	569	1122	0	0	738	286
Future Volume (vph)	0	0	0	289	457	263	569	1122	0	0	738	286
Lane Util. Factor	1.00	1.00	1.00	0.97	0.95	0.95	0.91	0.91	1.00	1.00	0.91	1.00
Frt					0.945							0.850
Flt Protected				0.950			0.950	0.993				
Satd. Flow (prot)	0	0	0	3433	3345	0	1610	3366	0	0	5085	1583
Flt Permitted				0.950			0.170	0.554				
Satd. Flow (perm)	0	0	0	3433	3345	0	288	1878	0	0	5085	1583
Satd. Flow (RTOR)					64							197
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Shared Lane Traffic (%)							31%					
Lane Group Flow (vph)	0	0	0	301	750	0	409	1353	0	0	769	298
Turn Type				Perm	NA		pm+pt	NA			NA	Perm
Protected Phases					4 12		1	1 2			2	
Permitted Phases				4 12			1 2					2
Detector Phase				4 12	4 12		1	1 2			2	2
Switch Phase												
Minimum Initial (s)							5.0				5.0	5.0
Minimum Split (s)							9.5				22.5	22.5
Total Split (s)							83.0				39.0	39.0
Total Split (%)							48.8%				22.9%	22.9%
Yellow Time (s)							3.5				3.5	3.5
All-Red Time (s)							1.0				1.0	1.0
Lost Time Adjust (s)							0.0				0.0	0.0
Total Lost Time (s)							4.5				4.5	4.5
Lead/Lag							Lag				Lead	Lead
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode							None				C-Max	C-Max
Act Effct Green (s)				43.5	43.5		113.0	113.0			38.7	38.7
Actuated g/C Ratio				0.26	0.26		0.66	0.66			0.23	0.23
v/c Ratio				0.34	0.83		0.53	0.71			0.67	0.58
Control Delay				52.9	63.6		21.0	28.7			63.9	25.1
Queue Delay				0.0	0.0		12.7	33.9			0.8	0.0
Total Delay				52.9	63.6		33.8	62.6			64.6	25.1
LOS				D	E		C	E			E	C
Approach Delay					60.5			55.9			53.6	
Approach LOS					E			E			D	
Queue Length 50th (ft)				142	387		358	719			297	101
Queue Length 95th (ft)				189	471		459	779			350	214
Internal Link Dist (ft)		757			931			171			340	
Turn Bay Length (ft)				330								220
Base Capacity (vph)				867	893		804	1956			1156	512
Starvation Cap Reductn				0	0		370	684			0	0
Spillback Cap Reductn				0	0		0	0			149	0
Storage Cap Reductn				0	0		0	0			0	0
Reduced v/c Ratio				0.35	0.84		0.94	1.06			0.76	0.58

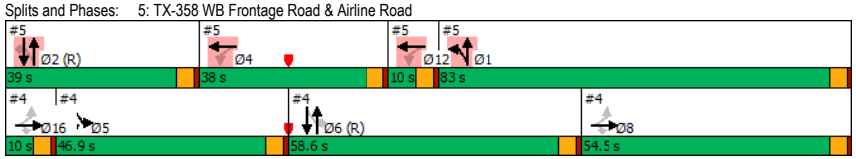
Intersection Summary

Lane Group	Ø4	Ø5	Ø6	Ø8	Ø12	Ø16
Lane Configurations						
Traffic Volume (vph)						
Future Volume (vph)						
Lane Util. Factor						
Frt						
Flt Protected						
Satd. Flow (prot)						
Flt Permitted						
Satd. Flow (perm)						
Satd. Flow (RTOR)						
Peak Hour Factor						
Shared Lane Traffic (%)						
Lane Group Flow (vph)						
Turn Type						
Protected Phases	4	5	6	8	12	16
Permitted Phases						
Detector Phase						
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	9.5	22.5	22.5	22.5	22.5
Total Split (s)	38.0	46.9	58.6	54.5	10.0	10.0
Total Split (%)	22%	28%	34%	32%	6%	6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)						
Total Lost Time (s)						
Lead/Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	C-Max	None	None	None
Act Effct Green (s)						
Actuated g/C Ratio						
v/c Ratio						
Control Delay						
Queue Delay						
Total Delay						
LOS						
Approach Delay						
Approach LOS						
Queue Length 50th (ft)						
Queue Length 95th (ft)						
Internal Link Dist (ft)						
Turn Bay Length (ft)						
Base Capacity (vph)						
Starvation Cap Reductn						
Spillback Cap Reductn						
Storage Cap Reductn						
Reduced v/c Ratio						

Intersection Summary

Cycle Length: 170
Actuated Cycle Length: 170
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 56.5 Intersection LOS: E
Intersection Capacity Utilization 95.7% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 5: TX-358 WB Frontage Road & Airline Road



Timings
6: Airline Road & McArdle Road

2028 Build
Timing Plan: PM

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	245	431	139	120	321	142	229	823	153	253	815	197
Future Volume (vph)	245	431	139	120	321	142	229	823	153	253	815	197
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.963			0.954			0.976			0.971	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3408	0	1770	3376	0	1770	3454	0	1770	3437	0
Flt Permitted	0.151			0.256			0.144			0.131		
Satd. Flow (perm)	281	3408	0	477	3376	0	268	3454	0	244	3437	0
Satd. Flow (RTOR)		26			42			16			22	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	253	587	0	124	477	0	236	1006	0	261	1043	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	35.0	35.0		35.0	35.0		20.0	60.0		20.0	60.0	
Total Split (%)	23.3%	23.3%		23.3%	23.3%		13.3%	40.0%		13.3%	40.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effct Green (s)	51.9	34.4		38.1	25.1		81.5	62.1		86.9	65.2	
Actuated g/C Ratio	0.35	0.23		0.25	0.17		0.54	0.41		0.58	0.43	
v/c Ratio	0.80	0.73		0.53	0.80		0.69	0.70		0.71	0.69	
Control Delay	56.5	56.3		42.2	64.7		32.2	40.0		35.1	38.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	56.5	56.3		42.2	64.7		32.2	40.0		35.1	38.4	
LOS	E	E		D	E		C	D		D	D	
Approach Delay		56.4			60.0			38.5			37.7	
Approach LOS		E			E			D			D	
Queue Length 50th (ft)	189	271		86	219		104	429		129	436	
Queue Length 95th (ft)	255	314		120	270		#254	539		#330	564	
Internal Link Dist (ft)		382			1361			915			705	
Turn Bay Length (ft)	165			150			165			175		
Base Capacity (vph)	400	822		426	724		341	1440		370	1506	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.63	0.71		0.29	0.66		0.69	0.70		0.71	0.69	

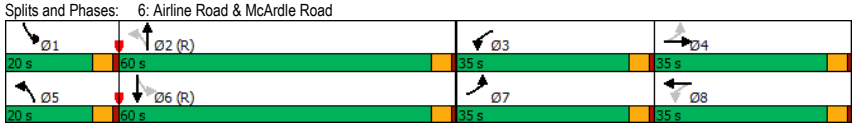
Intersection Summary

Timings
6: Airline Road & McArdle Road

2028 Build
Timing Plan: PM

Cycle Length: 150
Actuated Cycle Length: 150
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 45.3 Intersection LOS: D
Intersection Capacity Utilization 83.6% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: Airline Road & McArdle Road



HCM 6th TWSC
7: TX-358 WB Frontage Road & Driveway 1

2028 Build
Timing Plan: PM

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑↱			↱
Traffic Vol, veh/h	0	0	1151	170	0	138
Future Vol, veh/h	0	0	1151	170	0	138
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1251	185	0	150

Major/Minor		Major2		Minor2	
Conflicting Flow All		-	0	-	718
Stage 1		-	-	-	-
Stage 2		-	-	-	-
Critical Hdwy		-	-	-	6.94
Critical Hdwy Stg 1		-	-	-	-
Critical Hdwy Stg 2		-	-	-	-
Follow-up Hdwy		-	-	-	3.32
Pot Cap-1 Maneuver		-	-	0	371
Stage 1		-	-	0	-
Stage 2		-	-	0	-
Platoon blocked, %		-	-		
Mov Cap-1 Maneuver		-	-	-	371
Mov Cap-2 Maneuver		-	-	-	-
Stage 1		-	-	-	-
Stage 2		-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	21.1
HCM LOS		C

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	371
HCM Lane V/C Ratio	-	-	0.404
HCM Control Delay (s)	-	-	21.1
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	1.9

HCM 6th TWSC
8: TX-358 WB Frontage Road & Driveway 2

2028 Build
Timing Plan: PM

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	2277	0	0	112
Future Vol, veh/h	0	0	2277	0	0	112
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	1	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	2422	0	0	119

Major/Minor		Major2		Minor2	
Conflicting Flow All		-	0	-	1211
Stage 1		-	-	-	-
Stage 2		-	-	-	-
Critical Hdwy		-	-	-	6.94
Critical Hdwy Stg 1		-	-	-	-
Critical Hdwy Stg 2		-	-	-	-
Follow-up Hdwy		-	-	-	3.32
Pot Cap-1 Maneuver		-	0	0	174
Stage 1		-	0	0	-
Stage 2		-	0	0	-
Platoon blocked, %		-			
Mov Cap-1 Maneuver		-	-	-	174
Mov Cap-2 Maneuver		-	-	-	-
Stage 1		-	-	-	-
Stage 2		-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	61.6
HCM LOS		F

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	174
HCM Lane V/C Ratio	-	0.685
HCM Control Delay (s)	-	61.6
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	4.1

10: Driveway 4 & McArdle Road

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	733	96	50	724	74	37
Future Vol, veh/h	733	96	50	724	74	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	756	99	52	746	76	38

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	855	0	1283	428
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	477	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	781	-	157	575
Stage 1	-	-	-	-	400	-
Stage 2	-	-	-	-	590	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	781	-	139	575
Mov Cap-2 Maneuver	-	-	-	-	269	-
Stage 1	-	-	-	-	400	-
Stage 2	-	-	-	-	523	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	21.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	327	-	-	781	-
HCM Lane V/C Ratio	0.35	-	-	0.066	-
HCM Control Delay (s)	21.8	-	-	9.9	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	1.5	-	-	0.2	-

11: Driveway 5 & McArdle Road

Intersection	
Int Delay, s/veh	0.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	736	25	33	715	20	38
Future Vol, veh/h	736	25	33	715	20	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	75	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	775	26	35	753	21	40

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	801	0	1235	401
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	447	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	818	-	169	599
Stage 1	-	-	-	-	409	-
Stage 2	-	-	-	-	611	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	818	-	162	599
Mov Cap-2 Maneuver	-	-	-	-	290	-
Stage 1	-	-	-	-	409	-
Stage 2	-	-	-	-	585	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	438	-	-	818	-
HCM Lane V/C Ratio	0.139	-	-	0.042	-
HCM Control Delay (s)	14.5	-	-	9.6	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

APPENDIX E. Traffic Signal Timing Plans from TxDOT

(D) Traffic Impact Analysis

Texas Department of Transportation

Traffic Signal Report

Corpus Christi District 16

Report Checked By:_____

Form Rev. 06/2022

DATE (MM/DD/YYYY)	LOCATION		CALL REPORTED BY	WEATHER	ARRIVED (HH:MM)	DEPARTED (HH:MM)
12/04/2024	Maint.	03-E. Nueces			: AM PM	: AM PM
	County	178-E. Nueces				
	MODE	Diamond	TIME of CALL (HH:MM) : AM PM	SYSTEM:		

DATE OF CALL: 11/19/2024

REPORTED ISSUE

STATUS UPON ARRIVAL

WORK PERFORMED (include materials used)

STATUS UPON DEPARTURE

TIMINGS

Phs	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min	15	15	15	15												
Gap	4	4	4	4												
Wlk	7	7	7	7												
Pd Clr	14	18	14	18												
Max1	35	25	25	20												
Max2																
Max3																
YelClr	4	4	4	4												
RedClr	2	2	2	2												
Recall	min	min	min	min												

Diagram (if necessary)

NORTH

Inventory

CONTROLLER	ECONOLITE
MMU	MMU2-16LEIP
DETECTION	WAVETRONIX
ADDT'L EQUIPMENT	
ADDT'L EQUIPMENT	
INTERSECTION CONDITION	
CABINET	GOOD
SIGNAL HEADS	GOOD
PED ELEMENTS	GOOD

PERSONEL

1.	Perales, Randy	5.	
2.	Ramsey, Joseph	6.	
3.	Sanchez, Joel	7.	
4.		8.	

MDOT 1500C (2019)

NTDP TRAFFIC SIGNAL TIMING PERMIT

(D) Traffic Impact Analysis

PHASE	1	2	3	4	5	6	7	8
APPROACH	SW LT	SB	EB LT	WB	SB LT	NB	WB LT	EB
MINIMUM GREEN	5	5	5	5	5	5	5	5
PASSAGE / EXTEND1	5	5	5	5	5	5	5	5
MAXIMUM GREEN NO. 1	10	10	10	10	10	10	10	10
MAXIMUM GREEN NO. 2	40	40	40	40	40	40	40	40
YELLOW CLEARANCE	3	3	3	3	3	3	3	3
ALL RED CLEARANCE	1	1	1	1	1	1	1	1
WALK	0	10	0	10	0	10	0	10
FLASHING DON'T WALK (FDW) CLEARANCE	0	16	0	16	0	16	0	16
EXT PED CLR (EOG, EOY, 3.0s)	EOG	EOG	EOG	EOG	EOG	EOG	EOG	EOG
WALK REST MODIFIER (Y, N)	N	N	N	N	N	N	N	N
START UP STATE (G/W, R, G, Y)	-	G	-	-	G	-	-	-
VEHICLE RECALL (NONE, MIN, MAX, SOFT)	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
PEDESTRIAN RECALL (NONE, RECL, OTHR)	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
DUAL ENTRY (Y, N)	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!
MODE (CRD, MIN, MAX, NOCRD)	NOCRD	CRD	NOCRD	NOCRD	CRD	NOCRD	NOCRD	NOCRD
DAILY FLASH (Y, R, DK, NA)	R	R	R	R	R	R	R	R
CONFLICT FLASH (Y, R, DK)								
EVNT/ACTN PLN 1 OFFSET 16 CYCLE 135	37	63	0	25	78	30	0	17
EVNT/ACTN PLN 2 OFFSET 24 CYCLE 135	50	48	0	27	65	40	0	20
EVNT/ACTN PLN 3 OFFSET 24 CYCLE 135	50	48	0	27	65	40	0	20
EVNT/ACTN PLN 4 OFFSET 0 CYCLE 90	24	16	11	11	24	16	11	11
EVNT/ACTN PLN 93 OFFSET 0 CYCLE 100	40	20	13	13	40	20	13	13
EVNT/ACTN PLN 94 OFFSET 0 CYCLE 90	24	16	11	11	24	16	11	11

TIMING INSTALLED

PRE-EMPT ☐

COUNTDOWN PEDS ☐

Remarks

Settings such as Minimum Green are reported for Timing Plan 1.

The Mode corrdinated phases are reported for for the first Event Plan of type 'Coord' , namely Event Plan 1.

FLASH HOURS:

to

DAILY ☐ NONE ☐

CONTROLLER and FIRMWARE#

☐ Siemens (SEPAC)

☒ ECONOLITE (EOS) 3.2.2

☐ Other:

PREPARED BY:

DATE:

VEHICLE OVERLAPS

Phase	Overlap Phase	Load Bay	Phases Overlapped	T.G. (s)	Y (s)	R (s)	FYA Phases Perm	FYA Phases Prot	Flash Daily	Flash Confl
1	=									
2	=									
3	=									
4	=									
5	=									
6	=									
7	=									
8	=									

LOCATION:

SH358@ Staples

CITY/TWP:

COUNTY: Washtenaw

MILE POINT

CONTROL SECTION-SPOT #

Job # (if applicable)

Page 4 included only if Pre-Empt Checked

(D) Traffic Impact Analysis

MDOT 1500C (2019)

ADVANCED TIMING PARAMETERS FORM

SYSTEM INFORMATION

System Type:
- [X] Central
- [ ] Group ID
- [ ] TBC
- [ ] None
- [ ] Other:

Location ID:

161780036

Interconnect:
- [ ] HARDWIRE
- [ ] FIBER-OPTIC
- [ ] RADIO
- [ ] SERIAL RADIO
- [ ] IP RADIO
- [ ] TBC
- [ ] GPS CLOCK
- [ ] CELL MODEM
- [ ] NONE
- [ ] Other:

LEFT-TURN PHASING

Phase # / Description	Permissive-Protected Lead	Permissive-Protected Lag	Protected-Only Split	Protected-Only Lead	Protected-Only Lag
1 SW LT	X				
3 EB LT		X			
5 SB LT	X				
7 WB LT		X			

RING AND BARRIER STRUCTURE

	B1	B2	B3	B4
R1	1 2 3 4	0 0 0 0	0 0	0 0 0 0
R2	5 6 7 8	0 0 0 0	0 0	0 0 0 0
R3	0 0 0 0	0 0 0 0	0 0	0 0 0 0
R4	0 0 0 0	0 0 0 0	0 0	0 0 0 0

VEHICULAR AND PEDESTRIAN DETECTION

APPROACH	Vehicle Detection: Movement and Call Delay (s) Left	Thru	Right	LOCKING Left	Thru	Right	Pedestrian Detection: Push-Button Crossing Locations
NB		X					
EB	X	X					
SB	X	X					
SW	X						
WB	X	X					

COORDINATION/OPERATION SETTINGS

CHANGE (ADD ONLY, ADD/SUBT, OTHR)	
System Source	TBC
Splits In	Seconds
Offset In	Seconds
Transition	Smooth
Dwell	0
Offset Ref	Lead

ADDITIONAL EVENT/ACTION PLAN DATA

PHASE	1	2	3	4	5	6	7	8
EVNT/ACTN PLN ### OFFSET #### CYCLE #N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
EVNT/ACTN PLN ### OFFSET #### CYCLE #N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
EVNT/ACTN PLN ### OFFSET #### CYCLE #N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
EVNT/ACTN PLN ### OFFSET #### CYCLE #N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
EVNT/ACTN PLN ### OFFSET #### CYCLE #N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
EVNT/ACTN PLN ### OFFSET #### CYCLE #N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
EVNT/ACTN PLN ### OFFSET #### CYCLE #N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
EVNT/ACTN PLN ### OFFSET #### CYCLE #N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
EVNT/ACTN PLN ### OFFSET #### CYCLE #N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
EVNT/ACTN PLN ### OFFSET #### CYCLE #N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A

DISAPPEARING CASE SIGN

REMARKS

Left turn phasing is assumed to be permissive-protected; please update accordingly for any split phasing or protected-only configurations.

PREPARED BY: 0 DATE: 0

- [ ] MDOT
- [X] County
- [ ] City
- [ ] Consultant

LOCATION:

SH358@ Staples

CONTROL SECTION-SPOT #

0

(D) Traffic Impact Analysis

SCHEDULING INFORMATION

Schedule #	Days of Week	Months of Year	Days of Month	Day Plan #	Events
1	Monday - Friday	Every month	Every day of the month	1	#99 - 00:00 - 07:30 #1 - 07:30 - 11:00 #2 - 11:00 - 14:00
2	Saturday and Sunday	Every month	Every day of the month	2	#1 - 00:00 - 09:00 #2 - 09:00 - 19:00 #1 - 19:00 - 20:30
3	Never	Never	Never	0	#99 - 00:00 - 07:30 #1 - 07:30 - 11:00 #2 - 11:00 - 14:00
4	Never	Never	Never	0	#99 - 00:00 - 07:30 #1 - 07:30 - 11:00 #2 - 11:00 - 14:00
5	Never	Never	Never	0	#99 - 00:00 - 07:30 #1 - 07:30 - 11:00 #2 - 11:00 - 14:00
6	Never	Never	Never	0	#99 - 00:00 - 07:30 #1 - 07:30 - 11:00 #2 - 11:00 - 14:00
7	Never	Never	Never	0	#99 - 00:00 - 07:30 #1 - 07:30 - 11:00 #2 - 11:00 - 14:00
8	Never	Never	Never	0	#99 - 00:00 - 07:30 #1 - 07:30 - 11:00 #2 - 11:00 - 14:00
Example Values					
1	Saturday and Sunday	January 1st	December 31st	1	#1 - Normal #4 - 23:00 - 06:00
2	Monday - Friday	January 1st	December 31st	2	#1 - Normal #2 - AM Peak 06:00 - 09:00 #3 - PM Peak 14:00 - 18:00

PREPARED BY: 0 DATE: 0

LOCATION:

SH358@ Staples

CONTROL SECTION-SPOT #

0

(D) Traffic Impact Analysis

APPENDIX F. TIA Scoping Document

MEMORANDUM

To: Renee Couture, P.E. – Assistant Director of Traffic, City of Corpus Christi

Agency: City of Corpus Christi, Public Works Department

From: Somesh R. Katukuri, P.E. – Promet Engineers

CC: Mina Tariq, ARK Architects Inc.

Date: November 15, 2024

Subject: **Traffic Impact Analysis Scoping: Sunrise Mall Redevelopment in Corpus Christi, Texas**

A. Project Description

- Address: 5858 Padre Island Drive, Corpus Christi, TX - 75412
- Existing Zoning: CG – 2 (General Commercial 2 District)
- Proposed Zoning: No Change. The project is pursuing a special use permit for lots 5 & 8.
- Existing Site Conditions: The site currently consists of existing buildings. Out of all these existing buildings, few are occupied and currently operational. Bel Furniture Business currently occupies lot 07 building. Similarly, Lot 03 is occupied by Safe Space Storage. There are three access driveways for the site on TX-358 WB Frontage Road:
  - Driveway 1: Right-In/Right-Out Driveway
  - Driveway 2: Exit-only driveway
  - Driveway 3: Entry-only driveway

  There are two access driveways for the site on McArdle Road:
  - Driveway 4: Full-access driveway
  - Driveway 5: Full-access driveway

  However, the driveway operations on TX-358 WB Frontage Road are expected to change. Each driveway will operate as an entry and exit driveway (right-in/right-out).
- Proposed Development: The proposed project is a redevelopment of the existing site. The following is the proposed development:
  - **Lot 1 – High-Turnover Site-Down Restaurant – 16,503 SF**
  - **Lots 2A, 2B – High-Turnover Site-Down Restaurant – 12,500 SF**
  - **Lots 4 & 10 – Hotel – 190 Rooms**
  - **Lot 5 – Mid-Rise Apartments – 341 Dwelling Units**
  - **Lot 8 – High-Rise Apartments – 250 Dwelling Units**

- **Lot 9 – Strip Retail Plaza – 35,761 SF**
  - Proposed Access: Driveway 1 on TX-358 WB Frontage Road, Driveway 2 on TX-358 WB Frontage Road, Driveway 3 on TX-358 WB Frontage Road, Driveway 4 on McArdle Road, Driveway 5 on McArdle Road.
  - **Driveway 1 on TX-358 WB Frontage Road:** The development proposes using the existing driveway that currently operates as a right-in/right-out driveway.
  - **Driveway 2 on TX-358 WB Frontage Road:** The development proposes using the existing driveway location but changing the operations to entry and exit instead of exit-only.
  - **Driveway 3 on TX-358 WB Frontage Road:** The development proposes using the existing driveway location but changing the operations to entry and exit instead of entry-only.
  - **Driveway 4 on McArdle Road: Full-access driveway**
  - **Driveway 5 on McArdle Road: Full-access driveway**

- **Exhibit 1:** Site location map showing study intersections.
- **Exhibit 2:** Proposed site plan.

B. Proposed Study Intersections

- Staples Street at McArdle Road
- Texas-358 WB Frontage Road at Staples Street
- Texas-358 EB Frontage Road at Staples Street
- Texas-358 EB Frontage Road at Airline Road
- Texas-358 WB Frontage Road at Airline Road
- McArdle Road at Airline Road
- Texas-358 WB Frontage Road at Driveway 1
- Texas-358 WB Frontage Road at Driveway 2
- Texas-358 WB Frontage Road at Driveway 3
- McArdle Road at Driveway 4
- McArdle Road at Driveway 5

C. Proposed Roadway Links

- Texas-359 WB Frontage Road (Adjacent to the site)
- McArdle Road

D. Proposed Study Hours

- Traditional Weekday AM Peak Hour (Between 7:00 AM – 9:00 AM) – Traffic Data Collection on Tuesday/Wednesday/Thursday (Between November 18 – November 22)
- Traditional Weekday PM Peak Hours (Between 4:00 PM – 6:00 PM) – Traffic Data Collection on Tuesday/Wednesday/Thursday (Between November 18 – November 22)

E. Development Phase:

- **The project will be built in phases. Lots 5 & 8 are expected to be built in Phase 1 by 2026. The rest of the development is estimated to be built by 2027.**
- **Anticipated Buildout Years:**
  - 2027 Full-Buildout

F. Proposed Study Scenarios:

- Existing (2024)
- 2027 No Build (Background)
- 2027 Full Build
- Five years after opening (2032)

G. Preliminary Site Traffic Generation

- ITE Trip Generation Manual 11th Edition

(D) Traffic Impact Analysis

Table 1. Projected Trip Generation

LAND USE	PROPOSED GROSS FLOOR AREA/NUMBER OF UNITS	AM PEAK HOUR TRIP ENDS (ADJACENT STREET PEAK)	PM PEAK HOUR TRIP ENDS (ADJACENT STREET PEAK)
		Total (In/Out)	**Total** (In/Out)
Lot 1 – High-Turnover Sit-Down Restaurant (ITE#932)	16,503 SF	**158** (87/71)	**149** (91/58)
Lots 2A, 2B – High-Turnover Sit-Down Restaurant (ITE#932)	12,500 SF	**120** (66/54)	**113** (69/44)
Lots 4 & 10 – Hotel (ITE#310)	190 Rooms	**88** (49/39)	**113** (57/56)
Lot 5 – Mid-Rise Apartments (ITE#221)	341 DU	**138** (32/106)	**133** (81/52)
Lot 8 – High-Rise Apartments (ITE#222)	250 DU	**74** (19/55)	**88** (55/33)
Lot 9 – Strip Retail Plaza (<40k) (ITE#822)	35,761 SF	**84** (51/33)	**236** (118/118)
TOTAL		**662** (304/358)	**832** (471/361)

Internal Capture Reduction: Internal capture needs to be considered due to the nature of the proposed land uses. The NCHRP guidelines will be followed to determine the number of internal capture trips for the project.

Pass-By Trips: Due to the nature of the proposed land uses, pass-by trips for this project are expected to be insignificant. Therefore, no pass-by trip reduction will be considered for the study.

H. Proposed Traffic Growth

Table 2. Historical Traffic Counts

ROADWAY SEGMENT	HISTORICAL DAILY VOLUME (DATE)	AVERAGE GROWTH RATE
1. TX-358 WB Frontage Road (Adjacent to the site)	23,145 (2023)[A] 24,514 (2022)[A]	-6.0%
2. TX-358 On Ramp (Adjacent to the site)	12,817 (2023)[A] 12,313 (2022)[A]	4.0%
3. Airline Road (Between TX-358 WB Frontage Road and McArdle Road)	25,128 (2023)[A] 22,921 (2022)[A]	10.0%
	Average:	**3.0%**

**A – Source: TxDOT*

Based on the historical traffic counts, traffic on the adjacent streets did not consistently increase or decrease between 2022 and 2023. Traffic on the TX-358 WB Frontage Road decreased at an average annual rate of -6.0% from 2022 to 2023, as shown in **Table 2**.

The growth rate on Airline Road is 10% from 2022 to 2023. An average annual growth of 3.0% will be used for the analysis from 2024 to 2032.

- **Background Projects:** In addition to the 2% assumed growth rate, Promet Engineers (PROMET) requests the City to provide any new projects coming up near this project to consider as background traffic.
- **Future Improvements:** PROMET requests the City provide information on any future roadway/street improvements planned in the vicinity of the subject site. Also, information on improvements at any of the study mentioned above intersections will be needed to consider the geometric changes in future horizon analysis conditions.

I. Proposed Trip Distribution

- The following directional traffic distribution will be assumed for the study:
  - **20% from east on TX-358**
  - **10% from north on Airline Drive**
  - **40% from west on TX-358 and Staples Street**
  - **30% from south on Staples Street and Airline Road**

These percentages could slightly change after a review of the existing traffic counts at the study intersections. Exhibit 3 shows the global traffic distribution.

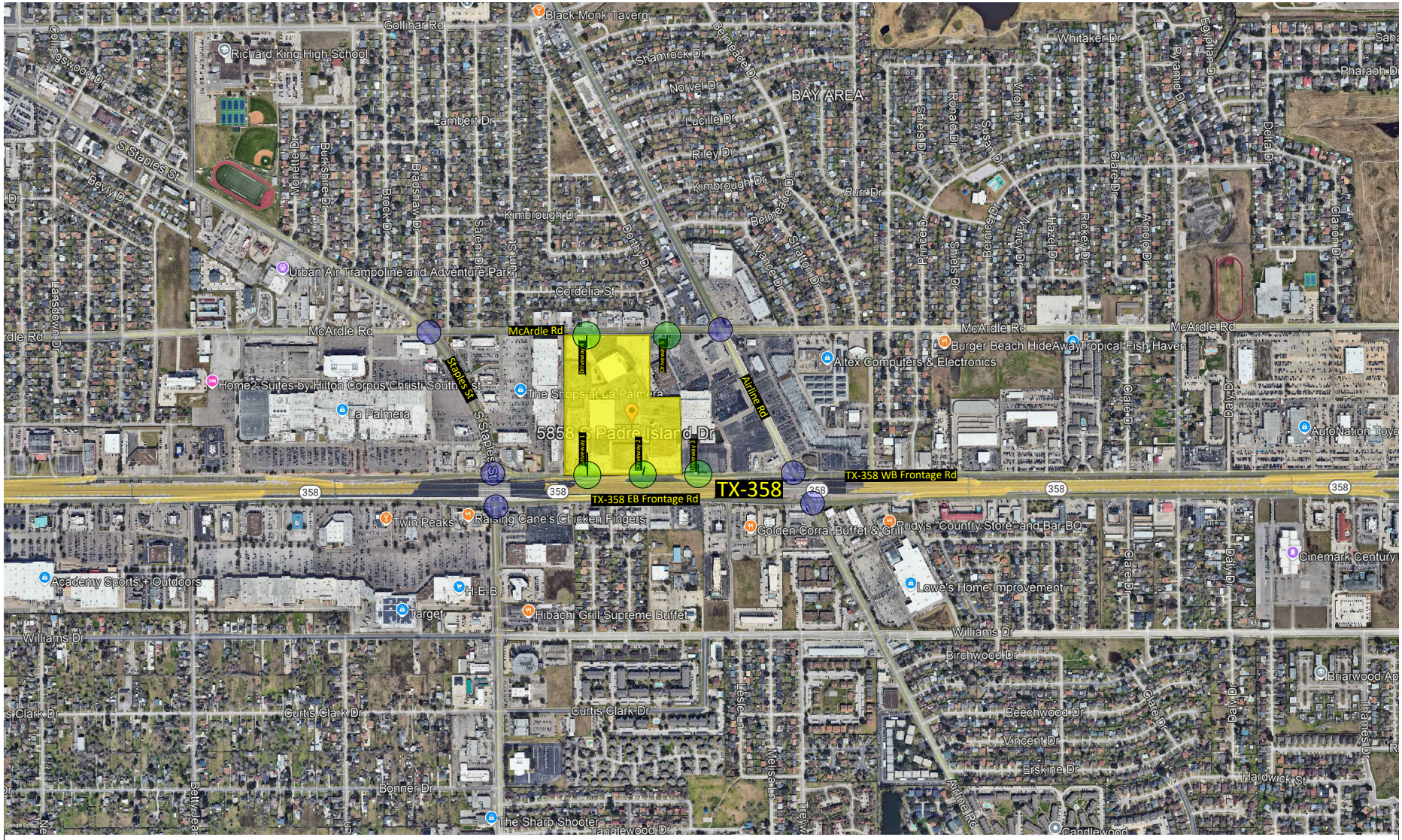
J. Preliminary Traffic Study Elements

- **Intersection level of service analysis:** The study intersection will be analyzed using Synchro 11 software.
- **Roadway Link Analysis:** The roadway link analysis will be carried out using the industry standards to determine the existing and future capacities of the adjacent roadway links and provide necessary mitigation measures/recommendations.
- **Site Access:** TxDOT Access Management standards and requirements will dictate the driveways' location, spacing, and auxiliary lanes on TX-358 WB Frontage Road. The sight distances for the two proposed driveways will also be evaluated.
- **Auxiliary Lanes**
  - Turn Lane Warrant Analysis: A right-turn lane analysis will be performed based on projected traffic volumes at the proposed site driveways.
  - Storage and Taper Requirements: When a right-turn lane is warranted, the required storage and taper lengths will be provided in the report as per the TxDOT standards. If the required storage and taper lengths cannot be constructed due to site constraints, PROMET will give a recommendation, considering the constraints. However, the final decision on the required storage and taper lengths will depend on TxDOT/City of Corpus Christi.
- **Safety Assessment – Historic Accident Analysis:** Crash data on crashes near the subject site will be collected and analyzed. A period of 3 years will be considered for the crash analysis. Mitigation measures will be provided depending on the reasons and adversity of the crashes in the study area.

K. Bike and Pedestrian Impacts: The traffic impact analysis will examine the impact on bike and pedestrian facilities. This includes assessing the current infrastructure, such as bike lanes, sidewalks, and crosswalks, to determine their adequacy and safety. We will analyze the potential increase in bike and pedestrian traffic due to the project and identify any areas where improvements are needed to accommodate this growth. The study will also consider the connectivity of these facilities to key destinations, ensuring that all users have safe and efficient routes. By focusing on these aspects, we aim to enhance overall accessibility and safety for cyclists and pedestrians in the project area.

END OF MEMO

(D) Traffic Impact Analysis



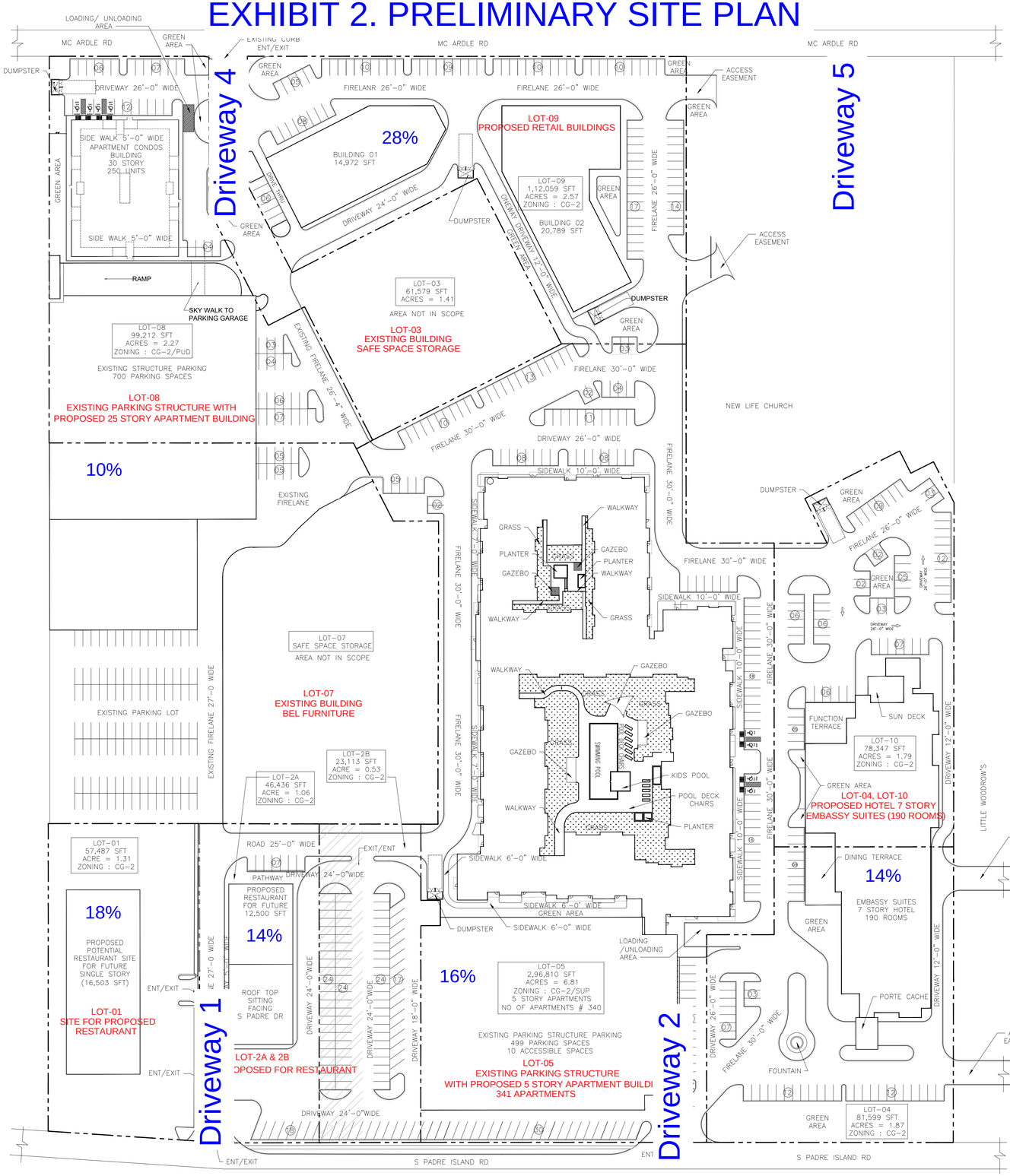
LEGEND:

- Project Site
- Study Intersection (Stop-Controlled)
- Study Intersection (Signalized)

PROMET ENGINEERS
TRANSPORTATION ENGINEERING & PLANNING
TBPE Firm Registration No.: F-25044
Phone 469-640-7708 Web www.prometengineers.com
9550 Forest Lane, Suite 342, Dallas, Texas 75243

EXHIBIT:	1
TITLE:	Site Location Map
DATE:	November 15, 2024
TRAFFIC IMPACT ANALYSIS FOR SUNRISE MALL REDEVELOPMENT IN CORPUS CHRISTI , TEXAS	

EXHIBIT 2. PRELIMINARY SITE PLAN



ZONING		
LOT NO	AREA (ACRE)	ZONING
LOT-01	1.31	CG-2
LOT-2A	1.06	CG-2
LOT-2B	0.53	CG-2
LOT-04	1.87	CG-2
LOT-05	6.81	CG-2/SUP
LOT-08	2.27	CG-2/PUD
LOT-09	2.57	CG-2
LOT-10	1.79	CG-2

LEGENDS	
	LOT BOUNDRY
	BUILDING SETBACK
	BUILDING FOOT PRINT
	6" CONCRETE CURB WITH GUTTER
	OVERHEAD BUILDING FLOOR AND BALCONIES
	EXISTING, REMAINING BUILDINGS
	EASEMENT LINE

01 SITE PLAN
SCALE:1"= 60'

GRAPHIC SCALE: 1"=60'

ARK ARCHITECTS INC

ARCHITECT

ARK Architects, Inc.
| ARCHITECTURE |
| PLANNING | INTERIORS |
ONE LEGACY WEST TOWER
7950 S. LEGACY DRIVE SUITE 240,
PLANO, TEXAS 75034
PHONE: (469) 592-7370

OWNER

CIVIL & STRUCTURE

LANDSCAPE / IRRIGATION

ELECTRICAL

MECH. & PLUMBING

STAMP

REGISTERED ARCHITECT SCOTT M JOHNS 19996 STATE OF TEXAS

ISSUED: 09/16/2024

REVISIONS

Revision No.	Revision Date

CHECKED BY : W.K
DRAWN BY : S.H

PROJECT NO.

SHEET TITLE

SITE PLAN

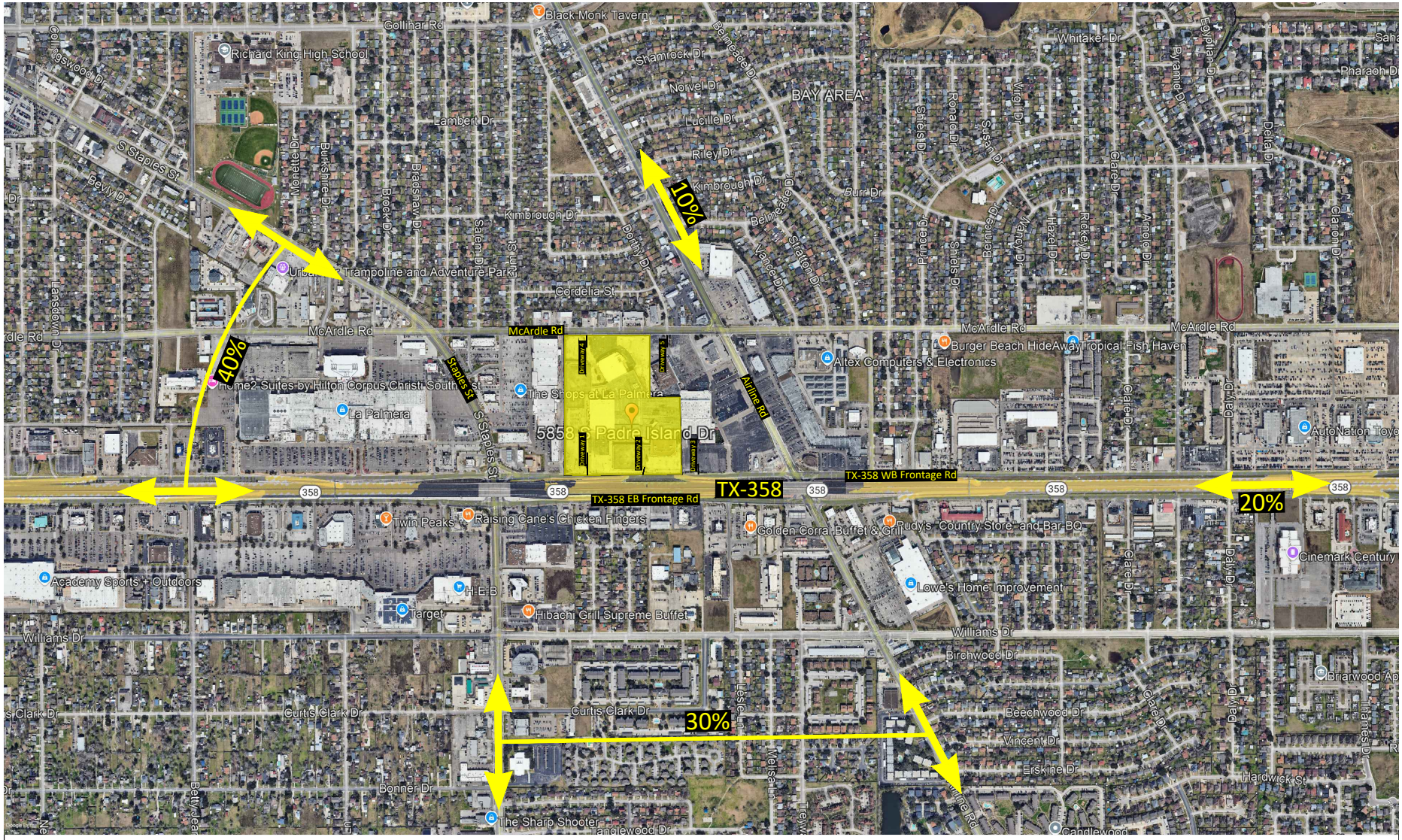
SHEET NO.

SP-01

5858 S PADRE ISLAND DR, CORPUS CHRISTI, TX 78412, USA

SUNRISE DEVELOPMENT

(D) Traffic Impact Analysis



LEGEND:

- Project Site
- XX% - Traffic Distribution

PROMET ENGINEERS TRANSPORTATION ENGINEERING & PLANNING TBPE Firm Registration No.: F-25044 Phone 469-640-7708 Web www.prometengineers.com 9550 Forest Lane, Suite 342, Dallas, Texas 75243	**EXHIBIT:** 3
	TITLE: Global Traffic Distribution
	DATE: November 15, 2024
	TRAFFIC IMPACT ANALYSIS FOR SUNRISE MALL REDEVELOPMENT IN CORPUS CHRISTI , TEXAS

(E) Traffic Division TIA Approval

From: Renee Couture
To: Andrew Dimas [DevSvcs]
Cc: Elena Buentello; Saradja Registre; Mina Trinidad; Jorge Chavez; Gisell Orozco; Ernesto De La Garza; Michael Dice
Subject: RE: ***TxDOT Comments***RE: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024
Date: Wednesday, March 5, 2025 4:57:47 PM
Attachments: RE TxDOT CommentsRE Zoning Application Lot 5 8 Sunrise Development-TRAFFIC MEETING @ 2pm 10092024.msg
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Andrew/Elena,

Both TXDOT and Traffic provided confirmation that all comments on the TIA had been addressed on 2/12 (see attached). That email was our confirmation to approve on the City's end. Based on UDC 3.29.6, Planning Commission "…may make a recommendation for approval, modification, or denial of the zoning case based on other planning factors in addition to its review of a Traffic Impact Analysis. "

PW's recommendation is for PC to approve as all City comments have been met. TXDOT has stated in their response that "… all pertinent comments below can be worked out during the driveway/access permitting process for SH 358 access (location/dimensions of driveways/raised curb, donation agreement, etc.)".

Best regards,

Renee Couture, P.E.
Assistant Director- Traffic
2525 Hygeia Street
Corpus Christi, TX 78415
Office : 361-826-3539
Email: reneec@cctexas.com
Public Works | City of Corpus Christi

From: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>
Sent: Wednesday, March 5, 2025 4:33 PM
To: Renee Couture <ReneeC@cctexas.com>
Cc: Elena Buentello <ElenaB@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Jorge Chavez <jorgec3@cctexas.com>; Gisell Orozco <GisellO2@cctexas.com>; Ernesto De La Garza <ErnestoD2@cctexas.com>; Michael Dice <michaeld3@cctexas.com>
Subject: Re: ***TxDOT Comments***RE: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Good Afternoon Renee,

Please follow up with Elena's email below by the end of business tomorrow. We need to have the documents prepared for the next Planning Commission (PC) meeting. According to Section 3.29 of the Unified Development Code (UDC), the PC must recommend Traffic Impact Analyses (TIAs) submitted in relation to a rezoning case (Document Viewer | Unified Development Code). It is in this portion that we require your review, expertise, and recommendation.

If we miss this deadline, the case will need to be rescheduled for the next PC meeting in two weeks. I understand you may have received many calls from the applicant, and we are doing our best to maintain the rezoning schedule. Please let us know if there's anything we can do to assist.
may make a recommendation for approval, modification, or denial of the zoning case based on other planning factors in addition to its review of a Traffic Impact Analysis.

Thanks,

Andrew K. Dimas, AICP

Planning Manager, Development Services Department (DSD)

2406 Leopard Street, Corpus Christi, TX 78408

Main Line: (361) 826-3240

Direct: (361) 826-1137

Website: Home | City of Corpus Christi

Customer Portal: Home - CIVICS (infor.com)

NEED HELP WITH CITY SERVICES? CALL 311 TO REACH OUR CUSTOMER CALL CENTER

Development Services Mission Statement

"To administer the building and development codes and facilitate development of the City."

From: Elena Buentello <ElenaB@cctexas.com>
Sent: Monday, March 3, 2025 3:52 PM
To: Renee Couture <ReneeC@cctexas.com>
Cc: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Jorge Chavez <jorgec3@cctexas.com>; Gisell Orozco <GisellO2@cctexas.com>
Subject: RE: ***TxDOT Comments***RE: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

A report on the TIA needs to go before Planning Commission – the report may make recommendation for approval, modification, or denial of the zoning case based on other planning factors in addition to its review of the TIA. The TIA will then go CC for final action, in conjunction with the zoning case.

Can you confirm if the following dates will work for your department?
PC 04/05/25
CC 05/13/25

ejb

Elena (pronounced eh-le-nah) Buentéllo, AICP
Planner III
Land Development ¦ Development Services Department (DSD)
2406 Leopard Street, Corpus Christi, TX 78408
Phone: 361-826-3598
Email: elenab@cctexas.com
Website: Development Services | City of Corpus Christi
Customer Portal: Home - CIVICS (infor.com)

(E) Traffic Division TIA Approval

Development Services Mission Statement

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Please take a moment to tell us how we are doing by taking our survey: https://www.cctexas.com/DSFeedback

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From: Elena Buentello
Sent: Friday, February 14, 2025 5:04 PM
To: Renee Couture <ReneeC@cctexas.com>
Cc: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>
Subject: RE: ***TxDOT Comments***RE: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Renee,

Good afternoon. The TIA needs to be presented to Planning Commission. Our next cycle for PC closes on Wednesday, Feb. 19th for a PC meeting of Wednesday, March 19th with PC docs (report, presentation, etc. . .) needed by Monday, February 10th. Would a PC date of March19th be acceptable for Traffic to present the item?

DS staff would prefer to take the TIA and zoning cases for the development to PC at the same time.

Have a good weekend and let me know if we can answer any questions.

ejb

Elena (pronounced eh-le-nah) Buentéllo, AICP
Planner III
Land Development ¦ Development Services Department (DSD)
2406 Leopard Street, Corpus Christi, TX 78408
Phone: 361-826-3598
Email: elenab@cctexas.com
Website: Development Services | City of Corpus Christi
Customer Portal: Home - CIVICS (infor.com)

Development Services Mission Statement

"To administer the building and development codes and facilitate development of the City."

Please take a moment to tell us how we are doing by taking our survey: https://www.cctexas.com/DSFeedback

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From: Renee Couture <ReneeC@cctexas.com>
Sent: Wednesday, February 12, 2025 9:08 PM
To: Ernest Longoria <ernest.longoria@txdot.gov>; Mina Tariq <mina@arkarchitects.co>; america.garza@txdot.gov; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Juan Marfil <juan.marfil@txdot.gov>; Sara McNeil <saram2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nassir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Somesh Reddy <somesh@prometengineers.com>; Mina Trinidad <minar@cctexas.com>; Gisell Orozco <GisellO2@cctexas.com>; Jorge Chavez <jorgec3@cctexas.com>
Subject: RE: ***TxDOT Comments***RE: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Mina,

The City's Traffic team has no further comments. City maintained signals at Staples St/McArdle St and Airline Rd/McArdle Rd are planned upgrades that will include FYAs.

However, I do want to note the bus stop near Driveway 4. Redevelopment may warrant the need to re-evaluate safety mitigations to address the potential for mid-block crossings.

Best regards,

Renee Couture, P.E.
Assistant Director- Traffic
2525 Hygeia Street
Corpus Christi, TX 78415
Office : 361-826-3539
Email: reneec@cctexas.com
https://www.cctexas.com/departments/public-works

(E) Traffic Division TIA Approval

From: Ernest Longoria <Ernest.Longoria@txdot.gov>
Sent: Wednesday, February 12, 2025 5:09 PM
To: Mina Tariq <mina@arkarchitects.co>; america.garza@txdot.gov; Renee Couture <ReneeC@cctexas.com>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Juan Marfil <juan.marfil@txdot.gov>; Sara McNeil <saram2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nassir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Somesh Reddy <somesh@prometengineers.com>; Mina Trinidad <minar@cctexas.com>; Gisell Orozco <GisellO2@cctexas.com>; Jorge Chavez <jorgec3@cctexas.com>
Subject: RE: ***TxDOT Comments***RE: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Mina, from TxDOT's side I believe all pertinent comments below can be worked out during the driveway/access permitting process for SH 358 access (location/dimensions of driveways/raised curb, donation agreement, etc.) . I have no further comments regarding the actual TIA itself on this email thread.

From: Mina Tariq <mina@arkarchitects.co>
Sent: Wednesday, February 12, 2025 8:53 AM
To: Ernest Longoria <Ernest.Longoria@txdot.gov>; America Garza <America.Garza@txdot.gov>; Renee Couture <ReneeC@cctexas.com>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Juan Marfil <Juan.Marfil@txdot.gov>; Sara McNeil <saram2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nassir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Somesh Reddy <somesh@prometengineers.com>; Mina Trinidad <minar@cctexas.com>; Gisell Orozco <GisellO2@cctexas.com>; Jorge Chavez <jorgec3@cctexas.com>
Subject: Re: ***TxDOT Comments***RE: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Hi Renee,
Hope you are well. We had sent in our submission yesterday but whenever we try to make a submission we never get a receipt response from you, we understand that you may be occupied and would request you to please co-operate with us too and keep us posted on the situation .We also look forward to your response on the submission as this process has bene going on for over 6 months and a lot of time and resources are being wasted in this process. We earnestly look forward to your attention on this matter.

Yours Sincerely

MINA TARIQ
Architectural Designer

ARK ARCHITECTS INC

Office : 469-592-7370 Ext-123
Mobile: 469-592-7377
Email: mina@arkarchitects.co

One Legacy West tower
7950 S Legacy Dr,
Suite # 240 Plano TX

www.arkarchitects.co

From: Mina Tariq <mina@arkarchitects.co>
Sent: Tuesday, February 11, 2025 10:16 AM
To: Somesh Reddy <somesh@prometengineers.com>; Ernest Longoria <Ernest.Longoria@txdot.gov>; America Garza <America.Garza@txdot.gov>; Renee Couture <ReneeC@cctexas.com>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Juan Marfil <Juan.Marfil@txdot.gov>; Sara McNeil <saram2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nassir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com <abed.ddc@gmail.com>; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Gisell Orozco <GisellO2@cctexas.com>; Jorge Chavez <jorgec3@cctexas.com>
Subject: Re: ***TxDOT Comments***RE: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

240058 Memo - Reponse to TxDOT Comments 1.pdf

FORM 2534-filled.pdf

TIA for Sunrise Development in Corpus Christi, Texas February 11, 2025 1.pdf

Hi Renee,

(E) Traffic Division TIA Approval

Please find our updated TIA, safety analysis and a document addressing all your comments.
Looking forward to your response.

Yours Sincerely

MINA TARIQ

Architectural Designer

ARK ARCHITECTS INC

Office : 469-592-7370 Ext-123

Mobile: 469-592-7377

Email: mina@arkarchitects.co

One Legacy West tower

7950 S Legacy Dr,

Suite # 240 Plano TX

www.arkarchitects.co

From: Somesh Reddy <somesh@prometengineers.com>
Sent: Friday, January 31, 2025 1:08 PM
To: Ernest Longoria <Ernest.Longoria@txdot.gov>; America Garza <America.Garza@txdot.gov>; Mina Tariq <mina@arkarchitects.co>; Renee Couture <ReneeC@cctexas.com>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Juan Marfil <Juan.Marfil@txdot.gov>; Sara McNeil <saram2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nassir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com <abed.ddc@gmail.com>; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Gisell Orozco <GisellO2@cctexas.com>; Jorge Chavez <jorgec3@cctexas.com>
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Ernest,

Thank you for providing this feedback. The developer prefers both Driveways 1 and 2 to operate as main entrances. Driveway 1 is currently being utilized by existing stores on the site and will continue to do so.

The developer agrees to the following as per your comments:

1. Driveway 1 – This driveway will continue to operate as it is. An additional WB right-turn lane will be constructed for inbound traffic.
2. Driveway 2—The driveway will be moved further west to meet the spacing requirements for weaving. It will operate as a right-in/right-out with a WB deceleration lane. Additionally, the developer will construct a raised curb, as mentioned.
3. Driveway 3 – Construct a raised curb at the future off-ramp to avoid conflicts.

I've attached the site plan showing the proposed WB right-turn lanes. The location of Driveway 2 will be changed in the subsequent submittal.

Please confirm if the site plan, TIA, and safety analysis can be revised and submitted for review and approval.

Thank you,

Somesh R. Katukuri, P.E.
Traffic Engineer
PROMET ENGINEERS
TRANSPORTATION ENGINEERING & PLANNING
TBPE Firm Registration No.: F-25044
Phone 469-640-7708 **Mobile** 214-205-8683
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9550 Forest Lane, Suite 342, Dallas, Texas - 75243

From: Ernest Longoria <Ernest.Longoria@txdot.gov>
Sent: Friday, January 31, 2025 10:43 AM
To: Somesh Reddy <somesh@prometengineers.com>; America Garza <America.Garza@txdot.gov>; Mina Tariq <mina@arkarchitects.co>; Renee Couture <ReneeC@cctexas.com>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Juan Marfil <Juan.Marfil@txdot.gov>; Sara McNeil <saram2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nassir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Gisell Orozco <GisellO2@cctexas.com>; Jorge Chavez <jorgec3@cctexas.com>
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See my comments below in red.

As a side note, it would be helpful to know operationally speaking where the "main entrance" to this development is planning to go. Is the developer wanting all traffic to route to Driveway 1 or a mix between Driveway 1 and 2? That way we can better understand where traffic is going to mostly want to go in terms of access points.

From: Somesh Reddy <somesh@prometengineers.com>
Sent: Wednesday, January 29, 2025 12:59 PM
To: America Garza <America.Garza@txdot.gov>; Mina Tariq <mina@arkarchitects.co>; Renee Couture <ReneeC@cctexas.com>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Juan Marfil <Juan.Marfil@txdot.gov>; Ernest Longoria <Ernest.Longoria@txdot.gov>; Sara McNeil <saram2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nassir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Gisell Orozco <GisellO2@cctexas.com>; Jorge Chavez <jorgec3@cctexas.com>
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America,

Good afternoon. We have reviewed the new SH 358 ramp locations adjacent to the site. We would like to request your input relating to the driveway locations. The following are the measures that the developer is willing to take at the site driveways:

1. Driveway 1 currently operates as right-in/right-out driveway. The location of this driveway is beyond the future entrance ramp. The developer proposes to construct a WB right-turn deceleration on the frontage road at this driveway. Understood, no issues with this plan. See our comments in below email from America Garza regarding details needed and donation agreement if this is what the developer is agreeing to construct.

(E) Traffic Division TIA Approval

2. Driveway 3 is currently operating as entry-only. However, this driveway is not in the property to be able to make any changes. Therefore, the developer is willing to lose access to their site through this driveway by placing a gate/closing the access connection at their property line. No project's site traffic will be using this driveway. The only concern with this plan is the potential for change in ownership and mataining this gate/closing after the fact. TxDOT has no control over what happens on private property so we wouldn't be able to enforce this plan in future. An alternative would be to look into possibly constructing a raised curb similar to what is currently on the EB side at the trade center (see image in attached). Is this something the developer would be agreeable to installing to help deter that conflict point with the future ramp?

3. Driveway 2 is currently operating as exit only. The driveway is approximately 420 feet from the exit ramp, which is short of the required 460 feet for a three-lane weaving from ramp to the driveway. Could we use the current location or do you recommend moving the driveway further west to meet the requirements. The driveway meets the requirements with the future entrance ramp to the west. The available spacing is greater than 300 feet. The requirement is 200 feet. Would TxDOT approve a right-in/right-out operation at the driveway with a WB dedicated right turn lane? Or is it preferred to keep this driveway as exit only as it operates as of today? Depending on your answer to the above question regarding the "main entrance" it may be more advantageous to go with right-in right-out and push the driveway west to meet the weaving distance with the future off ramp. If we did that we would likely ask that a raised curb (see image attached) be installed for the entrance ramp just west of this.

See attached for more details.

Please provide feedback. The engineer will work on making any necessary changes. I will submit the revised TIA and safety analysis once we come to an agreement on the driveway locations.

Thank you,

Somesh R. Katukuri, P.E.
Traffic Engineer
PROMET ENGINEERS
TRANSPORTATION ENGINEERING & PLANNING
TBPE Firm Registration No.: F-25044
Phone 469-640-7708 **Mobile** 214-205-8683
Web www.prometengineers.com **Email**: somesh@prometengineers.com
9550 Forest Lane, Suite 342, Dallas, Texas - 75243

From: America Garza <America.Garza@txdot.gov>
Sent: Thursday, January 16, 2025 3:20 PM
To: Somesh Reddy <somesh@prometengineers.com>; Mina Tariq <mina@arkarchitects.co>; Renee Couture <ReneeC@cctexas.com>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Juan Marfil <Juan.Marfil@txdot.gov>; Ernest Longoria <Ernest.Longoria@txdot.gov>; Sara McNeil <saram2@cctexas.com>
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Hello Somesh. Please submit an Open Records Request for the information.

Link below:

https://www.txdot.gov/about/contact-us/submit-an-open-records-request.html

Thanks.
America

From: Somesh Reddy <somesh@prometengineers.com>
Sent: Thursday, January 16, 2025 3:08 PM
To: America Garza <America.Garza@txdot.gov>; Mina Tariq <mina@arkarchitects.co>; Renee Couture <ReneeC@cctexas.com>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Juan Marfil <Juan.Marfil@txdot.gov>; Ernest Longoria <Ernest.Longoria@txdot.gov>; Sara McNeil <saram2@cctexas.com>
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America,

Thank you for reviewing the TIA. I searched for the SH 358 new ramp location online but could not find the schematic. Could you please share the TxDOT schematic?

Thank you,

Somesh R. Katukuri, P.E.
Traffic Engineer
PROMET ENGINEERS
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TBPE Firm Registration No.: F-25044
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9550 Forest Lane, Suite 342, Dallas, Texas - 75243

From: America Garza <America.Garza@txdot.gov>
Sent: Thursday, January 16, 2025 1:48 PM
To: Mina Tariq <mina@arkarchitects.co>; Somesh Reddy <somesh@prometengineers.com>; Renee Couture <ReneeC@cctexas.com>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Juan Marfil <Juan.Marfil@txdot.gov>; Ernest Longoria <Ernest.Longoria@txdot.gov>; Sara McNeil <saram2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nassir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Gisell Orozco <GisellO2@cctexas.com>; Jorge Chavez <jorgec3@cctexas.com>
Subject: ***TxDOT Comments***RE: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Dear Mina,
Below are Comments that District has regarding the TIA and existing driveways:

- Site use change will trigger requirements for a new permit for all 3 driveways.
- Please submit application for driveway permits to Corpus Christi Area Office , Area Engineer, Ernesto Longoria (email is noted above)
- Operational concern for driveway 3 and 2 (in reference to new SH 358 ramp being relocated)
  - Concern with weaving distance for cars trying to get over to driveway 2 after exiting
  - Concern with vehicles that try to exit and cut across to driveway 3 too early
- Right turn lane at Driveway 3 and 1 (dedication in state ROW?).
  - need details of this (storage length, geometrics, adjacent sidewalk details)
  - materials of driveway
  - will developer construct and dedicate?
- Please fill out Form 2534 even thought the TIA has been completed.

Mina we are still waiting for the Safety Analysis related to the anticipated future traffic increase. Some of the bullets mentioned are concerning safety operations with exiting driveway configuration in comparison to the new project letting soon.

The comments above are not final until we receive the safety analysis report.

Thank You.

Respectfully,
America B. Garza, P.E.
District Traffic Engineer
TxDOT
361-808-2490

(E) Traffic Division TIA Approval

From: America Garza
Sent: Monday, January 13, 2025 11:06 AM
To: Mina Tariq <mina@arkarchitects.co>; Somesh Reddy <somesh@prometengineers.com>; Renee Couture <ReneeC@cctexas.com>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Juan Marfil <Juan.Marfil@txdot.gov>; Ernest Longoria <Ernest.Longoria@txdot.gov>; Sara McNeil <saram2@cctexas.com>
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Subject: RE: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

TxDOT will get you some comments this week. We are still reviewing.

Thanks.

From: Mina Tariq <mina@arkarchitects.co>
Sent: Monday, January 13, 2025 9:17 AM
To: America Garza <America.Garza@txdot.gov>; Somesh Reddy <somesh@prometengineers.com>; Renee Couture <ReneeC@cctexas.com>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Juan Marfil <Juan.Marfil@txdot.gov>; Ernest Longoria <Ernest.Longoria@txdot.gov>; Sara McNeil <saram2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nassir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Gisell Orozco <GisellO2@cctexas.com>; Jorge Chavez <jorgec3@cctexas.com>
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Hi,
Can we please know until when will we get a response?

Yours Sincerely

MINA TARIQ

Architectural Designer

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Mobile: 469-592-7377

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From: America Garza <America.Garza@txdot.gov>
Sent: Friday, January 3, 2025 11:46 AM
To: Mina Tariq <mina@arkarchitects.co>; Somesh Reddy <somesh@prometengineers.com>; Renee Couture <ReneeC@cctexas.com>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Juan Marfil <Juan.Marfil@txdot.gov>; Ernest Longoria <Ernest.Longoria@txdot.gov>; Sara McNeil <saram2@cctexas.com>
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Hello Mina, I don't work for the City, I work for TxDOT.

Renee Couture will be your POC for city comments.

I have not reviewed the TIA that Somesh sent on 12-23-24. I was out on vacation and just returned yesterday. I do have this on my list to review next week.

Thank you.

From: Mina Tariq <mina@arkarchitects.co>
Sent: Friday, January 3, 2025 11:05 AM
To: Somesh Reddy <somesh@prometengineers.com>; America Garza <America.Garza@txdot.gov>; Renee Couture <ReneeC@cctexas.com>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Juan Marfil <Juan.Marfil@txdot.gov>; Ernest Longoria <Ernest.Longoria@txdot.gov>; Sara McNeil <saram2@cctexas.com>
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Subject: Re: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Hi America,

When will be hearing back from the city for the report

Yours Sincerely

MINA TARIQ

Architectural Designer

(E) Traffic Division TIA Approval

ARK ARCHITECTS INC

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From: Somesh Reddy <somesh@prometengineers.com>
Sent: Monday, December 23, 2024 3:53 PM
To: America Garza <America.Garza@txdot.gov>; Mina Tariq <mina@arkarchitects.co>; Renee Couture <ReneeC@cctexas.com>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Juan Marfil <Juan.Marfil@txdot.gov>; Ernest Longoria <Ernest.Longoria@txdot.gov>; Sara McNeil <saram2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com <abed.ddc@gmail.com>; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Gisell Orozco <GisellO2@cctexas.com>; Jorge Chavez <jorgec3@cctexas.com>
Subject: RE: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Good afternoon

We have completed this project's Traffic Impact Analysis (TIA) for the City and TxDOT review. Our TIA report is attached to this email.

The safety analysis has not been included in the report. I will send it as a separate document while the TIA is under review.

We would like to have this TIA reviewed and approved by both entities to move forward with the rezoning application.

Please let me know if you have any questions as you review the study.

Thank you and have a great holiday season!

Thank you,

Somesh R. Katukuri, P.E.
Traffic Engineer
PROMET ENGINEERS
TRANSPORTATION ENGINEERING & PLANNING
TBPE Firm Registration No.: F-25044
Phone 469-640-7708 **Mobile** 214-205-8683
Web www.prometengineers.com **Email**: somesh@prometengineers.com
9550 Forest Lane, Suite 342, Dallas, Texas - 75243

From: America Garza <America.Garza@txdot.gov>
Sent: Tuesday, December 3, 2024 1:16 PM
To: Mina Tariq <mina@arkarchitects.co>; Somesh Reddy <somesh@prometengineers.com>; Renee Couture <ReneeC@cctexas.com>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Juan Marfil <Juan.Marfil@txdot.gov>; Ernest Longoria <Ernest.Longoria@txdot.gov>; Sara McNeil <saram2@cctexas.com>
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Mina, For TxDOT, it may take approx. 2 weeks.

Thanks,
America

From: Mina Tariq <mina@arkarchitects.co>
Sent: Tuesday, December 3, 2024 11:34 AM
To: America Garza <America.Garza@txdot.gov>; Somesh Reddy <somesh@prometengineers.com>; Renee Couture <ReneeC@cctexas.com>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Juan Marfil <Juan.Marfil@txdot.gov>; Ernest Longoria <Ernest.Longoria@txdot.gov>; Sara McNeil <saram2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Gisell Orozco <GisellO2@cctexas.com>; Jorge Chavez <jorgec3@cctexas.com>
Subject: Re: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Hi All,

We are currently working on our TIA and will be able to send it to you hopefully by end of the week, we wanted to know the next steps:

- How long will it take for you to review the TIA and tell us our next steps.
-Can you please also let us know that if the TIA is approved will our zoning application be sent for approval and are there any other steps before that.

Yours Sincerely

MINA TARIQ

Architectural Designer

(E) Traffic Division TIA Approval

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From: America Garza <America.Garza@txdot.gov>
Sent: Monday, November 18, 2024 1:29 PM
To: Somesh Reddy <somesh@prometengineers.com>; Renee Couture <ReneeC@cctexas.com>; Mina Tariq <mina@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Juan Marfil <Juan.Marfil@txdot.gov>; Ernest Longoria <Ernest.Longoria@txdot.gov>; Sara McNeil <saram2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com <abed.ddc@gmail.com>; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Gisell Orozco <GisellO2@cctexas.com>; Jorge Chavez <jorgec3@cctexas.com>
Subject: RE: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Somesh, I looked at the TIA Scoping and it looks very thorough, and I agree with the surrounding intersections that connect to State Highway facilities that your team will be analyzing.

Attached is TxDOT's TIA guidance and this development seems to fall under Cat 2 , Table 16-1: TIA Categories and the defined analysis guidance for TxDOT. The scope that was defined in the memo covers all the bullets defined. One thing that I' d like to request is the Safety analysis. Please reference pdf.10 under the Safety bullet. This is very important for us when it comes to safety and to reduce crashes and especially prevent them when we know more traffic, ped and bicyclist may increase as well. Please feel free to reach out to me if you need access to obtain crash information.

chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://onlinemanuals.txdot.gov/TxDOTOnlineManuals/txdotmanuals/tsp/tsp.pdf

TxDOT statewide planning map for future projects. We do have a ramp reversal project on SH358 Estimated Let Date April 2024, Limits from Staples to Nile.
https://www.txdot.gov/apps/statewide_mapping/statewideplanningmap.html

Thank you.

Respectfully,
America B. Garza, P.E.
District Traffic Engineer
Corpus Christi District
361-808-2490

From: Somesh Reddy <somesh@prometengineers.com>
Sent: Friday, November 15, 2024 8:30 AM
To: Renee Couture <ReneeC@cctexas.com>; Mina Tariq <mina@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; America Garza <America.Garza@txdot.gov>; Juan Marfil <Juan.Marfil@txdot.gov>; Ernest Longoria <Ernest.Longoria@txdot.gov>; Sara McNeil <saram2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Gisell Orozco <GisellO2@cctexas.com>; Jorge Chavez <jorgec3@cctexas.com>
Subject: RE: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Renee,

Good morning. I have prepared the scoping document for review and feedback. The memo is attached to this email.

We plan to collect traffic counts on Tuesday or Wednesday next week. So, it would be great if we could get the City and TxDOT's thoughts on the proposed intersections before the end of today. Let me know if you find the selected study intersections sufficient.

We can schedule a meeting early next week to discuss the remaining items as needed.

Please let me know if you have any questions.

Thank you,

Somesh R. Katukuri, P.E.
Traffic Engineer
PROMET ENGINEERS
TRANSPORTATION ENGINEERING & PLANNING
TBPE Firm Registration No.: F-25044
Phone 469-640-7708 **Mobile** 214-205-8683
Web www.prometengineers.com **Email**: somesh@prometengineers.com
9550 Forest Lane, Suite 342, Dallas, Texas - 75243

From: Renee Couture <ReneeC@cctexas.com>
Sent: Thursday, November 14, 2024 4:41 PM
To: Mina Tariq <mina@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; america.garza@txdot.gov; Juan Marfil <juan.marfil@txdot.gov>; Ernest Longoria <ernest.longoria@txdot.gov>; Sara McNeil <saram2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com; Somesh Reddy <somesh@prometengineers.com>; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Gisell Orozco <GisellO2@cctexas.com>; Jorge Chavez <jorgec3@cctexas.com>
Subject: RE: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Mina/Somesh,

(E) Traffic Division TIA Approval

Please advise as to when you want to discuss the scope with TXDOT.

Best regards,

Renee Couture, P.E.
Assistant Director- Traffic
2525 Hygeia Street
Corpus Christi, TX 78415
Office : 361-826-3539
Email: reneec@cctexas.com
https://www.cctexas.com/departments/public-works

From: Renee Couture
Sent: Thursday, November 7, 2024 6:48 PM
To: Mina Tariq <mina@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; America Garza <america.garza@txdot.gov>; Juan Marfil <juan.marfil@txdot.gov>; Ernest Longoria <Ernest.Longoria@txdot.gov>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com; somesh@prometengineers.com; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>
Subject: RE: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Mina,

I was able to speak with Somesh today. Yes, we will approve the PHT form. The next step is development of a scope for the traffic study to be performed. We will coordinate to develop a scope focused on access management and mobility for various modes of traffic. We want to be able to address impacts on the abutting roadway and mitigation measures.

I have included the TXDOT Engineers who oversee the Traffic and Area Office in this email as well since they will assist in scope and review. The site plan will be part of the traffic study. Any proposed changes should be shared as it will help with development of the study. It would also help with any comments/recommendations we may have to assist with the rezoning application.

Best regards,

Renee Couture, P.E.
Assistant Director- Traffic
2525 Hygeia Street
Corpus Christi, TX 78415
Office : 361-826-3539
Email: reneec@cctexas.com
https://www.cctexas.com/departments/public-works

From: Mina Tariq <mina@arkarchitects.co>
Sent: Thursday, November 7, 2024 2:24 PM
To: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Renee Couture <ReneeC@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com; somesh@prometengineers.com; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>
Subject: Re: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Hi Elena,

From our talk with Somesh, the TIA consultant, we were told that from his comments the traffic department has decided to approve the PHT and would require some form of a TIA done for now, we wanted to follow up with a few questions:

- Is this going to be a final TIA or are you looking for an initial report for now? @reneec@cctexas.com
-We would like to make changes to our site plan and we want to know if we need to share that before or along with the TIA? @Elena Buentello

Yours Sincerely

MINA TARIQ

Architectural Designer

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(E) Traffic Division TIA Approval

From: Mina Tariq <mina@arkarchitects.co>
Sent: Monday, November 4, 2024 10:14 AM
To: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com <abed.ddc@gmail.com>; somesh@prometengineers.com <somesh@prometengineers.com>; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>
Subject: Re: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Elena,

Based off your recent talks with our team, we were made to understand that you would require more time for compiling all comments and sharing with us. In the meantime, we would appreciate if you can let us know that looking at the PHT so far the, the traffic department would definitely suggest a TIA.
Please let us know.

Yours Sincerely

MINA TARIQ
Architectural Designer

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From: Mina Tariq <mina@arkarchitects.co>
Sent: Monday, November 4, 2024 6:41 AM
To: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com <abed.ddc@gmail.com>; somesh@prometengineers.com <somesh@prometengineers.com>; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>
Subject: Re: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Hi,
We wanted to follow up in case there was an update.

Yours Sincerely

MINA TARIQ
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(E) Traffic Division TIA Approval

From: Mina Tariq <mina@arkarchitects.co>
Sent: Thursday, October 31, 2024 10:21 AM
To: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com <abed.ddc@gmail.com>; somesh@prometengineers.com <somesh@prometengineers.com>; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>
Subject: Re: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Hi Elena,

Will we be hearing back from you today?

Sincerely,

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Architectural Designer

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From: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>
Sent: Tuesday, October 29, 2024 4:13 PM
To: Mina Tariq <mina@arkarchitects.co>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com <abed.ddc@gmail.com>; somesh@prometengineers.com <somesh@prometengineers.com>; Monica Roberts <monica@arkarchitects.co>; Michael Dice <michaeld3@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>
Subject: Re: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Good Afternoon Mina,

As per our conversation this morning....

You may submit a plat while the rezoning case is in process. However, please note, plats also require Peak Hour Trips forms and similar to zoning if the number of peak hour trips exceed 501, a Traffic Impact Analysis (TIA) will need to be submitted. Additionally, if the proposed PUD alters the property lines, the plat will need to be amended to match the approved PUD. Lastly, if the findings of the TIA alters your site plan, it may conflict with the approved master site plan of the PUD and ultimately the plat.

Proceeding with plat prior to PUD and TIA approval is at your own risk and not recommended by City staff.

If I may be of further assistance, please let me know.

Thanks,

Andrew K. Dimas, Planning Manager

Development Services Department (DSD)

2406 Leopard Street, Corpus Christi, TX 78408

Main Line: (361) 826-3240

Direct: (361) 826-1137

Website: www.cctexas.com/ds

Customer Portal: Home - CIVICS (infor.com)

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Development Services Mission Statement

"To administer the building and development codes and facilitate development of the City."

From: Mina Tariq <mina@arkarchitects.co>
Sent: Tuesday, October 29, 2024 11:43 AM
To: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>

(E) Traffic Division TIA Approval

Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Jason Alaniz <JasonA@cctexas.com>; Mishal Anwer <mishal@arkarchitects.co>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com <abed.ddc@gmail.com>; somesh@prometengineers.com <somesh@prometengineers.com>; Monica Roberts <monica@arkarchitects.co>
Subject: Re: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Hi Andrew,

Can we get a written email here.

Sincerely,

MINA TARIQ

Architectural Designer

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From: Mina Tariq <mina@arkarchitects.co>
Sent: Monday, October 28, 2024 10:40 AM
To: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Jason Alaniz <JasonA@cctexas.com>; Mishal Anwer <mishal@arkarchitects.co>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com <abed.ddc@gmail.com>; somesh@prometengineers.com <somesh@prometengineers.com>; Monica Roberts <monica@arkarchitects.co>
Subject: Re: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Hi Andrew,

Please disregard the previous email as it had a few typos in it. We wanted to reach out regarding our last discussion of replatting our property, here are the questions:

-Can we replat our entire property whilst two of our lots (lot 5 and lot 8) are currently under zoning process.
-If yes, can you please briefly share with us the process, review time and fees.
-If not, then how would you advise that we proceed.

Sincerely,

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Architectural Designer

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From: Mina Tariq <mina@arkarchitects.co>
Sent: Monday, October 28, 2024 9:50 AM
To: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Elena Buentello <ElenaB@cctexas.com>

(E) Traffic Division TIA Approval

Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Jason Alaniz <JasonA@cctexas.com>; Mishal Anwer <mishal@arkarchitects.co>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com <abed.ddc@gmail.com>; somesh@prometengineers.com <somesh@prometengineers.com>; Monica Roberts <monica@arkarchitects.co>
Subject: Re: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Hi,

Andrew as you know we intend to replat all the other lots that are not under zoning process and as we were talking to a representative from the city we were told that we would have to apply for a different zoning application after the zoning process of these two lots, we wanted to reach out to confirm if that would be the case, if yes, then does this mean we would have to go through the entire replat process of document submittal, fees and approval again for these two lots separately?

Please advise.

Sincerely,

MINA TARIQ

Architectural Designer

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From: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>
Sent: Friday, October 25, 2024 12:05 PM
To: Mina Tariq <mina@arkarchitects.co>; Elena Buentello <ElenaB@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Jason Alaniz <JasonA@cctexas.com>; Mishal Anwer <mishal@arkarchitects.co>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com <abed.ddc@gmail.com>; somesh@prometengineers.com <somesh@prometengineers.com>; Monica Roberts <monica@arkarchitects.co>
Subject: Re: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Good Afternoon,

Yes, the platting process can run concurrent with the rezoning process.

If I may be of further assistance, please let me know.

Thanks,

Andrew K. Dimas, Planning Manager

Development Services Department (DSD)

2406 Leopard Street, Corpus Christi, TX 78408

Main Line: (361) 826-3240

Direct: (361) 826-1137

Website: www.cctexas.com/ds

Customer Portal: Home - CIVICS (infor.com)

Development Services Mission Statement

"To administer the building and development codes and facilitate development of the City."

From: Mina Tariq <mina@arkarchitects.co>
Sent: Friday, October 25, 2024 10:16 AM
To: Elena Buentello <ElenaB@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Jason Alaniz <JasonA@cctexas.com>; Mishal Anwer <mishal@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com <abed.ddc@gmail.com>; somesh@prometengineers.com <somesh@prometengineers.com>; Monica Roberts <monica@arkarchitects.co>
Subject: Re: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Hi Elena,

We know we are currently in the process of applying for a zoning change for Lot 5 and 8 for now, but we wanted to ask if we can work on the process of replatting the other 6 lots whilst in the process of applying for the zoning changes of the other two lots.

(E) Traffic Division TIA Approval

Sincerely,

MINA TARIQ

Architectural Designer

ARK ARCHITECTS INC

Office: 469-592-7370

Direct Line : 469-592-7377 Ext-123

Email:mina@arkarchitects.co

One Legacy West Tower

7950 S Legacy Drive

Suite 240, Plano, TX

www.arkarchitects.co

From: Elena Buentello <ElenaB@cctexas.com>
Sent: Thursday, October 24, 2024 4:15 PM
To: Mina Tariq <mina@arkarchitects.co>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Jason Alaniz <JasonA@cctexas.com>; Mishal Anwer <mishal@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com <abed.ddc@gmail.com>; somesh@prometengineers.com <somesh@prometengineers.com>; Monica Roberts <monica@arkarchitects.co>
Subject: Re: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Traffic needs to provide a formal review- approximately 5 business days, but at first glance, trips exceed 501 which is the threshold at which the UDC 3.29 requires a TIA.

Get Outlook for iOS

From: Mina Tariq <mina@arkarchitects.co>
Sent: Thursday, October 24, 2024 3:23:39 PM
To: Elena Buentello <ElenaB@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Jason Alaniz <JasonA@cctexas.com>; Mishal Anwer <mishal@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com <abed.ddc@gmail.com>; somesh@prometengineers.com <somesh@prometengineers.com>; Monica Roberts <monica@arkarchitects.co>
Subject: Re: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Can you please give us a timeline for how long will the review take as we would like to know if we need a TIA as soon as possible.

Sincerely,

MINA TARIQ

Architectural Designer

ARK ARCHITECTS INC

Office: 469-592-7370

Direct Line : 469-592-7377 Ext-123

Email:mina@arkarchitects.co

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7950 S Legacy Drive

Suite 240, Plano, TX

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From: Elena Buentello <ElenaB@cctexas.com>
Sent: Thursday, October 24, 2024 3:13 PM
To: Mina Tariq <mina@arkarchitects.co>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Jason Alaniz <JasonA@cctexas.com>; Mishal Anwer <mishal@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Yasir Qazi <yasir@arkarchitects.co>;

(E) Traffic Division TIA Approval

abed.ddc@gmail.com <abed.ddc@gmail.com>; somesh@prometengineers.com <somesh@prometengineers.com>; Monica Roberts <monica@arkarchitects.co>
Subject: Re: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Received. The PHT form has been forwarded to traffic engineering for review and comment.

Get Outlook for iOS

From: Mina Tariq <mina@arkarchitects.co>
Sent: Thursday, October 24, 2024 2:29:58 PM
To: Elena Buentello <ElenaB@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Jason Alaniz <JasonA@cctexas.com>; Mishal Anwer <mishal@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com <abed.ddc@gmail.com>; somesh@prometengineers.com <somesh@prometengineers.com>; Monica Roberts <monica@arkarchitects.co>
Subject: Re: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Hi Elena,
Please find the PHT here and advise further.

Sincerely,

MINA TARIQ
Architectural Designer

ARK ARCHITECTS INC

Office: 469-592-7370
Direct Line : 469-592-7377 Ext-123
Email: mina@arkarchitects.co

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Suite 240, Plano, TX

www.arkarchitects.co

From: Monica Roberts <monica@arkarchitects.co>
Sent: Wednesday, October 9, 2024 9:55 AM
To: Elena Buentello <ElenaB@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mina Tariq <mina@arkarchitects.co>; Jason Alaniz <JasonA@cctexas.com>; Mishal Anwer <mishal@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>; Yasir Qazi <yasir@arkarchitects.co>; abed.ddc@gmail.com <abed.ddc@gmail.com>; somesh@prometengineers.com <somesh@prometengineers.com>
Subject: Zoning Application Lot 5 & 8, Sunrise Development-TRAFFIC MEETING @ 2pm 10/09/2024

Hi Elena,

2pm CST works great for us. Please see meeting attendees below:

Nas@arkarchitects.co

monica@arkarchitects.co

haider@arkarchitects.co

marzi@arkarchitects.co

mishal@arkarchitects.co

scott@arkarchitects.co

waqar@arkarchitects.co

yasir@arkarchitects.co

abed.ddc@gmail.com

somesh@prometengineers.com

Call me if you have any questions.

Sincerely,

MONICA ROBERTS
Project Manager

ARK ARCHITECTS INC

(E) Traffic Division TIA Approval

Office : 469-592-7370 Ext-100

Mobile: 469-971-7749

Email:
monica@arkarchitects.co

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From: Elena Buentello <ElenaB@cctexas.com>
Sent: Tuesday, October 8, 2024 8:43 AM
To: Monica Roberts <monica@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mina Tariq <mina@arkarchitects.co>; Jason Alaniz <JasonA@cctexas.com>
Subject: RE: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

You must submit a peak hour trip form. It appears that traffic engineering would like one for the entire site. This may in turn trigger a TIA. This is required to proceed with the rezoning according to UDC §3.29.

ejb

Elena Buentéllo (pronounced eh-le-nah)

AICP – Planner III

Land Development ¦ Development Services Department (DSD)

2406 Leopard Street, Corpus Christi, TX 78408

Phone: 361-826-3598

Email: elenab@cctexas.com

Website: www.cctexas.com/ds

Customer Portal: Home - CIVICS (infor.com)

Development Services Mission Statement

"To administer the building and development codes and facilitate development of the City."

Please take a moment to tell us how we are doing by taking our survey: https://www.cctexas.com/DSFeedback

---

From: Monica Roberts <monica@arkarchitects.co>
Sent: Tuesday, October 8, 2024 8:06 AM
To: Elena Buentello <ElenaB@cctexas.com>; Mishal Anwer <mishal@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mina Tariq <mina@arkarchitects.co>; Jason Alaniz <JasonA@cctexas.com>
Subject: RE: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

(E) Traffic Division TIA Approval

Hi Elena,

I just called and left you a message. Could you please explain what next steps are for our zoning change for Lot 5 and Lot 8?

I understand that you need the PHT for the entire site and that the rest of the comments can be addressed in the PI stage, but, what about the zoning change? Are we on track for approval?

Sincerely,

MONICA ROBERTS

Project Manager

ARK ARCHITECTS INC

Office : 469-592-7370 Ext-100

Mobile: 469-971-7749

Email:
monica@arkarchitects.co

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7950 S Legacy Drive

Suite 240, Plano, TX

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From: Elena Buentello <ElenaB@cctexas.com>
Sent: Monday, October 7, 2024 2:34 PM
To: Mishal Anwer <mishal@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Mina Trinidad <minar@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Monica Roberts <monica@arkarchitects.co>; Mina Tariq <mina@arkarchitects.co>; Jason Alaniz <JasonA@cctexas.com>
Subject: RE: Request Update, Zoning Application Lot 5 & 8, Sunrise Development
Importance: High

Good afternoon all and thank you for your patience.

Second round of review from the Technical Review Committee provided the following comments:

- Any further discussions on TIA (Traffic Impact Study) will be after receipt of a PHT (Peak Hour Trip Form) for the entire site. A TIA will most likely be required per PHT. Please provide for the entire site the PHT, more clarity to the site circulation, the access points, and driveways.

  See Document Viewer | Unified Development Code Sec 3.29 Traffic Impact Analysis

- RTA replied that information on their routes can be found through their website Real-Time Vehicle Locations (cadavl.com).
- All other open comments can be addressed at the public improvements phase.

Development Services staff is happy to set up a discussion with traffic engineering at your earliest convenience to discuss the requirements.

ejb

Elena Buentéllo (pronounced eh-le-nah)

AICP – Planner III

Land Development ¦ Development Services Department (DSD)

2406 Leopard Street, Corpus Christi, TX 78408

Phone: 361-826-3598

Email: elenab@cctexas.com

Website: www.cctexas.com/ds

Customer Portal: Home - CIVICS (infor.com)

(E) Traffic Division TIA Approval

Development Services Mission Statement

"To administer the building and development codes and facilitate development of the City."

Please take a moment to tell us how we are doing by taking our survey: https://www.cctexas.com/DSFeedback

---

From: Mishal Anwer <mishal@arkarchitects.co>
Sent: Monday, October 7, 2024 11:31 AM
To: Elena Buentello <ElenaB@cctexas.com>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Monica Roberts <monica@arkarchitects.co>; Mina Tariq <mina@arkarchitects.co>; Saradja Registre <SaradjaR@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>
Subject: Re: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

Hi Elena,

Hope you are doing well.
Looking forward to receive any updates regarding the review for our previous submittal?

MISHAL ANWER

Project Developer

ARK ARCHITECTS INC

Office : 469-592-7370; Ext-113

Direct: 469-527-9767

Email mishal@arkarchitects.co

One Legacy West Tower

7950 Legacy Drive, Suite 240

Plano, TX 75024

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From: Elena Buentello <ElenaB@cctexas.com>
Sent: Wednesday, October 2, 2024 10:40 PM
To: Mina Tariq <mina@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Monica Roberts <monica@arkarchitects.co>; Saradja Registre <SaradjaR@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>
Subject: RE: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

Staff is compiling second round of staff comments and discerning what items remain to be addressed.

ejb

Elena Buentéllo (pronounced eh-le-nah)

(E) Traffic Division TIA Approval

AICP – Planner III

Land Development ¦ Development Services Department (DSD)

2406 Leopard Street, Corpus Christi, TX 78408

Phone: 361-826-3598

Email: elenab@cctexas.com

Website: www.cctexas.com/ds

Customer Portal: Home - CIVICS (infor.com)

Development Services Mission Statement

"To administer the building and development codes and facilitate development of the City."

Please take a moment to tell us how we are doing by taking our survey: https://www.cctexas.com/DSFeedback

---

From: Mina Tariq <mina@arkarchitects.co>
Sent: Wednesday, October 2, 2024 12:39 PM
To: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Monica Roberts <monica@arkarchitects.co>; Elena Buentello <ElenaB@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>
Subject: Re: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

Hi,

We just wanted to reach out to ask for an updates on this, is there a timeframe in which we can get a response from the city.

Sincerely,

MINA TARIQ

Architectural Designer

ARK ARCHITECTS INC

Office: 469-592-7370

Direct Line : 469-592-7377 Ext-123

Email: mina@arkarchitects.co

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(E) Traffic Division TIA Approval

From: Mina Tariq <mina@arkarchitects.co>
Sent: Friday, September 27, 2024 9:18 AM
To: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Monica Roberts <monica@arkarchitects.co>; Elena Buentello <ElenaB@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>
Subject: Re: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

Hi Andrew,

When will we be receiving a response for our submissions.

Sincerely,

MINA TARIQ

Architectural Designer

ARK ARCHITECTS INC

Office: 469-592-7370

Direct Line : 469-592-7377 Ext-123

Email:mina@arkarchitects.co

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7950 S Legacy Drive

Suite 240, Plano, TX

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From: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>
Sent: Wednesday, September 18, 2024 4:49 PM
To: Mina Tariq <mina@arkarchitects.co>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Monica Roberts <monica@arkarchitects.co>; Elena Buentello <ElenaB@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>
Subject: Re: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

Good Afternoon,

The questions can be sent on a separate document so long as it notates which specific comment is being discussed.

Regarding the parking space questions, the Unified Development Code (UDC) states, "For commercial and industrial developments with greater than 500 parking spaces, a minimum throat length of 64 feet will be required; provided, however, the throat length maybe reduced to 20 feet if a deceleration lane or a wider throat is provided that affords comparable stacking capacity." (UDC 7.1.7.G)." Meaning the throat length would be affected due to the amount of parking spaces being served.

If I may be of further assistance, please let me know.

Thanks,

Andrew K. Dimas, Planning Manager

Development Services Department (DSD)

2406 Leopard Street, Corpus Christi, TX 78408

Main Line: (361) 826-3240

Direct: (361) 826-1137

Website: www.cctexas.com/ds

Customer Portal: Home - CIVICS (infor.com)

NEED HELP WITH CITY SERVICES?
CALL 311 TO REACH OUR CUSTOMER CALL CENTER

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From: Mina Tariq <mina@arkarchitects.co>
Sent: Wednesday, September 18, 2024 4:42 PM

(E) Traffic Division TIA Approval

To: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Monica Roberts <monica@arkarchitects.co>; Elena Buentello <ElenaB@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>
Subject: Re: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

Hi Andrew,

Please find our drawings in response to the city comments here, we have shared our queries and questions on the comments separately as well but wanted to ask one more question. I am writing it down below but please let us know if you would want them to be edited int he comments and resent.

If resending the comments would delay today's submission, then we would like to request of you can help us with its answer here

- In the comments for lot 5 comment id 81 says that our total number of parking exceeds 500, can you please explain do we need to keep our parking below 500?

Sincerely,

MINA TARIQ
Architectural Designer
ARK ARCHITECTS INC
Office: 469-592-7370
Direct Line : 469-592-7377 Ext-123
Email: mina@arkarchitects.co
One Legacy West Tower
7950 S Legacy Drive
Suite 240, Plano, TX
www.arkarchitects.co

From: Mina Tariq <mina@arkarchitects.co>
Sent: Thursday, September 12, 2024 9:43 AM
To: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Sehr Danish <sehr@arkarchitects.co>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Monica Roberts <monica@arkarchitects.co>; Elena Buentello <ElenaB@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>
Subject: Re: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

Hi Andrew ,

Please find queries on your comments here. We look forward to your response.

Sincerely,

MINA TARIQ
Architectural Designer
ARK ARCHITECTS INC
Office: 469-592-7370
Direct Line : 469-592-7377 Ext-123
Email: mina@arkarchitects.co
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7950 S Legacy Drive
Suite 240, Plano, TX
www.arkarchitects.co

(E) Traffic Division TIA Approval

From: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>
Sent: Friday, August 23, 2024 4:25 PM
To: Sehr Danish <sehr@arkarchitects.co>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Mina Tariq <mina@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Monica Roberts <monica@arkarchitects.co>; Elena Buentello <ElenaB@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>; Jason Alaniz <JasonA@cctexas.com>
Subject: Re: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

Good Afternoon Sehr,

City staff can absolutely set a meeting free of charge. Once the comments are determined to be resolved, we will set the case to be heard at the next available Planning Commission. I have attached a schedule of Planning Commission meetings as requested.

If I may be of further assistance, please let me know.

Thanks,

Andrew K. Dimas, Planning Manager

Development Services Department (DSD)

2406 Leopard Street, Corpus Christi, TX 78408

Main Line: (361) 826-3240

Direct: (361) 826-1137

Website: www.cctexas.com/ds

Customer Portal: Home - CIVICS (infor.com)

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From: Sehr Danish <sehr@arkarchitects.co>
Sent: Thursday, August 22, 2024 11:25 AM
To: Marzieh Moghadas <marzi@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Monica Roberts <monica@arkarchitects.co>; Elena Buentello <ElenaB@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Mina Tariq <mina@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>
Subject: Re: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

Hi Andrew,

I hope you are doing well. My name is Sehr and I am the project developer for this company. I am asking you in correspondence with our team.

Thank you for the comments provided regarding the Zoning Application . We would appreciate the opportunity to schedule a meeting with the city to better understand the feedback.

Could you please inform us if there is any associated fee for arranging this meeting? Additionally, we would be grateful if you could share a submittal calendar for the zoning change application process.

I'm looking forward to hearing from you soon.

Thank you for your assistance.

Sincerely,

SEHR DANISH

Project Developer

ARK ARCHITECTS INC

Office : 469-592-7370 Ext -118

Direct: 469-527-9766

Email: sehr@arkarchitects.co

One Legacy West Tower

7950 S Legacy Drive

Suite 240, Plano, TX

(E) Traffic Division TIA Approval

www.arkarchitects.co

From: Marzieh Moghadas <marzi@arkarchitects.co>
Sent: Thursday, August 22, 2024 11:39 AM
To: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Monica Roberts <monica@arkarchitects.co>; Elena Buentello <ElenaB@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Sehr Danish <sehr@arkarchitects.co>; Mina Tariq <mina@arkarchitects.co>; Waqar Khan <Waqar@arkarchitects.co>; Scott Johns <scott@arkarchitects.co>
Subject: RE: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

Thank you for your comments. We are currently reviewing them and will get back to you shortly.

Sincerely,

Marzieh Moghadas

Project Manager

ARK ARCHITECTS INC

Office : 469-592-7370 Ext 101

Direct : 469-592-7376

Mobile: 214-994-2518

Email: marzi@arkarchitects.co

One Legacy West Tower

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Plano, TX 75024

www.arkarchitects.co

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From: Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>
Sent: Wednesday, August 21, 2024 4:51 PM
To: Monica Roberts <monica@arkarchitects.co>; Elena Buentello <ElenaB@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Sehr Danish <sehr@arkarchitects.co>
Subject: Re: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

Good Afternoon,

Apologies for the delay. We were awaiting a few last comments. I have completed compiling all comments sent by the various members of the City's Technical Review Committee (TRC) and attached them to this email. The rezonings have been stage progressed in the City's portal and will be awaiting revisions before proceeding to the Planning Commission for a public hearing. If you wish to discuss any of the particular comments, we can set a meeting with the appropriate department.

If I may be of further assistance, please let me know.

Thanks,

Andrew K. Dimas, Planning Manager

Development Services Department (DSD)

2406 Leopard Street, Corpus Christi, TX 78408

Main Line: (361) 826-3240

Direct: (361) 826-1137

Website: www.cctexas.com/ds

Customer Portal: Home - CIVICS (infor.com)

(E) Traffic Division TIA Approval

NEED HELP WITH CITY SERVICES?
CALL 311 TO REACH OUR CUSTOMER CALL CENTER

Development Services Mission Statement

"To administer the building and development codes and facilitate development of the City."

From: Monica Roberts <monica@arkarchitects.co>
Sent: Wednesday, August 21, 2024 4:44 PM
To: Elena Buentello <ElenaB@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Sehr Danish <sehr@arkarchitects.co>
Subject: RE: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

Elena/Saradje,

Could we count on receiving comments at this week?

Sincerely,

MONICA ROBERTS

Project Manager

ARK ARCHITECTS INC

Office : 469-592-7370 Ext-100

Mobile: 469-971-7749

Email:
monica@arkarchitects.co

One Legacy West Tower

7950 S Legacy Drive

Suite 240, Plano, TX

www.arkarchitects.co

From: Elena Buentello <ElenaB@cctexas.com>
Sent: Monday, August 19, 2024 8:31 AM
To: Monica Roberts <monica@arkarchitects.co>; Saradja Registre <SaradjaR@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Sehr Danish <sehr@arkarchitects.co>
Subject: RE: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

Monica,

Good morning. A couple of departments were late turning in their comments. Staff needs to separate the relevant comments to address at the land use level versus those that can be addressed at platting or permitting.

ejb

Elena Juárez Buentéllo, AICP – Planner III

Land Development ¦ Development Services Department (DSD)

2406 Leopard Street, Corpus Christi, TX 78408

Phone: 361-826-3598

elenab@cctexas.com ¦www.cctexas.com/ds ¦Home - CIVICS (infor.com)

(E) Traffic Division TIA Approval

Development Services Mission Statement

"To administer the building and development codes and facilitate development of the City."

Please take a moment to tell us how we are doing by taking our survey: https://www.cctexas.com/DSFeedback

---

From: Monica Roberts <monica@arkarchitects.co>
Sent: Friday, August 16, 2024 2:30 PM
To: Elena Buentello <ElenaB@cctexas.com>; Saradja Registre <SaradjaR@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Sehr Danish <sehr@arkarchitects.co>
Subject: RE: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

Elena/Saradje,

Please update us on the comments or approval for out zoning applications. We were told we would receive comments 2 weeks ago.

Please advise.

Sincerely,

MONICA ROBERTS

Project Manager

ARK ARCHITECTS INC

Office : 469-592-7370 Ext-100

Mobile: 469-971-7749

Email: monica@arkarchitects.co

One Legacy West Tower

7950 S Legacy Drive

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Sincerely,

(E) Traffic Division TIA Approval

MONICA ROBERTS

Project Manager

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Office : 469-592-7370 Ext-100

Mobile: 469-971-7749

Email: monica@arkarchitects.co

One Legacy West Tower

7950 S Legacy Drive

Suite 240, Plano, TX

www.arkarchitects.co

From: Monica Roberts
Sent: Friday, August 9, 2024 12:20 PM
To: 'Elena Buentello' <ElenaB@cctexas.com>; 'Saradja Registre' <SaradjaR@cctexas.com>
Cc: Haider Rizvi <Haider@arkarchitects.co>; 'Andrew Dimas [DevSvcs]' <andrewd2@cctexas.com>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>
Subject: RE: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

Elena/Saradje,

Please update us on the comments or approval for out zoning applications.

Sincerely,

MONICA ROBERTS

Project Manager

ARK ARCHITECTS INC

Office : 469-592-7370 Ext-100

Mobile: 469-971-7749

Email: monica@arkarchitects.co

One Legacy West Tower

7950 S Legacy Drive

Suite 240, Plano, TX

www.arkarchitects.co

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---

From: Monica Roberts
Sent: Wednesday, August 7, 2024 11:58 AM
To: Elena Buentello <ElenaB@cctexas.com>
Cc: Saradja Registre <SaradjaR@cctexas.com>; Monica Roberts <monica@arkarchitects.co>; Haider Rizvi <Haider@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>; Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>
Subject: RE: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

Hi Elena,

Have you received the comments/review on the zoning applications? It would be great to receive an update today.

Sincerely,

MONICA ROBERTS

(E) Traffic Division TIA Approval

Project Manager

ARK ARCHITECTS INC

Office : 469-592-7370 Ext-100

Mobile: 469-971-7749

Email: monica@arkarchitects.co

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7950 S Legacy Drive

Suite 240, Plano, TX

www.arkarchitects.co

From: Marzieh Moghadas <marzi@arkarchitects.co>
Sent: Wednesday, July 31, 2024 1:33 PM
To: Elena Buentello <ElenaB@cctexas.com>; Mishal Anwer <mishal@arkarchitects.co>
Cc: Saradja Registre <SaradjaR@cctexas.com>; Monica Roberts <monica@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Haider Rizvi <Haider@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>
Subject: RE: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

Great, thanks for the update.

Sincerely,

Marzieh Moghadas

Project Manager

ARK ARCHITECTS INC

Office : 469-592-7370 Ext 101

Direct : 469-592-7376

Mobile: 214-994-2518

Email: marzi@arkarchitects.co

One Legacy West Tower

7950 Legacy Drive, Suite 240

Plano, TX 75024

www.arkarchitects.co

From: Elena Buentello <ElenaB@cctexas.com>
Sent: Wednesday, July 31, 2024 1:19 PM
To: Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>
Cc: Saradja Registre <SaradjaR@cctexas.com>; Monica Roberts <monica@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Haider Rizvi <Haider@arkarchitects.co>; Andrew Dimas [DevSvcs] <andrewd2@cctexas.com>
Subject: Re: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

Yesterday at 5 was the deadline for the TRC to review and comment. Staff needs to compile the comments for distribution to the applicant, for both applications, which will be ready early next week.

Get Outlook for iOS

From: Marzieh Moghadas <marzi@arkarchitects.co>
Sent: Wednesday, July 31, 2024 9:17:53 AM
To: Elena Buentello <ElenaB@cctexas.com>; Mishal Anwer <mishal@arkarchitects.co>
Cc: Saradja Registre <SaradjaR@cctexas.com>; Monica Roberts <monica@arkarchitects.co>; Nasir Ali <nas@arkarchitects.co>; Haider Rizvi <Haider@arkarchitects.co>
Subject: Request Update, Zoning Application Lot 5 & 8, Sunrise Development

(E) Traffic Division TIA Approval

Good morning, Elena,

Is there any update for the zoning applications?

Sincerely,

Marzieh Moghadas

Project Manager

ARK ARCHITECTS INC

Office : 469-592-7370 Ext 101

Direct : 469-592-7376

Mobile: 214-994-2518

Email: marzi@arkarchitects.co

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7950 Legacy Drive, Suite 240

Plano, TX 75024

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From: Elena Buentello <ElenaB@cctexas.com>
Sent: Thursday, July 25, 2024 1:48 PM
To: Mishal Anwer <mishal@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>
Cc: Saradja Registre <SaradjaR@cctexas.com>; Monica Roberts <monica@arkarchitects.co>
Subject: RE: ZN8330 Patel Real Estate Holdings LLC

Wonderful. This will be sent the Technical Review Committee by COB and we should have comments for both lots next week.

ejb

Elena Juárez Buentéllo, AICP – Planner III

Land Development ¦ Development Services Department (DSD)

2406 Leopard Street, Corpus Christi, TX 78408

Phone: 361-826-3598

elenab@cctexas.com ¦www.cctexas.com/ds

Please take a moment to tell us how we are doing by taking our survey: https://www.cctexas.com/DSFeedback

---

From: Mishal Anwer <mishal@arkarchitects.co>
Sent: Thursday, July 25, 2024 1:16 PM
To: Elena Buentello <ElenaB@cctexas.com>; Marzieh Moghadas <marzi@arkarchitects.co>
Cc: Saradja Registre <SaradjaR@cctexas.com>; Monica Roberts <monica@arkarchitects.co>
Subject: Re: ZN8330 Patel Real Estate Holdings LLC

(E) Traffic Division TIA Approval

Hi Elena,

Sending you the revised plans again, it does have a deviation table on the top left corner.

MISHAL ANWER

Project Developer

ARK ARCHITECTS INC

Office : 469-592-7370; Ext-113

Direct: 469-527-9767

Email: mishal@arkarchitects.co

One Legacy West Tower

7950 Legacy Drive, Suite 240

Plano, TX 75024

www.arkarchitects.co

From: Elena Buentello <ElenaB@cctexas.com>
Sent: Thursday, July 25, 2024 10:47 PM
To: Marzieh Moghadas <marzi@arkarchitects.co>; Mishal Anwer <mishal@arkarchitects.co>
Cc: Saradja Registre <SaradjaR@cctexas.com>; Monica Roberts <monica@arkarchitects.co>
Subject: RE: ZN8330 Patel Real Estate Holdings LLC

Good afternoon,

Staff is reviewing the application for Lot 8, but I do not see any proposed deviations to current development standards in the "CG-2" General Commercial District?

It may have gotten lost in various emails.

If you could please resend to me at your earliest convenience. Just as a reminder, the following is required for a Planned Unit Developments:

§ 3.5 Planned Unit Development

3.5.3. Master Site Plan

1. A proposed Master Site Plan shall be submitted concurrently with a planned unit development application.
2. The development requirements for each separate component and phase of the planned unit development shall be included as a part of the development plan.
3. The applicant shall expressly specify any variation from the adopted standards of this Unified Development Code, including, but not limited to: uses, density, lot area, lot width, yard widths, building height, building elevations, parking, access, streets and circulation, utilities, screening, landscaping, accessory structures, signs, lighting, project phasing or scheduling, management associations and other requirements as the City Council may deem appropriate. The application shall also expressly identify in a form required by the Assistant City Manager of Development Services any variation or waiver required from any other applicable code or ordinance proposed in connection with the proposed Planned Unit Development.

The application for Lot 5 has been sent to the Technical Review Committee for comment. Staff will have the comments ready for you by Wednesday of next week.

ejb

Elena Juárez Buentéllo, AICP – Planner III

Land Development ¦ Development Services Department (DSD)

2406 Leopard Street, Corpus Christi, TX 78408

Phone: 361-826-3598

elenab@cctexas.com ¦www.cctexas.com/ds

Please take a moment to tell us how we are doing by taking our survey: https://www.cctexas.com/DSFeedback

(E) Traffic Division TIA Approval

From: Marzieh Moghadas <marzi@arkarchitects.co>
Sent: Monday, July 22, 2024 2:52 PM
To: Elena Buentello <ElenaB@cctexas.com>; Mishal Anwer <mishal@arkarchitects.co>
Cc: Saradja Registre <SaradjaR@cctexas.com>; Monica Roberts <monica@arkarchitects.co>
Subject: RE: ZN8330 Patel Real Estate Holdings LLC

Thank you for the update, Could you please let us know how long it will take for the review to be completed? Additionally, when can we expect to receive their comments?

Sincerely,

Marzieh Moghadas

Project Manager

ARK ARCHITECTS INC

Office : 469-592-7370 Ext 101

Direct : 469-592-7376

Mobile: 214-994-2518

Email: marzi@arkarchitects.co

One Legacy West Tower

7950 Legacy Drive, Suite 240

Plano, TX 75024

www.arkarchitects.co

From: Elena Buentello <ElenaB@cctexas.com>
Sent: Monday, July 22, 2024 2:24 PM
To: Mishal Anwer <mishal@arkarchitects.co>
Cc: Saradja Registre <SaradjaR@cctexas.com>; Marzieh Moghadas <marzi@arkarchitects.co>; Monica Roberts <monica@arkarchitects.co>
Subject: RE: ZN8330 Patel Real Estate Holdings LLC

Staff is preparing to send to TRC, the Technical Review Committee.

ejb

Elena Juárez Buentéllo, AICP – Planner III

Land Development ¦ Development Services Department (DSD)

2406 Leopard Street, Corpus Christi, TX 78408

Phone: 361-826-3598

elenab@cctexas.com ¦www.cctexas.com/ds

Please take a moment to tell us how we are doing by taking our survey: https://www.cctexas.com/DSFeedback

(E) Traffic Division TIA Approval

From: Mishal Anwer <mishal@arkarchitects.co>
Sent: Monday, July 22, 2024 2:08 PM
To: Elena Buentello <ElenaB@cctexas.com>
Cc: Saradja Registre <SaradjaR@cctexas.com>; Marzieh Moghadas <marzi@arkarchitects.co>; Monica Roberts <monica@arkarchitects.co>
Subject: Re: ZN8330 Patel Real Estate Holdings LLC

Hi Elena,

Sending you a follow-up email.

Hope to hear from you soon.

MISHAL ANWER

Project Developer

ARK ARCHITECTS INC

Office : 469-592-7370; Ext-113

Direct: 469-527-9767

Email: mishal@arkarchitects.co

One Legacy West Tower

7950 Legacy Drive, Suite 240

Plano, TX 75024

www.arkarchitects.co

From: Mishal Anwer <mishal@arkarchitects.co>
Sent: Thursday, July 18, 2024 9:15 PM
To: Elena Buentello <ElenaB@cctexas.com>
Cc: Saradja Registre <SaradjaR@cctexas.com>; Marzieh Moghadas <marzi@arkarchitects.co>; Monica Roberts <monica@arkarchitects.co>
Subject: Re: ZN8330 Patel Real Estate Holdings LLC

Hi Elena,

Hope this email finds you well.
Marzi called you a few days back about the latest drawings we submitted to you via email, do you have any update for us regarding them?

MISHAL ANWER

Project Developer

ARK ARCHITECTS INC

Office : 469-592-7370; Ext-113

Direct: 469-527-9767

Email: mishal@arkarchitects.co

One Legacy West Tower

7950 Legacy Drive, Suite 240

Plano, TX 75024

www.arkarchitects.co

From: Elena Buentello <ElenaB@cctexas.com>
Sent: Monday, July 1, 2024 11:20 PM
To: Mishal Anwer <mishal@arkarchitects.co>
Cc: Saradja Registre <SaradjaR@cctexas.com>; Marzieh Moghadas <marzi@arkarchitects.co>
Subject: RE: ZN8330 Patel Real Estate Holdings LLC

(E) Traffic Division TIA Approval

DS (Zoning staff) will complete a more vigorous “Planning Review” in preparation to distribute to the Technical Review Committee (TRC). TRC will have seven calendar days to review. The application moving forward will be dependent on all TRC comments being addressed.

UDC

§ 2.7. Technical Review Committee

2.7.1. Establishment

A Technical Review Committee is established to provide necessary interdepartmental staff support for the coordinated and centralized technical review process for site plans, zoning applications that require site plans, various plat types and Planned Unit Developments. The members of the Technical Review Committee shall be composed of professional staff persons from various City departments which have an interest in the development review process.

2.7.2. Powers and Duties

A. **Review and Recommendation**

The Technical Review Committee shall review and make a recommendation on the following development review procedures:

1. Planned Unit Developments;
2. Special permits;
3. Master plats;
4. Final plats;
5. Minor amending or vacating plats;
6. Site plans;
7. Administrative relief for site plan applications that require or that are the subject of requests for administrative relief from zoning, plat, utilities, driveway, access management, or other engineering standards for which administrative relief is available by code; and
8. Special Use Exceptions.

ejb

Elena Juárez Buentéllo, AICP – Planner III

Land Development ¦ Development Services Department (DSD)

2406 Leopard Street, Corpus Christi, TX 78408

Phone: 361-826-3598

elenab@cctexas.com ¦www.cctexas.com/ds

Please take a moment to tell us how we are doing by taking our survey: https://www.cctexas.com/DSFeedback

---

From: Mishal Anwer <mishal@arkarchitects.co>
Sent: Monday, July 1, 2024 10:25 AM
To: Elena Buentello <ElenaB@cctexas.com>
Cc: Saradja Registre <SaradjaR@cctexas.com>; Marzieh Moghadas <marzi@arkarchitects.co>
Subject: Re: ZN8330 Patel Real Estate Holdings LLC

Hi Elena,

Hope you are back from your vacation and had a great time. We have already submitted all the necessary documents to mark our applications complete, but we are still pending on the site plan comments if you can please guide us how to move forward with those comments via email or we can always have a zoom meeting as well whenever it suites you?

Hope to hear from you soon.

MISHAL ANWER

Project Developer

ARK ARCHITECTS INC

(E) Traffic Division TIA Approval

Office : 469-592-7370; Ext-113

Direct: 469-527-9767

Email mishal@arkarchitects.co

One Legacy West Tower

7950 Legacy Drive, Suite 240

Plano, TX 75024

www.arkarchitects.co

From: Saradja Registre <SaradjaR@cctexas.com>
Sent: Tuesday, June 18, 2024 2:22 AM
To: Mishal Anwer <mishal@arkarchitects.co>; Marzieh Moghadas <marzi@arkarchitects.co>
Cc: Elena Buentello <ElenaB@cctexas.com>
Subject: ZN8330 Patel Real Estate Holdings LLC

Good Afternoon,

Please see attached. The application was deemed incomplete.

Kind Regards,

Saradja Registre

Planner II ¦ Land Development ¦ Development Services

2406 Leopard Street, Corpus Christi, TX 78408

Main Line: (361) 826-3240

Direct: (361) 826-3574

Email: SaradjaR@cctexas.com

Website: https://www.cctexas.com/departments/development-services

Permit Portal: https://corpuschristi-prd.rhythmlabs.infor.com/

UDC (Unified Development Code): Document Viewer | Unified Development Code (encodeplus.com)

Corpus Christi Map Viewer: Corpus Christi Viewer (arcgis.com)

NEED HELP WITH CITY SERVICES?
CALL 311 TO REACH OUR CUSTOMER CALL CENTER

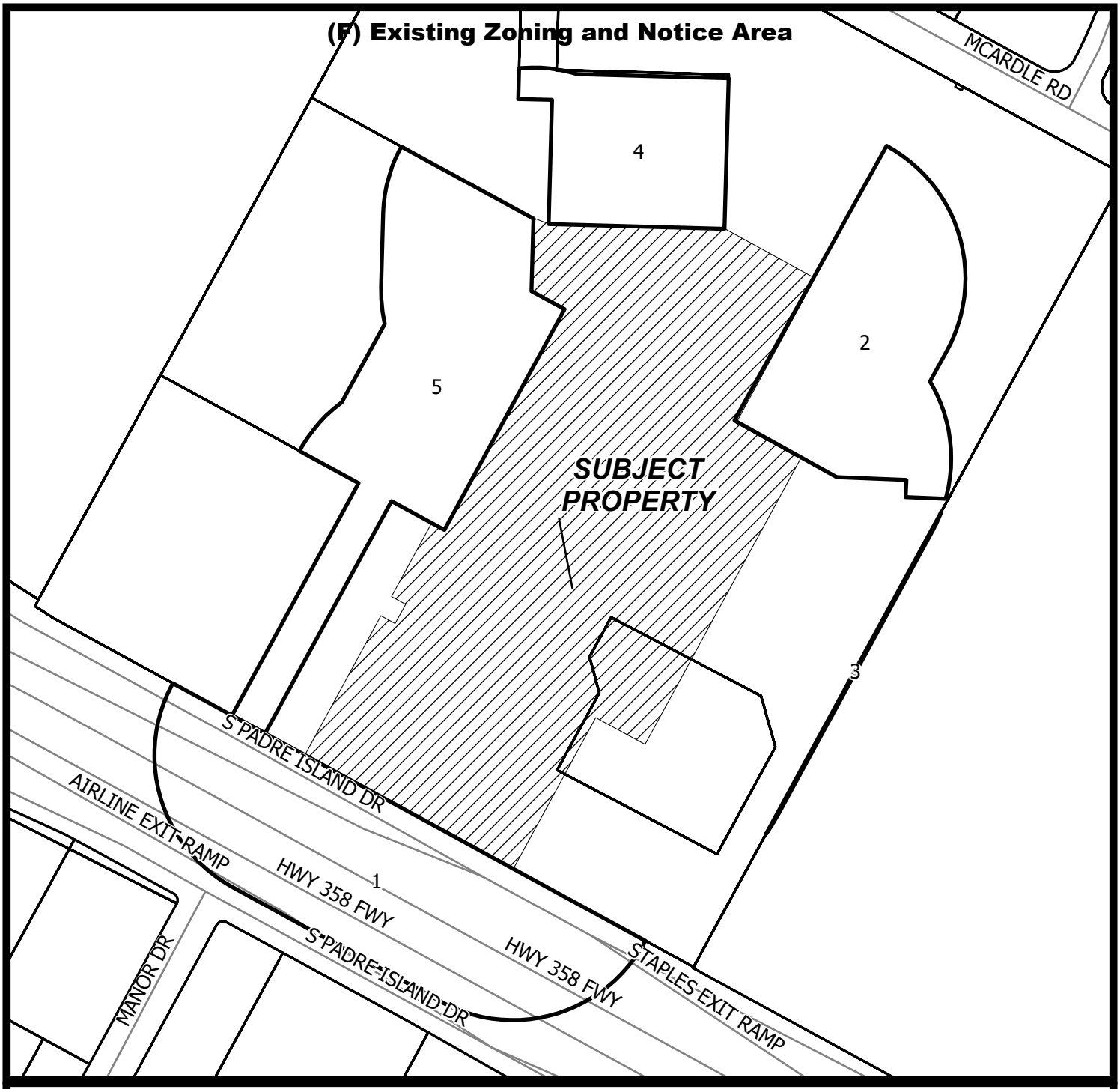
811 Know what's below. Call before you dig.

Development Services Mission Statement

"To administer the building and development codes and facilitate development of the City."

Please take a moment to tell us how we are doing by taking our survey: https://www.cctexas.com/DSFeedback

(E) Traffic Division TIA Approval



CASE: ZN8330

Zoning and notice Area

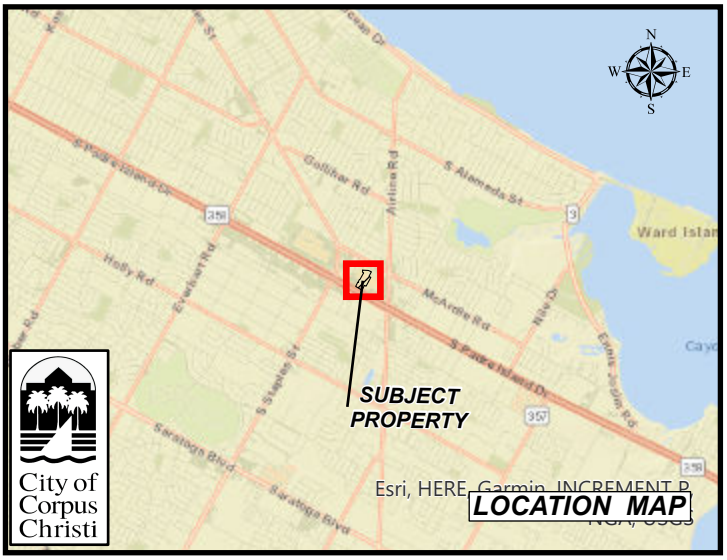
RM-1	Multifamily 1	IL	Light Industrial
RM-2	Multifamily 2	IH	Heavy Industrial
RM-3	Multifamily 3	PUD	Planned Unit Dev. Overlay
ON	Professional Office	RS-10	Single-Family 10
RM-AT	Multifamily AT	RS-6	Single-Family 6
CN-1	Neighborhood Commercial	RS-4.5	Single-Family 4.5
CN-2	Neighborhood Commercial	RS-TF	Two-Family
CR-1	Resort Commercial	RS-15	Single-Family 15
CR-2	Resort Commercial	RE	Residential Estate
CG-1	General Commercial	RS-TH	Townhouse
CG-2	General Commercial	SP	Special Permit
CI	Intensive Commercial	RV	Recreational Vehicle Park
CBD	Downtown Commercial	RMH	Manufactured Home
CR-3	Resort Commercial		
FR	Farm Rural		
H	Historic Overlay		
BP	Business Park		

Subject Property with 200' buffer

Owners in favor

4 Owners within 200' listed on attached ownership table

X Owners in opposition



Development Services
2406 Leopard Street, Corpus Christi, TX 78408

(G) Technical Review Committee Comments

Date: 03.26.2025

Final Report - Approved

Application No. ZN8330

Description :
Address : 5858 PADRE ISLAND CORPUS CHRISTI TX 78412
Record Type : ZONE
Document Filename : Exhibit for Lot 5 meetes and bounds.pdf

Comment Author Contact Information:

Author Name	Author Email	Author Phone No.:
Elena Buentello	elenab@cctexas.com	361-826-3598
Andrew Dimas	andrewd2@cctexas.com	361-826-3584

General Comments

Corrections in the following table need to be applied before a permit can be issued

Comment ID	Page Reference	Annotation Type	Author : Department	Status	Review Comments
64	M1	Note	Elena Buentello : DS	Closed	CCRTA INFORMATIONAL This Site rezoning and redevelopment is located immediately adjacent to and along multiple current and future CCRTA bus routes. There are three well patroned and ADA compliant outbound bus stops also located immediately adjacent to this subject site. The stops are identified as follows: 1.□855 at McArdle & Sunrise Mall (Served by Routes-6, 26, 37, 65 & 90) 2.□856 McArdle & Airline (Served by Routes-6, 26, 37, 65 & 90) 3.□783 Airline & McArdle. (Served by Routes-26, 37, 65 & 90)

(G) Technical Review Committee Comments

Comment ID	Page Reference	Annotation Type	Author : Department	Status	Review Comments
65	M1	Note	Elena Buentello : DS	Closed	CCRTA Current Bus Routes include: 1.Route 6 Santa Fe/Malls 2.Route 26 Del Mar Oso Creek (South Campus) 3.Route 37 Crosstown/TAMUCC) 4.Route 65 Padre Island Flex 5.Route 90 Flexi B Future or Planned Bus Routes: 1.Route 19 Ayers/Flour Bluff 2.Route 29 Staples
66	M1	Note	Elena Buentello : DS	Closed	CCRTA •Should any adjustments or the requested removal of CCRTA equipment or entire stop be required for any or all three stops, a future meeting with CCRTA staff to discuss necessary or desired alterations will be warranted.
67	M1	Note	Elena Buentello : DS	Closed	CCRTA Potential encroachment of two bus stop locations. May be a permitted encroachment, with previous long-term lease agreements. Please reach out to Wes Vardeman - Outreach Coordinator, for future inquiries wvardeman@ccrta.org 361-289-2712
68	M1	Note	Elena Buentello : DS	Closed	CCRTA INFORMATIONAL The site is well served by multiple bus routes and could be a significant selling point for multifamily at this location.
69	M1	Note	Elena Buentello : DS	Closed	TxDOT - INFORMATIONAL No increase in storm water discharge to State right-of-way shall be accepted by TxDOT. TxDOT Permits will be issued in accordance with the access management standards and all applicable state and federal laws, including rules and regulations. Access connection spacing, materials, geometrics, accessibility, and other design specifications will be considered, as well as the impact on drainage and hydraulics, utility location or relocation, and the environment that will result from the requested construction of an access connection. 43 Tex. Admin. Code § 11.52 (2020). Drainage improvements shall accommodate runoff from the upstream drainage area in its anticipated maximum "build-out" or "fully developed" condition, and shall be designed to prevent overloading the capacity of the downstream drainage system If the owner responsible for maintenance of the permanent stormwater or water quality control fails to maintain the control to TXDOT ROW, the owner shall correct the problem
70	M1	Note	Elena Buentello : DS	Closed	Review CriteriaComment 3.6.3. A. At a minimum, a site plan for a special permit shall include the following details: 7. Open space calculation and design•Provide calculation a design of open space. 8. Provisions for drainage•Although this appears to be infill/no change in impervious surface, provide provisions for drainage, showing the previous and proposed drainage directions and flow rates. Any increase must be mitigated prior to issuance of building permits. •Clarify if “green area” will be grass/lawn or if an impervious grass alternative. 3.6.3.B. In determining whether to approve, approve with conditions or deny a special permit, the applicable review bodies shall consider the following criteria: 3. The impact of the use on public infrastructure such as roads, natural gas, water, storm water and wastewater systems, and on public services such as police and fire protection and solid waste collection can be minimized without negatively impacting existing uses in the area and in

(G) Technical Review Committee Comments

Comment ID	Page Reference	Annotation Type	Author : Department	Status	Review Comments
					the City.•Include estimated water and wastewater usage for staff to verify the availability and capacity of public improvements needed to support the development and to demonstrate compliance with 3.6.3.B.3. •There are existing utilities and easements on this site, please include the location and designation as either private or public. Please note: permanent structures will not be permitted over public utilities or easements. Include any proposed easement closures. A separate Utility Plan may be submitted as a supplement to the Site Plan if unable to clearly display together. •Site plan provided does not appear to include any public or private utility improvements. Please verify if this is correct.
71	M1	Note	Elena Buentello : DS	Closed	Development Services: Zoning If available, provide a breakdown of units per floor.
72	M1	Note	Elena Buentello : DS	Closed	REQUIRMENT UDC SECTION 7.2.7.A.1. The location, design and layout of all loading spaces shall be indicated on the required site plans
73	M1	Note	Andrew Dimas : DS	Closed	Planning: The developer has designed this site without bringing buildings closer to the street frontage. Doing so would have created a better sense of place and taken advantage of bus/transit opportunities along McArdle, such as bringing McArdle-fronting retail buildings closer to the street.
74	M1	Note	Andrew Dimas : DS	Closed	Planning: Does the developer want to provide the code-required amount of parking? For example, on Lot 5 they are stating compliance with providing 658 spaces. Were the parking counts calculated for a multi-use development or for each use independently?
75	M1	Note	Andrew Dimas : DS	Closed	Planning: A 30-story apartment building would have been better to keep such a structure toward the center of the property or closer to SPID.
76	M1	Note	Andrew Dimas : DS	Closed	Planning: The site plan says 30-stories; but the Land Use Statement says 25-stories; one of the documents needs correction.
77	M1	Note	Andrew Dimas : DS	Closed	Planning: The City should make the RTA aware of this potential development. They will want to know the construction timeline in order to prepare.
78	M1	Note	Andrew Dimas : DS	Closed	Planning: I think the density has to be looked at across the entire site, maybe excluding the hotels from the acreage.
79	M1	Note	Andrew Dimas : DS	Closed	Planning: Some of the small green spaces provided seem unintentional/serving not much purpose as they seem to be tucked between buildings.
80	M1	Note	Andrew Dimas : DS	Closed	Planning: Ensure cross-access across lots.
81	M1	Note	Andrew Dimas : DS	Closed	•Driveways oLot 5 Dimension proposed driveway curb radii, width, throat length Width – the existing driveway width appears to be under 30’ at the property line. •Commercial driveways off F1 streets are to be between 30-36’ width per UDC Table 7.1.7.E Throat – the existing driveway’s throat length appears to be under 64’ from the property line to the existing building edge •“For commercial and industrial developments with greater than 500 parking spaces, a minimum throat length of 64 feet will be required; provided, however, the throat length maybe reduced to 20 feet if a deceleration lane or a wider throat is provided that affords comparable

(G) Technical Review Committee Comments

Comment ID	Page Reference	Annotation Type	Author : Department	Status	Review Comments
					stacking capacity." (UDC 7.1.7.G) •The property line to existing parking structure appears to have less than 64' of space. •The number of parking spaces appears to exceed 500 Flare/radii – The existing driveway's curb radii/flare length appear to currently not match the UDC. •Commercial driveways off F1 streets are to be between 20-30' curb return radii or 20' min flare length per UDC Table 7.1.7.F Need to show both sides of the driveway for the proposed driveway access for Lot 5 •It appears that this existing driveway may need to be adjusted to allow for entrance and exit •It appears that this existing driveway may need a loading zone at its exit. oAny driveway modifications along SPID will require coordination with TxDOT. TxDOT may require access limitations in the near vicinity of the ramps. oEntire proposed site Need to show all of the proposed access point's driveways
82	M1	Note	Andrew Dimas : DS	Closed	•Markers – Provide blue raised markers at any new fire hydrants oRaised blue pavement markers in accordance with the latest version of the "Texas Manual on Uniform Traffic Control Devices (TMUTCD)," shall be installed in the center of a street or safety lane at fire hydrant locations. Reference: Texas MUTCD based on CC UDC Article 8.1.3.A o"Blue raised pavement markers are sometimes used in the roadway to help emergency personnel locate fire hydrants." (TMUTCD 3B.11.5)
83	M1	Note	Andrew Dimas : DS	Closed	•PHT/TIA oProvide the PHT for the entire proposed development. It appears that once we get the PHT for the entire site, a TIA will be needed and required. •Additional comments will be likely after TIA is submitted •Do not recommend approval of rezoning until TIA is provided oShow the vehicle movement/circulation through the entire site. We need to see more. Overall circulation is not understood. It is not clear how it works. Need more development as to access. The existing access points do not appear adequate but will be addressed most likely with a required TIA. The driveway access at the hotel needs to be shown The current access onto Lot 5 is an exit only; it does not have an entrance oA rough PHT for the entire site calculated out to 1069 vehicles using ITE Retail 1 15.2k sf (201), Retail 2 20.8k SF (275), Apartment 1 250 units (107), Apartment 2 340 units (124), Restaurant 1 12.5k SF (204), Carwash 1 Tunnel (78), Hotel 1 (40), Hotel 2 (40) = 1069 vehicles
84	M1	Note	Andrew Dimas : DS	Closed	CCW: Various lot lines do not appear to match existing.

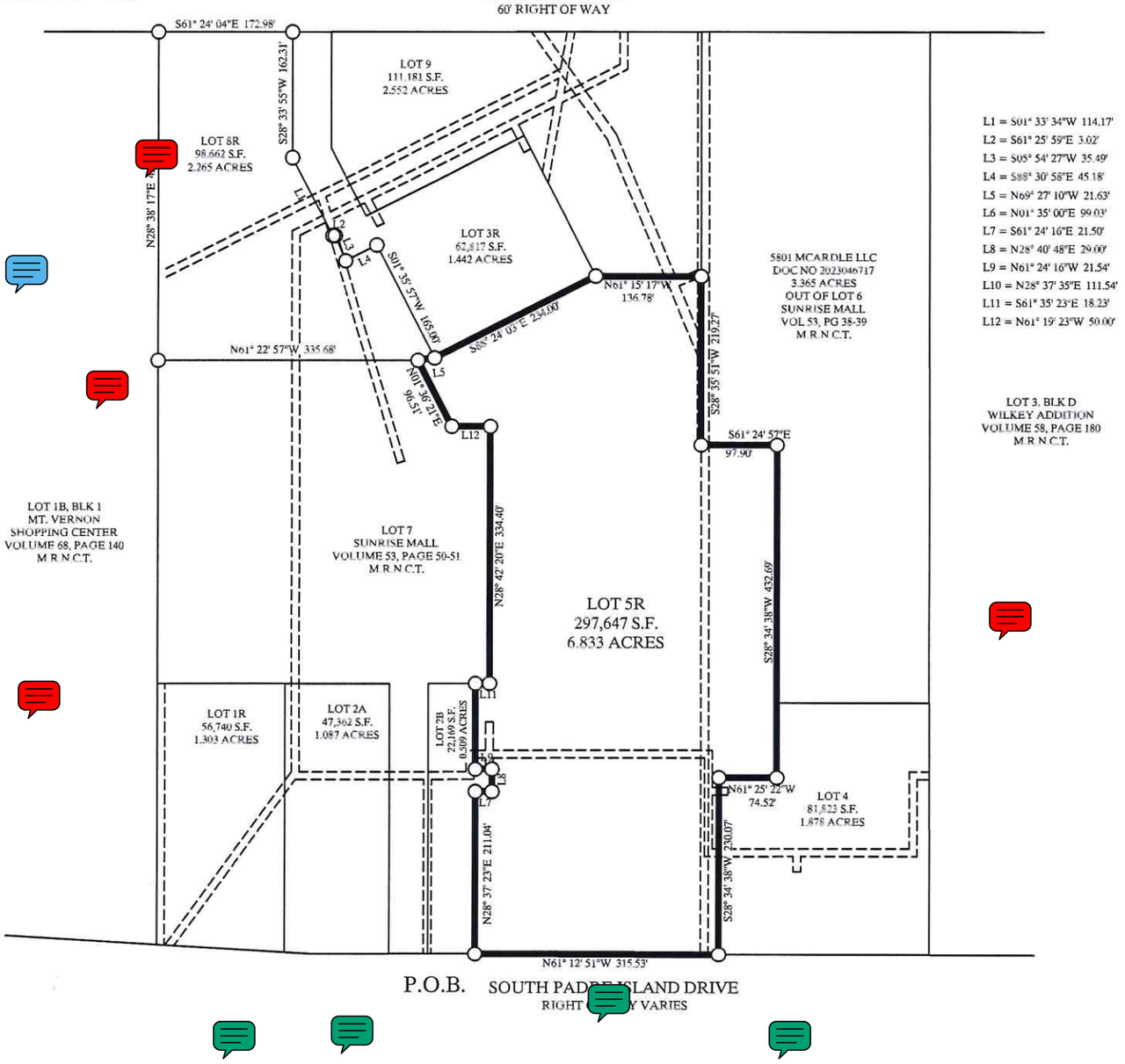
~~(G) Technical Review Committee Comments~~

EXHIBIT OF

A 6.833 ACRE TRACT BEING A PORTION OF LOT 5, BLOCK 1,"SUNRISE MALL SUBDIVISION", AS SHOWN BY THE PLAT RECORDED IN VOLUME 53, PAGE 39, MAP RECORDS NUECES COUNTY, TEXAS. SAID 6.833 ACRE TRACT ALSO BEING KNOWN AS "LOT 5R", AS PER THE PROPOSED "REPLAT OF SUNRISE MALL" BY BRISTER SURVEYING.

EXHIBIT _____

SCALE 1" = 200'



◯ = EXHIBIT CORNER

Brister Surveying
5506 Cain Drive
Corpus Christi, Texas 78411
Off 361-850-1800
Fax 361-850-1802
Bristersurveying@corpus.twcbc.com
Firm Registration No. 10072800

NOTES:
1.) TOTAL AREA OF EXHIBIT IS 6.833 ACRES.
2.) MEASURED BEARINGS ARE BASED ON GLOBAL POSITIONING SYSTEM NAD 83 (93) 4205 DATUM.
3.) SET 5/8" RE-BAR = STEEL RE-BAR SET WITH YELLOW PLASTIC CAP LABELED BRISTER SURVEYING.
4.) A METES AND BOUNDS DESCRIPTION OF EQUAL DATE ACCOMPANIES THIS EXHIBIT.

STATE OF TEXAS
REGISTERED
RONALD E. BRISTER
5407
PROFESSIONAL
LAND SURVEYOR

THIS EXHIBIT DOES NOT INCLUDE THE RESEARCH, INVESTIGATION, OR LOCATIONS OF ALL SERVITUDES, EASEMENTS, RIGHT OF WAYS, OR UTILITIES ON THIS PROPERTY.

I, RONALD E. BRISTER DO HEREBY CERTIFY THAT THIS EXHIBIT OF THE PROPERTY LEGALLY DESCRIBED HEREIN WAS MADE ON THE GROUND THIS DAY MAY 20, 2024 AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

SURVEY DATE MAY 28, 2024

JOB NO. 240883-E5

RONALD E. BRISTER R.P.L.S. NO. 5407